

# EXCAVATIONS ON THE SAXO-NORMAN TOWN DEFENCES AT SLAUGHTER HOUSE LANE, NEWARK-ON-TRENT, NOTTINGHAMSHIRE

*by*

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## SUMMARY

Excavations and watching-briefs by Trent & Peak Archaeological Trust took place on a series of sites located on the northern side of the town defences, in advance of the redevelopment of Slaughter House Lane in 1988. The earliest phase represented (Phase I) was a probable buried soil, which produced evidence for Romano-British and early- to mid-Anglo-Saxon activity. In Phase II the soil was sealed by a large timber-reinforced rampart, probably that of the Anglo-Saxon burh, with some fragmentary contemporary structures including a circular oven, probably using coppiced wood as fuel, to its rear. The line of an outer ditch (undated) was found in a watching-brief. The structures were later sealed by thick, possibly dumped, deposits (Phase III). In the medieval period the rampart was perhaps replaced by a stone wall, while cut into it and the soil deposits behind were a malting/drying kiln, a rectangular building with stone footings, and other structures (Phase IV). General late-medieval site clearance and levelling (Phase V) was followed by pits, lime kilns and cellared buildings, and ultimately by a series of brick cottages of late-18th- or 19th-century date which stood until demolition in 1988 (Phase VI-VIII).

The principal sources of pottery used on the site were Torksey in the Saxo-Norman period, Nottingham in the 12th to 14th centuries, and pottery from an unknown source resembling wares from Lincolnshire in the late medieval period. The bone assem-

blage was typical of small Anglo-Saxon and medieval towns, with cattle and sheep predominating; there was evidence for primary dismemberment of the carcasses, and a little evidence for bone working.

A pre-Conquest date is most likely for the defences at Slaughter House Lane, and a reconsideration of previous work on the defences raises the possibility that the entire defensive circuit known from excavations, topographical and historical sources, is of pre-Conquest origin.

## INTRODUCTION

### SITE LOCATION

Slaughter House Lane follows the line of the defences on the northern side of the historic core of the town, which includes the castle on the river frontage, the parish church of St. Mary Magdalene and the market place (Figs. 1 & 2). To the south of the lane the ground is roughly level, while to the north, and to the west towards the river Trent, it drops markedly. The bedrock is Mercia Mudstone but in places a thin layer of pebbles and sand are all that remains of a thin capping of Older River Gravels which thickens towards the north-east and south-west within the town. The areas investigated lay mostly on the south side of the lane (excavation areas 01, 02, 04, 05 and 07) with 03 and 06 to the north (Fig. 3).

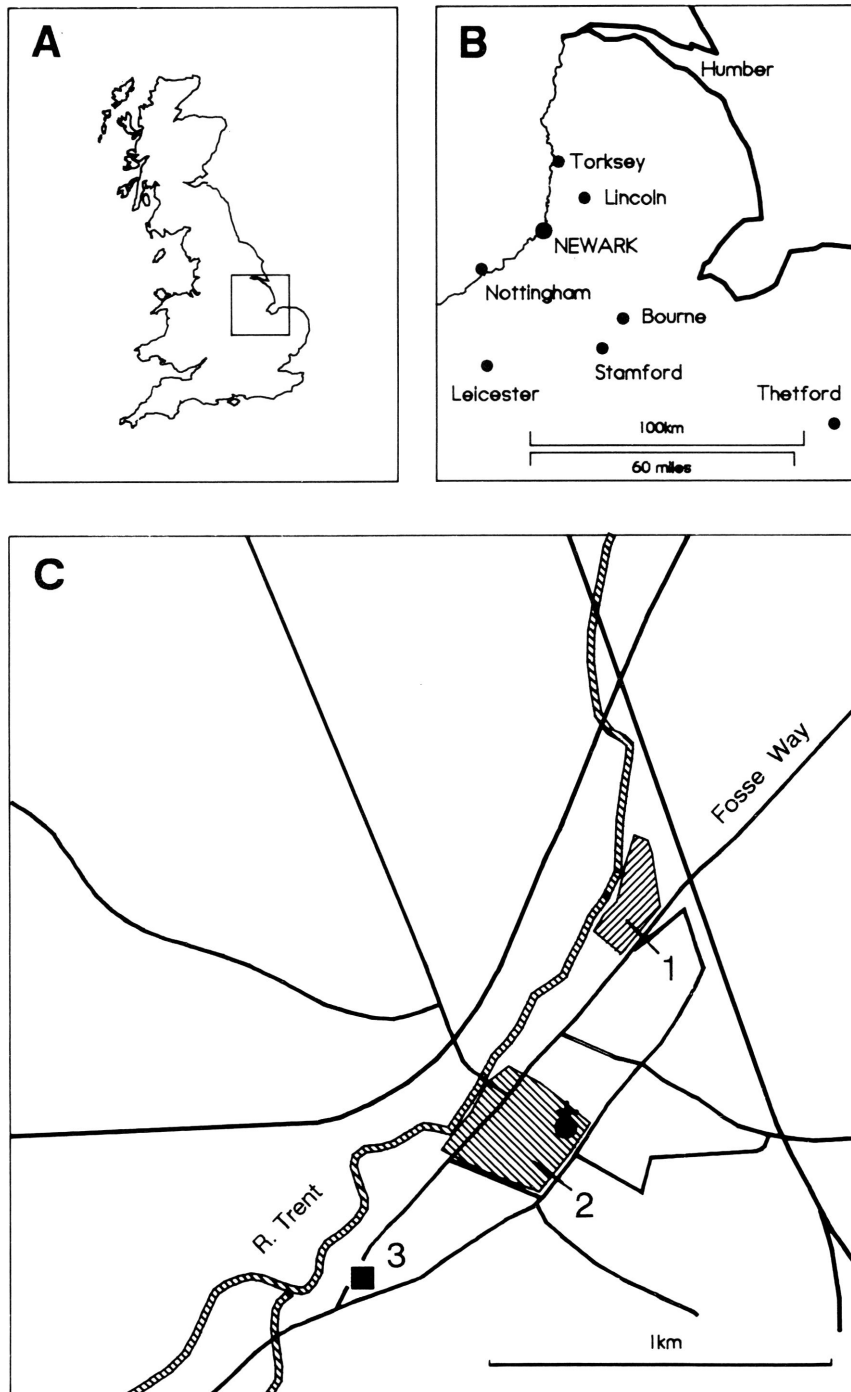


FIGURE 1: Slaughter House Lane: A & B: location of Newark and other sites mentioned in the text; C: archaeological sites in relation to Newark's modern road and rail network; 1 — known minimum extent of Romano-British settlement, 2 — area of town defences, 3 — location of early Anglo-Saxon cemetery.

## CIRCUMSTANCES OF THE EXCAVATIONS

Plans to redevelop the west end of the lane were finally implemented in 1988, with the commencement of the constructions of a supermarket and various small shops, houses and offices on its north and south sides with, additionally, almshouses for the St. Leonard's Trust in St. Leonard's Court (05). A trial excavation, carried out by Trent & Peak Archaeological Trust, directed by C.J. Drage in 1984 (01), confirmed the preservation of deep stratigraphy, including parts of the rampart, on the south side of the lane. A further series of excavations (02, 04, 06 and

07) was carried out by the Trust, directed by the author, in order to record the archaeological remains in advance of destruction in the redevelopment, with the principal aim of establishing the character and date of the town defences in this area. In addition, a watching-brief was maintained on the supermarket site (a recorded sample area was designated 03) where the likelihood of uncovering significant archaeological remains was unpredictable. Funds for the excavation and post-excavation work were mainly provided by English Heritage, Nottinghamshire County Council and Newark & Sherwood District Council, with a small contribution from the deve-

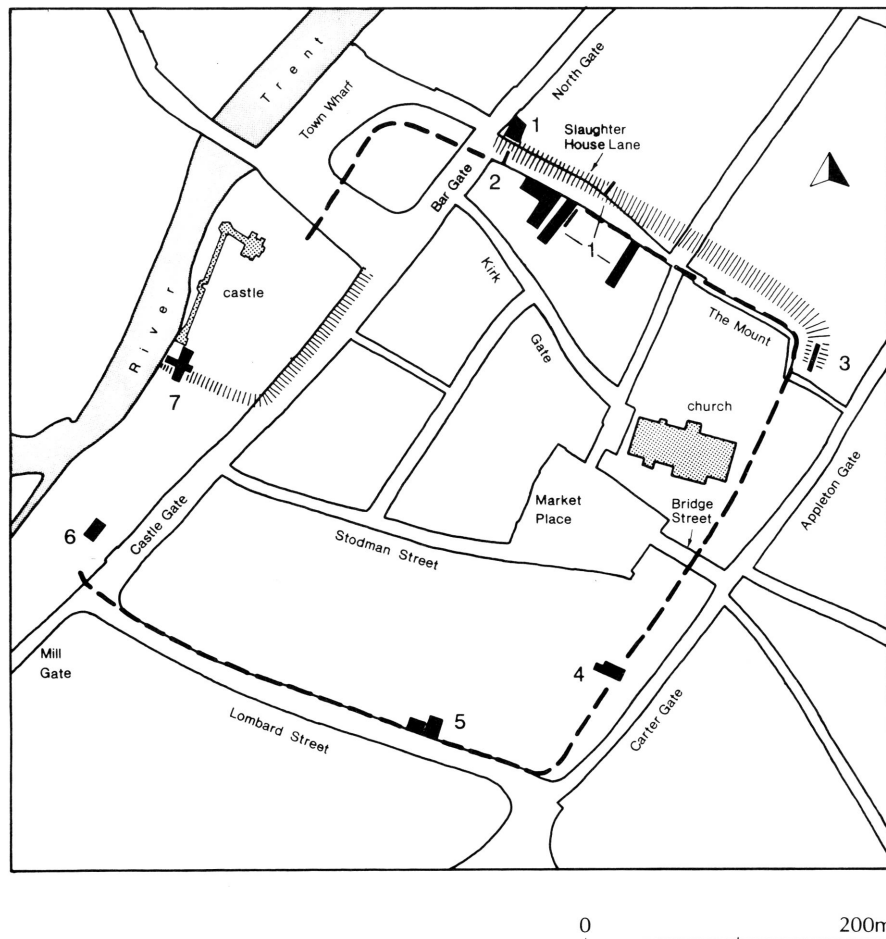


FIGURE 2: Slaughter House Lane: Location of present and previous excavations on the town defences; 1&2 — Slaughter House Lane (1 this report, 2 Barley), 3 — Mount Lane, 4 — Old White Hart Yard, 5 — Lombard Street, 6 — Castle Gate, 7 — Bell's Yard/Cuckstool Wharf.

loper, Henry Lax.

### PROGRESS OF THE EXCAVATIONS AND OTHER RECORDING WORK

In 1984 the trial excavation, 01, was sited in the Co-Op Yard in what was then the only piece of ground available for excavation. The location of excavation areas is given in Fig. 3. Initial machining was followed by manual excavation with limited disturbance of the rampart, in the expectation of its eventual inclusion within more extensive excavations at a later date. In early January 1988, immediately after the demolition of the buildings on the site, work began on 02, and continued until early April; two large cellars had destroyed much of the area, and the excavation of numerous post-medieval and modern disturbances proved an unavoidable distraction, but a 4m-wide strip was relatively well preserved,

running the length of the site from north-east to south-west, between two long sections orientated approximately perpendicular to the defences (Figs. 4-6). Most of this strip was fully excavated, but at the south-west end, due to lack of time, only a 1m wide trench adjacent to SL11 was excavated to sample the deposits at the tail of the rampart. Further small areas within 02 were selected for excavation to the north-west and south-east of the main strip where isolated stratified deposits appeared to be in part preserved. All areas had suffered to varying degrees from post-medieval and modern intrusions.

Access to 01 and 04 was gained in late March; there was time only to machine-excavate the overburden and a section through the tail of the rampart (SL20) in 04, while 01 was left altogether. Also during this period, manual trial excavations on 05 revealed post-medieval deposits to the proposed 1.0m

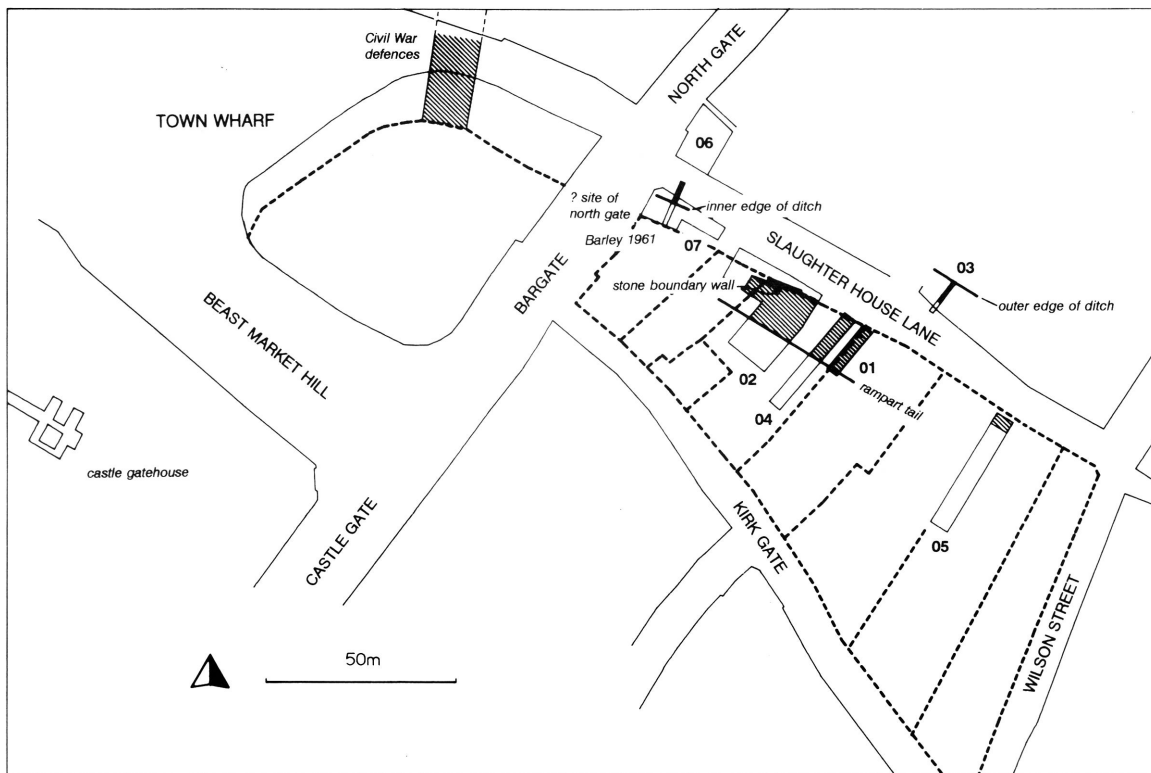


FIGURE 3: Slaughter House Lane: Plan of excavation areas in relation to modern streets; broken line - selected property boundaries in 1790; within 01-05, hatching shows extent of surviving rampart.



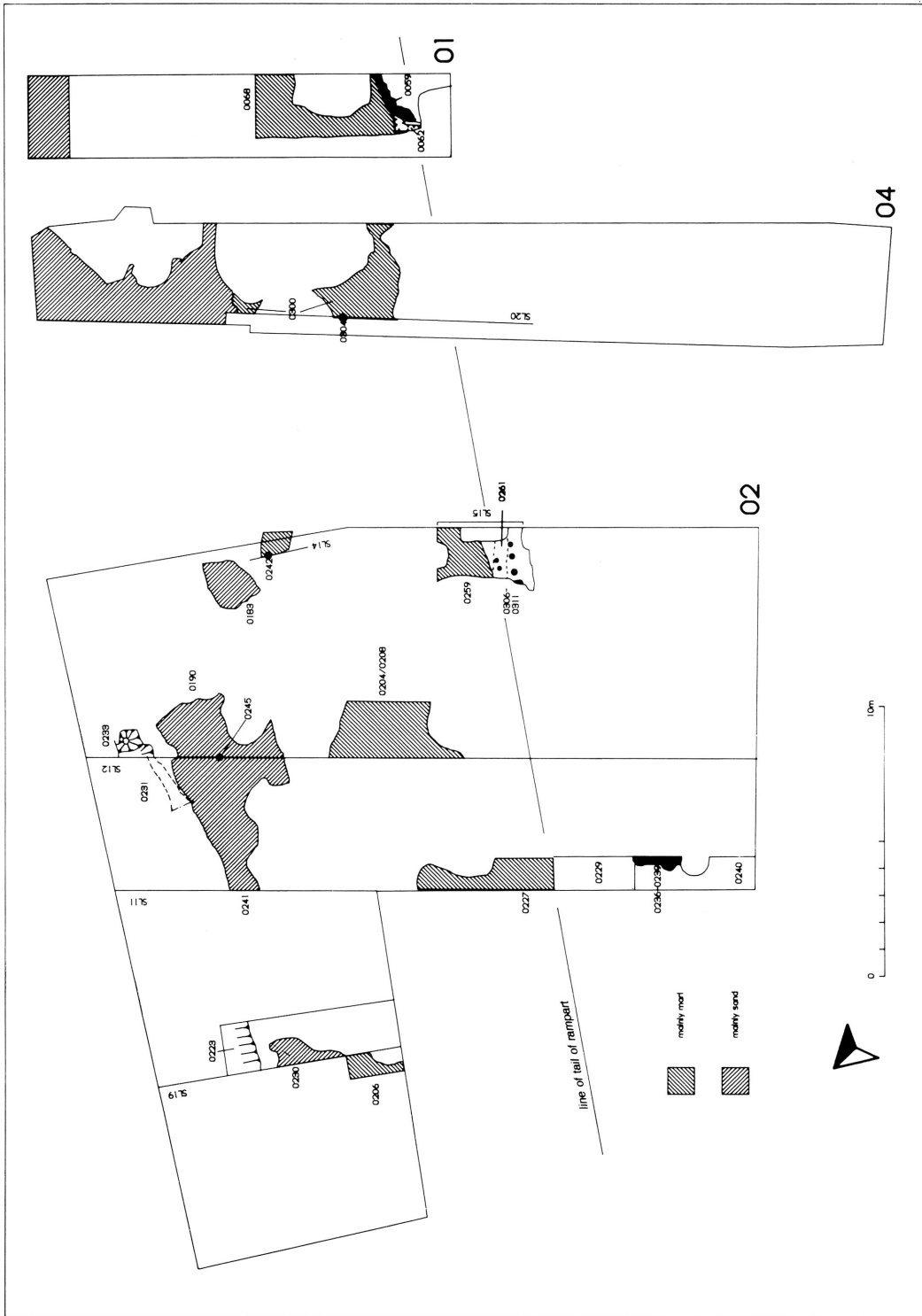


FIGURE 4: Slaughter House Lane: Plan of Saxo-Norman rampart (hatched) and structural features of phase II in 01, 02 and 04.

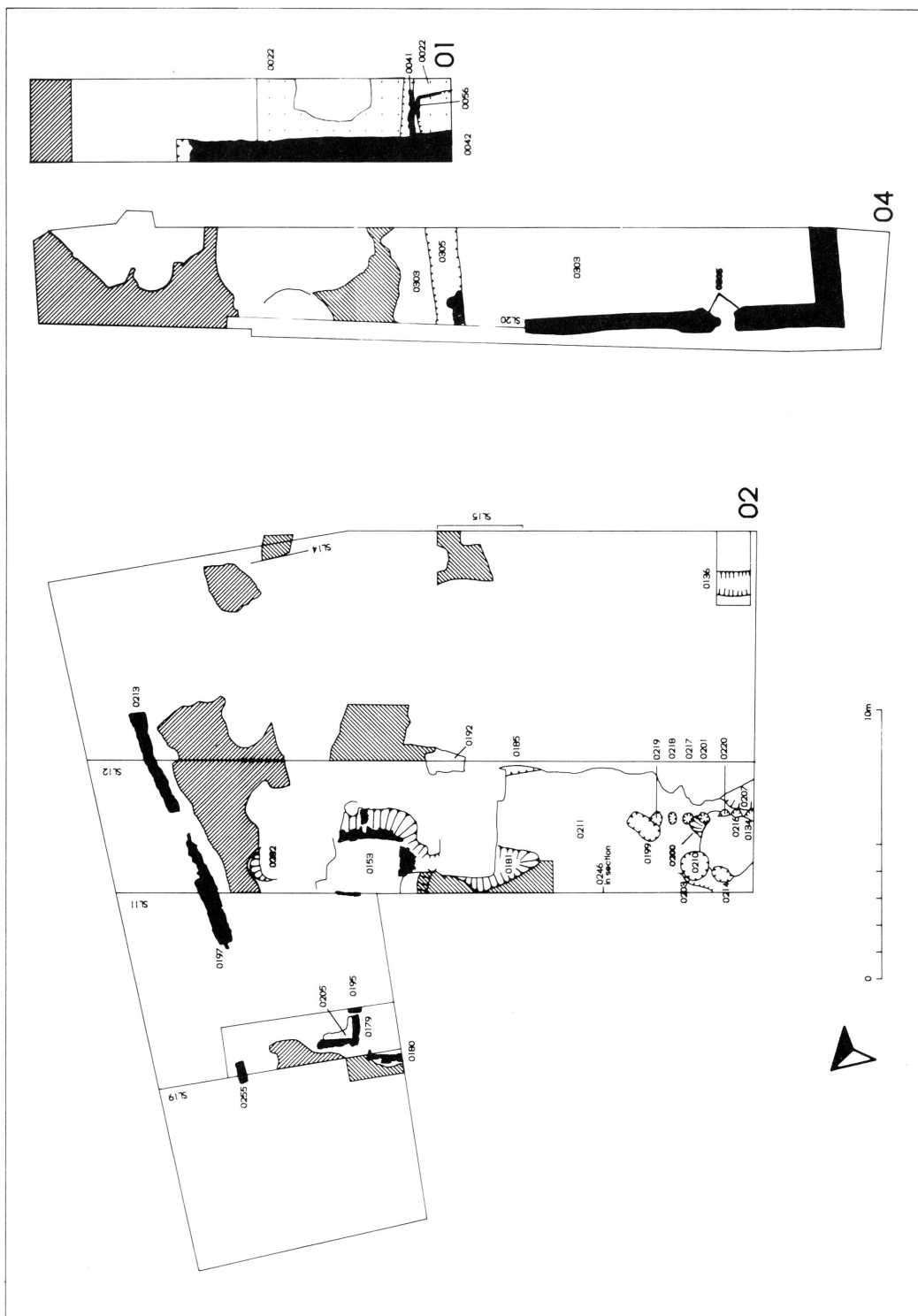


FIGURE 5: Slaughter House Lane: Plan of medieval features of phase IV in 01, 02 and 04; surviving rampart levels are also shown (hatched).

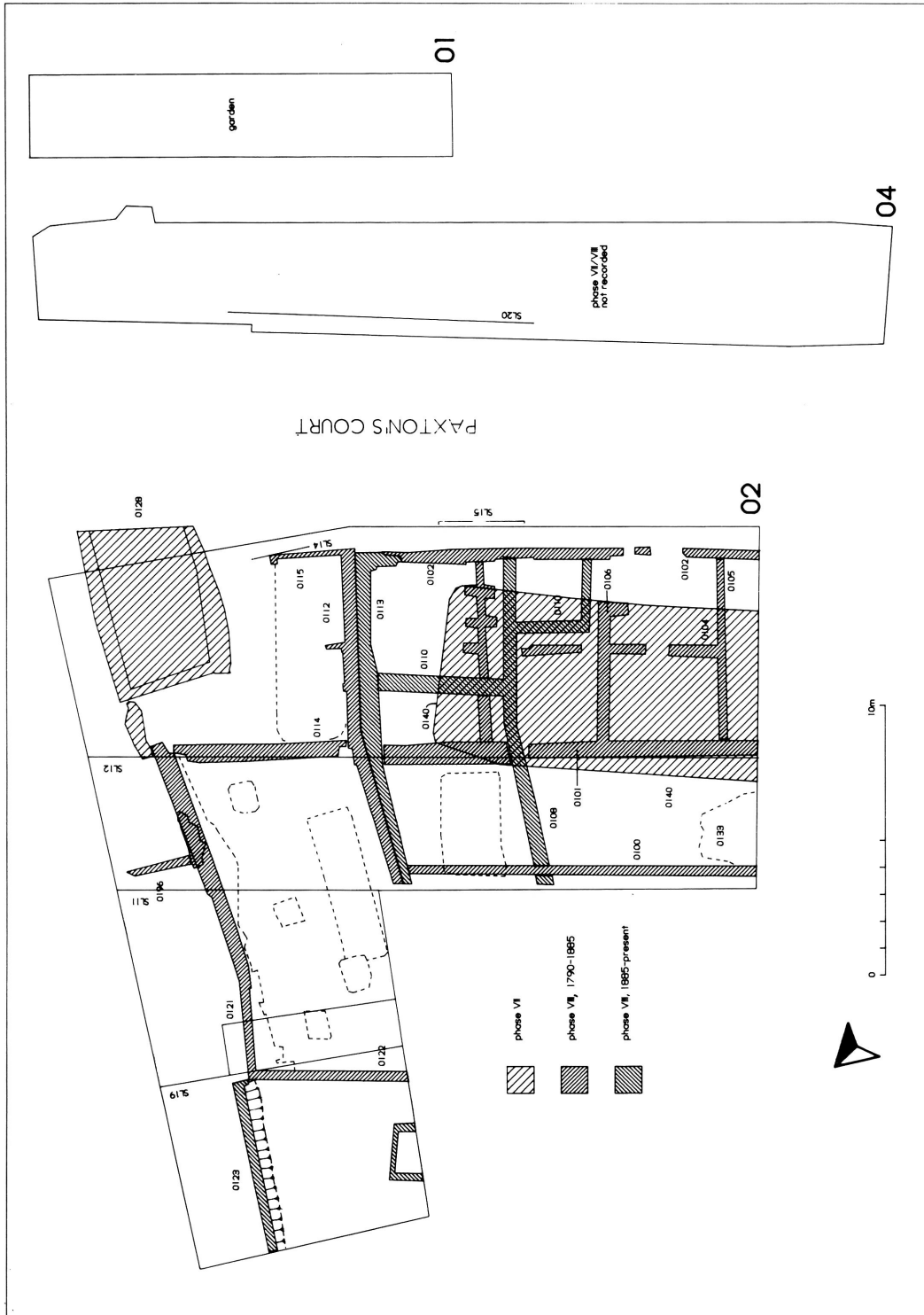


FIGURE 6: Slaughter House Lane: Plan of principal buildings in post-medieval phases VII and VIII in 01, 02 and 04; major modern intrusions in 02 are shown with a broken line.

foundation depth of the new building. In late January what was probably the north side of the town ditch was revealed in 03, during a watching-brief on contractors' excavations of the supermarket foundations. In mid-April negative results were encountered in manual trial work in 06 at the west end of Slaughter House Lane, and in a watching-brief carried out in November in 07. Finally, in a further watching-brief in 05, where the building foundations were dug deeper than had been originally indicated by the architects, further parts of the rampart and stratified deposits at its tail were recorded.

#### STRUCTURE OF THIS REPORT AND THE NUMBERING OF EXCAVATION AREAS, CONTEXTS AND PHASES

The account of the excavations below gives an outline of the principal features of the site, illustrated by selected plans and sections. More detailed descriptions and illustrations are given to show particularly important features, and to provide examples of the nature of the evidence upon which the interpretations offered are based. The main passages (in full-size type) provide a summary of the features of each phase, and may be understood without reference to the subsidiary passages (in smaller type) which supply greater detail and supporting evidence. A fully-described and illustrated account can be found in archive.

The principal section lines were individually numbered SL1, SL2, etc., and the locations of those illustrated in this report are shown on Figs. 4-6; summary drawings of all SLs referred to are given in Fig. 7. Excavation areas were allocated two digit numbers (01-07), and contexts four digits (0001-0311), with fills of features further distinguished a,b, etc.

The grouping of features into site phases I-VIII is an attempt to make the complex stratigraphic relationships of the contextual data manageable and to describe the general development of the site; all the features included in a single phase are approximately, but not necessarily absolutely, contemporaneous.

Textual references to contexts are limited to those illustrated in plan or section in this report, unless stated otherwise.

### DESCRIPTION OF THE FEATURES

#### PHASE I: THE PRE-RAMPART SOIL

The earliest phase recorded in the excavations was found in 02 and 04, and consisted of a 0.3m-thick homogenous layer of grey or brown silty sand, containing an even distribution of pebbles (02: 0243 (SL19), 0228, 0229, 0248 (SL11), 0222, 0224, 0226 (SL12), 0257, (SL14), 0260 (SL15); 04: 0301 (SL20)). It lay directly on the natural Mercia Mudstone. The layer had evidently originally been continuous, but survived only where the overlying rampart was also preserved, both deposits having been reduced to a series of isolated 'islands' by the intrusion of later features (the extent of the rampart is shown in Fig. 4). The layer was everywhere completely truncated to the south of the rampart (the cause of this is discussed below). An even vertical distribution of pottery in this layer, with an extended date range and small sherd size, together with the layer's location directly beneath the rampart and upon the natural mudstone, and the setting of the rampart's timber reinforcement directly upon its surface (see below), permit its interpretation as a buried soil. The concentration of pollen close to its surface, described below, lends weight to this. Micromorphological studies carried out on this deposit (report in archive) were inconclusive as to the circumstances of formation, but if the interpretation as a buried soil is correct, the lack of a worm-sorted pebble layer suggests that it may have been under cultivation prior to being sealed by the rampart in phase II.

At the south end of SL12, the stratigraphy was not clear, but the layer (0226) could not be traced with certainty much beyond the south edge of the overlying rampart (0204), 10m north of the south edge of the site. Similarly, in a small area machined out to expose the tail of the rampart adjacent to SL15 in 02, the layer 0260 thinned out to an edge projecting only about 1m south of the rampart tail, and in 04 the same effect was observed in the machine trench adjacent to SL20 (0301). Careful trowelling of this deposit in 02 produced quantities of Romano-British and handmade Anglo-Saxon pottery; in 04 it was not manually

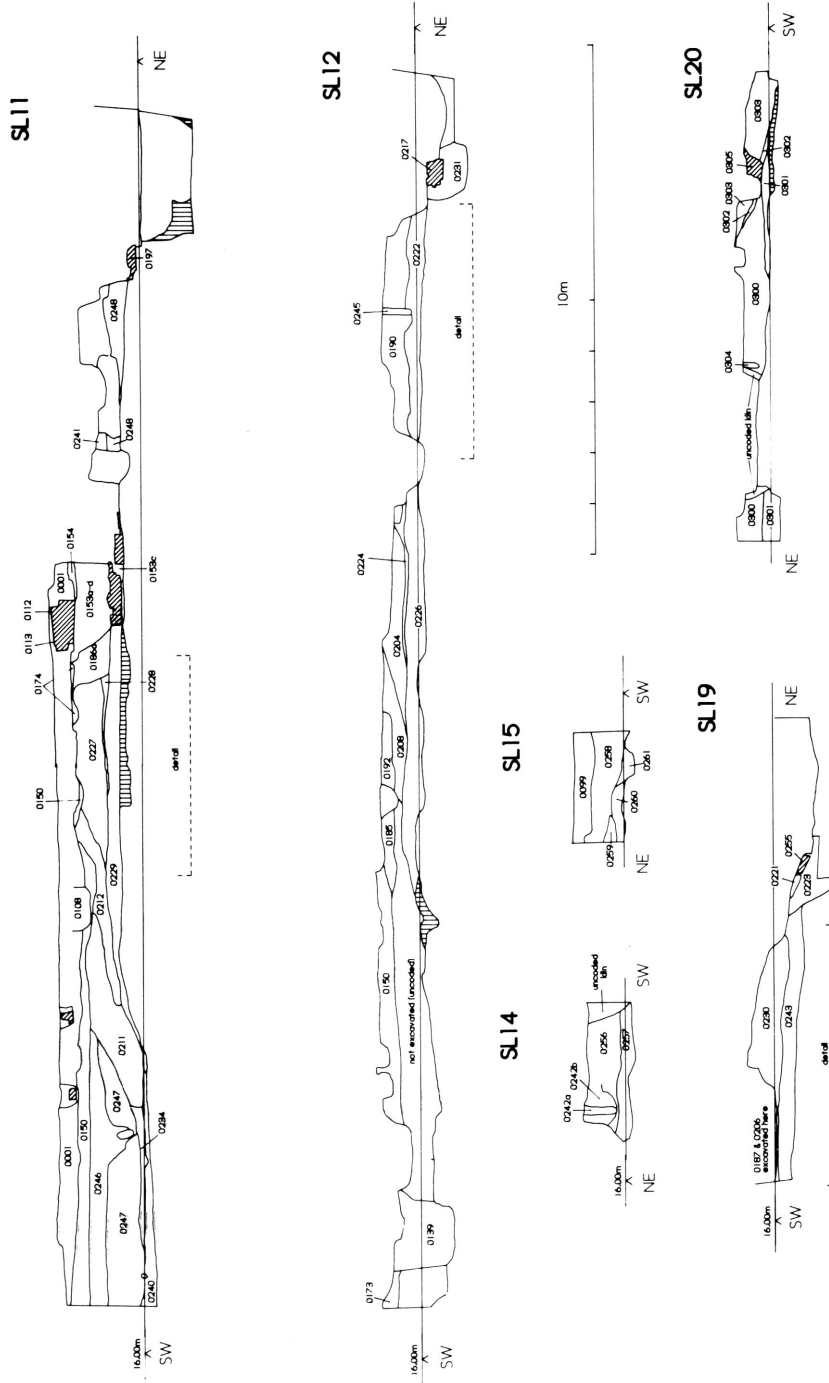


FIGURE 7: Slaughter House Lane: Simplified principal sections; selected areas as marked as shown in detail in Fig. 8; diagonal hatching — masonry, vertical hatching — natural mudstone.

excavated. 0222 and 0229 were excavated in spits; pottery was found at all levels. The sherds were mostly small: 67 sherds, with an average weight of 8.7g per sherd came from the various components of this general layer. Similar residual Romano-British and early Anglo-Saxon pottery from contexts in phase III, presumably originally derived from the same layer, comprised 137 sherds of average weight 7.4g, while by comparison, the non-residual Saxo-Norman pot from the same phase comprised 64 sherds of average weight 11.7g.

Only one feature was clearly cut from the surface of this soil, and apparently sealed by the overlying material of the rampart: 0235, circular in plan, 0.15m diameter, filled with loose dark grey sandy silt (not illustrated). 0244 appeared, after the removal of the buried soil, as a 20mm-deep depression in the natural (not illustrated). It certainly was sealed by the rampart, and it seems likely that it originally cut the soil, but either the fill could not be distinguished from the surrounding soil, or it had been subsequently disturbed by cultivation prior to the construction of the rampart, leaving only the base penetrating the top of the natural. The significance of these two features is uncertain. 0261 (SL15 and Fig. 4), cutting the buried soil and cut by features contemporary with the rampart, may have been of this date, but as the soil appears on balance to have been cultivated just prior to being sealed by the rampart, this feature would not have survived that process and is more likely to belong with Phase II, described below with the account of features at the rampart tail.

### Dating

Intermixed Romano-British and hand-made Anglo-Saxon pottery came from contexts of this phase, and had clearly been added over a long period. No Saxo-Norman or later pottery was present. An early Anglo-Saxon annular brooch, of 6th or early 7th century date was found in a residual context, but evidently was originally deposited in this phase (Fig. 14.1).

## PHASE II: THE RAMPART

The rampart, like the soil of phase I, survived as a series of isolated islands separated by incomplete excavation and by the intrusion of many later features (Fig. 4). In addition the front face was cut away in 02 by a later wall (0197, 0213, Fig. 5), and it extended north-east, beyond the limit of excavation in 01 and 04. Parts of the tail were preserved intact, enabling the projection of its course. Towards the front, the rampart consisted largely of red marl (redeposited Mercia Mudstone); towards the rear, sand predominated. The interleaved interface between the two deposits, and the presence of timber reinforcements

in both, suggests that this change in character does not indicate different periods of construction. Some isolated post-pipes showed that timber reinforcement had been used, although no coherent impression of its design could be seen (0245, 0242, 0304 Fig. 4). The post-pipes extended through the rampart to the top of the buried soil; together with the absence of post-pits, this showed that the posts had been placed on the ground and the rampart heaped up around them (a detailed section of 0245 is shown in Fig. 8, SL12). The maximum, but incomplete, recorded width of the rampart was about 15m (in 04), and the greatest surviving thickness was 1.5m. A linear feature 0231 and a post-hole 0233 differed from the other timber reinforcements in being cut down into the bedrock; they were found at the front face, and may have been part of the rampart structure, or earlier still (Fig. 4).

The undisturbed tail of the rampart lay below the final excavation depth in 01, but was located in plan and section in 02 and 04, where it lay roughly parallel to the modern street frontage (Fig. 4). The greatest surviving height was 1.5m in 01, but only 0.5m in the other areas: it had clearly been at least partly levelled in 02 before the construction of the kiln 0153, which otherwise would have had its north-east end dug through what would have been close to the crest (Fig. 5). Towards the front of the rampart layers of mudstone interleaved with, in lesser quantities, various deposits of grey, brown, yellow-brown and red-brown silty sand, while at the tail, sand predominated (Fig. 4). In 01 the front was seen in the edges of later intrusions, while an area close to the tail was partially excavated (0068; not illustrated). In 02 both the front and the tail were located in several areas (front and tail: SL19, 0230, 0206, 0187; front: SL12, 0190/0241 and 0183; tail: SL11, 0227; SL12, 0204, 0208; SL15, 0259), and in 04, 7m of the Mudstone front was exposed in plan at the northern end of the area, while part was seen in section (SL20, 0300). The interleaved junction of marl and sand was seen in 02, SL19, where the sand element (0187, 0206) had been misinterpreted and excavated as a feature cut through the marl element (0230) before it was understood (Fig. 8, SL19), but it had been observed that the junction with the mudstone was not clearly defined, and lenses of sand interleaved with the mudstone at several levels. It is unfortunate that no extensive undisturbed length of the junction was preserved within the excavated areas.

The three post-pipes were set vertically (e.g. 0245, Fig. 8, SL12). All were circular in plan, 130-160mm diameter, tapering slightly at the base, which rested on or slightly below the old ground surface. The post-pipes of 0242 (SL14) and 0245 (SL12) were filled with a mixture of sand and mudstone, presumably derived from the erosion of the surrounding rampart material after the decay of the post. They appeared to have been set in slight hollows with the remaining rampart material subsequently built up around them. In 04 the post (0304, SL20) was set in sand; the resulting post-pipe was also sand-filled, so the

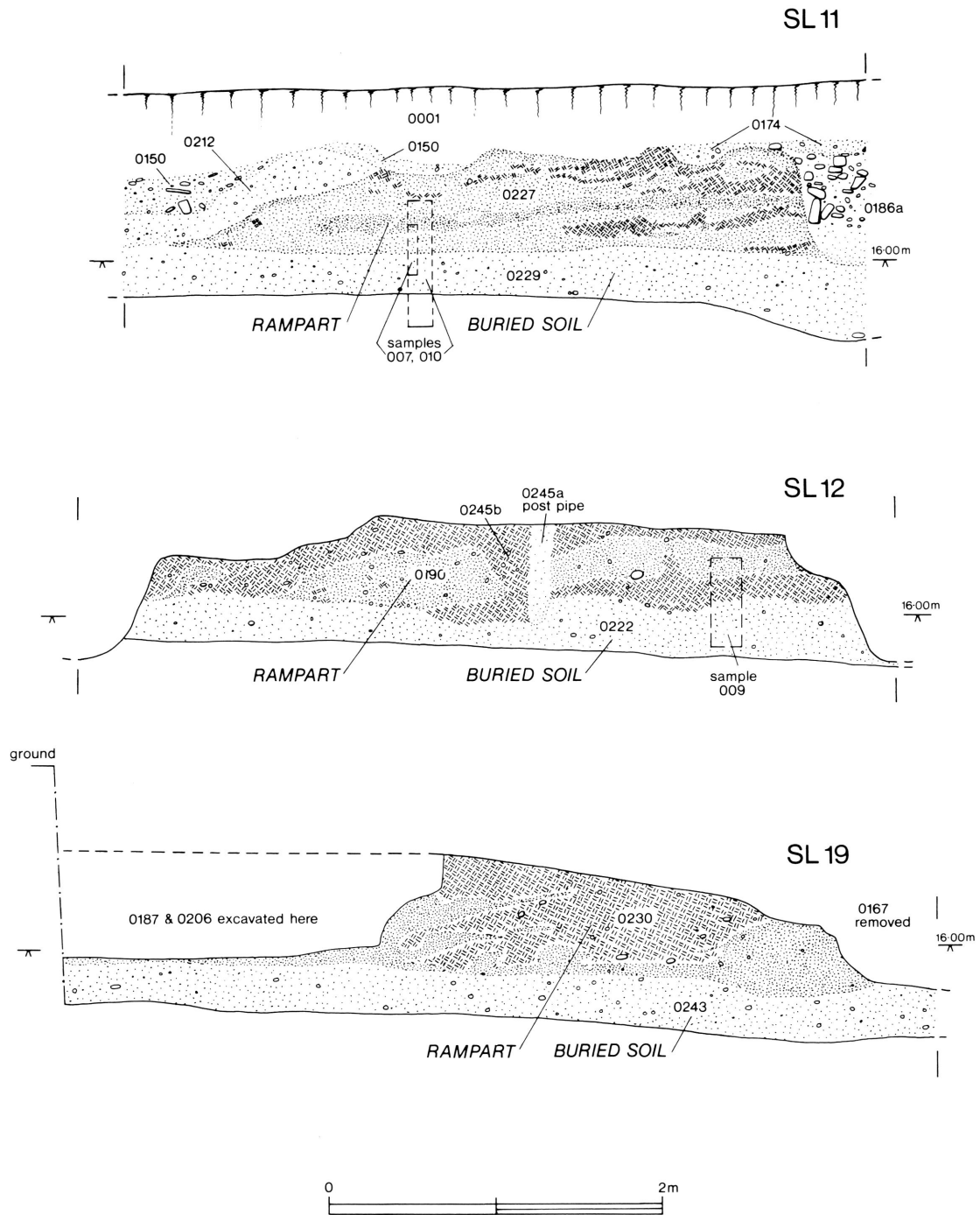


FIGURE 8: Slaughter House Lane: Detailed extracts from SL11, 12 and 19 (locations are given in Fig. 7); light stipple — light coloured sand, dark stipple — dark coloured sand, basket work symbol — marl.

distinction between the sand rampart and buried soil was not so clear. The mixed nature of the rampart material and its preservation in only small isolated areas made it impossible to identify any further post-pipes in plan, although the possible existence of such timber impressions had been considered from the start of the excavations. Excavation of the rampart in thin spits with detailed plans recorded at each level would probably have revealed more, but this approach was not possible within the time available. The two features, 0233 and 0231, contained respectively tile and medieval pot, and could conceivably have been rampart structural elements dismantled in the medieval period (Fig. 4). They lay beneath the later stone boundary wall 0197/0213, built into the front of the rampart. 0233 was a small pit, 600x800mm, filled with grey-brown clay, and a clearly-defined circular depression of 90mm diameter in the bottom probably indicated where the end of a post had been, although there was no visible post-pipe in the fill, suggesting that the post had been withdrawn. 0233 was cut by 0231, a steep-sided, flat-bottomed linear feature 800mm deep and 1.15m wide, of which a length of 2m was exposed in plan. Although aligned almost parallel with the overlying wall and partly below it, it extended 500mm to the south of its south edge, and therefore appears to have been unrelated to it. The west end was not fully traced due to lack of time, but a similar feature adjacent to SL19, 0223, may have been a continuation of it (Fig. 4). Its function remains obscure. If 0233 contained a post forming part of the rampart structure, it differs from the post-impressions so far described in penetrating well into the natural, and it presumably served a different function.

### *Dating*

Apart from residual Romano-British and early Anglo-Saxon pottery, the only dateable find from the rampart was a single sherd of Torksey Ware from 0227 (catalogue no. 6), suggesting a construction date no earlier than the 9th century. This sherd was a rim, dated early in the Torksey Ware sequence (below). A sherd of Nottingham Splashed ware was also recovered from 0190, but this context was adjacent to a cellar lining wall, and was disturbed by animal burrows; in addition to the pottery it also produced coal, mortar, two charred seeds and two fragments of slag, all of which were absent from the other rampart contexts.

## PHASE II: STRUCTURES AT THE RAMPART TAIL

Behind the rampart tail in 02 the natural mudstone was hollowed out to 0.5m lower than its general level elsewhere (SL11). The extent of this hollow is unknown, and it may have been a quarry for the rampart,

or have been caused by traffic or cultivation. A layer 0240 was deposited in it, into which were cut four shallow features 0236-0239 (Fig. 9A), of structural character. They formed a line roughly perpendicular to the tail of the rampart. Further post holes 0306-0311 and an earlier gully 0261 were found parallel to the rampart tail adjacent to SL15 on the east side of the area (Fig. 9C). In 01 an L-shaped fragment of gully 0062 was cut away by an oven 0057-0060 (Fig. 9B).

The hollow in the south-west corner of 02 was occupied by 0240, a layer 250mm thick extending from the tail of the buried soil 0229, with which it gradually merged, to the south edge of the excavation, composed of mudstone and grey-brown silty-sand lenses (SL11). The four shallow features cut into 0240 appeared to comprise two roughly-circular depressions, 0237 & 0239, diameters c. 600mm and 550mm, depths 140mm and 60mm, and two linear depressions, 0236 & 0238, the whole group was arranged in a line, cut away to the south by a later feature (Fig. 9A). Lying partly beyond the limit of excavation, these features are not easy to interpret, but could have been part of a post-in-trench structure, or possibly features of more than one phase.

The group of structural features found adjacent to SL15 was exposed when the area was machine-excavated down to the south-sloping surface of the tail of the rampart 0259, and the buried soil beneath 0260 which projected from its southern edge (Fig. 9C). A complete section SL15 was achieved by hand-digging a slot along the section line. 0306-0309 consisted of a row of four circular soil marks revealed in plan, oriented east/west, diameters 160-300mm, lying parallel to the alignment of another smaller pair, 0310 and 0311, 0.5m further north. There can be little doubt that the features in this group were all related, and represented some sort of structure. The alignment was parallel to that of the rampart tail at this point, and suggests broad contemporaneity. A gully (0261), cut by 0310 and 0311, seen in plan and in SL15, lay on approximately the same alignment, but due to lack of time the rampart was not removed to see if further features extended below it.

In 01, the shallow gully 0062, about 0.22m wide and deep, forming an L-shape 0.7x0.9m (Fig. 9B) was cut through a layer of grey-brown silty sand with pebbles 0061, which probably overlay the rampart tail. This was cut away to the south and west by the oven, which had been constructed on a level platform cut into the slope of the buried soil. At least half of the oven clearly lay beyond the excavated area, and a further portion was destroyed by a later pit; but the surviving edge formed part of a circle of about 2.6m diameter. The oven wall 0059, 300mm wide and surviving to a height of 300mm, constructed of large irregular heat-reddened stones in a matrix of mudstone, was placed on the edge of a spread of pebbles 0060 which also formed the floor within. Several fragments of quernstone (find codes AJP, AJQ and AJW, not illustrated) had been incorporated within the wall, and four samples from charcoal spreads lying on the oven floor and sealed beneath the collapsed roof are described in detail below.



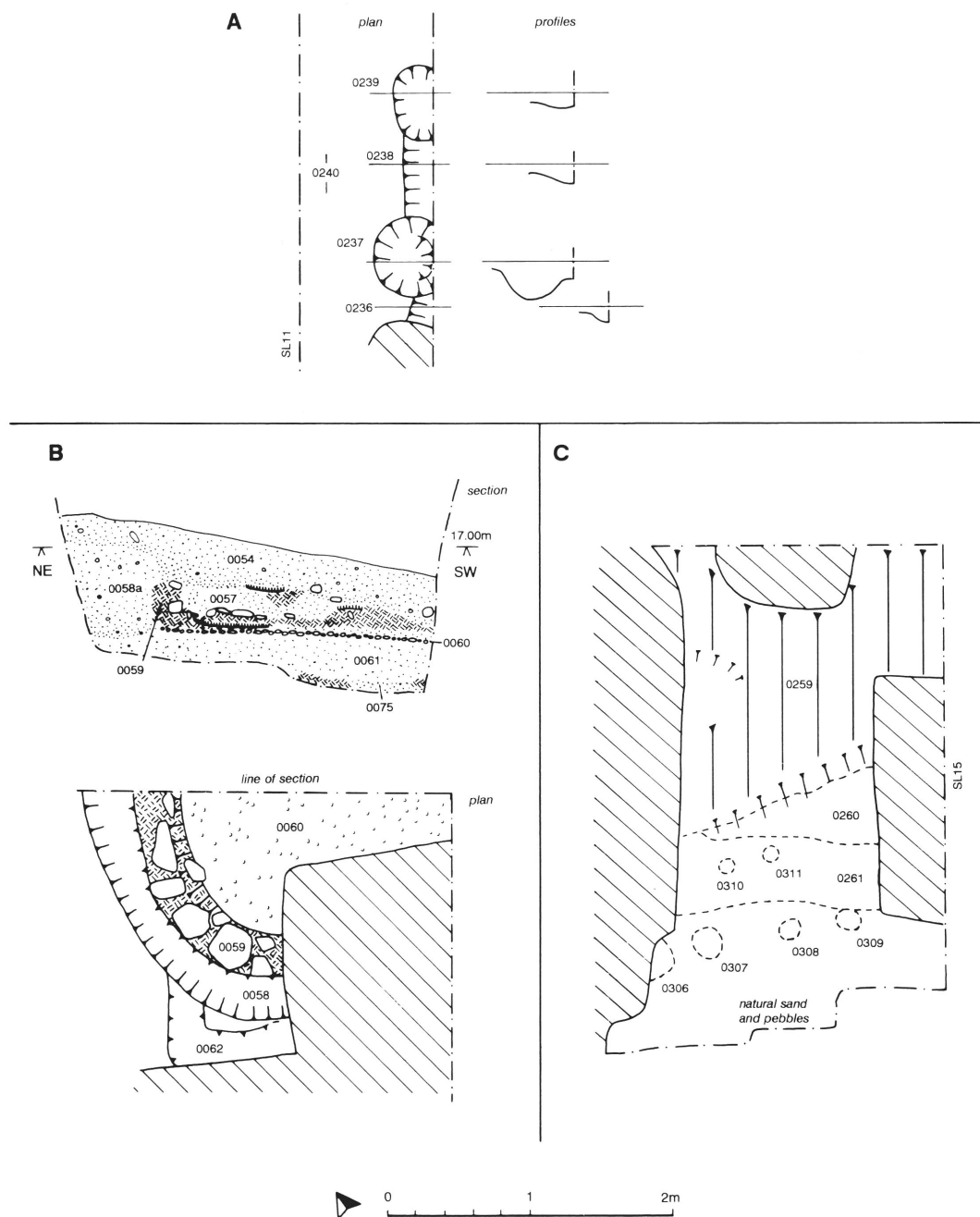


FIGURE 9: Slaughter House Lane: Detailed plans and sections of Saxo-Norman features of phase II; conventions as Fig. 8, vertical hatching — burnt marl.

*Dating*

Small quantities of Saxo-Norman pottery were associated with the oven and the gulley 0062. A Torksey Ware rim sherd (catalogue no. 7), dated early in the Torksey Ware sequence, came from 0240, the layer accumulated at the rampart tail, cut by the structural features apparently broadly contemporary with the rampart.

### PHASE III: DEPOSITS AT THE RAMPART TAIL

In 01, 02 and 04 the features at the rampart tail were sealed by various deposits, of about 0.5-0.7m thickness (01: 0054, 0058a, not illustrated; 02: 0211, 0212, 0234 and 0247, SL11; 0138, 0258, south corner of 02, not illustrated; 04: 0302, 0303, SL20). Whether these were dumped or of natural origin is unclear.

In the south-west corner of 02, the rampart tail and the features behind it were sealed by a 700mm-thick series of deposits of dark grey, dark grey-brown and dark red-brown sandy silt with pebbles (0211, 0212, 0234 and 0247, SL11). The structural features adjacent to SL15 were overlain by a 700mm-thick homogenous deposit of brown-grey pebbly sand accumulated over the rampart tail (0259, SL15). Earlier in the excavation, in the south-east corner of 02, a homogenous 500mm-thick soil layer was excavated (0138, not illustrated), visually identical to, and probably stratigraphically the same layer as 0258. 0138 was excavated by trowel in approximately 50mm spits, in order to detect any features not visible on the surface, and to record the positions in three dimensions of all artefacts. No features were observed, but four sherds of Saxo-Norman and one of Nottingham Splashed Ware were recovered. The latter was found 230mm below the surface of the layer, while all the other sherds were lower, distributed at various points down to the base of the layer, 240mm deeper. The soil profile suggested that it had developed naturally, and micromorphological analysis showed that it was texturally near-identical to the various buried soil deposits beneath the rampart (archive report). The presence of pottery and thirteen bone fragments may indicate disturbance, perhaps by cultivation, or simply post-depositional worm action. However, 0258 clearly overlay the rampart, apparently sealed structural features 0306-0311 and was visually distinct from the soil beneath the rampart (0260); 0138 also lacked the Romano-British and handmade Anglo-Saxon pottery present in many of the pre-rampart soil layers, and contained later pottery, so it must have formed after the construction of the rampart. A further similar homogenous 500mm-thick deposit of brown sandy silt with a few pebbles overlay the rampart tail in 04 (0303, SL20), with an intervening thin spread of dark grey clayey sand. In 01, a layer of brown pebbly soil mixed with large lenses of mudstone and stones, interpreted as the collapsed roof and walls

of the oven (0057), lay immediately above the oven floor 0060, beneath a mixed layer of brown pebbly soil (0054, 0058a; Fig. 9B).

*Dating*

In 01 the pottery from the soil immediately above the rampart tail was all dated to 900-1100 on basis of eleven sherds of Torksey Ware, and the later gulley 0062 contained two sherds of Saxo-Norman pottery dated 900-1100. In 02, 0212, the stratigraphically earliest layer in this phase included four sherds from a spouted pitcher in Stamford Ware fabric B, dated to the late 11th century at the earliest, but could be as late as the 13th. The remaining pottery (sixty sherds) from this phase is all Saxo-Norman, and the absence of Nottingham Splashed Wares (c. 1100-1250) suggests the sequence was closed by the early 12th century.

### PHASE IV: THE DEVELOPMENT OF THE AREA IN THE MEDIEVAL PERIOD

#### The stone-founded building

Parts of a stone structure were found within 01 and 04 (Fig. 5). The principal walls were 0042 in 01 and 0305 in 04. East of 0042 was a square stone-lined pit 0056, probably a garderobe pit. This was later sealed by a clay floor 0022, upon which was placed a narrow wall of rubble 0041, abutting 0042 at right-angles. This complex appears to represent a rectangular stone building of double-square plan, measuring 15x7.5m, with the south-east wall extended to form a yard boundary. No floor levels survived within the building. The thickness of the walls, and the extension of one into a yard wall, suggests that the building was walled entirely in stone, at least on the ground floor. Sufficient excavation was carried out to show that the south-east wall terminated within the excavated area, short of the postulated town wall (see below), and it may be that part of the rampart survived to a sufficient height at this point to render further walling unnecessary.

In 01 the stone structure was preceded by miscellaneous layers 0065, 0067 and 0078 overlying the oven of phase II, into which a pit 0055, c.0.80m square, had been cut (not illustrated).

The stone wall 0042 in 01 was 9.8m in length, lying almost parallel to the north-west edge of the area, with the north-west face and south-west end beyond the limit of excavation. The north-east end abutted a small pit, perhaps an aborted robber trench, but the wall did not extend any further in any direction. It was built of roughly-coursed, unmortared limestone slabs up to 400mm long and 130mm thick, surviving to a maximum height of 1.1m (c. 12 courses). The facing stones were generally somewhat larger than those used in the core, and there was a considerable batter on the south-east face. At the southern edge of the area, the possible garderobe pit 0056 had been dug against the face of 0042, at least 1.3m square and 0.90m deep; the floor of the pit had a single course of square stone blocks round the edge, and was covered with a layer of yellow sandy clay. Although rather shallow, the stone and clay lining points to the use as a garderobe. The clay floor 0022 was of mudstone, spread over the area, abutting the wall and sealing the pit, and the narrow wall 0041, subsequently partly robbed (0043, 0044), was built on it, abutting at a right-angle the south-east face of 0042, and extending beyond the limit of excavation. 0041 consisted of a single surviving course of the south-west face, of unmortared skerry slabs, lying in a shallow foundation trench of c. 0.25m width cut into 0022.

In 04, parts of the stone structure were exposed after the mechanical removal of the modern overburden, but due to lack of time no manual excavation was possible. The north-west side of the structure 0305 was 15m long, orientated parallel to, but c. 6m north-west of that previously described (0042), and of similar character. At both ends the wall, robbed in places, turned at right-angles, to run beyond the excavated area towards 01. The construction was of unmortared limestone slabs, and pitched footings were observed in the north-western wall, just north-east of the north-west corner. There was no sign of surviving floor levels within the building, probably because the modern ground level was much lower in 04 than in 01: the greatest recorded height of the top of the wall in 04 was 1.2m lower than that in 01, and c. 1m lower than the possible external floor in 01 (0022).

The possible robbing of the very short length at the north-east end of 0042 would be puzzling unless it were robbing of a return wall to the north-west. This could have extended into the disturbed adjacent part of 04 but not as far as the undisturbed rampart deposits along the north-west edge of that area. This rules out the possibility of the whole structure being a two-celled building 2.1m long with complete continuous footings entirely in stone.

### Dating

The fill of the garderobe pit 0056a, probably in use during the life of the building, and the mudstone floor which sealed the pit and abutted the stone building, all contained mainly Nottingham Sandy Wares of 1250-1400, together with a single sherd of unsourced Late Medieval Ware in each; an absence of Midland Purple and Cistercian Wares, suggests a date in the late 14th century for those deposits, laid down after

the construction of the building. A single sherd of unsourced Late Medieval Ware came from pre-construction levels, and a 14th-century date for constructions is tentatively suggested.

### Features in Area 02

In the south corner of 02, a gully 0136 was located, orientated north-east/south-west (Fig. 5). It was 0.38m wide, 0.35m deep, and U-shaped in section, and was flanked by mudstone layers 0137, 0141, and 0144. The shape of the section makes it unlikely to be structural but secure interpretation on such a small scale is not possible.

In the west corner of 02, a complex of pits and post-holes was excavated, including a line of post-holes with post-pipes, possibly indicating a fence line (0134, 0185, 0192, 0199, 0200, 0201, 0203, 0207, 0210, 0214, 0216, 0217, 0218, 0219, 0220, 0246; Fig. 5).

0134, 0216, 0220, 0201, 0217, 0218 and 0219 formed a line of post-holes orientated north-east/south-west, with post-pits of about 200mm diameter and 0.4m depth. Some of the pits had clear post-pipes, and the row must represent a wall or fence line at least 4m in length, extending beyond the south-west limit of excavation. A small irregular pit, 0200, 0.2x0.3m in plan, 0.25m deep, was cut by it while an oval pit, 0199, 0.7x1.4m, 0.44m depth cut the end post-hole. Further pits appeared at the same stratigraphic level, but did not directly relate to the post-hole row: 0207, 1x1.25m, 0.85m deep, 0210, diameter 1.1m, depth at least 1.2m, and 0214, 0.6x0.7m, depth 0.5m, existing in a shallow hollow 0203. A further feature, 0246, was observed in section (Figs. 5 & 7). Only part had extended within the excavation, and was in the form of a linear hollow 0.3m deep, with a post-setting in its base, 0.4m deep and 0.8m wide including a 100mm-wide post-pipe, cut through the underlying soil layer 0247. A further feature was recorded (0185 and 0192), with maximum depth of 0.3m, and a length of 3.6m; this was bisected by a later pit, 0126, and both sides were cut away by later features, the robbing of the large cellar 0132, and another lesser feature, 0131, and the original shape in plan is not known.

### The Medieval Kiln

This took the form of a chamber 0153, a rectilinear pit with sides sloping inwards at about 60° from vertical, with a narrow flue-pit to the south-west (0181; Fig. 10A). These features were dug into the rampart, which must previously have been at least partly levelled, although the chamber and flue-pit

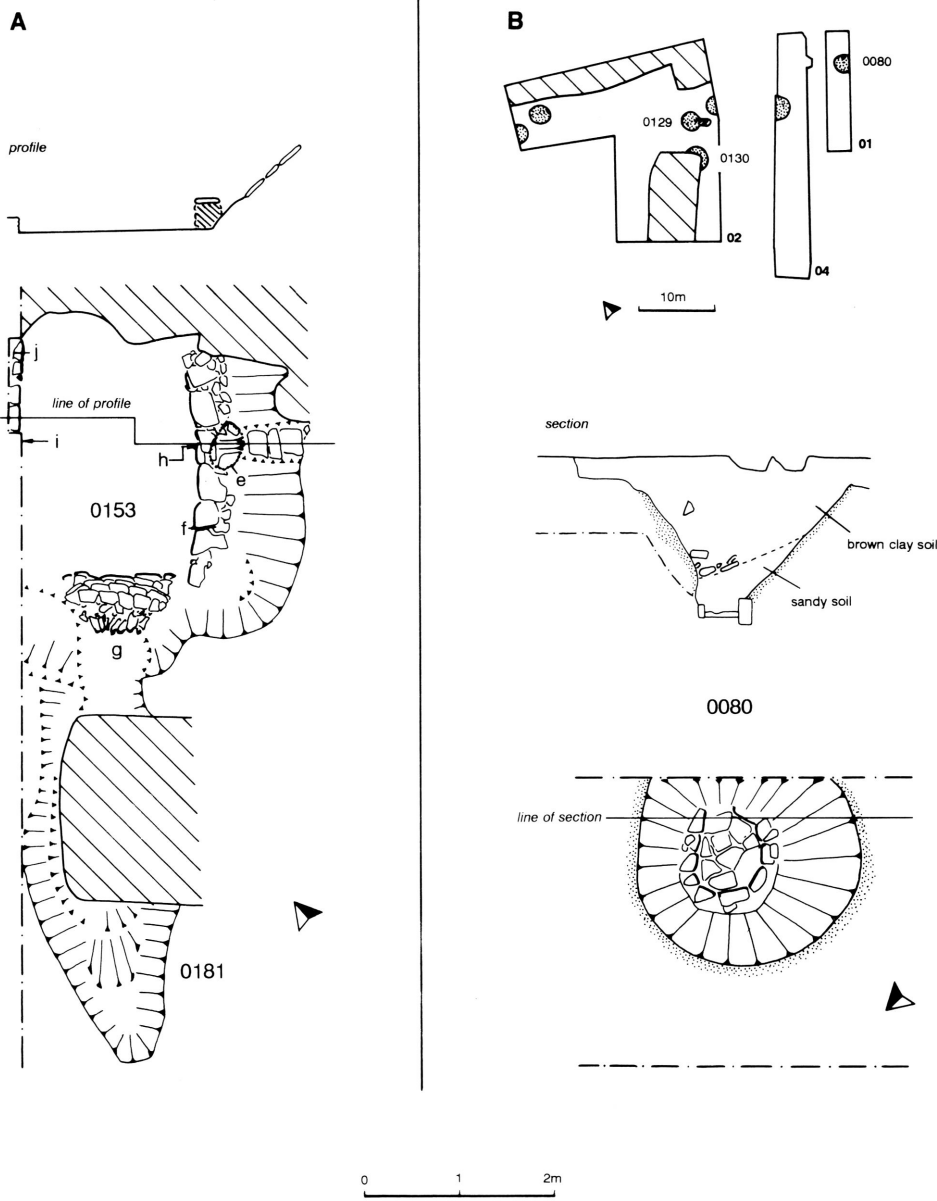


FIGURE 10: Slaughter House Lane: Detailed plans and sections of medieval (A) and post-medieval (B) kilns; site plan in B shows locations of conical kilns in 01, 02 and 04 (stippled), and principal intrusions (hatched).

were originally at least 1m deep, from the contemporary ground surface. Later features cut away completely the north-east end of the chamber, and the east side of the flue-pit. The main flue was fitted with a stone arch and jambs 0153g, and vertical-sided kerbs of limestone 0153f&j lined the base of the chamber. Remnants of a stone-lined secondary flue 0153h were found against the sloping south-east side of the chamber, with a matching one in the base of the kerb opposite, extending beyond the limit of excavation (0153i). None of the stones showed clear signs of burning, in contrast with the upper sides of the chamber which lacked stone lining, but were heavily burnt. There was no trace of a raised floor. The fills of both chamber (0153a-d) and flue-pit (0181a) were clay and stones, and only very thin spreads of carbonised material and a white powder lay on the floor. The side flue 0153h was filled with the same white powder (0153e). No burnt material was found in the flue pit. The disturbance at the north end of the kiln could have removed other such flues, or a second flue-pit. A pit of this phase, 0232, could conceivably have been part of a north-easterly flue-pit, but it was separated from the rest of the structure by a later feature, and may have been unrelated (Fig. 5). There was evidence that the kiln walls had originally been lined with stone, each course set back from the one below, up to the top, and that it had been partly dismantled, in preparation for an uncompleted repair, prior to infilling.

The stone kerbs were formed of rough, unmortared limestone slabs, preserved at the base of the slope on the north-west (0153j) and south-east (0153f) sides of the chamber. The face of 0153f was apparently slightly curved in plan, although the north-east end may have been dislodged. The main flue arch and jambs 0153g were of similar construction. Above the kerb the sloping sides of the chamber, cut through the sand of the rampart, were burnt to a bright orange, but none of the kerb or arch stones showed clear signs of discolouration or fragmentation due to heat. The natural mudstone floor of the chamber was unflagged and featureless. On the south-east side of the chamber the secondary flue (0153i) was represented by a straight line of limestone slabs running down the slope to the bottom of a square opening in the kerb at the base of the slope. These slabs lay directly on the side of the kiln; the second secondary flue 0153c was observed in the kerb on the opposite side of the chamber, preserved in the main site section (SL11). The surviving flue-lining-stones 0153h lay in a shallow channel about 20mm wider

on each side than the stones themselves; similar slabs set on edge, later robbed, may have formed the sides of the flue. This suggests that the stone kerb could originally have been higher, sloping back up the sides of the chamber, to form a complete lining, later robbed, but there is no direct evidence of this. The white powder deposits, probably burnt lime lay in the interstices of the top surviving course of the kerb, but not further up on the burnt sides of the slope. These possible burnt lime deposits 0153e also occupied much of the eastern secondary flue 0153h. This was the only substantial quantity present in the kiln, and was saved in its entirety as sample no. 5. As it blocked the flue, it was presumably deposited during the dismantling of the kiln, and may have been the erosion product of further lining stones exposed to heat, or it may even have been the intended product of the kiln itself.

### The Stone Boundary Wall

The series of 18th and 19th century buildings which stood on 02 prior to its redevelopment all respected a single frontage to Slaughter House Lane. Within 02, the physical form of this boundary was an irregular line of brick walls of varied character not quite parallel with the north edge of the area, and 1-3m south of it (0123, 0121, 0120 and north wall of 0128; Fig. 6). Parts of the top of the rampart, and later features, survived within 0.30m below the modern ground level to the south of this line, while to the north the area was all recent, probably due to cellaring. Below the brick walls lay three separate lengths of masonry wall, all similar in character, and with identical clay bedding (0197, 0213 and 0255; Fig. 5). Stratigraphic links with the rampart layers to the south-west had all been severed by the insertion of the later brick walls, but 0255 overlay a pitch or ditch 0223 (Fig. 4), and 0213 overlay 0231 described above (Fig. 4). If all these three fragments represent a single stone boundary wall, it was of very irregular plan, although it had been largely robbed, and was only preserved at the base of its foundations. A fourth fragment, 0195, was bedded in similar clay, but lay about 4m to the south of the general line, 2m south-east of SL19 (Fig. 5). It ended clearly just within the excavated area, and most of its length lay beyond the limit of the excavation to the east. The position of 0195 is puzzling. It could perhaps indicate the presence of an interval tower or small gate in the wall; the butt end might have formed a door jamb, but if so, then the opposite jamb lay beyond the excavated area, north-west of SL19.

0197 and 0213 were formed of slabs of limestone up to 0.5m maximum dimension, bedded in yellow-brown clay, and surviving for the most part to one course, but up to three at the east end of 0213. There was an irregularly-fomed face to the north, and intermittently another to the south. 0255, consisting of four blocks of limestone with a patch of clay 0231 on the south side, very similar to that used in the bedding of 0195, 0197 and 0213, lay somewhat to the north of the property boundary line, overlying pit 0223. It cannot be certain however that the wall fragment is undisturbed, and it may not be part of the same wall, being separated from 0197 by a gap of 4.5m. 0195 lay 5m south-west of the west end of 0197, almost completely destroyed by a later pit. Just a few centimetres of the wall projected from the section in this area, showing the wall fragment to be at least 0.5m wide. Despite the small amount visible, the wall was clearly set in a shallow foundation trench which terminated just within the excavated area.

#### *Dating*

Contexts relating to the stone boundary wall, medieval kiln and timber structure produced large quantities of pottery, including Nottingham Sandy Wares (1250-1400) and unsourced Late Medieval Ware (as well as Nottingham Splashed Ware and the Saxo-Norman wares, which must be residual). The pit 0231 beneath the east end of the stone boundary wall produced one bodysherd of Lincolnshire Shelly Wares (12th-15th centuries), while the pit beneath a further possible stretch of the stone boundary wall (0223) produced two unsourced Late Medieval Ware sherds. These features are thus dated no more closely than the late medieval period, perhaps 14th or 15th century. The non-structural gully 0136 contained Nottingham Sandy Wares and can tentatively be dated to the 13th or 14th centuries.

#### PHASE V: LATE MEDIEVAL LEVELLING AND OTHER ACTIVITY

In 02 extensive clearance of the site took place, involving the dismantling and infilling of the kiln 0153 and the timber structure in the west corner, and the levelling-up of the area with a layer of clayey sand with limestone lumps (SL11: 0150, 0174, 0153a-c, 0186a; SL12: 0173, 0150, 0185, 0192). Some of these contexts overlay the rampart; however the absence from them of marl, and the large quantities of limestone lumps present, suggested that the levelling

material was not derived from the rampart. It is therefore probable that the rampart had already been levelled, and possibly thrown into the ditch before this material was deposited. This widespread levelling suggests a general remodelling of the site. 0195 was extended by an L-shaped wall, 0179, which abutted its west end, and demarcated an area with clay floor 0205 (Fig. 5). As this floor lay 0.8m lower than the highest surviving adjacent part of the rampart 0230, the two features together represent a sunken-floored structure at least 0.8m below contemporary ground level, placed immediately behind the boundary wall. 0180 was also a further revetting wall not stratigraphically linked, and possibly not contemporary with 0179. This phase was not clearly represented in 01 or 04.

The widespread levelling layer was deposited over much of the central part of 02, up to 0.50m thick, of brown clayey sand with numerous limestone chips, later fragmented into numerous small "islands" by later intrusions. It overlay the truncated rampart and layers at its tail, and filled the kiln 0153.

The L-shaped revetting wall 0179 was built of unmortared thin limestone slabs, faced on the inner sides of the angle, but unfaced on the outer sides (Fig. 5). The clay floor 0205 was later largely worn away, and preserved only adjacent to the base of 0179. The second revetting wall 0180 was formed of unmortared irregular limestone blocks. Its stratigraphic relationship with 0179 was destroyed by a later pit 0151.

#### *Dating*

A wide range of pottery, much of which was evidently residual, came from the levelling deposits. The latest pottery was one sherd of Midland Purple Ware (1400-1550) and one of Cistercian Ware (1450-1600), and the levelling was apparently carried out in the later 15th or 16th centuries.

#### PHASES VI-VIII: BRIEF ACCOUNT OF THE POST-MEDIEVAL DEVELOPMENT OF THE SITE

With a limited amount of time available, the post-medieval features were excavated rapidly and without as full a record as those of earlier date.

#### Area 01

VI: In 01 the stub wall 0041 had been demol-

ished and a conical lime kiln (0080; Fig. 10B) dug (the conical lime kilns of this phase from all areas are described at the end of this section).

VII: These activities were succeeded by a complex of intersecting pits and gulleys and a 0.50m-thick layer of soil. The pits and gulleys were dug through the layers of the preceding phases (largely 0022), and could have been cut through the soil, or have been sealed by it. The 20th century produced only a few pits and no buildings.

#### *Dating*

VI: The latest pottery from the lime kiln fill (0080a) was two sherds of German Stone Ware (1500-1650), but the date of its construction is uncertain as none of the material it was dug through was excavated. VII: The complex of pits and gulleys contained pottery of which the latest (White Stone Ware) is late 18th century. They may have been garden features: map evidence suggests that the site was a garden in the 18th and 19th centuries before being surfaced as a yard to the Co-Op in modern times.

#### *Area 02*

VI: In 02 a series of pits and kilns was dug, lying between two buildings of Phase VII, 0140 and 0128 (Fig. 6; pits not illustrated). Adjacent to SL19 further pits were dug in this phase. The revetting wall 0180 was also robbed. 0129 (Fig. 10B) was a conical lime-burning kiln of the type described below. 0142 was a kiln with square firing chamber and single stoke hole at the east end. The remainder of the pits were of uncertain original function. They largely survived in an area between two substantial buildings of Phase VII.

#### *Brief description of the conical lime kilns*

A series of lime-burning kilns was recorded, of which three were excavated (Fig. 10B). 0129 pre-dated the Phase VIII cottages of the 19th century, and cut 0154 and 0168, both of which contained Local Coarse Earthenware no earlier than the late 17th century, while 0080 contained Unsourced Late medieval Ware, German Stone Wares (1500-1650), and Midland Purple Ware (1400-1550). 0130 produced no pottery, and was largely destroyed by the large cellared building of Phase VII, 0140. All were circular, about 2.25m in diameter on the surface, each showing clearly as a 100-150mm wide ring of heavily burnt

material, brick red on the inner edge and black on the outer. The excavated kilns provided details of construction. 0129 was largely filled with sand and stones, but additionally contained lenses of charcoal in the lowest fills, and a spread of what appeared to be limestone pebbles adhering directly to the edge at the top on the north-western side. The pebbles and possibly the charcoal lenses appear to have related to its use, and the pebbles were sampled (sample no. 3; report in archive). The kiln took the form of a conical pit, about 2.25m diameter at the highest preserved level, tapering to about 1.00m diameter at the floor, which was flat. The greatest depth was about 1.6m, although the contemporary ground surface may have been somewhat truncated by later activity. There was no trace of any lining of the kiln; the sides were formed of the sand and mudstone that it was cut through, all heavily burnt. A single flue (0149) was observed, on the south-east side. No trace of any lining material was observed, and the flue appeared to have been excavated as a separate narrow, sloping pit, meeting the main pit only at the base. 0080 also exhibited the same features, but was additionally furnished at the base with a floor and kerb, 1-2 courses high, of irregular limestone blocks. A break in the kerb where it intersected with the section suggested a flue, also on the south-east side, lying just beyond the excavated area. Such a kerb could have been removed from 0129. 0103 was largely destroyed by the insertion of the adjacent cellar 0140, but apparently took the form of a conical pit with burnt sides.

Two further kilns were observed but not excavated at the west end of 02, a third in SL14, and a fourth at the north end of 04 (SL20).

VII: Two cellared buildings were constructed, 0140 and 0128 (Fig. 6). The former had stone lining walls and may have had a paved floor. It cut away half of a kiln of phase VI (0103). The north-east wall of 0128 was built on the line of the stone boundary wall of phase IV; its cellar was lined on three sides with brick and the fourth with re-used ashlar, and was retained and remodelled in phase VIII.

0140 was a rectangular cellared building 5.5m wide by at least 12m long, with its long axis north-east/south-west, extended beyond the south-west edge of the area (Fig. 6). A small part of its lining walls were preserved intact at the north-east end, formed of coursed limestone blocks bonded with a very hard white mortar. The rubble infill of the cellar relating to its demolition lay directly on the Mudstone floor, which suggests that an original paving had been taken up immediately prior to infilling. This building was almost completely robbed, and no occupation layers were found. It was stratigraphically later than a kiln, 0103, which lay next to and resembled in shape 0129. 0128 was also cellared, was orientated north-west/south-east, with the south-east end lying beyond the excavated area. The south-west lining wall 0125 of this cellar was formed largely of coursed ashlar masonry bonded with similar mortar to that used in 0140, but the upper courses were of brick, like the other walls of the cellar (0118, 0119), and brick pieces were found in the construction trench behind the stonework. A short fragment of

mortared stone wall (0120), built upon the clay-bedded stone boundary wall 0213, extending for 3m to the north-west from the north-west corner of this building.

VIII: 02 was further developed in the late 18th or 19th centuries (Fig. 6). A large brick building occupied the entire Slaughter House land frontage within the excavation (0122, 0121, 0120, 0114, 0112, 0115), incorporating the cellared building 0128 of phase VI within its south-east end. An extension of this building fronting the west side of Paxton's Court, to form an L shape, contained four cottages (0101, 0102, 0104, 0105, 0106, 0109). Maps show that the south-east side of Paxton's Court also contained a row of cottages, but these were not found in the excavations (04) and may have been removed during machining. Some time in the late-19th or 20th centuries the main building was extended to the south-west and north-west, with brick walls on concrete footings (0123, 0113, 0110, 0108); this took place over the north-east end of the row of cottages, which were demolished. The site existed largely in this form, used most recently as garage premises, up to its complete clearance in late 1987 prior to the present re-development.

The brickwork of the four cottages on the north-west side of Paxton's Court was laid on a single course of Lias limestone blocks of up 0.5m length, set in a shallow trench. What was probably an alley or back-yard wall lay to the west (0100). On the south-east side of Paxton's Court (in 04), the row of cottages formed an extension to the rear of the building, currently The Old King's Arms pub, fronting Kirk Gate. The end of this row, and the south-east end of the building fronting Slaughter House Lane both had angled gables forming an angled entry to Paxton's Court, closed by a large gate. The walls of these buildings were of hand-made brick, generally on a foundation of a single course of limestone footings.

#### *Dating*

VI: The pit series contained pottery from the early-mid Saxon period to the Local Coarse Earthenwares of the late 17th to 20th centuries. Much of the pottery was residual, however: 0129 contained nothing later than the 16th century, but it cut two pits both producing pottery later than the late 17th century. However, many stratigraphic links put the group of pits later than the levelling layers of Phase V, and before the

overlying walls of the Phase VII cottages, and therefore probably somewhere between the 16th and 18th centuries. Some pits are certainly as late as the 18th century. One kiln 0130 was cut by the cellared building 0140, demolished in the 18th century, perhaps as early as 1700.

VII: No finds were recovered from the construction levels of the surviving cellar wall of 0140, and the rubble filling of the cellar, dating from its demolition, produced Midland Purple Ware (1400-1550), together with a clay pipe bowl of c. 1700-1720; considerable quantities of brick also present would suggest that the building was built of this material as well as stone. The building therefore has no clear construction date, but it cut through the conical kiln 0130, which lay next to a second conical kiln 0129 which cut two pits filled in or after the late 17th century. Tentatively, this building was constructed after then; the clay pipe shows that it had been demolished and filled in after 1700, and it is absent from the map of 1790<sup>1</sup>. The second cellared building attributed to this phase, 0128, was certainly built partly of brick despite the extensive use of stone in the cellar, and probably belongs broadly to the same date range.

VIII: The cottages and buildings fronting Slaughter House Lane (with the exception of 0128) are absent from the map of 1790, but present on the Ordnance Survey 25in. map of 1885. Map evidence also shows the extension of the street frontage building over the partially-demolished Paxton's Court cottages in the late 19th or early 20th century.

## CERAMICS

*by*

R. Woodland

### ROMANO-BRITISH AND EARLY ANGLO-SAXON POTTERY

Details are given in the archive.



## SAXO-NORMAN AND MEDIEVAL POTTERY

## Introduction

Although just over 30 discrete fabrics have been identified from the site covering the late Saxon to late medieval period, a number of these are related in character, forming groups which may often be identified with known kiln sites and the wares which they produced. Such identifications provide an indication of the changing relative importance of various production centres in the supply of pottery to Newark, and consequent trade patterns (Table 2). Thanks are due to V. Nailor and J. Young for comments on the identifications of wares in this section. The wares are discussed below, with consideration of forms, decoration and date ranges. The suggested date ranges of all wares are summarised in Table 1. Reference numbers refer to the illustrated catalogue which follows. Detailed fabric descriptions are given in the archive, together with quantification of fabric, form and decoration, by context and phase.

## SAXO-NORMAN POTTERY

*Torksey Ware*

One of the earliest wares identified at Slaughter House Lane derives from the industry operating at Torksey, 15 miles downstream (north) of Newark along the Trent. It has already been identified from Newark<sup>2</sup>. Minor differences only separate the fabrics listed in Table 2; nevertheless each sub-group is discussed here separately.

The most common fabric from the site within this major tradition is fabric 2, which is sometimes red, but generally grey/black and contains frequent fine quartz grains. Most of the vessels are of unknown form (Table 2), but examples of cooking pots (1-4) and bowls (5-13) are represented. The cooking pot rims are small and in form resemble those from Torksey itself<sup>3</sup>, as well as from previous excavations in Newark, including those on the site of the castle<sup>4</sup>. This fabric was originally not thought to be Torksey,

but was reassessed and positively identified as a product of the Torksey industry<sup>5</sup>. None of the cooking pots is decorated, and no complete form is present.

Bowl rims are more varied in form with both inturned (5-7) and everted examples (8-13). These are again paralleled in form from amongst the Torksey kiln products<sup>6</sup>.

Decoration, too, is typical - diamond-shaped rouletting on top of the rim flange<sup>7</sup> (6), and thumb-or finger-pressed decoration on the exterior of the rim<sup>8</sup> (8, 9 and 13). The rouletting may be an early feature<sup>9</sup> and is found, as a decorative technique, on the products of a number of kilns, including the Silver Street shell-tempered kiln<sup>10</sup> (see below, LKT). There are marked similarities between the forms and decoration used at Torksey and those of the LKT industry<sup>11</sup> (see below) and it is possible that they were under common ownership<sup>12</sup>. Dating is very difficult for this ware on this site. At Torksey the industry seems to have started by the mid 9th century and continued through to the end of the 12th century<sup>13</sup>. Two of the rims that occur in phase II (the rampart and associated structures) (5, 6) could derive from early in the sequence from Torksey, since they are paralleled from amongst the products of kiln 3<sup>14</sup>, probably one of the first in use<sup>15</sup>.

Thumbing on the exterior rim flange is most common on the products of kiln 5<sup>16</sup>. This kiln is thought to have been in production towards the middle of the sequence<sup>17</sup>, and consequently vessels at Newark with this decoration may date to the 11th or 12th centuries<sup>18</sup>.

Additional related fabrics 4 and 9 are both similar to fabric 2 although fabric 4 has a grey core and red surface, and moderate quartz inclusions, while fabric 9 is black, again with moderate quartz inclusions. These fabrics contain cooking pot rims (14, 15) as well as a waster fragment (16). It is possible that this rim is in fact Roman rather than Torksey type - if it is late Saxon/early medieval then it points to a kiln source very close to the site, probably in Newark itself, because such a sherd would not travel far. A waster sherd in the same fabric was recovered from

Table 1: Duration of use of major Saxo-Norman and medieval pottery wares at Slaughter House Lane

YEAR	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900
TORK	x . xxxxxxxx . xxxxxxxx . xxxxxxxx .				.	.	.	.	.	.	.
THET TP	. xxxxxxxx . xxxxxxxx .			.	.	.	.	.	.	.	.
LKT	x . xxxxxxxx . xxxxxxxx .			.	.	.	.	.	.	.	.
STMF AG	. xxxxxxxx . xxxxxxxx .			.	.	.	.	.	.	.	.
STMF BC	.	.	xxxx . xxxxxxxx . xxxxxx	.	.	.	.	.	.	.	.
LINC SH	.	.	. xxxxxxxx . xxxxxxxx . xxxxxxxx . xxxxxxxx .					.	.	.	.
NTSPL	.	.	. xxxxxxxx . xxxxx	.	.	.	.	.	.	.	.
NTSDY	.	.	.	.	xxxx . xxxxxxxx .	.	.	.	.	.	.
ULMW	.	.	.	.	.	???? . xxxxxxxx . xxxxxxxx .			.	.	.
MDPU	.	.	.	.	.	. xxxxxxxx . xxxxxx	.	.	.	.	.
CIST	.	.	.	.	.	. xxxxx . xxxxxxxx .			.	.	.
GERMST	.	.	.	.	.	.	. xxxxxxxx . xxxxx	.	.	.	.
TUDGR	.	.	.	.	.	.	. xxxxx . xxxxxxxx .			.	.
MDYE	.	.	.	.	.	.	.	. xxxxx . xxxxxxxx .		.	.
QASTO	.	.	.	.	.	.	.	.	. xxxxxxxx .	.	.
BFFEARTH	.	.	.	.	.	.	.	.	. xxxxxxxx .	.	.
DELFTTP	.	.	.	.	.	.	.	.	xxxx . xxxxxxxx .	.	.
FTHSLP	.	.	.	.	.	.	.	.	. xxxxxxxx .	.	.
CDNSTONE	.	.	.	.	.	.	.	.	. xxxxx . xxxxxxxx .	.	.
WHTSTONE	.	.	.	.	.	.	.	.	. xx . xxxxx	.	.
MARB	.	.	.	.	.	.	.	.	. xx . xxxxx	.	.
PEARLWR	.	.	.	.	.	.	.	.	. xx . xxxxx	.	.
LOCCRSE	.	.	.	.	.	.	.	.	xx . xxxxxxxx . xxxxxxxx . xx	.	.
YEAR	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900

ABBREVIATIONS

The abbreviation is followed by the fabric numbers, and the full name of the ware.

TORK	2, 4, 6, 9	Torksey Ware	NTSPL	15, 20, 24	Nottingham Splashed Ware	QASTO	43, 52	Queen Anne Stoneware
THET TP	3, 8, 10?	Thetford type Ware	NTSDY	18, 21, 25,		BFFEARTH	47	Buff Earthenware
LKT	13	Lincoln Kiln-type Ware		26, 30, 31, 36	Nottingham Sandy Ware	DELFTTP	55	Delft-type Ware
STMF AG	23, 7	Stamford Ware fabrics A & G respectively	ULMW	27, 28, 29, 32	Unsourced Late Medieval Ware	FTHSLP	53	Feathered Slip Ware
STMF BC	22	Stamford Ware fabrics B & C	MDPU	33, 35, 40, 42	Midland Purple Ware	CDNSTON	51	Chesterfield/Derbyshire/ Notts Stoneware
LINC SH	1, 16	Lincolnshire Shelly Ware	CIST	34	Cistercian Ware	WHTSTONE	56	White Stoneware
			GERMST	44, 45	German Stoneware	MARB	58	Marbled Ware (? Wedgewood)
			TUDGR	38	Tudor Green Ware	PEARLWR	59	Pearl Ware
			MDYE	41	Midland Yellow Ware	LOCCRSE	39, 46, 48	
							49, 50, 54	Local Coarse Earthenware

St. Mark's Lane<sup>19</sup>.

#### *Thetford-type Ware*

Thetford-type Ware is to be distinguished from Thetford Ware, and seems unlikely to derive from Thetford itself. The fabric ranges from red to grey and has abundant small quartz particles in the clay matrix, feeling quite hard and rough to the touch. A number of production centres exist, for example Norwich, Ipswich, Grimston and Yarmouth<sup>20</sup>, and the distance between Newark and Thetford would make trade very unlikely, although the occasional vessel might find its way as a private individual's property. This is reflected in the small quantity found at Slaughter House Lane (Table 2).

There are unfortunately no rim forms from Slaughter House Lane to indicate provenance. A related fabric which may not be Thetford-type Ware, fabric 10, is grey to black but has fewer small quartz particles, although still a hard rough fabric. It includes a decorated bowl rim (17) and a cooking pot/storage jar rim (18). The decoration and bowl form indicate a relationship with the Torksey Ware above (13) and may be further evidence of a local kiln source for this material. A 10th or 11th century date seems likely based on decoration and form.

#### *Lincoln Kiln-type Wares (LKT)*

These wares have been identified by J. Young and are described fully in the report on the Lincoln Silver Street Kiln pottery<sup>21</sup>. Briefly the fabric is soft; in colour it ranges from red/brown to grey/black and has a fine clay matrix with large shell fragments and occasional quartz inclusions. The majority of sherds give no indication of vessel form, but there are some rim fragments. These include intumed bowl rims (19, 20), cooking pot rims (21-23) and one cup/bowl rim (24). No decoration is evident, although the rim forms clearly fall within the rim classifications for pottery found at Lincoln itself<sup>22</sup>. A further rim fragment may in fact belong within fabric group 16 (Lincolnshire Shelly Wares) rather than 13, and is

shown as a cooking pot/bowl on Table 2. A 9th to 11th-century date range is suggested for this fabric - it is difficult to be more accurate given the lack of forms and decoration.

#### *Lincolnshire Shelly Wares*

The Lincolnshire Shelly Wares are later than the LKT material, with a probable 12th- to 15th-century maximum date range. The fabric is similar to LKT, that is red/orange to brown/grey or black, and smooth with large shell fragments, although less than LKT, and some quartz inclusions. Three vessels in this ware resemble Potterhanworth types of the mid-13th to 15th centuries: a bowl (25) and cooking pot/storage jars (26, 27). 24 is more closely associated with these latter forms. The form of the bowl (25) is also reminiscent of the Stanion/Lyveden straight-sided bowl forms<sup>23</sup>, whilst the cooking pot/storage vessel forms (26, 27) can also be paralleled fairly closely<sup>24</sup>. Most sherds however are of unknown vessel form, and the group as a whole might include earlier medieval types. A source in the Northamptonshire area for some of these wares might also be possible, especially since the group is so small.

#### *Stamford Wares*

There is a small amount of Stamford Ware present, manufactured at Stamford, Lincs., although the kiln or kilns are not known (Table 2); the cooking pot/storage vessel rim in fabric 23 (equivalent to Stamford fabric A<sup>25</sup>) is most likely to be 10th or 11th century on form, although a later date cannot be ruled out (28). The fabric is cream in colour, hard and rough but fine with very common quartz inclusions. No glaze is present in any examples from the site. A similar cooking pot/storage vessel rim (29) in fabric 7 (equivalent to Stamford fabric G<sup>26</sup>) may be slightly later in date. Fabric 7 is pink/grey, hard, fine and smooth with very common small quartz inclusions and occasional green glaze. This vessel is sooted on the exterior, and unglazed, and was therefore at some time used for cooking. Both these vessels appear to correspond to Stamford form 3 vessels. The latest Stamford products are those in fabric 22 (equivalent to Stamford fabrics B or C<sup>27</sup>). The fabric is white, fairly soft, fine

and smooth with very small quartz inclusions and yellow glaze.

One group of joining sherds merits detailed discussion (30). These sherds probably come from a Stamford Ware form 5 spouted pitcher, although there is no surviving evidence of a handle. The vessel has a collared neck, rather than the earlier form 5 forms (5-68 to 5-86), and on this basis would appear to date from c. 1075 or later, from which time form 5 vessels were based on form 4 collared forms<sup>28</sup>. The spout form of Newark no. 30 is closest to Stamford Ware Spout 10<sup>29</sup>, and has similarities with others since the spout is wrapped top and bottom to the rim. The exact form of the rim may be 5-41; a parallel was found in this rim form, with spout 10, in fabric G6 at Lincoln Flaxengate in context ATV, a timber construction and occupation phase dated to c.1060-1070<sup>30</sup>. However the form 5-41 vessel is not listed under this phase in the sequence of selected Stamford Ware groups<sup>31</sup>. Newark no. 30, however, is not fabric G, but fabric B/C. Fabric B seems to begin in the third quarter of the 11th century<sup>32</sup>. All the available evidence therefore points to this vessel dating at the earliest to 1060-1075.

## MEDIEVAL POTTERY

Nottingham products appear c.1100, and for the period 1250-1400, are the most common wares at Slaughter House Lane. The Nottingham products are represented by the next two groups of wares (Table 2).

### *Nottingham Splashed Wares*

The earliest Nottingham products, the Splashed Wares, are represented at Slaughter House Lane by three fabrics, occurring only in jug forms, although cooking pots/storage jars and bowls are known from other sites. The body sherds occurring within this group are also most likely to belong to jugs. The identified vessel forms in this group are all in fabric 20. This fabric usually has orange surfaces and a grey core with very common small quartz particles in the clay matrix, with larger quartz particles and sparse

ironstone fragments. A bottle or narrow-necked jug rim (31), a jug rim (32) and handle (33) give some indication of the forms present within this group. Glaze, when present, is splashed/mottled orange and green, and one handle is decorated with thumb-or finger-pressed decoration down either side of the central groove (33). This handle may not belong with this group, but rather within fabric 31, which forms part of the Nottingham Sandy Ware tradition (Table 2) and so may be misleading. Similarly, a fragment of jug body with an attached clay rod resembling anthropomorphic decoration, possibly an arm, may be a later ware, although inclusions would suggest that it too belongs within fabric 20 (34). A date range of c.1100 - 1250 is suggested on the basis of present dating within Nottingham itself. Decoration includes incised, combed straight and wavy lines on the exterior body, as well as the thumbing mentioned above.

### *Nottingham Sandy Wares*

The largest group of medieval glazed wares are the Nottingham Sandy Wares. Since some of these have been correlated with individual Nottingham products, they will be described separately below.

Fabric 18 corresponds to Nottingham Green Glazed Ware, and includes some examples of Nottingham Light-bodied Green Glazed Ware and Nottingham Reduced Green Glazed Ware. The vessels tend to have an orange exterior where unglazed, and a grey core and interior. The fabric is hard and reasonably smooth with moderate quartz inclusions and some ironstone. Glaze is green. A date range of c.1250-1350 or possibly 1400 is suggested. The majority of vessels are jugs, and it seems likely that the unattributable fragments are also from jugs, although they have been shown as "unknown" in Table 2. Forms include typical jug rims of the Nottingham industry (35, 36) and typical strap handles (37) and a slightly thumbled jug base (38). More unusual is the large jug body and handle fragments, presumably from a pedestal jug (39). Despite its size, it is in form and fabric a Nottingham Reduced Green Glazed Ware jug, dating to the mid 14th century or slightly later. Apart from some rilling on the exterior of the body of some jugs, and thumbing at the base of

handles, there is only one decorated sherd, and this is unusual. The decoration consists of an applied clay strip, with square-shaped rouletting pressed into it (40). This is not a particularly common decoration, and the glaze and fabric are not typical either; this sherd may derive from another source, possibly in the Lincoln area.

The only fabric with any diagnostic fragments that can be illustrated is Fabric 31. This fabric tends to be orange and rough to the touch with common quartz inclusions and some ironstone. Glaze ranges from green to brown. This includes both Nottingham Coarse Pink Sandy Ware and Nottingham Coarse Orange Sandy Ware. Forms include a cooking pot rim (41), as well as fragments of wide-rimmed bowls (42-44). Jug rim (45) and base (46-48) fragments are also present, and include splashes or runs of glaze and sectional thumbing on the basal angle. The plan view of 46 shows that the fingers have been periodically smeared down the outside of the body and base angle; it also reveals evidence that the vessel was stacked upside-down in the kiln since the scar of a rim can be seen, outlined in glaze which has run down the vessel and settled on the base beneath during firing. The rim fragment (45) may belong to the Nottingham W10 Splashed Ware tradition, which would place it slightly earlier than the rest of this group, c. late 12th/early 13th century. The group as a whole dates to the late 13th and 14th centuries.

#### UNIDENTIFIED SAXO-NORMAN AND MEDIEVAL FABRICS

A number of fabrics do not fit into the major kiln groups above, but should be mentioned since they indicate possible further supply areas for Newark.

Fabric 5, with only one vessel, and Fabric 12, with two, are both similar in fabric to Torksey/Thetford-type Wares. Fabric 5 has grey margins and a black core; these are body sherds only and there is no form to indicate dating. A tentative date of 900-1100 is suggested. Fabric 12 again has no diagnostic form or decoration; a slightly later date of c.1000-1200 is given for this fabric.

Fabric 11 is unglazed and has limestone and quartz in equal amounts in the matrix. The shell has to some extent leached out. This fabric may be related to a quartz/limestone tempered ware from Lincoln (LIM Ware<sup>33</sup>). There is no form or decoration for this ware and it may tentatively be dated to 1150-1300.

Fabrics 14 and 17 probably derive from the same source. They are sandy, similar to Nottingham wares in quartz inclusions, but neither in form nor fabric do they appear to come from this industry. They are more likely to be the products of the Lincoln Sandy Ware industry, represented by I Ware at Flaxengate, Lincoln<sup>34</sup>. Although no forms are present, decoration includes scales on the exterior body of a jug, which is paralleled at Flaxengate<sup>35</sup>. However, Flaxengate I Ware has buff slip on the exterior<sup>36</sup>, which is not apparent on the sherds found at Newark. So few vessels remain that it is impossible to be specific of provenance; a tentative date of c.1250-1400 is suggested on the basis of glaze and fabric.

One of the two vessels of Fabric 19 has a very worn exterior surface, so only a few spots of glaze are left; the other vessel is unglazed. The fabric is very smooth, and is unlike the sandy medieval fabrics that are known from Nottingham and Lincoln. No source is known for this ware; a date of 1250-1400 is possible.

#### LATE-MEDIEVAL AND POST-MEDIEVAL WARES

##### Introduction

The late-medieval and post-medieval wares are shown with date-ranges in Table 1. Certain fabrics have been grouped together under a particular type or source name (e.g. Midland Purple Ware), whilst others are distinctive and need to be listed separately. Vessel forms identified are shown in Table 3, where it is clear that the majority of vessels (72% by sherd count and by maximum number of vessels) are of unidentifiable form. Any detailed discussion of the majority of these wares would therefore be inappropriate. Some wares, however, possess unusual forms

Table 2: Maximum quantities of pottery of each form occurring in each of the major Saxo-Norman and medieval wares

Ware/Fabric	Vessel form	Weight grammes	No. sherds	Max. number of vessels
Torksey Ware	bowl	205	8	8
	cooking pot	135 (19)	8 (2)	8 (2)
	unidentified	586 (144)	69 (12)	61 (12)
Thetford-type Ware	unidentified	30	3	3
LKT	bowl	80	2	2
	cooking pot	80	4	4
	c. pot/bowl	(15)	(1)	(1)
	unidentified	383 (20)	21 (1)	20 (1)
Lincolnshire Shelly	cooking pot	90	2	2
	bowl	50	1	1
	unidentified	109 (5)	16 (1)	16 (1)
Stamford A	cooking pot	20	1	1
	unidentified	25	2	2
Stamford B/C	spouted pitcher	25	4	1
	unidentified	15	1	1
Stamford G	cooking pot	30	1	1
	unidentified	75 (5)	4 (1)	3 (1)
Nottm. Splashed Ware	jug	166 (85)	13 (5)	11 (5)
	unidentified	60	5	5
Nottm. Sandy Ware	jug	2249 (1217)	96 (30)	71 (21)
	bowl	100 (40)	2 (1)	1 (1)
	cooking pot	(10)	(1)	(1)
	unidentified	360 (55)	22 (4)	20 (4)

( ) indicates additional totals for uncertain identifications of fabric and/or forms.

or decoration, or add to our knowledge of their distribution in this area, and merit further mention.

#### *An unsourced late-medieval ware*

In the late-medieval period a further change in the source of pottery on the site is evident. Unfortunately, the pottery fabric has similarities with both the fabric D products of the Bourne, Lincolnshire kilns<sup>37</sup>, and the so-called Humber Wares; this latter term covers

a number of separate kiln sources that operated in the Humber region in the later medieval period. For the present the ware has been classified as "Unsourced Late Medieval Ware", and is characterised by a red/orange fabric with sparse but rounded quartz inclusions and occasional calcite fragments. The degree of tempering changes slightly within the fabric groups, but the pottery is distinguished also by the forms and the use of white slip under the glaze, again common to both Humber and Bourne Wares. Jugs are by far the most common form (Table 3) although one bowl and

strap handles (49, 50) or rod; the most complete jug fragment includes incised straight-line decoration on the shoulder, and the wall is pressed up into the base of the handle to fasten the latter to the vessel (51). Only two jug bases are illustrated, and show the range of forms from small, almost bottle shapes (52) to large, pedestal forms (53). Jug rim forms tend to be plain (54). One jug neck has a complex incised wavy line decoration, and incised straight lines above this (55). The only illustrated cooking pot rim in this group is glazed, and again quite simple in form (56). Both jug and cooking pot forms resemble those found at Stamford Castle in Bourne Ware<sup>38</sup>. The bowl rim has both slip and glaze on the interior (57). The overall impression of the forms present suggests a 15th or 16th century date for this ware. Fabric 32 is slightly coarser, and grey rather than orange in colour, and only one fragment is illustrated (58); it could be from a mug or jug form similar to those found in German stoneware fabrics, and again would indicate a 15th or 16th century date. It is more likely that the ware at Slaughter House Lane derives from the Bourne industry. However, the lack of a secure identification precludes the secure use of this ware for dating: some of it occurs at Slaughter House Lane in contexts with quantities of Nottingham Sandy Wares (of 13th or 14th-century date), and none of the otherwise common Midland Purple or Cistercian Wares (of 15th or 16th-century date), and therefore may also have been in use in the 14th century.

#### *Midland Purple Ware*

The earliest fabric group, late medieval in date (c. 1400-1550) is Midland Purple Ware. The name derives from the usual glaze and fabric colour (purple), although underfired examples of this ware are not uncommon and are pink/orange with brown rather than purple glaze. The fabric ranges from orange to purple, is rough to the touch, and contains quite large quartz inclusions. Glaze can be orange or purple. This ware is commonly found in the Midlands, and is known from Leicester<sup>39</sup>, as well as sites in Leicestershire, Nottinghamshire, and Newark itself<sup>40</sup>. Its presence in Newark, therefore, was to be expected. The majority of identifiable vessels are cisterns, a new form that appears to replace the cooking pot/storage

vessel form, and is used for storage. The most unusual form within this ware is a base, so thick that it needed to be stabbed with a knife presumably to prevent cracking during firing (59, fabric 33). This vessel has been shown on Table 3 as a possible crucible but there is no evidence that it was used under very high temperature. It may simply be an unusually thick jug base.

#### *Cistercian Ware*

Cistercian Ware is much finer; the fabric is red to purple, hard and very smooth with moderate, small quartz inclusions. Glaze is purple to black and usually covers both external and internal surfaces. The ware provides small jugs and mugs to the site; it has a date range of 1450-1600, slightly later than Midland Purple Ware but it was most likely used as table ware contemporaneously with it. The name, Cistercian Ware, is misleading as there are a number of production centres spread throughout the country, none of which was associated with Cistercian lands. Nevertheless, the term is now well-established to describe this fine earthenware, and is kept here. The vessel forms include single-handled cups, both narrow-rimmed (60) and tall-rimmed (62), and decoration includes a yellow applied clay pad with raised decoration (64), and applied yellow clay flower-shaped pads (65). The kiln source for this ware is unknown, but may well be local to the town. Forms and decoration are similar to those from Leicester<sup>41</sup>, and the form of the short-rimmed cup (61) can be paralleled from Newark itself<sup>42</sup>, although it is referred to as "Midland Black-glazed types". One possible source might be the Nottingham area.

#### *Midland Yellow Ware*

Another fine ware, of later date, is Midland Yellow Ware (1550-1700). The fabric is green with yellow glaze on the interior and exterior. The forms include a jar rim with incised decoration on the exterior (66), similar to several already found at Newark<sup>43</sup>, and a pipkin handle (67). The forms and decoration are familiar from both Leicester and Coventry<sup>44</sup>, but the exact source for this fabric is unknown. It is not very common from this site, and only two out of the seven

vessels are identifiable.

#### *Local Coarse Earthenwares*

The Local Coarse Earthenwares include pottery from the late 17th or 18th centuries up to the 19th and possibly early 20th centuries. They include fabrics which have similar inclusions to Midland Purple Ware, but which are more highly fired<sup>45</sup>, as well as later red earthenware with dark brown or black glaze on the interior and exterior. The majority of forms that can be identified are bowls, with jars, plates and cisterns included (Table 3). The most unusual forms are represented by base fragments only; their shape and decoration suggest that they are bases for candlesticks, but there is no evidence for the top parts of these objects (68, 69). The fine form would suggest a late-19th- or even 20th-century date.

#### *Other post-medieval wares*

The majority of vessels from the later wares shown

on Tables 1 and 3 are too fragmentary to identify - their presence is worth noting, however. One small cup or mug in "Marbled" or Agate Ware, is illustrated (70). Very little can be deduced from the remaining post-medieval wares from the site (Queen Anne Stoneware, Buff Earthenware, Tin-glazed Earthenware, Chesterfield/Derbyshire/Nottinghamshire-type Stoneware, White Stoneware, "Marbled" Ware and Pearlware) - nevertheless, fragments of most wares that might be expected from an urban site in this part of the country have been found. Unfortunately, no exact kiln sources are known for the post-medieval wares; most are probably local whilst a few derive from Stoke-on-Trent and associated large-scale industries.

#### UNDATED FABRIC

Fabric 57, with very large white inclusions, cannot be identified, and could date anywhere from Saxon to Post-medieval.

*Table 3: Maximum quantities of pottery of each form occurring in each of the major late/post-medieval wares*

Ware	Vessel form	Weight grammes	No. sherds	Max. no. of vessels
ULMW	jug	935 (760)	21 (16)	15 (6)
	bowl	200	3	1
	c. pot/jar	100	1	1
	unidentified	770 (80)	37 (4)	33(4)
Midland Purple Ware	bowl	335	6	6
	crucible	(450)	(1)	(1)
	cistern	3000 (100)	25 (2)	20 (2)
	jar/cistern	200	5	1
	jug	75	1	1
	unidentified	9050 (105)	215 (4)	179 (3)
Cistercian	bottle/can	20	1	1
	bowl	(60)	(3)	(2)
	cup	1592	55	46
	cup/jug	5	1	1
	jug	215	2	2
	posset	(10)	(1)	(1)
	unidentified	1699 (80)	106 (3)	96 (2)



Ware	Vessel form	Weight grammes	No. sherds	Max. no. of vessels
German Stone Ware	mug	220	5	4
	jug	25	1	1
	unidentified	35 (25)	3 (2)	3 (1)
Chesterfield/Derbys. /Notts. Stoneware	bowl	260 (20)	14 (1)	5 (1)
	jar	75	4	2
	mug	105	10	3
	unidentified	115 (30)	11 (1)	9 (1)
Local Coarse Earthenwares	bowl	1420 (50)	15 (2)	10 (1)
	cistern	260	2	1
	jar	700	3	1
	plate	(20)	(1)	(1)
	mug	100 (30)	4 (1)	1 (1)
	unidentified	2400 (145)	71 (5)	60 (5)

( ) indicates additional totals for uncertain identifications of fabric and/or forms.

## DISCUSSION

None of the wares present are unknown from previous excavations at Newark<sup>46</sup>, although shell-tempered wares have not previously been identified as the Lincoln kiln products, and Humber Ware types rather than Bourne type have been noted<sup>47</sup>. The majority of pottery found at Slaughter House Lane probably comes from industries operating fairly close to the town (Fig. 1B).

In the Saxo-Norman period, Newark is supplied by kilns operating at Torksey, Lincoln and Stamford, with a Thetford-type Ware that is quite possibly locally-produced. The most common source is Torksey, hardly surprising in view of its closeness to Newark (15 miles north, on the Trent). Stamford Ware is much less common (Table 2), with Lincoln-kiln-type Wares falling between the two.

From c. 1100 or 1150 onwards the position changes, with Nottingham becoming the major supplier, first with Splashed Ware, then with sandy glazed wares.

In the later medieval and post-medieval period it is difficult to be certain of trade patterns, since the majority of wares have a much wider distribution for their production centres, and occur over a much wider area than their medieval counterparts. The industry operating at Bourne may have supplied a considerable quantity of glazed sandy wares (Unsources Late medieval Ware), but the identification is not certain; this source is more likely than the Humber region, being closer to the site (Fig. 1B). The Midland Purple Ware and Cistercian Ware may well be derived from the same kilns that supplied Nottingham, whilst the later slipwares and stonewares are from further afield, most likely the Staffordshire industries such as those from Stoke-on-Trent.

Newark was supplied from all known industries immediately surrounding the town; for a given period, the differing amount of pottery from each source appears to be dependent on the distance between that source and the town. However, Nottingham was without doubt a major supplier for a considerable period.

While the products of the Stamford industry reach Newark, albeit in small quantities, no examples of the coarser Potters Marston ware, produced to the south of Leicester<sup>48</sup> have been identified. This ware does not seem to travel far from its kiln source, although it has been identified from sites in the far north of Leicestershire, near the border with Nottinghamshire<sup>49</sup>. However, it does indicate that links between Newark and Nottingham, Stamford and Lincoln were stronger than any with Leicester.

## CATALOGUE OF ILLUSTRATED POTTERY

Each entry consists of catalogue number (used on Figs. 11-13), context number, phase number, and description. U is unphased finds from cleaning. These have been chosen to illustrate the range of forms and decoration, rather than as a selection from significant contexts.

### *Torksey Wares*

1	0155a, VI	cooking pot rim; undecorated, sooted exterior.
2	0207a, IV	cooking pot rim; undecorated.
3	0066a, II	cooking pot rim; undecorated.
4	0247, III	cooking pot rim; undecorated.
5	0240, II	inturned bowl rim; undecorated (similar to 7).
6	0227, II	inturned bowl rim; diamond rouletted decoration on top of rim flange.
7	0247, III	inturned bowl rim; undecorated (similar to 5).
8	0202, U	straight-sided bowl rim; thumb- or finger-pressed exterior flange.
9	0247, III	straight-sided bowl rim; thumb or finger-pressed exterior rim flange.
10	0099, U	straight-sided bowl rim; undecorated.
11	0247, III	slightly-shouldered bowl rim; undecorated; sooted exterior.
12	0247, III	slightly-shouldered bowl rim; undecorated.
13	0065, III	slightly-shouldered bowl rim; thumb or finger-impressed exterior rim flange.
14	0215, IV	cooking-pot rim; undecorated.
15	0062a, II	cooking pot rim; undecorated; sooted exterior.
16	0058a, II	waster cooking pot rim fragment; undecorated; very badly twisted.
<i>Thetford-type Wares</i>		
17	0062a, II	straight-sided bowl rim; thumb or finger-pressed exterior rim flange; sooted exterior.
18	0247, III	cooking pot rim; undecorated.

### *LKT Wares*

19	0207a, IV	inturned bowl rim; undecorated; sooted on exterior and interior.
20	0056a, IV	inturned bowl rim; undecorated.
21	0250, U	cooking pot or storage vessel rim; undecorated; sooted interior and exterior.
22	0247, III	cooking pot rim; undecorated; sooted exterior.
23	0247, III	cooking pot rim; undecorated.
24	0150, V	cooking pot/bowl rim; undecorated; sooted exterior.

### *Lincolnshire Shelly Wares*

25	0139c, VI	wide-mouthed bowl rim; undecorated.
26	0199a, IV	cooking pot rim; undecorated.
27	0173, V	cooking pot rim; undecorated.

### *Stamford Wares*

28	0138, III	cooking pot/storage vessel rim; sooted exterior.
29	0099, U	cooking pot/storage vessel rim; sooted exterior.
30	0212, III	spout and rim from a spouted pitcher. (Stamford Form 5 type vessel); yellow glaze spots on body exterior.

### *Nottingham Splashed Wares*

31	0155a, VI	jug or bottle neck and rim; green-orange glaze on rim exterior.
32	0203a, IV	jug rim; orange-green glaze on rim top and exterior.
33	0022, IV	jug handle with slight thumbing down side ridges; splashed green-orange glaze on exterior.
34	0099, U	fragment of ?jug with applied clay arm: anthropomorphic decoration; splashed green glaze on exterior.

### *Nottingham Sandy Wares*

35	0099, U	jug rim, green glaze on top and exterior of rim.
36	0136a, IV	jug rim and top of handle; green glaze on exterior.
37	0181a, IV	jug strap handle with central groove and side ridges; green glaze on handle and body.
38	0136a, IV	jug base with spaced thumb or finger marks around basal angle; green glaze on exterior.
39	0136a, IV	jug body and handle; ridged handle; green glaze on exterior.

### *Nottingham Reduced Green Glazed Wares*

40	0099, U	body sherd from jug with rouletted applied clay strip on exterior; green glaze over.
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*Coarse Pink/Coarse Orange Sandy Wares*

- 41 0150, V cooking pot/storage jar rim; unglazed.  
 42 0150, V wide-rimmed bowl rim; possibly slashed on exterior of rim flange; brown-orange glaze on rim exterior; sooted exterior.  
 43 0022, IV wide-rimmed bowl rim; orange splashed glaze on interior and exterior.  
 44 0199a, IV wide-rimmed bowl rim; too fragmentary to identify body form; sooted exterior.  
 45 0056a, IV jug rim; possibly part of the Nottingham W10 Splashed Ware tradition; brown splashed glaze on exterior.  
 46 0254, U jug base; groups of four thumbings around basal angle; stacking evidence on underneath of base; green glaze on exterior base from stacking.  
 47 0150, V jug base; small jug or bottle; brown/green glaze on exterior.  
 48 0160a, VI jug base; baluster shape with built-out and grooved basal angle; green glaze on body exterior.

*Unsources Late Medieval Wares*

- 49 0162a, VI jug rim and strap handle with central groove; green glaze on body and handle exterior.  
 50 0099, U jug rim and handle; strap handle dowelled to body; green-brown glaze; clay of jug handle much coarser than body.  
 51 0254, U jug neck, shoulder and handle; multiple incised horizontal lines around shoulder; green glaze on exterior.  
 52 0099, U jug base; narrow, from a small jug or bottle; pronounced wheel marks; unglazed.  
 53 0207a, IV jug base; baluster; manufacturing marks on interior; green-brown glaze on exterior.  
 54 0155a, VI jug rim; no evidence of handle remaining; green glaze on rim exterior.  
 55 0150, V jug neck - incised wavy line on exterior with incised horizontal lines above; brown glaze on body exterior.  
 56 0099, U cooking pot/storage jar rim; stacking scar on rim; brown-orange glaze on rim top and interior from stacking?  
 57 0081a, IV bowl rim; white slip with brown-green glaze over on body exterior.  
 58 0058a, III body sherd of jug/mug similar to German Stoneware vessel forms; green glaze with yellow spots on body exterior.

*Midland Purple Wares*

- 59 0132a, VII jug (possibly crucible) base, stabbed from the exterior to the interior possibly to prevent cracking during firing; purple glaze on base exterior.

*Cistercian Wares*

- 60 0040a, VI short-rimmed cup with single handle; sharp demarcation between rim and body; purple glaze interior and exterior.  
 61 0142a, VI short-rimmed cup; cordon beneath rim; single handle; purple glaze on interior and exterior.  
 62 0139a, VI tall-rimmed cup; "bell" rim; single handle; purple glaze on interior and exterior.  
 63 0142a, VI tall, thin cup/jug form; tall bell-shaped rim, single handle; purple glaze on interior and exterior.  
 64 0126d, VI body sherd, vessel type unknown; applied white clay circular pad with raised dot decoration impressed on the pad; glaze shows yellow over pad, purple over rest of body.  
 65 0198a, VI cup shoulder and neck fragment; applied white clay decoration in the form of a four-petalled flower on body exterior; glaze shows yellow over white clay flower, purple-black over rest of body.

*Midland Yellow Wares*

- 66 0154a, VI jar rim and shoulder with incised horizontal lines on exterior; yellow glaze on interior and exterior.  
 67 0151a, VI pipkin handle; thumbled around handle where it joins body; yellow glaze on interior and exterior.  
 68 0013a possible candlestick base; black glaze on exterior.  
 69 0013a possible candlestick base; black glaze on exterior.

*"Marbled" Wares*

- 70 0142a, VI rim and base, probably from the same vessel with clay of various colours mixed to give a "marbled" appearance; brown glaze over both surfaces.

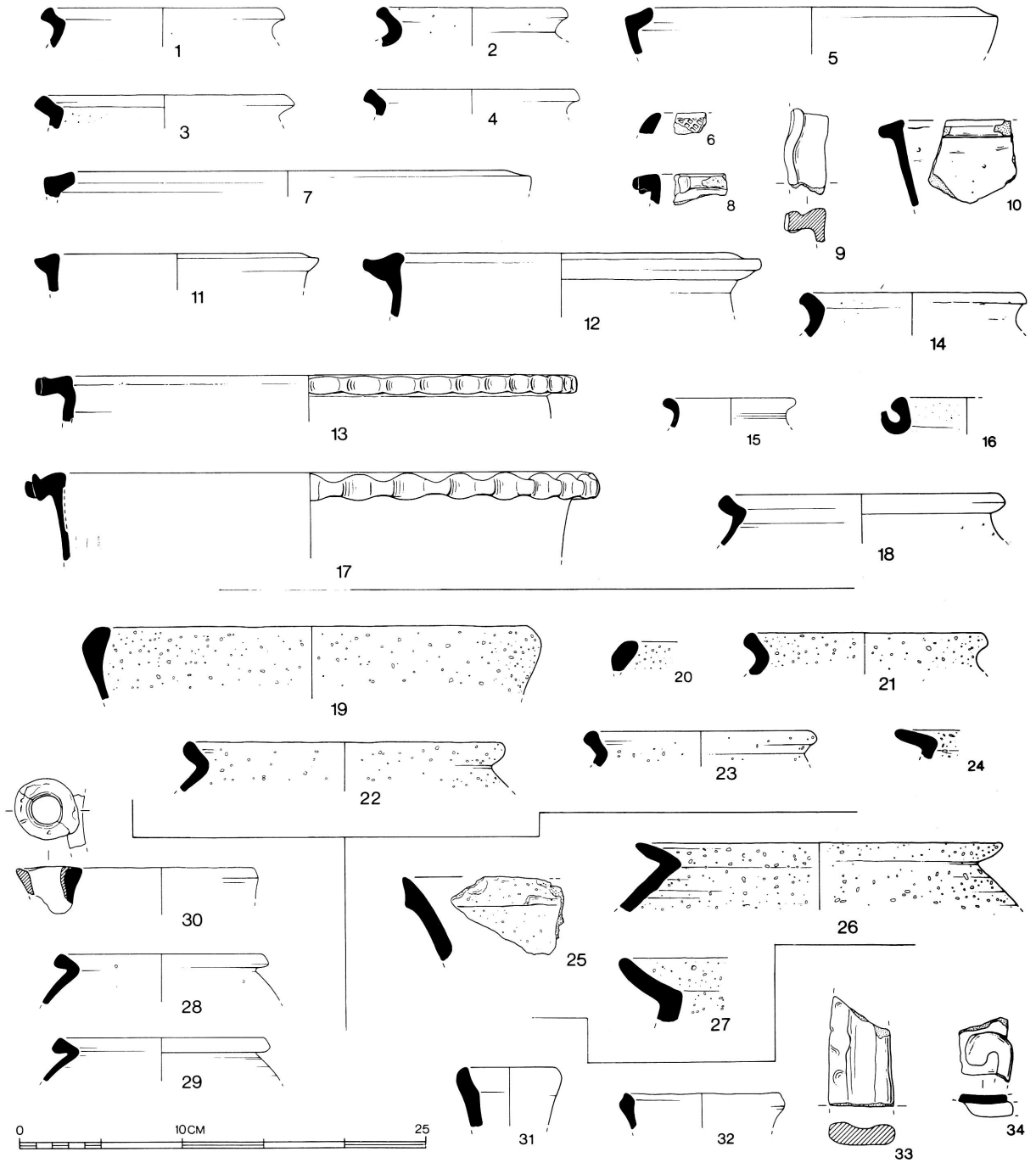


FIGURE 11: Slaughter House Lane: Pottery selected by type; solid sections are composite, hatched sections are based on a single section line.

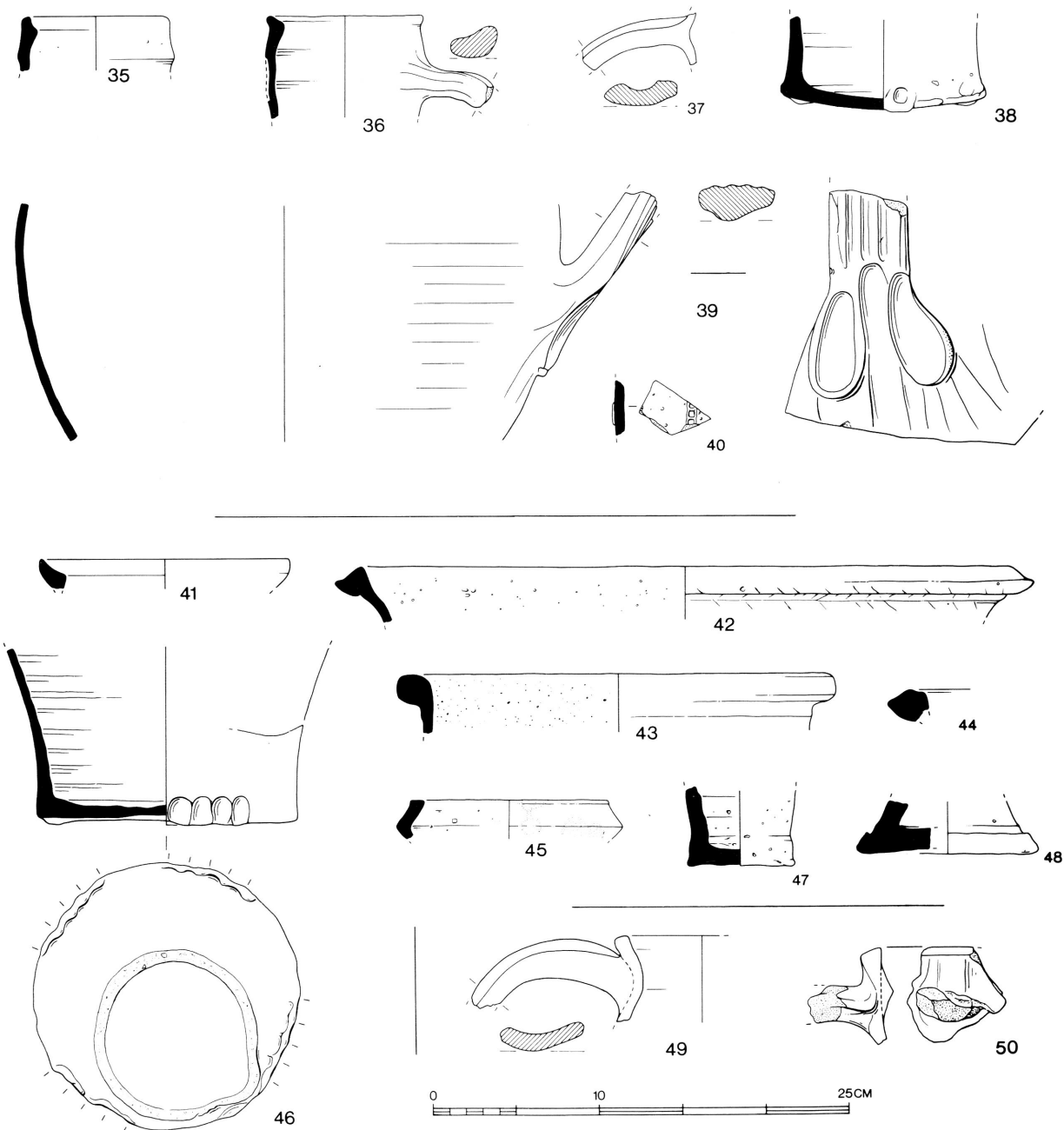


FIGURE 12: Slaughter House Lane: Pottery selected by type; solid sections are composite, hatched sections are based on a single section line.

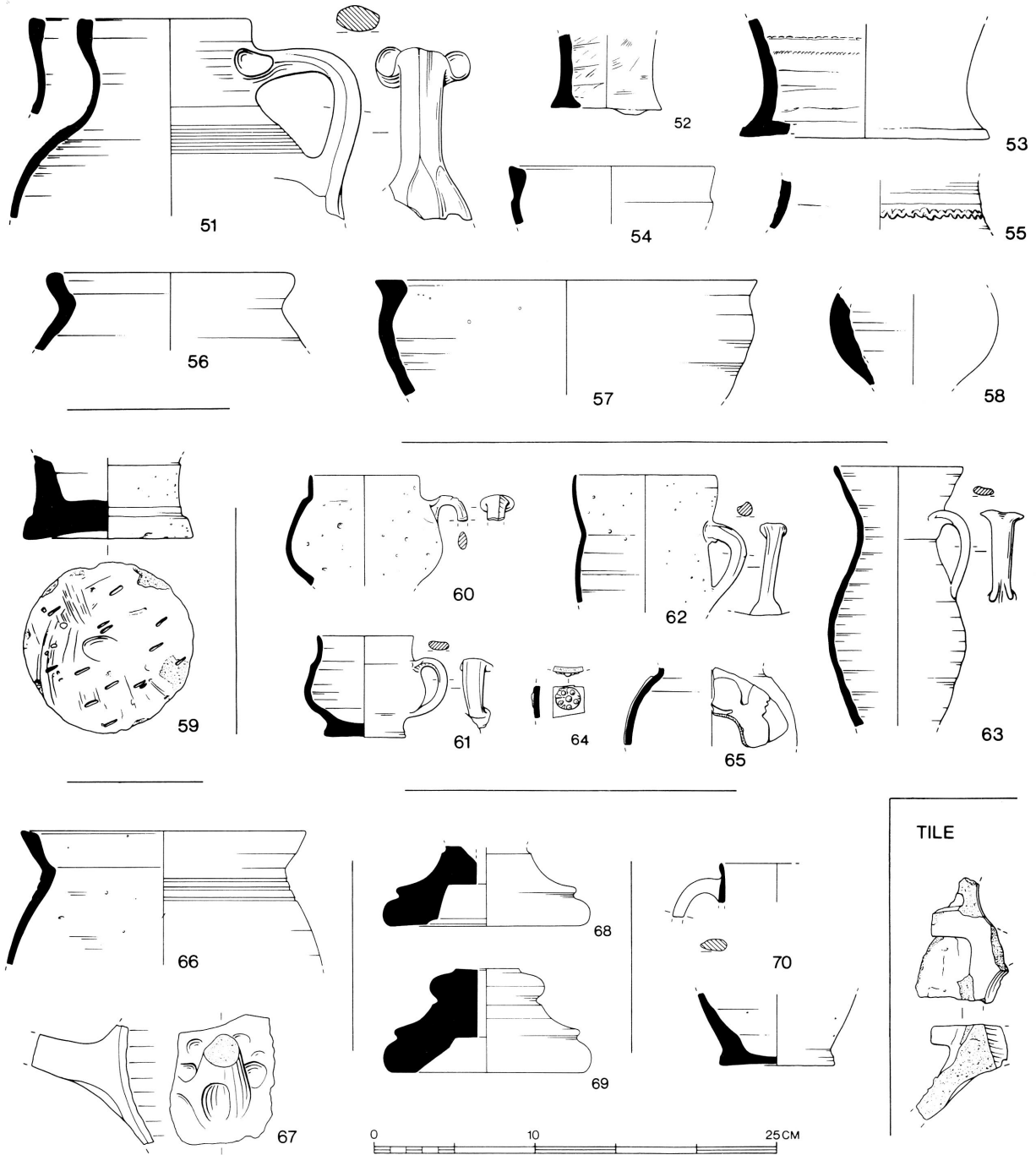


FIGURE 13: Slaughter House Lane: Pottery selected by type, and tile fragment; solid sections are composite, hatched sections are based on a single section line.

## OTHER ARTEFACTS

## METAL ARTEFACTS

by Vanessa Fell (Conservation & Scientific Analysis)

## Introduction

All metal artefacts have been radiographed to assist with identifications, and a selection has been subjected to further investigation (further radiography, selective cleaning to provide sections or other details, and X-ray fluorescence analysis where appropriate). Only those of significance from medieval or earlier contexts, or of special interest in their own right are catalogued and discussed below. A complete list of metal artefacts found in the excavations is given in the archive. Details of iron objects drawn in outline are taken from radiographs, with corrosion products represented by stipple-tone. Those areas drawn three-dimensionally, bounded by dotted lines have been cleaned down approximately to the level of their original surface. In the following catalogue the finds are listed by catalogue number followed by bracketed find code, context and phase numbers, and then description. U indicated finds from unphased cleaning levels.

*Catalogue of illustrated copper alloy artefacts (Fig. 14)*

- 1 (BBB, 0211, III). Curved strip of copper alloy decorated on one side with row of four dot-in-circle marks in between two continuous rows of crescent-shaped punch marks. Broken at both ends, length (incomplete) 22mm. Probably part of an early Anglo-Saxon annular brooch.
- 2 (BAC, 0099, U). Part of a copper alloy finger ring, comprising part of band, with decorative projection encircled in centre with band set flush with the surface into a groove. Length (incomplete) 24mm.
- 3 (BAF, 0099, U). Copper alloy annular brooch with plain band, tear-drop shaped in section, and flat pin looped round recessed join in band. Diameter 33mm.
- 4 (BAL, 0135a, VI). Copper alloy buckle loop in form of three crescents separated by projecting bars. Length 84mm.  
In addition, 0150 (BAU, phase V) produced a length of copper alloy rod, and 0210a (BBA, phase IV) a sheet fragment.

A further twenty copper alloy artefacts came from post-medieval or modern contexts.

*Catalogue of illustrated iron artefacts (Figs. 14 & 15)*

- 5 (CAE, 0203a, V). Object in form of rectangular plate with two projecting bars, the longer in form of hook. It is possible that the short projection is the stub of a second, broken-off hook. The object was coated with white metal; X-ray fluorescence analysis detected the presence of tin. Length (incomplete?) 29mm.
- 6 (CAD, 0177, V). Spoon bit. Shank rounded-square in section, flattened at the tip of the tang, which is bent. Cutting edges on both sides of blade, tip missing. Length (incomplete) 130mm.
- 7 (CAB, 0129c, VI). Rowel spur, with ends of both arms missing. Short shank with eight points to the rowel. Radiographs and cleaning indicated the possibility of a white metal coating to the shank and rowel, but X-ray fluorescence analysis failed to prove or disprove this. Length (incomplete) 89mm.
- 8 (CAF, 0203a, IV). Bar, slightly bent, and distorted by fissures and blisters from corrosion pressures; irregular in shape, tapering towards one end; rectangular in section. Length 74mm.
- 9 (CAG, 0207a, IV). Object in form of bent, square-sectioned bar tapering to a point, with expanded, flattened triangular head. Length 68mm.
- 10 (CAH, 0207a, IV). Tube, with break in side, apparently due to corrosion pressures. Diameter c. 33mm.
- 11 (CAJ, 0210a, IV). Object, Z-shaped with groove in outer edge of lower arms. Possibly part of a key or lock. Length (incomplete?) 37mm.
- 12 (CAK, 0216a, IV). Rectangular strip with rectangular cut-out in one end. Slight traces of possible white metal coating were found during cleaning, and X-ray fluorescence analysis indicated traces of tin. Radiographs indicate diagonal radiopaque markings: these possibly remains of coating preserved in preparation or wiping marks on the surface of the iron, rather than decoration. Length (incomplete?) 30mm.
- 13 (CAM, 0233a, II). Clamp with square-sectioned arms. Possibly intended for attaching to wood or letting into masonry, but no traces of lead or wood. Length 65mm.
- 14 (CAN, 0234, III). Part of horse shoe. Three nail holes visible, one containing nail. Maximum dimension (incomplete) 101mm.

A total of sixteen nails and six groups of metal fragments came from medieval or earlier contexts, and a further sixty three metal artefacts from post-medieval or modern contexts.

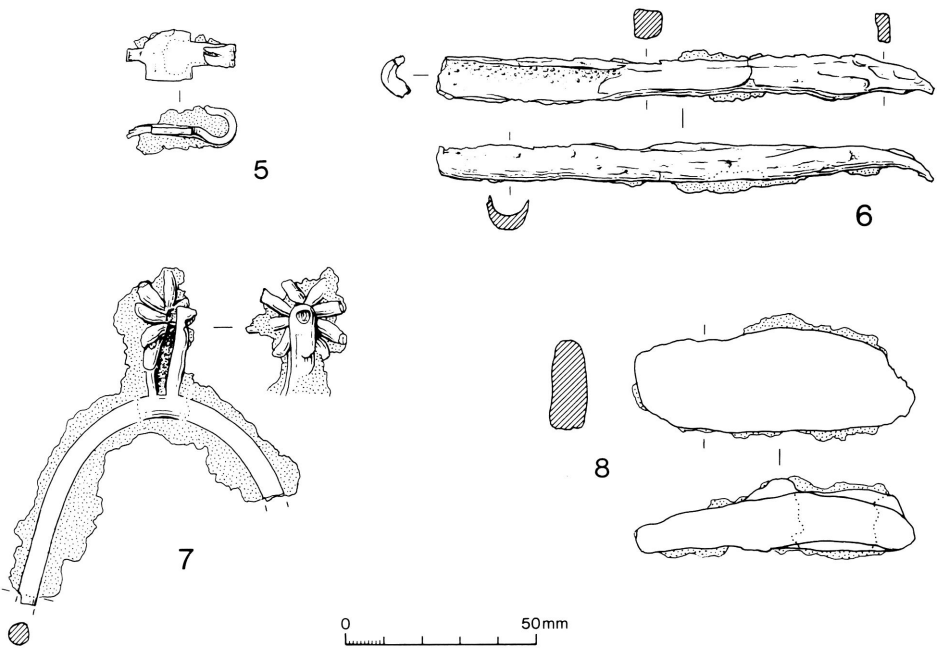
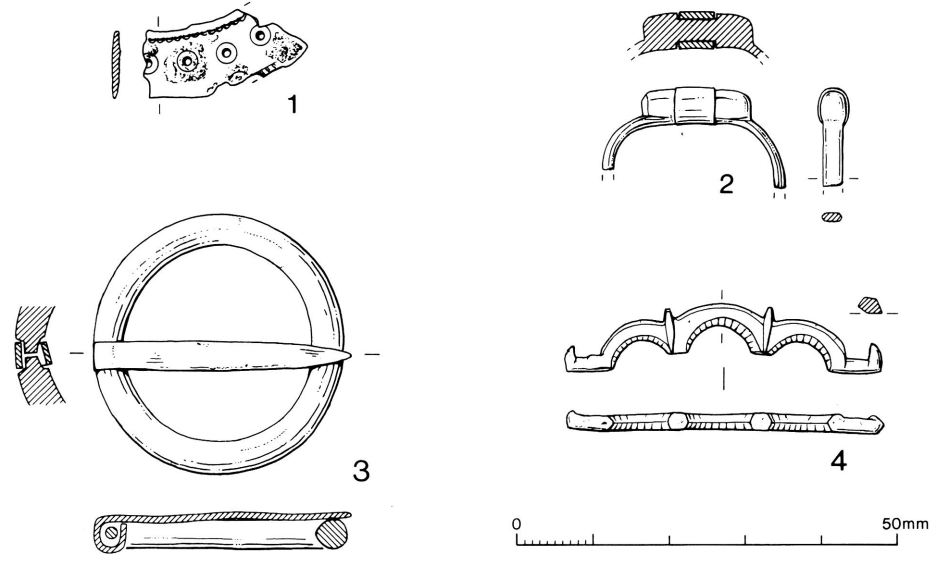


FIGURE 14: Slaughter House Lane: Selected copper alloy and iron artefacts.



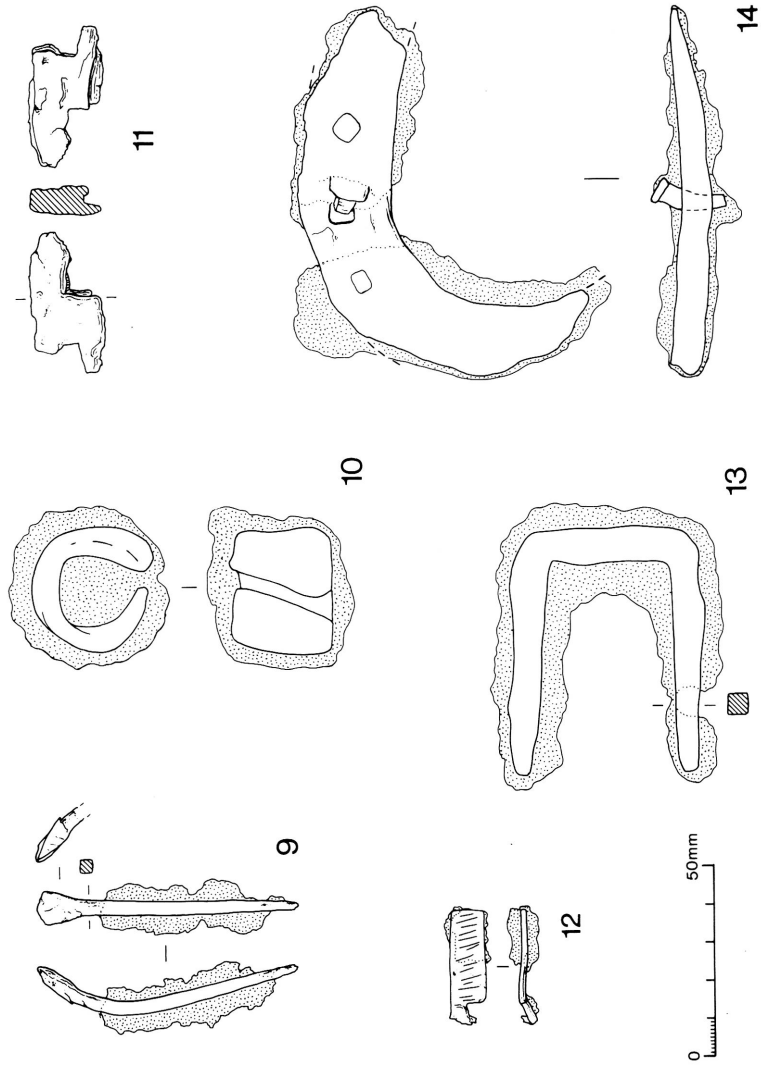


FIGURE 15: Slaughter House Lane: Selected iron artefacts

**SLAG***by A.G. Kinsley*

Twelve pieces of slag came from post-medieval contexts, three from medieval, and two pieces from the rampart (0190, phase II). These latter may have been from animal disturbance, and as the rampart contains a certain amount of residual Romano-British material, they might be any date from Romano-British to modern. This part of the rampart also produced some mortar fragments, and as neither category of find came from other sections of it, they must be regarded as possible intrusive material.

**MORTAR***by A. G. Kinsley*

A small number of mortar fragments came from medieval contexts; these were not related to structures and have not been analysed.

**STONE ROOF-TILE***by A.G. Kinsley*

Thin fragments of limestone without distinctive perforations, occurring in many contexts, may have been from roof-tiles. Five limestone fragments had drilled holes and are certainly parts of tiles; all came from post-medieval or later contexts.

**QUERNSTONE FRAGMENTS***by M.E. Wright*

Three fragments catalogued below were incorporated with other stones in the fabric of the phase II oven 0059, cut into the tail of the rampart, and this secondary use evidently explains the signs of heating on the stones. Although certainly part of an upper quernstone or millstone, it is unclear whether it is of Roman or Anglo-Saxon date. The flat grinding surface and apparent slight thickening towards the centre suggest the post-Roman period, while dove-tail recesses are quite commonly seen in millstones of the Roman period and have not yet been identified by the author in Anglo-Saxon querns examined in the region, though fewer have been available for compari-

son. If of Roman date, the quern(s) might have been taken from the Roman settlement in the Northgate area of the town, some 0.8km north-east of Slaughter House Lane.

*Catalogue of quernstones*

- 1 (AJP; not illustrated). A fragment from a quern or millstone in medium-grained, feldspathic millstone grit. The fragment is between 40 and 45mm in thickness, and of unknown diameter, as the apparent edge to the piece may not be original. The fragment derives from an upper stone and shows part of a dove-tail shaped recess passing through the thickness of the quern to carry either a rynd or a turning mechanism for the stone. The quernstone appears slightly thicker towards the centre than the edge. The grinding surface, which appears flat, shows smooth wear from use, but retains marks of careful, fine peck dressing, suggesting that it had been redressed not long before the stone's demise as a grinding implement. The opposite face, which may retain traces of its original peck dressing, has a very marked uneven polish all over, obtained before the stone was broken. This might have arisen from use as a whetstone. The stone shows slight signs of both darkening and reddening as a result of heat, though burning has not been sufficient to weaken the structure of the stone.
- 2 (AJQ & AJW; not illustrated). Two further probable quern or millstone fragments came from the fabric of the oven. One was formed of fine-grained sandstone (AJQ) and the other of fine to medium-grained feldspathic millstone grit with some white mica (AJW). Neither showed definite signs of working, and both were affected by heat.

**CERAMIC TILE***by A.G. Kinsley*

A total of 40.425kg of ceramic tile was recovered from the excavations. All pieces were fragmentary with the exception of one complete plain roof tile. Most are clearly from plain roof tiles, and no certain examples of floor tiles are present. Two ridge tiles are catalogued below. Proportions of total weight of ceramic roof tile from the site were as follows:

5.8%	phase IV, from around the stone building in 01
6.3%	phase IV, the stone wall, kiln and timber structure in 02
12.7%	phase V, the levelling layer in 02
43.7%	phase VI, pre-1790 pits and cellars in 02

31.5% phase VII & VIII, from the post-medieval and later layers in all areas.

Phase VI, containing numerous pits, probably contains the largest volume of excavated deposits, and also produced 44.2% of the pottery by weight, as well as the greatest quantity of tile. The results show that tile was used for roofing in the town in the medieval period, but cannot be directly related to specific structures on the site.

#### *Catalogue of ridge tiles*

- 1 (AJI, 0199b, IV; Fig. 13). Part of one end with lower edges broken off. Upright crest with broken top, set longitudinally. Olive green glaze in patches on upper surfaces, much of the surface has flaked off. Length (incomplete) 91mm.
- 2 (AJJ, 0153a, V; not illustrated). Part of centre of ridge, broken at both ends and edges. One crest set transversely, mostly broken off leaving scar. Olive green glaze over most of original upper surface. Length (incomplete) 100mm.

## ENVIRONMENTAL REMAINS

### ANIMAL BONES

A full report by Mark Beech is in archive. The following is a summary by the principal author.

#### Introduction

The collection of animal bones during the excavations was limited to those seen during excavation of each deposit; the lack of sieving will have resulted in the exclusion from the record of many of the smaller animals. The collection of bones might be expected to answer the following questions:

(a) what species were represented within each of the site phases?, (b) do the bones give any information as to the method of butchery practices, and does bone working appear to be taking place? and (c) is this collection of animal bones typical/atypical of sites of this type?

#### Results

Firstly, concerning the general taphonomy of the assemblage, a few of the bones showed traces of apparent carnivore damage, i.e. canine puncture marks and pitting marks from gnawing. Presumably dogs were responsible for such action upon the bones, suggesting that burial of some of the material may have not been all that rapid, the material lying around on the surface for a while. Secondly, a few bone fragments showed traces of burning, indicating perhaps that at least some of the bones represented domestic food waste.

Table 4 details the presence of the species within each of the phases of the site.

Cattle were common throughout all the phases of the site (Table 4). The cattle, judging from the general size of the bones, do not appear to have been very large animals. The presence of quite young cattle is notable. Eight unfused cattle bones were identified from the Late-Saxon and medieval periods. This may perhaps suggest a hint of either veal or milk production with relatively young calves being slaughtered.

Quite a few bones could be definitely identified as sheep, whereas goat could not be identified with certainty. The sheep were medium-sized animals. During the medieval period both horned and hornless sheep were represented.

Pig was not as common as the other major domestic species. The two pig mandibles present (the only aged mandibles in all the assemblage) suggested that both pigs probably were killed during or soon after their second year.

The few cut and chop marks that were observed on the bones all appear to suggest basic primary dismemberment and portioning of the carcass. A horse scapula had a series of small cut marks running diagonally across its spinus. Such cuts would appear to suggest that horse meat may have occasionally been exploited as a resource. There is evidence for the use of cat skin during the post-Medieval phase of the site.

Table 4: Total number of hand-collected diagnostic bone fragments identified for each species by phases (figures in brackets indicate percentages).

	Phase I (Roman- mid Saxon)	Phase II/ III (Saxo- Norman)	Phase IV/V (Medieval)
Horse ( <i>Equus</i> sp. domestic)	-	1 (2)	5 (4)
Cattle ( <i>Bos</i> sp. domestic)	8 (100)	21 (45)	52 (37)
Sheep ( <i>Ovis</i> sp. domestic)	-	5 (11)	22 (16)
Sheep/Goat ( <i>Ovis</i> sp. domestic/ <i>Capra</i> sp. domestic)	-	8 (17)	26 (19)
Pig ( <i>Sus</i> sp. domestic)	-	7 (15)	22 (16)
Dog ( <i>Canis</i> sp. domestic)	-	3 (6)	6 (4)
Cat ( <i>Felis</i> sp. ?domestic)	-	1 (2)	4 (3)
Common Toad ( <i>Bufo bufo</i> L.)	-	1 (2)	2 (1)
<i>Identified to size category only:</i>			
La (Large artiodactyl)	-	16	49
Ma (Medium artiodactyl)	-	3	2
Sa (Small artiodactyl)	-	8	19
Unidentifiable	9	19	82
TOTAL	17	93	291

There is sparse evidence for bone and horn working on the site, although undoubtedly bone would have been an important resource. A cattle metatarsal had signs of having been chopped into its lateral midshaft (metapodials were commonly used to provide 'blanks' for bone working); and a cattle horncore had been chopped into its base, indicating horn removal.

The collection of bone material is small and prevents useful broad comparisons with other sites in the area. This assemblage is probably fairly typical of bone collections from small Saxon and medieval towns.

## THE BIRD BONES

A full report by Dr. Sheila Sutherland and Mark Beech is in archive. The following is a summary by the principal author.

### Introduction

A total of 62 bird bones representing 2 species were recovered from the site: all but 12 of which were from 016a, phase VI.

All the bird bones were identified by Dr. Sheila Sutherland using her personal comparative reference collection. A summary of the quantification of the bird bones is presented in Table 5.

### Results

Only two bird bones came from the Saxo-Norman levels of the site. These were a goose (*Anser/Branta* sp(p); 0230, phase II), and a domestic fowl (*Gallus* sp. domestic, 0247, phase III). Goose and domestic fowl were also only present in small quantities during the medieval period. It was possible to identify one almost complete coracoid to domestic/greylag goose (*Anser anser* L.).

The majority of the bird bones from the site came from the post-medieval levels. Nearly all of the bird bones belonged to domestic fowl. Remains of two adult and one juvenile birds were found in 0161a, phase VI, the fill of a small rectangular pit also containing much limestone including some stone roof-tile fragments. Some of the bones had apparently been cooked. The absence of smaller birds may perhaps be a result of the method of collection of the material (i.e. lack of sieving etc.). The predominance of domestic fowl in this collection is not unusual.

Table 5: Number of hand-collected fragments of bird bone (figures in brackets indicate the minimum number of individuals).

	Phase II/III Late-Saxon	Phase IV/V Medieval	Phase VI-VIII Post-Medieval
Goose sp. (p). <i>Anser/Branta</i> sp (p).	1 (1)	4 (3)	1 (1)
Domestic/greylag goose <i>Anser anser</i> L.	-	1 (1)	-
Domestic Fowl <i>Gallus</i> sp. domestic	1 (1)	4 (1)	49 (5)
Unidentifiable	-	1 (1)	-
TOTAL	2	10	50

## ENVIRONMENTAL SAMPLES: ANALYSIS

by James Grieg

### Introduction

The material contained some pollen and seeds which showed that there was probably a buried land surface under the rampart, and scatters of plant material throughout the deposit as a whole, but the remains were not abundant enough for a very detailed analysis.

### Pollen samples

Two column samples for pollen formed sections through the buried ground surface beneath the rampart. Sample 009 (Fig. 8, SL12) consisted of 28cm of 0190, rampart material consisting of marl and sand, above 35cm of sand 0222, the buried soil, resting on natural Mudstone. Sample 010 (Fig. 8, SL11) consisted of a top 36cm of 0227, rampart material consisting of marl and sand with many vertical holes with small stones and charcoal in them, possibly worm burrows; below was 39cm of sand (0229), the buried soil; resting on natural mudstone. A context 0228 consisting of a 2cm thick layer of sand was distinguished during excavation at the interface between 0228 and 0229, but was not traceable in the column sample.

Three sub-samples were prepared from sample 010, from depths of 25, 50 and 75cm (sample 007, Fig. 8, SL11). The 25cm (rampart, 11cm above the buried soil surface) and 75cm (lower buried soil) sub-

samples contained scarcely any pollen apart from a few battered Liguliflorae (a group including dandelions and other yellow-flowered composites), which usually persist because they are the thickest-walled pollen grains. The 50cm sample (14cm below the buried soil surface) had a more varied flora (although again dominated by Liguliflorae). There were also some cereal pollen grains, a *Centaurea cyanus* (cornflower), Cruciferae, Umbelliferae, Ranunculus and Gramineae. The only trees present were *Betula* (birch) and *Alnus* (alder). This spectrum corresponds somewhat with the picture obtained from the charred remains, which also contained mainly cereals and cornfield weed remains. The larger amount of pollen at this level may be because the material was part of the old soil surface, or associated pollen-rich layers.

### Macrofossils

Samples were also taken for macrofossils from thirteen contexts of late-Saxon and medieval date. The samples consisted of silty and sandy material which broke down easily in water; 1 litre was measured out by water displacement in a 2-litre beaker, and the organic material including charred remains washed out into a sieve. The mainly inorganic residue was dried and washed over again to check whether anything more would separate, but it appeared that the original washover was adequate. Almost all of the remains were charred. The results are given in Table 6. There were rather few plant remains in the samples examined, fewer than 10 per litre of sediment, mostly charred seeds with quantities of charcoal. 0247, phase III, from the deposits at the rampart tail, had the richest flora, consisting of rather badly-preserved

charred grain and cornfield weeds, and a sloe stone fragment. There were also some uncharred seeds. The floras of the other samples were essentially similar, with grain, weeds and a few other things. Such material seems to have been charred by rapid heating judging by the puffed appearance, so the remains seem to have come from fire ash, whether domestic or otherwise. The most frequently-identified cereal, *Hordeum* (barley) may represent fodder rather than food for humans. The uncharred seeds of violet and elder might be contemporary with the charred remains, or they could have fallen down from above through cracks and wormholes in the soil.

#### CHARCOAL SAMPLES FROM THE OVEN FLOOR 0060

by J. Wells

Four samples of charcoal taken from the phase II

oven floor 0060 (nos. 25-28), were identified as hazel (*Corylus avellana*), hazel/alder (*Corylus/Alnus* sp.), and poplar (*Populus* sp.)/Willow (*Salix* sp.).

The diameter of the material, measuring consistently 10mm in each of the samples examined, is indicative of a deliberate policy of wood selection, determined on the grounds of size and age, and suggests management by coppicing. All of the samples identified were of similar age, each possessing six to seven rings.

The samples therefore suggest the collection of particular species of brushwood material, selected for their kindling/burning properties, and good response to coppicing.

The worm-eaten nature of sample no. 28 is indicative of the wood being dead prior to usage. Details of wood type in each sample are given in the archive.

Table 6: Plant species from Slaughter House Lane

context nos:	0150	0153d	0227	0229	0247
<i>Viola</i> sp.	-	-	-	1	-
<i>Chenopodium</i> sp.	?	-	?	-	-
Leguminosae half	1	-	-	-	1*
<i>Prunus</i> fruitstone	-	-	-	-	1*
<i>Rumex acetosella</i> L.	-	-	-	-	1
<i>Urtica dioica</i> L.	-	-	-	-	1
<i>Corylus avellana</i> L.	1	-	-	-	-
<i>Sambucus nigra</i> L.	-	-	?	-	13
<i>Anthemis cotula</i> L.	-	-	?	-	3*
<i>Bromus</i> sp.	-	-	-	-	2*
<i>Poa/Agrostis</i>	-	-	-	-	1*
long grass/small cereal	2	-	-	-	-
<i>Triticum</i> sp.	-	-	-	-	6*
<i>Avena</i> sp.	-	-	-	-	2*
<i>Hordeum</i> sp.	2*	-	+	-	-
Cerealia n.f.i.	1*	-	3*	-	13*
charcoal	++	++	-	-	++

\* indicates charred. 0150, 0153d, phase V, levelling layer and fill of kiln; 0227, phase II, rampart material; 0229, phase I, pre-rampart soil; 0247, phase III, soil at rampart tail.

++ indicates present

## DISCUSSION: EXCAVATION RESULTS IN RELATION TO THE ARCHAEOLOGY OF NEWARK

### ROMANO-BRITISH PERIOD

A settlement of Romano-British date, known from a small-scale excavation<sup>50</sup> and 19th-century chance finds<sup>51</sup>, is located in the North Gate area of the town, adjacent to the Fosse Way. Finds include building remains, a kiln, and burials, and suggest that occupation was continuous from the 1st to 4th centuries. Little is known of the extent or character of the settlement. At Slaughter House Lane, the presence of Romano-British pottery in the soil beneath the rampart, and re-used Romano-British quernstones in the oven reflect the proximity of the North Gate settlement, but do not indicate that occupation extends as far south as the site.

### EARLY TO MID-ANGLO-SAXON PERIOD

A pagan Anglo-Saxon cemetery lies adjacent to Mill Gate (the Roman Fosse Way), north-east of the junction with Victoria Street (Fig. 1C). The site was excavated by the late M.J. Dean and others between 1958 and 1978, and a full report has now been published<sup>52</sup>. Over 400 burials and disturbed finds were recorded in a roughly semi-circular area on the south side of the road, placing it among the larger collections from early Anglo-Saxon cemeteries in the country. The cemetery was used from the 5th to 7th centuries, and its proximity to the Roman road suggests that the route was still of some importance when the site was chosen for burial.

A plain bowl was reputedly found while re-laying cobbles in the market place<sup>53</sup>, and indicates early or mid-Saxon activity. At Slaughter House Lane, early Anglo-Saxon pottery from the buried soil beneath the rampart, and the annular brooch from a later context, suggest that a site of the period lay nearby. Its nature is uncertain, but no human bones were recovered from the buried soil (see Table 4), and such finds probably relate to a settlement rather than a cemetery.

The even distribution of pottery through the buried soil and the absence of a pebble line suggest that the deposit had been cultivated prior to sealing by the rampart. However, the pollen concentrated close to its surface must have been preserved in anaerobic conditions, and therefore must relate to the prevailing environment immediately before the construction of the rampart at this point. It tends to confirm that the layer is indeed the pre-rampart ground surface. The slight emphasis on cereals in both the pollen and macrofossil assemblages, and the scarcity of tree pollen suggests a cleared environment dominated by arable land. The scarcity of charred remains from 0229 may result from the suspected cultivation, causing the complete breakdown of any charred material that may have been present.

### LATE-SAXON AND MEDIEVAL PERIODS

#### *Historical outline*

Despite considerable contemporary documentation of the Anglo-Danish wars of the 10th century, no written evidence survives for the foundation of the Anglo-Saxon *burh* at Newark. Although Newark appears in a supposedly pre-conquest charter, recording a grant of lands by Godiva to St. Mary's Stow, this is thought to be spurious<sup>54</sup>, and the name is first reliably recorded in Domesday Book in 1086. The name "Newark" ("new work [fortified site]")<sup>55</sup>, and the presence of Domesday burgesses indicate a defended urban centre established before 1086, and the probable striking of coins in the town from the middle of the 10th century<sup>56</sup> suggests that its origin lay in a burghal foundation of, or before that date. It may have been constructed as part of the Anglo-Saxon conquest of the Danelaw, perhaps to consolidate the territorial gains made when the submission of all the people settled in Mercia was received by Edward in 918<sup>57</sup>. The site derives its strategic importance from its location dominating both the Fosse Way and the

river Trent: the furthest east point where this is possible. There is no evidence for a bridge before the 1130s, and the main north-south crossing of the Trent in Anglo-Saxon times appears to have been at Nottingham: a bridge was constructed in 924<sup>58</sup>, and the road to York at Nottingham, along with the Trent and the Fosse Way received special protection against obstruction<sup>59</sup>. Nottingham's resulting superior strategic importance at the time of the Norman conquest was reflected in the siting there of the royal castle in 1067/8.

Following the Norman Conquest the manor of Newark passed to Remigius, Bishop of Lincoln. In the early 12th century the town was extensively developed by one of his successors, Bishop Alexander (1123-1148). Three charters of the 1130s record the grants by Henry I of permission to build the first castle, and to divert the King's highway (Castle Gate), to build a bridge over the Trent, and to establish a five-day fair "at the castle"<sup>60</sup>. Alexander founded the hospital of St. Leonard at this time<sup>61</sup>. In 1218 the castle was briefly besieged by supporters of King Henry III, while held by Robert de Gaugy, a supporter of the recently-deceased King John. A major rebuild was carried out at the castle in the early 14th century, including the refacing of the present curtain wall. In 1547 the manor passed from the bishops of Lincoln to Edward VI, and remained in royal possession to the Civil War.

From the above, likely historical contexts for the creation or modification of the town defences might therefore be expected in the early 10th century, the early 12th, and the early 14th, although the possibility of undocumented work at other times must be considered.

#### *Documentary evidence for the town defences*

Known from documentary sources and excavations, the medieval town defences enclosed a roughly-square area defined by Slaughter House Lane, Appleton Gate, Carter Gate, Lombard Street and the river frontage including the castle (Fig. 2). This circuit was of some age by 1231, as a survey of 1225-31 shows that the rents and tolls were separately

administered for the area within the defences (the "Old Borough"), and the extensive suburbs along all the roads approaching the town from the north, east and south (the "New Borough")<sup>62</sup>. In particular, the name *Potterdyke*, now Lombard Street, first recorded 1331<sup>63</sup>, indicates the course of the southern defences, while *le Brigg*, now Bridge Street, first recorded 1499<sup>64</sup>, locates the causeway or bridge over the ditch on the east side. In addition, continuous property boundaries, of which the earliest surviving record is that of the map of 1790<sup>65</sup>, plausibly appear to preserve some element of the defences on the present Slaughter House Lane and Lombard Street frontages, and the backs of properties fronting Carter Gate from the churchyard to the junction with Lombard Street, and also immediately to the north of Mount Lane. In addition, the continuous Slaughter House Lane frontage boundaries can be traced west of Bar Gate, round to the east side of Town Wharf (Fig. 3). The plan of the Civil War town defences in Newark Museum<sup>66</sup> shows what may well be a fragment of the medieval town wall on this line running across Beast Market Hill to join the Civil War fortification north-west of Bar Gate. This line was perpetuated in a property boundary first mapped in 1790 (Fig. 3). No gate leading directly onto Trent Bridge is indicated. A stone wall may be intended in the term *murus*, used in a deed of 1368 describing a property lying immediately north of the wall and the north gate, and east of North Gate<sup>67</sup>. The property must have lain over the ditch, which had therefore already been filled in at this point.

Elsewhere, building over the ditch is recorded earlier: the survey of 1225-31 refers to unlocated property in the "town ditch"<sup>68</sup>. A deed of 1341, referring to property between *Carter Gate* and *The Burghdyke* suggests that the ditch there was still open then, enough of a feature to define a property boundary<sup>69</sup>.

The first surviving written record of the north gate of the town was in the reign of Henry II (1154-89)<sup>70</sup>. An engraving published in 1816<sup>71</sup> shows a ruined stone wall with arch, demolished in 1762, identified as the north gate. Constructional details of the arch (formed of two concentric courses of radially-set thin



slabs separated by a thin course of roughly square blocks, with an apparent offset in the wall at the base of the arch) suggest Anglo-Saxon, or very early Norman work. The engraving is without scale, and clearly somewhat romanticised, but the possibility cannot be ruled out that this building was an Anglo-Saxon church, or less likely, in view of the tall, narrow arched doorway, a gatehouse. It stood in the vicinity of Bar Gate, where the north gate of the town would have been located. A second stone ruin stood "in the middle of" Bridge Street, on the east side of the defences, until demolished in 1784<sup>72</sup>; the gate is illustrated by Dickinson<sup>73</sup>, again somewhat romanticised and without scale, but the proportions and location "in the middle of the street" suggest that it was the principal arch of a medieval gateway, partly demolished before the drawings were made. The south gate, whose first surviving record is c. 1275<sup>74</sup>, stood at the junction of Castle Gate and Mill Gate<sup>75</sup>. No illustration survives.

#### *Previous excavations on the town defences*

Three elements forming the town defences have been identified from excavation in the town: a rampart, a stone wall and a ditch. The ditch has been excavated only on the north side of the town. At Slaughter House Lane in 1961 Barley excavated the inner half of the ditch, which was V-shaped in section, 3m deep, and with an estimated total width of 10m<sup>76</sup>. Natural silts in the bottom contained 13th century pottery, and were overlain by large quantities of redeposited natural mudstone containing pottery ranging in date from the 12th to mid-14th century. An unexcavated stone wall, formed of alternate thick and thin courses of Lias limestone, stood at the base of a later brick wall on the same line, some 6m back from the inner edge of the ditch. Two pits had been dug into this berm, one containing pottery of 12th and 13th century date. There was no evidence for the date of construction of the ditch; however Barley suggested that it may initially have been regularly cleaned out, but began to fill up naturally by the 13th century, and this process was deliberately completed, probably by throwing most of the rampart into the ditch, around the mid-14th century. It was perhaps at this time that the stone wall was built along the line of the front face

of the rampart. The course of the ditch further east was confirmed by observations made in building work in 1988 (excavation area 03, see above). Excavations at Mount Lane<sup>77</sup> revealed the ditch at the north-east corner of the town; its depth below the modern ground surface was 2.7m. It was filled initially with virtually clean mudstone to a thickness of 0.8m, which produced a few scraps of late medieval pottery; this was followed by mudstone interleaved with bands of ash and darker soil, containing a little pottery no earlier than the late 17th or early 18th centuries.

Further excavations by Todd at Castle Gate<sup>78</sup>, Lombard Street<sup>79</sup> and Old White Hart Yard<sup>80</sup> revealed elements of the rampart and wall of the southern and eastern defences. At Lombard Street, two immediately-adjacent trenches were excavated, one in 1972, the other in 1976. In the former, a section of only 2.5m length was exposed due to later disturbance. The stone wall stood three courses, 0.86m high, with the front face beyond the limits of excavation. The core and rear face exposed over a 2.25m length, formed of roughly-cut blocks of Lias limestone set in grey-brown clay, with a core of smaller lumps in similar clay; the thickness within the excavation was 0.4m. Behind the wall lay a 1.85m-thick series of gravel layers sloping down to the north (the interior), which produced three potsherds, two dated to c. 1200-1225. These layers were interpreted as the rampart, with the wall built upon its crest. The published section<sup>81</sup> implies that there was no excavation beneath the wall. In the 1976 trench a 4m-long section was exposed, with similar results. The rear face and core of the stone wall were of Lias limestone blocks set in clay, standing to two courses; layers interpreted as the rampart stood to a height of 2.32m, and consisted of horizontal bands of sand and gravel, with an overlying layer on a 45° slope at the rear. It produced no pottery, but from the series of layers dumped and accumulated over the tail produced substantial quantities of pottery of the first half of the 13th century. At the Old White Hart Yard the wall stood to a height of 1.3m in ten courses, composed of large Lias limestone blocks 0.25-0.35m long by 0.12-0.16m wide, set in light brown puddled clay. Above the two lowest courses lay a course of narrower blocks 0.09-0.1m

wide. The front face was smoothly dressed, while the rear was very rough. Behind the wall a deposit of bright yellow sand 0.10-0.18m thick (apparently a pre-rampart deposit) was overlain by brown sandy gravel 0.22-0.30m thick, itself overlain by light brown sandy clay and gravel with flecks of coal and charcoal. This was much disturbed by later intrusions, but the maximum thickness was 0.16m. Dateable material from the body of the bank comprised residual Roman pottery and several scraps of Nottingham Splashed Ware. A broad patch of gravel lay over the bank in the centre of the cutting, which produced a large part of a late-13th century jug, and the bank was cut by a large pit containing 14th century pottery. At Castle Gate, Todd excavated a bank at least 3.75m wide, formed of sand and gravel, and contained 21 sherds of possibly pre-Conquest pottery, but also eight glazed sherds no earlier than the 12th century. Lying south-west of the bank (outside), the ditch was flat-bottomed, dug no earlier than the 12th century, and filled in by the end of the 17th century. It was thought more likely to be an artificial water course than a defensive feature.

Fundamental doubts exist over the interpretations offered in these excavations, due to their small scale. From the published evidence the Lombard Street wall could equally have been dug into the front face of the rampart, as the foundations were apparently not exposed. Equally, the "rampart" appears in one trench as sloping layers, in the other as horizontally banded, and as these two trenches were immediately adjacent at least one interpretation must be wrong. The bank observed at Castle Gate could equally well be terracing or dumping as the site lies on a very steep slope down to the river. In the Old White Hart Yard, the wall's rough rear face would be consistent with a construction method involving the cutting back of the bank to a vertical face, and the building of the wall against it as a revetment; this need not leave a clear foundation cut. Equally, it is not clear whether the old ground surface was preserved at any point. The dating evidence at Castle Gate and Lombard Street becomes insecure once the identification of the rampart is doubted, and at Old White Hart Yard the evidence for the identification of the rampart is not given, and only a few scraps of Nottingham Splashed

Ware came from it. Excavations on a larger scale are needed to provide secure identifications and dating for the sequence of defences on the south side. Excavations at Bell's Yard, by Dr. J. Samuels in 1984, revealed a rectilinear stone structure and an adjacent stone wall on a terrace cut into the steep slope to the river on the line of the castle ditch, immediately south of the existing south-west tower of the castle<sup>82</sup>. The structure was demolished in the medieval period and may have been related to the castle, perhaps a water gate leading to the river, or part of riverside defences of the town.

A watching-brief by Trent & Peak Archaeological Trust, carried out at Cuckstool Wharf in 1990 during repair work to the modern riverside side wall, revealed more of the Bell's Yard stone wall, which appears on the Civil War plan of Newark mentioned above, and is conceivably part of a medieval riverside wall leading south from the south-west tower of the castle, and still standing in the 17th century<sup>83</sup>. Further work, beyond the immediate concern of this paper, has indicated the line of the castle rampart and ditch.

#### *The date of the earliest defences at Slaughter House Lane*

At Slaughter House Lane, the pottery evidence, in the present state of knowledge, provides only an approximate date for the rampart. A single sherd of Torksey Ware from the fabric of the rampart suggests a construction date not earlier than the 9th century; clearly a much greater quantity of dating evidence is required. In the layers immediately sealing the rampart, the presence of large quantities of Saxo-Norman pottery, and the consistent absence of Nottingham Splashed Ware (available from c.1100, and otherwise well-represented on the site), and of later pottery, suggests that those deposits had accumulated before c.1100. The period of time they took to accumulate cannot be accurately estimated, as the circumstance of their deposition is not certain. There was clearly a still earlier phase, during which the rampart was constructed and structures erected at its tail. Rampart construction in the 1130s would require the rapid abandonment of the structures behind the ram-

part, and the burial of the area with the soil deposits within a few decades, together with a late adoption of Nottingham Splashed Ware. The balance of probability based on the present evidence of all types therefore lies in a pre-conquest date for the defences at Slaughter House Lane.

Despite its demonstrable antiquity, the town's street pattern does not preserve any clear indication of an inner, earlier line of defences. If Todd's dating of the southern side defences is rejected (see below), and with the evidence of documents showing it to have been old in 1231, the known defensive circuit, including Slaughter House Lane, may again be considered to be of one period.

#### *The character of the occupation at Slaughter House Lane in the Saxo-Norman period*

At Slaughter House Lane, the presence of post-hole structures and an oven behind the rampart in phase II suggest that the site was occupied on a permanent basis. The later sealing of these structures with an accumulation of soil in phase III might be interpreted as a contraction of occupation in the 12th century, but this may not be representative of the *burh* as a whole. The contents of the oven point to the exploitation and possible management of nearby woodland, while some of the animal bones had marks indicating primary dismemberment of carcasses; it is likely that this butchery took place at least nearby, if not on site.

#### *The development of the Slaughter House Lane site in the Medieval period*

The probable levelling of the rampart and the construction of the stone building, kiln and stone boundary wall were the next well-represented general stage in the development of the site, although they may not have been exactly contemporary.

The stone boundary wall and rampart-levelling might be of the 14th century, and Barley's work suggested that the ditch had been infilled in the later 14th century, and certainly by 1368 (above). The

ditch might therefore have been filled in with the material from the body of the rampart, thus creating two new areas of land for building close to the town centre. The stone boundary wall may well have been erected at this time as a replacement for the rampart, as the boundary line was still important in demarcating the Old and New Boroughs.

The alignments of the tail of the rampart and the stone boundary wall (and the 1790 boundary which follows it) converge towards Bar Gate (Fig. 3); at Bar Gate the boundary/wall would be approximately over the centre of the rampart, and therefore over the expected location of the original gate. It is conceivable that when the rampart was replaced with the wall, the wall followed the front face of the rampart from Wilson Street, but began to converge with the tail towards Bar Gate in order to link with the existing gate, which must therefore have been retained after the levelling of the rampart. It has been suggested above that the gate contained an Anglo-Saxon stone church, and it may have been included in the new stone circuit.

Despite localised alteration and sub-division, the property boundaries of 1790, extending between Kirk Gate and Slaughter House Lane, show a regular pattern of plots of about 30m frontage, and are therefore likely to have been laid out at the same time. The presence of a 1790 boundary over the side wall of the building and possible yard boundary wall (Figs. 3, 5) suggests that these boundaries might be of medieval origin, if not original to the *burh*. Unfortunately the regular pattern is less clear north-west of excavation area 01, although it seems likely that 01 was in a separate property from 02 and 04.

The stone building, kiln and timber structures may therefore have occupied one or more properties extending from Kirk Gate to the town wall. The footings of the stone building were substantial enough to postulate that at least the ground floor was entirely of stone, indicating a building of some status. These features could not be confidently dated more closely than the late medieval period, perhaps the 14th or 15th centuries, while the building could have been

still standing as late as the 18th century.

The extension of buildings into the backs of the properties and the levelling of the rampart suggest increased pressure to utilise available land within this valuable location close to the centre of the Old Borough. The filling of the ditch suggests a similar situation in the New Borough. Although there was no direct evidence for the function of the phase IV kiln, use for malting is most likely. Similar kilns with stone-lined, sloping sides have been found at Barrow and Great Casterton, Rutland, Brixworth, Northamptonshire, and at Michelham Priory, Sussex<sup>84</sup>. The last was dated to the 14th century, but the remainder were not closely dated, with medieval or post-medieval pottery in their fills. At Great Casterton direct evidence for function was found in 256 carbonised seeds recovered from near the chamber floor; six were unidentified, but the remainder were all barley, indicating use as a malting kiln. Late medieval malt kilns were fitted with removable horse hair cloth floors, stretched over wood frames, which featured frequently in farmhouse inventories of the period<sup>85</sup>. Such kilns could also have been used for drying corn.

The levelling layer of phase V indicates that 02 was remodelled in the late medieval period, possibly for a new building, but there was not direct evidence surviving for this.

## THE POST-MEDIEVAL PERIOD

Further discussion of the development of the site in this period is beyond the scope of this article, but the conical lime kilns are worthy of comment (Fig. 10B). Although not well dated, the repetition of the distinctive conical form suggests that the kilns belong to a single period in the history of the site. 0129 was dated no earlier than the late 17th century. The Civil War siege must have caused extensive damage to the medieval buildings of the town, and it is tempting to believe that the kilns were to supply lime for mortar for a major rebuilding programme in brick, possibly using material robbed from the stone building and the stone wall of the town. They certainly mark the end of the medieval history of the site, and the beginning of its redevelopment in the modern era.

## NOTE ON THE ARCHIVE

The site archive, containing finds and full documentation of the site records, including pottery database and specialists' reports on finds, has been deposited in the Appleton Gate Museum, Newark-on-Trent, Nottingham NG24 1JY, with a copy in the National Monuments Record. At the time of writing, an ASCII format copy may be had by sending a blank 3.5in 1.44Mb floppy disc and SAE to the author at Trent & Peak Archaeological Trust, University Park, Nottingham NG7 2RD.

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