University of Leicester

Archaeological Services

Life in the Suburbs

The Archaeological Excavation of Iron Age to Post-medieval occupation beneath the PACE and Hugh Aston Buildings, De Montfort University, Leicester (2006-2008)

NGR: SK 584 040

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ULAS Report No. 2010-134

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With contributions from

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For: De Montfort University, Estates Department

Approved by

Signed:  ……**Date**: 14/7/2010.

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Introduction

Between February 2006 and July 2008, University of Leicester Archaeological Services carried out a series of watching-briefs, evaluations and excavations across the footprint of the former James Went Building west of Oxford Street in De Montfort University's Leicester Campus (centred on SK 584 040 – Figure 1). This work, conducted on behalf of De Montfort University, preceded construction on the site of two new buildings – the Performance Arts Centre of Excellence (PACE) Building and the Hugh Aston (Business and Law) Building. In all, an area of *c.*2482 square metres, or 38%, of the proposed *c.*6484 square metre development was examined.

The proposed development area had previously been included as part of an extensive desk-based assessment for the entire De Montfort University Leicester Campus (Meek 2001). This confirmed that it was within an area of significant archaeological potential that, at the time of writing, had been subject to very little investigation. In view of the potential damage that might be caused to any surviving archaeological levels by the proposed redevelopment, the City Archaeologist for Leicester City Council, in his capacity as advisor to the planning authority, recommended a full phased programme of archaeological investigation. This recommendation was in accordance with the guidelines set out in Planning Policy Guidance Note 16 (PPG16 Archaeology and Planning, paragraph 30).

This report presents a detailed, integrated account of the findings from the excavations. All archive records and material will be held by Leicester City Council Museum Services under the accession codes A11.2006, A2.2007, A7.2008 and A8.2008.

Geology and Topography

The British Geological Survey of Great Britain, Sheet 156 (Leicester), indicates that the underlying geology consists of superficial deposits of river terrace sand and gravels across the north-eastern side of the development area overlying a band of red clay, belonging to the Mercia Mudstone group, crossing the site from the eastern side towards the Castle. Alluvium is show to cover the south-western half of the area (BGS 2008). The site lies on ground gently sloping down to the west towards the River Soar from 62.98m above Ordnance Datum (OD) adjacent to the Clephan Building's frontage on Oxford Street to 61.01m OD in front of the Hawthorn Building.

Archaeological and Historical Background James Meek & Richard Buckley

The archaeological desk-based assessment for the De Montfort University Leicester Campus summarised the archaeological potential of the area as:

> *... likely to contain important archaeological remains relating to the Roman and medieval south suburbs. Previous excavations in and around the area have shown that significant remains of Roman, medieval and post-medieval date exist. Roman buildings, features and burials may be located within the development area. Two Saxon buildings have been recorded in the vicinity and occupation of this date is possible. The development area partially covers the former Newarke precinct, an originally medieval religious community, and later an autonomous enclave of Leicester for the wealthy… The remains of… religious and ancillary buildings associated with the Collegiate Church of the Annunciation of the Blessed Virgin Mary are very likely to exist inside of the enclosure, including the former burial ground of the church itself. Medieval structures and back-yard activity are also likely to be found in the area outside of the Newarke. The Newarke was the main focus of attack during the two sieges of Leicester during the English Civil War in 1645. In addition, post-Civil War late 17th and 18th century buildings associated with post-dissolution occupation of the Newarke and the re-building of the south suburbs after the Civil War are likely to be present. The proposed development area, therefore, is recognised as having very significant archaeological potential. Archaeological field evaluation would be advisable on the site to better ascertain the archaeological potential and aid in the design of any future development proposals and mitigation strategies* (Meek 2001, 1)

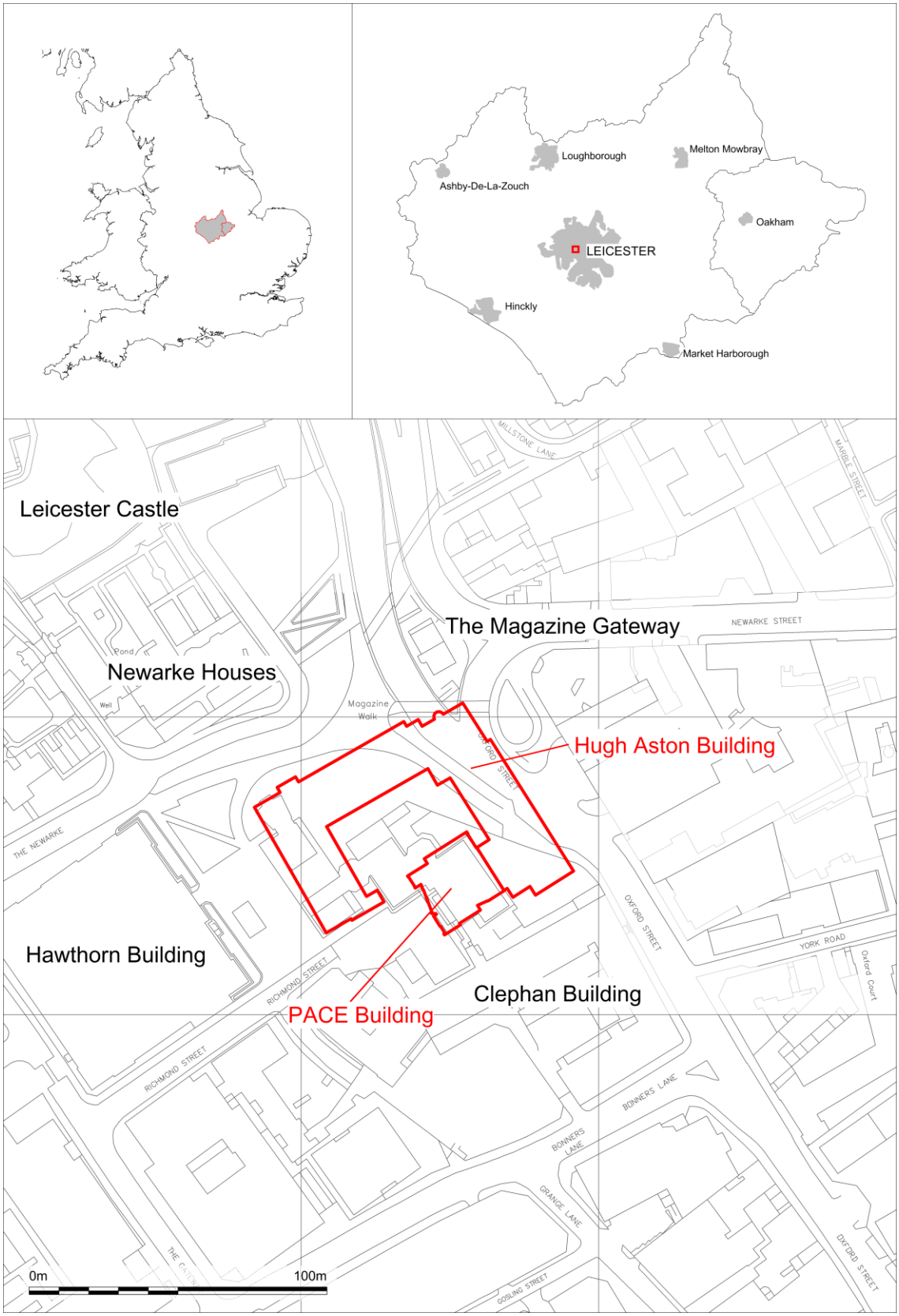

Figure 1: Location plans with site highlighted.

Whilst the archaeological potential for the site of the proposed development was described as follows:

> *[The site] covers the area of the James Went Building and the surrounding grounds… The eastern side of [the] area lies adjacent to the former line of the* Tripontium *road, and thus has the potential for Roman suburban occupation, including archaeological evidence for buildings, plot boundaries and possible burials associated with the former occupation of the plots. This part of the area also has good potential for Anglo-Saxon occupation, suburban medieval occupation and post-medieval occupation. The report has shown that the majority of this area lies within the Newarke enclosure, and on the eastern side of the open square of possibly medieval origin, associated with the Collegiate Church of the Annunciation of the Blessed Virgin Mary. The area has thus high potential for the remains of either religious buildings, or ancillary structures associated with the religious community* (Meek 2001, 44-45).

The following archaeological and historical background has been revised and updated from Meek 2001 by Mathew Morris.

Previous Archaeological Investigation

The site lies on the southern edge of the historic cores of the Roman and medieval towns of Leicester. The majority of large scale excavations have been undertaken within the Roman and medieval defended areas of the town, or in the area on the eastern side of Oxford Street, to the south of the defences. Archaeological sites excavated include those at the former 'Ye Olde Bowling Green' Public House, York Road (Gossip 1999a), Oxford Street (Gossip 1999b), and the Roman cemetery site beneath the De Montfort University, Elfed Thomas Law School Building (Cooper 1996) all lying to the east of Oxford Street. To the north of the development area lie the recent Castle Street and St Nichols Circle excavations (Thomas 2001 and Score 2006), as well as numerous earlier excavations and investigations excavated within the Castle Grounds including the Newarke Houses Car Park site (Buckley and Lucas 1987, 45-46). Archaeological excavations to the south of the proposed development, and west of Oxford Street, include Bonners Lane (Finn 2004), Mill Lane (Finn 2002), Grange Lane (Thomas 2005) and 61 Oxford Street (Higgins 2009).

Pre-Roman Period

Very little evidence exists for pre-Iron Age activity in Leicester. Initial occupation is dated to the late 1st century BC and consists of Iron Age settlement occupying an area of *c.*10ha on the eastern bank of the River Soar to the north of the development area. This roughly corresponds with the civic centre of the later Roman town in the area around St Nicholas Circle. That this settlement is high status, and probably the tribal centre of the Corieltauvi, is suggested by the presence of coin flan trays and high-quality imported pottery from the continent.

It is evident from the Historic Environment Record that there has been little recorded evidence of prehistoric activity in the immediate vicinity of the development area. The earliest finds from nearby include a Neolithic stone axe (Group XX, Charnwood Forest area) from the Bonners Lane excavation where it had been incorporated into a Roman cobbled surface. A sherd of late Neolithic 'Peterborough Ware' was also found within a later Roman pit during the archaeological investigations at the former 'Ye Olde Bowling Green' on Oxford Street. These Neolithic finds may suggest that there is activity of this date within the assessment area, but the minimal number of finds recovered makes this a very tentative suggestion.

Recent analysis of the Bonners Lane excavation results has demonstrated that a single pre-Roman layer was recorded on the site, with a single flint blade being the only find (Finn 2004). A further 43 worked flints were also recovered from the site, although these were in residual (later Roman and medieval) contexts. A number of worked flint and waste pieces were also recovered from the Elfed Thomas excavations (Cooper 1996).

The Iron Age ditch found in the Newarke Houses Garden excavation (Clarke 1952) is the only feature of pre-Roman date within the vicinity of the development area. The recent excavation at Mill Lane produced numerous sherds of Iron Age pottery, although these were in residual (later Roman) contexts (Finn 2002,94). The Elfed Thomas site produced a single Celtic coin: 'The worn condition and poor

preservation of the coin makes precise identification tentative but it may be attributed to the coinage of *Cunobelin*. The possibility that the coin reached Leicester at the time of the Roman conquest of southern Britain cannot be discounted, but its presence would also be compatible with the increasing evidence for the wide ranging connections of a late Iron Age settlement at Leicester" (Fitzpatrick *in* Cooper 1996, 69). A few sherds of Iron Age pottery were recovered from the northern part of the open plaza between the James Went Building and the Hawthorn Building during a watching brief on water mains renewal in the area (Warren 2000).

Roman Period

After the Conquest of Britain in AD 43, there is limited evidence to suggest that a small fortlet was established to control the crossing point of the river near the present West Bridge (Clay and Pollard 1994, 46). However, the late 1st century fill of the ditch may suggest this was not established until after the Boudiccan revolt. To the east of the Soar, evidence for timber buildings of the pre-Flavian period has been encountered, with the suggestion, on the basis of uniformity of alignment, that they have more in common with buildings within a fort than with a native settlement or *vicus*. Timber buildings later in the 1st century are on a different alignment, and are considered to represent the first Roman town, expanding to the east from the river, with the presence of wall plaster and *opus signinum* suggesting the gradual adoption of Roman tastes (*ibid* 46). Ditches from the Little Lane excavation (Lucas and Buckley 2007) perhaps point to field systems beyond the settled area.

In the early 2nd century, the street grid appears to have been formalised, if not entirely laid out, and at the same time, Ratae was probably established as a *civitas* capital. Timber buildings of this period are aligned on the street grid, and have been found beneath the northern and eastern defences, pointing to the rapid expansion of settlement (Buckley and Lucas 1987). In the middle and later years of the 2nd century, a major programme of public and private building was undertaken within the defended area of the town. This included the construction of the forum and basilica complex, the Jewry Wall public baths, at least one temple and a variety of domestic, commercial and industrial premises (Clay and Pollard 1994). On most Roman sites in the town, masonry buildings begin to appear in this period, some perhaps commercial and domestic properties whilst others might be described as palatial town houses.

In the late 2nd or early 3rd century, the town was defended with a rampart and ditch, a wall perhaps being added later in the 3rd century (Buckley and Lucas 1987). The development area lies to the south of the main focus of Roman occupation, outside the town defences, adjacent to the road to *Tripontium* (Caves Inn, Warks.). From archaeological evidence recorded during the recent excavations at York Road, Oxford Street, Bonners Lane and Mill Lane it seems clear that Roman suburban occupation extended along the sides of the *Tripontium* road. Regular plots defined by boundary ditches seem to have been established on both the eastern and western sides of the road and were presumably occupied by individual families. It is unclear whether agricultural or industrial activities occurred within these extra-mural plots which lay on the periphery of the main focus of urban occupation. It is very likely that archaeological remains of the *Tripontium* road, together with further boundary plots and structures exist across the development area. It is unknown how far the suburban settlement extends to the south of the Bonners Lane site, nor whether it extends any further to the west. The central part of the Mill Lane site contained what appeared to be the western extent of one of the plot boundary ditches, but no settlement evidence was revealed further to the west. Many Roman finds have been recovered to the east of the development area, which could perhaps be used as an indication of Roman occupation, but very few have been found to the west. To the west, across the river, excavations at Great Holme Street have suggested the existence of an industrial suburb, with evidence of pottery kilns and an abattoir (Lucas forthcoming).

Evidence from the 4th century still remains elusive. This may be due to truncation from medieval activity, although a decline in urban occupation is possible in view of the evidence for street metalling having been dug into on Redcross Street (Clay and Pollard 1994: 48) together with evidence for the illegal extraction of silver from coinage within the ruins of the *macellum* (Wacher 1995: 353), and the decline of the prosperous town house on Vine Street into a series of squalid workshops including a smithy (Higgins, Morris and Stone 2009).

Burial

Burial was forbidden within the Roman town walls. Instead cemeteries were placed around the perimeter of the defences, separated by suburban occupation focused along the roads leading to the town gates. A

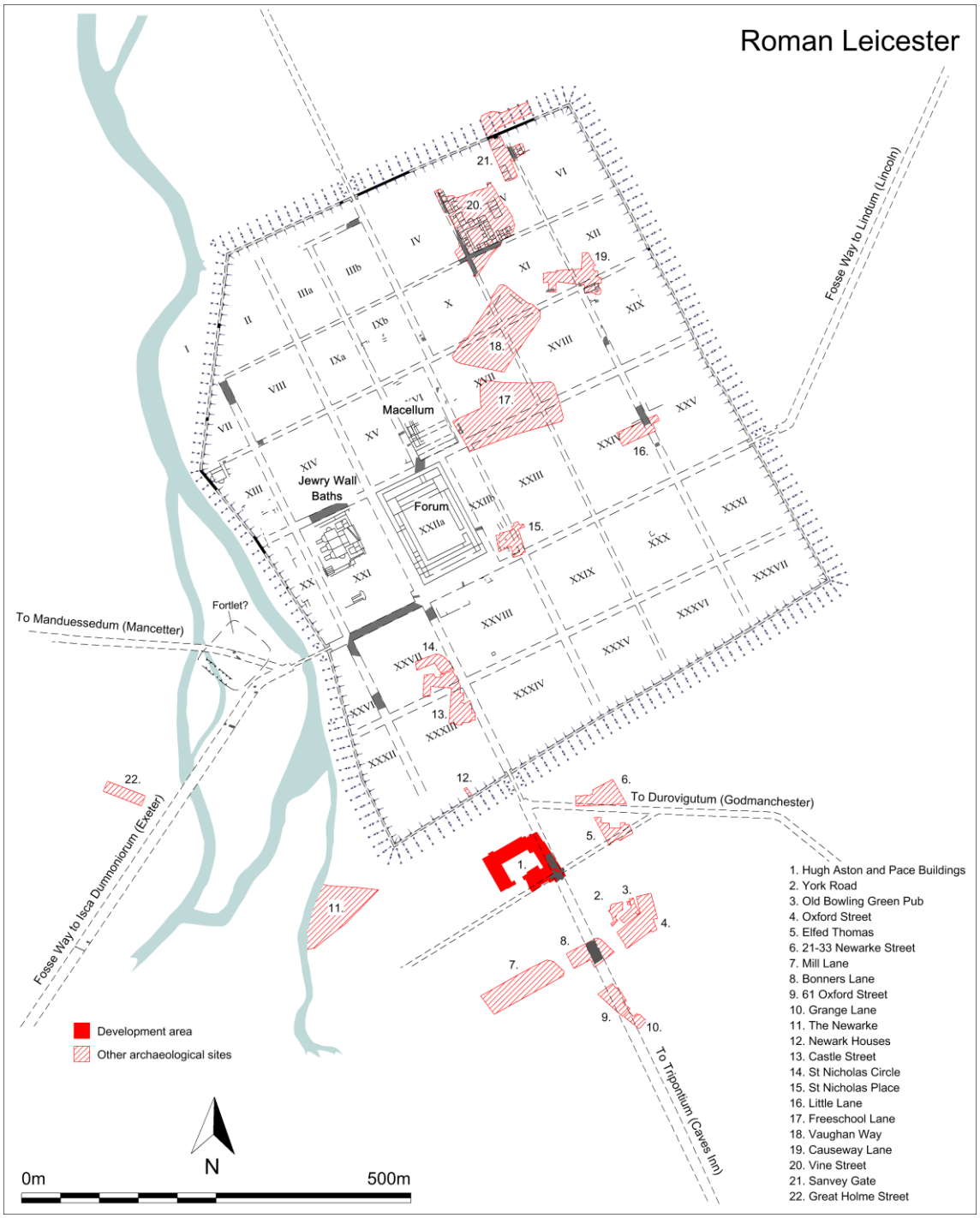

Figure 2: Plan of Roman Leicester

large cemetery is known to exist on the south-eastern side of Southgate Street, to the east of the development area. Two controlled excavations of parts of the southern cemetery have taken place, one on the site of the former Elfed Thomas Law School (Cooper 1996) and one to the north at 21-33 Newarke Street (Derrick 2009). A number of lead coffins have also been recovered from the Newarke Street area, one lying very close to the assessment area on the corner of Oxford Street and Newarke Street. It is unclear if a cemetery exists on the western side of the *Tripontium* road, although a number of individual Roman burials/human bones and cremations have been recovered from the area. Five Roman inhumations were also excavated on the Newarke Houses Garden site and it is unclear if these lie to the south of the line of the defences, or if they could be part of a larger cemetery in that area.

The burials seen on the Oxford Street and York Road sites may represent small cemeteries associated with the boundary plots in which they lie. These may be the disposal of family members within their own

land, as has been seen in other Roman towns such as Gloucester. The burials would be placed alongside the boundary ditches, away from the road frontages. This may have also been seen on the Mill Lane site where a grave cut of Roman date was revealed, although the burial had been disturbed by later activity.

The Raw Dykes

To the south of the development area lie the earthwork remains of the 'Raw Dykes'. This is thought to have been part of an aqueduct connecting the heart of the Roman town with Aylestone Brook, over 1.5km to the south of the town. Evidence for aqueducts serving Roman towns in Britain exist at Gloucester and Lincoln for example, and are of course well known on the continent. Wacher (1995, 350-1) projects the 'Raw Dykes' to run along the 60m contour to the southern city wall. He suggests that the aqueduct would enter the town to the west of the *Tripontium* road and the south gate of the town, which would place it along the south-western edge of the development area.

The brook was used in preference to the nearer source of the River Soar for at least two possible reasons. One being that the brook lies at a height where it could be directed to the town as a constant water supply using the energy of the flow of the stream and gravity, rather than the more complex, and less constant, mechanisms needed to pump the water uphill from the Soar. Another being that the River Soar is likely to have been polluted, from effluent and waste from the city, whereas the brook would be a clean water source. The earthworks of the 'Raw Dykes' still extended as far as the junction of Aylestone Road and Oxford Street at the beginning of the 19th century, but have since been destroyed. There is no recorded evidence of any feature associated with the aqueduct surviving within the development area, although Wacher states that 'originally the Dyke was known to have extended as far as the southern limit of the town' (1995, 350). The excavations on Oxford Street, York Road, Bonners Lane and Mill Lane have all failed to reveal any evidence for the aqueduct and may thus indicate that, if it exists, it lies further to the west of the development area, or the character of the aqueduct changed. It is certainly not beyond the engineering skills of the Romans to have created either above ground or sub-surface ducts for the water to flow, which may leave little archaeological evidence on the ground surface.

Anglo Saxon and Saxo-Norman Periods

The nature of occupation in Leicester after the end of Roman Britain remains difficult to define due to the comparative dearth of archaeological evidence and until recently has been based solely on a scattering of residual finds within the intra-mural area. Now, with the recent conclusion of the Highcross Retail quarter (Freeschool Lane and Vaughan Way) and Leicester Square residential developments (Sanvey Gate) excavations have produced evidence for sunken-feature buildings focused on open land near the former Roman town's civic centre and in its north-east quarter. Finds distribution now indicate that other areas of the town were also utilised with a focus along the major route ways within the town.

Leicester became a Mercian bishopric soon after AD 670, one of the five Boroughs of the Danelaw in AD 877 and - based on the Domesday Survey - was apparently a flourishing town at the time of the Norman Conquest, with 322 houses, 65 burgesses and six churches (Ellis 1976, 38-9). There is little archaeological evidence so far, however, for late Saxon occupation, and only the church of St. Nicholas has fabric of this period. Courtney argues that it cannot be assumed that the town had an urban character by the tenth century despite its strategic military importance (1998). Instead, he suggests on the basis of the distribution of finds, that the main street of Leicester in the Saxo-Norman period was the north-south running axial road, the medieval 'High Street' (later renamed Highcross and Southgate Streets). This takes the shortest route between the north and south gates, and apparently respects the Roman forum (Buckley and Lucas 1987, 56). As the town's widest street, it would initially have served as the chief market and was, perhaps, the focus of pre-Conquest occupation. --

In contrast to the scarcity of evidence of Anglo-Saxon activity within the former defended area of the town, the excavations at Oxford Street and Bonners Lane have produced significant structural remains and stratified finds of Anglo-Saxon date. A number of finds have also been recovered to the north and east of the development area. It is conceivable that an Anglo-Saxon settlement existed to the south of the Roman walled town and may have focussed on the former north-south *Tripontium* road through the town. The dispersed Anglo-Saxon settlement site at Eye Kettleby, Leicestershire, where the remains of 45 buildings were excavated, was approximately 4.5ha in size. If a similar dispersed settlement existed to the south of the town it is very possible that activity of Anglo-Saxon date will be present within the development area.

Prior to the established medieval street pattern, it is thought that during the Saxo-Norman period the main north-south Roman road was still used as the main route through the town, and the focus of any occupation, as seen by the distribution of finds of this date (Courtney 1999, 91).

By the 11th century settlement had expanded rapidly within the old Roman town walls. The Domesday Book records Leicester as containing land belonging to the King, Hugh de Grandmesnil, Countess Judith and the Bishop of Lincoln. The town contained six churches and two mills. It also records 322 houses and a further 55 burgesses. The Domesday Book implies that Leicester was larger than Nottingham and Northampton, although slightly smaller than Stamford (Courtney 1998). Settlement at this time is likely to have been concentrated along the two main axial roads through the town, the High Street (now Highcross Street) and Swine Street (now High Street). It is thus conceivable that a continuation of occupation of this area to the south of the town, lying on the north-south road, may have occurred and evidence of this date survives around the development area.

Medieval Period

After the Norman Conquest, a motte-and-bailey castle was constructed in AD *c.*1068 at the south-west angle of the Roman defences in a position where it would dominate the town. In the early 12th century, the timber elements of the castle began to be replaced in stone and St Mary de Castro was endowed as a collegiate church. Other churches were clearly rebuilt at this time, as shown by surviving Romanesque fabric, and work commenced on the great abbey of St Mary de Pratis outside the north suburb after AD 1143. Of domestic occupation in this period, archaeology has furnished little evidence. The stone undercroft on Guildhall Lane may relate to a high status merchants house (Hagar and Buckley 1990), whilst at Causeway Lane, Sanvey Gate, Vine Street and Freeschool Lane intensive backyard activity in the 12th century suggests a growth in population. The archaeological record also attests robbing of Roman walls on a large scale at this time, which it is tempting to associate with a building boom in major secular and religious structures.

By the 13th century, the topography of medieval Leicester comprised the core of settlement contained within the Roman walls, with suburbs outside each of the gates, including the south gate. The intra-mural area was dominated by the castle, the friaries of the Dominicans and Franciscans, which were established in the 13th century, the Saturday Market and six churches. Another friary, that of the Augustinians, was established outside the west gate in the mid- 13th century (Mellor and Pearce 1981, 1). The street pattern was perhaps largely in place by this time, and remained relatively intact until the late 19th -20th century.

Medieval Topography

During the medieval period a street pattern was established within Leicester, which remained much the same until the end of the 19th century. The medieval town layout was heavily influenced by the remains of the Roman town. The medieval defences were constructed utilising the remains of the Roman ones. The location of the main axial streets through the town were similar to the Roman ones and the former town gate locations (including the South Gate) seem to have been retained. The line of Southgate Street (now Oxford Street) would correspond to the original line of the medieval road that exited the south gate. The south-western corner of the town was taken over by Leicester Castle, lying to the north of the development area, the outer bailey ditch of which encroaches into the northern extremity of the site.

The majority of the street layout within the development area would have been laid out in the early 14th century, with the creation of the Newarke precinct (see below) although the dating of the internal street layout is open to question. It is unclear at what time Mill Lane was laid out, but it may have pre-dated the Newarke, and likely to have been the connecting route between the town and the 'New Mill' first mentioned in AD 1301. To the south of the Newarke lies Grange Lane. This is either a link road to the farm associated with the late medieval Newarke, or a post-medieval/Civil War creation.

The Newarke Precinct

The origins of the Newarke started in 1330-1 with the licensing and building of the Hospital of the Holy Trinity, which was founded by Henry, Earl of Lancaster. A chapel was also added to the Hospital. Henry's son (also Henry, Earl of Lancaster) enlarged the hospital with the erection of The Collegiate Church of the Annunciation of the Blessed Virgin Mary, and the addition of walls around the precinct.

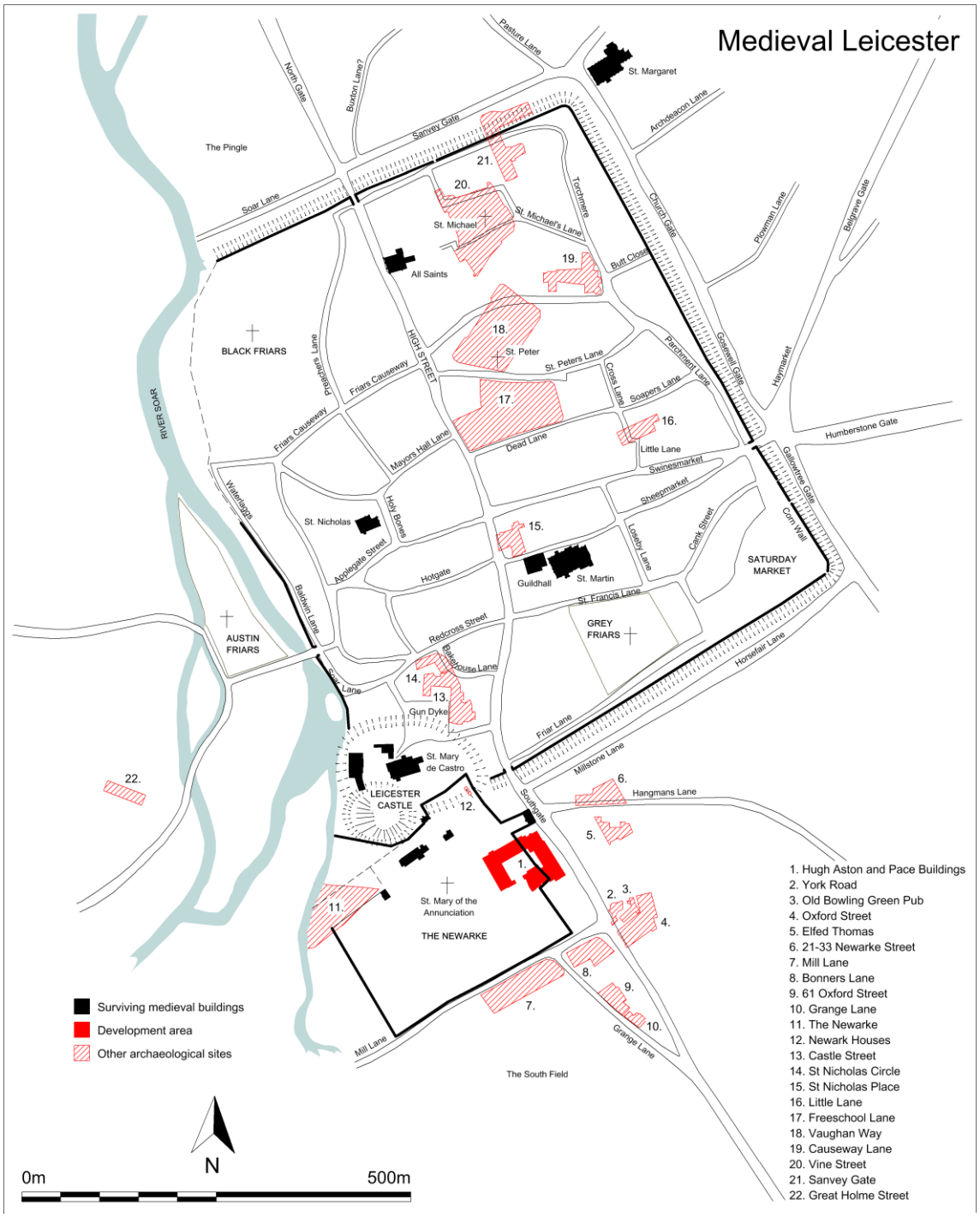

Figure 3: Plan of medieval Leicester

The area was known as the 'New Work', later corrupted to 'The Newarke', a term that was in use before the middle of the 16th century (Smith 1964), and was regarded as a separate entity to the borough of Leicester. In 1351 the Duke of Lancaster brought from Paris one of the thorns said to be from the crown of thorns of Jesus. The relic was placed in the high altar and was a source of pilgrimage. The statutes for the regulation of the new foundation of the church were completed in 1355. Henry died in 1361 of the Black Death and was buried in the church which at that time was still under construction. It is not knownwhen the buiding works were completed. The Church of the Annunciation of The Blessed Virgin Mary is thought to have been very richly endowed (Chinnery 1981), and is described by Leland as 'not very great but it is exceedingly fair' (Ellis 1976, 82). Leland also refers to a cloister on the south-west side of the church and 'the Houses in the Cumpace of the Area of the College for the Prebendaries be al very praty. The Waulles and Gates of the College be stately.' (*ibid*, 83).

Archaeological evidence for the medieval phases of Trinity Hospital has been revealed during a number of archaeological investigations. Possible wall lines and stone surfaces of medieval date associated with the hospital were found during preliminary archaeological evaluation of the area on the northern side of the Hospital in April 1995, 0.4-0.6m below the ground surface (Gossip 1995a). A number of other stone walls and other medieval features of similar depths were recorded during further archaeological investigation of the same area in July 1995 (Gossip 1995b). An archaeological watching brief was undertaken during the installation of services etc. associated with the same development works, to which mitigation strategies had been applied to preserve the underlying archaeology. During the renewal of water mains in the Newarke area further stretches of walls associated with the Hospital were seen surviving 0.50-0.57m beneath the present road surface (Warren 2000).

It is thought that the Newarke was established primarily as a College of Canons living according to their own rule, and consisted of thirteen canons, thirteen vicars, three clerks and six choristers (Charman 1951, 27). Trinity Hospital is said to have maintained one hundred poor persons, fifty men and fifty women and ten women servants to look after them (*ibid*. 27). A number of Chantry houses were also established within the Newarke. Wygston's Chantry House (built in 1513) is the only one that survives, and seven chaplains were maintained to keep their rules (*ibid*. 27). St. Mary's Vicarage is thought to have been a 14th-century building that was the residence of the Dean of the College (Billson 1920, 204).

The Newarke was the most important foundation of its kind in Leicester, not being a purely religious precinct. Although the number of people maintained by the Newarke is quite large, very few of the original buildings survive and it is unclear whether all of the aforementioned would have lived within the precinct walls, or would have lived within the town. It is not inconceivable that the Newarke precinct may have been set out in a similar way to an abbey, such as that at Leicester Abbey. This would mean that buildings such as cloisters, dormitories, kitchens, the Chantry houses and Trinity Hospital and Chapel were set out in a large complex surrounding the main focal point of the church. Possible evidence for this may be seen in the post-Dissolution layout of the area as shown on the Roberts map of 1741, where three open squares are indicated, with housing around. The first lies on the southern side of Trinity Hospital, and runs from St. Mary's Vicarage to Wygston's Chantry House, at which point a second runs to the south, which ends at its junction with Richmond Street, opposite Gateway College. These two areas are of similar size surrounding the north and east sides of the area in which the Church of the Annunciation of the Blessed Virgin Mary would have stood. The third square leads down from the Newarke (Magazine) Gateway to the junction of the other two squares. Part of the former cobbled surface of the square on the western side of the Church was revealed during the archaeological watching brief undertaken during water mains renewal on the junction of Richmond Street with the paved area to the east of the Hawthorn Building (Warren 2000).

A common feature of abbey complexes are large drainage systems that take waste away from the main group of buildings. Lying partially beneath St. Mary's Vicarage and also beneath Newarke Street to the west are the remains of two stone lined passages discovered initially at the end of the 19th century (*TLAAS* 1899). The smaller passage was found again in 1953 (*TLAHS* 1954, 121). The larger passage, lying beneath Newarke Street, was seen during the recent water main renewal of the area, when a man hole cover was lifted exposing it (Warren 2000). One passage runs west to north-west from beneath St. Mary's Vicarage towards the second larger passage that heads in a more westerly direction, presumably towards the River Soar. It is possible that the smaller passage is a drain running from the western complex of religious buildings, whereas the larger drain may be the main drain into which all the smaller ones connect.

A number of burials have been found within the Newarke area of likely medieval date, and all in the vicinity of the former location of the Church of the Annunciation of the Blessed Virgin Mary or Trinity Hospital. A tomb of 14th-century date, said to be from the Collegiate Church, is located within Trinity Chapel, and has an effigy believed to be that of Dame Mary Harvey, the benefactress. Human bone has been recovered from beneath the Hawthorn Building, on the site of the church, and to the south on Richmond Street where a numerous burials were noted during work on an extension to the Technical School. Human bone was also found here during the watching brief during water main renewal (Warren 2000). Evidence for medieval burials has also come from the northern side of Trinity Hospital and also to the west of the Turret Gateway, although these may be part of a mass grave associated with either plague victims or Civil War casualties. Fragments of grave slabs and human bone have also been found in the Newarke Houses Museum.

There were three points of entry into the Newarke precinct. The Turret Gateway provided access from the Castle Grounds to the north. Archaeological investigation around the Turret Gateway has demonstrated that it was built on top of the former outer bailey ditch of Leicester Castle, and was probably built between AD 1422-3 (from documentary sources). The gateway appears to have been bonded to the wall to the north and is thus likely to have been contemporary. This wall also links to the large surviving part of the Newarke Wall at the north-west end of the Newarke Houses Gardens, again possibly suggesting contemporaneity, although it is likely that either an earlier wall or boundary existed prior to this surrounding the Newarke. The Newarke (Magazine) Gateway is probably sited on an original part of the 'New Work', which Henry Earl of Lancaster began in 1330-1, or part of the extensions to it which his son Henry Duke of Lancaster carried out in the 1350s, although the surviving monument is an early 15th-century building. It would have been the main gateway for access from the town, leading off Southgate Street (now Oxford Street), close to the South Gate into the town. Analysis of the stonework of the Newarke (Magazine) Gateway has revealed masons' marks identical to some of those seen on both the Turret Gateway and also John of Gaunt's Cellar (within the Castle) and would thus suggest a similar early 15th-century date of construction. A possible medieval access to Mill Lane would have been at its junction with the former Fairfax Street. This is indicated as an entrance on 18th-century maps. In the 1930s a building was demolished on the northern side of this junction called Bishop Bonners Palace, or Rupert's Tower. The building, thought to have been built in the late 14th century (Herbert 1941), lies directly on the line of the south wall of the Newarke, and if its dating is correct, must have been built into or as part of the wall. No evidence for a gateway existed within the building, although two doorways present on the southern façade may suggest one was a pedestrian access through the building. It is possible that this was the remains of a gatekeeper's house adjacent to a former gateway. An access way would be essential in this area so that produce from Grange Farm which lay to the south of the Newarke and associated with it could be brought into the precinct.

The walls of the precinct appear to have been strengthened with dressed sandstone in the early 15th century, which by then encompassed an area of approximately 20 acres. This work on the walls would tie in with the date of building of both the Turret and Newarke (Magazine) Gateways. On the Robert's map of 1741 the line of the Newarke walls are shown, drawn as a thick black line. Using modern streets and buildings, the wall line indicated would run eastwards from the former edge of the River Soar on the southern edge of the Castle, it turns north-west after the Turret Gateway until it again turns north-east along the edge of the St. Mary de Castro graveyard. The wall line turns south-east along the edge of the gardens of Newarke Houses and then north-east as it joins the Newarke towards the Newarke (Magazine) Gateway. The wall line then returns to the south-west from the Magazine along the southern side of the Newarke. The wall line turns south-east almost opposite the edge of the Newarke Houses Garden, and then south-west for a short distance along the southern end of the James Went Building. The wall line again turns south-west at this point down onto Bonners Lane, where it again turns west following the northern side of Bonners Lane and Mill Lane. The Robert's map appears to indicate that the wall would have returned to the north-west, obliquely towards the River Soar such that it would project in a straight line up through Gray Street, beyond which it is not indicated. This area is indicated on the medieval sites plan enclosing the hatched area. Archaeological and photographic evidence (many unpublished photographs held at the Leicestershire Records Office) for the wall include parts of the wall line from the Turret gateway and around almost all of the Newarke Houses Museum Gardens, it is of course still standing at the northern end of the gardens. It was recorded during archaeological watching briefs along the eastern edge of the Gardens, including during recent water mains renewal in the area (Warren 2000). The eastern edge of the wall from the southern side of the Newarke was recorded on photographs during its demolition to make way for new buildings in 1971 (Courtney and Courtney 1995, 67). Most of the Bonners Lane and Mill Lane stretch of the wall is recorded on photographs (including Courtney and Courtney 1995, 68). Possible evidence for the wall on the alignment with Gray Street was recorded during the recent watching brief of mains renewal in the Newarke, where a large stone footing was recorded approximately 1m below the road surface (Warren 2000). During excavations presently being undertaken in the area behind St. Mary's Vicarage, bounded by the assessment area to the south, the River Soar to the west and the Newarke to the north, the substantial remains of the Newarke wall have been revealed (Hallam and Webster 2001.). These lie 8m to the east of the line of Gray Street. This evidence may show that the Newarke enclosure was completely circuited by a precinct wall, not by the River Soar on the western side as once thought. The wall is likely to join with the boundary on the southern side of the castle to the north of these ongoing excavations.

The South Suburbs

A charter of *c.*1200 shows burgesses and customary (peasant) tenants were living outside the South Gate of the town, presumably along Southgate Street (now Oxford Street) (Bateson *et al*, 1, 10-11), the first documentary evidence for the south suburbs. The south suburb had its own bread oven as did the east suburb (Bateson *et al*, 1, 10-11; HMC Hastings, 1, 335-6 & 341). The extent of this settlement is unknown, although evidence comes from the sites excavated on York Road, Oxford Street and Bonners Lane. The boundary wall of the Newarke would have defined the western extent of the suburban settlement. It is unclear if settlement existed to the south of Mill Lane during the medieval period, the recent excavations on Mill Lane have revealed pitting activity, but no structural evidence was revealed.

Industry and Agriculture

To the south of the walled town, prior to the establishment of the Newarke lay the South Field. Prior to the 12th century the South Field appears to have been closely connected with the Domesday fee of Countess Judith. This fee was forcibly acquired with others by Robert de Meulan at the beginning of the 12th century. The South Field would have comprised intermixed strips, no doubt with ridge and furrow. With the establishment of the Newarke, and the increase in suburban occupation, it is likely that the South Field would have reduced in size. To the south of the Newarke, and originally belonging to the college therein, was a large farm complex, known as the Newarke Grange. It is unknown how much of the agricultural land would have been taken over by the Newarke's Grange Farm. Evidence from Bonners Lane suggests that grain was being processed in the immediate vicinity, on a commercial scale, and that pigs were kept and bred in the area. The south suburb had its own bread oven as did the east suburb (Bateson *et al*, 1, 10-11; HMC Hastings, 1, 335-6 & 341). A rent of hens recorded in AD 1204 from without the South Gate points to continued presence of peasants (HMC Hastings, 1, 335).

Industrial practices also began to emerge within the south suburbs surrounding the Newarke, and away from the main centre of the town of Leicester. Evidence for this has been recorded at Bonners Lane where, in the latter part of the 15th century a hide-processing workshop was established. The excavated evidence suggested the workshop was manufacturing leather from the skins of sheep, predominantly, but possibly also processing horse hides and cat skins, indicating that this was the workshop of a whittawyer rather than a tanner. A dye works was also in operation on the site at this time, perhaps colouring the leathers manufactured by the whittawyer, or possibly as an independent concern finishing cloth. The hide-processing workshop had apparently ceased to function by about AD 1600. Such activities would have been more likely within the suburbs than inside the town, due to the anti-social nature of their processes.

At the western end of Mill Lane, adjacent to the River Soar was the site of the 'New Mill', first recorded in AD 1301. Later the mill was called Newarke Mill until the 17th century when it becomes Swan's Mill, after the resident miller. There are post-medieval records that an attached windmill also existed, and a map of AD *c.*1600 also possibly indicates a windmill here.

Post Medieval Period

The Newarke college was dissolved in 1548, and suffered a similar fate to that of Leicester Abbey, where the main complex of religious buildings was demolished. The Church of the Annunciation of the Blessed Virgin Mary was completely demolished by 1590. Of the church, only two arches survive, which at one point were incorporated into the cellars of the former Shipley Ellis House, and are now located beneath the De Montfort University Hawthorn Building. The precinct walls were retained, as was Trinity Hospital, which may have survived as a result of its use as a home for the poor of Leicester. St. Mary's Vicarage and Wygston's Chantry House also survived, probably because they could be reused as dwellings. After the Dissolution, the Newarke became the residence of many of the borough's richest citizens, being separate from the city and not liable to pay the borough rates, until the 19th century (Courtney 1993 and Buckley and Courtney 1995). It is likely that the former religious precinct was bought up by various wealthy citizens who then constructed new buildings with the demolished remains of the former buildings, in a similar way as can be seen at Leicester Abbey, with the construction of Cavendish House. Cavendish House is known to incorporate the former gatehouse to the Abbey precinct, although after many phases of reconstruction, this is not clearly visible from the standing remains. It is possible that parts of buildings from the religious phase of the Newarke may also have been left standing for incorporation into new buildings, possibly even the former Shipley Ellis House or the Newarke Houses Museum. The Speed map of 1610 (Figure 4) shows the existence of Skeffington House (now

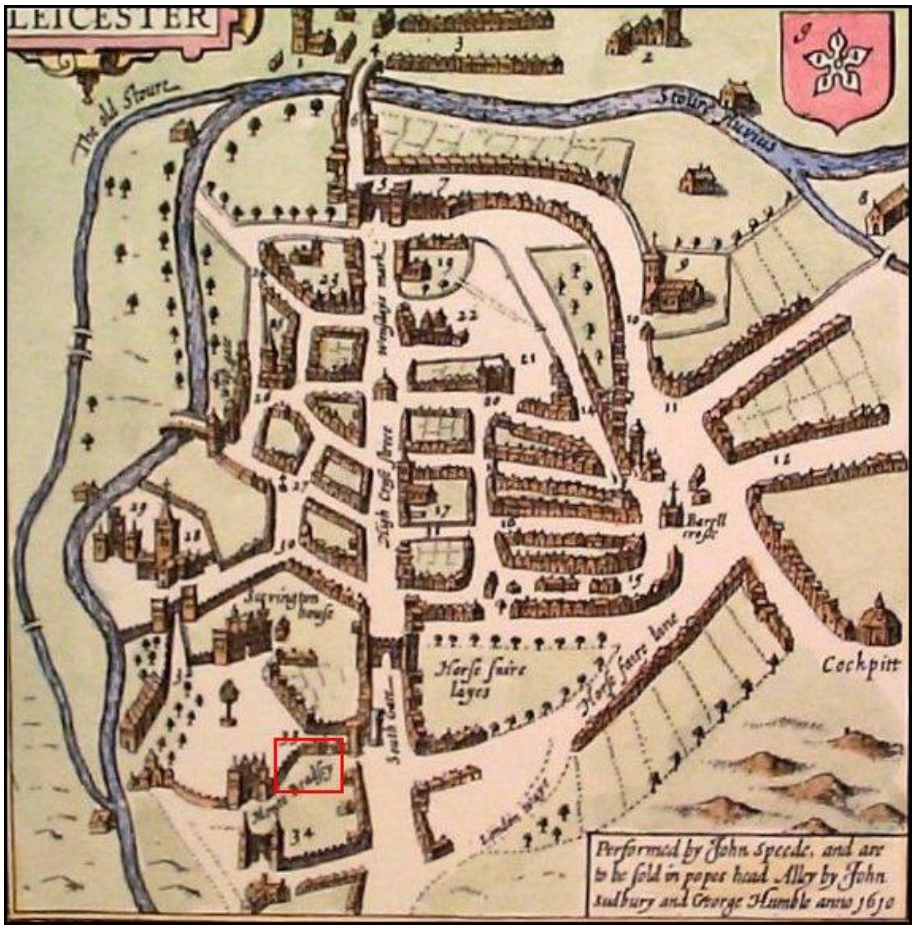

Figure 4: John Speed's map of Leicester, AD 1610.
The approximate location of the development area is highlighted

Newarke Houses Museum), the three gates of the Newarke, Trinity Hospital, but no other buildings within the precinct; although the accuracy of this map is open to question. The site of the Newarke Mill may also be indicated adjacent to the River Soar to the south-west of the Newarke Precinct. The southern wall of the Newarke is shown to curve to the north with buildings at its northern end, very close to Trinity Hospital, although this is very schematic, this may be a representation of St. Mary's Vicarage, and possibly other adjacent buildings. A second wall is shown to the south of the Newarke wall, and again has a gateway through it, annotated with Monte Bradley, but no records of this have been found during this assessment. The large building shown to the south of this wall and gate may be the location of the Grange. Buildings can be seen lining Southgate Street (now Oxford Street) and the road leading off towards the possible location of the Grange. At the Dissolution, Grange Farm became the property of the Duchy of Lancaster until, after many attempts, the borough finally purchased it in AD 1613. It was then leased out by the borough to wealthy citizens.

The Civil War *Neil Finn*

A detailed account of the Civil War sieges of Leicester is presented in Courtney and Courtney (1992), from which much of the following information has been abstracted. In summary, Leicester was besieged twice, first by the Royalists under Charles I and his nephew Prince Rupert on 30th May 1645, and then by Parliamentarian forces under Sir Thomas Fairfax, who recaptured the town a fortnight later, on June 16th. On both occasions it was the Newarke which bore the brunt of the attack, from artillery stationed somewhere in the vicinity of the present day Leicester Royal Infirmary.

From contemporary accounts it is apparent that defensive earthworks erected around the town encompassed large areas of the north and east suburbs, but not the south suburb. The demolition of buildings lying outside defended areas was standard practice in 17th century military engineering and the Chamberlain's accounts for 1643/4 record payment made for taking down houses 'beyond the south gate' (Bateson *et al*, 1603-1689, 343). The Grange, the farm associated with the Newarke, was also demolished, as recorded in the Chamberlain's accounts for 1644/5 (ibid. 336).

It is impossible to assess accurately the extent of the destruction, but it would appear that more properties were razed in the south suburb than in all other suburban areas combined. This situation reflects the relative prosperity of the suburbs: the poorer south suburb, as evidenced by the 1524 and 1554 Lay Subsidies (Hoskins 1963, 92 and Charman 1951, 27), was deemed expendable whereas the more prosperous north and east suburbs were not.

It is possible, up to a point, to reconstruct the form of the defensive earthworks surrounding the town from contemporary accounts. The 19th century historian J.F. Hollings (1840) published a plan showing the defences at the time of the first siege, which may have some basis in fact, but must also be part conjecture.

It appears that the construction of earthwork defences around the Newarke was begun prior to the first siege, but not completed. Medieval stone walls alone, such as that enclosing the Newarke precinct, were not an adequate defence against the heavy artillery of the 17th century. Standard practice of the day was to reinforce such walls with an earthen bank constructed against the rear face, which would absorb much of the impact of the cannon shot and prevent the wall from simply toppling over under heavy bombardment. The south wall of the Newarke apparently received no bank and it is probably no coincidence, therefore, that when Leicester was besieged the attack came from the south. The lack of an earthen bank is demonstrated on photographs of the wall taken in the nineteenth century, which show the remains of canon ports through the wall, which could only have been used if the canons were standing at ground level (Courtney and Courtney 1995, 68).

Contemporary accounts indicate that, following the first siege, work on strengthening the defences around the Newarke was begun. It seems likely, however, given the very short intervening period, that adequate earthwork defences were not completed until after the second siege, by Fairfax's Parliamentarian garrison. In their final form the earthworks around the Newarke probably consisted of a rampart and ditch with at least four projecting bulwarks or bastions (Courtney and Courtney, 1992, 61).

Evidence for a ditch along the southern side of Newarke wall has been recorded on the Bonners Lane site, and more recently on the Mill Lane site. An earthwork rampart would have existed on the northern side of this ditch, along the line of Mill Lane and Bonners Lane. A second larger ditch excavated on the Bonners Lane site may have formed part of a bulwark and mount (for a gun emplacement), that would have protected the South Gate of the city, with a firing line along Southgate Street. During a watching brief undertaken during the renewal of a water main along Oxford Street one side of a substantial clay-filled feature was located (Warren 2000). This may be part of the same Civil War ditch seen during the York Road and Oxford Street excavations. If this interpretation is correct then the ditch probably cut right across Oxford Street, and there are contemporary accounts of drawbridges crossing the defences in Leicester (Ellis 1976, 85).

Post-Civil War

After the Civil War, many parts of the defences were levelled, such as 'bulwark and mount against the end of Mill Lane' with a payment recorded for in the Chamberlains accounts for 1647/8 (Bateson *et al*, 1603-1689, 378). As a result of the turbulent political climate after the Civil War, the Borough Records record that the Newarke was again fortified, with the addition of a defensive ditch, in 1688 the year of the Glorious Revolution (Bateson *et al*, 1923, 595 and Courtney 1995). Burials found to the west of the Turret Gateway appear to have come from a mass grave, and although possibly plague victims, the find of a post-medieval sherd of slipware beneath one of the skeletons could suggest they were Civil War casualties. Rebuilding of the south suburb, demolished during the Civil War took place during the late 17th century.

The Grange Farm buildings were destroyed by the Parliamentarian defenders of Leicester in 1645, but some rebuilding, if only of barns, seems to have subsequently occurred. The grange may have lain on Grange Lane which is first documented in 1773, but its exact site is uncertain (Bateson *et al*, 7,142). It is possible that it may be located, at least partially, within the development area itself.

By the end of the 17th century, the Newarke area returned to its wealthy status, with further additions to existing buildings, and new buildings being erected. Much of the Newarke Houses Museum building dates from this period, and it is thought that the former Shipley Ellis House, with its very similar appearance may be of very similar date (*c*.1690, Courtney and Courtney 1995, 44). Both of these buildings may of course have had much earlier origins, but were extensively rebuilt at this time. The

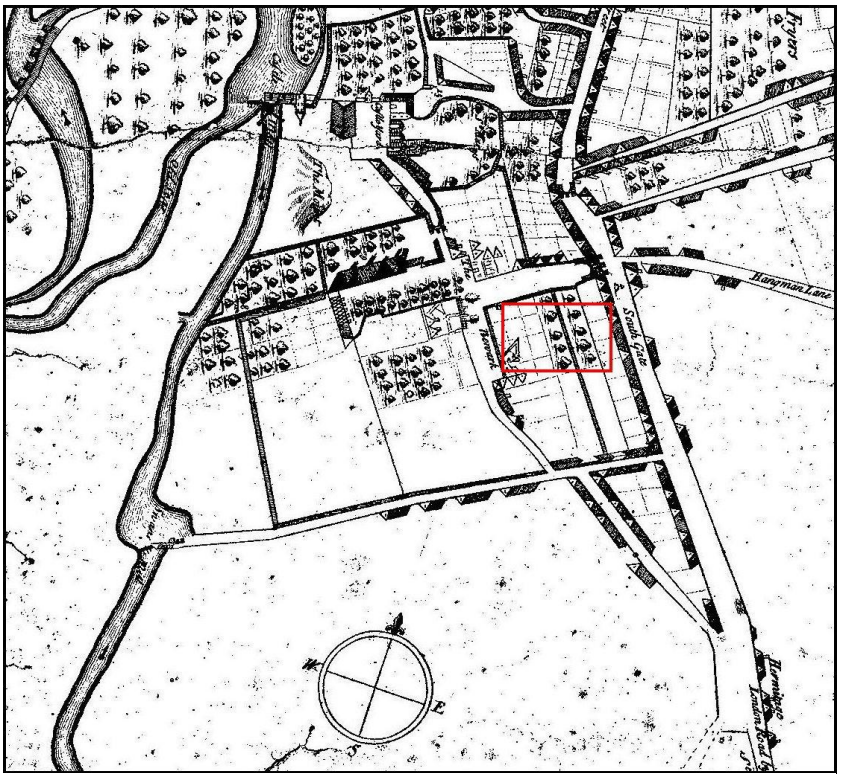

Figure 5: Detail of the Newarke area from Robert's map of AD 1741.
The approximate location of the development area is highlighted

Gateway School building was also constructed at the turn of the 18th century. Cellars recorded to the west of the Gateway School during an archaeological evaluation suggest the presence of another building on the western side of Fairfax Street, although it is unclear if the associated building, shown as quite large on the later Ordnance Survey maps, was of this date of later (Gossip 1995c). The Newarke (Magazine) Gateway was used as an armoury, or magazine, during the Civil War, and this is from where its popular name, Magazine Gateway, originates. It was also used as a prison from this time. By 1682 it was purchased by the county for use by the militia. The site of the Blue Boar Inn on Southgate Street, the site lying within the northern extremity of the development area was examined during its demolition, and was revealed to be a late 17th century timber-framed house of 4 bays width, with a cross-bay unit two bays deep. Investigation of the cellars revealed a series of medieval cobble stone walls that pre-dated the earliest standing fabric of the building. The cellar did not relate on plan to the existing building, and may support the suggestion that it was part of the rebuilding of the area of Southgate following the destruction of buildings in the area during the siege of Leicester (*TLAHS* 1972, 64-5; *TLAHS* 1973, 61-2).

The Newarke remained little changed through the first half of the 18th century, as can be seen on the Roberts map of 1741 (Figure 5). Although not annotated, buildings are indicated on the sites of Newarke Houses Museum, Shipley Ellis House, Trinity Hospital, Wygston's Chantry House, Gateway School and possibly St. Mary's Vicarage. The three open squares as mentioned earlier, are also visible surrounding the grounds of Shipley Ellis House, as well as that leading from the Newarke (Magazine) Gateway, with buildings indicated along its northern side to the west of Newarke Houses. Much of the internal area of the Newarke precinct is indicated as being laid out for gardens, woods or orchards. Buildings are also indicated running along the eastern side of Fairfax Street. Buildings are also indicated along much of the northern side of Mill Lane, including a building on the site of Bishop Bonners Palace. The southern side of Mill Lane also shows many buildings, as do both sides of Grange Lane. The mill at the western end of Mill Lane is also indicated, now called Swan's Mill. Buildings are also indicated on the western side of Southgate Street, within the area at the northern extremity of the assessment area. Very little development is shown to the south of the Newarke, except along the streets. In 1776 Trinity Hospital was rebuilt, with a second storey, and the removal of the north and south aisles.

The enclosure of the south field was finally completed in 1811 after an Act of Parliament passed in 1804. Subsequently the town began to rapidly spread southward, stunted from westward expansion by the Dannett's Hall and Westcotes estates. The 1828 map of Leicester indicates some suburban development

to the south of Mill Lane, except along Grange Lane (called Green Lane on the map) and Oxford Street. The open squares shown on the Roberts map are still visible, although by this time far more buildings appear to surround them. The Female Asylum is indicated on the map at the northern end of Asylum Street (now Gateway Street), founded in 1800 by the Reverend Thomas Robinson, vicar of St. Mary de Castro, to train female orphans as domestic servants (Courtney and Courtney 1995, 62). A large area of the Newarke still remains as gardens or orchards.

By the end of the 19th century, as indicated on the 1888 Ordnance Survey sheet XXXI.14.9, a huge amount of development had occurred to the south of Mill Lane. The entire part lying within the development area is by then covered with terraced housing, factories, and the creation of a number of new roads. The southern half of the Newarke precinct was also covered with terraced housing, small courts and new roads, presumably as a result of the borough encompassing the formerly separate area in 1835, and its privileged and exclusive status lost. The three open squares are still largely intact, although that which led to the Newarke (Magazine) Gateway was narrowed on the southern side by the erection of the Militia Headquarters in 1863 adjacent to the gateway and militia housing and parade ground. By 1893 the militia drill hall was built across the northern side of Magazine Square, the parade ground. Much of the surviving southern wall of the Newarke precinct was demolished in around 1860 to make way for the new housing. St. Andrew's Church and vicarage, designed by Sir George Gilbert Scott, were built between 1860-1862, presumably to serve the expanding suburban developments of this area.

At the beginning of the 20th century the road leading to the Newarke (Magazine) Gateway was widened so that traffic could go to the north of it rather than through it, the gateway being far too small for large vehicles. The road was diverted to cross the River Soar with the erection of Newarke Bridge. At this time part of the remaining Trinity Hospital rebuilt in 1776 was demolished to make way for the road, and partly rebuilt at an angle along the northern side of the Newarke, as the new road was called. The Female Asylum at the northern end of Asylum Street (now Gateway Street) was demolished in 1927 for road widening. Shipley Ellis House was initially incorporated into the structure of the Arts School, until it was demolished in 1932 to make way for the Hawthorn Building. In 1935 Mill Lane was widened and Bishop Bonners Palace and the remaining parts of the southern Newarke Wall were demolished. In 1940 a German bomb fell close to Wygston's Chantry House, damaging much of the building which then remained empty until it was renovated in 1957. St Mary's Vicarage was partially demolished in 1947, so that only a single storey of the building remains. Although neglected for many years, it was restored and converted to a new use in 2005-6. In 1967 the Militia Housing and the Drill Hall were levelled to make way for buildings associated with Leicester Polytechnic, now De Montfort University. Since then much of the area has changed with modern buildings associated with the University being erected over areas where the former terraced housing had been.

Project Aims and Objectives

The overall aims of the project were:

- To identify the presence or absence of any archaeological deposits.
- To establish the character, extent and date range for any archaeological deposits to be affected by the proposed ground-works.
- To excavated and record any archaeological deposits to be affected by the ground-works.
- To produce an archive and report of any results.

During the course of the excavation the following objectives were considered:

- Establishment of the form, function and chronology of any preserved archaeological remains, utilising all appropriate scientific and analytical techniques.
- The recognition and investigation of activity and occupation areas.
- Recovery of paleo-environmental remains, including waterlogged deposits.
- Examination of evidence for settlement development within the hinterland around Leicester.
- Recovery of artefactual remains to assist in the development of local and regional type series.
- Establish the impact that the former James Went building has had on any surviving archaeology.

The results of the initial desk-based assessment (Meek 2001) and evaluative work also suggested that the excavation might have the potential to add knowledge to the following research themes.

Prehistoric

- The character of prehistoric activity in the Soar Valley.
- The character of Iron Age settlement and land use in Leicester.

Roman

- The character of early Roman Leicester – land-use, urban planning and settlement patterns.
- The role of the immediate hinterland surrounding Roman Leicester.
- The origin and development of the Tripontium road and the southern suburb.
- The end of Roman Leicester

Medieval

- The development of the early medieval town.
- The role of the immediate hinterland surrounding medieval Leicester.
- The origin and development of the southern suburb.
- The origin and development of the Newarke precinct.

Post-medieval

- The impact of the Civil War defences on the southern suburb.

Excavation and Analysis

Excavation Methodology

Standards

All work followed the *Institute of Field Archaeologists (IFA) Code of Conduct* and adhered to their *Standard and Guidance for Archaeological Watching Briefs;* their *Standard and Guidance for Archaeological Field Evaluation;* and their *Standard and Guidance for Excavation.* All work also adhered to the *Guidelines for Archaeological Work in Leicestershire and Rutland (LMARS).*

Trial Trenching

During the project a number of watching-brief and evaluation trenches were dug across the development area. The present ground surface and modern overburden were removed in level spits under continuous archaeological supervision with a JCB 3C mechanical digger or tracked 360° mechanical excavator using a toothless ditching bucket until archaeological deposits or undisturbed natural substrata were encountered. Where necessary the trenches were stepped and battered for safety reasons and backfilled and levelled at the end of the evaluation.

Archaeological deposits were hand cleaned, planned and sample-excavated as appropriate to addressing the aims and objectives of the watching-brief or evaluation and establishing the stratigraphic and chronological sequence. Measured drawings of all archaeological features were prepared at a scale of 1:20 and tied into an overall site-plan of 1:100. Trenches were recorded on pro-forma ULAS trench recording sheets whilst all stratigraphic units were given a unique context number and recorded on pro-forma ULAS urban context sheets. All excavated sections were recorded and drawn at 1:10 or 1:20 scale as appropriate, levelled and tied into the Ordnance Survey datum. Spot heights on features were also taken as appropriate.

The locations of the trenches, sections and archaeological features were surveyed using an Electronic Distance Measurer (EDM) linked to a Psion handheld computer, utilising Alfred McAlpine's survey stations. The data was processed using N4ce survey software and the final plans completed with the aid of TurboCAD v.15 design software. All plans were tied into the National Grid.

Excavation

In certain areas of the development further open excavation was carried out. Following the removal of the modern overburden and major modern intrusive features (i.e. 19th century cellars and demolition deposits associated with the former James Went building) using a tracked 360° mechanical excavator with a toothless ditching bucket the remaining intrusions, such as defunct service trenches, were removed using hand tools. Considering the time-constraints for the project it was determined that the highest priority would be the excavation of all surviving Roman and medieval deposits within the formation depth of the proposed development.

An EDM was used to instate 5m square grids across the individual sites as best fit each site. Elements of these had to periodically be reinstated to allow for the reduction of the archaeological deposits throughout the excavation. All heights were calculated to above Ordnance Datum (m OD) from a series of fixed temporary benchmarks (TBM) established by Alfred McAlpine.

All stratigraphic units were given a unique context number and recorded on pro-forma ULAS urban context sheets. Specialised features (i.e. Masonry) were recorded on pro-forma ULAS masonry sheets. Due to the complex nature of the urban stratigraphy a single-context planning system was adopted. Every context was drawn at 1:20 on a pre-printed 25cm square Permatrace sheet representative of the 5m square grid it was located within. If the context crossed grids it was planned on multiple sheets representative of all the grids it was located within. Due to final time constraints this system was largely unused during the salvage excavation beneath the PACE building (A11.2006). Instead these archaeological deposits were recorded on multi-context plans drawn on A2 Permatrace sheets. Sections were normally drawn at 1:10 on A2 Permatrace sheets. Spot heights were taken on all features and deposits.

Human Remains

Any human remains encountered during the project would only be removed under a Home Office Licence and in compliance with relevant environmental health regulations. The client, Leicester City Council and the coroner would be informed immediately on their discovery. Any human remains would be given a unique skeleton number (SK#) and recorded on pro-forma ULAS skeleton sheets.

Report Conventions

For the sake of clarity within this report and to allow comparison across the project a numerical prefix, unique to each of the four accession codes, has been added to every context number. Therefore, in this report all contexts from A11.2006 now have a 1000 prefix; all contexts from A2.2007 have a 2000 prefix; all contexts from A7.2008 have a 3000 prefix; and all contexts from A8.2008 have a 4000 prefix. These prefixes are only used within this report and are not present within the site records of the individual accession codes.

In this report features – being context numbers representing cut and fills – are discussed in the text solely in terms of their cut number, represented with [ ]. Fill numbers are not mentioned except in specific circumstances and are represented within (). Layers – being context numbers not defined within a cut – are represented within ( ).

The discussion of the archaeological deposits within evaluation Trench 10 (A2.2007) can be found incorporated with the discussion of Trench 3 (A2.2007); whilst the discussion of evaluation Trenches 6a and 6b (A2.2007) can be found incorporated with the discussion concerning A8.2008. Evaluation and watching-brief trenches which proved to contain no archaeological deposits are excluded from the phase discussions. For an outline of the results from these trenches see *The Negative Evaluation and Watching-brief Trenches*.

Excavation Timeline

In order to assess the impact of the proposed PACE building on the underlying archaeological deposits an evaluation of the archaeological potential was carried out on the 21st and 22nd of February, 2006 by ULAS under the supervision of James Harvey. Two trenches were dug within the proposed footprint of the new building and some archaeological deposits of Roman, medieval and post-medieval date were identified, the densest activity being in the trench closest to the Oxford Street frontage (Harvey, 2006).

However, as these features had been badly damaged by modern disturbance, including the demolition of the former James Went building, it was deemed appropriate that any further work needed only to be in the form of an intensive watching brief during ground works in advance of construction of the new footings. This was carried out between 26th April and 5th May 2006 by Jennifer Browning, James Harvey, Neil Finn and Greg Jones. Outside of the footprint of the former James Went building, on the eastern edge of the PACE development, preservation was better and a salvage excavation of these deposits was carried out between 11th and 25th May by Tony Gnanaratnam, James Harvey, Neil Finn, Wayne Jarvis, Dan Prior and Gerwyn Richards. All work relating to the excavations beneath the PACE building was recorded under the accession code A11.2006.

Between the 8th and 24th May 2007 further archaeological evaluation was carried out by ULAS, under the supervision of John Tate, to the north and east of the PACE building over the site of the proposed new Hugh Aston Business and Law Building. The first stage (A2.2007) saw five trenches dug around the newly completed PACE building – Trenches 1a, 1b, 2, 3, 6a, 6b and 7. Again, to the east towards the Oxford Street frontage and outside the demolition levels of the former James Went Building significant archaeological preservation was identified – in Trenches 3, 6a and 6b. Trench 3 was situated in the area of the proposed courtyard borehole heating system and, as the integrity of the archaeological deposits would be severely compromised by its installation, further excavation was deemed necessary. This , along with further peripheral investigation – Trenches 8, 9 and 10 – was carried out between 24th September and 21st November under the supervision of John Tate.

The second stage of the evaluation was to consist of two further trenches – 4 and 5 – dug beneath Oxford Street, once road realignment works had been completed. However, due to the high archaeological potential in this area – as highlighted by Trenches 6a and 6b - and the tight development timetable it was decided to proceed directly to archaeological excavation and this second stage was rolled into the 2008 excavation of the Oxford Street frontage.

Further archaeological evaluation and a series of watching-briefs relating to the borehole heating system were carried out to the west of the proposed new Hugh Aston Business and Law Building adjacent to the Hawthorn Building (A7.2008). Three areas and four watching brief trenches were examined for archaeological potential between 13th March and 4th April 2008 under the supervision of Steve Jones and Martin Shore. Some features of Roman, medieval and post-medieval date were uncovered and investigated but no further work was deemed necessary.

The final phase of excavation (A8.2008), carried out between 31st March and 16th July (at the same time as A7.2008) under the supervision of Steve Jones, investigated the significant archaeological deposits known to be present along the Oxford Street frontage beneath the east wing of the proposed Hugh Aston Business and Law Building. Two large areas – A and B – divided by an electric cable service trench were excavated immediately east of the new PACE building where they adjoined an area previously examined during the salvage excavation carried out in 2006 as part of A11.2006. Two smaller areas – C and D – and a series of small watching briefs were investigated further north within the vicinity of the Magazine Gateway and east of the A2.2007 excavations.

Initial post-excavation analysis for the first stage of the A2.2007 evaluation was carried out by John Tate and a report of the evaluation produced (Tate 2007). The results from this have now been revisited and revised in regards to further work relating to A2.2007 and the surrounding sites, and is now presented in this report. Preliminary post-excavation analysis for A7.2008 and A8.2008 was carried out by Steve Jones with the assistance of Lara Callaghan and Mireya Gonzalez Rodriguez in 2008 and early 2009. Final post-excavation analysis for all four sites was carried out by Mathew Morris from September 2009 onwards and this final, amalgamated report was written by Mathew Morris.

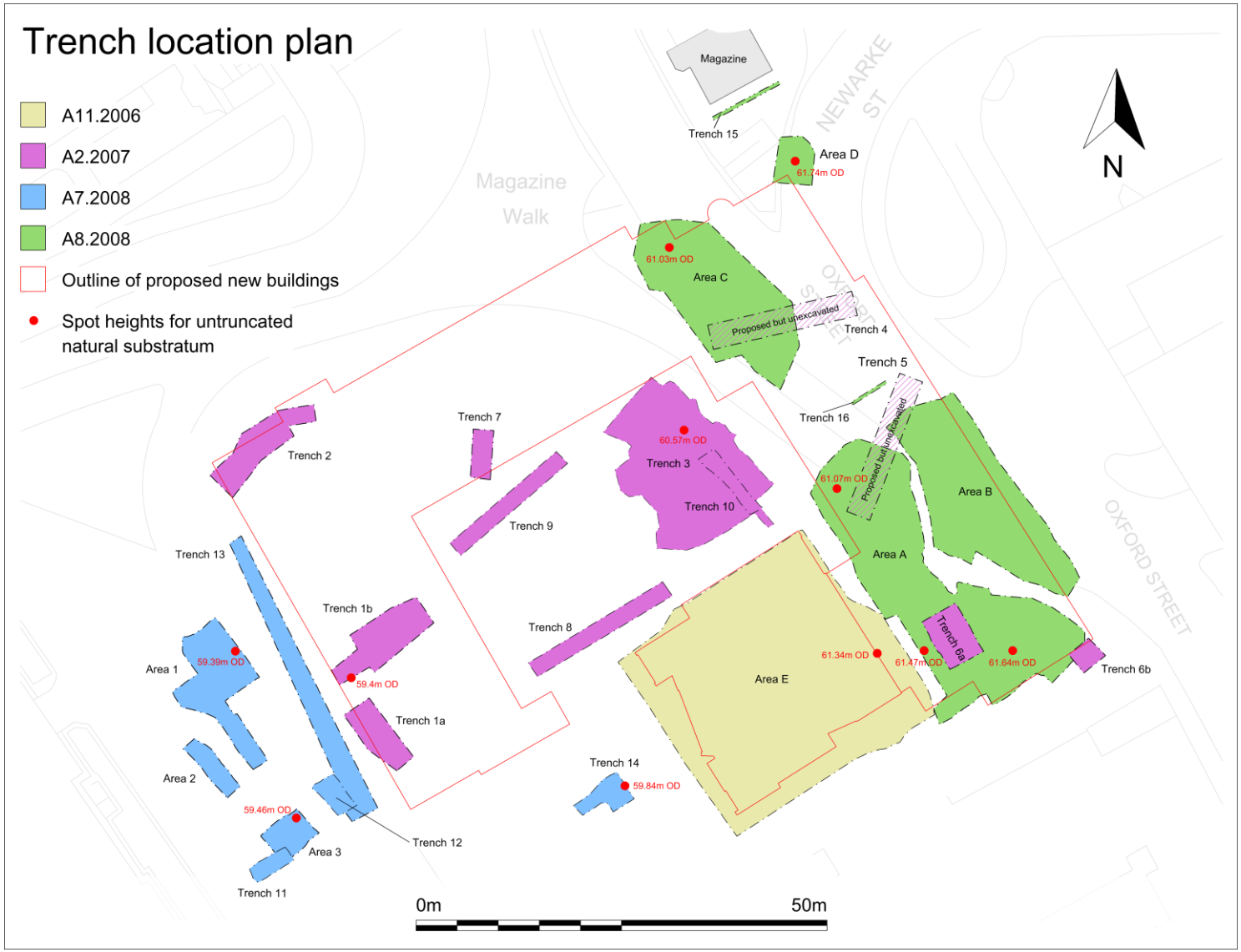

Figure 6: Site plan showing the location of investigated areas in relation to the proposed development

Excavation Results

The following account of the excavation results employs a period and phase nomenclature common to all ULAS sites in Leicester. The sub-phasing is unique to this project.

Phase 1	Pre-Roman
Phase 2	Early Roman (mid-1st to early 2nd century AD)
Phase 3	Mid-Roman (mid-2nd to 3rd century AD)
Phase 4	Late Roman (4th century AD)
Phase 5	Early Anglo-Saxon (AD *c.*400-650)
Phase 6	Mid-Saxon (AD *c.*650-850)
Phase 7	Saxo-Norman (AD *c.*850-1100)
Phase 8	Earlier High Medieval (AD *c.*1100-1250)
Phase 9	Later High Medieval (AD *c.*1250-1400)
Phase 10	Late Medieval (AD *c.*1400-1500)
Phase 11	Early Post-medieval (AD *c.*1500-1650)
Phase 12	Late Post-medieval (AD *c.*1650-1750)
Phase 13	Early Modern (AD *c.*1750-1900)
Phase 14	Twentieth Century (AD *c.*1900-present)

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The draft report was refereed by Richard Buckley who provided many helpful comments for improvements to the text. Phase, site and feature plans were produced by Mathew Morris and Martin Shore. Site photographs were taken by numerous ULAS staff members; finds photographs were taken by Jennifer Browning and Siobhan Brocklehurst. The report as a whole was written and edited by Mathew Morris.

THE PRE-ROMAN AND ROMAN PERIOD (*c.*AD 50-410)

Phase 1 (Pre-Roman or Early Roman)

Natural subsoils; late Iron Age features; undateable pre- or early Roman features; and a possible pre- or early Tripontium road alignment

Natural substratum

The only pre-Roman deposits recorded across the four sites were naturally occurring blends of alluvial material primarily consisting of reddish clays mingled with a broad mixture of pale yellow to dark reddish-orange soft and coarse sands, and dark orange-yellow sandy gravels. These – (**4080**), (**4081**), (**4082**) and (**4730**) – were observed untruncated at between 61.5m and 61.64m above Ordnance Datum (OD) across the southern end of Areas A and B, dropping to 61.07m OD across the northern end of Area A *c.*30m away, and 61.47m OD across the western side *c.*11m away. In Area C this substratum was observed at 61.03m OD and in Area D at 61.74m OD, giving the overall impression that the natural ground level was dropping away to the west. Where surviving subsequent truncation these deposits were typically sealed beneath approximately 0.2m of accumulated orange-grey silty subsoil, whilst in Areas A, B and D sections across the surviving Phase 2 Roman road surfaces typically show them capped by up to 0.1m of pale-mid grey silt - (**4010**) and (**4118**) - at the base of the road sequence. This is believed to represent buried topsoil signifying a pre- or early Roman ground-level at 61.59m OD in Area A rising to 61.79m OD in Area D. Similar material – (**4684**) - was also identified in Area A west of the Phase 2 road alignment resting on natural subsoils at 61.32m OD.

Across the other three sites the pre-Roman ground level is more difficult to establish as destruction associated with the former James Went building had caused significant intrusion into the natural substratum. On Area E the highest surviving natural material was observed along the site's north-eastern edge at 61.34m OD. Whilst in Trench 1b, *c.*64m to the west, a natural substratum of pale brownish-yellow clayey-sand was observed at 59.4m OD sealed beneath at least 0.38m of brownish-yellow silty-sand subsoil – (**2003**) and (**2004**). No further untruncated natural deposits could be identified across Trenches 1-10 and the highest surviving natural material sealed beneath Roman deposits in Trench 3 was observed at 60.57m OD. On the western side of site the only untruncated natural substratum was a reddish-orange clayey-sand observed in section at 59.84m OD in Trench 14 beneath at least 0.3m of greyish-orange silty-sand. However, in Areas 1 and 3 natural sands – (**3058**) - were observed at 59.39m and 59.46m OD – levels comparable to that in Trench 1b *c.*14m to the east.

These levels clearly indicate a drop in ground level across the site from east to west of 2.24m. However, as this slope occurs over a distance of *c.*80m the gradient would have been negligible at just 1.6 degrees.

A11.2006 and A8.2008 (Areas A-E; Trenches 6a, 6b and 15)

Only a small number of undateable features from Areas A-E could be considered pre- or early Roman (Figure 8). In Area E just three features remained undateable, yet pre-dated quantifiable early-Roman activity. In section beneath the surviving Newarke Wall (Phase 10), along the eastern edge of site, were two possible ditch cuts – [**1044**] and [**1055**]. These were spaced *c.*6m apart on an approximate north-east to south-west alignment which corresponded with the position of a Phase 2 street bisecting the *Tripontium* road. Both features appeared concave or tapered in section, *c.*0.8m wide and *c.*0.3m deep, and were filled with clean naturally weathered sandy-silts. A third similar linear feature – [**1020**] – *c.*9.7m to the south-west possibly represents the continuation of ditch [**1055**]. Despite the lack of dateable material from these features their position suggests they may represent the continuation of Phase 2.1 ditches [**4167**] and [**4173**] identified in Area A to the east. Comparison of the basal depths of the features in both areas further supports this, as variation between them was typically less than 0.15m.

In Area A, a possible ditch – [**4015**] – also containing weathered natural fill was partially visible in section beneath the Phase 2 Roman road surfaces. The same feature was possibly observed in section in Area B, *c.*8m to the north, as a *c.*1m wide and 0.32m deep concave cut - [**4526**] - again sealed beneath Phase 2 road surfaces. Here it was bordered to the west by two successive metalled surfaces - (**4528**) and (**4527**) - 0.1m and 0.16m thick respectively (Figure 11c). These were both constructed of greenish-brown sandy-silt mixed with frequent stones resting directly on a layer of buried soil, and appeared to retain a

shallow camber dropping down to the edge of ditch [**4526**]. Further metalled surfaces - (**4460**), (**4716**) and (**4717**) - were also observed at a similar level *c.*4m to the north and, although no potential ditch continuation survived, they also retained a shallow camber on a similar alignment (Figure 11b). These may represent an early phase of surface, possibly a precursor to the Phase 2 *Tripontium* road. If so, this road's alignment differed by approximately 8.5 degrees to its Phase 2 successor. Fragments of two further intercutting ditches – [**4708**] and [**4710**], with [**4710**] representing the re-cutting of [**4708**] – were identified in Area A. Both were at least 1m wide and 0.7m deep tapered cuts with fills suggesting they fell out of use during the early to mid-2nd century. However, their alignment has more in common with this early undated activity than the subsequent Phase 2 road and the date of the pottery in their upper fills may be credited to contamination from subsequent overlying Phase 2 and 3 intrusion and soil accumulation. If these are contemporary with this earlier road alignment and represent an opposing road-side ditch they would allow for a carriageway at least 7.5m wide.

Metalled material (**4660**) was also observed on the southern edge of Area B. Here it capped a narrow, tapered gully - [**4555**] - *c.*0.26m wide. This too was filled with weathered natural silts. Other activity in Area A consisted of an expansive area of amorphous disturbance – [**4580**] and [**4642**] – over 4.3m by 4.5m, containing further sterile weathered natural fills. This may signify some degree of localised gravel extraction. Similar disturbed ground was also identified along the northern side of Area E. Finally, in Areas A and *C* the compacted natural characteristic of the fills within an undated post-hole [**4076**], *c.*0.25m in diameter and *c.*0.25m deep, and two stake-holes - [**4671**] and [**4675**] - both up to 0.13m in diameter and 0.18m deep, all situated beneath Phase 2 features may also indicate pre-Roman origins. Stake-holes [**4671**] and [**4675**] spaced *c.*0.37m apart had both been driven into soil layer (**4684**).

A2.2007 (Trenches 1-5 and 7-10)

Very few undateable features from Trenches 1-10 could be considered pre- or early Roman (Figure 9). In Trench 1b the natural subsoils – (**2003**) and (**2004**) – were overlain by a layer of sparse metalling – (**2005**) – formed from compacted gravel set within a pale orange-grey silty-sand matrix in places up to 0.1m thick. This was identified at both the north-eastern and south-western ends of the trench but was absent across the centre, likely due to the intrusive presence of a small cellar void. At the western end of the trench this was sealed beneath a 0.24m thick layer of pale brownish-grey silty-sand – (**2002**) – very similar to buried topsoil deposits – (**4010**), (**4071**), (**4118**) and (**4684**) – identified on Areas A-D as likely representing the pre- or early Roman ground level. Truncating this layer were two undateable features. One – [**2006**] – appeared to be the truncated base of a possible post-hole, *c.*0.57m in diameter and *c.*0.18m deep, filled with weathered silty-sand similar to (**2002**); the second – [**2008**] – only partially observed extending beyond the south-western edge of excavation appeared to be a pit, at least 1.4m in diameter and seen to a depth of *c.*0.38m, filled with firm red clay. Although undated, the leached nature of the fills within both these features and the underlying soil and surface layers suggests they are likely to be of pre- or early Roman date. However, it is clear that the deposits within this trench had sustained significant damage from 14th-century agricultural activity of which furrows [**2010**], [**2012**] and [**2013**] – see Phase 9 – stand testament.

In Trench 3 few undateable features could, again, be considered pre- or early Roman. Near the northern edge of excavation the truncated base of a small post-hole – [**2139**] – was dug into natural subsoil. This was oval, *c.*0.23m by *c.*0.37m and *c.*0.1m deep, filled with orange-brown sandy-silt which appeared to be a more mixed variant of the surrounding subsoil. Although containing no ceramics it did contain some abraded Roman tile and it could possibly be associated with other post-holes in the area – [**2143**] in Phase 2 or [**2111**], [**2124**], [**2133**] and [**2135**] in Phase 3. Approximately 5m south-east of this was a shallow north-south orientated gully – [**2341**]. Heavily truncated, this survived for *c.*1.13m before being cut by modern services. It was *c.*0.39m wide, *c.*0.16m deep and appeared to finish with a rounded terminus at its southern end. It was filled with leached pale brown silty-sand, characteristic of natural accumulation, before being sealed beneath a further deposit of clean pinkish-grey silty-sand – (**2320**) – possibly redeposited subsoil.

Just two further undated features were observed in Trench 3. At the base of a sondage cut across the western side of the area was a partially exposed pit – [**2313**]. This appeared irregular in plan, although only a small portion (*c.*0.83m by *c.*0.28m) of it was observed, and had steep sides descending to at least 0.2m in depth. It was dug into the natural subsoil and was filled with clean weathered clayey-sands. Whilst approximately 12m to the east was the heavily truncated remains of a second pit – [**2354**] – partially observed beneath Phase 3 pit [**2356**]. This appeared to be sub-circular in plan, *c.*0.83m in

Figure 7: Iron Age ditch [3032] – A7.2008, Area 3. Looking north-west

diameter, with its western half truncated by pit [**2356**]. It too was dug into the natural subsoils and was filled with clean weathered sandy-clay.

A7.2008 (Areas 1-3; Trenches 11-14)

The majority of the features considered to be pre- or early Roman from Areas 1-3 have proved to be undateable (Figure 10). However, four features did contain small quantities of late Iron Age pottery and the other seven can also probably be considered contemporary. In Area 1, one dateable feature was a small circular pit – [**3064**] – measuring *c.*1.15m in diameter and *c.*0.4m deep. It was dug into the natural substratum and its fill appeared to be homogeneous greyish-brown sandy-silt, characteristic of naturally weathered accumulation, sterile except for a single sherd of late Iron Age pottery. Approximately 2.8m to the north were two post-holes – [**3050**] and [**3059**] – spaced *c.*0.2m apart on an east to west alignment. Both were circular cuts with near vertical sides and flat bases filled with weathered brownish-orange sandy-silt. Post-hole [**3050**] was *c.*0.41m in diameter and *c.*0.15m deep, whilst [**3059**] was *c.*0.47m in diameter and *c.*0.2m deep. A third similar post-hole – [**3068**] – was also present *c.*2.6m south-east of pit [**3064**]. This measured *c.*0.4m in diameter and *c.*0.11m deep, and was filled with weathered grey sandy-silt. Late Iron Age pottery was also found residually within the late 1st century subsoil – (**3057**) – along the western side of Area 1 (Phase 2).

In Area 3 the three other features containing late Iron Age pottery were similarly backfilled with weathered natural fills. On the north-eastern side of the area a *c.*4m length of ditch was uncovered – [**3032**] (Figure 7). This extended north-west to south-east, was *c.*0.83m wide with steep concave sides and base, and was *c.*0.6m deep. There was evidence to suggest *c.*1.6m of its south-eastern length had

been re-cut – [**3033**]. This was wider than its predecessor, at *c.*0.91m, but otherwise of similar shape and depth. It appeared to end with a curved terminus at its north-western end and was backfilled with weathered pale brown sandy-silt beneath dark grey sandy-silt mixed with charcoal flecks. It was this dark soil which contained the majority of the late Iron Age pottery. To the west survived a small concentration of five post-holes; two also containing late Iron Age pottery – [**3002**] and [**3008**]. These were spaced *c.*0.9m apart on a north to south alignment *c.*2.1m from ditch [**3032**], with a third post-hole – [**3035**] - located a further *c.*0.25m to the north-west. Finally, between these and the ditch, on a parallel alignment *c.*0.55m from the ditch, were a further two post-holes – [**3026**] and [**3029**]. These were all small circular cuts with concave sides and bases, measuring between *c.*0.3m and *c.*0.36m in diameter (with the exception of [**3008**] which was *c.*0.5m in diameter) and up to *c.*0.25m deep. All five were filled with weathered pale brown sandy-silt.

Just one undateable feature was observed at the base of Trench 14 – [**3079**]. This appeared to be a small circular pit, *c.*0.9m in diameter, filled with brownish-grey clayey-silt.

Discussion

Overall, very little of note can be said for Phase 1. Very few features proved to be undateable or of pre-Roman date and for the most part those that were undateable generally appeared to correlate with quantifiable late 1st century activity (discussed further in Phase 2). Evidence for a possible pre-*Tripontium* road road-alignment, although tentative, is important as it has previously been postulated that the *Tripontium* road was not laid out until the early 2nd century, around the same time that Leicester's street-grid was also formally defined (Finn 2004, 62). The intimation of an earlier, possibly metalled, road as identified in Areas A and B now suggests that the Tripontium Road's origin may have been much earlier than its known early 2nd century existence.

Perhaps the most significant pre-Roman activity identified, however, is the small cluster of late Iron Age features exposed in Areas 1-3, particularly those in Area 3. This ditch and associated post-holes are the first physical evidence of late Iron Age activity identified south of the postulated *c.*10 hectare area, 350m to the north in the vicinity of St Nicholas Circle, believed to be the location of the pre-Roman settlement of *Ratae*. They are also represent the first evidence identified beyond the later Roman town defences. Previously only residual mid- to late Iron Age material has been recovered from sites in the vicinity, such as from Elfed Thomas to the west (Cooper 1996) and Mill Lane to the south (Finn 2002), and although this hints at Iron Age activity within the area, the features found in Areas 1-3 are the first tangible proof of activity beyond the settlement core.

Both the ditch and the post-holes appeared to have been allowed to weather and fill naturally. However, evidence showing the ditch had been re-cut at least once indicates relatively prolonged usage of the alignment, most likely the delineation of a property or field boundary. Evidence of habitation in the immediate vicinity was suggested by the presence of a dark, charcoal rich soil within the re-cut ditch. This also contained a significantly higher proportion of ceramic material than the other features and possibly represents redeposited 'midden' waste. Due to the limitations of the excavation the post-holes west of the ditch had no definable arrangement, but possibly represent the remains of a small structure tucked up against the boundary ditch. This can also be said for the few further tentatively identified late Iron Age features present in Area 1 *c.*17m to the north.

Figure 8: Phases 1 and 2.1 (A11.2006, Area E, and A8.2008, Areas A and B)

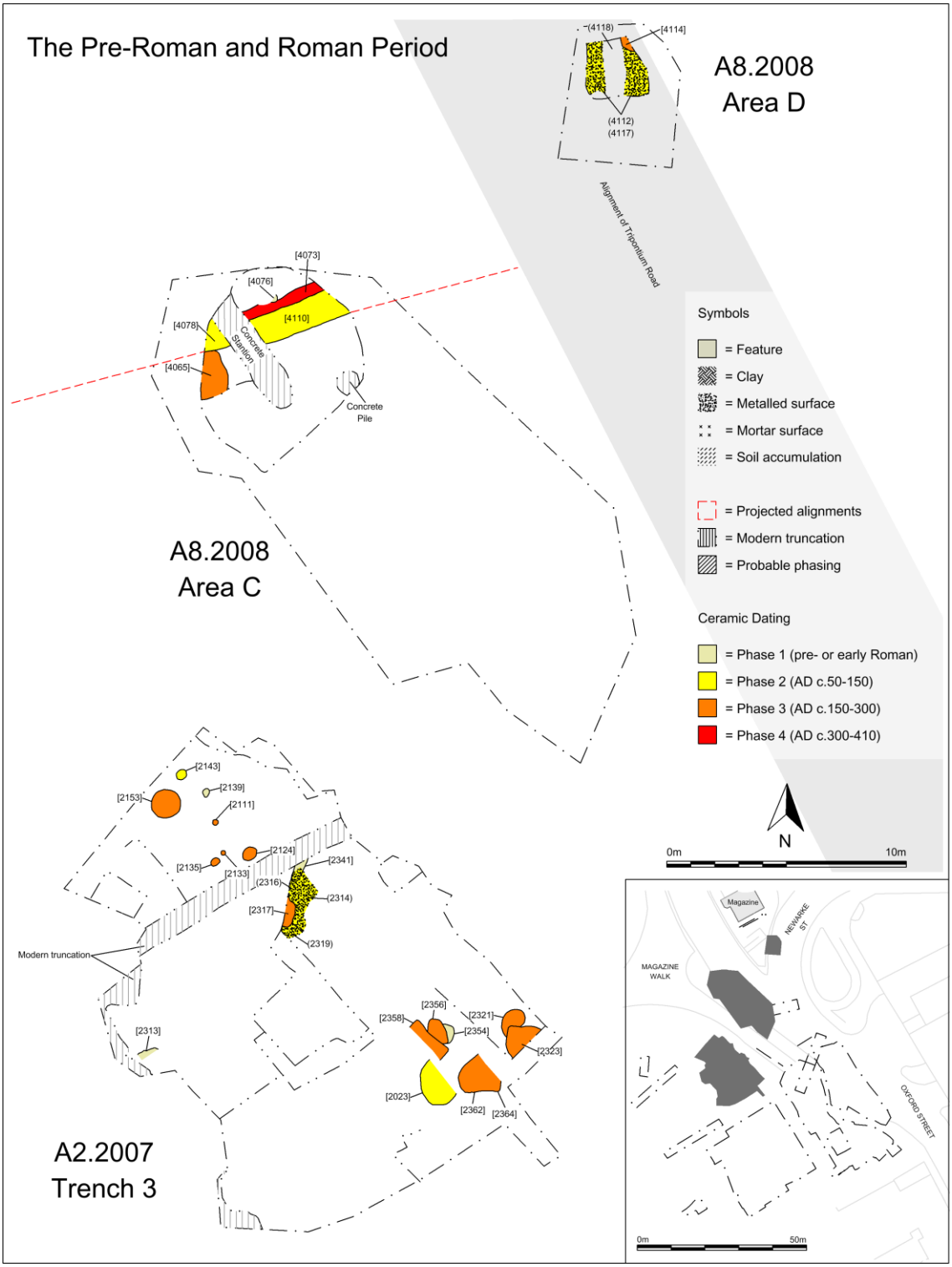


Figure 9: Phases 1-4 (A2.2007, Trench 3 and A8.2008, Areas C and D)

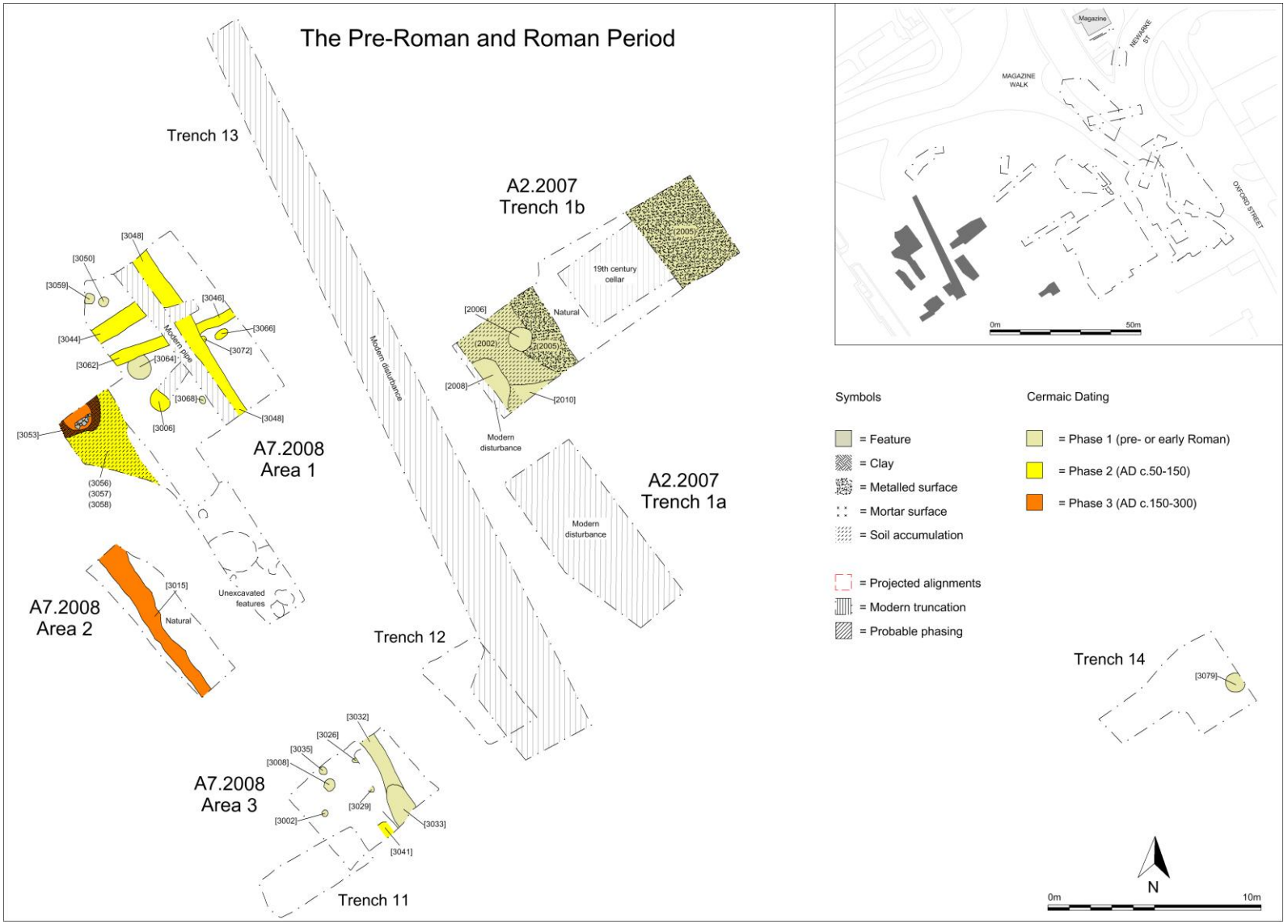


Figure 10: Phases 1-3 (A2.2007, Trenches 1a-b and A7.2008, Areas 1-3 and Trenches 11-14)

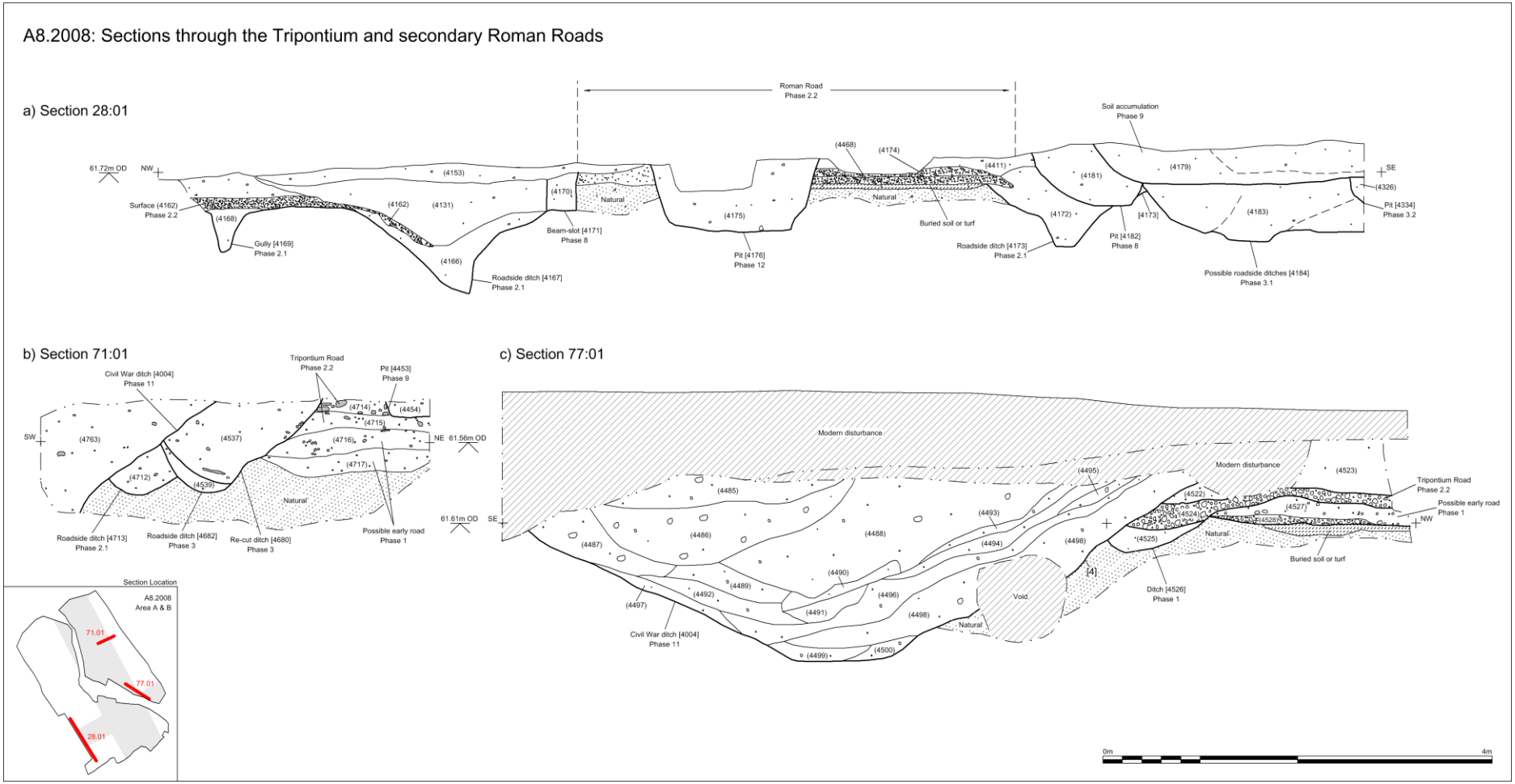


Figure 11: Sections through the Tripontium and secondary Roman Roads – A8.2008, Areas A and B

Phase 2 (Early Roman: Mid-1st – early 2nd century AD)

Possible early boundary ditches; establishment of the Tripontium *road alignment with road-side ditches; surfacing of the* Tripontium *road; and early adjacent occupation, possibly habitation or fenced-enclosures*

A11.2006 and A8.2008 (Areas A-E; Trenches 6a, 6b and 15)

The first dateable Roman activity across Areas A-E can be broadly attributed to the late 1st to mid-2nd century AD, and can be categorised into two unique sub-phases (2.1 and 2.2).

Phase 2.1

In Areas A and B, initial activity saw the digging of a series of ditches – [**4167**], [**4173**], [**4640**], [**4669**], [**4697**], [**4706**] and [**4713**] (Figure 8). These were often only identified as short, disconnected fragments but similarities between their alignments suggest they represent the demarcation of a north-west to south-east aligned roadway, between 9.2m and 11.1m wide, flanked by parallel road-side ditches. This is believed to be the *Tripontium* road, which ran south-east from Leicester to Caves Inn (*Tripontium*) where it joined Watling Street. For the most part, these ditches – [**4173**], [**4640**], [**4669**], [**4706**] and [**4713**] – all had steep sloping sides, concave bases and varied from *c.*0.7m to *c.*1.3m in width and *c.*0.46m to *c.*0.55m in depth (Figure 11a-b). They were typically filled with fairly sterile weathered orange, reddish-brown and greenish-brown clayey-silts, which, with the exception of small quantities of residual pottery, contained little evidence of immediate human habitation.

The notable exception was ditch [**4167**], which extended perpendicularly away from the projected road line. It was identified (in section - Figure 11a) as being *c.*2.3m wide and 1.14m deep with a steep sloping south-eastern face of 46 degrees, descending as a near vertical drop of 81 degrees for the lower 0.3m to a tapered base; and a more gently sloping north-western face of 39 degrees. Its initial filling also

Figure 12: The Roman Road junction – A8.2008, Area A. Looking north-east.
The Tripontium Road runs left to right across the top of the picture with the bisecting road visible as pale gravel on the bottom left. Roadside ditches [**4173**] and [**4640**] – Phase 2.1 - are highlighted.

comprised weathered greenish-brown sandy-silts. Its alignment was mirrored by ditch [**4173**], located *c.*4.4m to the south-east, which turned south to also extend parallel with the projected *Tripontium* road line as [**4640**] (Figure 12). Taken together these possibly represent the flanking ditches of a second, narrower road either extending away to the south-west or crossing the *Tripontium* road on a south-west to north-east alignment. Both ditch [**4167**] and [**4173**] can also be identified as ditches [**1044**] and [**1055**] in Area E (Phase 1) proving this street continued at least 20m south-west of the junction. Ditch [**4167**], however, is exceptionally large, with an uncharacteristic profile compared to the other ditches identified across Areas A-E, and it is plausible that it does not simply represent a road-side drainage ditch, but may have an earlier origin, perhaps as a pre-existing boundary ditch. Unfortunately, projecting its course is difficult. The only conclusive segment was a short section adjacent to the western edge of Area A and its continuation north-eastwards can only be inferred, this area becoming extensively damaged by medieval and post-medieval pitting (Phases 8-12). However, its absence in section in these later pits immediately adjacent to the road junction suggests it either terminated or turned north-westwards before reaching the *Tripontium* road. Evidence to support this could be inferred from a partially observed cut – [**4697**] – observed in section on line with the north-western side of ditch [**4167**] and the proximity of ditch [**4706**]. However, the notable contrast between size and profile of both ditches suggests they are unlikely to be the same feature. Take the variation in basal depth between ditch fragments [**4706**] and [**4669**], which are believed to be part of the same feature. These vary by less than 30mm. In contrast, the base of ditch [**4167**] is at least 0.35m lower than ditch [**4706**]. It is plausible that ditch [**4167**], if it does represent an earlier feature, was later adapted to act as a road-side ditch in conjunction with ditch [**4669/4706**]. However, due to the extensive level of truncation in this area this theory must remain conjectural. It should be noted that whilst ditch [**1044**] on Area E does appear significantly narrower than its continuation as [**4167**] this is due to differences in the depth of horizontal truncation and a comparison of the basal depth of the two cuts shows that variation in depth was actually less than 0.15m.

Dating the origin of these ditches is largely inconclusive. However, pottery recovered from the fills of ditches [**4167**] and [**4669**] suggest they were falling out of use during the early 2nd century AD. These are also the only road-side ditches that bear no evidence of re-cutting. In contrast, ditches [**4173**] and [**4640**] bore evidence of re-cutting during the early to mid-2nd century. This L-shaped linear feature flanking both the *Tripontium* road and the secondary cross-road appears to have been re-cut – [**4404**] and [**4530**] – prior to the establishment of the first metalled street surface. The re-cut had concave sides and a flat base, was *c.*1.05m to *c.*1.5m wide and up to 0.65m deep, and closely mirrored the first ditch's alignment. Like its predecessor it too appears to have eventually filled with weathered brownish-green sandy-silts.

Two further features also likely correspond with this early sub-phase of activity. In Area A part of a narrow gully or beam-slot - [**4169**] - was observed running parallel 1m north-west of ditch [**4167**]. This linear feature had near-vertical sides and a concave base, *c.*0.3m wide and *c.*0.45m deep, and was filled with weathered greyish-orange sandy-silt. No datable material was recovered from it; however, its proximity and similar alignment with ditch [**4167**] suggest it may be contemporary, perhaps part of an undefined timber structure. The second feature, ditch [**4078/4110**], was observed in Area C and would also appear to be aligned perpendicular to the projected *Tripontium* road alignment. This had gently sloping sides and a concave base, *c.*1.3m wide and *c.*0.65m deep, and was also filled with weathered greyish-brown sandy-silt. Pottery recovered from this fill suggested the ditch was active from the late 1st to mid-2nd century AD.

Phase 2.2

Phase 2.2 is characterised by two major events: the surfacing of the roads; and the presence of possible habitation adjacent to the *Tripontium* road (Figure 15). The first evidence of road metalling clearly encroached over the silted fills of ditches [**4167**], [**4173**] and [**4650**] indicating their fall from use (Figure 11a). This metalling had first been observed in section in Trench 6a where a fine layer of compacted gravel (**2075**) was observed overlying deposits of sandy subsoil (**2072**), (**2073**), (**2076**) and (**2097**). Survival proved fragmentary across Areas A-E but evidence remained for three successive phases of metalling. The earliest road surfaces could be identified across the main *Tripontium* road and the bisecting secondary road – (**1195**), (**4008**), (**4009**), (**4079**), (**4468**), (**4502**), (**4524**), (**4538**), (**4553**), (**4656**), (**4657**), (**4715**) and (**4729**). These had been constructed with a bedding layer, typically up to 0.1m thick, of orange-brown sand and fine gravel laid directly onto the existing turf line. This was capped with layers of well-sorted and compacted orange-brown gravel (the pebbles being predominantly rounded in character and typically not exceeding 80mm in diameter) to form a cambered surface (Figure 13). Across the *Tripontium* road the disposition of surviving surface fragments suggest the metalling was at least

Figure 13: Street-level view of the surviving Roman road surfaces – A8.2008, Area A. Looking north-west across (4468) – Phase 2.2

5.73m to 7.8m wide, but potentially at least 9.11m wide, that being the distance between the road-side ditches. Across the secondary road metalling survived to a width of 6.7m. This was nearly 2.2m wider than the road line initially laid out between the Phase 2.1 roadside ditches. No camber was witnessed across the *Tripontium* road but it appeared to incorporate a drop of approximately 25 degrees to either side across the secondary street. Evidence of further street maintenance prior to Phase 3 can be identified in two extra phases of re-surfacing, the first comprising (**4174**), (**4427**), (**4551**) and (**4714**); and the second (**4424**), (**4428**), (**4564**) and (**4572**). These followed a similar method of construction as the initial surface, typically with a new bedding layer deposited across the old surface and capped with compacted gravel. Across the secondary road this appears to have perpetuated the camber present in the initial surface. A comparable sequence was also identified in Area D where similar bedding material – (**4117**) – resting directly on buried soil (**4118**) – Phase 1 – was capped by a *c.*0.2m thick deposit of compacted cobbles and gravel – (**4112**) (Figure 9). Further evidence of the road was also observed in section in Trench 15 – (**3081**) – during a watching-brief on a pipe trench being inserted adjacent to the southern side of the Magazine Gateway a further 5m to the north.

Renewal of the roadside ditches flanking the south-western section of the secondary street was also identified. In Area E a new ditch – [**1004**] – was identified truncating Phase 1 ditch [**1044**]. This was observed for *c.*15m flanking the northern side of the road-line. It had a deep, v-shaped profile at least 1.2m wide and 0.86m deep, and appeared to have been allowed to infill naturally for its base contained *c.*0.36m of greenish-grey clayey-silt sediment beneath deposits of naturally weathered brown sandy-silts. To the south of the road line two further ditches were also indentified – [**1190**] and [**1192**] – the former representing the re-cutting of the latter. These were deep, u-shaped cuts, at least 1.18m wide and 0.48m deep, again filled with naturally weathered clayey-silts. Continuation of this ditch across Area E could be inferred from the presence of a similar ditch cut and re-cut – [**1013**] and [**1015**] - *c.*5.5m to the west and a partially observed and largely uncharacterisable feature – [**1025**] – observed in the site's south-western corner. The eastern termini of these ditches were suggested by a partially observed feature exposed in the south-western corner of Area A - [**4184**]. This was a large circular cut with sloping sides and uneven base, 2.44m in diameter and 0.35m deep, filled with dark reddish-brown silty-clay. Like the adjacent ditch fills this appeared to be predominantly redeposited natural material and contained little evidence of discarded occupational debris, other than some fragments of mid-2nd century pottery. In section (Figure 11a) it appeared to be comprised of a series of indistinguishable cuts. No continuation of ditch [**1004**]

Figure 14: 'Yard' surface (4571) – A8.2008. Looking north-east

into Area A could be found suggesting it may have terminated short of the road junction. This conforms with the southern flanking ditch which was identified as stopping *c.*4m short of the *Tripontium* road. Ceramic dating suggests the southern flanking ditch had fallen out of use sometime around the mid-2nd century AD but the northern ditch may have remained active for longer, possibly into the early 3rd century.

To the south-west of the road junction fragments of two shallow features – [**4578**] and [**4582**] – were identified. Both were irregular sided with uneven bases, less than 0.1m deep, filled with weathered clayey-silts and likely represent vegetation scars, possibly tree-throws. Whilst further south, in Area E, small spreads of compacted gravel – (**1193**) and (**1194**) – hinted at metalled 'yard' surfaces extending away to the south. This contrasts with further north where roadside occupation is illustrated by a number of stratigraphically contemporary structural features – i.e. post-holes, post-pads, stake-holes, gullies and beam-slots. From the fragmentary surviving evidence two possible structures may be inferred.

Across the northern third of Area A extensive spreads of greenish-brown silty-gravel – (**4474**), (**4570**), (**4571**), (**4592**), (**4594**), (**4670**) and (**4752**) - typically up to 0.1m thick were identified as the remains of a possible yard surface (Figure 14). These covered a *c.*9.9m by *c.*7.9m area immediately south-west of the projected line of the *Tripontium* road and pottery recovered from the surface of one spread – (**4571**) – suggests the yard was in use during the early to mid-2nd century. Dug into this surface were two linear features – [**4662**] and [**4751**] – set perpendicularly to each other to form the corner of a possible structure, distinguished here as Structure 1. Both features were approximately 0.6m wide and 0.2m deep with sloping sides and concave bases more characteristic of shallow gullies than beam-slots. The fills also suggested natural accumulation, like other ditches observed across the site, with fairly sterile weathered yellowish-green sandy-silts. Further structural evidence within the vicinity can be identified in a post-pad – [**4738**] –dug into surface (**4571**) north-east of gully [**4751**]; and three post-holes – [**4478**], [**4504**] and [**4734**] – dug into surfaces (**4570**) and (**4670**) south-west of gully [**4751**]. These bore little variation, all being between 0.36m to 0.48m in diameter and 0.22m to 0.35m deep and it could be postulated that post-holes [**4478**] and [**4504**], post-pad [**4738**] and gully [**4751**] all form part of an alignment extending perpendicularly away from the Tripontium Road. This can only be considered speculative, however, as insufficient area or features were exposed to provide conclusive corroborative evidence.

To the south, adjacent to the road junction a further six post-holes and three post-pads may represent the footings of a second rectangular timber structure, Structure 2, measuring 6.7m by 5.2m, fronting longitudinally onto the *Tripontium* road. Four of these post-holes – [**4650**], [**4652**], [**4654**] and [**4658**] – were dug into the backfill of ditch [**4167**] on a south-west to north-east alignment, spaced 0.7m, 1.4m and 0.7m apart respectively. They were all approximately circular with steep sloping sides and concave bases, between 0.28m to 0.47m in diameter and 90mm to 0.17m deep, and backfilled with dark greyish-brown silt similar to the overlying Phase 3 soil layers. Characteristics similarly shared by the other two post-holes – [**4598**] and [**4704**]. Post-hole [**4598**] also contained a quantity of 2nd-century pottery, including the stamped rim of a *mortarium*, whilst post-hole [**4654**] appeared to contain some remnants of stone post-packing. The three post-pads – [**4591**], [**4745**] and [**4747**] –comprised compacted concentrations of granite, large cobbles and ceramic tile resting in shallow concave depressions 0.62m to 1m in diameter and 80mm to 0.15m deep. Post-pads [**4745**] and [**4747**] were embedded into the backfill of ditch [**4669**].

No internal or external features survived around either structure making it impossible to determine whether they represent habitable buildings or more simply, fence-lines enclosing land adjacent to the road. The latter may be more plausible, as for these features to represent buildings further secondary features also characteristic of occupation – i.e. hearths, refuse pits, etc. – need to be present. Undoubtedly subsequent truncation could have removed many of these; yet contemporary ground surfaces did survive in areas, exemplified by the yard surfaces surrounding Structure 1 and to the west of Structure 2 – (**4162**), without any further sign of occupation. Just two secondary indicators of occupation associated with these structures were recorded: two extensively truncated pits – [**4331**] and [**4759**] – one dug into backfilled ditch [**4167**] south of Structure 2 and the second situated adjacent to the projected Tripontium Road east of Structure 1. Due to the level of truncation these were largely indefinable and both appeared to be filled with predominantly redeposited orange-red and yellowish-brown sandy-silt subsoil mixed with very small quantities of discarded animal bone, charcoal, mortar and slate fragments. Both features also contained quantities of early to mid-2nd century pottery. One further pit of similar date was also present *c.*12m to the west in Area E – [**1002**]. This was circular, *c.*2m in diameter, and again filled with predominantly weathered yellowish-grey sandy-clay.

A2.2007 (Trenches 1-5 and 7-10)

Just three features potentially dated from the late 1st to early 2nd century AD (Figure 9). Near the northern end of Trench 3 was a large post-hole – [**2143**] – dug into the underlying natural subsoil. This was sub-rectangular, 0.46m by 0.55m and 0.36m deep, with a secondary narrower impression, just 0.1m by 0.18m, extending a further 0.1m below its base giving a probable indication to the dimensions of the post it was intended to house. It was filled with fairly clean reddish-brown sandy silt containing a small quantity of early 2nd century pottery. Approximately 6.5m to the south-east was a fragmentary spread of pebble rich pinkish-grey sandy-silt – (**2314**) – possibly the denuded remnants of a metalled surface. This overlay an undateable layer of redeposited subsoil – (**2320**) Phase 1 – which may have been intended as a bedding layer. The surface itself was sealed beneath further fine deposits of pale greyish-brown silty-sand accumulation – (**2316**) and (**2319**) – of which one, (**2319**), contained a small quantity of late 1st century pottery. This coupled with the late 1st to early 2nd-century date from the surface itself suggests this is one of the earliest dateable features on the site. The only other probable Phase 2 feature was a pit – [**2023**] - uncovered near the southern end of the area. This appeared in plan to be approximately circular, 1.92m in diameter, with concave sides and base dropping to a depth of 0.5m. It was dug into the natural subsoil and had been backfilled with homogeneous pinkish-brown clayey silt which was slightly 'cessy' in texture. Although not rich enough in debris to constitute a refuse pit its fill did contain small quantities of early 2nd century pottery, animal bone, charcoal and abraded ceramic tile which suggests it may have been deliberately backfilled with refuse rich soil redeposited from elsewhere.

A7.2008 (Areas 1-3; Trenches 11-14)

The earliest datable Roman activity across Areas 1-3 can be attributed to the late 1st century AD and probably has its origins with the earlier late Iron Age activity (Phase 1 – Figure 10). Little physical evidence of habitation was identified and for the most part the features appear to represent field-boundaries. In Area 1 the earliest feature appeared to be a shallow ditch – [**3046**] and [**3062**] – running east to west across the area. This was observed for *c.*6m and had tapered sides and a flat base. It was *c.*0.5m wide and *c.*0.2m deep, and was filled with dark greyish-brown clayey-silt mixed with occasional charcoal flecks and a small quantity of late 1st century pottery. Flanking it to the south were two post-

holes – [**3066**] and [**3072**]. These were concave ovoid cuts, measuring *c.*0.75m by *c.*0.4m and up to 0.3m deep, filled with naturally weathered brownish-orange sandy-silt. Whilst *c.*3m to the south-west was a third larger feature – [**3006**] – possibly a small pit. This was a concave circular cut, *c.*0.9m in diameter and *c.*0.25m deep, filled with grey sandy-silt mixed with scattered charcoal and ash. Ditch [**3046/3062**] was truncated laterally by a second ditch – [**3048**]. This was observed for *c.*8.8m running north-west to south-east across Area 1. It was *c.*0.9m wide and *c.*0.45m deep with a tapered profile and was filled with dark greyish-brown clayey-silt. Running north-east to south-west *c.*0.9m north of ditch [**3046/3062**] was a third ditch – [**3044**]. This was only observed for *c.*2.5m before becoming truncated by the modern service trench which bisected this area. However, it was evident it did not continue beneath and beyond ditch [**3048**] to the east, as ditch [**3046/3062**] did, and its relationship with ditch [**3048**] was perpendicular in contrast to ditch [**3046/3062**]'s relationship. This suggests it was likely a contemporary off-shoot of ditch [**3048**]. Ditch [**3044**] was 0.65m wide and 0.22m deep with a concave profile and was filled with naturally weathered brownish-orange silty-sand.

No further early Roman features were identified within Area 1. However, across the area's western side was a *c.*0.3m thick layer of greenish-brown sandy-silt subsoil – (**3057**). This was observed over a *c.*5.1m by *c.*2.8m area and contained small quantities of animal bone, charcoal, late 1st century pottery and residual late Iron Age pottery. Capping it was a 50mm thick compact spread of brownish-black clayey-silt – (**3056**) – mixed with a high percentage of large pebbles and cobbles. This appeared to be the denuded remains of a metalled surface, although unfortunately no datable material was recovered from it making its provenance difficult to discern. It did, however, appear to pre-date a possible 2nd century well – [**3053**] in Phase 3.

One final early Roman feature was identified in Area 3 – [**3041**]. This appeared to be part of a ditch or gully similar to those uncovered in Area 1. Unfortunately, it had sustained substantial truncation from Phase 12 pit [**3039**] making its exact course and purpose unclear. The little uncovered suggested it ran east to west but no relationship with late Iron Age ditch [**3033**] to the east could be found. It was *c.*0.7m wide and *c.*0.3m deep with steep sides and a curved base, and was filled with dark greyish-brown clayey-silt containing a small quantity of late 1st century pottery.

Discussion

Early Roman activity across the site is dominated by the establishment of the *Tripontium* road. This was first postulated to exist by Margary in the 1950s (1957, no. 572) as running from the south gate of *Ratae Corieltavorum* to the small Roman town of *Tripontium* on Watling Street *c.*25km to the south on the border between the modern counties of Leicestershire and Warwickshire at Caves Inn. However, the first tangible archaeological proof of this did not materialise until 1969 when metalled surfaces were exposed during an excavation beneath the Magazine Gateway (*TLAHS* **45**, 74) and it was not until the 1993-94 excavations on Bonner's Lane (Finn 2004) that its position and alignment were finally fixed. On Bonners Lane early Roman activity was typified by the establishment of a 11.5m to 13.6m wide roadway, defined by roadside ditches which appeared to pre-date the road metalling, during the early 2nd century AD. These bore evidence of sporadic re-cutting and the road surface was well maintained with multiple phases of resurfacing and repair. Activity adjacent to the road was characterised as a series of ditches running away perpendicular to the road axis. These were believed to signify plot divisions but the absence of other structural activity adjacent to the road implied they were small fields, either cultivated or pasture, not habitable properties.

This is comparable to activity exposed on this site. Here the roadway was narrower, just 9.2m to 11.1m wide; otherwise the pattern of establishment was the same. Initial roadside ditches appear to have been dug marking the route prior to road metalling being laid. This appears to have occurred towards the end of the 1st century AD or during the initial years of the 2nd century for none of the ceramic material recovered from the weathered ditch sediments post-dated the early 2nd century. The ditches appear to have been allowed to infill naturally and had fallen out of use prior to the construction of the metalled road surface. Subsequent re-establishment of these roadside ditches, whilst present in ensuing centuries, appears to have been sporadic at best and the need for such ditches, presumably for drainage, never appears to have been a necessity along the road's entire length.

In Areas A-E evidence for a secondary road bisecting the *Tripontium* road was identified. This is the first positive evidence in Leicester for such a street. Apparently constructed at a contemporary date it predominantly only survived to the west of the *Tripontium* road where it presumably once extended down towards the river. Yet its continuation to the east can also be inferred by the presence of metalled

surfacing beyond the Tripontium road-line, in Area B, and it seems likely it did once continue east to join the road to *Durovigutum* (Godmanchester). Evidence uncovered on the Elfed Thomas site (Cooper 1996) supports this. Here, prior to the late 4th-century cemetery, a ditch-line maintained from the late 1st century through the Roman period bounded the southern edge of an actively occupied land-division extending away to the north. During the excavation this ditch-line was theorised to be the northern flanking drainage ditch of a possible thoroughfare (Cooper 1996, 9). However, at the time this was based solely upon negative evidence and it could not be convincingly demonstrated.

This road's alignment may pre-date the *Tripontium* road, however, for its initial northern flanking ditch – [**4167**] Phase 2.1 – was uncharacteristically large, with an unusual profile, in contrast to the other roadside ditches excavated across the site. Comparison of this ditch and its southern counterpart, alone, shows discrepancies. Ditch [**4167**] was *c.*1m wider and *c.*0.5m deeper than its southern contemporary and its profile, with steeply sloping south side, gentler north side and channelled base, shares many characteristics with a Punic ditch (Figure 11a). This was a common variant of the military ditch, often found in the outer defences of a fort's ditch sequence (Collingwood and Richmond 1969, 13-14). A similar ditch has been found to the west of Leicester in the West Bridge area in 1967 (Clay and Pollard 1994, 19-21). This has been interpreted as the ditch of a small military establishment, possibly a fortlet, constructed to cover the river crossing. It cannot be suggested that the ditch identified on Area A is part of the same or a similar defensive arrangement, and its origin and function prior to its role as a roadside ditch is by no means clear. Yet its unique profile does mark it as an exception and it is conceivable that, despite the lack of dateable material, it has an earlier origin perhaps as a boundary-line which the subsequent road mirrored.

Further evidence of early Roman activity pre-dating the *Tripontium* road was also exposed in Areas 1-3. Here the ditches and post-holes all contained ceramic material dating no later than the late 1st century AD. This appeared residual as the features had all been allowed to weather and infill naturally and it seems likely, therefore, that they had fallen out of use by the early 2nd century, when the Tripontium road was being first laid out. Apart from the later ceramic material these features, shallow naturally weathered ditches dug in a rectilinear fashion with closely associated post-holes, were indistinguishable from the late Iron Age occupation in the vicinity (see Phase 1) and it is probable they represent continuity of occupation from the late Iron Age into the early Roman period. Significantly their orientation is the same as that adopted by the early 2nd century street grid, suggesting the grid's axis may have a much earlier origin.

Considering the previously discussed nature of ditch [**4167**] and the presence of early Roman occupation to the north, on the town side, of its projected alignment it could be that it represents the first evidence for *Ratae Corieltavorum's* pre-defences town boundary, or *pomerium*, which would have distinguished the separation of intramural and extramural activity.

Evidence of activity adjacent to the *Tripontium* road in the early Roman period is limited but appears to only emerge after the road had become well established. To the west of the road line extensive spreads of compacted gravel, believed to be 'yard' surfaces, appeared contemporary with the first metalled street surfaces. These extended at least *c.*10m away from the roadway and were present north and south of the cross-street. Dug into these were a rectilinear assortment of shallow gullies and post-holes which appear to represent two possible structures (Structures 1 and 2). However, the noticeable paucity of associated domestic or industrial activity makes it less likely these represent habitable buildings but rather small fenced enclosures, possibly stock-pens, situated on the frontage of plots of land extending away from the road. These larger plots are inferred from fragments of larger ditches set perpendicularly to the road lines and it is believed a series of rectilinear ditched enclosures would have been present on either side of the Tripontium Road. No features considered primarily domestic in nature were identified anywhere in the site, although some of the early pits did contain small quantities of residual domestic waste, and it is likely these enclosed areas would have been fields or paddocks. Comparable early activity can also be found on the Bonners Lane site to the south and the Elfed Thomas site to the east.

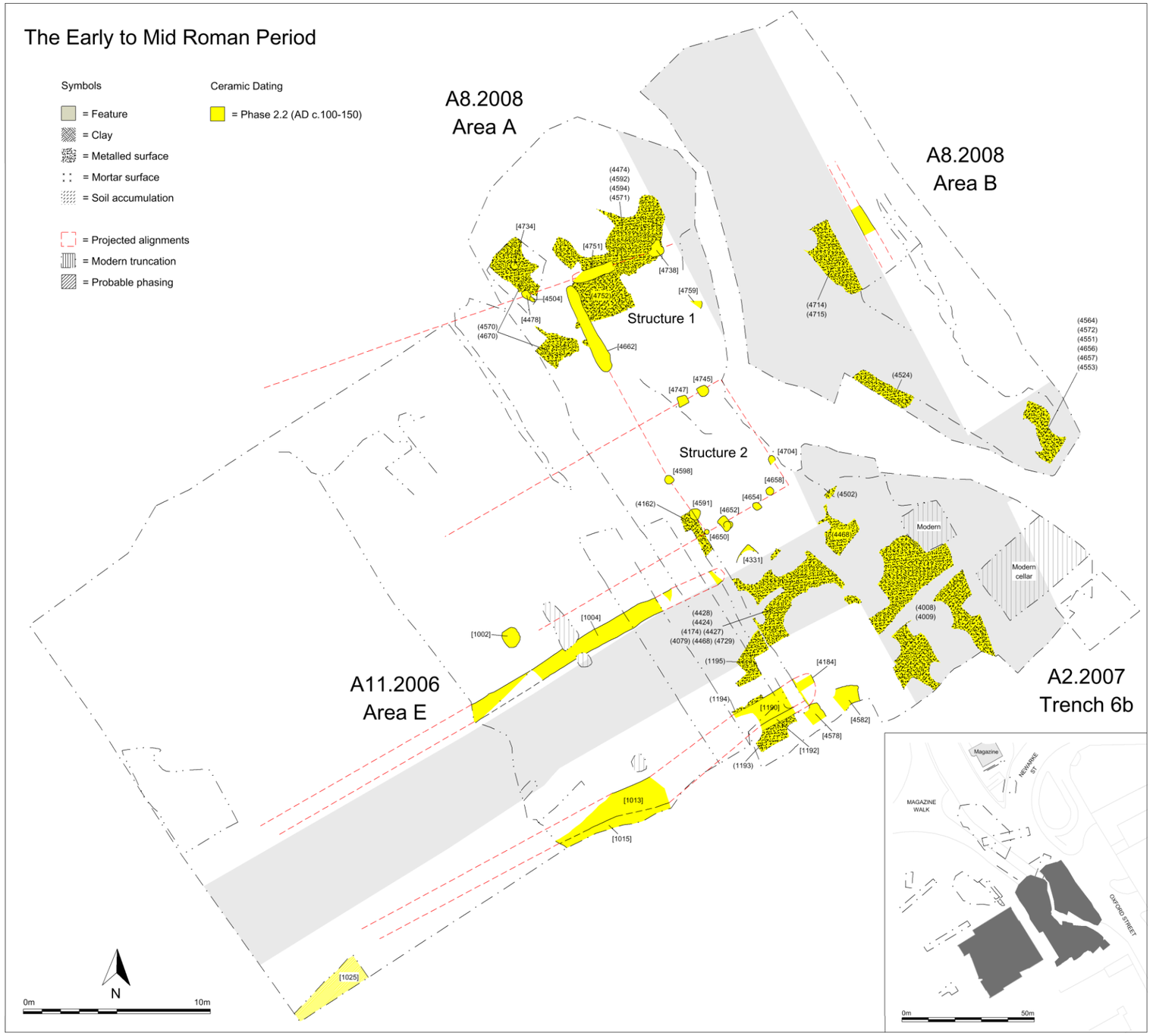


Figure 15: Phase 2.2 (A11.2006, Area E, and A8.2008, Areas A and B)

Figure 16: Phases 3 and 4 (A11.2006, Area E, and A8.2008, Areas A and B)

Phase 3 (Mid-Roman: Mid-2nd - 3rd Century AD)

Continuation and maintenance of the Tripontium *road; re-cutting of some of the road-side ditches; hiatus of associated road-side activity; resumption with presence of small-scale industrial activity*

A11.2006 and A8.2008 (Areas A-E; Trenches 6a, 6b and 15)

Continued Roman activity across Areas A-E can be broadly attributed to the mid-2nd to 3rd century AD (Figure 16). By the mid-2nd century the structures of the preceding phase had fallen out of use and been cleared from the site. Much of the area west of the Tripontium Road was now blanketed with thick deposits of soil, although evidence suggests the road itself was still being actively maintained. Very little evidence of further resurfacing was identified across the Tripontium road. However, in Area B the Phase 2.1 roadside ditch – [**4713**] – had been re-cut a further two times by [**4682**] and [**4680**] respectively. These both had steep sloping sides and concave bases, with the latter over 1.5m wide and 0.8m deep. Ditch [**4682**] was filled with accumulations of brownish-green clayey-silt containing mid- to late 2nd century pottery, whilst ditch [**4680**] contained greyish-brown sandy-silts from which was recovered an irregular copper *antoninianus* of late 3rd century date (SF460). Spreads of compacted sandy-gravel – (**4401**), (**4407**), (**4408**), (**4411**), (**4412**) and (**4426**) – were present across the cross-street in Area A and these possibly did represent the denuded remnants of further resurfacing.

South-west of the road junction, in Areas A and E, the soil accumulation – (**1058**), (**4379**) and (**4560**) – consisted of greenish-brown and greyish-green sand and clayey-silts, up to 0.2m thick, capped by further deposits of yellowish-brown sandy silt – (**4314**) and (**4352**) - again up to 0.2m thick. These sealed all previous Phase 2 activity including roadside ditch [**4184**] and had begun to encroach over the south-western edge of the Tripontium Road sealing *c.*2m of metalled road-surface along the road edge. This soil layer was truncated by a further irregular shaped feature – [**4334**] – likely vegetation related, possibly a tree-throw. This was *c.*1.9m in diameter and just 0.14m deep with uneven sides and base, and was filled with material similar to the soil through which it truncated.

Further west, in Area E, evidence of occupation could be inferred from a shallow concave gully – [**1197**] – encroaching on the road-edge, although it was unclear whether it once bisected the cross-street completely, and extending perpendicularly away to the south for *c.*3.3m. This was *c.*0.6m wide and 0.28m deep. Adjacent to its southern terminus were three further gullies or post-holes – [**1143**], [**1144**] and [**1146**]. These appeared to be the heavily truncated bases of further shallow gullies extending away perpendicularly from [**1197**]. All four features were filled with greenish-grey or greyish-brown silty-clays and a small quantity of late 2nd to early 3rd century pottery was recovered from post-hole [**1144**]. Gully [**1197**] was truncated by a *c.*3m long ditch – [**1057**] – running parallel with the road-edge. This was a *c.*0.9m wide concave feature filled with brownish-yellow clayey-sand which possibly represented the re-establishment of a road-side ditch along the southern side of the road.

North-west of the road junction, on Areas A and C, further soil deposits – (**4071**), (**4244**), (**4469**), (**4587**), (**4737**) and (**4765**) – covered the sites of Structures 1 and 2 (Phase 2.2). Like the material to the south-east these formed a homogeneous blanket of orange-grey to greyish-brown sandy-clayey-silt, up to 0.2m thick, sealing all previous Phase 2 activity. To the north, above the site of Structure 1, this soil was truncated by an isolated beam-slot and post-hole – [**4541**] and [**4724**] – whilst further south above Structure 2 pits [**4351**], [**4632**], [**4666**], [**4742**] and [**4744**] had been dug through it. Beam-slot [**4541**] was a shallow linear cut with vertical sides and flat base, *c.*2m long by *c.*0.4m and *c.*0.13m deep, filled with greenish-grey sandy-silt. Post-hole [**4724**] was a small circular feature with near vertical sides and concave base, 0.35m in diameter and 0.18m deep, filled with dark greyish-brown silty-clay. Pit [**4632**] was sub-circular with near vertical sides and flat base, 1.8m in diameter and 0.8m deep, filled with pale brown silty-sand. Pit [**4666**] was rectangular with near vertical sides and flat base, 1.4m by 0.65m and 0.25m deep, filled with reddish-brown clayey-sand mixed with large quantities of ceramic tile and naturally derived clay. Pits [**4742**] and [**4744**] were only partially excavated and had largely indistinguishable shapes, but were filled with a mix of pinkish-red clay, brownish-grey sandy-silt and greyish-green silty-sand. Possibly spilt on the edge of pit [**4632**] was a small spread of dark greyish-black charcoal rich silt – (**4400**) - less than 70mm thick. A similar pit – [**1069**] – was also observed on the northern side of Area E. This remained unexcavated but was recorded in plan as 2.3m in diameter filled with yellowish-brown clayey silt mixed with occasional clay and gravel, from which a small quantity of residual 2nd-century pottery was recovered. Of particular note was pit [**4351**], a shallow sub-rectangular feature, *c.*0.95m long by 0.65m and 0.25m deep. Found at the base of the pit, resting on its side, was a

Figure 17: Hearth or Oven [1207] – A11.2006, Area E. Looking south-east

small intact early 2nd century drinking cup or spice jar (SF445). This had been covered with lime before the pit had been backfilled with greenish-brown silty-sand. Vessels such as this are often found as grave goods.

In Area E, the continuation of Phase 2.2 ditch [**1004**] is suggested by the presence of late 2nd to early 3rd century pottery in one of its upper fills. North of this, set back *c.*6m from the *Tripontium* road, were small areas of localised activity. Immediately north of ditch [**1004**] two post-holes were situated amongst a small concentration of pits. The post-holes – [**1164**] and [**1166**] – were both small, shallow concave cuts approximately 0.3m in diameter and less than 50mm deep filled with brownish-grey clayey-sand. The pits – [**1168**], [**1171**] and [**1176**] – were all large, heavily truncated sub-circular scoops between 0.86m and 1.3m in diameter and all less than 0.2m deep. All three were filled with similar greyish-brown silty-clay mixed with occasional, residual charcoal, bone and pottery. This was more suggestive of redeposited material rather than primary waste disposal and the pottery was predominately mid-2nd century at the earliest. These features had all been dug into pinkish-brown silty-clay soil – (**1178**) – overlying natural clay deposits.

More substantive evidence of occupation within the immediate vicinity was exposed *c.*4.5m to the north in Area E. Here further soil accumulation – (**1208**) - was identified. This sealed two possible post-holes or pits – [**1240**] and [**1242**] – both of which were shallow, truncated circular impressions with little definable character. Laid across the soil was a small fragment of metalled surface – (**1201**). This was a compact deposit of small rounded pebbles bound with dark greyish-brown silty-clay. Further evidence of metalled surfaces was also observed in section *c.*8m to the north – (**1225**). To the north of surface (**1201**) and also dug into soil (**1208**), were the truncated remains of a small hearth or oven – [**1207**]. This was a small circular structure built using recycled brick and tile, bound with clay, to line and floor a shallow depression (Figure 17). The structure's interior was *c.*0.5m in diameter and survived to a depth of 0.21m. A large quantity of broken glass, possibly the remains of a single vessel, was recovered from its centre, and it was backfilled with a mass of loose clay and broken tile, perhaps the collapsed remains of a 'beehive' superstructure.

Pottery recovered from the soil layers suggests a deposition date around the mid-2nd century AD, with the light scattering of later pits and other features suggesting activity across the area continued into the late 2nd, and possibly the early 3rd century AD. Otherwise evidence of human occupation remains elusive, and it was notable that the few features which were recorded also contained little evidence of

discarded occupational debris. This would appear to support the absence of sustained occupation across Areas A-E during the mid-Roman period, rather than the absence of evidence of occupation due to subsequent truncation.

Further pits were also excavated in Areas C and D. In Area C a small pit – [**4065**] – was uncovered partially dug into the backfill of Phase 2.1 ditch [**4078**]. Although only partially observed, it appeared sub-circular with concave sides and base, at least 1.8m in diameter and 0.5m deep, filled with washed reddish-brown clayey sediments containing mid to late 2nd century pottery. In Area D a small pit – [**4114**] – was uncovered dug into the metalled Phase 2.2 street surface (**4112**). Again only partially observed, it also appeared sub-circular with concave sides and base, over 0.6m in diameter and 0.17m deep. It was also filled with similar washed reddish-brown sediments.

A2.2007 (Trenches 1-5 and 7-10)

Roman activity across Trench 3 during the mid- to late 2nd century can only be characterised as an increased amount of pitting, occurring primarily within the south-east corner of the site (Figure 9). These pits – [**2321**], [**2323**], [**2356**], [**2358**], [**2362**] and [**2364**] – formed a localised cluster intercutting each other within a *c.*17m square area. Due to the extreme depth of horizontal truncation, however, they were only observed to be dug into the natural substratum, with the exception of [**4356**] which truncated Phase 1 pit [**4354**]. For the most part they were sub-circular, rectangular pit [**2358**] being the only exception, with steep to near vertical sides and flat bases. They ranged from *c.*0.8m to *c.*1.86m in diameter, were between *c.*0.2m and *c.*1m deep, and were filled with similar homogeneous greyish- or yellowish-brown silty-clay. These only contained very small quantities of human refuse and their bland nature suggests the material present was redeposited from an unknown exterior source rather than the result of primary disposal. Ceramically, the contents of these pits all suggest a late 2nd to early 3rd century AD date for their deposition.

Two further, isolated pits were excavated within the northern half of Trench 3 – [**2153**] and [**2317**]. Again, pit [**2153**] was only observed dug into the underlying natural substratum. It was circular with vertical sides and a flat base, *c.*1.24m in diameter and *c.*0.24m deep, filled with fine layers of dark charcoal rich sandy-silt mixed with layers of reddish-brown and brownish-grey sandy-silt. The basal layer was particularly rich with charcoal and animal bone. However, as there was no evidence of in-situ burning it appears unlikely this feature was a hearth and its burnt fills probably represent the primary disposal of domestic hearth waste from somewhere unidentified within the vicinity. The second pit – [**2317**] – located *c.*6.5m to the south-east was partially truncated but appeared to be sub-circular with steeps sides and uneven base, *c.*1m in diameter and 0.23m deep. It was filled with bland, homogeneous brown silty-sand and was only notable in that it had been dug through metalled surface (**2314**) – Phase 2.

Associated with these pits was a small cluster of post-holes – [**2111**], [**2124**], [**2133**] and [**2135**]. These were largely circular or sub-circular with near vertical sides and flat or concave bases. They ranged from *c.*0.2m to *c.*0.62m in diameter and *c.*0.1m to *c.*0.29m in depth; and were all filled with similar bland greyish or yellowish-brown silty-sand. These fills contained little intrusive material, just occasional small inclusions of mortar, charcoal flecks and small quantities of pot. This was predominantly dated to the early to mid-2nd century AD. One post-hole – [**2124**] – also contained an illegible copper coin of Roman origin (SF204). Although this little cluster forms no discernable pattern on its own a certain degree of linearity emerges if associated with undated post-hole [**2139**] – Phase 1 – and post-hole [**2143**] – Phase 2. Together these could form a tentative post-alignment, possibly a fence-line, orientated north-west to south-east with posts spaced approximately 1.2m to 1.8m apart. Based on the ceramic evidence within the fills this may have originated in the early 2nd century AD and had fallen out of use, with the posts removed, by the mid-2nd century. If these do represent a fence-line it would have run parallel, approximately 22m south-west of the *Tripontium* road.

A7.2008 (Areas 1-3; Trenches 11-14)

Just two excavated features can be attributed to the mid- to late 2nd century AD (Figure 10) and one, ditch [**3015**] in Area 2, probably has its origins within the earlier late Iron Age or early Roman activity (Phases 1 and 2). This is suggested as it appears to parallel Phase 2 ditch [**3048**] in Area 1. Like ditch [**3048**], ditch [**3015**] was orientated north-west to south-east, approximately 7.5m to the south-west of [**3048**]. It was observed for *c.*8m as a steep-sided, flat-bottomed cut *c.*0.8m wide and *c.*0.34m deep filled

Figure 18: Well [3053] – A7.2008, Area 1. Looking north

with naturally weathered orange-brown silty clays and silty sands. These contained small quantities of bone, mid-2nd century pottery and a small Bronze Age flint scrapper (SF303).

The second feature appeared to be a partially exposed stone-lined well – [**3053**] – dug through Phase 2 surface (**3056**) in Area 1. This was a sub-circular cut, *c.*1.7m in diameter, lined with coursed thin slabs of clay bonded limestone (Figure 18). A small quantity of 2nd century pottery was recovered from the clay. The well shaft, *c.*1.4m in diameter, was filled with fine layers of reddish-brown, greenish-grey and orange-yellow clayey-silts mixed with scattered building rubble, perhaps collapse from the well's structure. These were over 0.4m thick but the actual depth of the well remains unknown due to its proximity to the edge of excavation.

Discussion

Perhaps the most noticeable aspect of Roman activity during the latter half of the 2nd century into the early 3rd century is its absence. Activity present across the site during the first half of the 2nd century, particularly that along the edge of the *Tripontium* road, appears to have been relatively short lived, not continuing beyond the middle of the century. This is supported by the widespread presence of thick, accumulated soil deposits across areas of former activity and suggests the area sustained a hiatus in activity during the third quarter of the 2nd century with occupation not resuming until the end of century. Other than continued maintenance of the road surfaces, for which evidence only survived along the secondary road, and the sporadic restitution of roadside ditches little continuity could be found between Roman activity at the beginning and end of the 2nd century. This bears marked similarity with other sites in the vicinity, particularly Bonners Lane, which all note a contemporary decline or break in activity. Decline in this area's significance can also be noted in the encroachment of these soil deposits over the road edges, in places covering *c.*2m of the *Tripontium* road's width. In Area D, a pit was also noted intruding into the exposed Tripontium road surface whilst in Area E a shallow gully was also observed to partially bisect the secondary road.

Resumption of activity from the late 2nd century onwards is difficult to characterise, being defined mainly by a dispersed scattering of pits, most containing residual domestic waste but otherwise not appearing indicative of immediate human habitation. On the southern side of Area E, some limited structural evidence was exposed but the incomplete nature of the remains precludes any detailed

consideration of their function, although the seemingly perpendicular arrangement of shallow gullies and post-holes had much in common with the earlier Phase 2 activity. Similarly, to the north in Trench 3 post-holes hinted at a fence-alignment running parallel with the *Tripontium* road whilst to the west in Areas 1 and 2, a ditch and stone-lined well also implied more lasting occupation within the vicinity.

Perhaps the most tangible evidence of occupation along the street frontage was the presence of a small hearth or oven west of the Tripontium road in Area E. This corresponded with similar, contemporary small-scale industrial and craft activity on Bonners Lane, and whilst the precise nature of the activity on both sites remains elusive, it does lend further support to the notion that these are elements of a ribbon development strung out along the southern approach to the town. Importantly, although this and the well in Area 1 are isolated features, the level of horizontal truncation within the immediate vicinity of both means we cannot preclude more substantive occupation once existed in these areas.

Phase 4 (Late Roman: Late 3rd to 4th Century AD)

Probable continued use of the Tripontium *road; associated road-side activity difficult to characterise*

A11.2006 and A8.2008 (Areas A-E; Trenches 6a, 6b and 15)

Very few features across Areas A-C could conclusively be considered late Roman (Figure 16). At the northern end of Area A, the final fill of a single post-hole – [**4482**] – contained mid-3rd to 4th-century pottery. This was a circular feature with vertical sides and flat base, *c.*0.68m in diameter and *c.*0.5m deep. At the cut's base was a large flat slate, possibly intended to act as a pad, and the hole had been backfilled with dark greenish-brown sandy-silt surrounding evidence of a 0.47m diameter post-pipe filled with similar material. Possibly associated with this, *c.*0.7m to the south-west, was a small area of loose gravel – (**4677**) – possibly the remains of a metalled surface, sealed beneath a compact square of granite rubble – [**4678**]. This measured *c.*0.7m square and possibly represented the site of a post-pad.

In Area B another metalled surface – (**4740**) – contained 4th century pottery. This was a small spread of brown silty-gravel, just 2m by 0.8m and up to 60mm thick, which had been laid over the fill of Phase 3 ditch [**4680**] and probably represented continued resurfacing of the *Tripontium* Road. Finally, in Area C the fill of a narrow gully – [**4073**] – also contained 4th century pottery. This was a linear feature with vertical sides and concave base, *c.*0.55m wide and *c.*0.3m deep, filled with weathered greyish-brown sandy-silts. Its alignment suggested it would be orientated perpendicular to the *Tripontium* Road.

Just one feature in Area E could also be considered to be of late Roman date: pit [**1245**]. This was a small circular feature, *c.*0.8m in diameter, situated at the northern end of the site (Figure 16). It was filled with fairly sterile brown clayey-silt containing a small quantity of 4th-century pottery. The only other deposit considered to be of late Roman date was a *c.*0.25m thick spread of very dark greyish-brown silty-clay soil – (**1172**) – exposed *c.*4.5m to the south-east. This covered a *c.*3.5m by *c.*1.5m area and contained a scattered mixture of stone, ceramic tile fragments and late 3rd to 4th century pottery. Importantly, it sealed earlier Phase 3 surface (**1201**) indicating this occupation is likely to have ceased by the 4th century.

Three unstratified 4th-century coins were also recovered from Area A: One attributed to Constantine I (SF417); one to his step-mother, Theodora (SF418); and one to his son, Constantine II (SF426).

A2.2007 (Trenches 1-5 and 7-10)

Stratigraphically, no evidence of activity for this period was identified on site. However, small quantities of residual late 3rd- to 4th-century ceramics were recovered from eleven later features or deposits: [**2129**] and [**2218**] in Phase 8.1; [**2113**], (**2175**) and [**2192**] in Phase 8.2; (**2102**) and (**2173**) in Phase 9; (**2059**), [**2257**] and [**2296**] in Phase 10; and [**2330**] in Phase 11. Two 4th-century coins, both attributed to the House of Constantine, were also recovered from later features – SF201 from pit [**2025**] in Phase 11 and SF217 from pit [**2192**] in Phase 8.2.

A7.2008 (Areas 1-3; Trenches 11-14)

Stratigraphically no evidence of activity associated with this period was identified on site. However, an unstratified late 3rd century coin (SF301) possibly of Tetricus I (AD 270/1-273) was recovered from Area 1.

Discussion

Very limited evidence for the late Roman period survived across the site and the precise nature of the little activity encountered is not obvious. The lack of surviving evidence, however, appears more due to the intense level of horizontal truncation this area sustained, both from medieval cultivation and from the recent demolition of the James Went Building, rather than the absence of activity itself and two discoveries are worth mentioning.

In Area B evidence was uncovered which indicated that the *Tripontium* road was still being actively maintained into the 4th century. This can be inferred from the small spread of metalled surface, containing 4th-century pottery, present over the line of the late 3rd-century eastern roadside ditch. Until

now it has only been presumed that the *Tripontium* road remained in use through the Roman period for on Bonners Lane no evidence of resurfacing was found beyond the mid-2nd century (Finn 2004, 14).

Elsewhere, in Area C, the remains of a shallow gully extending perpendicularly from the *Tripontium* road was excavated. Its fill of weathered silts also contained 4th-century pottery. Importantly, it appeared to replicate an early 2nd-century ditch line (see Phase 2) and thus may indicate continuity in the suggested rectilinear enclosures extending west of the road edge. Overall, however, so little survived in the archaeological record that 4th century activity across the site must, at this time, remain uncharacterisable.

Figure 19: Phases 5 and 6 (A11.2006, Area E, and A8.2008, Areas A and B)

THE EARLY MEDIEVAL PERIOD (*c.*410-1100)

Phase 5 (Early Anglo-Saxon: *c.*410-650), Phase 6 (Middle Anglo-Saxon: *c.*650-850) and Phase 7 (Saxo-Norman: *c.*850-1100)

A possible sunken-featured building built over the line of the earlier Roman Tripontium Road

A8.2008 (Area A-D)

Structure 3

The only physical evidence of possible Anglo-Saxon or Saxo-Norman date was situated at the northern end of Area A (Figure 19). Here a partially exposed feature – [**4718**] – on the edge of the excavation was possibly the remains of a sunken-featured building (SFB), referred to as Structure 3 (Figure 20 and Figure 21). Although truncated to the north, with only its western edge exposed, enough remained to suggest it was rectilinear in plan. This was orientated north-west to south-east, with that axis observed for *c.*2.8m, whilst its width was *c.*1.1m. The cut was *c.*0.2m deep with vertical sides and a flat base, and it was filled with greyish-brown silty-clay mixed with a large quantity of granite rubble, occasional charcoal flecks and a small quantity of animal bone. Dug into the base of the sunken feature, at reasonably regular intervals around its edge were four large post-holes – [**4596**], [**4617**], [**4719**] and [**4722**]. These were typically between *c.*0.3m and *c.*0.4m in diameter, cut with vertical sides and flat bases. No post-pipes were identified but two of the post-holes – [**4617**] and [**4719**] – still contained large fragments of granite, presumably the remains of post-packing. These post-holes were also twice as deep as the other two, both being over 0.3m in depth.

Beyond the western edge of the sunken feature were two further post-holes – [**4603**] and [**4605**]. These were set *c.*0.25m from the lip of the sunken feature, spaced *c.*0.5m apart, and were comparable to those in the base of the feature. Interspersed between these was an irregular scatter of smaller stake-holes, six in all – [**4607**], [**4619**], [**4621**], [**4623**], [**4625**] and [**4627**]. These were typically sub-circular, vertical sided cuts *c.*0.1m in diameter and over 0.11m deep. Four in particular – [**4607**], [**4619**], [**4621**] and [**4623**] – appeared to form part of an alignment along the rim of the sunken feature and may, therefore, mark the

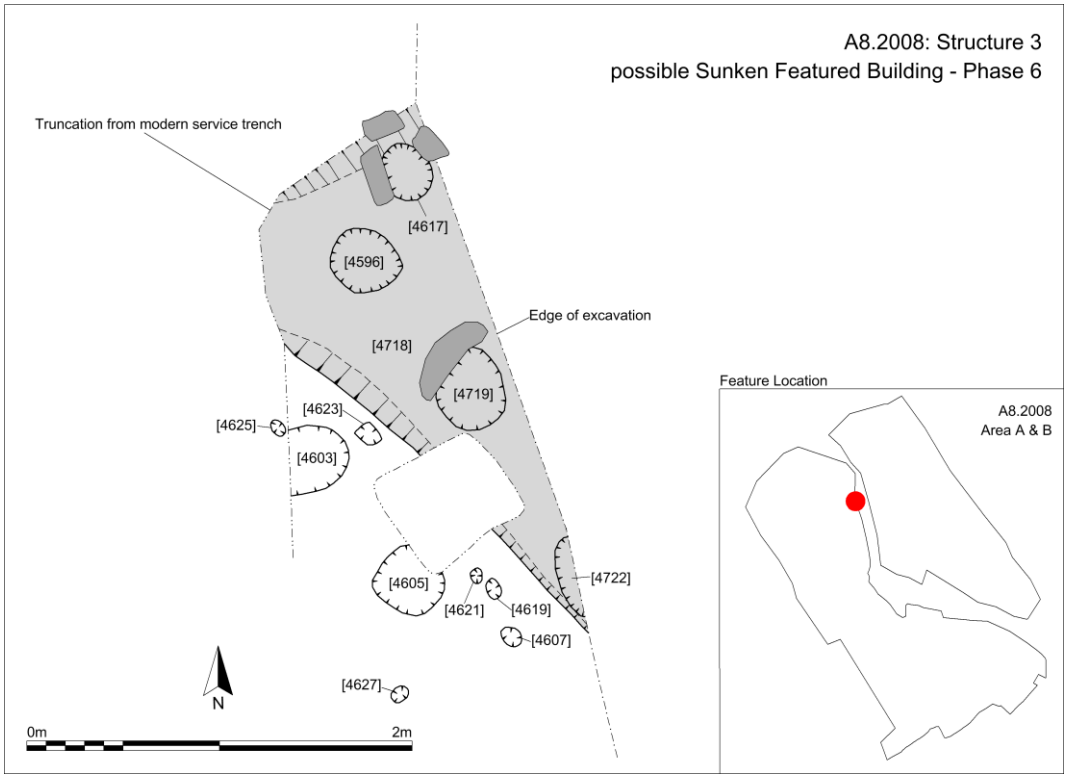


Figure 20: Plan of Structure 3 – A8.2008, Area A

Figure 21: Structure 3 – A8.2008, Area A. Looking north-east

position of the building's outer walls.

The incomplete nature of the feature precludes any meaningful consideration of the building's plan and the lack of dateable material recovered from its fills makes phasing imprecise. However, it does share many characteristics with the SFB identified on Bonners Lane to the south (Finn 2004, 15-18). This has been dated to the early Saxon period (*c*.410-650) and nothing recovered from Area A suggests the two structures could not be of comparable date.

No further physical evidence of activity for this period was noted across Areas A-D and only two sherds of residual Saxon pottery were recovered. These were from Phase 8 pit [**4392**] and Phase 10 post-hole [**4152**], both in Area A.

A11.2006, A2.2007, A7.2008

No physical evidence of activity for this period was identified on any of these sites and only a very small quantity of residual Saxon pottery was recovered from later contexts. This included a single sherd recovered from Phase 8 ditch [**3016**] in Area 2 and a single sherd from Phase 8 pit [**3024**] in Area 3.

Discussion (Phases 5-7)

In contrast to other sites in Leicester's southern suburb, which have produced good evidence for Anglo-Saxon occupation, no features that can be definitely attributed to this period on the basis of associated finds were discovered during the excavations for De Montfort University's new development. However,

on the basis of its form, a possible Anglo-Saxon sunken-featured building is suggested, making three in this part of Leicester, the other two being on Oxford Street (Gossip 1999) and Bonners Lane (Finn 2004). This further strengthens the supposition that there is a dispersed Anglo-Saxon settlement running along the southern approach to the town.

Structure 3, like the SFB on Bonners Lane (Finn 2004), does not appear to be a 'standard' sunken form, as found elsewhere in Leicester, on Freeschool Lane (Coward and Speed 2009) and Vaughan Way (Gnanaratnam 2009), or on many other early and middle Anglo-Saxon settlements. These are typically identified in the archaeological record as shallow rectangular pits with post-settings at either end, evidence which has traditionally been reconstructed to mean sunken-floored buildings covered with tent-like or gabled timber structures with pitched roofs sloping down to the ground from a ridge supported on axial posts. This appearance is open to debate, however, and more recent studies have suggested they represent substantial ground-level buildings with a suspended floor above the pit, or a mixture of the two forms (Tipper 2004, 64).

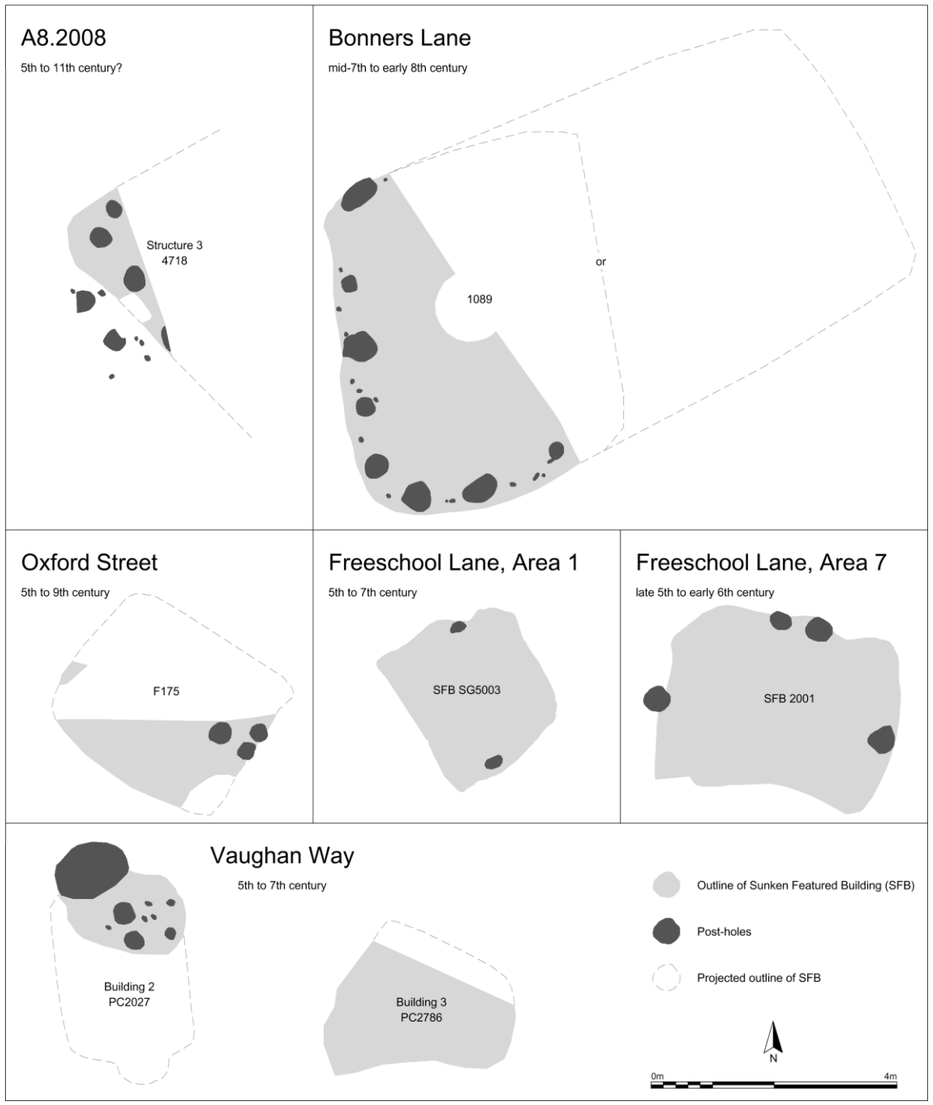
With Structure 3, the tightly spaced disposition of so many large, load-bearing post-holes around the edge of the building suggests it was exceptionally over-engineered if it did conform to this building type, which commonly only has two central axial posts occasionally accompanied by further corner posts (Figure 22). Instead, Structure 3 is of the same massive construction as that observed in the SFB on Bonners Lane, where it was noted that if the level of horizontal truncation had been greater it could have been interpreted as the remains of a 'hall house'. Finn therefore postulated that it may represent a hybrid form incorporating elements of both SFB and 'hall-house' construction (Finn 2004, 19).

Extrapolating the size and ground plan of Structure 3 is difficult, considering so little was uncovered. On Bonners Lane it was reasoned that if the SFB's longitudinal axis was its north-south axis, making it *c.*5.75m by *c.*4.4m, its structure would have been massively over-engineered, with the number of load-bearing posts out of all proportion to the size of the building. Therefore, it was more likely that its long axis was orientated east-west making it *c.*9.4m by *c.*5.75m. Structure 3 could therefore be of comparable size.

Dating its origin is equally problematic. The total dateable material recovered from Structure 3 comprised a small quantity of late Roman pottery from post-hole [**4719**] and five sherds of Potters Marston ware (*c.*1100-1300) recovered from post-hole [**4722**]. However, as so little of this latter post-hole survived, and because of the significant truncation it had sustained from the insertion of a modern service trench through it, dependence on this material to date Structure 3 must be considered unreliable. At best we know this structure probably post-dates the Roman period, for it is constructed over a street alignment we know was still being actively maintained during the 4th century. This suggests a broad date of the 5th to 11th century during which this structure could be occupied.

If this structure is early Anglo-Saxon (*c.*410-600) it is exceptionally large and well built. A few other very large SFBs of similar date have been found elsewhere, at Upton in Northamptonshire for instance where a sunken building measuring *c.*9m by *c.*5.6m has been excavated (Jackson *et. al.* 1969 - Figure 22), but overwhelmingly such structures are much smaller during this period typically around *c.*4m by *c.*3m with a general trend towards larger buildings only emerging from the 7th century onwards (Tipper 2004, 64-66). The Bonners Lane SFB has also recently been re-dated to the mid-7th to early 8th century, based on typological dates from some of the bone artefacts which have been re-examined by Ian Riddler in 2009 (Neil Finn 2010 *pers. comm.*), and now fits into this trend. Buildings comparable to Structure 3 and the Bonners Lane SFB have been excavated on sites in Thetford and Chester (Davison 1967 and Mason 1985) but these are much later, Saxo-Norman structures dating from the 9th to 11th century. In these instances the large number of closely spaced post-holes are suggested to represent the uprights for a large building situated over a partially sunken cellar (Mason 1985, 18). It is possible therefore that Structure 3 could be later in date. Either way the lack of dateable material makes it impossible to be certain and the general absence of in-situ and residual Anglo-Saxon and Saxo-Norman wares fails to pinpoint any notably periods of general activity to which it could be conceivably attributed to.

Anglo-Saxon Structures in Leicester



Anglo-Saxon Structures comparable to Structure 3 (A8.2008) and the Bonners Lane SFB

Figure 22: Leicester's Anglo-Saxon structures and other comparable buildings across the country.

Plan of Bonners Lane SFB (adapted from Finn 2004, 17); Oxford Street (Gossip 1999b, 28); Freeschool Lane (courtesy of G Speed); Vaughan Way (Gnanaratnam 2009, 32)

Upton (Jackson et. al. 1969, 207); Brandon Road (Davison 1967, 206); and 26-42 Lower Bridge Street (Mason 1985,11).

Figure 23: Phases 7 and 8 (A11.2006, Area E, and A8.2008, Areas A and B)

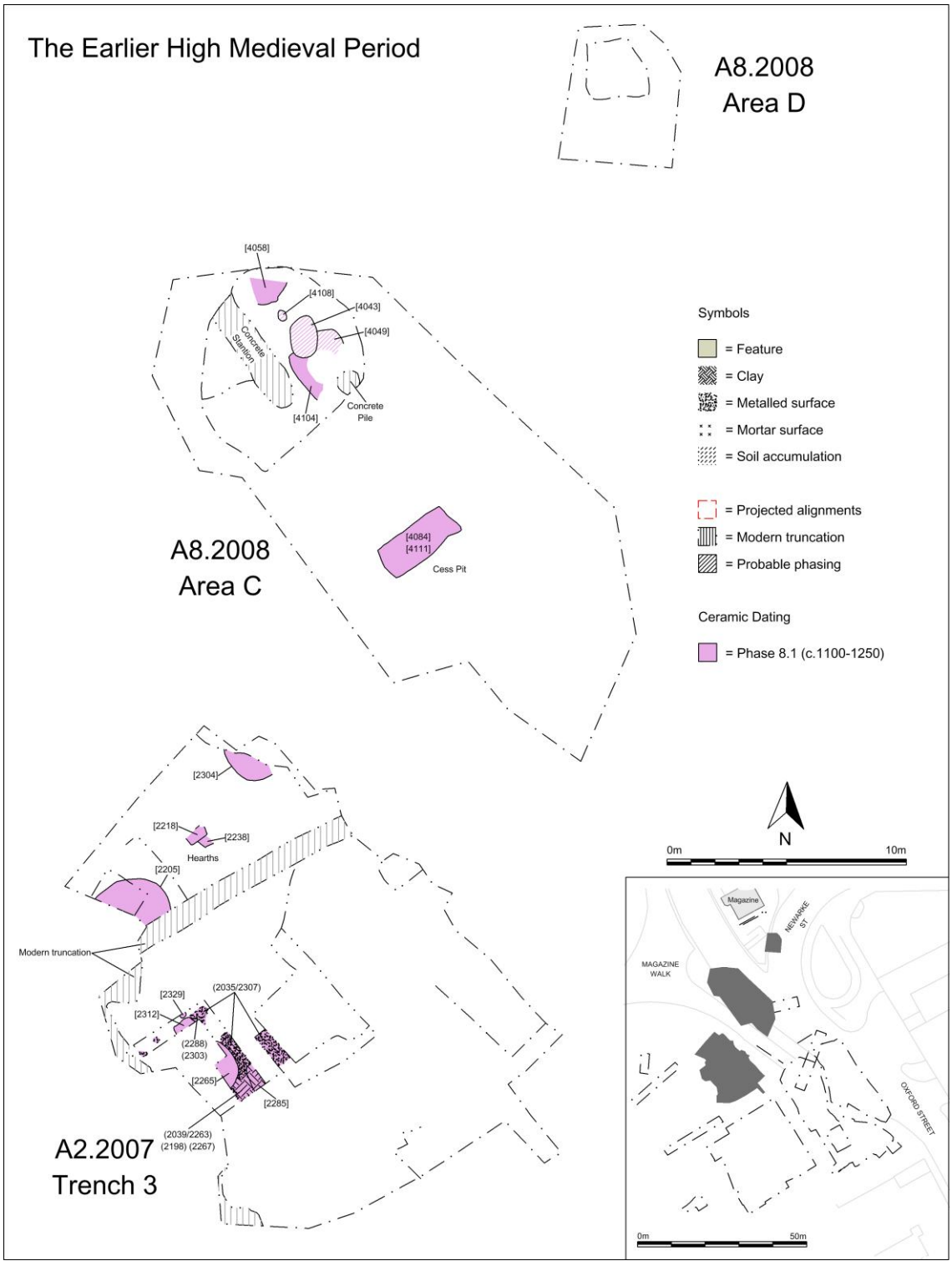


Figure 24: Phase 8.1 (A2.2007, Trench 3 and A8.2008, Areas C and D)

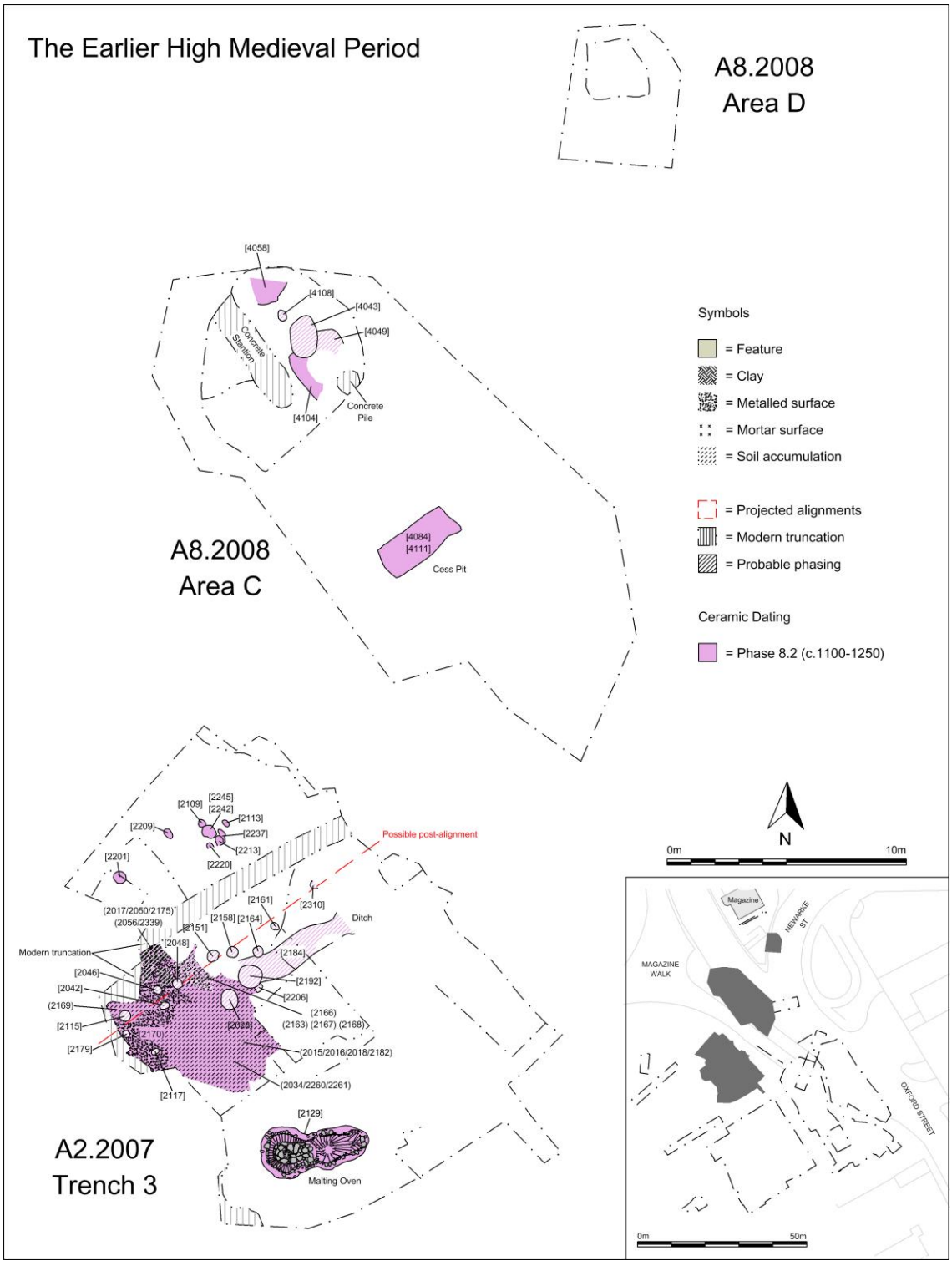


Figure 25: Phase 8.2 (A2.2007, Trench 3 and A8.2008, Areas C and D)

Figure 26: Phases 8-12 (A2.2007, Trenches 1a-b and A7.2008, Areas 1-3 and Trenches 11-14)

THE HIGH AND LATE MEDIEVAL PERIOD (*c.*1100-1500)

Phase 8 (Earlier High Medieval: *c.*1100-1250)

Structures and backyard activity, including cess and refuse pits, associate with properties fronting onto Southgate Street (now Oxford Street); limited evidence for occupation pre-dating the Newarke enclosure.

A11.2006 and A8.2008 (Areas A-E; Trenches 6a, 6b and 15)

Structure 4

The earliest dateable medieval activity identified across Areas A-E can be broadly attributed to the 12th to mid-13th century, and appears to relate to occupation of properties along the western side of Southgate Street, now Oxford Street (Figure 23). On the south side of Area A, dug into the gravel surfaces of the former Roman *Tripontium* road, was a rectilinear cluster of post-holes and beam-slots which are suggested to be the footings for a small timber structure – Structure 4 (Figure 27). This was approximately rectangular and measured at least 4.7m north-east to south-west by 4.4m north-west to south-east. Its position above the former Roman road appeared to be deliberate, presumably utilising the

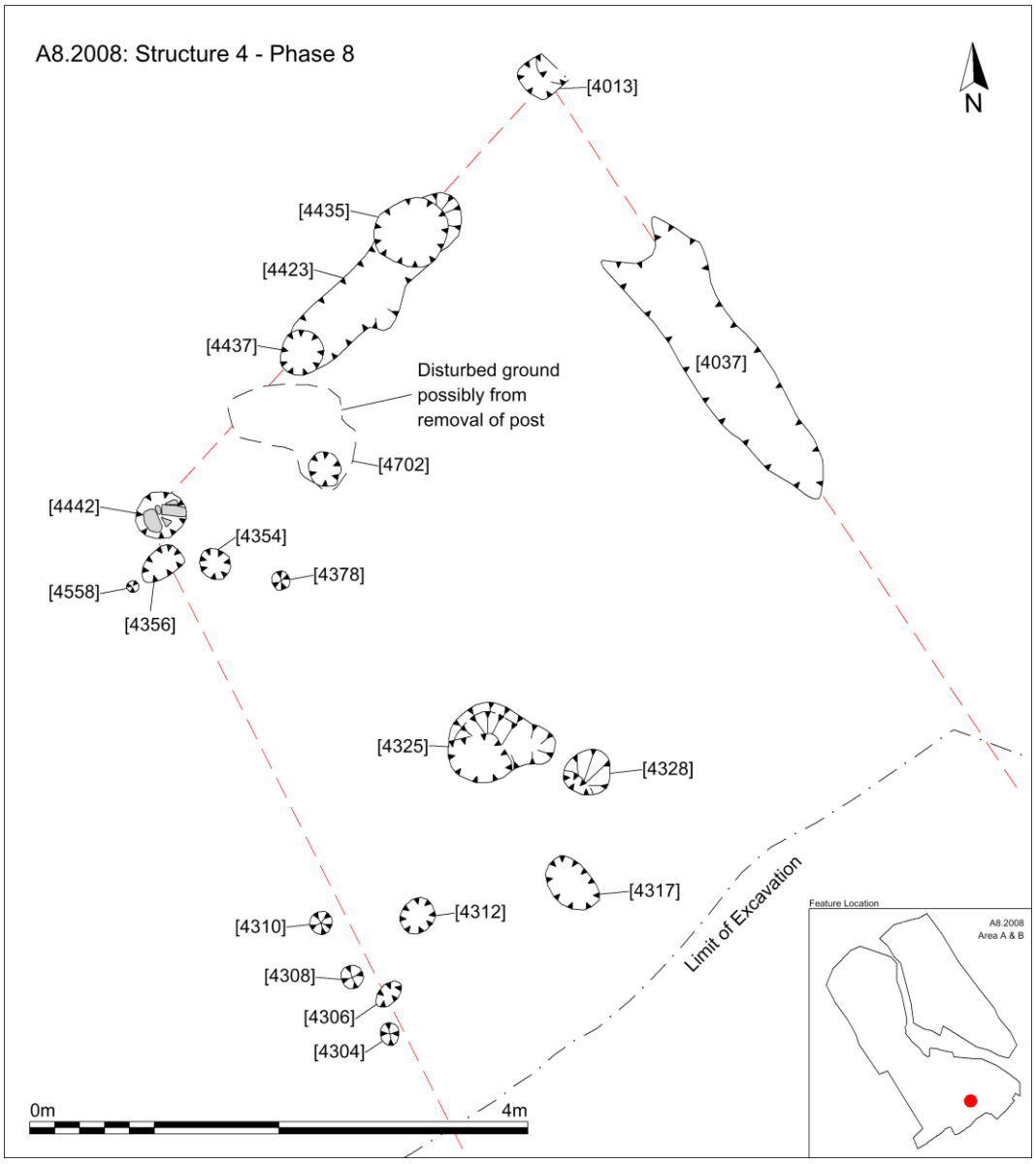


Figure 27: Plan of Structure 4 – A8.2008, Area A

compacted gravels as a stable footing into which the structure's physical elements could be securely set, but sadly subsequent horizontal truncation has removed any evidence of contemporary ground surfaces making meaningful discussion of its ground-plan, status, inhabitants or lifespan unfeasible.

The surviving physical elements suggest a structure with a possible north-west gable-end. This would orientate the building lengthways with Southgate Street. The gable-end was defined by four substantial, evenly spaced post-holes – [**4013**], [**4435**], [**4437**] and [**4442**] – forming the corner posts and inner support. These were all over *c.*0.4m in diameter and *c.*0.4m deep, vertical sided, flat-bottomed cuts. They were all dug into the compact Roman road surfaces and post-hole [**4442**] also appeared to contain a flat granite pad on which the post would have once rested. The two centre post-holes – [**4435**] and [**4437**] – appeared to have been connected by an interrupted sill-beam, for a shallow *c.*0.85m long linear cut – [**4423**] - was present between the two post-holes. The structure's eastern side was suggested by the presence of a *c.*2.6m long linear slot – [**4037**] - *c.*0.8m wide and *c.*0.1m deep, whilst its western side is believed to be represented by a series of small post-holes – [**4304**], [**4306**], [**4308**], [**4310**] and [**4356**] – typically spaced *c.*0.3m apart. These were generally between *c.*0.15m and *c.*0.2m in diameter, and *c.*50mm to *c.*0.2m deep. No evidence for the structure's south-eastern end was identified and it appears the structure continued beyond the edge of excavation.

Internally little can be extrapolated concerning the building's layout, but two excavated clusters of stratigraphically contemporary post-holes – [**4312**], [**4317**], [**4325**] and [**4328**]; and [**4354**], [**4439**] and [**4702**] - probably indicate elements of internal partitioning. These were all typically vertical-sided, flat-bottomed sub-circular cuts varying from *c.* 0.1m to *c.*0.35m in diameter and *c.*0.1m to *c.*0.25m deep, and three – [**4312**], [**4317**] and [**4328**] – possibly formed part of a cross-partition *c.*4.3m from the building's north-western gable-end. The exception amongst these internal post-holes was post-hole [**4325**]. This was substantially larger, being *c.*0.64m in diameter, and deeper than the others and was more reminiscent of the deeper structural post-holes within the gable-end. In addition, two stake-holes – [**4358**] and [**4378**], distinguished by tapered rather than flat bases – were identified within the building's north-western corner, although their purpose remains unclear. These were both *c.*0.1m in diameter and between *c.*0.1m and *c.*0.2m deep.

All post-holes, stake-holes and beam-slots associated with Structure 4 were filled with brown or greyish-brown sandy-silts or silty-clays. These were mixed with frequent inclusions of naturally derived red clay and pebbles, perhaps the remains of disturbed surfaces no longer extant. Ceramically, very little dateable material was retrieved and the few sherds which were all dated to the 12th to mid-13th century. The absence of any later material, with the sole exception of a single sherd of mid-13th to 14th century pot in post-hole [**4310**], suggests the building had been dismantled no later than the middle decades of the 13th century, and the single rogue sherd is likely contamination from overlying Phase 9 soil accumulation.

External activity surrounding Structure 4

Contemporary external activity was predominantly concentrated to the north of Structure 4 with only one feature, post-hole [**4323**], present to the west. This was similar to those forming Structure 4 but remained isolated. A second post-hole – [**4337**] – was also noted immediately adjacent to Structure 4's north-west corner. Again this was similar to those within the structure, being *c.*0.5m in diameter and *c.*0.3m deep filled with greyish-brown clayey-silt containing displaced granite packing stones. The absence of activity west of Structure 4, in contrast to the activity to the north, suggests the building may have extended further south-west away from the street frontage, with the evidence for its footings in this area beyond the Roman road line now destroyed or indistinct because of the softer nature of the ground.

The pits to the north of Structure 4 – [**4182**], [**4383**], [**4392**], [**4403**], [**4521**], [**4545**] and [**4550**] – were largely unremarkable, sparsely distributed across a *c.*16m by *c.*11m area in the centre of Area A. For the most part they were sub-circular in plan with steep sides and flat or concave bases. They ranged from *c.*1m to *c.*3m in diameter, but were generally closer to *c.*1m. They were between *c.*0.3m to over 1.6m in depth, although generally they were around *c.*0.5m in depth,. And they were all filled with deposits of dark greyish-brown sandy or clayey-silt, often mixed with redeposited red clay. Finds were sparse, with occasional pot, bone and charcoal present, and for the most-part appeared residual in deposition. Where pot was recovered it predominately dated to the 12th to mid-13th century. The one exception was pit [**4214**]. This was situated on the western edge of Area A *c.*6.5m north-west of Structure 4. Like the other pits it was sub-circular with vertical sides and a flat base, 1.45m in diameter and 0.99m deep, but its basal fill was a grey sandy-silt mixed with large quantities of ash, charcoal and cess-like deposits. This was the only pit to produce fills generated through primary disposal of waste. The pit, however, was ultimately

backfilled with dark greyish-brown soil similar to the other pits, although attempts do appear to have been made to stabilise subsidence for the pit's final fill was a *c.*0.3m thick deposit of red clay mixed with sandstone and mortar fragments, possible demolition material.

This pitting was also seen in Area B where another sizeable pit – [**4515**] – was partially observed extending beyond the western edge of the area. This was *c.*2.25m in diameter and over 1.5m deep, and had been backfilled with redeposited natural clay mixed with lenses of dark greyish-brown silt. Overlying it, and partially subsiding into it, was the remains of a substantial hearth – [**4512**]. This has been constructed as a *c.*0.75m wide bed of granite and cobbles, severely degraded from heat, set flat into clay. To the north a second small pit – [**4703**] – possibly represented the heavily truncated base of another cess pit. This was sub-rectangular, measuring *c.*0.9m by *c.*0.75m, but it was only *c.*0.15m deep. It contained greyish-green cess-like silts. Further pitting was also present in Area B *c.*8m north-east of Structure 4. Here, in a small area of preservation, two intercutting pits were excavated – [**4610**] and [**4613**]. Both were small sub-circular features, *c.*0.8m to *c.*0.9m in diameter and up to 0.85m deep, filled with blackish brown sandy-silts. Also dug through pit [**4613**] was a substantial, isolated, post-hole – [**4556**]. This was *c.*0.44m in diameter and *c.*0.6m deep and had been dug into the underlying gravel Roman road surfaces. Dispersed granite stones, possibly displaced packing, were present within the blackish-brown sandy-silt backfill, and hints of a possible post-pipe suggest it once contained a post *c.*0.24m in diameter.

A sunken feature, possibly another hearth was identified at the northern end of Area A – [**4558**] – within close proximity to the sunken-featured building, Structure 3 (see Phase 6). This was a shallow rectangular depression, *c.*1.66m by *c.*1m and *c.*0.1m deep, filled with brownish-red silty-clay mixed with further scorched clay and ash deposits. These overlay further charcoal deposits and a scorched area in the base of the cut. Spaced around the interior edge of the feature were a series of shallow concave scoops – [**4573**], [**4574**], [**4575**] and [**4576**] – all *c.*0.2m in diameter. These possibly represented the footings for some form of indefinable super-structure.

Activity in Area E was broadly comparable with that in Areas A and B, with just a light scatter of pits attributable to the 12th to mid-13th century. West of Structure 4 further pits – [**1009**], [**1011**], [**1023**], [**1129**], [**1135**] and [**1174**] – again produced little of note. Like those in Areas A and B they were typically sub-circular cuts between *c.*1m and *c.*1.7m in diameter and up to 0.6m deep, filled with dark greyish-brown clayey-silt. Very little material was recovered from these fills and that which was appeared to be residual, providing no clue to their purpose. Evidence of activity was absent along the western edge of Area E, where a thick layer of dark greyish-brown soil – (**1087**) – probably natural accumulation was the only deposit attributable to this period. The only definable occupation noted was situated in the site's northern corner. Here the denuded remains of a gravel surface of compacted dark grey clay and pebbles – (**1239**) – rested on a thick layer of greyish-brown soil – (**1224**). Partially observed impressed in irregular scoops into this surface, and continuing beyond the limit of excavation, were two large deposits of iron slag mixed with fire waste – [**1235**] and [**1238**]. Neither scoop showed evidence of in-situ burning and it appears likely theses represent dumped waste from iron-smelting activity within the immediate vicinity. Further evidence of occupation in this area was attested by the presence of a small rectangular pit – [**1246**] – measuring *c.*1.3m by *c.*0.7m and surviving to a depth of *c.*0.5m. This was filled with dark greenish-grey cess-like silty-clay. Whilst to the south-west a second pit – [**1084**] – produced a virtually intact mill-stone. This had been laid flat in a bed of granite and sandstone at the base of the pit before being covered with dark greyish-brown silty-clay. This in turn had been capped with further clay-bonded granite and sandstone rubble, some appearing heat-degraded. Scattered amongst these features three isolated post-holes were excavated – [**1080**], [**1248**] and [**4476**]. Post-holes [**1080**] and [**1248**] were both *c.*0.25m in diameter and *c.*0.2m deep whilst post-hole [**4476**] was *c.*0.54m in diameter. All three were backfilled with greyish-brown silt containing large granite stones, possibly displaced post-packing. No discernable structure could be extrapolated from these features but their presence, in contrast to the sterile pitting to the south, is a clear sign of further occupation within the surrounding area.

Other external activity

Further north, in Area C, evidence of more intensive pitting was uncovered – [**4043**], [**4049**], [**4058**] and [**4104**] (Figure 24). Again, for the most part these were unremarkable, typically being sub-circular or sub-square in plan, between *c.*1m and *c.*2.3m in diameter and *c.*0.2m to *c.*0.35m deep, filled with greyish-brown sandy-silts. Again situated amongst these features was a single post-hole – [**4108**]. This was

circular with sloping sides and a flat base, *c.*0.4m in diameter and *c.*0.2m deep, filled with greyish-brown sandy silt. Although on its own it again hints at more structural activity present within the vicinity.

Of more significance in Area C was the discovery of a sizeable cess-pit – [**4084**] - *c.*6.7m south-east of this pitting (Figure 28). This was a large rectangular cut with near vertical sides and flat base, *c.*3.4m long, *c.*1.5m wide and *c.*1.55m deep. It was filled with compact, finely laminated deposits of brownish-green and greyish-blue silty-clay mixed with deposits of softer dark greyish-green clayey-silt and intrusions of natural orange clay slumped from the pit walls, whilst the upper fills were pale green clayey-silts. Most of the deposits contained high percentages of charcoal, possibly disposed hearth waste, and some contained wood fragments. The pit's contents, as a whole, remained waterlogged. Pottery recovered from the upper and lower fills suggest it was in use during the early 13th century but had fallen out of use by the middle of the century. Evidence at its base indicated that pit [**4084**] was a re-cut of an earlier feature – [**4111**] – demonstrating that the cess-pit had been emptied at least once previously. Pit [**4111**] was *c.*2.1m long by *c.*1.3m wide and contained a further *c.*0.16m of brownish-green silty-clay.

A similar pit was also observed during a watching-brief in Trench 15 between Areas A and C – [**4566**]. This was only observed in section but appeared to be a near-vertical shaft, *c.*2m wide at its rim, tapering down *c.*3.8m to a *c.*1.2m wide base. The bottom of the shaft was filled with *c.*0.7m of slumped natural clay mixed with lenses of accumulated silt wash. Above this was a *c.*0.5m thick deposit of dark, green stained, greyish-brown clayey-silt, very cess-like in nature. The remaining *c.*2.5m of the shaft was backfilled with further deposits of pinkish-orange sandy clay. The presence of cess-like deposits near the base of the pit suggests it was at least partially used as a cess-pit. However, this does not seem to have been for a prolonged period of time.

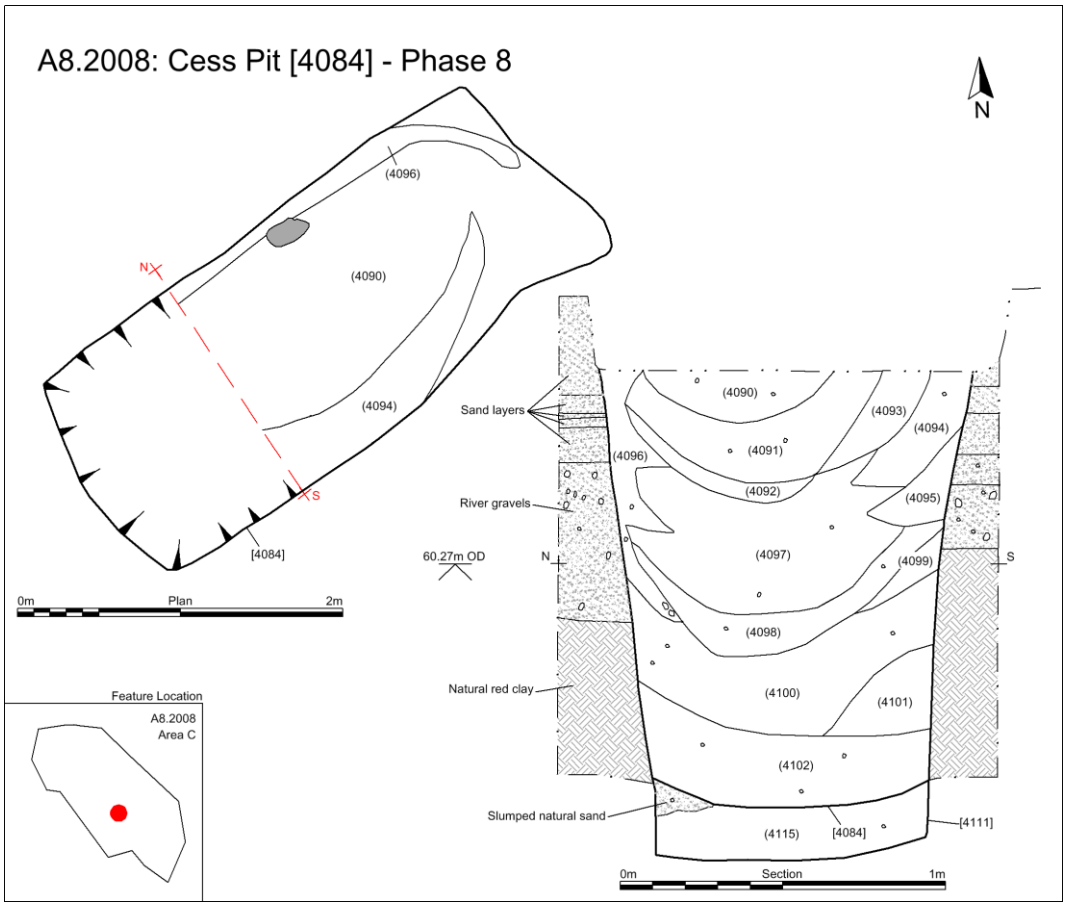


Figure 28: Plan of Cess-pit [4084] – A8.2008, Area C

A2.2007 (Trenches 1-5 and 7-10)

The earliest dateable medieval activity across Trench 3 can again be broadly attributed to the 12th to mid-13th century, but can be further categorised into two unique sub-phases (8.1 and 8.2).

The only deposit which could not be definitively placed in either of these sub-phases was a thick dark brown sandy-clay soil layer – (**2360**) – observed in section within the south-eastern side of Trench 9. This had been extensive truncated by demolition of the former James Went Building but was identified as at least 0.97m thick, with its base at an undetermined level below the bottom of the trench. Bearing in mind this considerable depth it is possible this layer represents the fill of an undefined pit partially situated within the north-eastern end of the trench. A small quantity of 12th to mid-13th century pottery was recovered; otherwise the soil proved relatively sterile.

Phase 8.1

The earliest medieval activity across Trench 3 lay on an extensive deposit of mottled greyish and greenish-brown silty-clay – (**2036**), (**2302**) and (**2308**) – up to 0.23m thick (Figure 24). This was identified resting for the most-part on the natural substratum near the base of an exploratory sondage excavated within the western half of the trench, and its clean homogeneous composition suggests it formed naturally. Directly capping it were the fragmented remains of a cobbled surface – (**2035**) and (**2307**) – observed in sondage over a *c.*6.4m by *c.*4.1m area. It had been constructed as a 70mm thick layer of compacted cobbles, typically 20-70mm in diameter, bonded within a greyish-brown silty-clay similar to the underlying soil. No obvious occupational debris was present across its surface but 12th century ceramics were recovered from its soil matrix.

Adjacent to the observed northern extent of this surface a single small post-hole – [**2329**] – dug into the underlying soil hints at associated, but indefinable, structural activity. Whilst immediately to the south further thin layers of soil accumulation – (**2303**) – and displaced natural subsoil – (**2288**) – had been deposited or allowed to accumulate over the cobbles.

These had in turn been truncated by a shallow, bowl-shaped feature – [**2312**] – possibly the remains of a pit *c.*0.9m in diameter and *c.*0.4m deep. A similar feature – [**2285**] – truncated the cobbles *c.*3m to the south-east. This was sealed beneath a succession of fine, compacted silty-clay layers – (**2039**), (**2198**), (**2263**) and (**2267**) – typically 60mm thick and covering a *c.*3m area across the southern end of the sondage. Partially capping the cobbled surface as well, they possibly represent the remains of a well maintained clay floor although again, no obvious occupational debris was present across its surface and characterising the nature of the habitation remains elusive. These surfaces were eventually truncated by a large pit – [**2265**]. This was circular with near vertical sides curving down to the base; *c.*1.95m in diameter and *c.*0.5m deep it had been backfilled with deposits of relatively clean reddish-brown and orange-grey sandy-clay containing some 12th to mid-13th century ceramics.

Further pits were also noted *c.*6m to the north. One pit - [**2205**] - was a large circular feature with near vertical sides, *c.*3.2m in diameter and over 0.76m deep (unbottomed). Its initial fills appeared to be washed natural and Roman subsoil, suggesting it had been left exposed to the elements long enough for them to accumulate prior to its final deliberate backfill with a single homogeneous deposits of pinkish-brown sandy-clay. This also appeared partially natural in origin but contained 12th century ceramics. Pit [**2304**], *c.*5.7m to the north-east, was similarly proportioned being at least 2.3m in diameter and over 0.7m deep (unbottomed), but contained deposits of darker, more organic silty-clay soil as well as redeposited sandy subsoils.

Situated between these two features was a possible hearth – [**2238**]. Heavily truncated, with only its western half surviving, it formed an irregular square scooped into the natural subsoil which had become discoloured from heat within the immediate vicinity. At least 0.45m wide and *c.*0.13m deep it appeared to have been thoroughly cleaned out as no in-situ burning survived. Instead it was backfilled with multiple fine deposits of pale greyish-brown sandy-silt; and pinkish-orange, brownish-orange and orange-red clayey sand, some of which appeared friable and scorched. Securely situated near the base one deposit contained some 12th to mid-13th century ceramics. There is also some evidence to suggest this feature may have been re-cut for truncating its northern side was a second shallow rectangular scoop – [**2218**] – *c.*0.65m by *c.*0.4m and *c.*0.1m deep. It too was filled with further deposits of yellowish-brown sandy-silt and scorched reddish-orange sandy-clay, but again, no evidence of in-situ burning was present.

Phase 8.2

Across the western side of Trench 3 this early material (Phase 8.1) was sealed beneath a thin blanket of mixed reddish and greyish-brown silty-clays – (**2015**), (**2016**), (**2018**), (**2034**), (**2169**), (**2182**), (**2260**) and (**2261**) (Figure 25). These were observed covering a *c.*7.5m by *c.*7m area and appeared to be consolidation material deposited as a bedding layer for an extensive gravel 'yard' surface – (**2056**), (**2170**) and (**2339**). The surface only survived as dispersed fragments but was still visible over a *c.*5.4m by *c.*4.7m area. It was constructed from compacted clayey-gravels, up to 0.1m thick, mixed with small quantities of broken slate and charcoal. To the east of this the bedding material was sealed beneath thin deposits of brown sandy-silt – (**2163**), (**2166**), (**2167**) and (**2168**). These were mixed with quantities of lump-clay, charcoal, mortar and slate and probably also represented bedding material for they were in turn sealed beneath resurfacing of the gravelled yard – (**2017**), (**2050**) and (**2175**). This new surface appeared degraded and fragmentary, only surviving over a *c.*3.2m by *c.*1.9m area across the northern extent of the earlier surface, but was of more robust construction than its predecessor. It was laid using 30-80mm cobbles set within a greyish-brown silty-clay matrix and had clay, mortar and charcoal fragments tramples across its surface. Further fine spreads of charcoal rich clayey-silt – (**2044**), (**2047**), (**2054**) and (**2055**) – were dispersed across the initial surface south of this resurfacing. These seemed more likely to represent occupational trample than bedding material but it remains unclear to which phase of surface they related.

Whilst the initial yard surface and bedding material all contained 12th to mid-13th century ceramics this later resurfacing contained no dateable material and could plausibly have been constructed anytime between the 12th and 15th century, when it was ultimately truncated by pit [**2131**] – see Phase 10. However, as it does appear to represent resurfacing of the earlier yard surface; and because in areas where it spatially overlapped the earlier metalling it was in physical contact, a 12th to mid-13th century date would be more probable.

These surfaces were bisected by a post-alignment running north-east to south-west across Trench 3, comprised of post-holes [**2042**], [**2046**], [**2048**], [**2115**], [**2151**], [**2158**], [**2161**], [**2179**] and [**2310**]. These were all approximately circular, typically *c.*0.25 to *c.*0.5m in diameter and between *c.*90mm and *c.*0.35m deep. On the western side of the area they were grouped as pairs, spaced *c.*0.4m apart, set perpendicular to the alignment. Two groups were noted – [**2042**] with [**2046**] and [**2115**] with [**2179**] – spaced *c.*1.8m apart. These were dug into the underlying yard surfaces. Approximately 0.5m to the east was a fifth post-hole – [**2048**] – and *c.*1.5m beyond that two more – [**2151**] and [**2158**] – spaced close together. Continuing east, two further post-holes – [**2161**] and [**2310**] - were spaced *c.*2.2m apart respectively. Further post-holes – [**2028**], [**2117**] and [**2206**] – were also present *c.*2m to the south. These were of similar character and dimensions to those in the post-alignment, although post-hole [**2028**] contained some mid-13th and 14th century ceramics in its backfill, possibly indicating the date for the post's removal or contamination from the overlying Phase 9 soil. These could represent some form of structure extending away to the south-east. Notably, several of these post-holes and the underlying soil – [**2042**], [**2046**], [**2151**] and (**2261**) – contained residual iron slag including tap slag and hearth lining. Large quantities of residual slag were also recovered from later deposits and features across this western part of the site suggesting metal-working may have once been carried out in the immediate vicinity. This correlates with activity observed in Area E, *c.*23m to the south0east, where further deposits of iron-slag were also noted.

Also situated south-east of this post-alignment, on a matching alignment was a ditch – [**2184**]. This was an uneven linear cut with steep to near vertical sides and flat base *c.*4.6m long, *c.*1.2m wide and *c.*0.45m deep, orientated north-east to south-west. It was truncated to the north-east by the construction of the Newarke precinct wall (see Phase 10), making its continuation in this direction impossible to ascertain. However, there was no evidence to suggest it continued much further in the opposite direction for it did not appear to be dug through the yard surfaces which crossed its alignment to the south-west. The ditch had been backfilled with a homogeneous dark greyish-brown sandy-silt mixed with a high percentage of charcoal, mortar and building rubble capped with cleaner sandy-silt, most likely the overlying soil (Phase 9) settling down naturally into it. This suggests it may have been deliberately backfilled and it would seem likely this ditch represents some form of boundary division with the flanking post-alignment representing a fence-line demarking an adjacent property. A small number of discarded personal ornaments were also recovered from its fill, including a disc brooch (SF215) and a bone pin (SF221). These however appear to be residual Roman finds.

Truncating this ditch were two further features – [**2164**] and [**2192**]. Feature [**2164**] was very similar, in cut and fill, to the other post-holes in the vicinity and was also likely the remains of a post-hole. Feature [**2192**] was much larger, measuring *c.*1.85m in diameter and over 0.78m deep. It remained unbottomed during the excavation but its dark soil fill contained large quantities of charcoal and it appeared likely this was a small pit. A quantity of 12th to mid-13th century ceramics was recovered from it, as well as a possible whetstone (SF218) and several glass fragments (SF219-220). This pit also partially truncated post-hole [**2206**].

Within the northern half of Trench 3 further post-holes were excavated. These primarily clustered over former hearths [**2218**] and [**2238**] – see Phase 8.1. Initial truncation was caused by a single substantial post-hole – [**2242**]. This was *c.*0.6m in diameter and *c.*0.5m deep packed with stone and recycled Roman tile leaving a central sub-circular post-pipe *c.*0.2m in diameter. The pipe – [**2245**] – was backfilled with reddish-brown clayey-silt similar to the surrounding subsoil. A similar large post-hole – [**2201**] – minus any packing was also excavated *c.*3.6m to the south-west. This was *c.*0.6m in diameter, *c.*0.2m deep and similarly backfilled.

Clustered around, but post-dating the removal of the post from [**2242**] were a dense cluster of smaller post-holes – [**2109**], [**2113**], [**2209**], [**2213**], [**2220**] and [**2237**]. These were typically sub-circular, between *c.*0.27 and *c.*0.48m in diameter and *c.*70mm to *c.*0.25m deep. Only post-hole [**2237**] differed, being kidney-shaped and this may be because it had once housed two posts, or was two closely spaced post-holes merging during removal of their posts. The backfill of [**2237**] was sealed beneath fine spreads of yellowish-orange and brown sandy-clay – (**2227**) and (**2231**) – which were in turn truncated by post-holes [**2113**] and [**2213**], possibly replacement posts. The nature of this structural activity remains unclear, as does a definitive date although the recovery of small assemblages of 12th to mid-13th century ceramics from the backfills of two of these features – [**2109**] and [**2209**] – does suggest their posts had been removed no later than the mid-13th century.

The only significant feature to survive from Phase 8 was a large, sunken keyhole-shaped structure – [**2129**] – dug into the natural substratum within the southern half of the site (Figure 29).

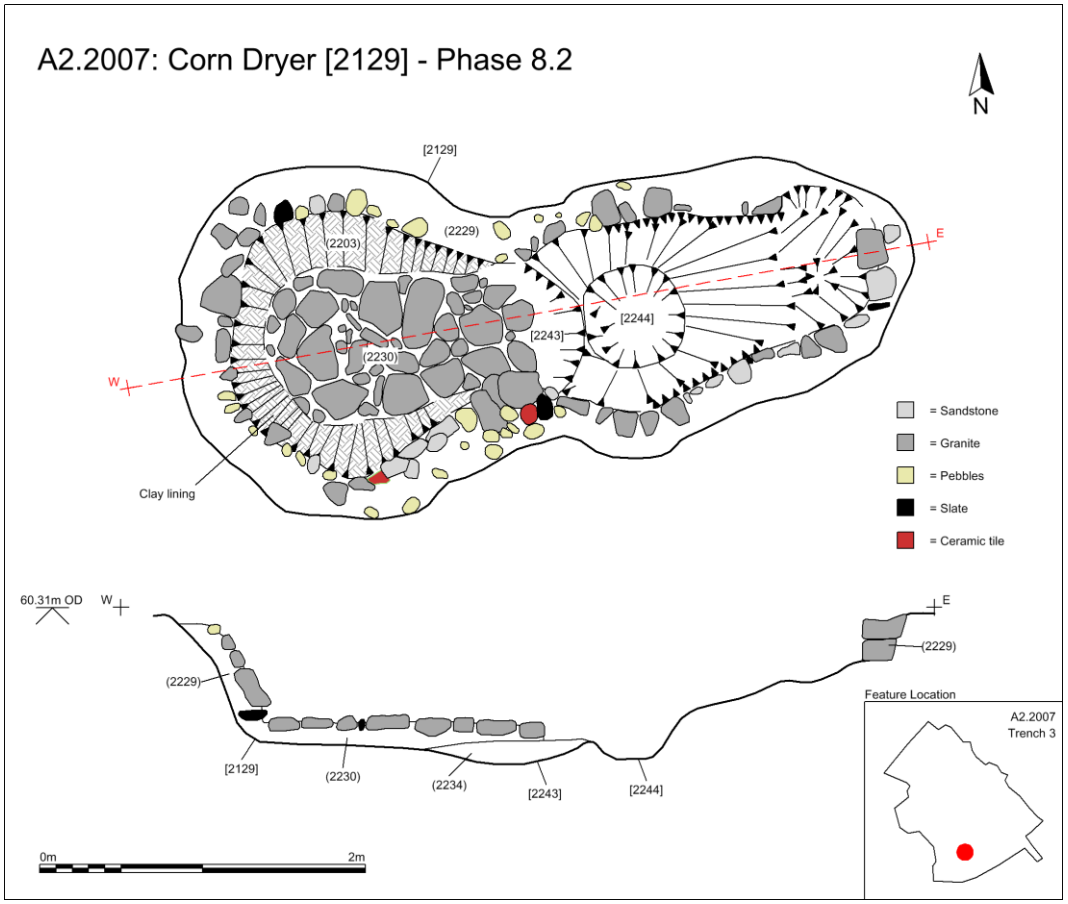


Figure 29: Plan of Corn Drier [2129] – A2.2007, Trench 3

Figure 30: Corn Dryer [2129] – A2.2007, Trench 3. Looking south-west

Figure 31: Corn Dryer [2129] – A2.2007, Trench 3. Looking north-west

This was constructed as a *c.*1.64m diameter conical stone-line bowl, *c.*0.64m deep resting on a flat, stone-paved base *c.*0.98m in diameter (Figure 30). The floor of the structure was constructed entirely from flat-topped granite rubble whilst the bowl lining, also predominately earth-bonded granite rubble, incorporated some sandstone, slate and cobbles. The floor and the lower *c.*0.2m of the bowl lining were scorched with charred organic material and charcoal impressed between the stones. Breeching the eastern side of the bowl was a *c.*2.2m long flue (Figure 31). This was an integral part of the structure with the bowl's stone lining continuing around the flue's sides. In plan the flue's walls bowed inward, narrowing from 1.2m in width to a 0.54m wide neck at the breech. This had been strengthened with the incorporation of a large rectangular granite jam on the southern side, an element probably once mirrored on the northern side as well, and these would have likely supported a stone lintel defining the flue mouth. A similar structure with stone lintel, in this case intact, has recently been excavated on Freeschool Lane (Coward and Speed, 2009: 113). There was no evidence to suggest the base of the flue was ever paved and it dropped down unevenly from the east to the breech where a circular depression at the base of the flue – [**2244**] – may be evidence of wear from raking out the feature. Beneath the granite floor a second shallow scoop – [**2243**] – filled with burnt sand, charcoal and ash – (**2234**) – possibly represented a phase of activity pre-dating the stone lining. Dating the structure and establishing length of use is difficult but based on material recovered from its backfill it had a terminal date of *c.*1240 to *c.*1250 or slightly later.

Around the base of the bowl a thick deposit of clay had been impressed against the stonework, possibly as some form of lining. It was heavily scorched, evidence of the prolonged heat within the feature. Thick deposits of ash and charcoal within the base of the flue and the shaft are testament to its final firing. These were interspersed with fine deposits of trampled soil suggesting the remains of at least two episodes of burning were still present. The ash and charcoal deposits were particularly concentrated within the flue mouth suggesting this was the site of the fire but also spread out back along the length of the flue probably through rake-out between burns. Large quantities of burnt cereal grains were present in these deposits indicating a domestic/agricultural use rather than industrial. The feature was finally backfilled with thick deposits of soil and redeposited natural mixed with large dumps of burnt clay and tumbled stone.

These structures are relatively common features in Leicester, variously described as corn-driers, corn-drying kilns or malting kilns/ovens. During recent excavations similar structures have been excavated on Freeschool Lane (*ibid*) and Vaughan Way (Gnanaratnam, 2009: 35), and in each case their purpose appears to be the same, the drying of grain. No evidence for the drying floor survived with this structure but the large quantity of tumbled stone within its bowl suggests some form of superstructure had been levelled and pushed in.

A7.2008 (Areas 1-3; Trenches 11-14)

Very little definable medieval activity was identified across Areas 1-3 (Figure 26). In Area 1 the earliest material recorded was a *c.*0.35m thick layer of brown sandy- soil - (**3042**) - overlying Roman surface (**3056**) and subsoil (**3057**). This contained a small quantity of 12th or early to mid-13th century pottery. A linear feature – [**3070**] – was also present in Area 1 *c.*2.5m to the north-east. This was a shallow concave cut, visible for *c.*1.5m before continuing south-east beyond the edge of excavation. It was *c.*0.7m wide, *c.*0.2m deep and appeared to end with a curved terminus to the north-west. Its fill, a grey sandy-silt also containing a small quantity of 12th to mid-13th century pottery, seems characteristic of naturally weathered soil and it's likely this feature was once a boundary ditch or gully.

Other 12th to mid-13th century features were also present in Area 2 and Area 3. In Area 2 a sizeable ditch – [**3016**] - was partially exposed. This was a broad, concave cut at least 1m wide and *c.*0.6m deep on the same north-west to south-east alignment as the linear features in Area 1. Initially filled with naturally weathered pale orange-brown silty-sand, suggesting it had been allowed to gradually silt up, it was finally backfilled with deposits of dark greyish-brown clayey-silt similar to the soil – (**3042**) – still present in Trench 3. These fills contained a very small quantity of residual Saxon pottery mixed with pottery of 12th to mid 13th century date. Ditch [**3016**] also appeared to represent a re-cut of ditch [**3015**]. However, as ditch [**3015**] is suggested to be Roman in origin it is ambiguous whether any relationship between these two features is deliberate or coincidental.

Finally, in Area 3 a small pit – [**3037**] – was excavated. It was a circular, concave cut *c.*1.1m in diameter and 0.7m deep filled with dark greyish-brown sandy-silt mixed with a high percentage of ash and charcoal. This appeared to be disposed hearth waster as no evidence of in-situ burning was identified. The pit's backfill also included a small quantity of 12th to mid-13th century pottery.

Discussion

In general, the character of the surviving archaeology attributable to the 12th to mid-13th century is that of backyard activity with no evidence for the medieval alignment of Southgate Street (now Oxford Street) or buildings forming the frontage on its western side present within the site (Figure 32). From this we must conclude that the street was further east, most likely beneath its modern alignment, with the frontage in the vicinity of the eastern edge of Area B. This, unfortunately, is an area which has since sustained significant intrusion, first from the construction of the 17th century Civil War defences (see Phase 11.2) and subsequently from cellars associated with the post-Civil War street frontage (Phase 12). Therefore, we cannot precisely locate the street frontage nor say for certain how built up it truly was during the earlier high-medieval period. Suburban development is known to exist along Southgate Street by *c.*1200, however, for a charter indicates that both burgesses and customary (peasant) tenants were living outside the South Gate and a rent of hens recorded in 1204 from without the South Gate points to the continued presence of customary tenants (Bateson 1899, 10-11 and Bickley 1928, 335-6 in Courtney 1998, 124).

Evidence of occupation during this period appears to have been largely confined to the north-east of the site within *c.*45m of the probable street frontage. This trend is in part due to the extensive post-medieval truncation the rest of site had sustained and the more limited nature of the evaluation to the south-west. However, the general trend does suggest areas further away from the Southgate Street frontage sustained less activity during this period.

Some evidence for land divisions was identified across the site. One such example is suggested to the south-west in Areas 1 and 2 where adjacent ditches, set *c.*7.6m apart, appeared to be running parallel with Southgate Street *c.*100m to the north-west. Whilst in Trench 3 a third ditch flanked by a post-alignment probably representing a fence-line was identified extending perpendicularly away from the street frontage. Other isolated post-holes scattered across the site also hint at further ephemeral activity, possibly additional fencing. Little more can be extrapolated, however, about the properties along Southgate Street during the earlier high-medieval period and the process which led to the formalisation of these land holdings remains unknown. This is frustrating for we cannot tell whether this initial occupation was a piecemeal procedure or a planned creation, with a series of regularly laid out plots as later phases suggest (see General Discussion).

Just one possible building was identified, Structure 4. This was of relatively primitive construction entailing the use of earth-fast posts throughout its structure, these being particularly noticeable along the building's north-western side, believed to be its gable end. The absence of deep, structural post-holes down either side of the building, however, indicates different means of construction were also used, with the small, closely spaced post-holes on the western side suggesting close-studwork whilst the rough beam-slot on the eastern side may indicate where a sill-beam, or stud-walling was removed. The presence of deep, structural post-holes only along the north-western wall further supports the belief this is a structural wall, with large posts needed to support the roof and provide stability at the building's corners. The paucity of roof tiles, slate or ceramic, from this period also suggests the roof was more likely thatched or covered in timber shingles. Without any associated interior or exterior surfaces surviving little further can be said but Structure 4 is possibly a small ancillary structure set back behind the street frontage. Material recovered from the robbed post-holes suggest the building had been dismantled no later than the middle decades of the 13th century but no evidence for when it was constructed could be identified and there is no reason why this building could not have originated in the 11th century. On Bonners Lane, similar structures appeared to be short-lived, however, appearing along the margins of the street by the end of the 12th century and being replaced or rebuilt by the end of the 13th century (Finn 2004, 25).

With few exceptions most of the pits excavated across the site remain enigmatic. Typically filled with bland, homogeneous deposits of soil they contained little in the way of domestic waste, with the little recovered largely appearing residual thereby suggesting refuse disposal was not their intended function. Attributing a purpose to them is therefore difficult but it is possible they represent localised efforts to extract the natural clays underlying the area, as general building material or for more specific industrial applications.

Interspersed amongst this broad scatter, however, were some pits which did appear to have been used, at least secondarily, for domestic purposes. These contained cess-like deposits in conjunction with the blander soils prevalent in all the pits, indicating they had at least partially been used as cess-pits. They also typically contained greater concentrations of domestic refuse. By far the best evidence of domestic

habitation within the vicinity, however, was the sizeable cess-pit excavated in Area C. Considering its size, the amount of effluent it contained and evidence that it had been dug out more than once it is likely this represents a communal latrine serving a number of properties along the western side of Southgate Street.

Another commonly occurring feature was the isolated hearth. In all, three were identified amongst the general activity to the rear of the street frontage. Although of differing construction these all shared the distinction of having little or no surrounding activity that could suggest they had once been inside any form of structure. Fragments of yard surface also survived in areas, particularly around the fence-line in Trench 3 where multiple overlapping surfaces show it was well maintained for a prolonged period. Whilst, industrial activity within the site was underscored by two localised areas of dumped iron waste, primarily smelting residue, which suggests some small-scale iron working was being carried out in the immediate vicinity.

The broad character of the activity represented by the excavated remains for this period suggests that domestic and agricultural activity predominated across the site. This is accentuated by the presence of a corn-drying kiln in Trench 3. Corn-drying is a necessary process in crop production in temperate climes where summers are typically cool and moist and three main reasons for the method are often cited: as part of the malting process; in preparing seed grain for storage; and as a prelude to grinding. The process is also well documented. A fire was light at the mouth of a covered flue and the heat generated was drawn along the passage to enter the kiln bowl below a raised floor of struts. The cereals were dried on this often on a bed of straw (Gibson 1989, 219). Large quantities of charred cereal grains, predominately barley and wheat but also some rye and oat, were present within the fire residue at the base of the kiln. However, only a small amount of germination was present amongst these grains, the evidence being insufficient to suggest malting was being carried out, and it is more likely that a crop harvested damp was being processed. This is very different from similar kilns found on Freeschool Lane where malting was firmly established (Coward and Speed 2009). Further evidence that the kiln on this site was probably being used to prepare cereals for consumption is highlight by an almost intact mill stone recovered from a pit in Area E and it is documented that the south suburb had its own bread oven during this period (Bickley 1928, 355-6 in Courtney 1998, 124).

Establishing the duration of habitation of this area in the earlier high-medieval period is difficult. Whilst no material evidence was recovered suggesting activity in the area during the 11th century, occupation could plausibly have originated during the Saxo-Norman period. That it was long-lasting is certainly suggested by two distinctly separable phases of activity (8.1 and 8.2) identified in Trench 3. Here two phases of yard metalling with associated activity (pits, post-holes and hearths) were separated by thick layers of soil. For this to have accumulated, a lengthy period of time must have passed between the two episodes. What can be said with more certainty is that activity appears to have tailed off by the mid-13th century, with Structure 4, the communal cess-pit and the corn-dryer all falling out of use at around this time.

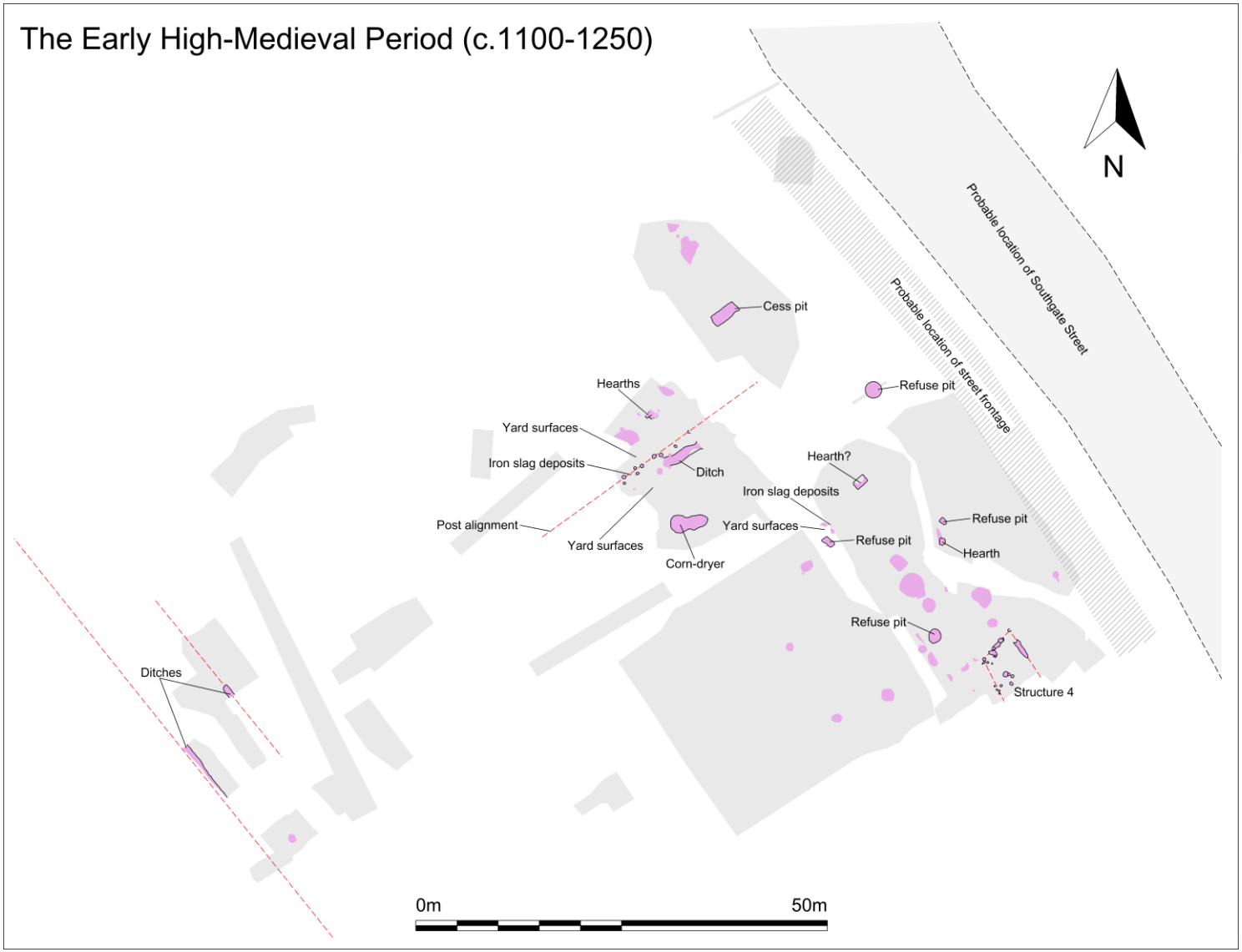


Figure 32: Interpretive plan of the site showing the principal Phase 8 features

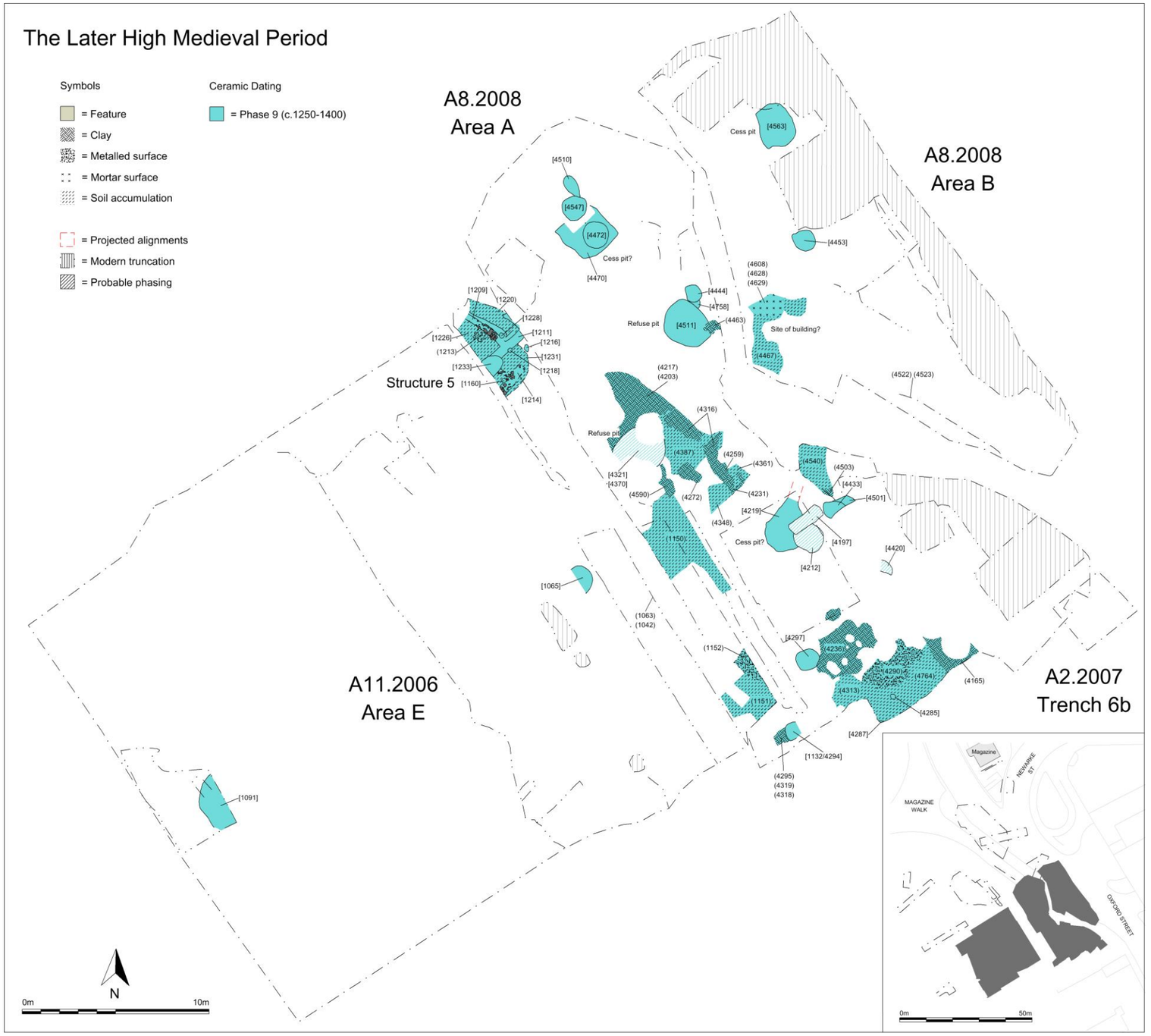


Figure 33: Phase 9 (A11.2006, Area E, and A8.2008, Areas A and B)

Figure 34: Phase 9 (A2.2007, Trench 3 and A8.2008, Areas C and D)

Phase 9 (Later High Medieval: c.1250-1400)

Reversion of the area to cultivation; land clearance possibly associated with the foundation of the Newarke; renewed backyard activity associated with buildings fronting onto Southgate Street (now Oxford Street).

A11.2006 and A8.2008 (Areas A-E; Trenches 6a, 6b and 15)

Evidence for mid- to late 13th- and 14th-century occupation across Areas A-E was notably absent. Very little activity was present across much of Area E, although this cannot be considered representative of the period due to the significant damage this area sustained from the demolition of the former James Went building, and in those areas of both sites where archaeology did survive the accumulation of thick soil deposits – (**1042**), (**1150**), (**1151**), (**1220**), (**4059**), (**4060**), (**4061**), (**4203**), (**4313**), (**4318**), (**4319**), (**4348**), (**4361**), (**4467**), (**4522**), (**4523**), (**4540**) and (**4764**) – appears to have been allowed to prevail (Figure 33). These were typically dark greyish-brown clayey-silts, on average *c.*0.2m thick but noted in the centre of Area A, to be *c.*0.4m thick whilst along the southern edge of Area A they were observed to be over *c.*0.7m thick and in Area C they were at least *c.*0.3m thick. Mixed in with these soils were concentrations of red clay, pebbles and sand, suggesting they had been disturbed but little residual occupational debris was recovered. Significantly, these soils buried all previous 12th and early 13th century occupation (Phase 8) with no conclusive continuity between the two phases identified. Across much of Area A, and seen in section on Area E, these soils were capped with extensive spreads of redeposited natural red clay – (**1063**), (**4165**), (**4217**), (**4231**), (**4236**), (**4259**), (**4272**), (**4295**), (**4316**), (**4463**), (**4503**) and (**4590**) – up to *c.*0.15m thick. On site these were originally assumed to be up-cast from the 17th century Civil War ditch to the east (see Phase 11) but stratigraphically they must have been deposited much earlier, most likely during the 14th century, and may coincide with a period of land clearance associated with the foundation of the Newarke Precinct to the west. A similar sequence of activity was apparent in Trench 15, adjacent to the southern side of the Magazine Gateway, where *c.*0.23m of possible latrine waste deposits – (**3080**) – sealed beneath 80mm of red clay – (**3082**) were observed in section capping the surviving Roman road surface – (**3081**) – see Phase 2.2.

Very few features post-dated these soil and clay deposits. On the southern side of Areas A and E, overlying the site of 12th-century Structure 4 (Phase 8) the denuded remains of a gravel surface – (**1152**) and (**4290**) – and two heavily truncated post-holes – [**4285**] and [**4287**] – highlighted continued occupation of this area during the late 13th to 14th century. The surface survived as a *c.*3.6m by *c.*1.9m area of greyish-brown clayey-silt and pebbles, up to 50mm thick, mixed with larger cobbles and fragments of slate and granite, whilst to the south the post-holes were both *c.*0.4m in diameter and up to 0.2m deep, filled with dark brown silty-sand. Further structural evidence of occupation was identified on the western side of Area B, where a possible surface – (**4629**) – was identified lying on soil (**4467**). This was a thin, much-worn layer of pale orange-brown lime mortar observed over a *c.*1.3m by *c.*0.9m area. Considering its delicate nature, hardly conducent to survival outdoors, it likely represents an internal floor, although it was sealed beneath a fine layer of dark greyish-brown soil accumulation – (**4628**). This in turn was capped by further fragments of lime plaster – (**4608**). These appeared rough and unfinished on their upper surface but smooth and dressed on their underside suggesting they were deposited face-down, perhaps fallen from an adjacent, unidentified wall. Although tentative this sequence may be evidence of a building present over this location which had undergone a period of neglect before its eventual demise.

Across the centre and northern half of Areas A and B, as during the preceding phase, pitting predominated and again, many were small pits of ill-defined purpose backfilled with bland fills similar to the surrounding soil through which they were dug – [**1065**], [**1132**], [**4212**], [**4294**], [**4297**], [**4420**], [**4433**], [**4444**], [**4453**], [**4472**], [**4501**], [**4510**], [**4547**] and [**4758**]. These varied in plan from sub-circular to rectangular, were typically vertical sided with flat or concave bases, and ranged from *c.*1m to *c.*1.6m in diameter and *c.*0.15m to *c.*0.7m deep. The exception to this was pit [**4472**] which was over 1.2m deep (unbottomed for safety reasons). They were all filled with greyish-brown clayey silt, although pit [**4501**] also contained large quantities of granite and mortar rubble, probably slumped collapse from overlying wall [**4431**] – see Phase 10. Pit [**4294**] on Area A, which appeared to contain a modern fill, probably represented the re-excavation of pit [**1132**] on Area E. Further pits were also partially exposed in Area C and along the western side of Area E – [**4047**], [**4052**] and [**1091**]. Again these were filled with bland dark brown and greyish-brown sandy- and silty-clays. Pit [**1091**] was observed to be over *c.*2.9m in diameter and did contain small concentrations of charcoal and oyster shell suggesting it had been used for

some limited refuse disposal, whilst pit [**4052**] was observed to be a vertical sided circular feature, *c.*1.6m in diameter and over 1.8m deep. The considerable depth of this feature led to speculation in the site notes that it may be a well, although this could not be proved. Its backfill contained pottery dating no later than 1400 suggesting it had fallen out of use by the early 15th century. Of particular interest, however, was pit [**4047**] which contained an extensive, 50mm thick, deposit of ash and charcoal within its base. This appeared to represent in-situ burning, for the underlying ground was discoloured from the heat, and suggest this pit was once used to house a sizeable fire.

Amongst these pits, however, a few did contain some evidence of use. Of particular note was pit [**4219**], a large sub-square feature with a *c.*0.6m wide channel extending away from its northern corner. This measured *c.*2.5m by *c.*2.3m, was over 1.65m deep (again unbottomed for safety reasons) and was filled with deposits of pale greyish-green silt mixed with blackish-grey and red sandy-silts suggestive of latrine waste. These also contained higher concentrations of ash, charcoal and animal bone making it clear this pit had been used for sewage and refuse disposal, although it was unclear whether this was its original purpose. Towards the top, a thick layer of slumped red clay may have been evidence of subsided capping. It was truncated by a small, rectangular pit – [**4197**] – *c.*2m long, *c.*0.75m wide and *c.*0.8m deep, also containing a 50mm thick deposit of greenish-grey silt, indicative of human waste, across its base. Whilst *c.*6.5m and *c.*16.6m to the north-west, three pits – [**4321**], [**4470**] and [**4511**] – also contained green-stained clayey-silts mixed with large quantities of charcoal, animal bone and building rubble (predominately granite, slate and tile). Of these, pit [**4321**] appeared to have been left open for a prolonged period for its base was filled with *c.*0.25m of clean reddish-orange clayey-silt indicative of erosion from the pit walls, whilst the refuse in pit [**4511**] also produced two a large flagon (SF452). Pit [**4321**] may also be a re-cut of an earlier feature for a small indefinable fragment of a third pit – [**4370**] – was identified beneath it.

By far the most significant feature dated to this phase was pit [**4563**] situated at the northern end of Area B (Figure 35). This had been dug as a large, vertical sided shaft, *c.*2.3m in diameter and *c.*2.5m deep. At the base was *c.*0.5m of finely laminated dark brown and greyish-green waterlogged latrine deposits covered with sterile brown sand, probably wash from the pit sides, dark greyish-brown soil and slumped deposits of greyish-blue clay. This may indicate the pit had remained open and unused for a period of

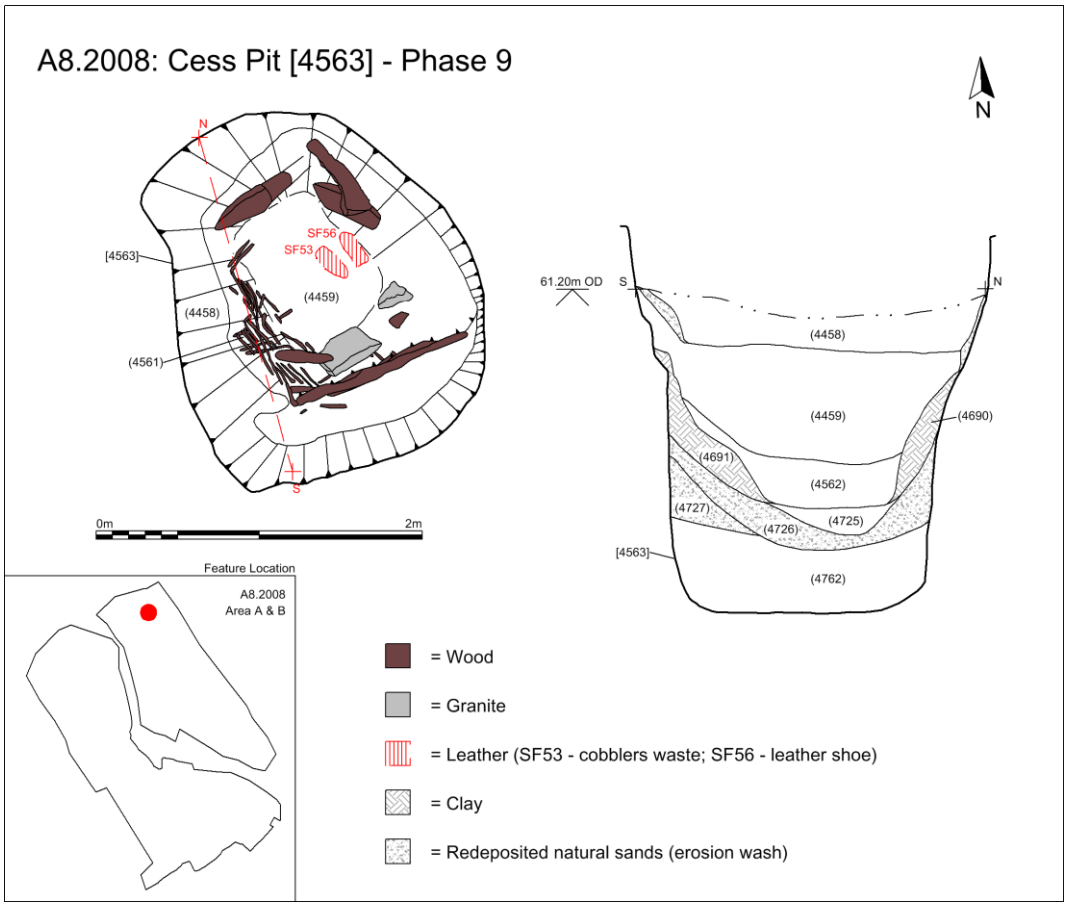


Figure 35: Plan of Cess Pit [4563] – A8.2008, Area B

time, long enough at least for its contents to become sealed beneath erosion from the pit walls, before use resumed. The upper fill of the pit consisted of *c.*1.3m of compressed pale and dark greenish brown waterlogged cess deposits liberally mixed with large quantities of wood chips, broken branches, ash and charcoal. Resting within these deposits near the top of the pit was the remains of a wattle structure constructed from at least six 10-25mm thick rods interwoven between groups of doubled staves (Figure 36). Severely broken and deformed when uncovered, it appears originally to have been made as a flat panel at least 1m wide and 0.6m high with the staves spaced *c.*0.2m to *c.*0.3m apart. Several large pieces of timber, including one squared post with a tapered end, had been deposited on top of this wattle panel. These were predominately found around the edges of the pit and, combined with the wattle panel, may represent the remains of a timber privy structure which had been dismantled and thrown into the pit following its final demise. Other finds recovered from the upper cess deposits included a leather shoe and leather off-cuts typical of cobbler's waste (SF453 and SF456). The pit was finally backfilled with dark greyish-brown soil mixed with granite and sandstone rubble, broken tile, charcoal, animal bone and other refuse. Dating recovered from the later cess and final soil fills suggests a date of *c.*1250 to 1400.

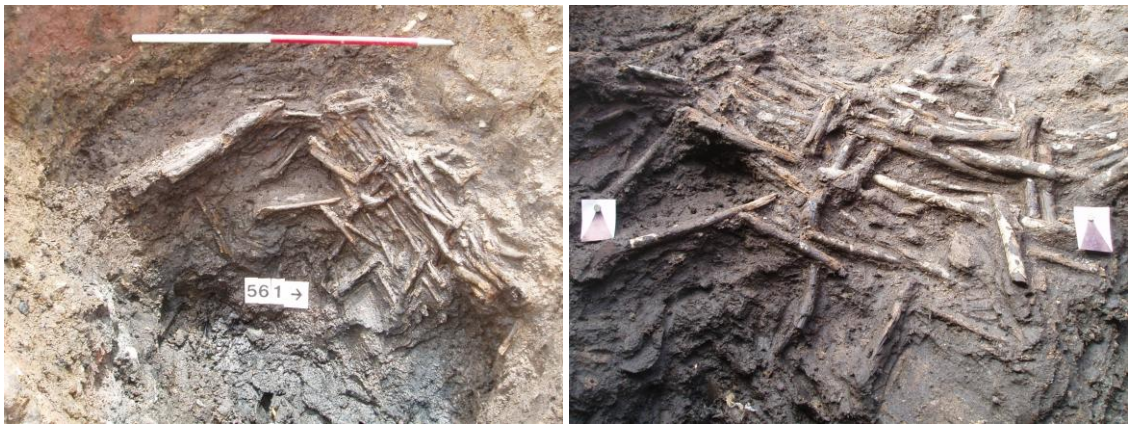


Figure 36: Wattle panel present in Cess Pit [4563] – A8.2008, Area B

Structure 5

Just one building, Structure 5, could be identified as originating during the late 13th or 14th century (Figure 37). This was partially exposed in the northern corner of Area E although no evidence of it was identified to the east on Area A. The building was best defined by two stone-footed walls – [**1209**] and [**1211**] – set perpendicularly to each other. These were both laid in shallow linear footing trenches, *c.*0.5m to *c.*0.6m wide and up to *c.*0.4m deep. Both walls appeared partially robbed, with the footings backfilled with dark grey soil mixed with large quantities of loose granite, slate and clay. However, where stonework survived in wall [**1209**] it proved to be of clay bonded granite and slate rubble construction, *c.*0.3m wide, with the stonework providing the facing for a clay and rubble core. In all, wall [**1209**] was observed to extend *c.*2.5m north-west to south-east with wall [**1211**] extending *c.*2.2m north-east to south-west across its southern end before possibly turning to run parallel with [**1209**] *c.*1m to the north-west. Both walls survived to less than *c.*0.1m in height. The shadow of a third wall – [**1214**] – was also observed running parallel *c.*0.9m south-east of wall [**1211**]. This had no apparent footing trench, its clay bonded stonework resting directly on the underlying ground, but was observed for *c.*1.74m. It also appeared to connect with wall [**1211**] for a narrow, *c.*0.15m wide, footing was observed extending north-west from wall [**1214**] towards it. Internally little survived, but four post-holes – [**1160**], [**1216**], [**1218**] and [**1228**] – were identified with the building's footprint. These were all between 0.23m and 0.35m in diameter, up to 0.25m deep, and were typically vertical sided with tapered or concave bases. Two – [**1160**] and [**1216**] – still contained in-situ packing stones, whilst a third – [**1228**] – contained displaced granite within its fill. The in-situ packing in both post-holes appeared to have been constructed using elongated granite stones set vertically around the cut edge leaving a central *c.*0.1m diameter pipe. This can be explained by the post being set in the hole with the stones then driven down around it to fix it in place. Significantly, three of these post-holes – [**1160**], [**1218**] and [**1228**] – were partially set into the wall footings, suggesting the posts they house were integral to the buildings structure. The only evidence for floor surfaces was identified west of wall [**1209**]. Here a *c.*0.1m thick deposit of pale brown silty-clay – (**1212**) – appeared to act as bedding for the denuded remains of a mortar and pebble surface – (**1213**). This survived as a small, 10mm thick, spread of pale yellowish-brown sand, mortar and pebbles against wall [**1209**].

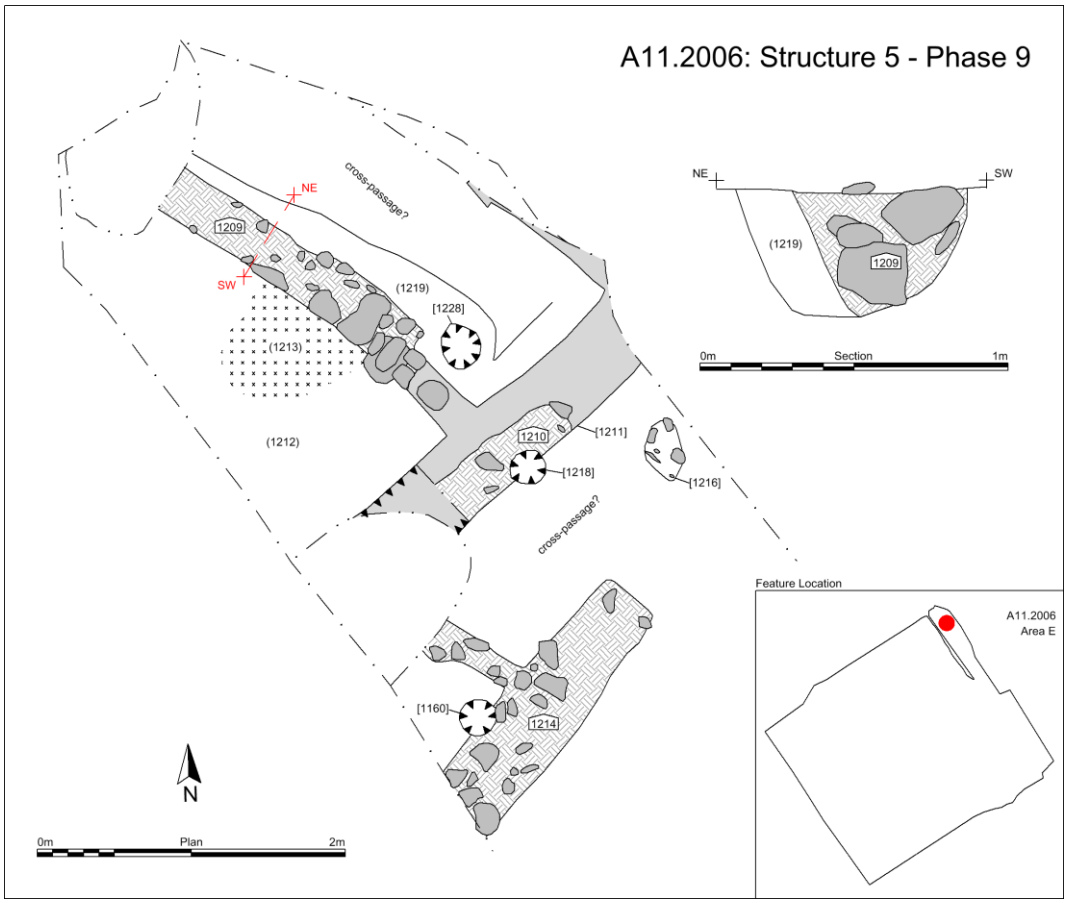


Figure 37: Plan of Structure 5 – A11.2006, Area E

Dating Structure 5's origin and lifespan is by no means conclusive. The wall fabric contained a small quantity of pottery dating to *c.*1100-1250 but its presence within the wall must make it residual in nature. This also goes for the few sherds of similar date recovered from the backfill of the post-holes within the building. Perhaps the best evidence for the *terminus post quem* of Structure 5 comes from a large shallow pit – [**1226**] and [**1231**] – present beneath the building. This measured over *c.*4.3m in diameter and 0.4m deep, and was filled with greyish-brown clayey-silt similar to adjacent soil (**1220**) through which it was dug. Its fill primarily contained material dating to *c.*1100-1250 but also contained some *c.*1250-1400 wares suggesting it was unlikely it, and therefore the building, pre-dated the mid-13th century. Dating the building's *terminus ante quem* is equally imprecise, but its demolition was marked by the presence of a small pit – [**1233**] – dug through the south-western end of wall [**1211**]. Although unremarkable on its own it was sealed beneath an extensive group of demolition deposits – (**1158**), (**1183**), (**1184**), (**1200**), (**1204**) and (**1206**) – covering much of Structure 5's footprint and physically enveloping wall footings [**1209**], [**1211**] and [**1214**]. These comprised primarily red clay mixed with greyish-brown soil, mortar rubble and large quantities of broken slate, and contained no pottery dating later than the 14th century. Considering Structure 5's proximity to the Newarke wall just *c.*2m to the south-east, believed to have been constructed *c.*1400-22 (see Phase 10), it is possible these demolition spreads represent land clearance in advance of the wall being built. If this is the case this would indicate Structure 5 was demolished to make way for the Newarke Wall, giving it at most a lifespan of 170 years between *c.*1250-1422.

A2.2007 (Trenches 1-5 and 7-10)

By the mid- to late 13th century activity across Trench 3 also appeared to be in decline and by the early 14th century the area and all preceding activity had been similarly buried beneath thick deposits of soil – (**2022**), (**2029**), (**2031**), (**2032**), (**2033**), (**2173**), (**2249**), (**2251**) and (**2367**) (Figure 34). These survived across the entire area and much was removed during the initial machining. Similar material was also recorded in Trench 1b – (**2001**) – overlying early Roman features (Phase 2), and it was also noted in section in Trench 2 overlying the natural substratum. Similar material was also present across the other

three sites. The soil was predominantly dark brownish-grey clayey-silt and in areas it was noted to be up to *c.*0.6m thick. It was mixed with large concentrations of natural red clay and orange sand suggesting it had been heavily disturbed, but contained little in the way of occupational debris indicating it was unlikely to have been redeposited. The ceramic evidence recovered from it was dated to *c.*1250-1300. Beneath the soil at the south-east end of the area was a long irregular linear furrow – [**2105**]. This was a shallow concave cut over 7.15m long by 0.63m to 1.68m wide, varying in depth from 10mm to 0.2m and filled with redeposited natural clay mixed with the overlying soil. A similar shallow furrow, less than 0.1m deep, was also observed on a parallel alignment *c.*7m to the north-west beneath soils (**2173**), (**2249**) and (**2251**) and three further furrows or ditches – [**2010**], [**2012**] and [**2013**] – were also observed in section in *Trench* 1b. These appeared to be on similar alignments spaced *c.*0.6m to 1m apart and were all filled with soil (**2001**).

Very few late 13th or 14th century features post-dated this cultivation soil. On the north-eastern edge of excavation the truncated base of a small pit – [**2247**] – was identified dug into soil (**2367**). It was circular with vertical sides and a flat base, 0.74m in diameter and 0.15m deep. It was backfilled with charcoal rich dark grey sandy-silt containing large quantities of charred cereal grains. Immediately north of this, a small, heavily degraded patch of cobbles – (**2102**) – possibly represented the remains of a contemporary yard surface whilst in section a deposit of red clay – (**2368**) – reminiscent of clay spreads exposed across Area A was also identified resting on soil (**2367**). A second feature on the southern edge of excavation possibly represented the truncated base of a small sub-circular post-hole – [**2103**] – 0.2m in diameter and 0.1m deep. This was dug into the underlying natural subsoils and was filled with a dark greyish-brown silty-sand reminiscent of the adjacent early 13th-century 'cultivation' soil. The final feature of note of apparent mid-13th- or 14th-century date was a large pit – [**2119**] – dug into the cultivation soil in the centre of Trench 3. This was a large circular feature with vertical sides, *c.*2.4m in diameter and over 0.8m deep. Although unbottomed during the excavation its fills showed evidence of significant subsidence leading to postulation by the excavators that it may have once been capped with some form of lid which had subsequently collapsed. No evidence of this was uncovered but testament to the extent of the settling within the pit was the discovery of a fragment of wall [**2058**] – Phase 10 – 0.6m below the pit's rim. The fills for the most part were bland, homogeneous silts similar to the surrounding cultivation soil and no clue as to the pit's function was uncovered. However, considering its unbottomed depth and the nature of the subsidence within it, it may represent a well shaft.

A7.2008 (Areas 1-3; Trenches 11-14)

Just one feature, in Area 3, could be attributed to the mid-13th to 14th century, pit [**3024**] (Figure 26). This was sealed beneath a *c.*0.4m to *c.*0.9m thick accumulation of brown sandy-silt - (**3073**) – similar to cultivation soils seen elsewhere across the site, notably in Trench 3. Similar material – (**3017**) and (**3018**) – was also noted in Area 2 sealing Phase 8 ditch [**3016**]. Pit [**3024**] was a sub-circular cut *c.*1.6m in diameter with vertical sides. It was over 0.95m deep and had been backfilled with brownish-grey sandy silt mixed with scattered bone, ceramic tile fragments and other building material.

Discussion

Again, no evidence of Southgate Street or the street frontage along its western side was identified in the site during this phase, lending further credence to the supposition that both were further east under the present alignment of Oxford Street during the medieval period. Instead, evidence suggests that by the middle of the 13th century backyard activity to the west of the street frontage was tailing off and the area was reverting to a more arable environment.

Thick deposits of soil appear across much of the site, covering all preceding medieval activity. These soils are often referred to as 'garden' soil because of their urban context and during the post-medieval period this is certainly a good description. However, considering the absence of any ceramic material dating later than *c.*1300 within the soil it is likely that any occupation within the vicinity had ceased by the late 13th or early 14th century. The presence of irregular furrows, possibly plough scars in the soil in Trenches 2 and 3 also suggests these backyards had been turned over to arable use and 'cultivation' soil would be a more accurate description. Further indications of agricultural activity were noted in Trench 3 where a small pit produced substantial quantities of grain, chaff and straw, evidence of large-scale cereal processing being carried out on site. This is hardly surprising, however, as this was the locality of Leicester's South Field and it seems likely that the harvest was being brought closer to the town's south gate for processing.

Resting on these cultivation soils were extensive deposits of redeposited natural clay. These often appeared 'trampled' and acted as a horizon separating the period of cultivation from the resumption of occupation along Southgate Street. This, therefore, represents an episode of land clearance outside Leicester during the 14th century which could mark either the initial establishment of the Newarke precinct with the construction of the Hospital of the Holy Trinity in 1330-1 by Henry, 3rd Earl of Lancaster or its subsequent enlargement into a Collegiate foundation in the 1350s by his son Henry, 1st Duke of Lancaster (see above).

The fortunes of Leicester's southern suburb notably begin to revive following this land clearance (Figure 38). The area over Structure 4 (Phase 8) was surfaced as an open yard and a spread of mortar and collapsed plaster *c.*19m to the north may be the remains of an interior surface, whilst a new building, Structure 5, was constructed in Area E *c.*25m to the north-east. Structure 5 differed greatly from the earlier, more ephemeral earth-fast Structure 4. Its narrow clay and stone footings suggest a more sophisticated building technique, likely a low plinth lifting sill beams for a timber framed structure off the ground. Further internal support also appears to have been supplied by earth-fast posts braced against the walls. As so little of the structure survived within the area of excavation further discussion is difficult. However, the building's core appears to be to the north where substantial perpendicular footings define two cells. Hints of a parallel cross-wall *c.*1m to the north-east could be interpreted as a cross-passage, suggesting the building was orientated north-east to south-west placing its gable end to Southgate Street *c.*30m away, but this could equally be said for the ephemeral footings to the south-east which would orientate the building longitudinally with the street. The large quantity of slate present within the demolition waste covering the building's footprint may indicate a tiled roof, and pieces of ceramic ridge tile were recovered from pits across Areas A-E. However, thatching cannot be discounted as the presence of waterside plants such as rushes and sedge was strongly represented within the pits of this period. Internally, little can be said either but the floors appears to have been compacted earth resurfaced with coarse mortared gravel.

As discussed above, dating Structure 5 with certainty can only be narrowed to a 170-year period from the mid-13th to early 15th century. This can probably be further refined, however, when placing Structure 5 in context with surrounding events. It was built on the thick deposits of soil accumulation suggested to represent cultivation occurring during the late 13th and early 14th century. This would suggest the earliest Structure 5 could have been built was the early 14th century and as cultivation only appears to have ceased with the foundation of the Newarke from 1330 onwards it would be plausible to suggest Structure 5 was not built until after this event. Dating the building's demise is more certain, for considering its location it was almost certainly demolished to make way for the Newarke's precinct wall, built during the early 15th century. This would suggest a period of occupation of 50 to 90 years at the most, between *c.*1330 and the 1420s.

Pitting also resumed within the *c.*45m strip of land along the street edge following the phase of ground clearance and although again most of these were again enigmatic features with little defined purpose some contained evidence of this renewed occupation of the frontage. Several large pits contained deposits with the appearance of latrine waste, of cess-stained material, fire waste, building rubble and domestic refuse suggesting they had been used, at least secondarily, as privy or midden pits. Whilst one contained a large number of sheep bones, almost entirely all metapodials and phalanges, strongly reminiscent of tawyering waste, although as this came from an unsecure context in the top of the pit it was unclear whether this was contamination from later activity, tawyering also being present in Phase 11. Only one pit, however, appears to have been used primarily as a latrine. This, uncovered in Area B, had probably once been housed within a wattle and timber privy which had been dismantled and thrown in after it fell out of use. Sloe stones and grape pips were recovered from its waterlogged deposits as well as plant fibres believed to be the remains of leafy vegetables and legume pods. Fragments of mosses, perhaps used as medieval toilet paper, were also present whilst straw, wood chips, ash and lime may have been deliberately introduced to help reduce the smell. A leather shoe and other leather off-cuts within the upper fills may indicate a cobbler or shoemaker once resided nearby.

Overall, this renewed occupation does not appear to have reached the same level of intensity by the end of the 14th century as that of the 12th and early 13th century (Phase 8). Large areas away from the street frontage appear to have remained undeveloped, possibly still under cultivation, and environmental evidences shows many of the pits were rich in weed seeds indicative of waste ground. Evidence of leather trades emerging along Southgate Street is also present with skin-working and cobblers waste present to the rear of the street frontage.

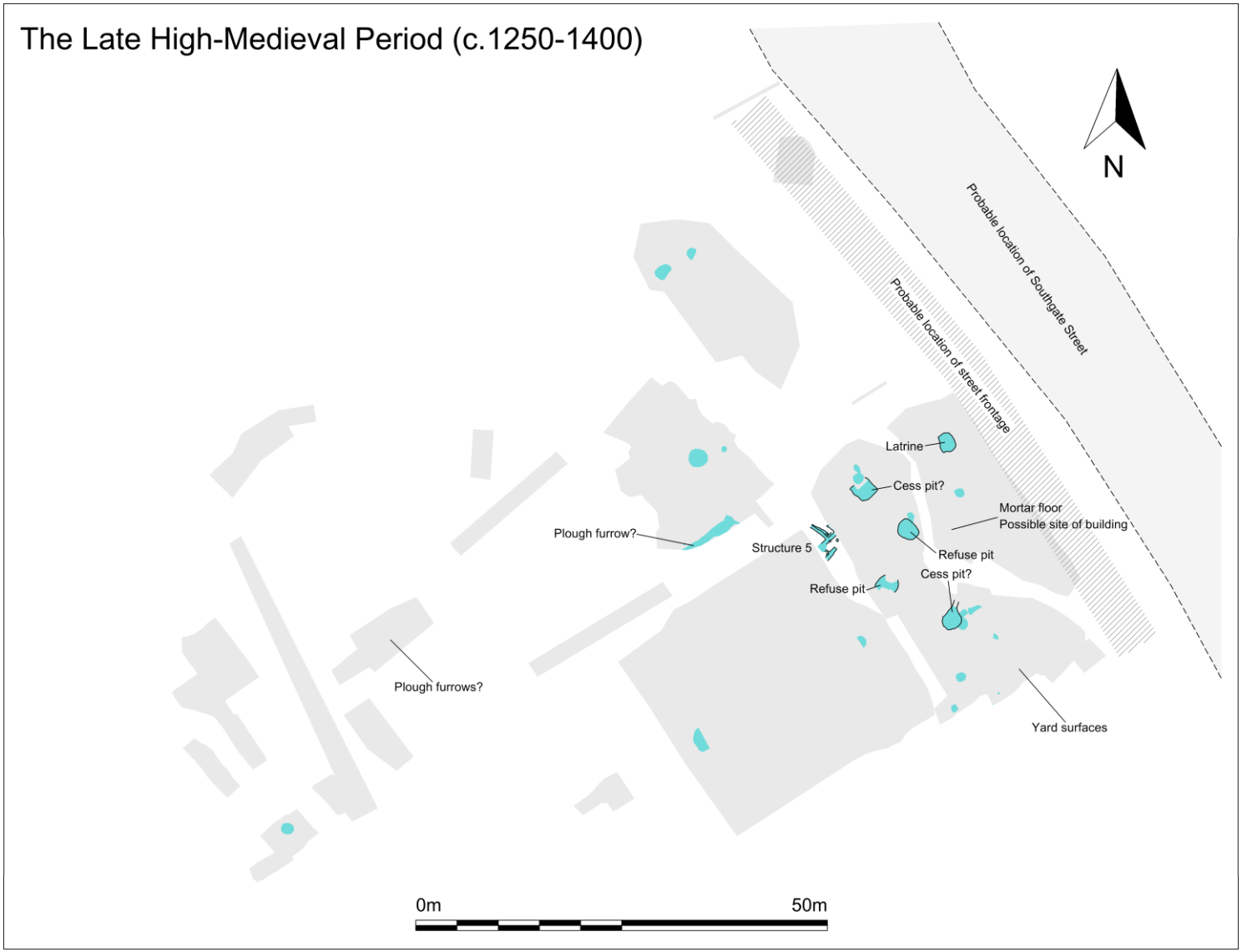


Figure 38: Interpretive plan of the site showing the principal Phase 9 features

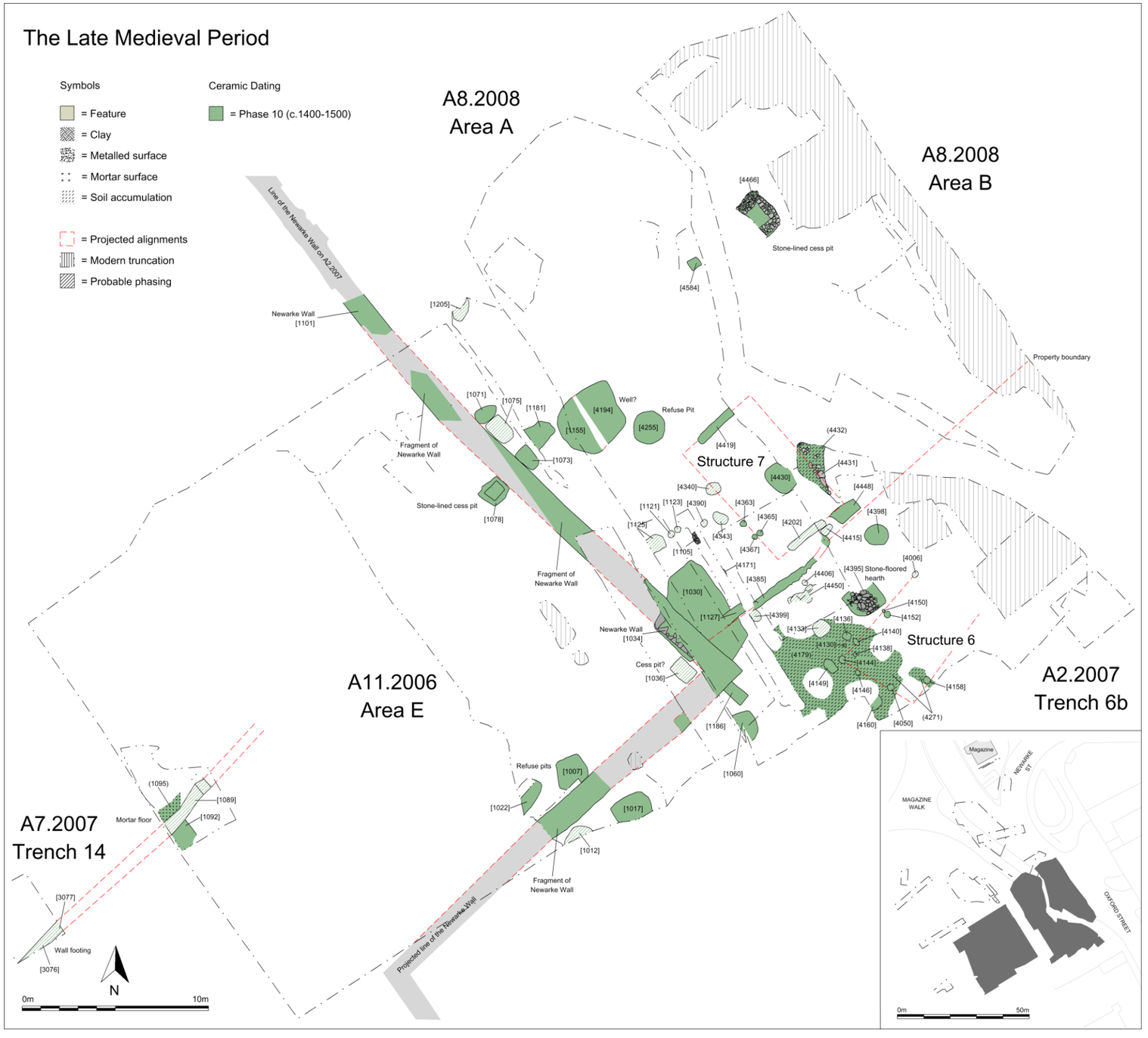


Figure 39: Phase 10 (A11.2006, Area E, and A8.2008, Areas A and B)

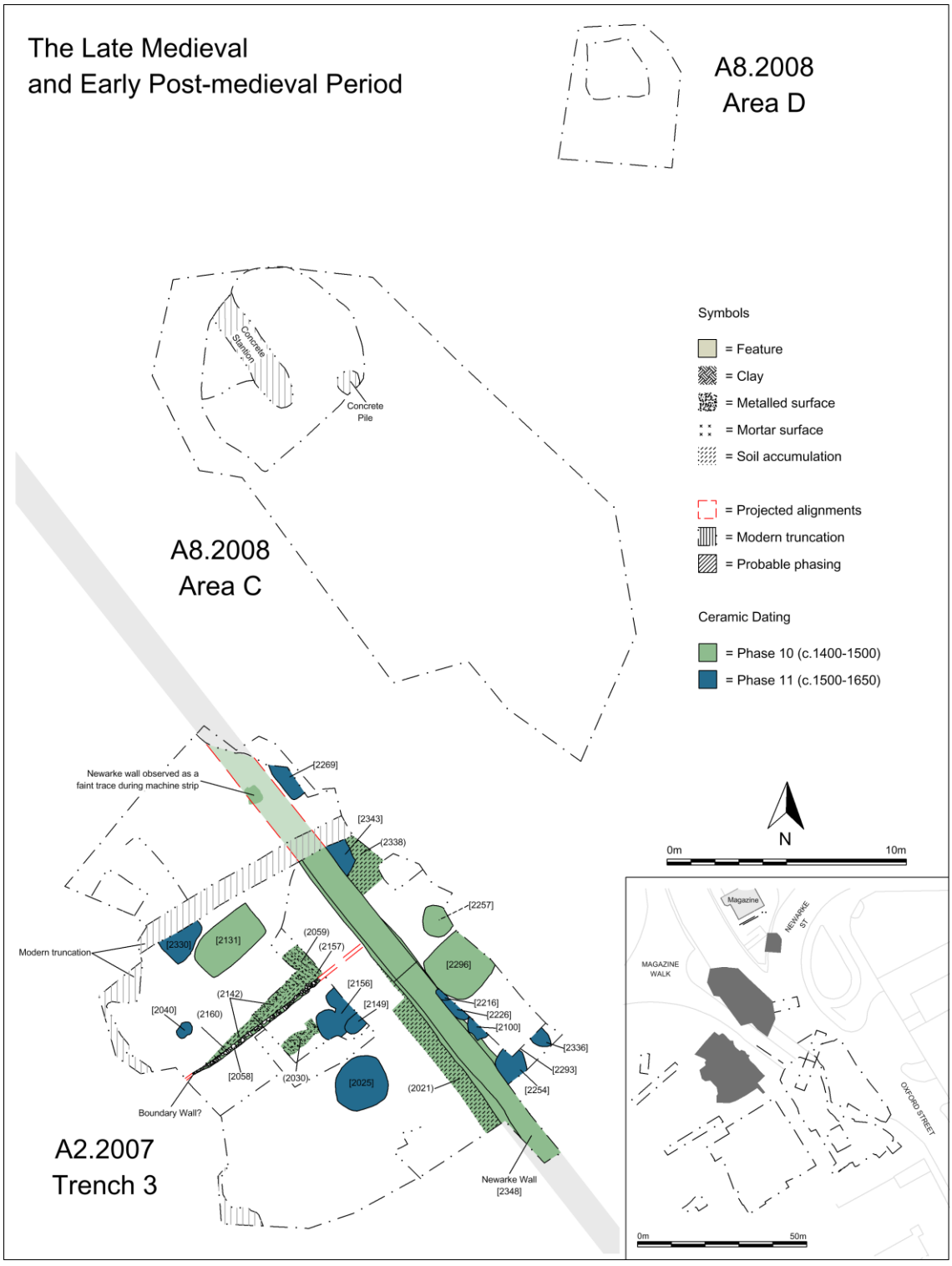


Figure 40: Phases 10 and 11 (A2.2007, Trench 3 and A8.2008, Areas C and D)

Phase 10 (Late Medieval: *c.*1400-1500)

Construction of the Newarke wall; backyard activity inside the Newarke; backward activity associated with buildings fronting onto Southgate Street (now Oxford Street).

A11.2006 and A8.2008 (Areas A-E; Trenches 6a, 6b and 15)

The Newarke Wall and Precinct

Activity during the 15th century was dominated by the construction of the Newarke Wall – [**1034**] and [**1101**]. This was present as a series of disjointed, heavily degraded masonry fragments extending north-west to south-east across the eastern side of Area E (Figure 39). These were mostly observed to be thin rectilinear deposits of decayed sandstone bound in cream coloured mortar, *c.*1.4m wide, resting on the natural substratum. In all *c.*29m of the wall was uncovered, and this was identified as turning 90 degrees to the south-west at its southern end, extending a further *c.*12m before continuing beyond the limit of excavation. Survival proved better around the wall's southern corner – [**1034**] - were masonry still stood to a height of *c.*1.2m, although in very poor condition. Here, beneath the line of the wall, the masonry also filled a *c.*0.46m deep, rectangular, clay-lined cut. This appeared to the same width as the wall and may represent attempts to stabilise the underlying ground at a structurally significant point. Better preservation was found at the northern end of the wall – [**1101**] – where a *c.*2.7m long section still retained enough structural integrity to provide details on its construction. Here the wall was *c.*1.2m wide and survived to a height of *c.*0.7m. It was constructed of coursed large, crudely squared sandstone blocks facing a mortared sandstone rubble core. Occasional blocks of granite had also been incorporated within the fabric and horizontally laid slate appeared to have been occasional used to level the masonry courses. The wall rested on a further *c.*1.1m deep footing of similar construction and continued north-west beyond the limit of excavation into the area investigated during the 2007 excavation – see A2.2007 [**2348**] below.

Documentary sources suggest the Newarke Wall was probably constructed during the first quarter of the 15th century, with recorded expenditure in the Duchy accounts indicating wall-building on a fairly extensive scale on the south side of the castle (Fox 1944, 27). However, providing a *terminus post quem* for the wall's construction from archaeological evidence is difficult as very few excavated features in Area E could be conclusively proven to be stratigraphically and physically earlier than it. Just one pit of post-Roman date was excavated beneath the wall line – [**1084**] see Phase 8 – and this contained ceramic material dating no later than *c.*1250. However, a single residual sherd of pot was recovered from the wall fabric itself. This proved to be late 13th or 14th century in date and suggests the wall was unlikely to have been built before the 14th century. Establishing a *terminus ante quem* is equally imprecise, but pits dug down against the wall face inside and outside the Newarke precinct indicate the wall was present throughout the 15th century.

Within the Newarke enclosure, west of the wall, very little evidence of occupation was exposed. This, however, is more due to the poor survival of archaeological deposits across much of A11.2006 than the absence of activity and a number of pits of 15th-century date were identified – [**1007**], [**1022**], [**1036**], [**1078**] and [**1092**]. With the exception of pit [**1092**] these were all situated adjacent to, or dug down against the Newarke wall. To the south pits [**1007**] and [**1022**] were both sub-square features measuring between *c.*0.76m and *c.*1.94m in width and up to 0.4m deep. Both were filled with dark greyish-brown silty-clay mixed with large quantities of charcoal, animal bone, oyster shell and building rubble, predominately slate and mortar fragments. To the north-east, tucked within the corner of the Newarke wall, pit [**1036**] proved to be a shallow rectangular cut, *c.*1.27m by *c.*0.92m and just 50mm deep, filled with green silty-sand with the appearance of latrine waste, suggesting it was the truncated base of a cess-pit. To the north, pit [**1078**] was a rectangular stone-lined cess pit, measuring *c.*1.36m by *c.*1.26m, and survived to a depth of 0.56m. The lining was mostly constructed from granite but incorporated some slate and tile, and was bound with a hard lime mortar, which had also been used to render the shaft walls to create a smooth finish. The shaft itself measured *c.*0.9m by *c.*0.7m and contained green stained silt deposits at its base capped with dark brown silty-clay. Pit [**1092**], partially exposed on the western edge of Area E, proved too incomplete to define but was over *c.*1.8m in diameter and was filled with orange-brown clayey-sand mixed with building rubble and redeposited natural clay. Truncating it was what appeared to be the robbed footing trench for a substantial wall – [**1089**]. This was *c.*0.7m wide and backfilled with soil and building rubble, apparently from its. To the north of this wall, and also overlying pit [**1092**] was a contemporary mortar surface – (**1095**) –sealed beneath *c.*0.7m of post-medieval soil accumulations – (**1096**), see Phase 12. The wall footing was orientated north-east to south-west and was

on the same alignment as in-situ wall fragment [**3076**] and [**3077**] observed in Trench 14 *c.*7.75m to the south-east (see A7.2008 below).

Outside the Newarke Precinct - Structure 6

Outside the wall evidence of occupation along the western side of Oxford Street was more readily apparent (Figure 39). Across the southern side of Area E and in Area A, thick soil deposits – (**1048**), (**4179**) and (**4271**) – sealed all Phase 9 activity. From their ceramic content these appeared to have been accumulating since the late 14th century and, although only recorded across a *c.*10m by *c.*7m area, were once far more extensive, the bulk being removed from Area A by machine during the initial site strip. It was through this soil the Newarke wall's footings had been dug and south-east of the wall's corner a cluster of post-holes had also been dug through this soil – [**4006**], [**4050**], [**4130**], [**4136**], [**4138**], [**4140**], [**4144**], [**4146**], [**4149**], [**4150**], [**4152**] and [**4158**]. These were typically *c.*0.18m and *c.*0.45m in diameter, between 50mm and 0.45m deep, and although no definable plan could be established they likely represent the footings for a timber structure, Structure 6, measuring at least *c.*6m north-east to south-west by *c.*4.5m north-west to south-east. All of these post-holes were filled with greyish-brown or orange-brown sandy-silts, comparable to the soils through which they were dug, and only one – [**4050**] – additionally contained large fragments of slate, possibly displaced post-packing. Two post-holes – [**4144**] and [**4149**] - contained dateable pottery but this was evidently residual as none of it post-dated the 14th century.

To the north of Structure 6 was the heavily truncated base of a circular stone-floored hearth – [**4395**] (Figure 41). This comprised a stone-paved base laid flat in a shallow, concave hollow *c.*1.8m in diameter. The oven's floor was constructed from large flat granite slabs, with some sandstone and slate, set irregularly in pale yellowish-orange mortar which had become vitrified and discoloured from intense heat. The oven's walls were constructed from similar heart affected material bound in clay. These appeared to be *c.*0.15m thick and only survived in places as a single course of masonry. Enough survived, however, to suggest the oven had an internal diameter of *c.*1.5m. The oven's floor was still covered with 50mm of ash and charcoal which had become sealed beneath thick deposits of burnt clay mixed with jumbled stone rubble, presumably collapsed superstructure.

Whilst to the west, extending along the turn in the Newarke wall away from the Oxford Street frontage a series of small pits – [**1012**], [**1017**], [**1060**], [**1186**], [**4133**] and [**4160**] – likely represent backyard

Figure 41: Stone-floored hearth [4395] – A8.2008, Area A. Looking west

activity to the rear of this structure. These varied in plan from circular to rectangular but generally ranged between *c.*1.2m and *c.*2m in diameter. None were deeper than *c.*0.6m and all were filled with bland soils, variously described as greyish brown or yellowish-brown clayey-silt, but essentially all formed from the surrounding soil deposits. The only pit to differ was [**4160**]. This was only partially observed beneath the southern edge of excavation but its base appeared to have been lined with flat granite and slate slabs set within brown sandy-silt. On top of this *c.*0.15m of lime mortar had been deposited. Three of these pits – [**1017**], [**1060**] and [**1186**] – contained pottery dating to the 15th century.

The activity surrounding Structure 6 is separable from activity further north by a long linear beam-slot cut into the former Roman road surfaces. Seen separately on Area A and Area E as [**4385**] and [**1127**] this stretched for *c.*7m from the north-east to the south-west were it probably originally continued up to the Newarke wall, although its exact relationship with the wall had been lost through subsequent pitting (see Phase 11). The channel was vertical sided, with a generally flat base, *c.*0.4m wide and 0.14m deep, which appeared to turn or end in a curved terminus at the north-eastern end. At its south-westerly end it crossed a substantial pit – [**1030**] - dug down against the external face of the Newarke wall. This measured c.5.78m by *c.*2.57m was *c.*1.3m deep and had been backfilled with deposits of greyish-brown clayey-silt mixed with fine layers of ash and charcoal, most likely dumped hearth waste, and orange-yellow sand, possibly erosion from the pit sides. The soil deposits contained small quantities of 15th-century pottery. Its seems probable this beam-slot represents the division between two properties fronting onto Oxford Street to the east, a conclusion borne out by the evident respect contemporary features had for this alignment. Post-holes [**4399**], [**4406**] and [**4415**] may also be connected with this property division. These were sub-circular holes dug into the underlying Roman road surfaces, *c.*0.3m to *c.*0.5m in diameter and up to *c.*0.3m deep. All three were filled with bland sandy-silts devoid of dateable material making their phasing speculative at best. Here also another feature – [**4450**] - possibly represents further activity in proximity to Structure 6. This appeared to be twin post-holes, *c.* 0.3m in diameter, connected by a shallow linear gully, *c.*0.8m, long running parallel *c.*0.6m south-east of beam-slot [**4385**]. Spread across the base of this gully and filling the bottom of the two post-holes was a thick layer of charcoal and ash. Based on the scorching on the walls of the post-holes this apparently represented material burnt in-situ before they were backfilled with soil mixed with large quantities of slate and granite rubble. Unfortunately, much of the south-eastern side of this feature had been severely truncated by later pits (see Phase 11) making its exact function ambiguous.

Outside the Newarke Precinct - Structure 7

To the north occupation of the ground between the Newarke wall and Southgate Street continued. Here a second structure, Structure 7, was tentatively identified (Figure 39). This was primarily defined by two parallel beam-slots – [**4202**] and [**4419**] – set *c.*7.1m apart on a north-east to south-west alignment perpendicular to the Newark wall and Southgate Street. Both measured *c.*2.4m long, were *c.*0.45m wide and were between *c.*0.35m to *c.*0.4m deep. To the north-east a heavily truncated stone wall footing – [**4431**] – set perpendicularly between the two beam-slots possibly represented the north-eastern extent of the structure whilst to the south-west a group of four post-holes – [**4340**], [**4363**], [**4365**] and [**4367**] – possibly represented its south-easterly extent. If this is the case this would allow for an internal footprint measuring *c.*7.1m by *c.*4.8m. The wall footing survived as a single course of sandstone and granite rubble, measuring *c.*3.1m long by *c.*0.6m and rising to *c.*0.2m in height, laid flat on a dark brown sandy-silt 'soil' – (**4432**). The four post-holes were all *c.*0.35m in diameter, with the exception of [**4340**] which was 0.6m, but appeared heavily truncated, varying from 50mm to *c.*0.15m in depth. Dug within and adjacent to Structure 7, but not necessarily contemporary with it, were two large pits – [**4430**] and [**4448**]. Both were large square features, *c.*1.6m wide and *c.*0.74m deep, filled with dark brownish-grey soil which provided little clue to their creation. Pit [**4448**] also contained large quantities of granite and mortar rubble, probably connected to wall [**4431**].

Extending away to the south-west, probably to the Newarke wall, more post-holes, beam-slots and stone footings hinted at further structural activity. The post-holes - [**1121**], [**1123**], [**4171**], [**4343**] and [**4390**] – were again typically *c.*0.35m to *c.*0.4m in diameter and up to *c.*0.25m deep, whilst the beam-slot – [**1125**] - survived as a *c.*0.9m wide, *c.*0.3m deep, linear cut end in a curved terminus to the north-east adjacent to post-hole [**1121**]. Both the post-holes and the beam-slot were filled with dark greyish-brown silty-clay soils, although the beam-slot also contained a large quantity of redeposited natural clay. Amongst these features a shallow stone footing – [**1105**] – was also recorded. This survived as a *c.*0.7m by *c.*0.3m pad of granite set in dark greyish-brown silty clay on the eastern edge of Area E but was observed during the initial machine-strip of this area to possibly continue to the north-west. The exact relationship between most of these features remains unclear and phasing is predominately tentative, although all could be

confirmed as post-dating the 14th century (Phase 9). However, the likelihood is that they are elements of a single or set of structures, be it a building or simply fence-lines, constructed up against the Newarke wall.

Outside the Newarke Precinct – Other activity

Evidence of continued activity north of Structure 7 was simply represented through pits with very little further structural features identified. In Area E these were concentrated as a tight cluster along the external face of the Newarke wall – [**1071**], [**1073**], [**1075**] and [**1181**] – but contained little definitive in regards to purpose. In general they were ovoid to sub-rectangular in plan, measuring *c.*1.3m to *c.*1.5m by *c.*0.8m to *c.*1m, but appeared to be heavily truncated, none being more than *c.*0.3m deep. All four pits were predominately backfilled with greyish-brown clayey-silts but pits [**1073**] and [**1181**] also contained some cess-like staining. Adjacent to these, *c.*2.5m north-east of the wall face was another, significantly larger, pit – [**1155**]. This is believed to have also been identified in Area A where it was recorded as [**4194**]. It was sub-circular in plan, measuring *c.*3.6m by *c.*3.3m, with near vertical sides descending over *c.*1.2m in depth (the limit of excavation), and appeared to have been initially filled or lined with a *c.*0.36m to *c.*0.45m thick layer of redeposited natural red clay leading to the suggestion this may be a well. This adhered to the pit walls and descended below the depth of excavation, leaving a *c.*2.2m diameter shaft which had been filled with dark greyish-brown clayey-silt mixed with lenses of ash and charcoal, presumably disposed hearth waste, and small quantities of human refuse and discarded building rubble. To the east, between this possible well and Structure 7 was another pit – [**4255**]. This differed from the others in that it contained large quantities of charcoal, animal bone, and building rubble as well as green latrine-waste stained clayey-silts. It also produced two copper objects (SF466 and SF467), one being a buckle.

Perhaps the best feature to survive, which can be attributed to the 15th century, was a substantial stone-

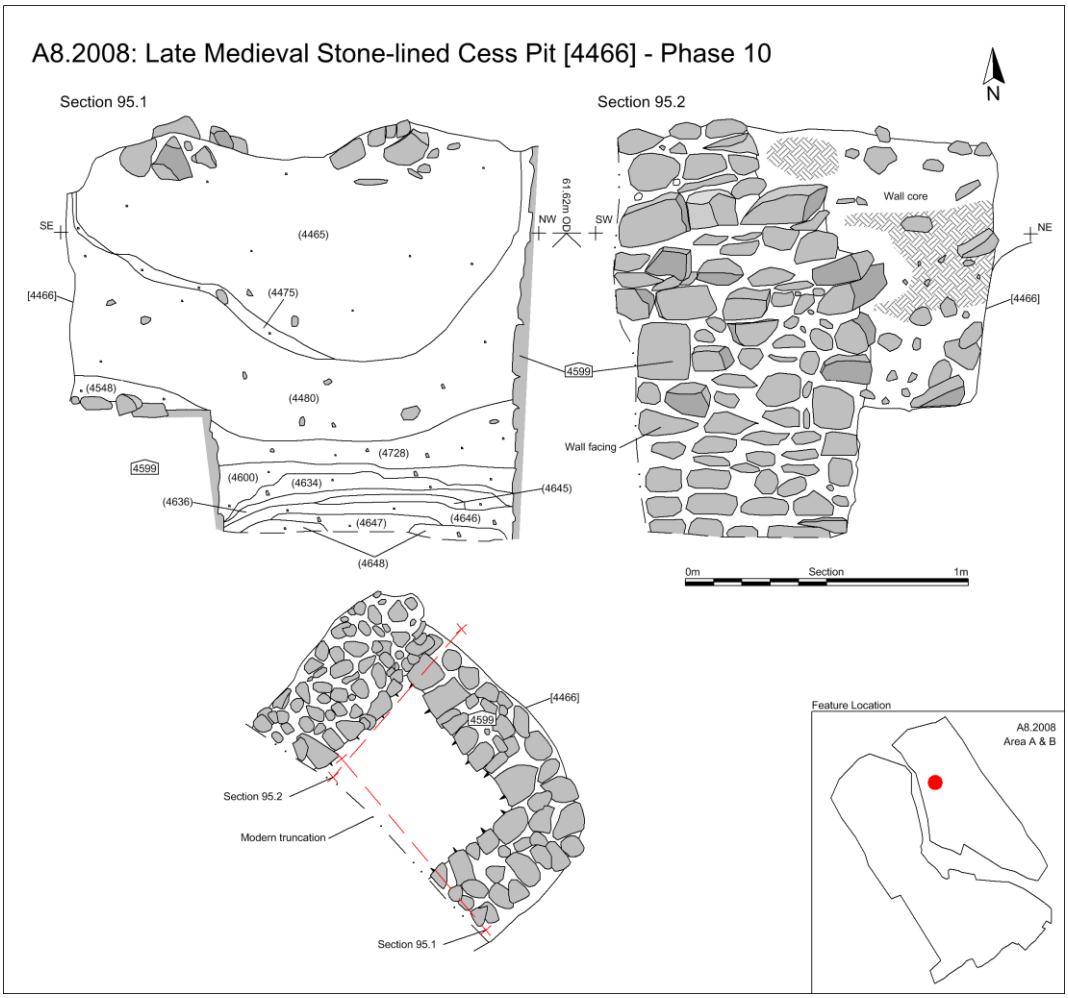


Figure 42: Plan of Cess Pit [4466] – A8.2008, Area B

lined latrine pit – [**4466**] – uncovered towards the northern end of Area B (Figure 42 and Figure 43). Sadly only partially intact, with its south-western half destroyed by a recent service trench, this would have originally been dug as a vertical square shaft, *c.*2.65m wide and over *c.*1.5m deep (unbottomed for safety reasons). The pit walls were lined with *c.*0.6m of clay bonded granite rubble masonry, of which seventeen courses were observed to survive on the northern side rising to the pit's rim. Both the western and southern sides had sustained more significant demolition, with only six observable courses surviving *c.*0.9m below the pit's rim. These walls left an open central, square shaft *c.*1.1m wide. At the base of the shaft *c.*0.25m of compact, waterlogged cess was excavated. This consisted of very fine layers of organic silt; some mixed with charcoal and ash whilst others with large quantities of wood chippings, presumably material added to aid decomposition and reduce smell. These must represent the latrine's final use for they and the dismantled stone-lining were both sealed beneath *c.*1.25m of redeposited soil and stone rubble.

Dating this feature has proved difficult as pottery was only recovered from two of its fills. The bulk of this was recovered from the soil deposited following its demolition and dated to the 15th century. However, a small quantity was recovered from clay used to bond the stone lining. This was of 12th- to mid-13th-century date and suggests the structure could be far older than the material recovered from within it. It is almost certain this latrine fell out of use during the 15th century, however, as its *terminus post quem* lies within the 12th century it could have been in use for a period of four hundred years. This seems unlikely, even for such a substantial structure and, considering its close proximity to a sizeable 14th century latrine pit – [**4563**] see Phase 9 – it is possible it was built to replace it.

Little further evidence of occupation was identified across the northern edge of Areas A, B and E, with just two isolated post-holes recorded – [**1205**] and [**4584**]. These were both sub-square cuts, *c.*0.5m to *c.*0.6m wide and *c.*0.3m deep. The first, uncovered in Area E, was interesting in that it contained a rectangular post- socket, *c.*0.4m by *c.*0.15m, constructed from recycled roof slates set in compact orange sand. Both were otherwise filled with further deposits of greyish-brown silt comparable with much of the medieval 'garden' soil removed from site during the initial machine strip.

Figure 43: Cess-pit [4466] – A8.2008, Area B. Looking north-west

A2.2007 (Trenches 1-5 and 7-10)

The Newarke Wall and Precinct

Activity during the 15th century across Trench 3 was also dominated by the construction of the Newarke Wall – [**2348**] (Figure 40). This survived as a *c.*22.6m long section exposed running north-west to south-east across the eastern side of the area (Figure 44). The northern *c.*6.4m was only present as a faint trace and it was decided it was acceptable to remove this during the machine strip. This was due to the significant survival along the southern *c.*16.2m where masonry still stood to a height of *c.*1.5m. Two distinct phases of construction were identified indicating that the wall was built in consecutive sections rather than a single continuous build. However, direction of construction was unclear.

The northern section was *c.*6.2m long, built on a footing *c.*1.4m wide dug *c.*0.7m into the underlying soil – (**2367**) Phase 9. A thin band of dark silt separating the lower *c.*0.5m of the footing from the rest of the wall indicates that the footing was left exposed for a short period of time before construction of the wall resumed (Figure 46). Both the footing and the wall were built from substantial, roughly squared sandstone blocks, up to 0.56m in width, facing a mortared sandstone rubble core. Small quantities of granite were also incorporated into the wall fabric and in areas horizontally laid slate appeared to have been used to level courses of masonry. The wall itself survived as a single course, *c.*0.3m high and *c.*1m wide. This was constructed flush with the eastern face of the footing but stepping in to leave a ledge to the west. The southern section was visible for *c.*10m. In terms of construction and material there was little to distinguish it from the northern section; with construction employing a slightly coarser mortar and higher proportion of smaller sized masonry within the footing than its counterpart. Here five courses of the wall survived, to a height of *c.*0.85m. This was not built flush with the eastern face of the footing like to the north but was rather built centrally with a step to either side. Again, no evidence on site could provide a precise *terminus post quem* and ceramic dating could only provide a construction date of between *c.*1300-1550 based on material recovered from features stratigraphically pre-dating and post-dating it.

To the west within the Newarke precinct *c.*0.5m of dark greyish-brown clayey-silt – (**2021**) – appeared to have accumulated against the western face of the Newarke wall. With the exception of sparse charcoal and pebble inclusions this was a bland homogeneous soil which showed little evidence of disturbance or redeposition and it is likely that this represents naturally occurring 'garden' soil. Similar accumulation – (**2338**) – was also situated against the eastern face of the Newarke wall outside the precinct.

Further evidence of 15th century activity within the Newarke precinct was limited, but of note was a narrow wall – [**2058**] – extending perpendicularly away from the Newarke wall (Figure 45). This endured as a 0.2m wide footing constructed from mortared granite and large cobbles mixed with some sandstone and slate. It survived for *c.*6.6m as a single course 0.1m high but at its western extent, where the ground appeared to settle, four courses up to 0.32m high remained. Here construction differed with the stone bonded with clay rather than mortar, possibly indicating repairs to the fabric. Although no physical relationship with the Newarke wall could be demonstrated slumped fragments of wall [**2058**] had settled into underlying pit [**2119**] – Phase 9 – indicating it had once extended across it and a vertical groove in the stonework of the Newarke wall itself, on the alignment of wall [**2058**] suggest the latter had once been keyed into it. Considering the insubstantial nature of wall [**2058**] it seems unlikely it was once part of a building constructed against the Newarke wall. Instead it probably represents a boundary wall separating two properties within the Newarke precinct. Interestingly, the wall appeared to have a stone facing to the north and not the south possibly indicating a difference in ground levels on either side.

To the north and south of this boundary wall were fine deposits of trampled brownish-grey sandy-silt mixed with crushed sandstone and mortar fragments – (**2030**), (**2059**), (**2157**) and (**2160**). These appeared to represent construction waste possibly from the building of the Newarke wall but more likely, considering their proximity, from construction of wall [**2058**]. To the north they were sealed beneath further accumulations of 'garden' soil – (**2142**).

The only other evidence of activity within the Newarke precinct was a single heavily truncated refuse pit – [**2131**] – situated *c.*2.7m north of wall [**2058**]. This was a large rectangular feature, 3.1m by 1.9m and just 0.19m deep, filled with dark grey silty-sand rich with charcoal, animal bone and ceramics suggesting deposition of an early 15th-century date.

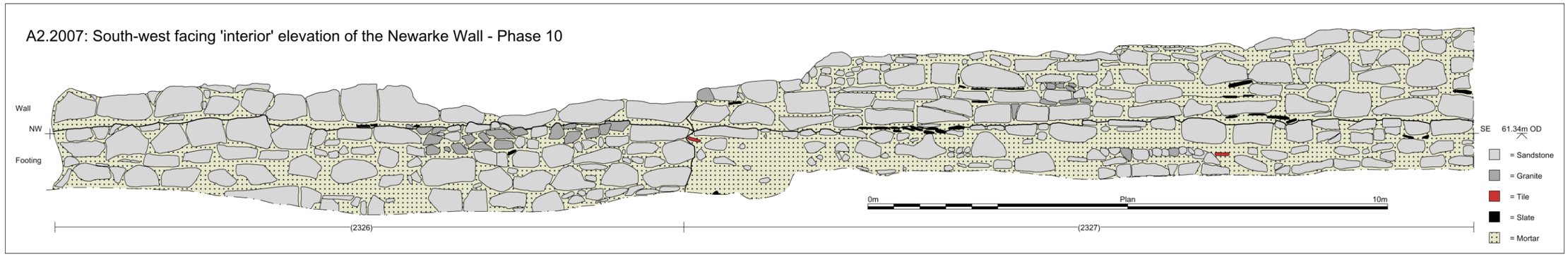


Figure 44: Elevation of the Newarke Wall – A2.2007, Trench 3

Figure 46: Section across Newarke Wall (2326), A2.2007, Trench 3. Looking south-east

Figure 45: Boundary wall [2058] with Newarke Wall in background, A2.2007, Trench 3. Looking north-east

Outside the Newarke Precinct

Further pits were also present against the eastern, external face of the Newarke wall. One – [**2257**] – was a small circular feature, 1.25m in diameter and 0.41m deep, backfilled with a brown sandy-silt rich deposit with charred organic remains, animal bone and pottery. The other, [**2296**], situated immediately to the south, was larger, measuring 2.43m in diameter and 0.6m in depth, but similarly filled. Both features appeared to have been used for refuse disposal and their ceramic content suggests they both date to the 15th or early 16th century.

A7.2008 (Areas 1-3; Trenches 11-14)

Very little evidence of activity for this period was identified across Areas 1-3 with just one feature probably attributable to this phase or later. This was a short linear cut – [**3011**] – filled with compacted, crushed building material, mainly sandstone and slate but also containing a fragment of worked stone (SF307) and several pieces of painted window-glass (SF304-306). It was *c.*3.3m long, at least 0.55m wide and *c.*0.45m deep, and possibly represents the robbed footing for a wall aligned north-west to south-east.

In Trenches 12 and 14 fragments of substantial sandstone walls were observed in section (Figure 26). These appeared to be medieval in date and, considering the similarity in construction technique and material, may be contemporary with the Newarke wall. In Trench 12 the wall survived in poor condition as a severely truncated fragment of sandstone masonry held together with yellow mortar. It still survived to a height of *c.*1.4m with coursed facing stones visible on its southern side suggesting it was orientated north-east to south-west. This would make it at least 1.2m wide. In Trench 14 another wall was exposed – [**3076**] and [**3077**]. This was similarly constructed from mortar bonded sandstone, with large coursed sandstone blocks encasing a mortar and sandstone rubble core. It was observed for *c.3m* on a north-east to south-west alignment and appeared to be *c.*0.6m wide, still surviving to a height of *c.*0.65m. Both walls appeared to mirror alignments present within the Newarke wall, again suggesting they were of contemporary date, and the wall in Trench 14 appeared to align with a robbed footing observed in Area E.

Discussion

Perhaps the most profound change to the southern suburb during the late medieval period was the introduction of the substantial stone precinct wall surrounding the Newarke. Its construction is difficult to pin down, however, as the limited archaeological evidence recovered from Area E and Trench 3 only places it sometime between *c.*1250 and *c.*1500. We must look, therefore, beyond the site for other evidence which might help date the wall.

Entry into the Newarke from the southern suburb would have been through the Newarke (Magazine) Gateway immediately north of the site. This is considered to be an early 15th-century structure, although it may be sited on an original part of the Newarke begun in 1330 or part of the extensions to it in the 1350s. No evidence of this earlier activity was identified on site, however, and therefore must remain conjectural. Analysis of the stonework of the Newarke Gateway has identified mason's marks identical to some in both the Turret Gateway and John of Gaunt's Cellar within the castle, suggesting a similar date of construction (R. Buckley pers. comm.). Documentary sources suggest the Turret Gateway was probably built between 1422-3 (Fox 1944, 27) and work on the precinct wall also appears to tie in with this date. However, evidence from the site demonstrates that the wall south of the Newarke Gateway was not completed as a continuous circuit but was built in consecutive phases. This could be seen in Trench 3 where the substantial surviving wall fragment could be separated into two events which remained unkeyed together, clearly demonstrated by the vertical break in the masonry. The non-linear route of the precinct wall south of the Newarke Gateway is also interesting and can probably be attributed to the college's inability to acquire some parcels of land to the rear of the street frontage along Southgate Street. This could clearly be seen on the southern side of Areas A and E where pitting continued down along the turn in the precinct wall as if the wall was going around a property almost twice as long as those to the north next to the gateway. In all likelihood construction of the Newarke Gateway and the new precinct wall were both part of a programme of work instigated by the ascendancy of the House of Lancaster following Henry, 2nd Duke of Lancaster's coronation as Henry IV in 1399.

Very little evidence of occupation survived inside the Newarke but the scant fragments of stone walls in Trenches 12 and 14, the robbed footing in Area 1 and the probable boundary wall in Trench 3 coupled

with the few cess and refuse pits identified against the interior face of the precinct wall all suggest activity occurring to the rear of properties probably situated to the west along the eastern side of a square, still visible on Robert's map of 1741 (Figure 5), adjacent to the site of the collegiate church. These are most likely, therefore, to be the backyards for some of the pretty 'Houses in the Cumpace of the Area of the College for the Prebendaries' mentioned by Leland during in his mid-16th century itinerary.

Outside the precinct, in the southern suburb, evidence of occupation survived to a greater degree. As in preceding phases no evidence of the street frontage, or Southgate Street itself, was present within the site. However, significant backyard activity did survive including evidence of a probable property boundary. This lengthy beam-slot projected off the turn in the precinct wall towards Southgate Street, further supporting the notion that the wall was turning to go around land the college could not attain. To either side, ephemeral evidence for two structures (6 and 7) endured. However, neither survived to such an extent that they could be conclusively interpreted as buildings and although it is perfectly plausible they could represent small ancillary structures to the rear of the street frontage they could equally be interpreted as animal pens or lean-tos. Animal pens in particular are a good possibility for the presence of apple cores and parasite ova common to pigs in many of the pits throughout the medieval period is positive evidence of pig keeping within these backyards.

Pits, as in the preceding phases, constituted the predominant evidence of activity and again they largely proved to be enigmatic features filled with bland, characterless soils. One particularly substantial pit, with the remains of a clay lining, north of Structure 7 could be the remains of a well, however, whilst the neighbouring refuse pit produced large quantities of butchered cattle bones along with sheep/goat, pig – including neonatal pig bones, further evidence of pig breeding in the vicinity – and goose. In Area B the remains of a substantial stone-lined cess-pit were excavated. This produced evidence for a wide variety of food beyond the staple cereals. Seasonal, collected fruits such as sloe, blackberry and hazelnut along with cultivated fruits (apple, cherry and plum), herds such as fennel, and imported items such as figs and grapes were all present indicating a diverse available diet. Seeds from yellow flag iris as well as the remains of rushes and sedges also survived in the waterlogged conditions of the pit, possibly indicating discarded roofing or flooring material.

Figure 47: A medieval brewery in operation. Illustration from a manuscript dated 1462. On the left the mash is being made in the mash tun and the brewing oven is in use on the right (Ebbing & van Vilsteren 1994, 21).

One structure of interest is the stone-floored hearth associated with Structure 6. Features such as this, where the floor is at ground level are more likely to be open topped structures intended to support a large copper pot or kettle above a fire rather than the enclosed, domed structure associated with baking. This is because the floor of a baking oven would need to be raised to allow the baker better access to its interior to place and remove bread. Brewing, therefore is a more plausible function, the oven being used to boil the wort (residual sugar solution) produced once the mash had been strained (van Vilsteren 1994, 17 - Figure 47). Little evidence for trade in the southern suburb during the late medieval period was uncovered but this oven next to Structure 6 may be evidence of a cottage brewing industry in one

property, although it should be pointed out similar structure during the late post-medieval period were also commonly used for laundry.

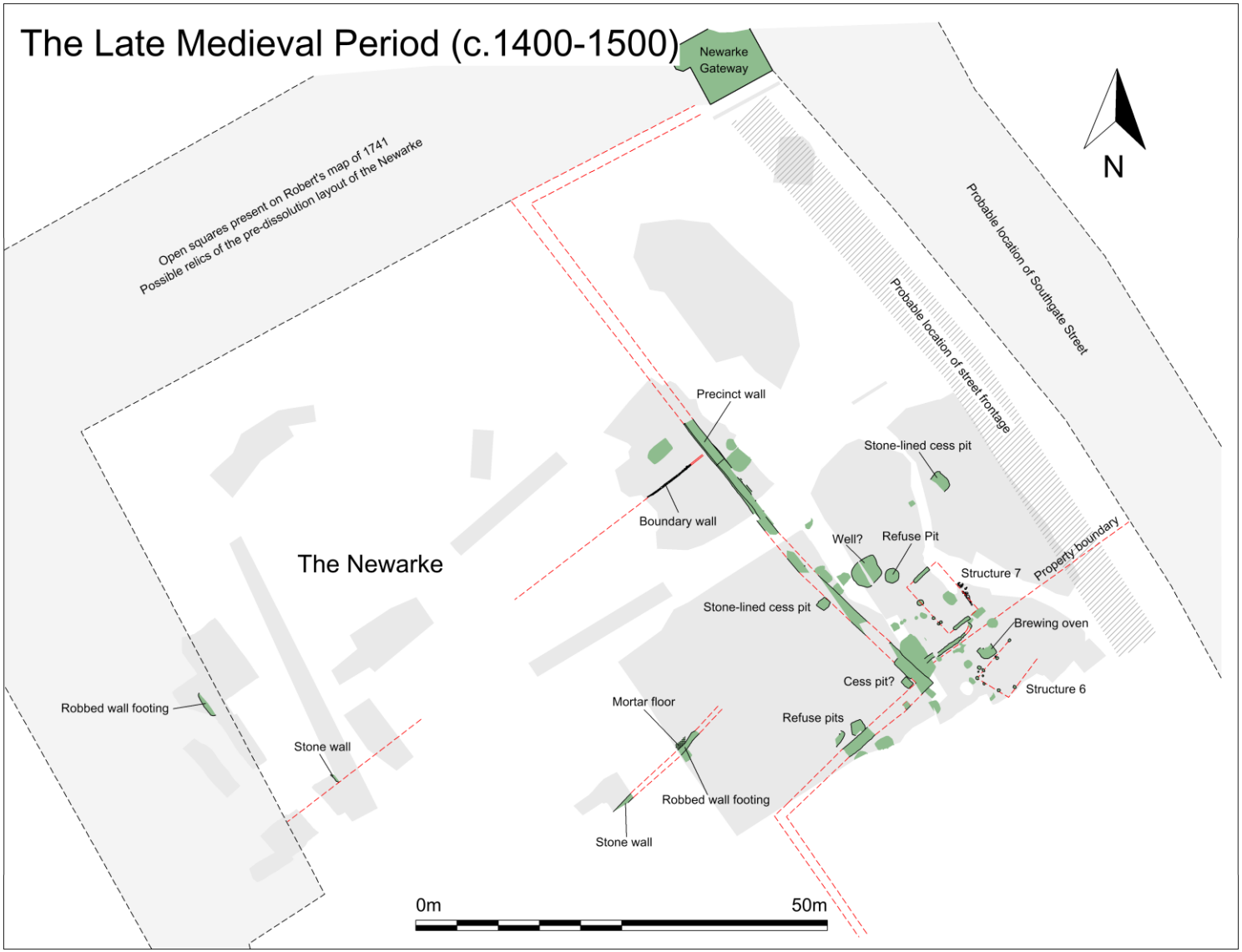


Figure 48: Interpretive plan of the site showing the principal Phase 10 features

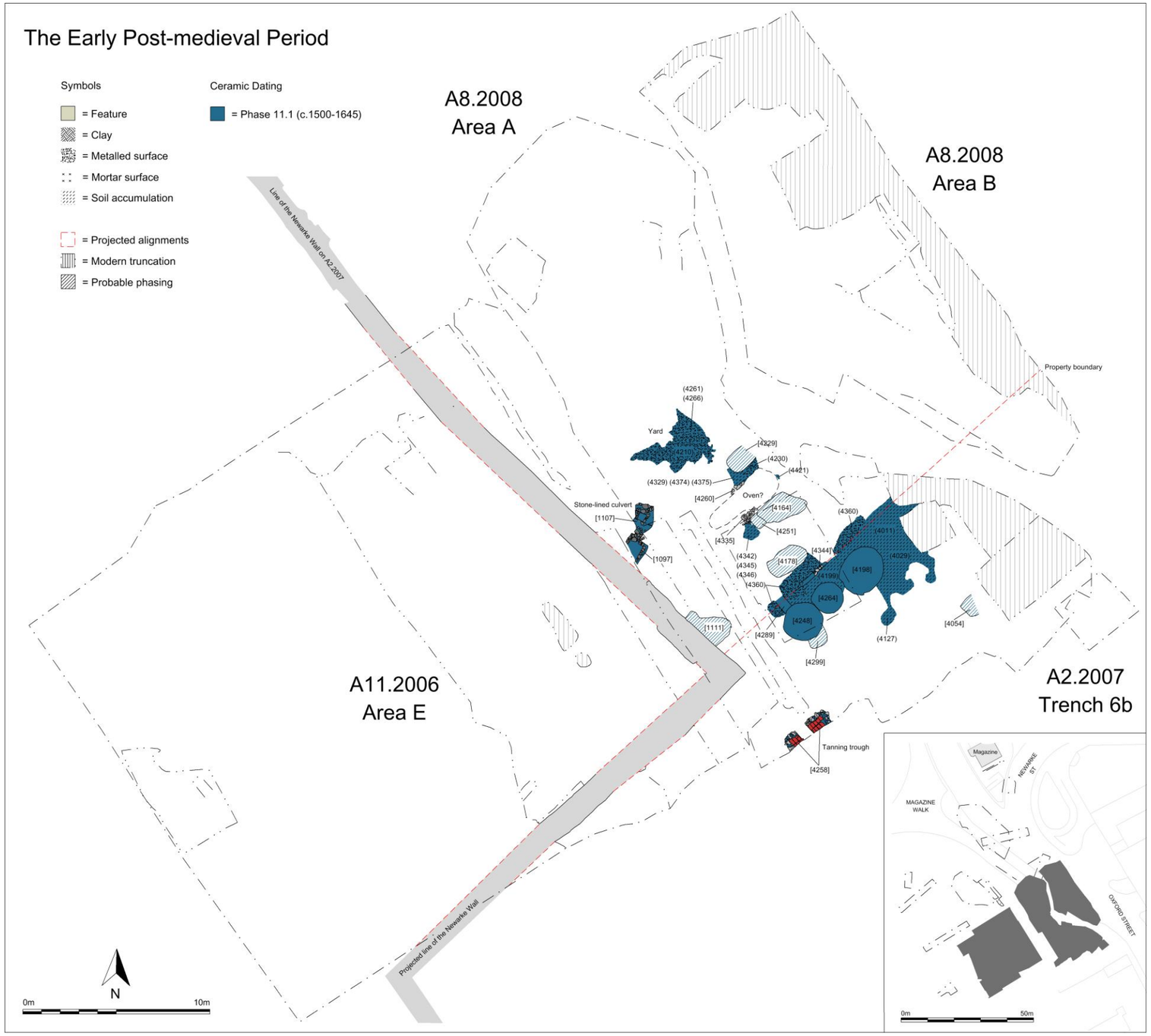


Figure 49: Phase 11.1 (A11.2006, Area E, and A8.2008, Areas A and B)

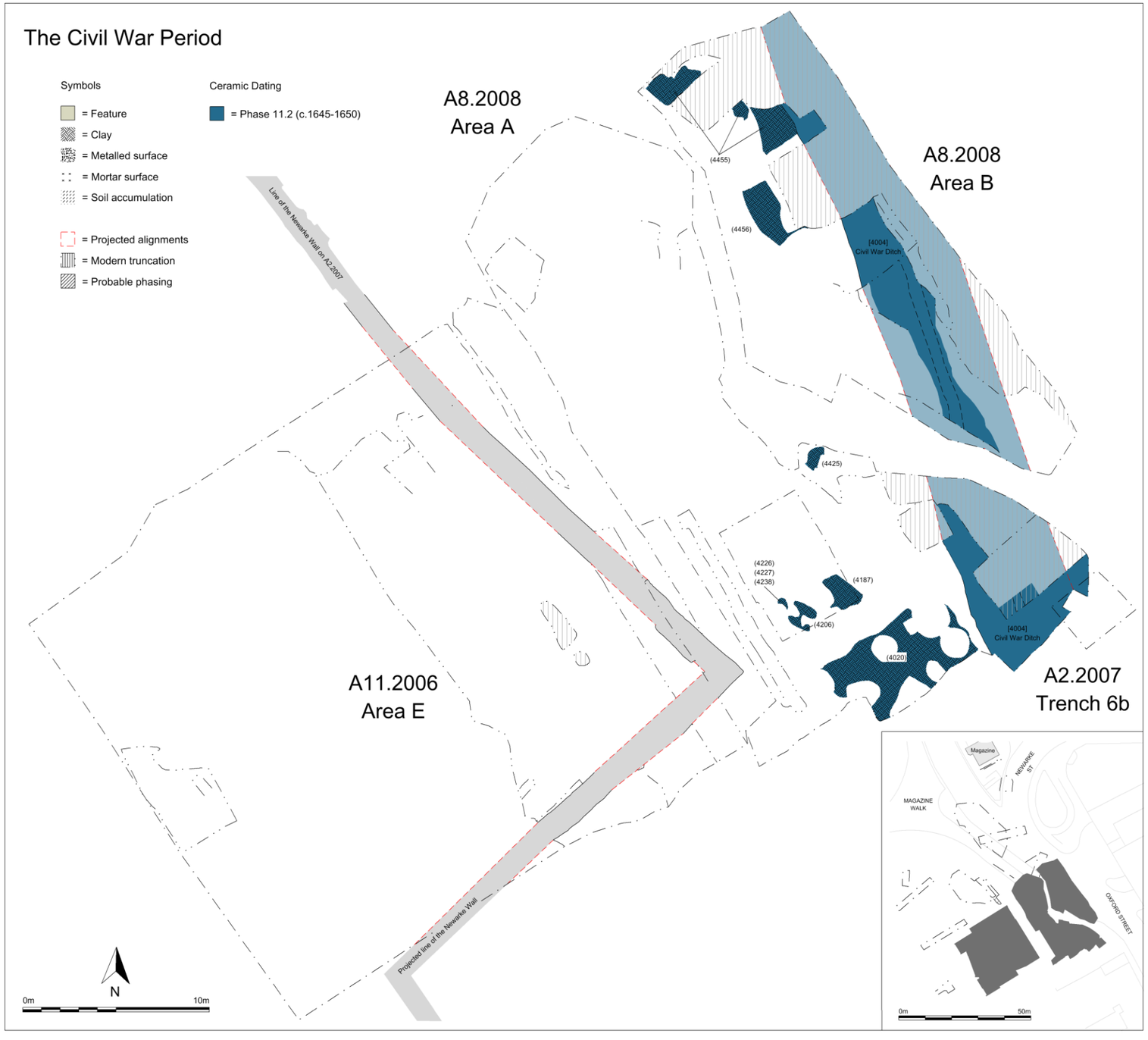


Figure 50: Phase 11.2 (A11.2006, Area E, and A8.2008, Areas A and B)

THE POST-MEDIEVAL PERIOD (*c.*1500-Present)

Phase 11 (Early Post-Medieval: *c.*1500-1650)

Continued occupation within the Newarke; property divisions and backyard activity associated with buildings along Southgate Street (now Oxford Street), further evidence of leather trades including a tawyer; clearance of the southern suburb and construction of the Civil War defences.

A11.2006 and A8.2008 (Areas A-E; Trenches 6a, 6b and 15)

Phase 11.1: Outside the Newarke Precinct

Occupation outside the Newarke Precinct during the 16th and early to mid-17th century appears to continue to respect property boundaries prevalent in the preceding phase, notably that once separating Structures 6 and 7 (Figure 49). Although no longer physically present this alignment – [**4385**], see Phase 10 – appears to have prevailed, first as a *c.*1.4m wide strip of compacted gravel and soil – (**4360**) – possibly the remains of a path, and subsequently as a new wall – [**4344**], which survived as a small fragment of mortar bonded granite just *c.*0.15m wide and *c.*2m long. To the south, within the property once associated with Structure 6, thick deposits of soil – (**4011**), (**4029**), (**4127**), (**4199**) and (**4350**) – encroached against this wall. These were recorded to be *c.*0.3m thick deposits of greyish-brown clayey-silt, mixed with some scattered building debris but otherwise relatively sterile. A horizon of similar soils observed during evaluation in Trench 6a – (**2061**), (**2071**), (**2080**) and (**2094**) – probably represent the same deposit. Truncating this soil and respecting this boundary was a line of large pits – [**4198**], [**4248**], [**4264**], [**4289**] and [**4299**]. These were typically between *c.*1.2m and *c.*2.5m in diameter and *c.*1.15m to *c.*1.8m deep. In general they were filled with bland greyish-brown clayey-silts similar to the soils through which they were dug. Pit [**4248**], however, contained a concentrated dump of building rubble; predominately granite, slate, sandstone and mortar. Whilst pit [**4264**] contained deposits of refuse, hearth waste and human effluent. Further south a sixth pit – [**4054**] – was partially truncated by the later Civil War ditch (Phase 11.2). This also contained soil mixed with a high percentage of charcoal.

Finally, partially exposed on the edge of excavation and heavily truncated by a modern service trench, was a sunken stone-lined trough – [**4258**] (Figure 51and Figure 52). This was observed to be a square or rectangular pit *c.*2.7m long and over *c.*0.8m wide, lined with clay bonded sandstone and granite masonry, still surviving to a depth of *c.*0.8m, and paved with evenly laid rectangular ceramic tiles, again bedded in clay. The floor and exposed masonry had all been rendered with a thick wash of lime, possibly residue from its use, and much of the stonework appeared worked, including some pieces which may have been recycled window tracery. The trough was backfilled with greyish-brown soil containing a substantial quantity of sheep metapodials, some horncores and some horse bones suggesting it had been used in the tawyering industry. A thick deposit of lime still present at the southern end also supports this and suggests this trough had once been used to lime skins, an early step in the tanning process.

North of the boundary wall activity was broadly similar with further pits scattered across Areas A and E – [**1111**], [**4164**], [**4178**], [**4229**] and [**4251**]. These were noticeably more irregular in plan than the neat line of circular pits to the south and were generally sub-rectangular ranging from just *c.*0.8m by *c.*0.5m and *c.*0.15m deep to *c.*2.4m by *c.*1.6m and *c.*1.2m deep. However, they all broadly contained the same material, unremarkable greenish-grey or greyish-brown clayey silts, with just one pit – [**4229**] – also contained deposits of ash and iron slag. Amongst these was a large key-hole shaped depression edged with fragments of masonry – [**4260**] and [**4335**] – and scorched soil deposits – (**4329**), (**4342**), (**4345**), (**4346**), (**4421**), (**4374**) and (**4375**). This was a *c.*4.4m long concave scoop, just *c.*0.3m deep, measuring *c.*1.6m in diameter at its widest point, tapering down to a *c.*0.95m wide tail. It is believed this may represent the severely robbed out remains of an oven or furnace, a supposition supported by the proximity of burnt soil deposits, and ash and iron slag in pit [**4229**]. The masonry, constituting two short, severely fragmented lengths of clay-bonded granite and sandstone, flanked the features longitudinal sides and possibly represented the remains of a stone-lining or superstructure. The ground to the north of this feature was covered with an extensive yard surface – (**4210**), (**4230**), (**4261**) and (**4266**). This appeared to be of poor quality being formed from unsorted river gravels and granite rubble compacted rather than laid flat. The largest surviving fragment – (**4210**) – still covered a *c.*3.5m by *c.*2.5m area and beneath it evidence was uncovered of the yard's repeated resurfacing and maintenance with successive earlier surface fragments – (**4261**) and (**4266**) – surviving along its eastern edge.

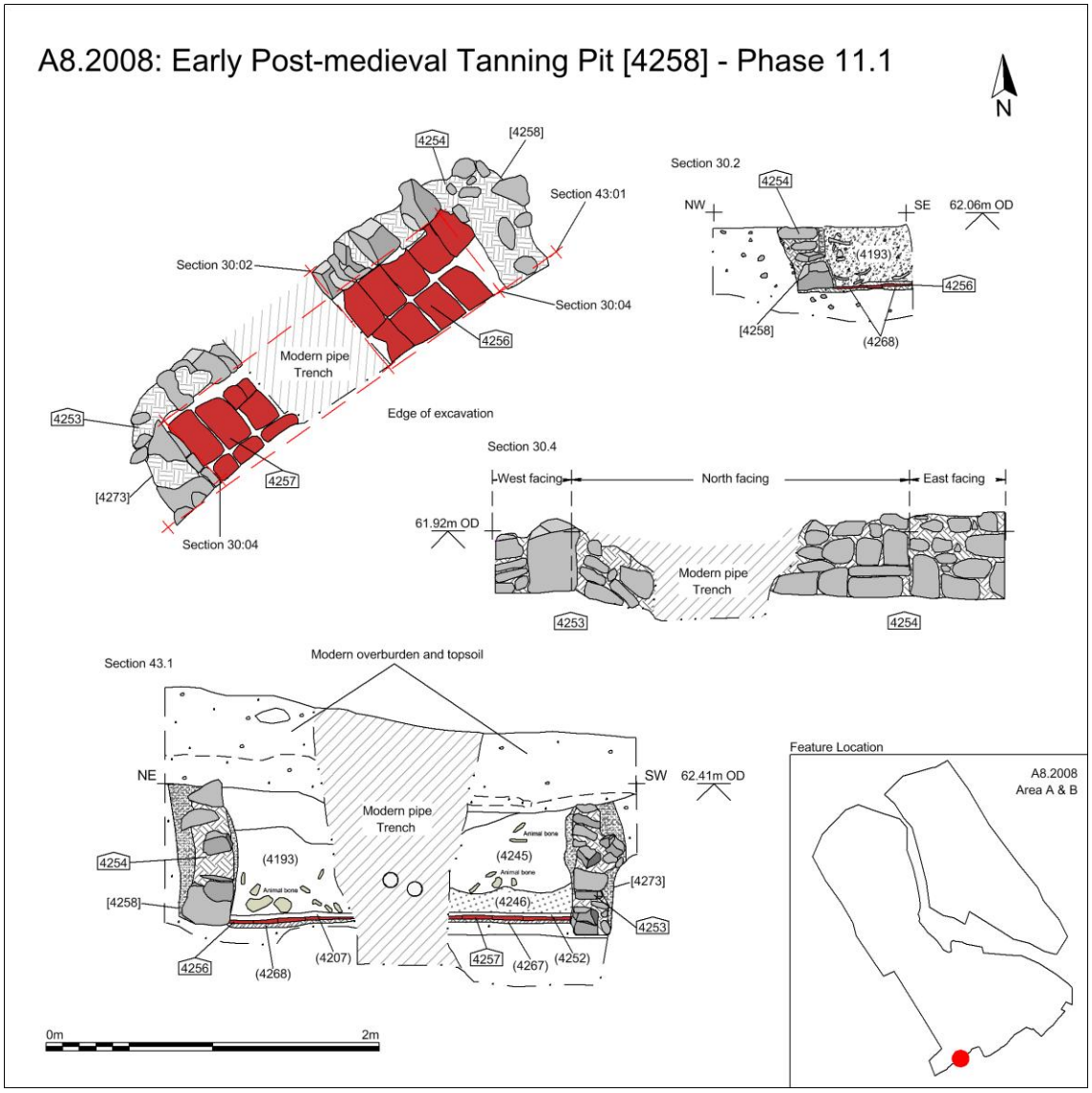


Figure 51: Plan of tanning pit [4258] – A8.2008, Area A

Figure 52: Tanning pit [4258] – A8.2008, Area A. Looking east (left) and west (right)

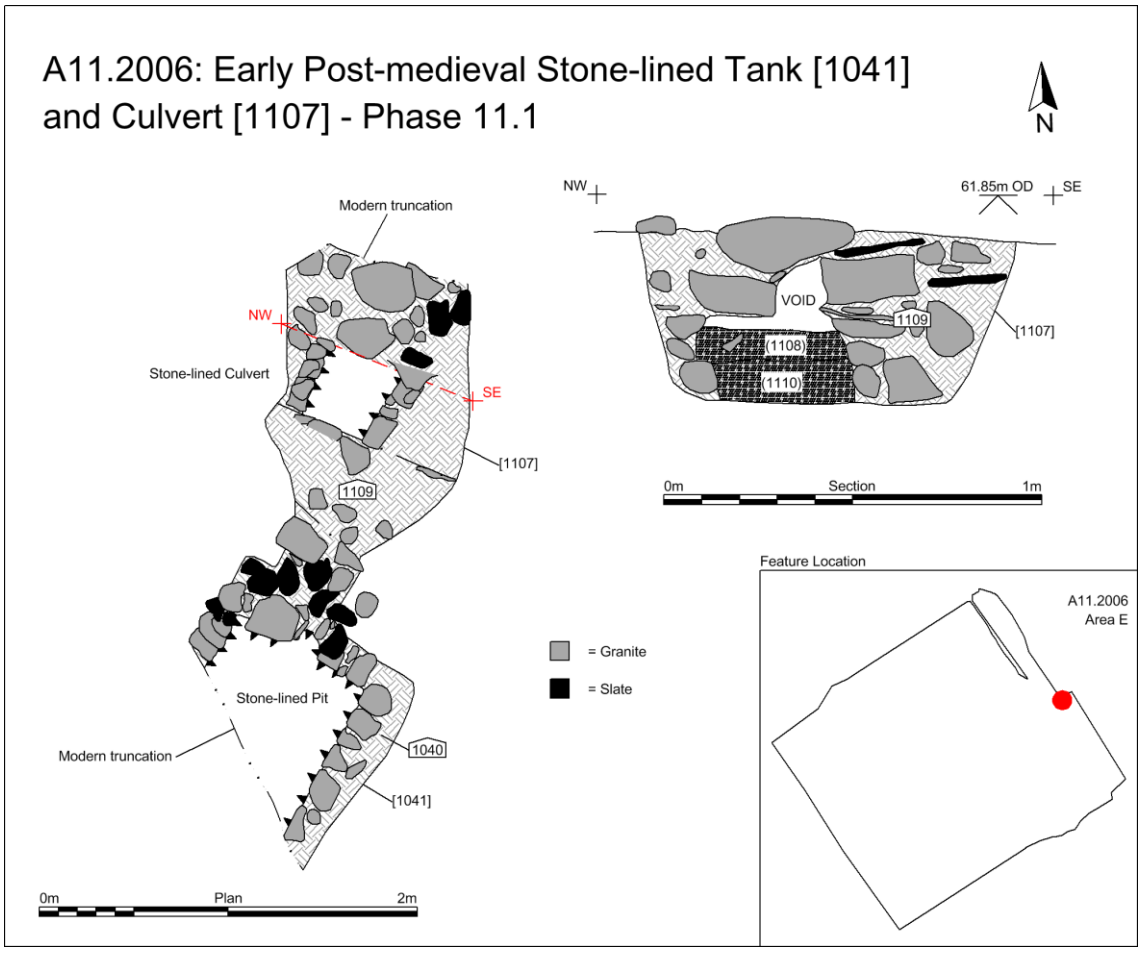


Figure 53: Plan of stone-lined tank [1041] and culvert [1107] – A11.2006, Area E.

Figure 54: Stone-lined tank [1041] and culvert [1107] – A11.2006, Area E. Looking north-east (left) and south (right).

Further structural features survived to the west in Area E. Here a stone-lined culvert – [**1107**] – was exposed running into a small stone-lined tank – [**1041**] – built against the Newarke wall (Figure 53 and Figure 54). The culvert was constructed within a *c.*0.8m wide linear cut, observed for *c.*1.4m. The lining consisted of three courses of clay bonded granite, roughly squared sandstone and river cobbles capped with a mixture of flat granite slabs and recycled slate roof tiles. The channel itself was *c.*0.4m wide and *c.*0.2m deep and had almost completely silted up, with just a 30mm void remaining beneath the capping stones. This feature had been completely truncated at its northern end and its course could not be traced into Area A. At its southern end the channel opened into a square, stone-lined tank. This was similarly constructed, the lining surviving as five courses of clay-bonded granite, sandstone and slate masonry. The tank's interior measured *c.*0.8m square and was over 1m deep. At the bottom was *c.*0.15m of silt which appeared to have flowed out of the culvert, although it remained unclear whether in its original conception this culvert was intended to flow into or out of the tank. The culvert appears to have entered the tank *c.*0.2m above its base and both structures appeared to be of contemporary construction.

Phase 11.2: The Civil War Defences

A substantial ditch – [**4004**] – observed in plan for *c.*37m crossing the eastern edge of Areas A and B on a rough north-west to south-east alignment can be attributed to the Civil War period (Figure 50 and Figure 55). This was not observed in its entirety, being heavily truncated by modern disturbance, and only the base and south-western edge of the ditch were present with any degree on clarity within the excavation area. Where exposed this survived to a depth of *c.*2m with the ditch's south-western side sloping down at *c.*54° to a flat base. If the profile of the north-eastern side of the ditch was similar to this, therefore, the original cut must have been at least 5.5m wide (Figure 11c), dimensions consistent with what is believed to be the continuation of the same ditch observed on Bonners Lane (Finn 2004, 41-44).

In places the base of the ditch was filled with *c.*0.25m of sterile greyish-green silt or reddish-brown silty-clay, likely erosion from the ditch sides whilst it remained open. This weathering was sealed beneath thick dumps of brown clayey-silt mixed with large quantities of naturally derived clay and discarded building rubble. No evidence of refuse being dumped into the open ditch suggests this backfilling occurred soon after the defences were abandoned and the material is probably the remains of the rampart pushed back into the ditch when the earthworks were levelled. Very little material was recovered from the deposits, with pottery ranging in date from the 12th to 17th century. This and the discarded building rubble reflects the length Leicester's southern suburb had been in existence prior to its demolition to

Figure 55: Civil War ditch [4004] – A8.2008, Area B. Looking north-west

make way for the defences. However, a musket ball (SF442) was recovered from out of the ditch, possible evidence of the siege of Leicester in 1645.

Evidence of the suburb's clearance also survived west of the ditch. Across the southern third of Area A thick deposits of reddish-brown silty-clay mixed with a high percentage of naturally derived clay covered all preceding evidence of occupation – (**4020**), (**4187**), (**4206**), (**4226**), (**4227**), (**4238**) and (**4425**). Although fragmentary these still covered an area extending *c.*9.5m west from the ditch edge towards the Newarke wall. Whilst further north across the northern third of Area B further thick deposits of dark soil, again mixed with naturally derived clay but also containing large quantities of building rubble, were also present – (**4455**) and (**4456**). These and the cleaner clays to the south are likely up cast from the defensive ditch and probably represent the denuded remains of the rampart which once accompanied it.

A2.2007 (Trenches 1-5 and 7-10)

Within the Newarke Precinct

The only early post-medieval evidence to survive in Trench 3 was a series of pits (Figure 40). Within the Newarke precinct the level of modern horizontal truncation had left the majority of these features as little more than shallow basal impressions. Immediately south of boundary wall [**2058**] – Phase 10 – were a series of intercutting pits – [**2149**] and [**2156**]. Possibly four in total, these were all small circular or oval features approximately 1m in diameter and between 40mm and 0.3m deep. All four were filled with similar dark brown clayey-sand containing small quantities of ceramic material ranging from the 14th to mid-17th century. Considering the significant level of truncation these features had sustained, no function could be confidently ascertained. The only surviving pit south of boundary wall [**2058**] of any substance was a large circular pit – [**2025**] – within the southern half of the site. This was 2.1m in diameter and over 0.9m deep, although it remained unbottomed during the excavation, and was filled with dumps of homogeneous dark greyish-brown clayey-silt characteristic of the surrounding 'garden' soil – (**2021**) Phase 10. The fills contained ceramics suggesting a mid- to late 16th-century date but the lack of significant quantities of human detritus suggests the pit was not overtly intended for refuse disposal. Only two features of probable early post-medieval date were recorded to the north of boundary wall [**2058**]. One was a large irregular pit – [**2330**] – partially truncated by the modern service trench crossing the northern half of the site. It was 0.97m in diameter, 0.53m deep and was initially filled with clean dark brown sandy-silt, possibly natural accumulation, before large concentrations of building rubble and animal bone were deposited. The pit finally appeared to be capped with thick deposits of red clay, possibly a deliberate attempt to stabilise the ground above the feature. South of this, between the pit and the boundary line was a small pit or post-hole – [**2040**]. This was a concave oval impression, *c.*0.5m by *c.*0.58m and *c.*0.19m deep, filled with greyish-brown silty-clay.

Outside the Newarke Precinct

Outside the Newarke precinct, east of the Newarke wall pitting appears to have been more prolific. In the south-east corner of the site, dug down against the face of the Newarke wall was a large, deep cess-pit – [**2254**]. This was roughly square, 1.3m wide and 0.97m deep, with near vertical sides and flat base. It was filled with thick deposits of compacted yellowish-white latrine waste sandwiched between layers of charcoal rich soil. Approximately 0.65m above the base of the pit several large pieces of wood, possibly planks or posts (SF234) and decayed strips of linen (SF233 and SF235) were recovered from where they had settled into the cess (Figure 56). Further smaller fragments of wood and linen were also recovered from throughout the feature and it is suggested that the wood may represent part of a collapsed structure or lining; whilst the linen may have been used as toilet paper. Discard cannot be discounted however, as a large quantity of refuse was also present including mid- to late 16th century ceramics, animal bone, charcoal, other charred organic remains and a large quantity of copper alloy objects (SF227-231 and SF238-248) including ten pins, fragments of wire and a single wire hoop.

To the immediate north and east of this cess-pit were further smaller refuse pits – [**2100**], [**2216**], [**2226**] and [**2336**]. These were all typically circular, *c.*0.9m in diameter and up to 0.6m deep. They were all filled with dark charcoal rich soil, except [**2216**] and [**2336**] which also contained pale greenish-brown cessy silts, and all contained significant quantities of refuse including burnt organic material (possibly hearth waste), oyster shells, animal bone, broken glass – SF207 and SF208 in [**2100**], ceramic material dating from the mid-14th to mid-17th century and a number of personal items including a copper alloy buckle (SF205) and a twist of copper wire (SF206) from pit [**2100**] and another copper alloy pin (SF224)

Figure 56: Preserved wood and linen in cess-pit [2254] – A2.2007, Trench 3. Looking west

from pit [**2226**]. In section, cess-pit [**2254**] also appeared to truncate an earlier feature – [**2293**] – possibly an earlier pit but this remained uncharacterised during the excavation.

Further pits – [**2269**] and [**2343**] - were also present, similarly dug down against the east side of the Newarke wall, *c.*6m to the north. These were only partially observed but both appeared to be rectangular and at least 0.9m wide. The northernmost, pit [**2269**], survived to a depth of just 0.35m but pit [**2343**] was over 1.2m deep. Both were filled with deposits of slumped or redeposited natural sands and clays mixed with darker greyish-brown soil and pit [**2269**] also contained some cess-like deposits. These contained some charcoal, animal bone, oyster shell, building rubble and ceramics ranging in date from late 14th to mid-17th century, but neither contained sufficient quantities to suggest refuse disposal was their main purpose and the bulk of this material was likely residual.

A7.2008 (Areas 1-3; Trenches 11-14)

No evidence of activity for this period was identified on site.

Discussion

Pre-Civil War Activity

From the early post-medieval period onwards, the level of modern horizontal truncation increasingly impedes meaningful interpretation of the surviving archaeology across the site (Figure 57). This is particularly true within the Newarke where truncation meant features were predominately absent. However, the few that did survive, in Trench 3, suggest some form of occupation continued uninterrupted into the early post-medieval period. Pits still respecting both the precinct wall and the internal boundary line (see Phase 10) contained material dating from the 16th and early 17th centuries. However, much of this appeared residual and little evidence of domestic occupation was apparent, although one pit north of the boundary line did contain large quantities of butchered sheep and cattle bone. This was an exception. No evidence of the college's dissolution in 1548 or the precinct's transition into a wealthy suburb (see Archaeological and Historical Background) was apparent in the archaeological record with nothing indicating the demolition of the main religious complex to the west (completed by 1590).

Outside the Newarke, in the southern suburb, evidence of uninterrupted occupation along Southgate Street was more apparent. Pits and metalled yard surfaces in proximity to the precinct wall denote continued activity to the rear of the street frontage, whilst a new stone boundary wall on a similar

alignment to its late medieval predecessor shows property divisions remained largely unchanged. Evidence of domestic habitation was prevalent with many pits being used, at least secondarily, for waste disposal – both garbage and effluence. A tight cluster of cess and refuse pits dug down against the precinct wall in Trench 3 produced evidence for domestic fowl, sheep/goat, cattle and pigs along with charred cereal grains, legumes and fruit (fig, apple, cherry, sloe and plum) indicating a well balanced diet. Coal and oak charcoal were both present in the deposits of hearth waste and the cess-pit contained fragments of ash planks or posts, perhaps the remains of pit-lining or a privy superstructure. This pit also produced fragments of linen and a large number of copper pin fragments, some of which could be identified as dress pins, and this may be evidence of someone involved in the cloth trade residing in the vicinity.

Other evidence of possible industrial activity could also be seen in Area A north of the boundary line, over the area once occupied by Structure 7 (Phase 10). Here the heavily denuded remains of a possible oven or furnace may indicate metal working for ash and slag were recovered from an adjacent pit, and a stone culvert and tank to the west, against the precinct wall, may also indicate a desire for an easily accessible water supply. Whilst evidence of the leather trade was again present south of the boundary line along the south edge of Area A over the site of Structure 6.

It is now recognised that disproportionately high numbers of metapodials in bone assemblages associated with groups of large square or circular pits, drains, and deposits of organic matter (oak bark, wood chips, leather off-cuts), ash and lime indicate leather working taking place in the vicinity (Baxter 1998, 59). The animals represented can also be very telling as to what type of work was being carried out, with assemblages primarily consisting of sheep bone suggesting workshops of tawyers rather than tanners. This is because the tanner was restricted to producing leather from cattle hides, traditionally tanned using oak bark, whereas the tawyer worked with the skins of sheep, goats, deer, horses and dogs using only alum and oil, although by the early post-medieval period vegetable tanning materials were also being used (Thomson 1981, 171). The leather making process has been described by Thomson as follows:

> '*The hide was… treated so that the flesh and hair could be removed. This treatment sometimes consisted of simply folding the hide hair inwards and leaving it until putrefaction had just set in [but] an alternative method involved immersing the hid in a suspension of lime… This liming process was carried out either in wooden tubs or, more commonly, in pits set into the ground… Early engravings suggest the pits could be waterproofed by lining with basketwork covered with clay. They could also have been lined with timber, stone, brick of slate.*' (1981, 162-163)

> '*Once the skins had been limed, unhaired, fleshed, given a thorough bating, drenched and scudded, they were washed off in fresh water and put into large tubs. There they were kneaded with a mixture of materials [including] alum [and] oil. Traditionally the tawyer worked the mixture into the skins by trampling it in with his bare feet in a process known as kicking or foot-tubbing. Once the required amount of the tawing paste had been take nup by the skins, they were stretched out flat and piled overnight. The next day, they were mechanically worked again, either by giving them a further tubbing or by twisting them into a rope and pulling them over an uneven surface… The skins were next slicked out lightly to flatten and smooth them and hung to dry… The leather was then softened by drawing it firmly over a blunt blade in the staking or perching process... The leathers were then dyed into a wide range of shades using techniques in common with the textile industries*' (1981, 171-173)

A similar process would have also been employed by a parchment maker. Parchment was made from sheep, goat or calf skins which would be limed, scraped and dried but not treated further (Shaw 1996, 108).

Compared against these characteristics and processes the evidence from Area A is compelling. The stone-lined trough partially exposed on the southern edge of excavation was filled with lime residue and large quantities of discarded sheep metapodials and horncores. Whilst further sheep and goat horncores and metapodials, some covered with lime, were also recovered from a second pit to the north. The trough itself was clearly waterproof, being lined with clay bonded stonework, and was comparable in size, shape and character to several stone-lined tanning pits excavated in the 15th to 17th century tannery on Green Street in Northampton (Shaw 1996, 72-85). The lime residue still adhering to the trough's walls is a clear indication this was once a liming pit. Other evidence can probably be identified in the neat line of three

large circular pits situated along the property's northern boundary. These contrast markedly with the untidy, haphazard distribution of other pits in Area A beyond the property containing this tawyering workshop. No evidence of lining was identified in any of these three pits, and one had been reused as a refuse pit, but they would have been naturally waterproof to some degree as they were dug deep into the natural clay, therefore a lining may have been unnecessary.

This is not the first evidence of leather manufacturing taking place in the southern suburb. Tawyering and cobbling waste was present on site during the later high medieval period suggesting these were established industries potentially dating back to *c.*1250. Whilst on the Oxford Street excavation site (Gossip 1999b) evidence for both leather working and dyeing was recovered from the waterlogged deposits of a 12th or 13th century well. No evidence of dyeing was found in Area A, but a contemporary tawyering workshop and dye works, apparently in operation between the mid-15th and end of the 16th century, has also been excavated on the Bonners Lane site to the south (Finn 2004), suggesting they were complementary trades. Unfortunately, inferring the size of the tawyering workshop on Area A is difficult as only one edge of the property was present on site with the bulk of the activity occurring to the south beyond the limit of excavation. What can be confirmed, however, is that this activity did not continue beyond the property line to the north for no further evidence of tawyering waste was identified across the rest of the site.

The Civil War

From contemporary accounts we know that the Newarke bore the brunt of the assault during both the Royalist and Parliamentarian sieges of Leicester in 1645. These accounts also indicate that defensive earthworks were erected around the town prior to the first siege, encompassing large areas of the north and east suburbs but not the south suburb. Demolition of buildings to make way for the defences in the south suburb are documented in the Chamberlain's accounts for 1643/4 which record payments made for taking down houses 'beyond the south gate' (Bateson *et al* 1603-1689, 343), and it is believed this reflects the relative prosperity of the different suburbs, the poorer south suburb apparently being deemed expendable (see Archaeological and Historical Background).

The substantial ditch running along the eastern edge of Areas A and B, through what would have been the street frontage along the western side of Southgate Street, is testament to this demolition although it remains unclear whether it was part of the first Parliamentarian defences, their strengthening by the Royalist garrison following the town's capture, or further work carried out by Fairfax's garrison after the second siege. Regardless of which phase of defence these earthworks represent, should they continue along their projected alignment to the north they would have to stop short of, or cross Southgate Street near the Newarke Gateway. Whilst to the south they would converge on the defences present on the Bonners Lane site.

To date clearance of the south suburb has been implicit in the archaeological record as no closely dateable demolition deposits have been uncovered on adjacent sites, particularly on those where evidence of the civil war defences have been excavated – Mill Lane (Finn 2002) and Bonners Lane (Finn 2004). This can now be established, however, for across Areas A and B thick spreads of redeposited natural clay mixed with soil and building rubble were identified covering much of the area west of the defensive ditch towards the Newarke wall. This material sealed all previous 17th-century occupation of the suburb, stressing its clearance, but clearly pre-dated the ditch itself. Some of the redeposited natural clay may also represent the denuded remains of an earth rampart formed from up cast from the defensive ditch. Either way, they clearly demonstrate all occupation across Area A and B had ceased prior to the establishment of the civil war defences.

The Civil War defences appear to be short lived. Erosion sediments in the base of the ditch were sparse, sealed beneath thick deposits of bland soil and clay, probably material from the rampart pushed back into the ditch when the earthworks were levelled. Whilst the absence of refuse being dumped into the open ditch suggests this occurred soon after the defences were abandoned. This corresponds with details in the Chamberlain's accounts for 1647/8 which records payments for the levelling of the defences such as the 'bulwark and mount against the end of Mill Lane' (Bateson *et al* 1603-1689, 378).

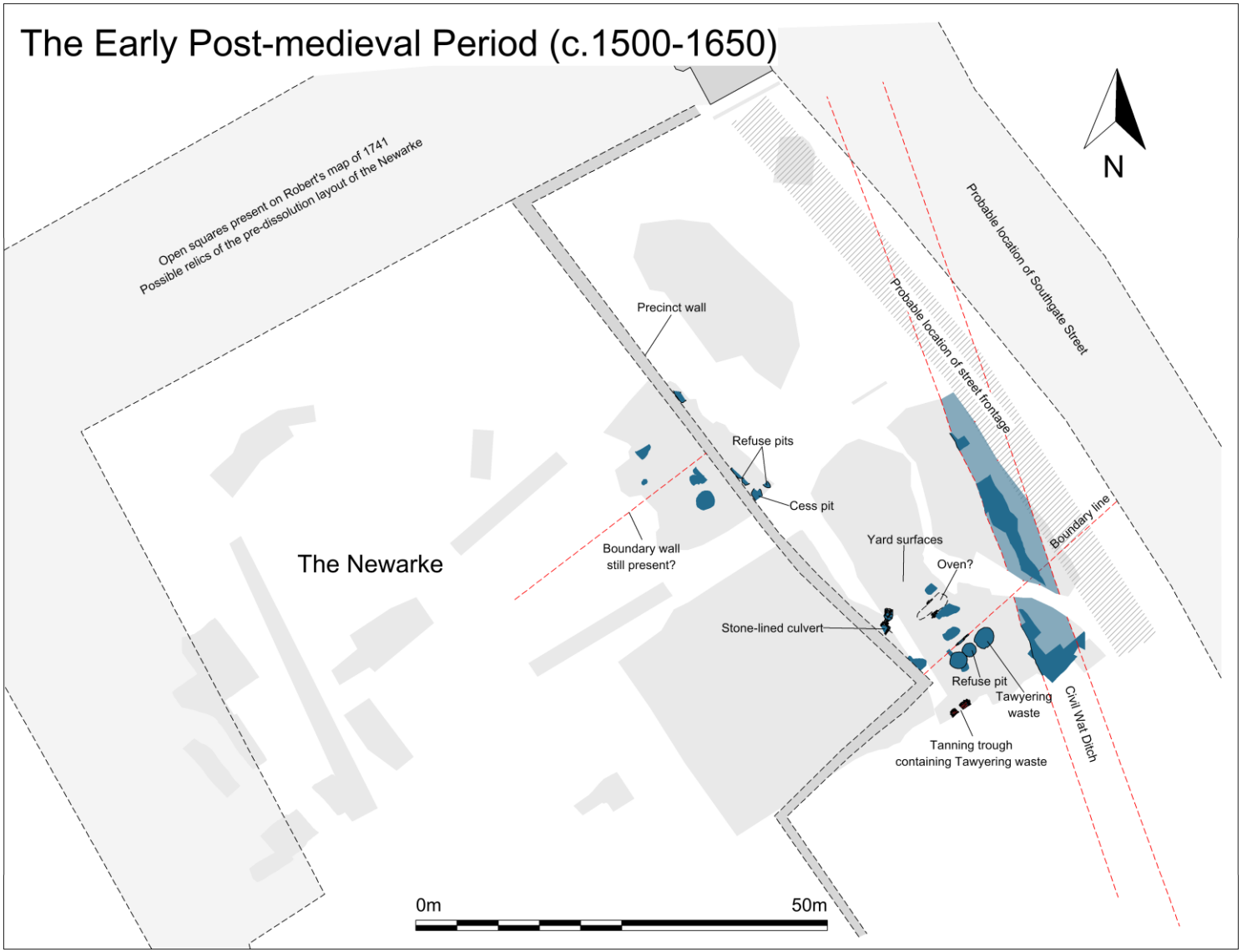


Figure 57: Interpretive plan of the site showing the principal Phase 11 features

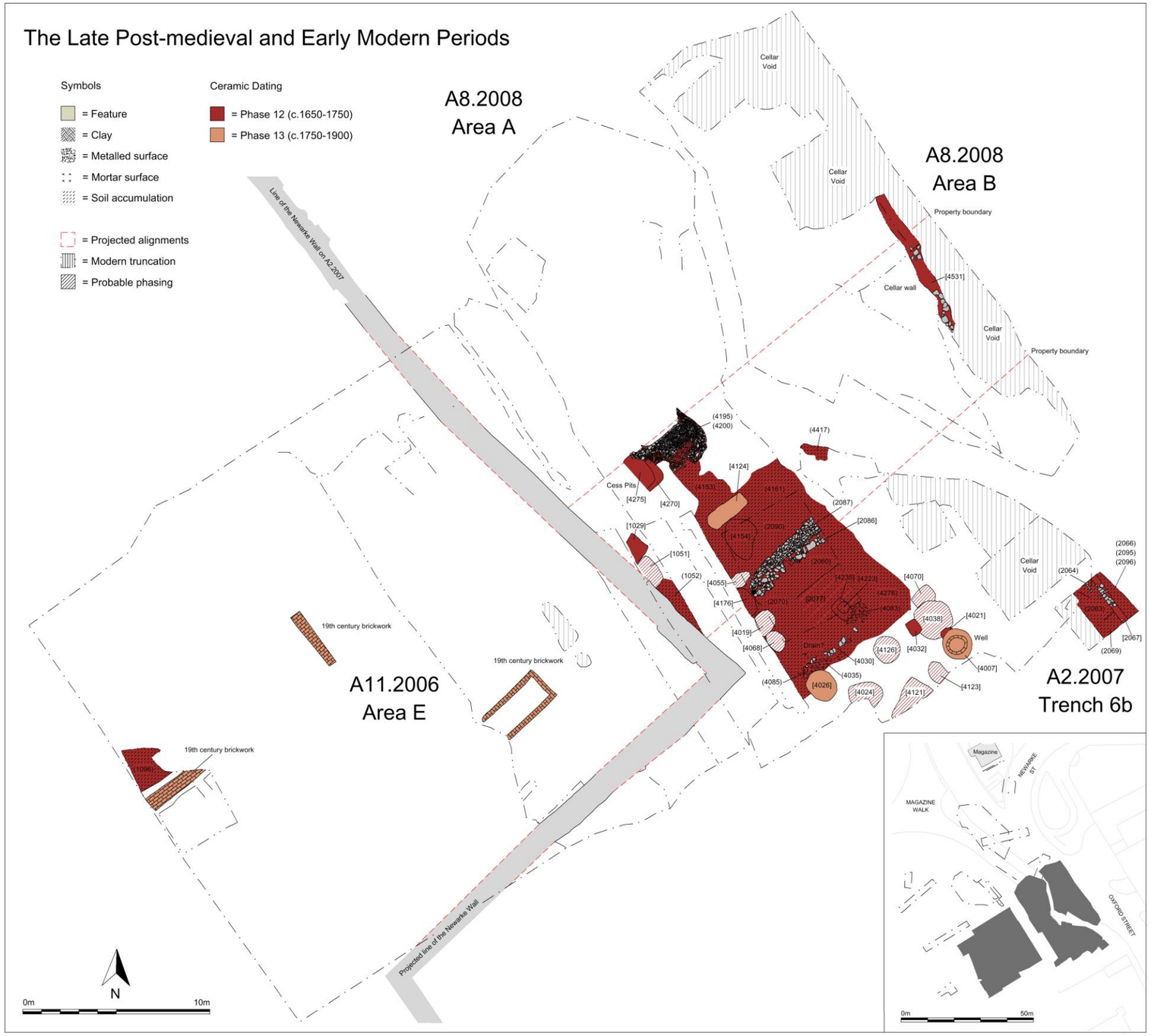


Figure 58: Phases 12 and 13 (A11.2006, Area E, and A8.2008, Areas A and B)

Phase 12 (Late Post-Medieval: *c.*1650-1750)

Property divisions post-dating the Civil War Defences; Backyard activity associated with buildings along Southgate Street (now Oxford Street)

A11.2006 and A8.2008 (Areas A-E; Trenches 6a, 6b and 15)

Outside the Newarke Precinct

Phasing for much of the following activity is tentative and can best be described as dating from the mid-17th century onwards rather than being specifically constrained to the late post-medieval period. It should therefore be taken into account that many of these features could be of early modern date (Phase 13) or be present through both phases. The earliest material to cover the defunct Civil War defences was a thick blanket of soil – (**1052**), (**1096**), (**1152**), (**4153**), (**4161**), (**4200**), (**4276**) and (**4417**) – present across much of Area A and continuing into Area E (Figure 58). This was also observed during evaluation in Trench 6a as soils (**2060**), (**2070**) and (**2090**); and in Trench 6b as (**2063**) and (**2069**). The soil was broadly comprised of thick, homogeneous deposits of dark greyish-brown sandy-silt, many mixed with scattered building debris and containing material dating from the mid-17th to mid-18th century, including an iron knife (SF422) from (**4153**).

Very few features were uncovered beneath this soil, with only four pits – [**4154**], [**4176**], [**4223**] and [**4235**] - identified truncating pre-Civil War occupation but post-dating the Civil War defences. Of these, pit [**4154**] was a shallow, irregular scoop, *c.*2.1m by *c.*0.7m, filled with yellowish-brown clayey-sand; its edges so ill defined that it possibly represents a vegetation scar. Pit [**4176**] was a large sub-circular cut, *c.*1.5m in diameter and 0.7m deep, filled with homogeneous brown sandy silt mixed with naturally derived clay. Pit [**4233**] was a small circular cut, *c.*0.45m in diameter, truncating pit [**4235**]. It was possibly a post-hole. Finally, pit [**4235**] was a small rectangular cut, measuring *c.*1.25m by *c.*0.75m and *c.*0.5m deep, filled with grey sandy-silt, possibly latrine-waste stained, mixed with ash, charcoal and naturally derived clay. It possibly represented a small cess or refuse pit.

Activity was far more widespread above the soil with property boundaries prevalent again (Figure 59). In Trench 6a replicating a similar pre-Civil War boundary, evident in Phases 10 and 11, was a *c.*0.6m wide stone wall footing – [**2086**]. This was observed for *c.*5m running north-east to south-west. It was primarily constructed from granite, with some sandstone and slate, bound with compacted clay. To the north of this, following its alignment was a *c.*0.85m wide stone path – (**2087**). This again predominately used granite rubble, with some cobbles and sandstone, laid flat into the underlying soil. A second path or yard was present *c.*10m to the north in Area A – (**4195**). Instead of rough granite setts, however, this was constructed from large cobbles neatly set into dark brownish-grey soil. The surface was observed over a *c.*3.3m by *c.*1.4m area and appeared to have a granite kerb or edging along its north-western side, possibly marking a fence-line or drain set into the surface. Dating these surfaces has proved inconclusive. Both apparently post-date the mid-17th century but their *terminus ante quem* remains unclear and surface (**4195**) in particular could be 19th century in origin.

Figure 59: Surface (2087) and wall [2086] – A2.2007, Trench 6a (left); surface (4195) – A8.2008, Area A (right). Looking west

Between these two surfaces activity was sparse. In Area E, against the Newarke wall two pits – [**1029**] and [**1051**] – were identified dug into soil (**1052**). These were both sub-square, measuring *c.*1.2m to *c.*1.6m wide and *c.*1m deep. Both were filled with soil similar to the material through which they were dug and little can be said for either pit other than [**1029**] appeared to represent demolition of stone-tank [**1041**] – see Phase 11.1. Further pits were also present in Area A to the east – [**4055**], [**4270**] and [**4275**] – although all three appeared to predate surfaces (**2087**) and (**4195**). To the south, beneath surface (**2087**) was a shallow oblong feature – [**4055**] – measuring *c.*1m by *c.*0.63m and just *c.*0.2m deep. This was filled with brownish-grey silty-clay mixed with large quantities of refuse and discarded building rubble. Whilst to the north, beneath surface (**4195**) were the other two pits. The earliest – [**4270**] – was a concave circular scoop, measuring *c.*1.4m in diameter, filled with brown and greenish-grey silts mixed with large quantities of refuse and cessy waste. Dug through it was the second, large pit – [**4275**]. This measured *c.*1.8m in diameter and descended below 1m in depth. It was filled with periodic deposits of greyish-green cessy-silt separated by thick dumps of brownish-grey soil, the final dump also containing large quantities of refuse.

South of wall [**2086**], across the southern third of Area A, occupation was more readily apparent. Here further fragments of crude cobbled yard surface survived – (**4035**), (**4083**), (**4085**). These were observed scattered over a *c.*5m by *c.*2m area. Crossing them, on a north-east to south-west alignment was a linear line of rectangular slates, each measuring *c.*3m by *c.*2m. The feature as a whole – [**4030**] – measured *c.*3.4m long and was only a single slate, *c.*0.3m, wide. This likely represents the base of drain, probably removing rain and ground water away from buildings fronting onto Oxford Street to the east. Very little activity was noted between this drain and wall [**2086**] to the north, with only two pits dug into the soil – [**4019**] and [**4068**]. Both were sub-circular, measuring between *c.*1.1m and *c.*1.2m in diameter and *c.*0.25m and *c.*0.35m deep. The earlier of the two, pit [**4019**], was filled with a thick deposits of ash and charcoal, although the absence of scorching suggests the material was redeposited rather than burnt in-situ. Animal bone was also present suggesting it was more likely from a domestic context. Pit [**4068**] contained 50mm of lime mortar in its base and may have once been used to mix the mortar.

In Trench 6a this area was also observed to be truncated by a large anomalous depression – [**2077**] – possibly a pit, filled with naturally derived clay mixed with stone rubble, mortar, and fragments of roof slates. Its continuation beyond the evaluation trench was not picked up again during the following excavation of Area A, therefore it remains unclear what it represented. Beneath it a series of spreads and possible features – [**2082**], (**2083**), (**2084**), (**2088**) and (**2089**) – were partially exposed. Little could be determined about their nature during the evaluation but it is likely they relate to pits [**4223**] and [**4235**], discussed above, and pit [**4264**] in Phase 11.1, all recorded during the excavation of Area A.

To the south of the drain, however, pitting was the prevalent activity with pits [**4021**], [**4024**], [**4032**], [**4070**], [**4121**], [**4123**] and [**4126**] all post-dating the Civil War. These ranged from circular to square in plan, measured from *c.*0.6m to *c.*2.3m in diameter and were typically less than *c.*0.6m deep. The exceptions to this were pits [4038] and [**4126**] which were both in excess of 1m deep. Very little of note can be said about their fills. Pits [**4038**] and [**4070**], which were both dug through the Roman road, were filled with reddish-brown clayey silt mixed with redeposited natural clay and scattered building rubble, otherwise the remaining pits were all filled with greyish-brown soil. Pits [**4024**] and [**4126**] both also contained more readily apparent dumps of charcoal, ash, discarded building rubble and other refuse, and a flattened lead tankard (SF421) was recovered from the base of pit [**4126**].

Evidence of the rebuilding of the southern suburb following the Civil War was irrefutably present along the eastern edge of Area B. Here a substantial clay-bonded stone and brick rubble wall – [**4531**] – was exposed for *c.*8m on a north-west to south-east line parallel with Southgate Street. This was *c.*0.8m thick and still survived to a depth of *c.*1.5m. In section to the west this could clearly be identified dug through the backfilled Civil War ditch – [**4004**], see Phase 11.2 – whilst to the east loose brick rubble filled a substantial void suggesting it represented the wall of a cellar. A similar wall – [**2067**] – on a matching alignment was also observed in Trench 6b *c.*15m to the south-east. This too was dug into soil overlying the line of the Civil War ditch. It was *c.*0.3m wide and constructed from roughly hewn granite bound within pale mortar. Set mid-way along the observed length a single-brick wide course of brickwork running perpendicularly through the wall possibly indicated where a brick cross-wall had once keyed into the stone masonry. At least four courses of masonry and brickwork still survived, rising to a height of *c.*0.6m. To the west of the wall, level with the base of the visible masonry was a flat, single course of 2" thick bricks – (**2064**) - possibly the remains of a floor associated with the wall. Both these bricks and the wall itself were sealed beneath deposits of greyish-brown soil mixed with scattered building rubble – (**2066**), (**2069**) and (**2095**).

A2.2007 (Trenches 1-5 and 7-10)

No evidence of late post-medieval activity was recorded on site.

A7.2008 (Areas 1-3; Trenches 11-14)

Only one feature, on the south side of Area 3, could be attributed to the mid-17th to mid-18th century. This was the edge of a large, heavily truncated pit – [**3039**] – extending south beyond the edge of excavation. At least 2.95m in diameter and over 0.2m deep it was filled with dark greyish-brown clayey-silt mixed with occasional charcoal flecks, large chunks of broken mortar and other building debris. A second similar pit, possibly of contemporary date, was identified in section *c.*2.5m to the west in Trench 13. This was *c.*1.8m deep dug through a thick dark soil similar to the Phase 9 deposits seen elsewhere across the site. It was subsequently sealed beneath *c.*0.2m of compacted sand and gravel, probably once a street or yard surface.

Discussion

Rebuilding the southern suburb appears to have proceeded slowly and the Chamberlain's accounts record payments made in respect to various properties 'in the Southgates… ruined in the late warrs' well into the 18th century. Testament to this slow rehabitation is the soil which appears to have accumulated uninterrupted across the razed Civil War defences in Areas A and B. This was thick and homogeneous with few residual inclusions suggesting it was not redeposited material but rather natural deposition which had been allowed to accumulate over a lengthy period of time, possibly from the mid-17th century into the early 18th century. However, both Stukeley's map of 1722 and Robert's map of 1741 show the western side of Southgate Street continuously fronted by buildings from the Newarke Gateway south to Mill Lane. This is evident in the archaeological record as well with the remains of a stone-lined cellar along the eastern side of Area B dug into the infilled Civil War ditch along the street frontage.

To the rear of this cellar property divisions were also evident, defined by the remains of boundary walls edged with stone pavements and yard surfaces. Pits were prevalent in these rear yards but remained enigmatic, none producing concentrated deposits of refuse or waste. Evidence of trade or industry was equally ambiguous and overall the archaeological remains support these areas being domestic backyards of dwellings fronting onto Southgate Street.

Evidence of occupation inside the Newarke was exceedingly scant by the late post-medieval period with just one pit in Area 3 possibly attributable to the mid-17th to mid-18th century. Despite contemporary sources indicating the precinct returned to its wealthy suburban status following the Civil War any characterisation of this is impossible from the basis of the archaeological evidence.

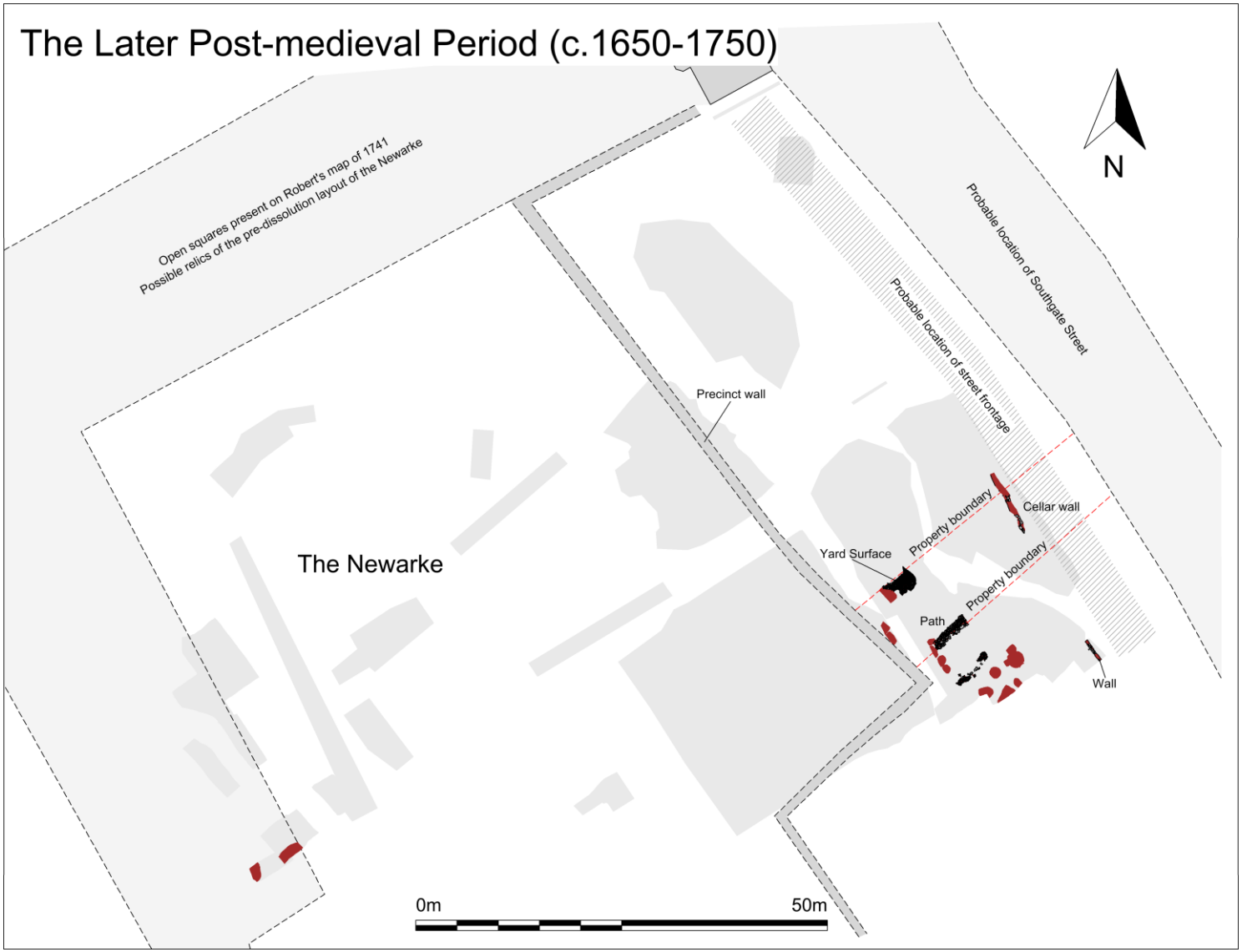


Figure 60: Interpretive plan of the site showing the principal Phase 12 features

Phase 13 (Early Modern: *c.*1750-1900)

Cellars and backyard activity associated with buildings along Oxford Street (formerly Southgate Street) and the late 19th century Militia headquarters within the Newarke.

A11.2006 and A8.2008 (Areas A-E; Trenches 6a, 6b and 15)

Just three recorded features in Area A could be attributed to the early modern period: a brick-lined well – [**4007**] – exposed on the southern edge of excavation; and two pits – [**4026**] and [**4124**]. The well was *c.*1.7m in diameter, dug through the Roman road surfaces, in which a *c.*0.8m diameter brick-lined shaft had been built. The bricks appeared to be of 19th-century date and the void between brickwork and well-edge had been backfilled with soil. Pit [**4026**], *c.*6m to the west, was also *c.*1.7m in diameter but only *c.*0.5m deep, filled with grey sandy-silt containing 19th century bricks. Whilst pit [**4124**] was a shallow sub-rectangular cut, measuring *c.*2.4m by *c.*0.9m, filled with greenish-brown soil containing late 17th-century pottery.

Further evidence of early modern occupation along the western frontage along Oxford Street could be seen along the eastern edge of Areas A and B where a series of brick cellars were removed by machine during the initial site strip. Whilst in Area E a series of disjointed brick walls likely relate to buildings associated with the late 19th century militia headquarters which once occupied the site.

A2.2007 (Trenches 1-5 and 7-10)

Again, just one recorded feature in Trench 3 could be attributed to the early modern period. This was a red brick wall – [**2020**] – built flush against the western face of the 15th-century Newarke wall (Phase 10). The brick wall was constructed with three courses of headers resting on a course of slate projecting from the Newarke wall. The remaining four courses of brickwork were laid using a variant of a running bond, common when re-facing existing masonry with brickwork, with occasional headers keying the brick wall to the stone wall. The void between the two walls was filled with mortared brick rubble. This wall is believed to be part of the militia headquarters built on the site in 1863. The militia buildings were demolished in 1963.

Further evidence of the late 19th century militia headquarters was uncovered in Trench 1b where a brick cellar measuring approximately 4.4m by 3.2m was removed. This was situated centrally within the trench in a position which was thought to correspond with the alignment of a row of terraced militia houses built along the western side of the magazine square. These were also built in 1863 and demolished in 1963.

A7.2008 (Areas 1-3; Trenches 11-14)

No evidence of early modern activity was recorded on site.

Discussion

Although little can be extrapolated from the surviving archaeological evidence attributable to the early modern period, comparing the few features against the first edition 1888 Ordnance Survey map does merit some discussion (Figure 61). The cellar voids in Areas A and B clearly correspond with properties on the western side of Oxford Street all being beneath the street frontage, whilst the well in Area A is clearly situated in a large open space to the rear of one such building. Within the Militia Headquarters the brickwork was more enigmatic much of it being within the Magazine Square rather than any of the buildings. One fragment is situated within the north-eastern most of the row of terraced houses along the southern side of the square, however, and may be the remains of a coal cellar. The brick re-facing of the Newarke wall clearly corresponds with the boundary dividing the Magazine Square from the properties fronting onto Oxford Street. Of particular interest was the cellar void in Trench 1b. This too was assumed to relate to the militia headquarters and was thought to correspond with the alignment of a row of terraced militia houses built along the western side of the magazine square. When compared against the 1888 map, however, it is clearly situated in the Magazine Square in front of this row. Subsequent Ordnance Survey maps show this area remains an open square until it was demolished in the 1960s. It may, therefore, relate to a building which pre-dates the militia headquarters, or a cellar of the James Went building, built in the 1960s.

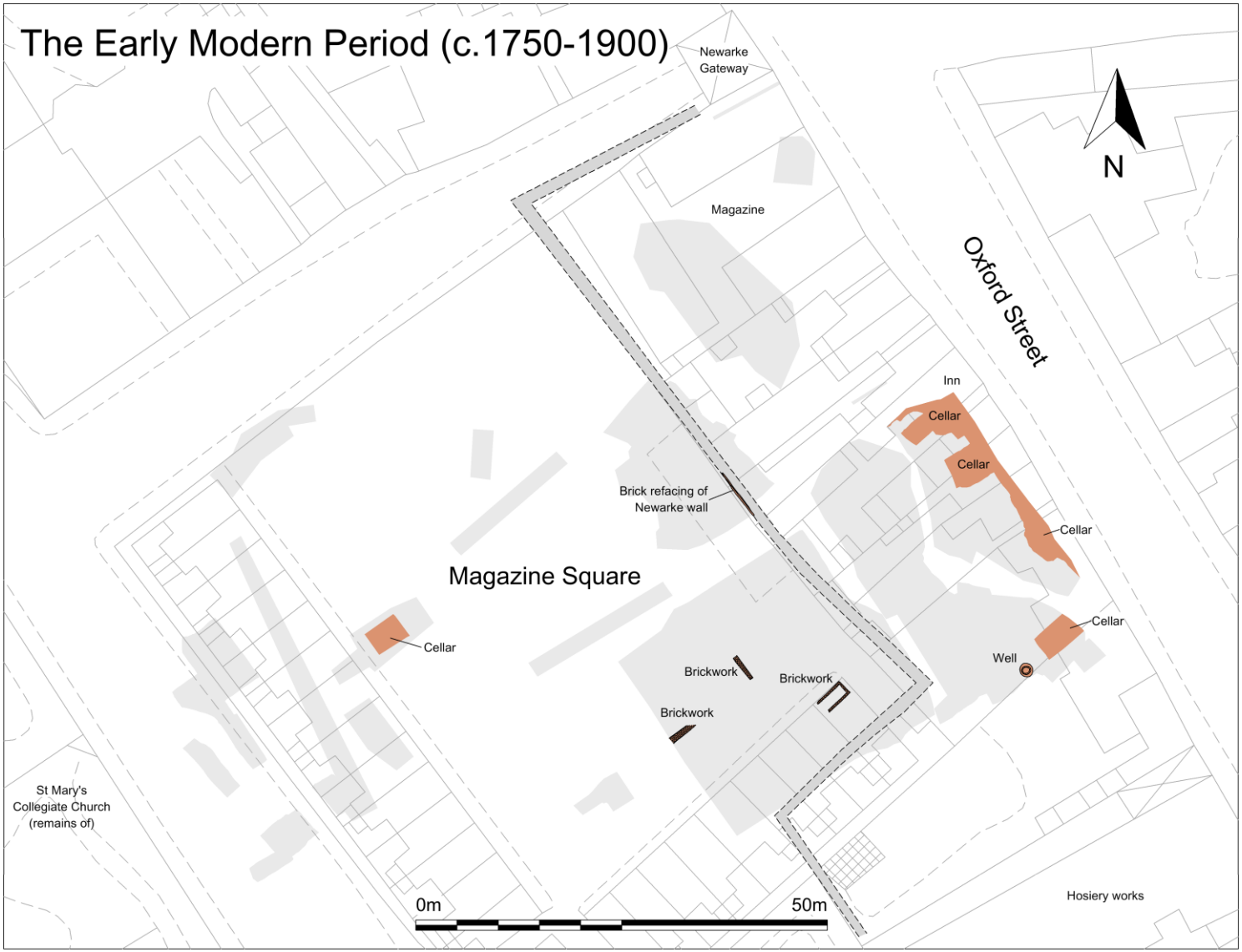


Figure 61: Interpretive plan of the site showing the principal Phase 13 features against the 1888 Ordnance Survey map

Phase 14 (Twentieth Century: *c.*1900-Present)

Damage from modern services, periods of road widening along Oxford Street, and the construction and demolition of the James Went building within De Montfort University's campus.

A11.2006 and A8.2008 (Areas A-E; Trenches 6a, 6b and 15)

No features for this period were recorded on either site. However, there was significant modern truncation of the archaeological deposits across Areas A-E, caused by road widening along Oxford Street during the 1960s and the recent demolition of the James Went building. Areas A and B were also divided by a modern electrical service trench and further recent services truncated the archaeology along the southern side of Area A.

A2.2007 (Trenches 1-5 and 7-10)

No features for this period were recorded on site. However, modern truncation of the archaeological deposits, caused by the demolition of the former James Went building, was present along the western edge of Trench 3. Further recent truncation was also present across the northern half of Trench 3 where a modern service trench bisected the archaeological deposits.

A7.2008 (Areas 1-3; Trenches 11-14)

No features for this period were recorded on site. However, modern truncation of the archaeological deposits was present within Area 1 in the form of a recent service trench which bisected the archaeology on a north-west to south-east alignment down the centre of the trench.

THE NEGATIVE EVALUATION AND WATCHING-BRIEF TRENCHES

Text taken from ULAS Report no. 2007-086 by John Tate (revised and edited by Mathew Morris)

Trench 1a (A2.2007)

Trench Dimensions:	c.9.1m by *c.*2.6-3.7m
Trench area:	32.55sq. m
Surface level:	61.07m OD
Trench Base:	c.57.87-58.27m OD

Trench 1a was located in the very south-west corner of the site, orientated north-east to south-west (Figure 6). Demolition deposits from the former James Went building were known to exist here, and this trench established the depth of this destruction.

The southern end of the trench revealed demolition deposits of crushed concrete to a depth of 57.87m OD beneath which a disturbed natural substratum of sandy gravel and red clay was reached.

At 4.4m from the southern end of the trench a cellar wall was observed to a depth of 2.8m beneath present ground level. Although primarily of brick construction, two large Dane Hills sandstone blocks were observed at the very bottom of the wall. However, neither appeared to be in-situ and they were likely re-used from another source. The depth of the trench meant further investigation was impractical.

To the north of this cellar wall, more demolition deposits were encountered, including the remains of a pile core. Again, the natural substratum was disturbed, at a depth of 58.27m OD.

Trench 2 (A2.2007)

Trench Dimensions:	c.17m by *c.*2.1-3.6m
Trench area:	49.36sq. m
Surface level:	61.05m OD
Trench Base:	c.58.35-54.95m OD

Trench 2 was located in the very north-west of the site, orientated north-east to south-west (Figure 6).

The western 12m of the trench revealed further James Went demolition deposits to a depth of 2.2m below present ground level. Below this, in the western 4m of the trench, was a disturbed natural substratum of sandy gravels observed for a further 0.5m in depth. A land drain was encountered and avoided 4m from the western end of the trench, with the trench continuing again from 6.7m onwards. To the east of the land drain the natural substratum of sandy gravels was again reached beneath the demolition deposit of 2.2m depth. Here, however, they were truncated by a pit filled with 'garden' soil. As the pit had been almost totally destroyed by a decommissioned service it was not investigated.

At 12m from the western end of the trench the demolition deposit terminated and a 'garden' soil, identical to (2001) in trench 1b, was located at a depth of 59.95m OD. Removal of this to a depth of 59.45m OD revealed a partially truncated sandy gravel natural substratum. No further archaeological deposits were observed. At 16m from the western end a decommissioned service trench was encountered.

Some fragments of Roman and medieval pottery were recovered from the modern disturbance within this trench.

Trench 4 (A2.2007)

This trench was initially proposed to be excavated north-east of Trench 3 (Figure 6). However, due to time constraints during this phase of the project it was never excavated and the work was rolled into the general site strip of A8.2008 Area C.

Trench 5 (A2.2007)

This trench was initially proposed to be excavated east of Trench 3 and south of trench 4 (Figure 6). However, due to time constraint during this phase of the project it was never excavated and the work was rolled into the general site strip of A8.2008 Areas A and B.

Trench 7 (A2.2007)

Trench Dimensions:	*c.*6m by *c.*2.5m
Trench area:	34sq. m
Surface level:	*c.*61.4m OD
Trench Base:	*c.*58.5m OD

Trench 7 was located in the centre of the site between trenches 2 and 3 and immediately north of trench 9, orientated north to south (Figure 6). It revealed James Went demolition deposits to a depth of over 2.9m below present ground level.

Trench 8 (A2.2007)

Trench Dimensions:	*c.*17m by *c.*2m
Trench area:	14.7sq. m
Surface level:	*c.*61.94m OD
Trench Base:	*c.*60.04m OD

Trench 8 was located immediately north-west of the new Performing Arts Centre, orientated north-east to south-west (Figure 6). It revealed James Went demolition deposits to a depth of 1.9m below present ground level across the western 8.2m of the trench. These deposits subsequently dropped to a depth of 2.9m, before shallowing to 1.7m from 12m to the eastern end of the trench. Below this was a disturbed natural substratum of sandy clay.

Trench 13 (A7.2008)

Trench Dimensions:	*c.*36.98m by *c.2.65-4*33m
Trench area:	92.96sq. m
Surface level:	*c.*61.11m OD
Trench Base:	*c.*60.04m OD

Trench 13 was located between A2.2007 Trenches 1a and 1b, to the east, and A7.2008 Areas 1-3, to the west, orientated north-west to south-east (Figure 6). It revealed James Went demolition deposits to a depth of over *c.*1.6m below present ground level continuing below the depth of excavation.

GENERAL DISCUSSION

Combining the evidence from this site with the results of other excavations in the south suburb it is possible to further expand upon the broad development sequence for this part of Leicester's extra-mural area discussed in detail in the *Archaeological and Historical Background* at the beginning of this report.

Prehistoric

It has previously been noted that there is very little evidence for pre-Iron Age settlement in Leicester with much of the sparse corpus of material recovered from other sites in the vicinity only producing indirect confirmation of prehistoric activity, in the form of residual finds of worked lithics. This remains the case as the few flints recovered from this site again proved to be residual, ranging in date from the Mesolithic to the Bronze Age. It is unusual that the lithic material recovered proved to be entirely comprised of tools rather than a wider range of material including waste flakes. However, this bias is likely due to the collection approach of the excavators, tools being recognised and recovered from contexts known to be of later date, and does not provide an accurate sample of the assemblage as a whole. Of particular interest is the Late Neolithic transverse arrowhead (SF302). Coupled with the Neolithic 'Peterborough Ware' from the Old Bowling Green Site and a stone axe from the Bonners Lane site this is now increasingly suggesting there is tangible proof of late Neolithic activity in the immediate area.

Quantifiable Iron Age activity is now known to be present south of the recognised focus of pre-Roman settlement. This appeared to only be in the form of field boundaries and fence-lines, suggesting activity was still outside the settlement core. However, the continuation of these field alignments into the late 1st century suggest the landscape remaind unchanged from the late Iron Age into the early Roman period.

Roman

Evidence for the Roman period was exposed across the site but particularly to the east along the line of the *Tripontium* Road. This does not appear to have become clearly defined until the early 2nd century, possibly as part of the formalisation of the town's street-grid, but remained in use throughout the Roman period, as evidenced by the repeated resurfacing of the main carriageway and recutting of the roadside ditches into the 4th century. The general consensus is that this formalisation occurred during the late 1st or very early 2nd century AD, probably coinciding with *Ratae* becoming established as a civitas capital, and on other sites in town a date of *c.*100-120AD has been suggested (Higgins *et. al.* 2009). However, fragments of earlier gravel surfaces and ditch alignments beneath, but marginally off-set to, the 2nd century road suggests the *Tripontium* Road may have evolved from a much earlier route way, possibly originating in the late Iron Age or early Roman period.

At this time evidence to the west of the road suggests a dispersed landscape with ditches probably delineating large rectilinear enclosures. These possibly represent a series of individual property holdings laid out along the road but, considering the scarcity of domestic material in the vicinity, fields or paddocks are a more probable interpretation. Evidence of activity in these enclosures is sadly lacking but the propensity for early post-holes to cluster or align within close proximity to the ditches suggests they represent fence-lines surrounding the enclosures rather than structures within them. Along the road frontage a series of smaller fenced rectilinear enclosures associated with extensive gravelled yard surfaces are suggested to represent further small paddocks or stock-pens. This is again intimated by the absence of domestic material and contrasts with other sites in the southern extra-mural area of the Roman town, on Bonners Land (Finn 2004) and Newarke Street (Cooper 1996) for instance, where features such as domestic refuse pits were found in proximity to similar structures. Overwhelming the evidence for early Roman activity in the vicinity suggests it was predominately agrarian in nature.

Activity appears to have been short-lived and did not continue beyond the middle of the 2nd century. This can be seen in the widespread deposits of soil which began to accumulate across the earlier activity during the latter half of the 2nd century and the lack of evidence for repeated recutting of any of the enclosure ditches which all appear to have been allowed to silt up naturally. Whether this represents a complete hiatus in activity across the site during the late 2nd and early 3rd century is inconclusive, however, and subsequent activity is largely uncharacterisable due to subsequent post-Roman truncation. Evidence for small scale industrial activity is evident in the small oven or furnace excavated on Area E though and a similar pattern of decline and renewal in activity has been identified on Bonners Lane where

it has been suggested it represents the emergence of ribbon development along the southern approach to the town (Finn 2004, 62). Beyond this very little evidence for the late Roman period survives and nothing can be inferred about the character of any activity beyond confirmation that the *Tripontium* Road continued to be maintained into this period.

The uniqueness of Phase 2.1 ditch [4167], situated perpendicularly to the west of the *Tripontium* Road, is worth discussing. Its size, almost twice that of any other roadside ditch excavated on the site, and distinctive shape suggests it may pre-date the road alignment and it may represent a pre-existing boundary ditch along which the secondary road subsequently developed. Importantly, its distance from the later 2nd century town defences to the north is broadly comparable to the size of an insulae within the town's street-grid whilst ditches in Area 2 appear to align with the projected position of the street separating Insulae XXXII and XXXIII. This may, therefore, be the first evidence for the town's boundary, or *pomerium*, and possibly indicates that the town's street grid once extended beyond the later town defences.

Anglo-Saxon

On Bonners Lane it was noted that the *Tripontium* Road probably survived beyond the Roman period and was still a recognisable landscape feature when the SFB was constructed next to it in the late 5th or 6th century. It has therefore been suggested that it provided a focus for settlement of which both the Bonners Lane and Oxford Street SFBs were part, although there was no evidence for continuity of occupation from the late Roman period into the Anglo-Saxon period (Finn 2004, 63). Evidence from this site is far more difficult to characterise and based on its position Structure 3 would have likely been positioned, at least partially, over the *Tripontium* Road alignment. However, it does provide further invaluable evidence for the size and character of the extra-mural Anglo-Saxon settlement, suggesting it extended for *c.*150m along both sides of the southern approach to the old Roman town.

Medieval

Clear evidence of settlement of 12th- and early 13th-century date, in the form of cess and refuse pits, yard surfaces, fence lines, hearths and ephemeral earth-fast timber structures existed to the west of Southgate Street (now Oxford Street). However, no evidence of buildings along the street frontage, or the street itself, were present on site and the bulk of the evidence was indicative of backyard activities. These appeared likely to be arranged in a series of longitudinal property divisions extending perpendicularly away from the street and fit with the documented presence of burgesses and customary (peasant) tenants living outside the South Gate of the town in *c.*1200.

Evidence of large scale, possibly commercial, cereal processing, evident by the corn-dryer in Trench 3, fits with the sites proximity to the town's south field and the documented presence of a bread oven in the south suburb during this period, whilst spreads of iron slag in Trench 3 and Area E also suggest some form of metalworking activity was being carried out in the vicinity.

To what extent the establishment of the Trinity Hospital and the subsequent development of the Newarke Precinct had on the area's existing population in the early 14th century is difficult to fully characterise but it may have been negligible for evidence suggests suburban activity in the vicinity had declined sufficiently for much of the area to be returned to arable cultivation during the latter half of the 13th century. No explanation for this decline is presently apparent but it does appear to be a part of a trend across the suburb as a whole with similar cultivation soils appearing on Bonners Lane (Finn 2004, 28). Similar decline has also been noted inside the medieval town with activity in the north-east quarter tailing off from the mid-13th century and not picking up again until the late medieval period, if at all (Connor & Buckley 1999; Higgins *et. al.* 2009). There it is suggested a range of factors – wetter ground not being conducive to denser populations; a shift in settlement focus with greater emphasis to filling out the main streets; and an inability to sustain the economic prosperity and expansion of the preceding century – all contributed towards the decline.

Evidence of ground clearance, in the form of dispersed spreads of redeposited natural clay covering the cultivation soil, probably marks the foundation of the 'Newarke', whilst in Area E proof was uncovered of at least one building, Structure 5, being demolished to make way for the precinct wall. The foundation of Trinity Hospital in 1330-1 also probably denotes the period when occupation in this part of the south suburb resumed, the evidence of activity only appearing following the ground clearance. These

properties must have become firmly established by the turn of the 15th century for the uneven course of the Newarke wall, with its series of perpendicular turns, suggests it was following established boundaries that even the prestige and influence of the House of Lancaster, now Kings of England, could not overcome.

Examination of the accumulated evidence of post-lines, pit alignments and boundary walls from across the late medieval and early post-medieval period, through which occupation appears to have been continuous, together with the course of the Newarke wall has lead to the suggestion that at most a total of eight properties existed along the length of Southgate Street present on site, or nine including the piece of ground the Newarke Gateway was eventually constructed on. These appear to have been set out to be *c.*10m wide by *c.*25m or *c.*50m long, although their exact length cannot be conclusively established as the exact position of the street frontage remains unknown. These measurements roughly equate to imperial divisions of 2 rods (10.0584m) by 1 or 2 chains (25.146m and 50.292m respectively) and may indicate a degree of formal planning was involved in the re-establishment of the south suburb after the 13th century.

Little evidence of occupation inside the Newarke precinct survived but the little which did was sufficient to suggest the area east of the site of the Church of the Annunciation of the Blessed Virgin Mary was divided into a series of large longitudinal domestic properties orientated east to west off a street to the west, adjacent to the church.

Post-medieval

The same intensity of occupation appears to have been maintained along this portion of Southgate Street into the early post-medieval period, but it is clear from the disposition of specialised features and deposits that much of the excavated area was now devoted to mixed small scale industrial and domestic occupation in contrast to the more exclusively domestic nature of the late medieval period.

The presence of a tawyering workshop on the southern side of Area A compares favourably with that excavated on Bonners Lane and is further proof that large areas of the south suburb were devoted to processing and finishing animal skins during the early post-medieval period. The leather trade, however, appears to have been a long established industry in the area, dating back as far as the 13th century. Evidence of leather working has been recovered from a 12th or 13th century well on the Oxford Street site, whilst tawyering and shoe-making waste has been recovered from late 13th- or 14th-century features on Areas A and B. The Bonners Lane workshop appeared in the late 15th century and continued until *c.*1600, and the workshop on Area A was marginally later, probably not being founded until into the 16th century but apparently continuing until 1645 when it was swept away to make way for the Civil War defences.

The Civil War had a catastrophic effect on the south suburb. This is evident in the layers of redeposited natural clay and building rubble, probably the remains of an earth rampart, and the substantial defensive ditch excavated on the site. These clearly prove that some areas of the south suburb suffered a significant degree of destruction during the town's preparations for war. Considering the south suburb was the only suburb to suffer significant destruction during the lead-up to the war it has been cynically suggested that the Civil War provided a convenient excuse to clear the poor, run-down industrial areas adjacent to the exclusive residential district which had emerged within the Newarke Precinct (Finn 2004, 65). This is speculation but it is noticeable that following the quick dismantlement of the defences after the conclusion of the war none of the previous industrial activity, which had been so prevalent across the excavation area, returned. Instead, reconstruction of the south suburb appears to have proceeded slowly and the evidence from rear yards of the newly emerging properties along Southgate Street suggests most were devoted to more domestic pursuits.

Although little further can be extrapolated from the surviving archaeological evidence beyond the early post-medieval period the Stukeley and Roberts maps clearly show that Southgate Street was continuously fronted on the western side by buildings from the Newark Gateway to Mill Lane (now Bonners Lane) during the early 18th century, and subsequent maps show the area changed little until Oxford Street was widened during the 1960s.

THE FINDS

Flint

Lynden Cooper

Edited by Siobhan Brocklehurst

A total of 5 pieces of flint were recovered in the course of the excavation, and they were all residual in Roman features. The raw material used was invariably a brown translucent or blue milky flint. The material was examined by Lynden Cooper and a catalogue is provided below:

SF 203: (2125) [2124] Microlith fragment point with inverse basal retouch, Intermediate Mesolithic (10mm x 18mm x 2mm). A2.2007 Trench 3, Phase 3.

SF 302: Unstratified Transverse Arrowhead (British Oblique), Late Neolithic (34mm x 37mm x 10mm). A7.2008 Area 3, Unphased.

SF 303: (3021) [3015] Small flint scraper, Bronze Age (29mm x 24mm x 7.5mm). A7.2008 Area 2, Phase 3.

SF 428: (4244) Small utilised flint blade, worked to give sharp edges. Possibly Mesolithic (58mm x 21mm x 5mm thickness). A8.2008 Area A, Phase 3.

SF 429: (4244) Concave scraper (39mm x 23mm x 9mm thickness). A8.2008 Area A, Phase 3.

Figure 62: The five recovered flints

From left to right: SF302, SF303, SF203, SF428 and SF429

The Prehistoric Pottery

Nicholas J. Cooper

Introduction and summary

A total of 42 sherds of Mid-Late Iron Age pottery weighing 501g (Average Sherd Weight 12g) were retrieved from the A7.2008 excavation, 34 sherds of which came from six contexts belonging to Phase 1, and eight residually in three others. All of the material belongs to the East Midlands Scored Ware tradition, dating to the Mid-Late Iron Age (Elsdon 1992). Whilst a series of major contemporary assemblages have been published in recent years from sites to the north of Leicester for example at Wanlip and Humberstone (Marsden 1998 and 2000), finds of Scored Ware within the area of the Late Pre-Roman Iron Age settlement and the Roman town have been limited to a group from West Bridge Site 6 Phase 1B (Pollard 1994, 72 and 98, fig.64.230-241). Discovery of the present group, well to the south of the known extent of the LPRIA settlement, is therefore highly significant.

Methodology

The Iron Age material has been analysed by form and fabric using the Leicestershire County Museums prehistoric pottery fabric series (Marsden 1998, 45), with reference to the Prehistoric Ceramic Research Groups Guidelines (PCRG 1992 unpublished), and quantified by sherd count and weight.

Analysis of Assemblage by Fabric and Form

The summary descriptions of the fabrics identified within the assemblage are as follows.

Q1 Sandy ware

Moderate to very common sub-rounded or rounded quartz (well to moderately sorted, up to 1mm) and sparse-moderate angular quartz.

R1/R2 igneous rock inclusions (granodiorite) sometimes with sand as Q1

Sparse to very common sub-angular igneous rock fragments, poorly-sorted, most up to 5mm.

M1 Mudstone

Clean clay matrix with moderate, poorly-sorted angular, platy fragments of Mercia mudstone up to 8mm.

The assemblage is dominated by the granodiorite-tempered fabrics (R1 and R2) as would be expected, but there is also a jar base from (3007) [3008] in a mudstone fabric, M1, which has not been recorded before except recently at Ashton Green, Beaumont Leys, to the north of the City. Additionally, from (3009), one of the fills of the linear [3033] came three handmade sherds from a vessel with a lightly burnished surface, in a fabric similar to Q1 but finer, and closer to the Roman transitional sandy wares (SW) that would be associated with some of the Belgic-influenced vessels seen in Leicester in the first half of the first century AD (Pollard 1994, 74). A handmade upright rim in a fabric containing ferruginous red clay pellets (either naturally in the clay or added) also came from (3009). These fabrics are used to produce jar forms in the Scored Ware tradition usually with plain upright rims of which three are present in the group alongside three jar bases and a number of body sherds with irregular scored decoration.

Discussion

The similarity of the group to those vessels from West Bridge and the presence of transitional fabrics in (3009) would indicate that the material probably dates to the later 1st century BC and first half of the 1st century AD. It is therefore possible to postulate that the existence of the Iron Age settlement of Ratae stretches further back into the 1st century BC than can be ascertained from the earliest Augustan imports to the settlement in the first or second decade BC. It also shows that the settlement extended further south than previously thought.

Roman Pottery

Nicholas J. Cooper

Assemblage Size and Condition

A stratified assemblage of 825 sherds of Roman period pottery weighing 17kg was retrieved, along with an additional 10kg of material re-deposited residually in medieval layers. Four separate excavated assemblages are included as quantified below (Table 1).

Table 1: Quantified summary of the constituent stratified assemblages

Quantified Summary by Stratified Site Assemblage				
Site	**Sherds**	**Weight**	**%sherds**	**AvSherdWt**
A11.2006	155	2708	19	17
A2.2007	228	2192	28	10
A7.2008	49	753	6	15
A8.2008	393	11041	47	28
Total	**825**	**16694**	**100**	**20**

The four groups have been treated as a single assemblage for the purposes of this report and have been divided by phase as quantified below (Table 2)

Table 2: Quantification summary of stratified assemblage by Phase

Summary of Quantification by Phase				
Phase	**Sherds**	**Weight**	**%sherds**	**AvSherdWt**
1	20	513	2	26
2	290	8632	35	30
3	446	6479	55	15
4	69	1070	8	16
Total	**825**	**16694**	**100**	**20**

Methodology

The material was classified using the Leicestershire Museums Fabric Series (Pollard 1994), a summary of which is given below (Table 3). Within the archive database, specific fabrics were assigned to all sherds wherever possible, however in this report the generic ware groups summarised below are used to simplify data presentation. Vessel forms were also assigned where diagnostic sherds allowed, using the Leicestershire Form and Fabric Series and other published typologies (Howe *et al* 1980; Pollard 1986; Holbrook and Bidwell 1991; Pollard 1994; Tyres 1996; Webster 1996). The material was quantified by sherd count and weight. The complete dataset was recorded and analysed within an Excel workbook, which comprises the archive record.

Table 3: Summary of Leicestershire Museums Fabric Series (Pollard 1994: 112-114).

Fabric Code:	Fabric Type:
Samian	Samian ware
C	Colour-coated wares
AM	Amphorae
GW	Grey wares
CG	Calcite gritted (shelly)
GT	Grog-tempered wares

Fabric Code:	Fabric Type:
MO	Mortaria
WW	White wares
OW	Oxidised wares
BB1	Black Burnished ware
WS	White slipped wares

Analysis of the Assemblage by Phase

Phase 1

This small group of 19 sherds (498g) deriving from four contexts appears to represent contamination or soil accumulation in the upper fills of possibly Late Iron Age features by 2nd-century material belonging to Phase 2 or 3 features directly overlying them. Most of the group comes from the upper fill (4733) of ditch recut [4710] which included a samian Form 18/31dish, a BB1 jar, a devolved ring neck flagon and a reeded rim bowl, suggesting accumulation in the period *c*.120-150. The significant aspect of the Phase 1 contexts, contaminated or not, and the assemblage as a whole, is that there is very little pottery that need date before the final decade of the 1st century.

Phase 2

This group of 290 sherds represents the largest phase assemblage by weight (8632g) with an average sherd weight of 30g, a figure which is probably exaggerated by the relatively large number of mortarium sherds. The analysis of the assemblage by fabric is summarised below (Table 4)

Table 4: Summary quantification of the Phase 2 assemblage by fabric

Summary of Fabric Analysis Phase 2				
Fabric	**Sherds**	**Weight**	**% sherds**	**AvShWght**
Samian	50	851	17	17
Colourcoat	7	55	2	8
Amphora	11	818	3	74
Mortaria	25	3208	9	128
BB1	18	725	6	40
Whiteware	24	487	9	20
Whiteslip	3	124	1	41
Oxidised	6	78	2	13
Greyware	127	2012	44	16
Mixed Grit	2	25	1	13
Sandyware	3	49	1	16
Shellyware	14	200	5	14
Total	**290**	**8632**	**100**	**30**

The fabric proportions illustrated in the table above and the forms represented suggest that the Phase 2 assemblage was deposited in the early to middle decades of the 2nd century, as it is broadly in agreement with much larger assemblages of this date from Causeway Lane Phase 3 (Clark 1999, 121) and Highcross, Leicester Phases 2/3 (Johnson 2009). The samian imports are relatively high at 17% and being predominantly Central Gaulish this may support a dating towards the middle decades of the 2nd century rather than earlier. Analysis of the samian forms supports the contention that there is relatively little material dating to the second half of the 1st century, and this correlates with general lack of transitional sandy, grog-tempered and shelly wares. Amongst the samian ware there are two examples of the 1st-century bowl Form 29, one of which is very worn, with three repair holes in it, suggesting a long life; one example of a Form 15/17 platter and two examples of Form 18 dishes. There is also a single example of a 1st-century Form 27g cup with a basal groove. However, the majority of the forms are 2nd-century including five examples of Form 18/31, two of Form 37, three Form 33s and two Form 27s. One of the 37s, from the lower fill (166) of ditch cut (4167) is a substantial part of the vessel probably made at Les Martres de Veyre in Central Gaul *c*.100-120 by the so-called Potter of the Rosette. The lack of Form 31 amongst the plain dishes, or any other of later 2nd-century repertoire, suggests the assemblage does not extend much beyond *c*.160.

This contention is supported by two other features of the assemblage. The first is the low occurrence of BB1 at only 6%, about the level typical of the period *c*.120-160 when it first appears in Leicester and the repertoire consists of cooking pots of Types 12 and bowls of Type 38 (Holbrook and Bidwell 1991). The second issue is that there is only one example of a beaker in Lower Nene Valley colour-coated ware, an interesting handled vessel probably imitating continental Form Dechelette 74 but with an indented body from (1004). Beakers from the Lower Nene start to come across from the 150s but do not become common until the later 2nd century and 3rd century.

The mortaria include a near-complete stamped example of the potter Sollus (SOLLVS.F) from the Verulamium region dating *c*.60-100 from [4598] (4597) and one of Erucanus (VCANI) from Mancetter-Hartshill dated *c*.100-130. Two examples of Mancetter-Hartshill mortaria dating to around, or after, 150 are also present. The amphora include the expected examples of the Dressel 20 olive oil container from Southern Spain and Galloise 4 from Southern Gaul which would have transported wine.

Phase 3

The largest group in terms of sherd count (447) comes from Phase 3 (6.5kg) with an average sherd weight of 15g which is relatively low for an urban assemblage. The analysis of the assemblage by fabric is summarised below (Table 5).

Table 5: Summary quantification of the Phase 3 assemblage by fabric

Summary of Fabric Analysis Phase 3				
Fabric	**Sherds**	**Weight**	**% sherds**	**AvShWght**
Samian	49	450	11	9
Colourcoat	8	73	2	9
Amphora	7	489	2	70
Mortaria	9	909	2	101
BB1	55	667	12	12
Whiteware	35	352	8	10
Whiteslip	2	36	<1	18
Oxidised	20	144	4	7
Greyware	226	2619	50	12
Shellyware	35	740	8	21
Derbyshire	1	15	<1	15
Total	**447**	**6494**	**100**	**15**

The fabric proportions illustrated in the table above and the forms represented suggest that the Phase 3 assemblage was deposited in the middle to later decades of the 2nd century, as it is broadly in agreement with much larger assemblages of this date from the later sub-phases at Causeway Lane Phase 3 (Clark 1999, 121) and Highcross, Leicester Phase 3 (Johnson 2009). Whilst the range of fabrics present within this group is very similar to that in Phase 2, the increased presence of regional imports BB1 (12%) and, to an extent, Lower Nene Valley colour-coated ware (2%) indicates that the assemblage is later in date than Phase 2 but only by a few decades. The overall impression from the Phase 3 assemblage is that there is nothing which needs to date later than the early 3rd century at the latest and *could* conceivably all be deposited before 200. The implication of this is that the pottery represents rubbish disposal from the town into outlying boundary and field ditches and that, in common with the situation at the nearby Newarke Street cemetery excavations (Derrick 2009), this practice appears to cease abruptly once the earthen town defences have been erected in the later 2nd or early 3rd century. The material belonging to Phase 4, considered below, and which dates firmly in the 4th century, appears to represent isolated occupation in a suburban ribbon development outside the town walls.

Looking at the detail of the Phase 3 assemblage, the samian ware accounts for 11% of the assemblage and is predominantly from Central Gaul. The range of forms is similar to Phase 2 but with hardly any

examples dating to the 1st century. Plain dish Form 18/31 is by far the most common vessel type (11 examples), together with cup Forms 27 (2) and 33 (six) and there are no examples of forms belonging to the later 2nd-century repertoire such as Forms 31, 38, or 45. This would also tend to place the bulk of the assemblage into the middle rather than later decades of the 2nd century. The range of forms in the main regional supplier, BB1, is the same as Phase 2 (but also included a lid) but the greater numbers suggests the trade was more established by this time. The range of beakers in Lower Nene Valley colour-coated ware (four examples) all belong to the early repertoire of bag-shaped vessels with *en barbotine* decoration and cornice rims and included a vessel with clay roughcast decoration, which must have been among the industry's earliest products. The mortaria from Mancetter-Hartshill include a second stamped product of Erucanus dating 100-130 and one of Icotagus dating 130-160. The amphorae are confined to the Dressel 20 olive oil vessels from Southern Spain. Of interest from the group is a single occurrence of a Derbyshire ware campanulate rim jar in buried soil (4071) dating to the later 2nd century or 3rd century which, although common in NW Leicestershire never come to Leicester in any significant numbers.

Phase 4

This small group of pottery (69 sherds) weighing 1kg derives from five context groups. Quantified analysis by fabric is summarised below (Table 6).

Table 6: Summary quantification of the Phase 4 assemblage by fabric.

Summary of Fabric Analysis Phase 4				
Fabric	**Sherds**	**Weight**	**% sherds**	**AvShWght**
Samian	6	42	9	7
Colourcoat	17	259	25	15
Mortaria	7	275	10	39
BB1	11	126	16	11
Whiteware	2	4	3	2
Oxidised	4	41	6	10
Greyware	19	238	27	12
Shellyware	3	85	4	28
Total	**69**	**1070**	**100**	**16**

The fabric proportions illustrated in the table above and the forms represented suggest that the Phase 4 assemblage was deposited during the later 3rd and 4th century as it is broadly in agreement with much larger assemblages of this date from the later sub-phases at Causeway Lane Phases 5 and 6 (Clark 1999, 129) and Highcross, Leicester Phase 4 (Johnson 2009).

The samian ware appears to be all residual from Phase 2 and 3, and there are no diagnostically late forms to suggest long survival or new arrivals in the intervening time. There are also no amphorae in the group, trade in which probably peters out in the early 3rd century. The key differences in this group are the amount and types of BB1 and Lower Nene Valley colour-coated ware. The forms in BB1 include the diagnostic late forms of cooking pots with obtuse lattice decoration and conical bead and flange bowls (Holbrook and Bidwell 1991, Types 20 and 45 respectively). The colour-coats comprise later beaker forms such as the folded funnel-neck and the diagnostic later repertoire of colour-coated ware jars, bead and flanged bowls and a copy of samian Form 38 (Howe *et al*. 1980, Types 76, 79 and 83 respectively). The mortaria include reeded rim forms from both Mancetter-Hartshill and the Lower Nene Valley. There is nothing to suggest that any of the deposits necessarily extend into the second half of the 4th century.

The Early to Middle Anglo-Saxon Pottery

Nicholas J. Cooper

Introduction

A total of four sherds of Early to Middle Anglo-Saxon pottery weighing 37g were retrieved residually from four contexts (3019, 3023, 4151 and 4585). This small group adds to the growing distribution of pottery of this date, both within the walled area (Blinkhorn and Williams forthcoming; Blinkhorn 1999) and in the south suburb itself (Blinkhorn 2004).

Methodology

The assemblage was analysed by fabric and form and quantified by sherd count, and weight. Fabrics have been analysed using low power microscopy (x20) and identified in accordance with the series developed by Blinkhorn for the two currently published assemblages from the City (Blinkhorn 2000 and 2004), but simplified following petrological thin-section work undertaken by David Williams on the material from Causeway Lane and The Shires.

Analysis by Fabric and Form

All four sherds are manufactured in the distinctive granodiorite-tempered fabric as also found at nearby Bonners Lane (Blinkhorn 2004, 84 Fabric BL4, equivalent to SX3 in the revised fabric series) as well as elsewhere across the City and County. All sherds have burnishing on both internal and external surfaces except for that from (3019) which is only externally burnished and additionally linear decoration above a sharp carination. The form and decoration of this vessel might tentatively indicate a 5th-century date but otherwise a broad mid-5th to mid-7th-century date is applicable.

Medieval and Post-medieval Pottery and Tile

Deborah Sawday

Introduction

Following a scan of selected material for spot dating, a total of 2620 sherds of stratified medieval and later pottery weighing 63.013 kg, and an EVEs of 26.331, was targeted for detailed study**.**

The pottery, which dated from the late Anglo Saxon to the post medieval periods, was analysed and recorded using Access database which forms the site archive. The 1247 sherds in Potters Marston, dating from the late 11th or 12th to the 14th centuries, was typically the most common ware, accounting for 47.6 % and 34.6% of the totals by sherd numbers and weight. Less than three per cent of the assemblage by sherd count was in the late Anglo Saxon Leicester, Lincoln, Stamford, Saint Neots, and Torksey wares/type wares. This latter group does not include the very fine Stamford fabric ST1, which dates from *c*.1150.

Methodology

The pottery was recorded with reference to the *Minimum Standards for the Processing, Recording, Analysis and Publication of Saxon and Medieval Ceramics* (MPRG 2001) and the *Guide to the Classification of Medieval Ceramic Forms* (MPRG 1998). Quantification is by sherd number, weight (grams), and vessel rim equivalent, the latter represented by the addition of the percentages of the circumference of each of the vessel rims present, where one vessel is equivalent to 1.00 Eve.

Fabrics

The pottery was examined under an x 20 magnification binocular microscope and classified using the ULAS fabric series (Sawday 1989), (Davies and Sawday 1999), (Davies and Sawday 2004), based on the original series devised by Rosemary Woodland, (Woodland 1981), (Woodland 1987). The fabric codes and sources – where known – are shown in the fabric list, Table 7 and Table 8.

Table 7: The medieval pottery and ridge tile fabrics

Fabric	Common Name/Kiln & Fabric Equivalent where known	Approx. Date Range
LE	Leicester ware (1)	*c*.850-c.1100
ST3	Stamford ware – coarse, fabrics E/F, H A/D (2)	*c*.850/900-1050+
ST2	Stamford - fine, fabrics G B/(A) (2)	*c*.1050-12th C.
ST1	Stamford – very fine, fabrics B/C (2)	*c*.1150-13th C.
LI/LI1	Lincoln Kiln type/Lincoln late Saxon Shelly ware (3)	*c*.870–early 12th C.
SN	St Neots/St Neots type ware (4) , Northants CTS fabric 100 (5)	*c*.850-1100
TO	Torksey ware/type **(6)**	*c*.850-c.1200
RS/1	Reduced Sandy wares-? Local (7)	*c*.850-c.1400
PM	Potters Marston ware - Potters Marston, Leicestershire (8)	*c*.1100-*c*.1300/50+
SP3	Splashed ware - Leicester (9)	*c*.1100-1250
OS1/2	Oxidised Sandy ware -? OS1 Local/ Brackley fabric T68, (10), Northants CTS fabrics 302-305, (5) OS2? local	*c*.12th-13th C.
CS	Coarse Shelly ware (includes sherds previously catalogued as LY4 – Lyveden Stanion A ware) - Northampton fabric T1/2, T2, (11) Northants CTS 330 (5)	*c*.1100-1400
CO2	Coventry fabric A (12), Warwick CTS SQ202/203 (13)	12th-14th C.
CO1	Coventry fabric D (12), Warwick CTS SQ21/SQ211 (13)	*c*.1150-1250
CO3	Coventry, Cannon Park ware Warwick CTS SQ23/SQ231/2 (13)	

Fabric	Common Name/Kiln & Fabric Equivalent where known	Approx. Date Range
LY1	Lyveden/Stanion type - Northampton fabric T2 (11), Lyveden/Stanion 'B' ware, Northants CTS fabric 320 (5)	*c*.1200/1225-1400
CC1	Chilvers Coton A/Ai (14), Warwick CTS WW01,?WW012, ?SQ51, (13)	*c*.1250-1400
CC2	- Chilvers Coton fabric C (14), Warwick CTS SQ30 (13)	*c*.1250/1300-1500
NO1	Nottingham Early Green Glazed ware fabric NOTGE (15)	*c*.1210-c.1250
NO2	? Nottingham Coarse Sandy Ware NCSW (15)	*c*.1230-c.1280
NO3	Nottingham Light Bodied/Reduced Green Glazed ware NOTGL/NOTGR (15)	Early/mid 13th c.1350
BR2	Brill/Boarstall 'standard fabric', Oxford fabric OXAM (16)	*c*.1200-1400
BO2	Bourne A/B wares/type ware (17)	*c*.1250-1450
MS1	Medieval Sandy ware – misc. fine quartz tempered fabrics	*c*.1200-1400
MS2	Medieval Sandy ware 2– misc. coarse soft fired quartz tempered fabrics, including coarse Chilvers Coton fabrics A/Ai, (14), and ? Nottingham, Burley Hill/Allestree, Derbyshire and Staffs(18)	Early/mid 13th C.-1400
MS3	Medieval Sandy ware 3 – misc. coarse hared fired quartz tempered fabrics -? Burley Hill/Allestree/Ticknall, Derbyshire or Staffs (18)	Early/mid 13th C.-*c*.1400-1400/1450
MS7	Medieval Sandy ware - misc. predominantly later medieval coarse red sandy fabrics, possibly from sources similar to the above.	Early/mid 13th C.-*c*.1400-1400/1450
MS8	Medieval Sandy ware – misc. sandy fabrics ? including under fired Midland Purple ware, fabric MP2 (18)	*c*.1300-1550

(1) Hebditch 1967-8
(2) Kilmurry 1980, Leach 1987
(3) Young *et al* 2005
(4) Hunter in McCarthy 1979
(5) Northants CTS
(6) Barley 1964, 1981
(7) Davies and Sawday 1999
(8) Haynes 1952, Vince 1984, Sawday 1991, Davies and Sawday 1999
(9) Sawday 1998, Davies and Sawday 1999
(10) M. Mellor pers. comm..
(11). McCarthy 1979
(12) Redknap and Perry 1996
(13) Ratkai and Soden 1998.
(14) Mayes & Scott 1984
(15) V. Nailor pers. comm./ Nailor & Young 2001, Nailor 2005
(16) Jope & Irvens 1981
(17 Healey 1973, Young *et al* 2005.
(18) Coppack 1978, Coppack 1980, Cumberpatch 2002-2003, Ford 1995, Nichol and Ratkai 2004.

Table 8: The Later Medieval and Post Medieval and Modern Pottery fabrics

Fabric Code	Common Name/Kiln & Fabric Equivalent where known	Approx. Date Range
MP1	Midland Purple ware 1 - Chilvers Coton fabric D (1)	*c*.1375-1550
MP2	Midland Purple ware 2 -? Ticknall, Derbyshire (2)	*c*.1375-1550
MP3	Midland Purple ware 3 –vitrified MS3, -? Ticknall, Derbyshire (2)	*c*.1375-1550
MP4	Midland Purple ware 4 –transitional into EA1.	*c*.1375-1550
TG1/2	Tudor Green ware/type/Surrey White ware (3)	*c*.1375/1400-1600
BO1	Bourne D ware (4)	
CW2	Cistercian ware 2 -? Ticknall, Derbyshire (5)	*c*.1450/1475-1550
MA1-2	Martincamp Stoneware (6)	1475-1550
RW1	Red ware (7)	*c*.1450-1550+
DE2	Anglo-Netherlandish Tin Glazed Earthenware (6)	*c*.1550+

Fabric Code	Common Name/Kiln & Fabric Equivalent where known	Approx. Date Range
MB	Midland Blackware - ?Ticknall, Derbyshire (8)	*c*.1550-1750
MY	Midland Yellow ware - ?Ticknall, Derbyshire (5) (8) (9)	*c*.1500-1725
RH	Rhenish Stoneware –Siegburg, Langerwehe, Raeren, Frechen/Cologne , Westerwald.(6)	*c*.1350-1700
EA1	Earthenware 1 – Coarse Post Medieval Earthenware - Chilvers Coton/Ticknall, Derbyshire(8) (10)	*c*.1500-1750
EA2	Earthenware 2 – 'Pancheon ware', Chilvers Coton/Ticknall, Derbyshire (8) (10)	17th C-18th C. +
EA3	Mottled ware	1680-1780
EA6	Earthenware 6 - Black Glazed Earthenware	16th C.-18th C.
EA7	Earthenware 7 - Slipware - Staffs etc	17th C.-19th C.
EA11	Earthenware 11 – English Tin Glazed	1650-1800
SW5	Brown Salt Glazed Stoneware	1670-1900+
XY	Unclassified - ?continental import	

(1) Mayes & Scott 1984
(2) Coppack 1980, Cumberpatch 2002-2003
(3) Pearce and Vince 1988
(4) Healey 1973
(5) Spavold and Brown 2005
(6) Hurst *et al* 1986
(7) Jennings 1981, Spoerry and Hinman 1998.
(8) Gooder 1984
(9) Woodfield 1984
(10) Sawday 1989

Table 9: Site fabric totals by sherd numbers, weight (grams) and EVES

Fabric	Sherds	%	Grams	%	EVE	%
LE – Leicester ware	4		44		0.08	
ST3 – Stanford ware 3	4		37		0.065	
ST2 – Stanford ware 2	53		523		0.44	
ST1 – Stanford ware 1	22		233		0.31	
LI1 – Lincoln Kiln Type Shelly ware	1		6		0.0	
LI – Lincoln Kiln Type/Late Saxon Shelly	1		4		0.0	
SN - St Neots/St Neots type ware	3		15		0.0	
TO - Torksey ware/type ware	1		4		0.0	
RS/1 - Reduced Sandy wares	8		82		0.12	
PM - Potters Marston ware	1247	47.6	21809	34.6	10.932	41.5
SP3 - Splashed ware	30		621		0.315	
OS1/2 - Oxidised Sandy ware 1/2	8		255		0.28	
CS - Coarse Shelly ware	98	3.7	2530	4.0	2.562	9.7
CO1/2 - Coventry ware 1/2	11		438		0.0	
CO3 – Coventry/Cannon Park ware	1		10		0.0	
LY1 - Lyveden/Stanion type ware 1	1		17		0.0	
CC1 - Chilvers Coton ware 1	229	8.39	6631	10.5	2.485	9.4
CC2 - Chilvers Coton ware 2	118	4.5	1920	3.0	0.815	3.0
NO1 -3 Nottingham ware 1 -3	60	2.2	866	1.3	0.24	
BR2 - Brill/Boarstall ware/type 2	1		1		0.0	

Fabric	Sherds	%	Grams	%	EVE	%
BO2- Bourne ware 2	1		5		0.0	
MS/1-Medieval Sandy ware/1	18		354		0.06	
MS2 - Medieval Sandy ware 2	43		589		0.1	
MS3 - Medieval Sandy ware 3	85	3.2	1987	3.1	1.67	
MS7 - Medieval Sandy ware 7	21		785		0.25	
MS8 - Medieval Sandy ware 8	18		632		0.08	
MP/1 - Midland Purple ware/1	56	2.1	3973	6.3	0.57	
MP2 - Midland Purple ware 2	92	3.5	5813	9.2	0.34	
MP3 - Midland Purple ware 3	64	2.4	1981	3.1	0.54	
MP4 - Midland Purple ware 4	11		802		0.0	
TG/ 1/2- Tudor Green/Surrey/type	13		50		0.30	
BO1 - Bourne ware 1	4		89		0.0	
CW2 - Cistercian ware 2	104	3.9	2946	4.6	1.445	5.48
DE2 – Anglo Netherlandish	1		7		0.0	
CW2/MB - Cistercian ware 2/M. Black	51	1.9	1629	2.5	0.09	
MB – Midland Black ware	18		177		0.08	
MY - Midland Yellow ware	35		1408		0.927	3.5
MA1-2 - Martincamp Stoneware 1-2	1		3		0.0	
RH - Rhenish Stoneware	3		213		0.0	
1 – Red ware	3		81		0.0	
EA/1- Earthenware 1/unclassified	38		1480		0.225	
EA2- Earthenware 2	10		397		0.05	
EA3/4 – Mottled ware	4		502		0.11	
EA6 - Black ware	18		712		0.64	
EA7 - Slipware	4		337		0.21	
EA11 – Tin Glazed Earthenware	1		4			
SW5 – Brown Stoneware	1		1		0.0	
XY Unclassified ?continental import	1		10		0.0	
Totals	2620		63013		26.331	

The Pottery by Phase

Phase 6 (Middle Anglo Saxon c.650-850)

A8.2008 (Areas A-D)

Structure 3

[4722] Post Hole.

Assemblage: 5 sherds, 43 grams, 0.0 EVEs, 8.6 grams ASW.

Hard fired sherds of Potters Marston, probably dating from the 12th if not the 13th century are thought to be intrusive in the back fill of the post hole. Truncation by a modern service trench renders this pottery unreliable as dating evidence, (M. Morris, pers. comm.).

Phase 7 (Saxo-Norman c.850-1100)

No evidence of activity, including post Roman pottery, was recovered from the phase.

Phase 8 (Earlier High Medieval: c.1100-1250)

Structural and back yard activity relating to occupation along Southgate Street (now Oxford Street), limited evidence for occupation pre-dating the Newarke enclosure.

Table 10: The identifiable vessel forms, phase 8

Fabric	Jar	Cauldron	Bowl	Spouted Pitcher	Jug	Fire Cover
ST2				1/12/0.020		
RS		1/19/0.075				
RS1	1/9/0.045					
PM	60/2019/1.635		2/55/0.105		21/396/ 0.675	1/33/0.0
CS	26/1290/1.88					
Totals	87/3318/3.56	1/19/0.075	2/55/0.105	1/12/0.020	21/396/ 0.675	1/33/0.0

Table 11: The medieval pottery, phase 8 by fabric, sherd numbers and weight (grams)

Fabric	Sherds	%	Weight	%
LE – Leicester ware	2		16	
ST3 - Stamford	1		4	
ST2 - Stamford	4		36	
ST1 - Stamford	1		2	
TO – Torksey type	1		4	
RS – Reduced Sandy	5		52	
RS1 – Reduced Sandy	1		9	
PM – Potters Marston	247	80.1	5345	75.1
SP3 – Splashed	2		33	
OS1 – Oxidised Sandy	1		2	
OS2 – Oxidised Sandy	1		7	
CS – Coarse Shelly	39	12.6	1573	22.1
CC1 – Chilvers Coton	1		10	
MS1– Medieval Sandy	1		10	
MS2 – Medieval Sandy	1		7	
Totals	308		7110	

A11.2006 and A8.2008 (Areas A-E, Trenches 6a, 6b and 15)

Structure 4 Area A

[4310], [4325] Post Holes, [4423], [4437], [4476] Beam Slots.

Assemblage: 11 sherds, 74 grams, 0.0 EVEs, 6.72 grams ASW.

Thin walled Potters Marston body sherds accounted for the bulk of the few pottery sherds which could be directly associated with Structure 4, which appears to relate to occupation along the western side of Oxford Street. Also present were two fragments of Stamford ware, fabric ST1, dating from *circa* 1100 to 1250 in [4423] and Medieval Sandy ware, fabric MS2, possibly dating from the early or mid 13th century in the back fill of the post hole [4310]. The latter is thought to be intrusive from the phase 9 soils above (M. Morris pers. comm.). No pottery was associated with the hearth [4558], which lay close to the structure.

External Activity Surrounding Structure 4

[4214] - Cess Pit Area A.

Assemblage: 51 sherds, 1296 grams, 0.530 EVEs, 25.4 grams ASW

The fills of this feature, 6.5m north-west of structure 4, are thought to be unique to the site in that they have been generated through the primary disposal of waste (M. Morris, pers. com.). Certainly the sherds are above average size in terms of their weight and the assemblage appears to represent only five vessels, including two jugs and a shouldered jar, all in Potters Marston, which suggests that they may be contemporary with the structure, and were deposited in the pit as primary refuse together with the cess during this period of occupation. However, the vessels are fragmentary and at least some of the domestic rubbish, including broken pottery, was evidently disposed of elsewhere.

[4383], [4403], [4550] - Pits Area A.

Assemblage: 91 sherds, 1424 grams, 0.550 EVEs, 15.6 grams ASW.

Typically Potters Marston dominated this early medieval assemblage to the north of Structure 4, accounting for over 84% of the total by sherd count. Identifiable vessels in this ware included three jugs, including one with a handle springing from the rim, and another with coils visible on the interior neck and straight sided or rounded bowls, all characteristic of vessels dating from the mid 12th and early 13th centuries in this ware. Other identifiable forms included what may be part of a spouted pitcher in the Stamford fabric ST2 and the rim of a cauldron in Reduced Sandy ware. A coarse hand-made fragment, interpreted as Saxo-Norman Leicester ware, is residual in [4550].

[4515], [4610], [4613] - Pits Area B, [4043], [4049], [4058] - Pits Area C and [1011] and [1023] - Pits Area E.

Assemblage: 34 sherds, 703 grams, 0. 085 EVEs, 20.6 grams ASW.

The only identifiable vessels were two jar rims, a jug handle and part of a fire cover in Potters Marston – which dominated the assemblage accounting for over 88% of this small group by sherd count. A fragment of Medieval Sandy ware, MS1, dating from the early or mid 13th century was found in [4058] and may be intrusive in this context. No pottery was recovered from the possible hearth [4558] or the shallow scoops around it, which lay to the north of Area A.

Most of the pottery in this small group was recovered from Areas B and C - indeed the fourteen sherds, weighing 358 grams, from Area B - represent the total pottery assemblage from this area in this phase, much of which was truncated by later activity, firstly the Civil War defences, and then by cellars associated with the post-Civil War street frontage. This has in turn obscured the full extent of the development in this area during this and later medieval phases.

Miscellaneous Features Area E

[1246] Cess Pit, [1235] Hearth, [1239] Metalled Surface, (1087), (1224) Soil Accumulation, [1084] Stone Lined Pit.

Assemblage: 13 sherds, 126 grams, 0. 020 EVEs, 9.69 grams ASW

These few finds from the remaining miscellaneous features within Area E, do provide some further evidence of occupation. Two sherds of possibly 12th century Potters Marston were found in the metalled surface, whilst four sherds in the same fabric, and part of a spouted vessel in the Stamford fabric ST2 occurred within the soils. The four sherds from the hearth included a fragment of the Chilvers Coton fabric, CC1, dating from *c*.1240 or 1250 and possibly intrusive in this phase, whilst a single sherd of Potters Marston was retrieved from the cess pit [1246]. Another Potters Marston body sherd was, unfortunately, the only pottery recovered from the stone lined pit, [1084] which lay below the wall of the Newarke (M. Morris, pers. comm.). The fragment was relatively thick walled and may date from the 13th century.

[4084], [4111] – Cess Pits Area C.

Assemblage: 76 sherds, 3087 grams, 2.950 EVEs, 40.6 grams ASW.

The assemblage was made up exclusively of Potters Marston and Coarse Shelly wares, representing a minimum of eleven jars, predominantly with shouldered profiles (Davies and Sawday 1999, fig.89.93, fig.90.77 and 78) , though some cylindrical vessels are also present (*ibid* 1999, fig.88.36). The cess pit [4084] apparently represents a re-cut of [4111] which lay below and, not surprisingly, joining sherds were noted between the two features. Only five sherds of pottery, weighing 226 grams, all from a jar with a squared rim (McCarthy 1979, fg.82.90) in CS, a Coarse Shelly ware were recovered from the latter. The large average sherd weight of over 40 grams for both deposits suggests that this may be secondary if not primary refuse from latrines which are thought to be probably associated with properties on the western side of Southgate Street (now Oxford Street).

A2.2007 – (Trench 9)

(2360) – Soil Layer

Assemblage: 15 sherds, 253 grams, 0. 170 EVEs, 16.8 grams ASW

This small group, possibly part of a pit fill, truncated by the former James Went Building, consists of Potters Marston and Coarse Shelly wares, the only identifiable vessel in both fabrics being two jars (Davies and Sawday 1999, fig.89.59), (McCarthy 1979, fig.81.56). The absence of any wheel thrown sandy wares and the vessel types present suggest a date of *c*.1100-1250 for the pottery.

A7.2008 (Areas 1– 3)

[3016] Linear Feature, [3070] Ditch, (3042) Layer, [3037] Pit,

Assemblage: 15 sherds, 118 grams, 0.0 EVEs, 7.86 grams ASW.

Three sherds of thin walled potters Marston and a fragment of Coarse Shelly ware were recovered from (3042), overlying the Roman surface [3056]. The linear features [3070] and the re-cut Roman ditch [3016] also contained thin walled examples of early Potters Marston, and two sherds of residual Saxo Norman Leicester ware and the coarse Stamford ware ST3. A sherd of thin walled Potters Marston was found in the pit [3037].

Phase 8.1

A2.2007 – (Trench 3)

(2263), (2267) Clay Surface, (2035) Cobbled Surface, [2238], Hearth, [2218] Hearth Re-Cut, [2205] Pit, (2288) Redeposited Soils, (2308) Soil Accumulation.

Assemblage: 35 sherds, 224 grams, 0.084 EVEs, 6.4 grams ASW.

The Stamford fabrics ST2 and ST1, Potters Marston and Coarse Shelly ware, together with a fragment of Saxo Norman Saint Neots ware/type, SN, make up this group, over 50% of which comes from the backfill of the pit [2205], the remaining contexts producing only a minimal amount of pottery. A jug in Potters Marston (Davies and Sawday 1999, fig.93.105) and generally thin walled body sherds in the same ware

and a jar rim in ST2, suggest that the bulk of this pottery and the related occupation dated to the mid or later 12th century.

Table 12: The medieval pottery, phase 8.1, by fabric, sherd numbers and weight (grams), the major fabric shown also as a percentage of the total phase assemblage.

.Fabric	Sherds	%	Weight	%
ST2 – Stamford ware	5		31	
ST1 – Stamford ware	1		5	
SN – Saint Neots	1		2	
CS – Coarse Shelly	3		24	
PM – Potters Marston	25	71.4	162	72.3
Totals	35		224	

Phase 8.2

A2.2007 – (Trench 3)

(2016), (2260), (2261) Consolidation Layers, (2163), (2166), (2168) Soil Accumulation, (2017), (2170), (2175) Metalled Surface.

Assemblage: 39 sherds, 319 grams, 0.105 EVEs, 8.1 grams ASW.

The bulk of this group, 27 sherds in all, came from the consolidation layer on the west side of Trench 3 above the phase 8.1 material, and included obviously residual Saxo Norman pottery, single sherds of Lincoln Kiln Type Shelly ware, and Leicester ware, fabrics LI1 and LE, together with a Coarse Shelly ware bowl fragment with a simple everted rim, and a Potters Marston jar with thumbing on the exterior of the everted rim, the latter probably dating to the late 12th if not the 13th century. Little can be said of the pottery from the bedding layer and the metalled surface above, the average sherd weight was not particularly low, and little abrasion was evident. All the pottery comprised unidentifiable body sherds in Potters Marston and Coarse Shelly ware, many of them thin walled; suggesting that much of this material was possibly residual.

[2028] [2046], [2109], [2115], [2201 [2209], [2237] Post Holes,

Assemblage: 29 sherds, 280 grams, 0.75 EVEs, 9.6 grams ASW.

This group consist of two post alignments, one, to the north, bisected the surfaces noted above and the second lay *c*.2m to the south. Potters Marston accounted for 21 of the sherds in this assemblage, however two of the post holes, [2028] and [2116] also contained sherds of wheel thrown medieval sandy ware, the Chilvers Coton, Coventry and Nottingham fabrics CC1, CO3 and NO1 dating from *circa* 1250. Two sherds, one at least under fired, in the Midland Purple fabrics MP2 and MP4 dating from *c.*1375 occurred in the backfill of [2237]. This apparently intrusive pottery possibly originated from the overlying phase 9 soils, which may have slumped into the post holes when the posts were removed or after they had decayed *in situ.*

[2184] Ditch, [2192] Pit.

Assemblage: 29 sherds, 385 grams, 0.162 EVEs, 13.2 grams ASW.

The bulk of the pottery, 22 sherds, weighing 353 grams, with an EVE of 0.162 and predominantly in Potters Marston, including a shouldered jar, a flared bowl, and the neck of a jug, came from the back fill of the pit [2192]. The pit truncated the ditch [2184], but both features contained apparently intrusive sherds of Chilvers Coton and Nottingham ware, fabrics CC1 and NO3. The Chilvers Coton fabric CC2, dating from the 14th century, was also found in [2184]. This later pottery perhaps also represents slump from the phase 9 layers above. Whilst the presence of slag suggests metal working in the vicinity, the pottery showed no evidence of any association with industrial processing, save perhaps for the Potters Marston bowl which, unusually, was heavily sooted both internally and externally, and whose function

remains uncertain. This may have been used as a fire pot, but vessels used to transport burning materials in this way are not generally sooted on the outside.

[2129] Corn-Drier

Assemblage: 34 sherds, 598 grams, 0.545 EVEs, 17.5 grams ASW

Potters Marston accounts for over 85% of the group by sherd count, and includes jars, a storage jar, jugs and decorated fragments, vessel type unknown. Two sherds in CC1 and the Medieval Sandy fabric, MS1, provide a terminal date from *c*. 1250 or slightly later for the backfill of this feature which lay within the southern half of the site, and which appears to have been initially constructed in phase 8.

Table 13: The medieval pottery, phase 8.2, by fabric, sherd numbers and weight (grams) the major fabric shown also as a percentage of the total phase assemblage

Fabric	Sherds	%	Weight	%
LE – Leicester ware	1		3	
LI1 - Lincoln	1		6	
PM – Potters Marston	103	78.6	1359	85.9
CS – Coarse Shelly	9		96	
CO3 - Coventry	1		10	
CC1 – Chilvers Coton	6		21	
CC2 – Chilvers Coton	1		4	
NO1 - Nottingham	1		2	
NO3 - Nottingham	4		17	
MS1 – Medieval Sandy	2		34	
MP2 – Midland Purple	1		4	
MP4 – Midland Purple	1		26	
Totals	131		1582	

Table 14: The identifiable vessel forms, phases 8.1 and 8.2 by fabric, sherd numbers, weight (grams) and EVEs

Fabric	Jar/Storage Jar	Bowl	Jug	Tubular Spouted Pitcher
ST2	1/9/0.075			
PM	10/219/0.325	3/167/0.065	10/149/0.459	
CS		2/55/0.047		
CC1	1/4/0.0			
NO1			1/2/00	
MS1				1/33/0.0
Totals	12/232/0.4	5/222/0.112	11/151/0.459	1/33/0.0

Phase 9 (Later High Medieval: c.1250-1400)

Reversion of land to cultivation, land clearance possibly associated with the foundation of the Newarke, renewed structural and back yard activity relating to occupation along Southgate Street (now Oxford Street).

A11.2006 and A8.2008 (Areas A – E)

(1150, (1151), (4313), (4467), (4540) Soil Accumulation, (4231), (4236) Clay Spread, (4290) Gravel Surface, (4628) Layer above Surface.

Assemblage: 64 sherds, 690 grams, 0.075 EVEs, 10.78 grams ASW

The accumulated soils below the demolished James Went building produced only seventeen pottery sherds, predominantly unidentifiable fragments of Potters Marston, the three sherds of Medieval Sandy and Chilvers Coton, fabrics MS2 and CC2 confirming a post 1250 date for this group. Two more sherds also below the James Went building occurred in the soil (1220) below Structure 5 in the same area. The six sherds from the clay spread capping these soils included a highly fired and semi vitrified fragment of CC1, and a fragment of under fired Midland Purple, both suggesting a date sometime in the later 14th century for the deposition, rather than up cast associated with the 17th century Civil War ditch, as was originally thought during the excavations on the site (M. Morris, pers. comm.).

The 38 sherds from the gravel surface included unidentifiable fragments in Potters Marston, obviously residual Stamford and Splashed ware, and twelve body sherds in the Chilvers Coton fabrics CC1 and CC2, confirming that there was continued activity in this area during the mid and later 13th and 14th centuries. Three sherds, including one in the later Medieval Sandy ware, MS3, occurred in the layer (4628), thought to be sealing a floor. This is the only pottery directly associated with the possible structural evidence in the western side of Area B.

[1065], [1091], [1132], [4047], [4052], [4197], [4294], [4321], [4444], [4453], [4472], [4510], [4511], [4547] Pits.

Assemblage: 378 sherds, 8820 grams, 2.73 EVEs, 23.33 grams ASW

Less than a dozen sherds were recovered from pits [1065], [1091], [1132], [4047], [4052], [4197], [4294], [4510], [4547]. The lack of finds may reflect the fact that some were not fully excavated, others were not, perhaps, primarily refuse pits, but quarries for the extraction of clay or gravel.

In terms of dating – the material was generally fragmentary and whilst jars, storage jars, bowls and jugs were present, few vessel types were identifiable, most being represented by rim, handle or neck fragments, the majority in Potters Marston. However, the majority of the pits fills contained at least one or two sherds dating from *c*.1250 in the Chilvers Coton fabrics CC1 or CC2, the Nottingham fabrics NO1 and NO3 and the Medieval Sandy wares MS1 and MS2, whilst the few sherds of Potters Marston in [1226] and [1233] are not closely datable. The small assemblages from [4294] and [4047] comprised fabrics MS3, MS7 and MS8 possibly dating from *c*.1300, together with a hard fired example of CC1 also in the former. The latest material, four sherds in the Midland Purple fabrics MP2, MP3 and MP4, dating from *c*.1375 occurred in the possible cess pit [4197]. The exception to the fragmentary nature of the assemblage noted above was an almost complete baluster jug in fabric CC1, in [4511] **(**Figure 63 **and** Figure 64**).** The pot was decorated with five bands of iron rich clay which ran vertically from the shoulder down the body of the vessel, together with two decorative motifs at the base of the neck each made up of three concentric circles. They appear to have been applied, either as a clay pad from which the surplus clay was then excised, or possibly each circle of clay was individually applied to the wall of the pot. Similar jugs were made at Chilvers Coton on site 3, kilns 15 and 16, which were dated towards the end of the 13th century (Mayes and Scott 1984, figs 28 and 29, table 2) and complex decoration was also common at this time (*ibid* 1984, fig.110).

Two of the pits with the largest assemblages, [4511] and [4321], together with the small rectangular pit with a more limited assemblage [4197], lay close to the cess pit [4470]. The latter truncated another cess pit [4219] and the three pits contained green stained clayey silts, suggesting that they may also have been used for the deposition of cess. All these features lay in Area A.

Figure 63: Profile and front view of a baluster jug in the Chilvers Coton fabric CC1

Figure 64: Detail of the decoration (visible on front view above)

[4219], [4563], [4470] Cess Pits.

Assemblage: 187 sherds, 3706 grams, 3.158 EVEs, 19.8 grams ASW

The bulk of the pottery in this group came from the large cess pit [4563] to the north of Area B. The limited assemblage from another large feature, [4219] in Area A, probably reflects the fact that the latter was not fully excavated for safety reasons. This feature contained deposits of both cess and rubbish, but was perhaps originally excavated for another purpose, (M. Morris, pers. comm.). Unfortunately the pottery assemblage gave no hint as to any other possibly function for the feature. The third cess pit [4470] lay to the north west of the latter.

Over 72% of the pottery by sherd count was in Potters Marston, with jars, predominantly shouldered, the only identifiable vessels in this ware. A small numbers of jars also occurred in the Leicester Splashed ware, SP3 and Oxidised Sandy ware, OS1 and CS – Coarse Shelly ware. A minimum of ten jugs dating from *c*.1225 and *c*.1250 and identified by rim, body, base and handle fragments, some highly decorated, were present in the Coarse Shelly ware, CS, and the Chilvers Coton, Nottingham and Stanion Lyveden fabrics CC1, NO3 and LY1 and a small fragment of unknown vessel type in TG2, Tudor Green, in [4210], the latter possibly dating from *c*.1400.

Structure 5 and Associated Features

[1226], [1231], [1233] Pits, (1220) Soil Accumulation, [1209] Wall, [1216], [1228] Post Holes, (1158), (1184), (1200), (1204), (1206) Demolition Spreads

Assemblage: 34 sherds, 350 grams, 0.06 EVEs, 10.29 grams ASW

The accumulated soils (1220) below the demolished James Went building included two sherds in Potters Marston and the fine Stamford fabric ST1, the latter dating from *c.*1100 to *c*.1250. These soils were subsequently cut by the pit [1226]/[1231] which lay below Structure 5, giving a *terminus post quem* for that building. The ten sherds from the pit included body sherds and a residual jar rim in Potters Marston, part of a copper glazed jug or tubular spouted pitcher in the very fine Stamford ware ST1, dated *c.*1150 to *c.*1250 and three sherds of the Chilvers Coton fabric CC1, dating from the mid or later 13th century.

The only pottery found within the stone fabric of the walls of Structure 5, [1209], [1211] and [1214] was a fragment in the fine Stamford fabric ST2, dating from *c*.1050 to *c*.1200 and three sherds of Potters Marston, one quite thick walled and suggesting a 13th century date, in [1209]. Two more thin walled and probably residual Potters Marston sherds, possibly 12th century in date, were recovered from two of the four post holes built into the structure of building, [1216] and [1228].

Whilst no other pottery could be directly associated with the construction or occupation of the building, which is apparently the only structure on the site thought to have been built and occupied during this phase, (M. Morris pers. comm.), there is some indication as to when that occupation may have ceased. Whilst only one fragment of Potters Marston, dating from *c*.1100 to *c*.1300 or later, was found in the small pit [1233] which was dug into the south-western end of the wall [1211], fourteen more sherds, weighing 198 grams, occurred in the demolition spreads above, the layers (1158), (1184) (1200), (1204) and (1206), which provide some evidence of a terminal date for the structure. At least five if not eight of the sherds in this small assemblage, in the Chilvers Coton and Nottingham fabrics CC1, NO2 and NO3, dated from the mid 13th into the 14th century, but even these may have been residual in this context.

A2.2007 (Trenches 1–5 and 7 –10)

(2001), (2031), (2032), (2033), (2173), (2249) Soils, [2247] Pit/Post Hole , (2102) Cobbles, [2119] Pit.

Assemblage: 65 sherds, 826 grams, 0.33 EVEs, 12.70 grams ASW

Over 53% of the total by sherd count is in Potters Marston, and much of this pottery is probably residual in this phase. The bulk of the assemblage came from the soils, although nothing was recovered from the furrows, possibly plough furrows, which lay below, and included two Potters Marston jugs, one with cordons at the neck, the other with a frilled base, together with fragments of the Chilvers Coton and Medieval Sandy wares, CC1 and MS2 and a fragment of Coventry A ware, the latter with a date range of *c*.1100 to *c*.1400. The small pit or post hole which cut through the soils contained single fragments of Potters Marston and Chilvers Coton, probably of a similar date to the material from the surrounding soils,

whilst a highly fired sherd of Medieval Sandy ware, MS1, occurred in the cobbles just to the north. The pottery from the soils suggest a date from the mid or later 13th century for this assemblage, the Medieval Sandy ware, provides further confirmation of this or possibly a slightly later date in the 14th century.

No pottery was recovered from the wall [2058] within pit [2119] in Trench 3, and whilst no Medieval Sandy or Nottingham or Chilvers Coton was found in the pit itself, the six sherds in the Leicester Splashed ware SP3 and Potters Marston included one of the two decorated jug fragments probably dating from the mid or later 13th century.

[3024] Pit, (3073) Soil- Area 3

Assemblage: 33 sherds, 829 grams, 0.325 EVEs, 25.12 grams ASW

No pottery was recovered from Areas 1 - 3 and Trenches 11 – 14 in this phase, save this small assemblage in Area 3. Thirty two of the sherds were in Potters Marston, and the bulk of this, came from the pit [3024], the only feature in Area 3 dating to this phase. This assemblage was made up of shouldered jars, probably dating from the 13th century, together with fragments of a jug and a bowl in the same ware. Part of the base of an unknown vessel type also occurred in this pit, in the Chilvers Coton fabric CC1, dating from *c*.1250. The ten sherds in the soil (3073) above were all also in Potters Marston, including nine sherds, weighing 441 grams, from the base of a sooted vessel, probably a cooking pot or jar.

Table 15: The medieval pottery, phase 9, by fabric, sherd numbers and weight (grams), the major fabrics shown also as a percentage of the total phase assemblage

Fabric	Sherds	%	Weight	%
ST3 – Stamford ware	1		11	
ST2 – Stamford ware	10		177	
ST1 – Stamford ware	6		77	
LI1 - Lincoln	1		4	
SN – Saint Neots	1		7	
RS1 – Reduced Sandy	1		4	
PM – Potters Marston	544	71.4	9080	59.6
OS1 – Oxidised Sandy	4		220	
CS – Coarse Shelly	21		268	
CO2 - Coventry	8		411	
SP3 - Leicester Splashed	23	3.0	457	3.0
LY1 – Stanion Lyveden	1		17	
CC1 – Chilvers Coton	70	9.1	3328	21.8
CC2 – Chilvers Coton	4		46	
NO1 - Nottingham	3		12	
NO2 - Nottingham	18		247	
NO3 - Nottingham	10		220	
MS1– Medieval Sandy	4		92	
MS2 – Medieval Sandy	18		138	
MS3 – Medieval Sandy	3		50	
MS7– Medieval Sandy	1		17	
MS8– Medieval Sandy	2		69	
TG2 – Tudor Green/Surrey	1		3	
MP2 – Midland Purple	3		47	
MP3 – Midland Purple	2		60	
MP4 – Midland Purple	1		159	
Totals	761		15221	

Table 16: The identifiable vessel forms Phase 9, by fabric, sherd numbers, weight (grams) and EVEs

Fabric	Jar/ Storage Jar	Bowl	Spouted Pitcher	Jug
ST3	1/11/0.065			
ST1			2/40/0.23	2/30/0.08
PM	43/1260/3.648	10/313/0.535		29/880/0.275
SP3	4/143/0.315			2/54/0.0
OS1	3/216/0.28			
CS	1/27/0.10			3/47/0.21
LY1				1/17/0.0
CC1		3/64/0.135		23/2852/0.725
NO2				14/169/0.08
NO3				5/150/0.0
LI7				
MS1				2/58/0.0
MS2				4/38/0.0
Totals	52/1657/4.408	13/377/0.67	2/40/0.23	85/4295/1.370

Phase 10 (Late Medieval: c.1400-1500)

Construction of the Newarke wall, backyard activity inside the Newarke, back yard activity relating to occupation along Southgate Street (now Oxford Street).

A11.2006 and A8.2008 (Areas A-E; Trenches 6a, 6b and 15)

The Newarke Wall and Precinct

Area E

[1034] Newarke Wall, [1007], [1022], [1078], [1092] Pits.

Assemblage: 15 sherds, 359 grams, 0.46 EVEs, 23.9 grams ASW

The only pottery find associated with the construction of the Newarke wall was a fragment of the Nottingham ware, NO3, in [1034], the lightly reduced interior suggesting a date some time after the mid 13th century for the sherd which is probably residual in this phase. A ridge tile fragment also dating from the mid or later 13th century was found in the same context.

One of the pits, [1092], lay to the western edge of Area E and was truncated by what appeared to be an internal wall within the enclosure. The eight sherds in this feature, included a residual sherd from a jar in Leicester ware, similar to material from the kiln site (Hebditch 1964, fig.2.2 and 2.10), part of a massive storage jar rim in Potters Marston and five jar fragments in the Midland Purple fabric MP3, and a tiny cup rim fragment in the Tudor Green ware, TG2. The two latter wares date from the later 14th or 15th centuries and *c*.1400 respectively.

The rest of this small assemblage is from the pits cut into or adjacent to the wall within the Newarke enclosure. The Cistercian ware fabric CW2, dating from *c*.1450 was found in the backfill of all three these pits, and pits [1007] and [1022] also produced the Midland Purple ware MP2, dating from *c*.1375. The lack of any other evidence of occupation within the enclosure is probably due to the poor survival of archaeological deposits within this area.

Outside the Newarke Precinct

Structure 6

[4136], [4138], [4144], [4149], [4152], [4158] Post Holes

Assemblage: 7 sherds, 73 grams, 0.04 EVEs, 10.42 grams ASW

Eight sherds of the Chilvers Coton fabric CC1 and one sherd of the Medieval Sandy ware, MS7, were recovered from the back fill of the post holes making up Structure 6, evidence of occupation along the western side of Southgate Street. Most of this pottery is probably residual save for MS7, in [4158] which is generally found in association with late medieval wares, and a semi vitrified sherd of what has been classified here as CC1 in [4149], with a terminal date of *c.*1300/1350, but which appears to be transitional into Midland Purple. This sherd may be better characterised by the Warwickshire fabric SQ51, a very hard fired sandy fabric, possibly from Chilvers Coton, which is thought to perhaps be a 'proto-Midland Purple', dated to the 14th and 15th century (Ratkai and Soden 1998).

[1017], [1186], [4133] [4160] Pits – To the Rear of Structure 6

Assemblage: 35 sherds, 854 grams, 0.165 EVEs, 24.4 grams ASW

Whilst no pottery was associated with the circular stone oven [4395] to the north of the Structure 6, another small assemblage came from the pits along the south western section of Newarke wall. These are thought to represent backyard activity to the rear of the structure. The group is dominated by the late medieval Chilvers Coton fabric CC2, the Medieval Sandy wares MS7 and MS8, the Midland Purple fabrics MP1-3 and single sherds of Midland Yellow, fabric MY, and the Red Ware fabric RW1, the two latter dating from *c.*1500. The only datable vessel is the upper half of a jug in Midland Yellow, copying a Rhenish drinking vessel, probably Raeren, the form being dated *c.*1485 to *c.*1550 and exported to Britain in huge quantifies at this time (Hurst *et al* 1986, 194, fig.94.300, 301).

Only approximately 25% of this small group by sherd count, the Potters Marston, and the Chilvers Coton and Nottingham fabrics CC1 and NO3 is evidently 13th century in date and clearly residual here.

Activity North of Structure 6

[1127], [4385] Beam Slot, [1030] Pit, [4415] Post Hole.

Assemblage: 27 sherds, 598 grams, 0.525 EVEs, 22.14 grams ASW

The beam slot is thought to represent a division between two properties fronting onto Oxford Street. Three body sherds of CW2, two decorated with wheel stamps were the only pottery finds from this feature, [4385], in Area A, and this fabric also made up the bulk of the finds from the same feature, [1127], in Area E. The identifiable Cistercian ware vessels included two handled cups (Woodland 1981, fig.41.207, fig.44.277), and part of what may be a cylindrical corrugated jug, (*ibid*. 1981, fig.42.229). The post hole [4415**],** which cut into the underlying Roman road surfaces, and which was perhaps also connected to this property, contained only two sherds of residual Stamford ware and Potters Marston.

Only thirteen sherds were recovered from the back fill of substantial pit [1030], which had been dug against the external face of the Newarke wall, the finds included residual Potters Marston and Nottingham ware, but primarily Midland Purple and a few examples of other late medieval wares. The only identifiable vessels were a jug neck in MP2, a simple everted jar rim in the Medieval Sandy ware MS3, and three large jug body fragments, weighing 106 grams in the Chilvers Coton fabric CC2, suggesting that at least some of this material may have been secondary refuse, possibly associated with Structure 6 or Structure 7.

Outside the Newarke Precinct

Structure 7

[1071], [1073], [1155/4194] Pits, [4466] Latrine Pit, [1205], [4584] Post Holes

Assemblage: 94 sherds, 2475 grams, 0.965 EVEs, 26.32 grams ASW

Only three pottery sherds, two of them in the Medieval Sandy ware, MS3, were recovered from two of the four the truncated pits [1071] and [1073] along the external north face of the Newarke wall. Five more sherds were found in the backfill of the larger pit, [1155/4194] to the north east of the wall, the latest material being single fragments of MS3 and a large piece of the Midland Purple MP2 – the latter weighing 124 grams.

The bulk of the assemblage, 78 sherds, weighing 2172 grams, with an EVEs of 0.87 came from the latrine pit [4466]. Approximately half of this pottery, by sherd count, was residual, the earliest material: the Stamford fabric ST2, the Reduced Sandy ware RS1, and Potters Marston, dating from the 12th century with 13th and 14th century wheel thrown medieval wares also present. The majority of the later wares comprised the Medieval Sandy wares MS3 and MS7 and Midland Purple fabrics MP1 – 3, the identifiable vessel types included a pipkin rim and base in MS3, and jug fragments in the Midland Purple fabrics MP3, a jug or possible a bottle in MP2, and the a fine table ware, a jug fragment in Tudor Green. This structure, be it a building or simply fence lines, and the finds, including the residual material, are evidence of continuing occupation between the Newarke wall and Southgate Street during this period.

A2.2007 (Trenches 1-5 and 7-10)

The Newarke Wall and Precinct

(2157) Construction Spreads, (2142) Garden Soil, [2131] Pit

Assemblage: 16 sherds, 244 grams, 0.110 EVEs, 15.25 grams ASW

No pottery finds in Trench 3 were associated with either the construction of the Newarke Wall [2348], the underlying soils (2367), the wall within the precinct [2058], or the accumulated layers (2021) and (2058), lying against the wall.

Two sherds of residual Potters Marston were recovered from the layers (2157) and (2142), which perhaps represented construction waste associated with the building of the Newarke wall, and at least half of the fourteen sherds from the pit [2131] were also residual. A terminal date in the later medieval period for the back fill of the latter is suggested by five hard fired sherds in the Medieval Sandy ware MS3, one with purple glaze, and two fragments of TG1 and TG2, Surrey White ware and Tudor Green.

Outside the Newarke Precinct

[2257], [2296] Pits

Assemblage: 17 sherds, 166 grams, 0.00 EVEs, 9.76 grams ASW

The only identifiable vessel was brown glazed strap handle from a jug in the Midland Purple fabric MP1. Other late medieval material included body sherds in the Medieval Sandy ware MS7, the Midland Purple fabric MP3, and highly fired sherds in the Medieval Sandy ware fabric, MS3. Similarly highly fired sherds in the Chilvers Coton fabric CC1, may also suggest a late medieval date. The pit [2257] was situated against the eastern external face of the Newarke wall, [2296] lay immediately to the south.

A7.2008 (Areas 1-3, Trenches 11 -14)

[3011] Robber Trench

Assemblage: 1 sherd, 16 grams, 0.00 EVEs, 16 grams ASW

A robber trench or linear feature [3011], in Area 1, contained a residual sherd of Potters Marston of 12th or 13th century date. No other pottery finds were recovered either in Areas 1 to 3, or were associated with the walls [3076] and [3077] in Trenches 12 and 14.

Table 17: The identifiable vessel forms phase 10, by fabric, sherd numbers, weight (grams) and Eves.

Fabric	Jar/Storage Jar	Bowl	Jug	Pipkin	Lobed Cup/Cup
LE	1/25/0.08				
ST2	1/7/0.45				
PM	10/255/0.455		1/13/0.1		
CC1		3/109/0.12	5/86/0.0		
CC2			7/161/0.0		
NO/3			4/115/0.15		
MS1/2			2/39/0.0		
MS3	1/19/0.075		2/44/0.0	8/461/0.51	
MP1			1/42/0.0		
MP2	1/20/0.04		3/134/0.0		
MP3	5/191/0.23		3/208/0.2		
TG1			1/10/0.0		1/5/0.05
TG2					1/4/0.075
BO1			1/13/0.0		
CW2					4/39/0.4
MY			1/335/0.125		
Totals	19/517/0.925	3/109/0.12	31/1200/ 0.575	8/461/0.51	6/48/0.525

Table 18: The medieval pottery phase 10, by fabric, sherd numbers and weight (grams) the major fabrics shown also as a percentage of the total phase assemblage

Fabric	Sherds	%	Weight	%
LE – Leicester ware	1		25	
ST2 – Stamford ware	4		19	
RS1 – Reduced Sandy	1		17	
PM – Potters Marston	79	27.7	1112	19.5
SP3 - Leicester Splashed	2		46	
CC1 – Chilvers Coton	41	14.4	649	11.4
CC2 – Chilvers Coton	22		299	
NO1 - Nottingham	1		11	
NO3 - Nottingham	11		177	
MS - Medieval Sandy	1		10	
MS1 – Medieval Sandy	1		12	
MS2 – Medieval Sandy	7		130	
MS3 – Medieval Sandy	38	13.3	881	15.5
MS7 – Medieval Sandy	7		50	
MS8 – Medieval Sandy	2		13	
TG – Tudor Green/Surrey	1		2	
TG1 – Tudor Green/Surrey	3		21	

Fabric	Sherds	%	Weight	%
TG2 – Tudor Green/Surrey	3		8	
MP1 – Midland Purple	8		274	
MP2 – Midland Purple	15	5.2	441	7.7
MP3 – Midland Purple	19	6.6	714	12.6
MP4 – Midland Purple	3		295	
BO1 - Bourne	1		13	
CW2 - Cistercian	12		116	
MY – Midland |Yellow	1		335	
RW1 – Red ware	1		24	
Totals	285		5694	

Phase 11 (Early Post-Medieval: c1500-1650)

Continued occupation inside the Newarke, property divisions and back yard activity relating to occupation along Southgate Street (now Oxford Street). Clearance of the southern suburb and construction of the Civil War defences.

Within the Newarke Precinct

A2.2007 (Trenches 1-5 and 7 -10)

[2149], [2156] Pits, [2040] Post Hole

Assemblage: 17 sherds, 212 grams, 0.200 EVEs, 12.47 grams ASW

The pits were the only early post medieval evidence to survive in Trench 3, and within the Newarke Precinct, modern truncation had left most of these features as little more than shallow basal impressions (M. Morris, pers comm.) All of the six sherds from the backfill of a series of intercutting pits were medieval and residual in this phase, save a flared bowl with a squared rim, in the Earthenware, EA1. Four of the eleven sherds from the back fill of the post hole [2040] were in both oxidised and reduced Midland Yellow ware dating from *c.*1500, and included part of the rim of a cup. The remainder of this group was residual.

[2025] – Pit to the South of the Boundary Wall

Assemblage: 49 sherds, 624 grams, 0.095 EVEs, 12.73 grams ASW

Again all of the pottery was residual save the fragment of a flask in partially vitrified Martincamp Stoneware, fabric MA1/2. The pit was the only surviving feature of any significance south of the boundary wall and the backfill probably dates from the second quarter to the mid 16th century.

No pottery finds were recorded from features north of the boundary wall.

Outside the Newarke Precinct

[2254] Cess Pit, [2100], [2226], [2336], [2269] Pits.

Assemblage: 88 sherds, 5163 grams, 0.14 EVEs, 58.6 grams ASW

Here, outside the Newarke precinct, east of the Newarke wall, pitting appears to have been far more prolific (M. Morris, pers. comm.). All but two of the 32 fragments from the cess pit [2254] were in the late medieval Midland Purple and Cistercian wares, with a terminal date in the 16th century, with the exception of a residual sherd of Potters Marston, and what may be a piece of Midland Black ware dated from *c.*1550. The group had an above average sherd weight of over 90 grams owing to several large joining sherds from one vessel, the body and base of a cistern with a plain undecorated bung in the

Midland Purple fabric MP2. The other identifiable vessels were parts of two two handled cups in Cistercian ware. The large fragment may represent primary refuse, a common occurrence in cess pits, but the remains are incomplete possibly because cess pits, when is use, were generally regularly emptied out.

The 32 sherds from back fill of the two small refuse pits nearby, [2100] and [2226], also had a relatively high average sherd weight of over 53 grams – and little clearly residual material was present. Cistercian ware, CW2 and Cistercian/Midland Black ware, CW2/MB, dominate the assemblage, and save for the neck of a jug in the Midland Purple ware, MP2, all of the identifiable vessels, three two handled cups, a chafing dish and a cylindrical drinking vessel or mug were in these wares. The chafing dish base was of note, no holes had been perorated through the base or stand and it appeared to be a second. A fragment of what may have been a salt or a similarly modelled object was found in Midland Yellow, fabric MY, dating from, *c*.1500. Only five sherds, weighing 49 grams were recovered from found in [2336], including two in CW2.

Whilst four of the nineteen sherds from another pit dug down against the east side of the Newarke wall, [2269], were evidently residual, the assemblage was characterised by the presence of body sherds in Midland Purple and Cistercian/Midland Black ware.

However, two sherds of Rhenish Stoneware, RH, probably Raeren, were also present. One, a drinking jug with a frilled base, was of a type imported into the country in huge quantities from the Rhineland during the first half of the 16th century (Hurst *et a*l 1986, 196, fig.94.300).

Table 19: The identifiable vessel forms phase 11.0, by fabric, sherd numbers, weight (grams) and Eves.

Fabric	Storage Jar	Bowl	Jug	Cistern	Chafing Dish	Cup/Mug	Flask
PM	1/49/0.02	1/10/ 0.05	3/67/ 0.075				
CC1			1/8/0.0				
MP2			1/159/ 0.0	11/2396/ 0.0			
CW2					1/318/0.0	18/437/ 0.05	
CW2/MB			1/4/ 0.08			4/396/0.01	
MA1							1/3/0.0
MY						1/6/0.075	
EA1		1/40/0. 075					
RH			1/78/ 0.0				
Totals	1/49/0.02	2/50/ 0.125	7/316/ 0.155	11/2396/ 0.0	1/318/ 0.0	23/839/ 0.135	1/3/0.0

Table 20: The medieval and post medieval pottery phase 11.0, by fabric, sherd numbers and weight (grams) the major fabrics shown also as a percentage of the total phase assemblage.

Fabric	Sherds	%	Weight	%
ST3 – Stamford ware	2		22	
ST2 – Stamford ware	6		27	
ST1 – Stamford ware	3		17	
PM – Potters Marston	41	26.6	538	8.9
SP3 – Leicester Splashed	1		7	
OS1 – Oxidised Sandy	1		13	
CS – Coarse Shelly	5		105	
CO2 - Coventry	1		7	

Fabric	Sherds	%	Weight	%
CC1 – Chilvers Coton	5		33	
NO3- Nottingham	1		21	
MS2 – Medieval Sandy	2		13	
TG – Tudor Green/Surrey	1		1	
MP – Midland Purple	2		112	
MP2 – Midland Purple	25	16.2	3038	50.6
MP3 – Midland Purple	2		13	
MP4 – Midland Purple	1		52	
CW2 - Cistercian	32	20.7	826	13.7
CW2/MB	10	6.4	790	13.1
MY – Midland Yellow	5		88	
RW1 - Red ware	1		33	
MA1/2 - Martincamp	1		3	
RH – Rhenish Stoneware	2		86	
XY - Unclassified	1		10	
EA1 - Earthenware	3		144	
Totals	154		5999	

Phase 11.1: Outside the Newarke Precinct

A11.2006 and A.82008 (Areas A – E, Trenches 6a, 6b and 15)

(4360) Metalling, (4011), (4029) Layers, [4054], [4198], [4264] Pits, [4258] Stone Lined Trough.

Assemblage: 278 sherds, 8877 grams, 3.760 EVEs, 31.93 grams ASW

Later occupation outside the Newarke Precinct during the 16th and early to mid 17th centuries appears to continue to respect the earlier property boundaries, notably those separating structures 6 and 7, surviving first as compacted gravel and soil (4360), and later as a new wall [4344] (M. Morris, pers. comm.). Only a single fragment of Potters Marston was recovered from (4360), and no pottery was associated with [4344]. However, 35 sherds were found in the soil layers (4011) and (4029) to the south, encroaching against this new wall and within the property boundaries associated with Structure 6. All of this material was residual, save for single sherds of the early post medieval Earthenware, EA1 in (4011) and a fragment of Midland Yellow in (4029).

Similarly, whilst single fragments of the Medieval Sandy ware, MS8, and the Midland Purple fabric, MP1, with a terminal date of *c*.1550 were found in [4264], only three of the 207 sherds in the pits [4054], [4198] and [4264] were clearly post medieval. The three sherds, weighing 106 grams, in the Earthenware fabrics EA1 and EA2 all occurred in [4198]. The rest of the pottery dated from the Saxon Norman through to the medieval period, indeed almost 25% of the Stamford ware by sherd count, from the excavations, occurred here, whilst wares dating from the later 12th through to the 13th and 14th centuries are also well represented. However, as noted above, little later medieval pottery was present.

Conversely, a preponderance of late medieval ware, including the profile of a cistern or saggar in the Midland Purple ware, MP1, and the base of a cup and a posset pot in the Cistercian Ware CW2, were found in the backfill of the stone lined trough [4258], which produced a small assemblage of 35 sherds. The latest material was a fragment of Cistercian or Midland Black ware, CW2/MB and a hammer headed rim from a flared bowl in the post medieval Earthenware EA2.

[4164], [4178], [4229], [4251] Area A - Pits North of the Boundary Wall.

Assemblage: 52 sherds, 1483 grams, 1.095 EVEs, 28.51 grams ASW

The latest pottery comprised a jug base in the Bourne ware, fabric BO1, dating from *c*.1450 to *c*.1650 in [4164] and a fragment of Cistercian or Midland Black ware, CW2/MB and two in the Tudor Green, fabric TG2, in [4178]. The remainder of the assemblage in [4164] was exclusively late medieval with a terminal date of *c*.1550, whilst the three other pits all contained residual pottery dating from the 12th or 13th centuries through to the late medieval period.

In terms of identifiable vessels, of note was an urinal rim and handle in the Medieval Sandy ware, MS3, and a Cistercian ware cup, fabric CW2, with circles stamped directly on to the wall of the vessel and another cup rim in TG2. Although quantities of ash and iron slag were found in [4229], and a thick deposit of lime in [4258] suggested tanning, none of the pottery showed evidence of being associated with any industrial processes.

(4329), (4342) Layers, (4210), (4230), (4266) Area A - Yard Surface

Assemblage: 47 sherds, 1068 grams, 0.575 EVEs, 22.72 grams ASW

The two sherds dating from *c*.1250 from the layers (4329) and (4342) which are thought to represent deposits associated with the remains of an oven of furnace once again showed no evidence of any association with industrial processing. The remaining 45 sherds from the yard surface were all residual in this phase whilst contexts, (4210), and (4230) which lay immediately below the surface, did produce two sherds of late medieval pottery, in the Medieval Sandy ware and Midland Purple fabrics MS8 and MP3 with a terminal date of *c*.1550. One of the earlier surfaces (4266) produced sixteen sherds which could all be 12th or 13th century in date.

[1097] Stone Lined Tank - Area E

Assemblage: 11 sherds, 202 grams, 0.175 EVEs, 18.36 grams ASW

All the pottery in this small group is residual, including Potters Marston, Chilvers Coton and the Medieval Sandy ware, MS7, the latter with a terminal date of *c*.1450.

Table 21: The medieval and later pottery phase 11.1, by fabric, sherd numbers and weight (grams) the major fabrics shown also as a percentage of the total phase assemblage.

Fabric	Sherds	%	Weight	%
ST2 – Stamford ware	24		233	
ST1 – Stamford ware	10		129	
SN – St Neots/type	1		6	
PM – Potters Marston	127	32.7	2588	22.2
OS2 – Oxidised Sandy	1		13	
CS – Coarse Shelly	3		53	
CO2 - Coventry	1		6	
CO1 - Coventry	1		14	
CC1 – Chilvers Coton	84	21.6	2325	19.9
CC2 – Chilvers Coton	37	9.5	621	5.3
NO3- Nottingham	2		46	
MS1 – Medieval Sandy	2		136	
MS2 – Medieval Sandy	4		178	
MS3 – Medieval Sandy	14		353	
MS7 – Medieval Sandy	7		259	

Fabric	Sherds	%	Weight	%
MS8 – Medieval Sandy	8		264	
TG2 – Tudor Green/Surrey	2		6	
MP1 – Midland Purple	26	6.7	2992	25.7
MP2 – Midland Purple	13		608	
MP3 – Midland Purple	2		77	
BO1 - Bourne	3		76	
CW2 - Cistercian	8		390	
CW2/MB	2		18	
MY – Midland Yellow	1		5	
EA1 - Earthenware	2		88	
EA2 - Earthenware	3		146	
Totals	388		11630	

Table 22: The identifiable vessel forms phase 11.1, by fabric, sherd numbers, weight (grams) and Eves.

Fabric	Jar/Storage Jar	Bowl	Jug/ Tubular Spouted Pitcher	Pipkin	Urinal	Posset Pot	Cup
ST2	2/41/0.1		1/65/0.1				
PM	15/701/ 1.00	5/139/ 0.32	8/403/ 0.225				
CC1	8/370/ 0.895	3/84/0.17	31/1215/ 0.175	3/101/ 0.235			
CC2			19/396/ 0.56				
NO3			2/46/0.0				
MS2			3/173/0.0				
MS3		2/156/ 0.25			1/58/ 0.225		
MS7	1/48/0.1	1/111/ 0.15					
MS8			1/42/0.0				
MP1	24/2907/0.54						
MP2			1/29/0.225				
MP3	1/58/0.11						
TG2							1/1/ 0.075
BO1			3/76/0.0				
CW2						1/153/ 0.0	4/210/ 0.0
EA2		1/97/0.05					
Totals	51/4125/2.745	12/587/ 0.94	69/2445/ 1.385	3/101/ 0.235	1/58/ 0.225	1/153 /0.0	5/211/ 0.075

Phase 11.2: The Civil War Defences (c.1642-8)

[4004] Civil War Ditch

Assemblage: 86 sherds, 1921 grams, 0.510 EVEs, 22.33 grams ASW.

Approximately 25% of this assemblage by sherd count is clearly residual in this context, and may have originally used as make up within the ramparts before this material was pushed back into the ditch when the earthworks were levelled (M. Morris, pers. comm.). The later medieval Midland Purple wares, which, together with the Cistercian wares, are thought to date into the 16th century, and are also residual here, make up approximately another 14%, of the totals. The rest of the pottery is not closely dated. The 'transitional' Cistercian/Midland Black wares, CW2/MB and the post medieval Midland Blackwares, MB, account for over 44% of the totals. Another 10% of the assemblage is in MB and the post medieval Midland Yellow ware, fabric, MY, both date from *c*.1500/1550 to *c*.1750. The Earthenwares, fabrics EA1 and EA2 are dated from the 16th and 17th centuries, the latter continuing in production into the modern period, these, and a single sherd of the Tin Glazed Earthenware, EA11, dating from the mid or later 17th century, make up the rest of the group.

The only identifiable vessel forms in the post medieval wares comprised cup fragments and the base of a chafing dish in CW2, the profile of a flared mug in MB and a wide mouthed bowl (Woodfield 1984, form Nb), and a chafing dish rim support in MY. Part of the rim of the dish is still visible, and the rim support to which it is attached is apparently modelled on a Tudor head, with finely incised lines and cross hatching on the headdress and ruff. Typically for Midland Yellow, the transparent lead glaze over the pale white or buff clay fabric has fired yellow, save for the eyes, nose and details of the headdress, which have been picked out in iron rich clay which has fired brown under the glaze, **(**Figure 65**).** The rim support is paralleled at sites 11 and 17 at the production centre at Ticknall, Derbyshire, where the similar heads are dated by the design of the head dresses to *c*.1530-*c*.1600. The face lacks a mouth and the costume does not include a collar, which it seems is not uncommon, (Spavold and Brown 2005, 99-105, figs 39-43).

(4187), (4206), (4425), (4456) Layers, Civil War Rampart

Assemblage: 35 sherds, 665 grams, 0.100 EVEs, 18.7 grams ASW.

Most of this pottery, which comes from soils thought to represent up-cast from the defensive ditch and the denuded remains of the rampart which once accompanied it (M. Morris, pers. comm.), is of medieval and late medieval date. Only two fragments of Midland Yellow, fabric MY, and five of the later post medieval Earthenware, EA2, all body sherds save an abraded jar rim in the latter, may be broadly contemporary with the creation of the rampart. The Midland Yellow ware sherds were oxidised and reduced respectively, whilst at least two of the Earthenware, EA2, were typologically early, possibly dating from the 16th if not the early 17th century.

Table 23: The medieval and later pottery phase 11.2, by fabric, sherd numbers and weight (grams) the major fabrics shown also as a percentage of the total phase assemblage.

Fabric	Sherds	%	Weight	%
PM – Potters Marston	20	16.5	455	17.5
CC1 – Chilvers Coton	4		94	
CC2 – Chilvers Coton	5		44	
NO1- Nottingham	2		3	
NO3- Nottingham	2		25	
MS– Medieval Sandy	1		3	
MS1 – Medieval Sandy	1		3	
MS3 – Medieval Sandy	8		108	
MS7 – Medieval Sandy	2		235	
MS8 – Medieval Sandy	1		11	
MP1 – Midland Purple	7		170	
MP2 – Midland Purple	5		48	
MP3 – Midland Purple	4		25	
MP4 – Midland Purple	1		79	
CW2 - Cistercian	14	11.5	402	15.5
CW2/MB – Cistercian/M Black	8		149	
MB – Midland Blackware	16	13.2	166	6.4
MY – Midland Yellow	11	9.0	328	12.6
EA1 - Earthenware	4		72	
EA2 - Earthenware	4		162	
EA11 – Tin Glazed	1		4	
Totals	121		2586	

Table 24: The identifiable vessel forms phase 11.2, by fabric, sherd numbers, weight (grams) and Eves.

Fabric	Jar	Bowl	Jug	Cup	Chafing Dish	Mug
ST2						
PM	1/25/0.04		1/140/0.175			
CC1			1/63/0.0			
NO3			1/6/0.0			
MS3	1/15/0.075	1/23/0.025				
MS7		1/214/0.0				
CW2				4/114/0.0	1/88/0.0	
MB						16/166/0.08
MY		4/158/0.215		2/65/0.0	1/19/0.0	
EA2	1/48/0.0					
Totals	3/88/0.115	6/395/0.24	3/209/0.175	6/179/0.0	2/107/0.0	16/166/0.08

Figure 65: Midland Yellow chafing dish rim support modelled on a Tudor head

(Front, top and side views)

Phase 12 (Late Post-Medieval: c.1650-1750)

Property divisions post dating the Civil War Defences; backyard activity associated with buildings along Oxford Street (formerly Southgate Street).

A11.2006 and A8.2008 (Area A and Trenches 6a, 6b and 15)

Outside the Newarke Precinct

(2063), (2070), (2090), (4153), (4161) Layers above the Civil War Defences,

Assemblage: 167 sherds, 5643 grams, 4.942 EVEs, 33.79 grams ASW.

The bulk of this assemblage in the earliest soils covering the defunct Civil War defences was residual from the later medieval period. Only a single sherd of Mottled Ware, fabric EA4, in (2063), and dating from *c*.1650, can definitely be attributed to this phase. The twenty one sherds of Cistercian/Midland Black ware in (4161) are unlikely to date later than the mid or possibly the later 17th century, whilst only a few fragments of Midland Yellow, fabric MY, which is thought to have come into production in *c*.1500 and could possibly date into the mid or later 17th or possibly the early 18th century, occurred in (2090) and (4153),.

[4154], [4176], [4223], [4235] Pits under the Soils, Area A, Post Dating the Civil War Defences

Assemblage: 14 sherds, 413 grams, 0.00 EVEs, 29.5 grams ASW.

Little can be said of this small group of pottery which originated from pits below the soils noted above, and which cut pre Civil War occupation, but post dated the Civil War defences. All the pottery was residual save two fragments of Cistercian ware or, possibly, Midland Black ware. The latter has a probable terminal date in the mid 17th century as noted above.

No pottery was found within the footing of a boundary wall [2086], or the associated stone path (2087) in Trench 6a. Neither was any pottery found in another surface (4195) to the north in Area A.

Area E

[1029] Pit dug against Newarke wall.

Assemblage: 2 sherds, 441 grams, 0.390 EVEs, 220.5 grams ASW

Whilst no finds were recovered from the pit [1051], the adjacent pit [1029] appeared to demolish the phase 11.1 stone tank, and pottery from the latter provided a *terminus ante quem* for its dis-use. This was a single fragment weighing 384 grams, making up the profile of a chamber pot, in the Blackware, EA6. A similar vessel in this ware has been dated at Temple Balsall in Warwickshire to *c*.1670-1700 (Gooder 1984, fig.11.97).

Area A

[4055], [4270], [4275] Pits

Assemblage: 72 sherds, 1672 grams, 1.400 EVEs, 23.22 grams ASW

No pottery was recovered from the surfaces (2087) and (4195), and only fourteen sherds of residual medieval pottery were recovered from [4055] which lay below the former. The earliest of the two pits below (4195), the pit [4270], contained nineteen sherds in a range of post medieval Earthenwares, EA1, and EA2 , the Black ware EA6 and the Slip ware EA7 as well as several sherds of Cistercian/Midland Black ware. A chamber pot in EA6 is paralleled at Stoke on Trent, where a similar vessel is dated to the early 18th century (Mountford 1975, fig.11.72). The Slipware vessel, a straight sided wheel thrown bowl, probably of a similar date, is decorated with a white slip, firing yellow under a transparent lead glaze. Another fragment of the same vessel was recovered from the pit [4275] which truncated [4270] and which produced a large quantity of residual material as well as nine sherds of post medieval pottery including the above, and a fragment, possibly a jar or altar vase, in DE2, Anglo Netherlandish Tin Glazed Earthenware, dating to the mid or later 17th century.

Area A – South of Boundary Wall [2086]

(4035), (4083), (4085) Layers – Cobbled Surface, [4068] Pit

Assemblage: 22 sherds, 382 grams, 0.075 EVEs, 17.36 grams ASW

All the pottery from the cobbled surface is residual in this phase, whilst of the seven sherds from the pit [4068], only five are post medieval including an unclassified fragment of Earthenware, EA. The four remaining sherds are in Midland Yellow ware and are probably all from the same vessel, a flared bowl with a flanged rim, Woodfield form Oau, (Woodfield 1984). This ware is thought to have a terminal date of *c.*1725.

Trench 6a - South of Boundary Wall [2086]

[2077] Clay Feature

Assemblage: 2 sherds, 21 grams, 0.0 EVEs, 10.5 grams ASW

Two oxidised body sherds with external knife trimming in Midland Yellow ware, dating *c.*1500 to *c.*1725, were the only finds here.

Area A - South of the Drain [4030]

[4021], [4024], [4032], [4038], [4070], [4123], [4126] Pits

Assemblage: 144 sherds, 39330 grams, 1.372 EVEs, 27.31 grams ASW

All the pottery in [4070] which cut the Roman road, was residual from phases 8 and 9, and that from [4126] was also residual, the pottery being late medieval in date. The latest pottery in [4024] and [4123] consisted of Cistercian/Midland Blackware and the Earthenware EA1, both possibly early post medieval in date, and two bowls and a cup in the post medieval Midland Yellow, (Woodfield 1981). The small assemblages from [4021], and [4032], and that from [4038] which also cut the Roman Road, all contained material that was clearly post 1650 in date; nine fragments in the Earthenwares, EA and EA2, Mottled ware EA3, the Black ware EA6 and the Slipware EA7.

The only identifiable vessels in these fabrics were a jar rim in EA3 (Sawday 1988, fig.10.37), and a press moulded dish in EA7 with trailed slip decoration paralleled at Stoke-on-Trent in a context dated *c.*1775-1969, (Celoria and Kelly 1973, no.298, 17).

Trench 6b – West of the Wall [2067]

(2066) Rubble

Assemblage: 2 sherds, 38 grams, 0.0 EVEs, 19.0 grams ASW

A residual fragment of late medieval Midland Purple ware and an under fired sherd of Brown Salt Glazed Stoneware, SW5, probably dating from the later 17th century, were found in the rubble layer (2066). These were the only pottery finds from this trench in this phase.

Area 3

[3039] - Pit

Assemblage: 3 sherds, 22 grams, 0.0 EVEs, 7.33 grams ASW

Two sherds of residual medieval and early post medieval pottery and a sherd of the Black ware, EA6, were the sole finds in this Area and phase. The Black ware consisted of a fragment of hollow ware of unidentifiable vessel type. The ware is dated *c.*1650 to *c.*1750 and may also be residual here.

Table 25: The medieval and post medieval pottery phase 12, by fabric, sherd numbers and weight (grams) the major fabrics shown also as a percentage of the total phase assemblage.

Fabric	Sherds	%	Weight	%
ST1 – Stamford	1		3	
PM – Potters Marston	56	12.9	1127	8.7
SP3 - Leicester Splashed	2		78	
CS – Coarse Shelly	18		411	
CC1 – Chilvers Coton	18		171	
CC2 – Chilvers Coton	49		906	
NO2/3 - Nottingham	5		85	
BR2 – Brill/Boarstall	1		1	
BO2 - Bourne	1		5	
MS/1/2– Medieval Sandy	16		177	
MS3 – Medieval Sandy	22		595	
MS7 – Medieval Sandy	4		224	
MS8 – Medieval Sandy	5		275	
MP1 – Midland Purple	13		425	
MP2 – Midland Purple	30	6.9	1627	12.5
MP3 – Midland Purple	35	8.1	1092	8.4
MP4 – Midland Purple	4		191	
TG2 – Tudor Green/Surrey	2		9	
CW2 - Cistercian	38	8.7	1212	9.3
CW2/MB – Cistercian/M Black	33		683	
DE2 – Anglo Netherlandish	1		7	
MY – Midland Yellow	17		652	
RW1 – Red ware	1		24	
RH - Rhenish	1		127	
EA/1 - Earthenware	29	6.7	1176	9.0
EA2 - Earthenware	3		89	
EA3/4 – Mottled ware	4		502	
EA6 - Blackware	18		712	
EA7 - Slipware	4		337	
SW5 - Stoneware	1		1	
Totals	432		12924	

Table 26: The identifiable vessel forms phase 12.0, by fabric, sherd numbers, weight (grams) and Eves.

Fabric	Jar	Bowl	Jug	Urinal/ Chamber Pot	Cistern / Lid	Cup	Mug/ Pedestal Beaker	Dish/ Dripping Dish
PM	5/124/ 0.395	7/117/ 0.205	5/186/ 0.2					
SP3								
CS	2/121/0.27 5		2/78/ 0.0					
CC1			2/28/ 0.0	1/9/0.03				
CC2	2/86/ 0.16	1/60/ 0.045	25/463/ 0.05	1/45/0.0				
NO3			3/62/ 0.01					
MS/2/3	2/53/ 0.15	4/160/ 0.29	2/98/ 0.0		3/37/ 0.23			
MS8		1/145/ 0.08			1/94/ 0.0			
MP1					1/33/ 0.03			
MP2					2/79/ 0.075			
TG2						2/9/0. 1		
CW2			4/52/ 0.225			19/52 6/ 0.770	7/322/0.0	
CW2/M B							1/135/0.0	
MB	2/11/ 0.0							
MY		6/155/ 0.172						1/247/ 0.110
MA1								
MY	1/33/ 0.05					1/27/ 0.080		
RH			1/127/ 0.0					
EA1	2/651/ 0.15				1/136/ 0.0			
EA2		1/71/ 0.0						
EA3	3/482/ 0.110							
EA6	1/1/0.0			14/675/ 0.64		1/20/ 0.0		
EA7		1/275/ 0.21						1/23/0.0
Totals	20/976/ 1.29	21/983 / 1.002	44/1094/ 0.485	16/729/ 0.670	8/479/0. 335	23/58 2/ 0.95	8/457/0.0	2/270/ 0.110

The Pottery Fabrics

A few sherds of the late Anglo Saxon/Saxo Norman Leicester, Lincoln and Saint Neots are present but all are apparently residual from phase 8 onwards. Typically the fine Stamford ware, fabric ST2, ware dominates this early assemblage but with a date range of *c*.1050 and *c*.1200 may lie within either Phase 7 or 8, similarly the Torksey ware/type and the Reduced Sandy wares are not closely dated.

Just three ware groups made up over 92% of the phase 8 assemblages by sherd count, and over 96% of the totals by weight. The Stamford wares are relatively insignificant in the Phase 8 assemblages, and the Coarse Shelly ware only makes up just over 10% and 18% of the phase totals by sherd count and weight, but over 35% by Eves. More typically, as at the Highcross excavations, the Leicester Splashed ware, SP3 and the Oxidised Sandy wares, OS1 and OS2, only constitute a very small part of the assemblage, less than 1.00% of the phase totals by sherd count, whilst the local coarse ware, Potters Marston, dominates, accounting for over 79 % of the assemblage by sherd count and for 77% and 97.7% of the totals by weight and EVEs respectively. Interestingly, no Nottingham Splashed ware, fabrics SP1 and SP2 were recorded, these fabrics do generally occur in earlier medieval levels within the walled town, albeit only as minor constituents of the assemblages.

The later 'high' medieval period in phase 9 continues to be dominated by Potters Marston, with the Coarse Shelly wares also present. However, this phase is characterised by the introduction of the wheel thrown glazed sandy wares, predominantly from Chilvers Coton in Warwickshire, which constitutes the single largest major source of pottery traded to Leicester during the mid and later 13th century, followed by the Nottingham wares. The Medieval Sandy wares, which are also though to originate from sources to the west of the county, including Derbyshire, make up the other major group. Few Midland Purple wares, which in terms of their date range, only appear towards the end of this phase, are present here.

Potters Marston remains the major component of the phase 10 assemblage and is evidence of a degree of residuality. This residuality is also demonstrated by the relatively high proportion of the Chilvers Coton fabric CC1 in this phase. Whilst the Chilvers Coton fabric CC2 dates from the 14th century to the 16th century and hence lies within this phase group, in fact 41 of the 63 sherds listed here are in CC1. This latter fabric is thought to date predominantly to the second half of the 13th century, though the Warwickshire fabric series does include later variants of what may be white bodied or reduced Chilvers Coton wares, the latter possibly transitional into the late medieval Midland Purple (Ratkai and Soden1998, 106, 157).

However, it is the Medieval Sandy ware fabrics, MS3, MS7 and MS8 and the Midland Purple and the Cistercian wares which characterise both the urban and suburban phase 10 assemblages dated from the later 14th and mid 15th to the mid 16th centuries respectively in Leicester.

The early post medieval phase 11.1, 11.2 and 11, produced a range of wares, notably Midland Purple, Cistercian/Midland Blackware, and Midland Yellow wares as well as the post medieval Earthenwares, EA1 and EA2, which are commonly found in the city**.** However, the bulk of the pottery is residual here; over 50% of the assemblage by sherd count is made up of Potters Marston, Chilvers Coton and the Medieval Sandy wares MS3, MS7 and MS8.

Again most of the assemblage is residual in this phase, which is characterised by the presence of the Mottled wares, EA3 and EA4, the Black ware, EA6 and the Slip ware EA7, which date predominantly from the mid 17th century, whilst the Earthenware, or pancheon ware, EA2, continues in production from the early post medieval into modern times.

The post medieval Earthenware EA1 and the Midland Blackware, MB are thought to date from the early or mid 16th century and to share a terminal date sometime in the early or mid 18th century at the latest.

Table 27: The site totals for the late Anglo Saxon wares, by fabric, sherd numbers and weight (grams), EVEs, the fabrics shown also as a percentage of the assemblage, and by average sherd weight.

Fabric	Sherds	%	Weight	%	Eves	%	ASW
LE – Leicester	4	5.3	44	6.1	0.08	11.3	11.0
ST3 – Coarse Stamford	4	5.3	37	5.1	0.065	9.2	9.25
ST2 –Fine Stamford	53	70.6	523	73.1	0.44	62.4	9.86
LI/1 - Lincoln	2		10		0.0		5.0
SN – Saint Neots	3		15		0.0		5.0
TO – Torksey	1		4		0.0		4.0
RS/1 – Reduced Sandy	8	10.6	82	11.4	0.12	17.0	10.5
Totals	75		715		0.705		9.5

Table 28: The major wares in the early high medieval phases 8, 8.1 and 8.2 by fabric, sherd numbers and weight (grams) and EVEs, shown also as a percentage of the total phase assemblage.

Fabric	Sherds	%	Weight	%	Eves	%
ST1/2/3 – Stamford	12	2.5	78		0.095	
PM – Potters Marston	375	79.1	6866	77.0	3.264	60.3
CS – Coarse Shelly	51	10.7	1693	18.9	1.927	35.6
Totals	438	92.4	8637	96.8	5.286	97.7
Phase Totals	474		8916		5.406	

Table 29: The major wares in the later high medieval phase 9 by fabric, sherd numbers and weight (grams) and EVEs, shown also as a percentage of the total phase assemblage.

Fabric	Sherds	%	Weight	%	Eves	%
PM – Potters Marston	544	71.4	9080	59.6	4.458	66.7
CS – Coarse Shelly	21		268		0.310	
CC1 – Chilvers Coton	70	9.1	3328	21.8	0.86	12.8
NO1/2/3 - Nottingham	31	4.0	479	3.1	0.08	
MS1/2/3– Medieval Sandy	25		280		0.0	
Totals	691		13435		5.708	
Phase Totals	761		15221		6.678	

Table 30: The major wares in the later medieval phase 10, by fabric, sherd numbers and weight (grams) and EVEs, shown also as a percentage of the total phase assemblage.

Fabric	Sherds	%	Weight	%	Eves	%
PM – Potters Marston	79	27.8	1112	19.5	0.555	20.9
CC1/2 – Chilvers Coton	63	22.1	948	16.6	0.12	
MS3/7/8 – Medieval Sandy	47		944		0.585	22.0
CW2 Cistercian	12		116		0.4	
MP1/2/3/4 – Midland Purple	45	15.8	1724	30.3	0.47	
Totals	246		4844		2.13	
Phase Totals	284		5682		2.655	

Table 31: The major wares in the early post medieval phases 11.1, 11.2 and 11, by fabric, sherd numbers and weight (grams) and EVEs, shown also as a percentage of the total phase assemblage.

Fabric	Sherds	%	Weight	%	Eves	%
PM – Potters Marston	188	28.5	3581	17.7	1.855	27.8
CC1/2 – Chilvers Coton	135	20.3	3117	15.4	2.035	30.6
MS3/7/8 – Medieval Sandy ware	50	7.5	1563	7.7	0.825	12.4
MP1/2/3– Midland Purple	88	13.2	7214	35.6	0.875	13.1
CW2/MB – Cistercian/Blackware.	90	13.5	2741	13.5	0.22	
MY – Midland Yellow	17		421		0.29	
EA1/2- Earthenware	16		612		0.125	
Totals	584		19249		6.225	
Phase Totals	663		20215		6.650	

Table 32: The major wares in the later post medieval phase 12 by fabric, sherd numbers and weight (grams) and EVEs, shown also as a percentage of the total phase assemblage.

Fabric	Sherds	%	Weight	%	Eves	%
PM – Potters Marston	56	12.9	1127	8.7	0.80	16.1
CC1/2 – Chilvers Coton	67	15.5	1077	8.3	0.285	5.7
MS3/7/8 – Medieval Sandy ware	31		1094		0.59	
CW/MB – Cistercian/Blackware	71	16.4	1895	14.6	0.995	20.1
MY – Midland Yellow	17		652		0.512	10.3
EA1/2 - Earthenware	32	7.4	1265	9.7	0.15	
EA3/4/6/7 – Earthenware	26	6.0	1551	12.0	0.96	19.4
Totals	300		8661		4.292	
Phase Totals	432		12924		4.942	

The Pottery Forms

The dearth of late Anglo Saxon pottery is apparent in the noticeable absence of the range of fine table ware vessel types commonly associated with the wheel thrown Stamford, Lincoln and related late Anglo Saxon types found on the Highcross excavations, notably on Freeschool Lane. One jug, two spouted pitchers and one tubular spouted pitcher with an Eves total of 0.53 in the Stamford fabrics ST1-3 are the only identifiable forms in this group. Over all, jars, bowls and jugs were the most common vessels as is typical of medieval assemblages in Leicester and elsewhere, jars being predominant by Eves, followed by jugs and bowls, in all the medieval phases. There was only one exception, phase 8.2 where the jug was the most common, followed by jars and bowls. These differences are not thought to be significant as the pottery groups are all relatively small.

The jars occurred in a wide range of coarse fabrics, including Potters Marston and Coarse Shelly ware, with Potters Marston accounting for over 50% of the totals by sherd count and Eves. Examples in the fine wheel thrown Chilvers Coton and Medieval Sandy ware and the utilitarian Midland Purples were relatively less common. Potters Marston also provided the bulk of the storage jars, bowls and jugs, accounting for over 40% of the identifiable vessel types by Eves.

Of note was an almost complete baluster jug in phase 9 in CC1 and Chilvers Coton, Nottingham and Medieval Sandy wares dating from *c*.1250 made up the majority of the rest of the jugs in the site assemblage, typically all the identifiable Nottingham vessels are in this vessel form. Bowls, excluding those in Potters Marston also occurred most commonly in Chilvers Coton and the Medieval Sandy wares, MS3, MS7 and MS8.

The post medieval phases contain a more varied range of vessel types. Some of these are clearly residual in these later phases, such as the Chilvers Coton pipkin and Medieval Sandy ware urinal in phases 10 and 11.1 and the cisterns in the same ware in phase 12. Other common medieval and post medieval vessel forms include Midland Purple cisterns and cistern lids, Surrey White ware/Tudor Green cups and lobed cups and Cistercian and Midland Yellow cups or mugs. A jar and bowls and a copy of a Rhenish drinking jug, a dripping dish and, more unusually, a chafing dish rim support modelled in the shape of a Tudor head, were all identified in Midland Yellow ware. Cistercian ware jugs, a chafing dish, a posset pot, a pedestal based vessel or chalice, another chafing dish base in Cistercian/Midland Black ware – the lack of holes in the base suggesting that this was a 'second' - a Slip ware dish, and Black ware chamber pots were all present. The only continental imports were recovered from trench 3 and Area A, and included a Martincamp flask in phase 11, three Rhenish Stoneware vessels, including two drinking jugs in Raeren or Cologne in phases 11 and 12, and an Anglo Netherlandish jar.

Discussion

The pottery provides some evidence for chronology of the site but the several episodes of truncation and clearance, and repeated sequences of rebuilding and demolition throughout phases 8 to 12 and into the modern period, means that the pottery record is somewhat obscured by high levels of residuality and intrusion, and also limited by the small size of many of the assemblages, often, typically, those associated with the structural evidence..

The low average sherd weight of 7.8 grams for the fourteen sherds in the earliest material, notably the Leicester, ware, the coarse Stamford ware ST3, the Lincoln Kiln Type/ Late Saxon Shelly wares, The Saint Neots and Torksey wares/types, suggests that this pottery may be associated with the manuring of what was the South Field of the medieval town.

Little pottery could be directly associated with the timber framed Structure 4, or with the hearth and associated features in Area E, both of which relate to the initial occupation of the southern suburb along Southgate Street, (now Oxford Street) in phase 8. These assemblage of only eleven sherds and fourteen sherds respectively, both included intrusive material dating from *c.*1250, but both these and the bulk of the other phase 8 assemblages were dominated by the early medieval Potters Marston and Coarse Shelly ware, dating from *c.*1100 with a terminal date of *c.*1300 to *c.*1400. However, it is possible that the structure could have originated in the 11th century, (M. Morris pers. com.), this would suggest that the pottery is intrusive from the soils above, and fell into the voids created by the decay or dismantling of the timbers in the post holes and beam slots, once occupancy had ceased. This is certainly thought to be the case with one sherd dating after *c.*1250 which was found in the post hole [4310].

The cess pits in Areas A and C provided more convincing evidence of 12th century and early 13th century occupation and more substantial assemblages, again dominated by Potters Marston. The cess pit in Area A is thought to represent the primary disposal of waste, and that in Area C, was perhaps a communal latrine. The latter was also filled with secondary if not primary waste; however, the relatively fragmentary nature of the pottery suggests that both features were regularly cleaned out.

Only 35 sherds dating from the mid or later 12th century were recovered from a series of somewhat fragmentary occupational features in Phase 8.1. The surfaces, post alignments, ditches, pit and corn drier in Phase 8.2 produced a large assemblage of sherds in a range of wares, predominantly in Potters Marston, but including also approximately sixteen sherds post dating *c.*1250. These apparently intrusive sherds are probably the result of contamination from the soils above, and reflect the period when the features, which represented another sequence of occupation on Southgate Street, were variously dismantled, back filled or fell out of use.

The relative lack of finds in the Phase 9 soils in Areas 1 -3 and Trenches 11 -14 and the absence of many features cutting them, suggest that this area had reverted to arable use during this period, perhaps the land was being cleared in preparation for the establishment of the Hospital of the Holy Trinity in 1330 or its enlargement during the 1350s into the Collegiate Church, signalling the initial origins of the Newarke (M. Morris, pers. comm.). However the relatively average sherd size and absence of abrasion in the pottery from the cobbles, soils and related features, provided no specific evidence for trample or plough damage as might be expected in these contexts.

Approximately 60 sherds of pottery were associated with the possible structural evidence on the western side of Area B in Phase 9, the clay spread above suggesting a terminal date from the late 14th century

date for the building. This, together with a pit below the stone built Structure 5, in Area E**,** which had been truncated in modern times by the now demolished James Went building, gave a *terminus post quem* of *c.*1250 for the construction, the six pottery finds directly associated with the structure dated from *c.*1050 to the 13th century, whilst the demolition spreads above contained pottery dating from the 13th into the 14th century. However, it seems likely that this phase of construction which stratigraphically appears to post date the episode of cultivation during the late 13th and early 14th century, must date from the early 14th century. The building's location also means that it must have been demolished by the time the precinct wall of the Newarke was built, thought to be during the early 15th century, (M. Morris, pers. comm.). Thus in turn implies that in both instances the pottery in the features and levels below and above Structure 5 was residual.

The evidence for the construction of the Newarke wall in Phase 10 is limited to single, and presumably residual, fragments of pottery and ridge tile from within the fabric of the stone structure in Area E, which date from the mid or later 13th century. However a pit truncated by an internal wall within the precinct, contains six sherds of late medieval pottery. This pottery does suggest a late medieval date for the foundation of the Newarke, assuming that the internal wall relates to the precinct, and post dates the initial construction of the Newarke wall. This is supported by the pottery of similar date from the backfill of pits cut into or adjacent to the wall, both within and outside the precinct, which presumably also post date the construction of the enclosure. The pottery found within Structure 6 and Structure 7 and the pits apparently associated with them, provide further evidence of occupation along the western side of Southgate Street in the same phase, though once again, much of this material was residual.

Typically in the later phases the problems of residuality are often compounded. Sixty seven or approximately 17% of the 388 sherds in Phase 11.1 date from the later 14th or mid 15th centuries into the post medieval period, whilst only six sherds, 1.5% of the total date from *c.*1500. These six post medieval sherds all occurred in features outside the Newarke precinct in Area A: a stone lined trough; a pit and metalling. The other features in Area A all produced pottery with a terminal date of *c.*1550, whilst exclusively residual material was found in the a stone lined tank in Area E.

A somewhat similar pattern emerges in Phase 11.2 where 36 sherds, representing just over 29% of the 121 sherds in this phase group date from *c.*1500. All occur in the back fill of the Civil War Ditch in Area A/B, save for four sherds which were found in layers associated with layers within the rampart in Area A. The twelve sherds dating from *c.*1500 in Phase 11, representing 7.7 % of the assemblage total of 154 sherds were all recovered from pits and a post hole in Trench 3, predominantly outside the Newarke precinct, the pits inside the precinct in particular had been truncated by modern features. Almost half of the remaining assemblages, also generally from outside the Newarke precinct, was made up of late medieval/ early post medieval wares.

The bulk of the pottery is residual in this Phase 12, only approximately 11%, or 40 of the 432 sherds in this phase, post date *c.*1650. Much of the early material came from pits cutting the Civil War defences and from the soils above, but other features, chiefly pitting, relating to the occupation along Southgate Street also contained quantities of residual material, evidence of the longevity of the medieval occupation in the southern suburb (M. Morris, pers. comm.).

Conclusions

No archaeological features relating to Phase 7, the late Anglo Saxon period, were identified on site, and less than three per cent of the assemblage by sherd count was in the Leicester, Lincoln, Stamford fabrics, ST2 and ST3, Saint Neots, and Torksey wares/type wares, which date from the Saxo Norman period. A similar picture emerged from other excavations in the southern suburb, notably at Oxford Street (Sawday 1999 a) and Bonners Lane (Davies and Sawday 2004), where the small late Anglo Saxon assemblages probably also related to the manuring of the South Field, whilst the earliest pottery at York Road dated from *c.*1100 (Sawday 1999 b). A similar absence physical activity (Mellor and Pearce 1981) and of this early pottery, in fabrics A-K and M and O, was noted at the Austin Friars, (Woodland 1981, Table 17), which lay outside the west gate of the medieval town. Excavations on the Causeway Lane in the north east quarter in the back streets of the medieval town, also produced no direct evidence of late Anglo Saxon activity in the ground and the pottery was all residual in later phases and the range of early wares was equally limited (Davies and Sawday 1999).

This is in marked contrast to the excavations on Freeschool Lane, part of the Highcross excavations, (Sawday forthcoming b) which lay on the main north south axial route, the former High Street, in the

north eastern quarter of the medieval town, where the equivalent pottery groups accounted for between 15 and 16% of the site totals by sherd count, and where a correspondingly wider range of fabric types, Lincoln Late Saxon Shelly ware, Thetford and Northampton wares were present. Interestingly, in spite of the presence of a limited range of other early wares, Stamford still dominates the late Anglo Saxon and Saxo Norman assemblages here, and as elsewhere in the city and the suburbs.

The relative dearth of this early pottery, which is all residual in contexts in phase 8 and later, appears to tie in with the documentary evidence which records the development of the southern suburb by *c*.1200 (Courtney 1998, 124). Moreover, the material evidence both in the ground and in terms of ceramic finds, suggests that both here and elsewhere in the southern suburb, that development was under way by at least c.1100 (Finn 2004, 63). Moreover, it was noted at Bonners Lane that the lack of much structural evidence could in part be perhaps a reflection the poverty of the earliest phase of settlement. A similar scenario is also posited here, where earlier evidence may possibly have been destroyed by later activity, as demonstrated by the apparent intrusion of 12th and 13th century pottery in phase 6 (M. Morris, pers. comm.).

The range of early medieval wares and vessel types from these excavations are very similar to that from the excavations at the Highcross, the Austin Friars, Causeway Lane, and to the pottery from the three other sites in the southern suburb noted above, the predominance of Potters Marston being absolutely typical of assemblages from Leicester, (Sawday 1991). Similarly, the medieval and later medieval assemblages, including pottery from Chilvers Coton, Nottingham and Ticknall, are also paralleled at the excavations both in the southern suburb, and at Highcross, Causeway Lane, the Austin Friars and elsewhere in the city, for example, the West Bridge (Sawday 1994, Table 22, fig.85), and St Nicholas Place, Leicester (Sawday forthcoming a). However, the subsequent truncation of many of the later levels meant that the post medieval assemblages were much more limited both in size and the range of wares present, but once again appear to be fairly typical of that found in Leicester (Sawday 1989).

The range of pottery vessel forms reflects the essentially domestic nature of the occupation here, with agricultural activity predominant, no specifically industrial pottery vessel types were identified, but this is in itself not unexpected. Only three vessels at Causeway Lane for example, were tentatively identified as being associated industrial purposes (Davies and Sawday 1999, 189-191). The pottery also provided little evidence of any vessel types which might be associated with either the original chapel attached to the Hospital of the Holy Trinity or the Collegiate Church, or to the later more wealthy inhabitants of the Newarke, the few continental imports being of no great significance here. The only exceptions may be the pedestal based vessel, possibly a chalice, in Cistercian ware, and a highly decorated and very unusual table ware, the chafing dish in Midland Yellow.

The Roofing Tile

The Ridge Tile

The relatively small size of the assemblage meant that all of the ridge tile recovered from the excavations, a total of 183 fragments weighing 6802 grams was catalogued. The results are discussed below.

The Ridge Tile Fabrics

The twenty five fragments of ridge tile in the Leicester Splashed ware, SP3, and Potters Marston possibly date from the early or mid 13th century. Just under half of the tiles by fragment count were in the Chilvers Coton fabric CC1; dating from the mid or later 13th century, followed by the Medieval Sandy wares MS1, MS2 and MS3 dating from the mid 13th or 14th century. The later medieval Medieval Sandy ware MS7, and the Midland Purple wares accounted for less than 8% of the totals.

Table 33: The medieval ridge tile by fabric, fragment numbers and weight (grams) by site.

Fabric	**A11.2006**	**A8.2008**	**A2.2007**
PM - Potters Marston		7/177	4/129
SP3 - Splashed ware		10/345	4/172
CC1- Chilvers Coton	1/89	74/2813	12/302
CC2- Chilvers Coton	2/82	11/713	
NO3- Nottingham		1/30	
LY1 - Stanion Lyveden			
CO1 - Coventry			
MS1 -3 - Medieval Sandy	8/180	30/820	3/111
MS/7 Medieval Sandy		4/103	1/45
MP2/3 - Midland Purple		7/482	4/209
Totals	11/351	144/5483	28/968

Table 34: The medieval ridge tile by fabric, fragment numbers and weight (grams), phases 8.2 to12.

Fabric	Phase				
	8.2	9	10	11.1./11.2/11	12
PM	3/27	3/135	3/116		2/28
SP3	2/75	4/49	2/134	4/157	2/102
CC1		4/54	25/970	32/1316	28/864
CC2			6/177	6/261	1/357
NO3		1/30			
MS/2-3		6/120	11/464	16/377	10/209
MS7			1/14	1/45	1/30
MP2-3		1/30		8/483	2/178
Totals	5/102	19/418	48/1875	67/2639	44/1768

The Ridge Tile by Phase

Phase 8.2

A tile in the Leicester Splashed ware, SP3, occurred in A2 2007 [2028], one of a series of post holes relating to one or two possible structures in Trench 3. A fragment of the same fabric and three pieces of

Potters Marston were recovered from the industrial feature [2129], possibly a corn-drier, in the same Trench.

Phase 9

Ten ridge tiles were found in the backfill of the pits and in the metalled surfaces and soils in Area A, A8 2008. A few more fragments occurred in pits in A11 2006 Area E, and from the soils in A2 2007 Trench 3. This material was broadly contemporary with the bulk of the pottery in the same phase, but did include one piece in the late medieval Midland Purple fabric MP3, dating from *c.*1375 in the pit [4294] in Area A. No ridge tile could be directly associated with the stone built Structure 5 in A11 2006, Area E.

Phase 10

Approximately 50% of the assemblage occurred in A8 2008 Area A, predominantly in pits. All of the thirteen fragments from A8 2008 Area B were found in the back fill of the cess pit [4466]. A single ridge tile in CC1, dating from the mid or later 13th century, was recovered from the Newarke Wall [1034], and further fragments from the stone lined pit [1076], the post hole [1121] and the pit, [1155] in A11 2006 Area E. Most of the ridge tile from A 2007 Trench 3 came from the pit [2296].

Phase 11

Only four ridge tiles in the late medieval fabrics MP2 and MP3 with a terminal date of *c*. 1550 were not residual in this phase. They were all found in two pits A2 2007 [2330] and [2254] in Trench 3, inside and outside the Newarke Precinct respectively.

The remainder of the ridge tile was residual in phases 11 and 12.

The Ridge Tile Crests

The ridge tile crest types referred to here are those first characterised at the Austin Friars, Leicester (Allin 1981a). Only five crests were identifiable, all in the Chilvers Coton fabric CC1. These comprised three looped crests, a pinnacle crest with four finger smears and a serpentine crest (*ibid* 1981, fig.16.10, fig.16.12 and fig.17.15). The Loop crests, in particular, are closely associated with the Chilvers Coton fabrics (*ibid* 1981, 59). Apart from the serpentine crest in phase 10, all of the remainder are residual in phases 10 to 12. Also of note was a curved fragment in the Midland Purple fabric, MP2, which was possibly part of a chimney in phase 11.1.

The Nib Tile

Ninety one of the 94 fragments of nib tile, in the unclassified post medieval Earthenware, EA, were recovered from A8 2008, Area A phases 11, 11.1 and 12, with one apparently intrusive piece occurring in the Phase 9 pit, [4197]. Eighty eight of the fragments were found in the backfill of the stone lined trough or tank, [4258] in A8 2008, Area A, Phase 11.1. The three remaining finds were all from Trench 3, A2 2007, Phase 11.

The dimensions of the tiles are not known, as no complete examples survived, but at least one of these tiles, unlike those from the Austin Friars, (Allin 1981a, 65) was manufactured with the nib projecting from the sanded underside of the tile, so in this instance the smooth surface of the tile would have been uppermost on the roof.

Discussion

The tiles generally share many of the same production centres as the medieval pottery, and the range fabric are typical of that found in the city and suburbs. The ridge tile was distributed across the whole excavation area from phase 8 onwards. The origins of the Newarke in AD 1330, and the lack of evidence for many earlier substantial structures capable of supporting a tiled roof on the site, may suggest that much of the tile, notably the Chilvers Cotton fabric CC1, dating from *c.*1250, comes from buildings outside the development area, notably Leicester Castle and the Church of St Mary de Castro to the north, or Southgate Street, now Oxford Street, to the north. It is also possible that at least some of this material, as with the pottery, may have been bought out from the medieval town, and dumped on the site as rubbish.

The suburbs along Southgate Street, to the south of the walled town, are known to have been in existence by *c.*1200, although by the 16th century this was the poorest area in Leicester, and it may never have had buildings of sufficient quality to have tiled roofs (Courtney 1998, 124). However, the Bonners Lane excavation which also fronted on to the medieval Southgates and produced a very similar assemblage of rather fragmentary ridge tile and a single piece of nib tile, (Davies and Sawday 2004, 99) and even smaller assemblages were recovered from excavations to the east, at York Road, and Oxford Street, (Sawday 1999a), (Sawday 1999b).

It is worth noting that ceramic tiles were used not just for buildings such as houses, but also to roof outbuildings such as bakehouses and ovens, to mitigate the danger of fire, and also as coping along the tops of walls to protect against rain and frost (81983). The few early ridge tiles in phase 8, in Splashed ware and Potters Marston, may be associated with the corn drier and the timber framed structures in Trench 3. Ridge tiles may also have been used on the roof of the stone built Structure 5 in A11 2006, Area E in phase 9, although no tiles could be directly linked with this building.

Most of the ridge tile occurs from phase 10 onwards, where much of it is apparently residual. The question of residuality is complicated by the fact that there is documentary evidence in the medieval period, as noted above, for not only the use and re-use of roofing material, but even for the stockpiling of roofing material. Furthermore, the range of fabrics may perhaps be partially explained by the documentary evidence which cites instances where tiles were bought from different tilers for the same building (Moorhouse 1988, 37-39). However, it seems likely that at least some of this tile, and the nib tile which generally occurs in phases 11 and 12, is associated with the structures in the Newarke. After the initial development of the precinct in the early to mid 14th century, the site appears to have been continuously re-developed up to and during the 17th century.

The Medieval Floor Tile

Six fragments of medieval floor tile were recovered in residual contexts from A8 2008, Areas A and A/B, phases 10, 11.1 and 11.2, including three from the back fill [4534] and [4498] of the Civil War Ditch .

Most of the tile was abraded and fragmentary, but four showed definite evidence of inlaid decoration, and of these one pattern could be identified on two joining tile fragments , Whitcomb 'type' W73, part of a 14th century four tile design of a crowned head placed diagonally beneath a canopy (Whitcomb 1956, 58). This design has been previously recorded at various sites in the county and elsewhere, and at Leicester Abbey and St Margaret's Church in the city. There was also evidence of at least one plain tile, this was over fired and reduced with a dark brown glaze.

Discussion

Only very wealthy monasteries and royal establishments had tiled floors in the mid to late 13th century (Eames 1980, 280). More recent research shows that by the early 14th century at least tile pavements they were being used in smaller monasteries and parish churches (Vince 1984, 8). It is tempting to link these few fragments with the original chapel attached to the Hospital of the Holy Trinity, which was licensed in AD 1330, or to the richly endowed Collegiate Church of the Annunciation of the Blessed Virgin (Chinnery1981) whose construction began some time later in the 14th century.

A similar origin was also posited for the ten fragments of medieval floor tile recorded on the Bonners Lane excavations which also fronted on to the medieval Southgate Street (Davies and Sawday 2004, 99). No medieval floor tile was found on excavations in the southern suburb to the east, at a somewhat greater distance from the Newarke, at Oxford Street and York Road.

Small Finds

Nick Cooper & Siobhan Brocklehurst

Roman Small Finds

Objects of personal adornment or dress

SF106: (1244) [1245] Copper alloy or silver finger ring, with a cream coloured layer adhered to part of the outer surface, possibly plated onto the base metal (21.5mm ext. dia; 19mm int. dia; 1 – 1.5mm thick; 3-4mm width). A11.2006 Area E, Phase 4. Illustrated below.

SF410: (u/s) Copper alloy brooch pin fragment. Has a corroded nodule on one end, unknown as to whether this is corrosion or design (1.5mm width). A8.2008

SF413: (4029) Complete copper alloy dress pin with a spherical head, a narrow groove runs horizontally around the head, with possible traces of enamelling on the top (28.5mm length x 1mm width). Parallel not recognised. A8.2008 Area A, Phase 11.1.

SF414: (4117) Thin copper alloy wore or pin broken into two fragments (1.5mm width). A8.2008 Area D, Phase 2.2.

SF427: (4232) [4219] Copper alloy bar, flat in the centre and tapering to a point at both ends. May have once been curved into an oval or circular shape (54mm x 3mmcentral width). A8.2008 Area A, Phase 9.

SF440: (4288) [4289] Corroded copper alloy pin fragments (3mm width). A8.2008 Area A, Phase 11.

SF443: (4288) [4289] Tiny stone disc bead, quite flat and ovoid in shape, with a circular central hole (4.5mm x 4mm x 0.75mm; hole is 1.5mm diameter) No parallels found. A8.2008 Area A, Phase 11.

SF447: (4416) [4448] Copper alloy pin fragment, possibly a lace tag on which the seam is visible and incomplete. The pin has two opposing nodules on the outer surface at one end (2.5mm width). A8.2008 Area A, Phase 10.

SF464: (u/s) Small copper alloy flattened wire ring in a perfect circle with a visible seam on both sides. In profile, the cross section of the ring would be D-shaped, with a flat base and a domed surface, eyelet or mount (Ext. diameter: 9.5mm; Int. Diameter: 6.5mm Wire thickness: 1.5mm). A8.2008

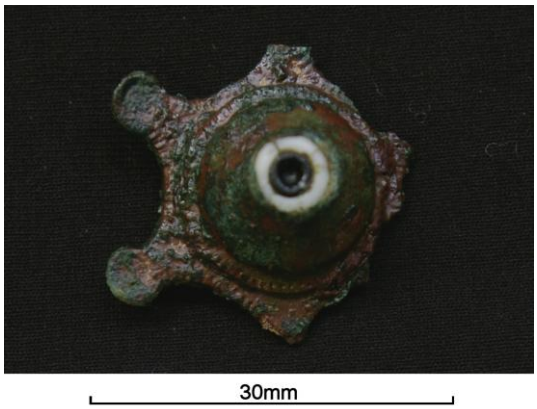
Brooches

SF202: (2177) [2153] Cu Alloy worked, tapering pin fragment with no head or point, probably from a brooch pin (47mm x 3mm). A2.2007 Trench 3, Phase 3.

SF209: (2144) [2143] Large circular disc brooch of Colchester Type 257 (Crummy 1983:16-17; fig 14.83), once plated with white metal, flat with a worn perimeter. The large central boss is surrounded by concentric circles, between which are small evenly spaced nodules or spots - this pattern is repeated on the outermost circle. Bulbous projections of white metal on the piece may be due to melting or corrosion. The surface shows small traces of red

enamelling on the outer circle, and blue enamelling on the inner circle. The reverse is worn but has a sprung pin between two lugs and a complete catch-plate. 2nd Century AD, Diameter 38mm. A2.2007 Trench 3, Phase 2. Illustrated below.

SF215: (2185) [2184] Disc brooch with conical centre and lugs on rim, a variation of Richborough type 377 (Bayley and Butcher 2004:130-31; fig 98.377). Disc is hollow on the reverse, while the face is raised to a central round stud with a small hollow in the centre, showing possible traces of blue/green enamel. Two lugs remain on the outer edge, where there would have originally been six. Encircling the base of the conical central piece is a slightly raised, decorative border. Catch-plate possibly surviving on the reverse of one lug under some corrosion. Current diameter 26mm, c.400AD+. A2.2007 Trench 3, Phase 8.2. Illustrated below.



SF224: (2225) [2226] Two Fragments of a copper alloy pin, quite thick (original length 28mm x 2.5mm). A2.2007 Trench 3, Phase 11.

SF237: (2271) [2269] Four long fragments of thin, partially coiled / curved copper alloy wire (1mm width). A2.2007 Trench 3, Phase 11.

Bone pins

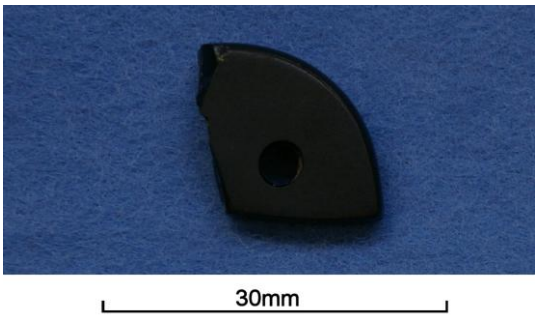
SF102: (1126) [1125] Fragment of a carved bone pin with 2 transverse grooves beneath a conical head. Tapering shaft and conical head of Colchester Type 2 or variation of, dated to the late 1st / early 2nd Centuries AD (Crummy 1983:21; fig18.197 & 198) (36mm x 4mm dia). A11.2006 Area E, Phase 10.

SF216: (2186) [2184] Polished and tapered bone pin shaft in 2 fragments, 3mm width. Head not present although could be derivative of Colchester Type 1 hairpin of 1st/2nd centuries AD (Crummy 1983:20; fig17.122 & 138). A2.2007 Trench 3, Phase 8.2.

SF221: (2207) [2206] Fragment of a carved bone pin with 2 transverse grooves beneath a conical head. Tapering shaft and conical head of Colchester Type 2 or variation of, dated to the late 1st / early 2nd Centuries AD (Crummy 1983:21; fig18.197 & 198) (46mm x 4-6mm). A2.2007 Trench 3, Phase 8.2.

Jet

SF105: (1250) [1231] Jet object fragment with a 4mm round perforation. Surface is smooth but not polished except for the flat and rounded edges. Profile shows tapering thickness from the rounded edge towards the flat edge (14mm x 16mm; thickness 5.5mm – 3mm). Smooth variation of a semicircular jet bead from Colchester (Crummy 1993; 35; fig 37.1498). A11.2006 Area E, Phase 9. Illustrated below.



Toilet, Surgical or Pharmaceutical Instruments

SF206: (2101) [2100] Cu Alloy wire loop with a twist, possibly a suspension loop (15mm x (ext. diameter) 9mm; 2mm width). A2.2007 Trench 3, Phase 11.

SF422: (4153) Straight iron blade with a slightly arched but parallel back, of which the tang is set slightly below. The tip may be slightly broken, but the blade curves down while the edge remains straight. Possible variant of Manning's Romano-British mid – 1st century Type 10 blade (Manning 1985: 113; 53.Q30-33) 192mm x 31mm; tang is 13mm wide; 4mm thickness). A8.2008 Area A, Phase 12.

Objects used in the manufacture or working of textiles

SF444: (4332) Colchester Type 2 copper alloy needle with a flat spatulate head (Crummy 1983:65-66; fig 70.1963-75) Tapering to a point, the top end is damaged but has a partial oval or rectangular eye (50mm x 1-2mm). A8.2008 Area A, Phase 11.

SF445: (4381) [4351] Intact ceramic vessel of Black Burnished Ware, perhaps BB1 with acute lattice pattern dateable to AD 120-160. H 77.5mm, W 68mm, Base Diameter 39mm Top Diameter 54mm (ext.) - 42.5mm (int.). A8.2008 Area A, Phase 3. Illustrated below.

SF448: (u/s) Head end of a broken bone sewing needle, a variation of Crummy's Type 1 (1983:65-66; fig 70.1959) with a circular eye, a conical tip, and a tapering shaft, with a circular cross section (82mm x 4.5mm, eye is 2mm diameter). A8.2008

Objects employed in weighing or measuring

SF412: (4090) [4084] A heavy piece of copper alloy, this is a fragment from a steelyard used for weighing. Both ends are mis-shapen, the wider end being broken. Unknown as to whether or not this steelyard was of even or uneven length (105mm x 7-12mm) No parallel found. A8.2008 Area C, Phase 8.

Objects used for or associated with written communications

SF439: (4262) [4264] A quill created from an animal bone, possibly a rib given the slight curvature and ovoid cross section. Top end is broken, but quill end survives. The bone has been polished, and the quill part is 25mm long, having been cut at an angle to give a good point for writing with (97mm x 6mm). No parallel recognised. A8.2008 Area A, Phase 11.

Fasteners and fittings

SF441: (4288) [4289] Copper alloy with an uneven surface. Although no rivets or rivet holes are present, an abundance of wood grain has adhered to the metal, which is easily seen in good light. This proving the piece a possible fastener or fitting to a wooden item (46mm x 26mm x 1.5mm thickness). A8.2008 Area A, Phase 11.1.

SF451: (4457) [4563] Corroded copper alloy pin, slightly curved towards the flattened spherical head, tapers to a point, possibly a variant of Colchester Type 3 (Crummy 1983:29; fig 28.480). 98.5mm x 4.5mm widest part. A8.2008 Area B, Phase 9.

SF450: (4443) [4444] Variation of a Romano-British iron punch (Manning 1985: 10, Pl5.A23-26). A nail with a wide flat head and a bulbous end (45mm length x 6mm width). A8.2008 Area A, Phase 9.

SF462: (4161) Two iron nails; one is too corroded to note the cross section or head shape. The other is a bent narrow-shafted square nail with a flattened head, possibly indicative of use in a wooden item (45mm x 21mm/67mm x 13mm). No parallel found. A8.2008 Area A, Phase 12.

SF463: (4161) Small, slim iron nail with a square cross section and a half-circle shaped head. Head could be made up of the head and a plate and therefore could be a holdfast nail (Manning 1985: 134, Pl62.R74-81). 35mm length x 3mm x 8.5mm head. A8.2008 Area A, Phase 12.

Objects and waste material associated with metalworking

SF110: (1117) [1116] Small cube of industrial waste or slag, possibly re-used as part of a tessellated pavement or set into a block when molten and broken into cubic segments when set (19mm x 16mm x 15mm). A11.2006 Area E, Unknown Phase.

Objects the function or identification of which is unknown or uncertain

SF223: (2185) [2184] Partially curved fragment of copper wire or pin with surface texture or pattern (3mm width). A2.2007 Trench 3, Phase 8.2.

SF240: (2277) [2254] Fragments of a copper alloy wire or pin (2mm width). A2.2007 Trench 3, Phase 11.

SF411: (4018) [4019] Fragments of copper alloy corrosion, probably residue or slag waste material from metalworking. Too fragmented and fragile to measure. A8.2008 Area A, Phase 12.

SF425: (u/s) Two pieces of copper alloy attached to one another. Top piece is semi-circular and may be a coin. Lower piece is more rectangular and may have been a metal bar. These fragments have been broken (22mm x 17mm). A8.2008

SF466: (4222) [4225] Oval piece of corroded iron, partial piece of a variant of Manning's Chains (1985: 139; Pl64.S8-13). 63mm x 30mm; 8mm thickness. A8.2008 Area A, Phase 10.

Medieval Small Finds

Objects of personal adornment or dress

SF449: (4043) Copper alloy buckle-plate. Rectangular trapezoid with a plain surface on the underside and a very decorative, polished surface. The narrower end has one rivet placed off-centre; adjacent to this is an oval hole 6mm x 4mm. A second hole exists, but is covered by corrosion. The wider end of the piece has two visible unfolded plates which would have attached to a buckle frame. Surface is dark in colour, and has etched zig-zag decorations around the perimeter of the entire piece, and around the oval holes. These etchings show traces of gold or brass, possibly enamelling (44mm x 14mm). (Variation of a copper alloy buckle plate from Egan and Pritchard 1991; 112-113; fig73.517). A8.2008 Area C, Phase 8.

SF452: (4447) [4511] Copper alloy buckle fragment or buckle plate with pin and partial buckle frame attached. Top surface shows remnants of a pattern showing at least one human figure (39mm x 19-25mm). A8.2008 Area A, Phase 9. Possibly a variant of a copper alloy buckle plate from Egan and Pritchard 1991: 113; fig73.530. Illustrated below.

SF465: (4153) Copper alloy pin on which the seam is visibly incomplete. The pin is hollow, and on one end has two small holes between which a tiny pin of copper sits, possibly as part of a lace tag (17mm x 2mm). A8.2008 Area A, Phase 12.

Objects used in the manufacture or working of textiles

SF 453 (4459) [4563] Shoemakers scrap, a collection of 22 fragments of scraps from leather working:

1. Black triangular fragment, two reinforced edges, one torn edge and no stitch marks (145mm x 50mm).
2. Irregular brown fragment, torn (43mm x 31.5mm).
3. Dark brown curving triangular fragment, reinforced edges, no stitch marks. Shape is consistent with an insert used as a fastening (72mm x 37mm tapering to 2mm).
4. Irregular dark brown fragment with reinforced edges and one torn edge (65mm 27mm).
5. Cut triangular brown fragment with two parallel slits made for threading, indicating use as a shoe fastener. Stitch marks on one edge indicate attachment surface and the tapering end has been cut in half to form a fastening latchet (113mm x 48mm tapering to 5mm).
6. Dark brown triangular fragments, reinforced edges, no stitch marks (49mm x 15mm tapering to 7mm).
7. Black irregular fragment, no edges or stitch marks (72mm x 32mm).
8. Black irregular fragment no edges or stitch marks (65mm x 15mm).

9. Thick black leather rectangular fragment, possibly from a belt. Many indentations and holes at one end (79mm x 16mm x 4mm).
10. Black irregular curved fragment, no edges or stitch marks (177mm x 33mm).
11. Black / dark brown irregular and worn fragment, no edges or stitch marks, a roughly cut edge indicates shapely cutting from an originally square piece (106mm x 40mm).
12. Brown shoe sole, fragmented and worn heel part, stitchmarks on edges, very worn (137 x 84 mm) and a fragment of the waist, both parts from the same shoe. Stitch marks on two edges, other two edges torn (89mm x 92mm).
13. 8 x fragments of thin strips of leather, possibly edge trimmings.
14. All finds from this collection indicate that this is scrap leather from the shoe making industry. A8.2008

Figure 66: The shoemakers scraps, SF453 (left) and leather shoe, SF456 (right)

SF 456: (4459) [4563] Leather shoe upper with a slightly pointed toe, indicated by clear stitch marks present at the toe. The heel of the shoe it set high and finished with a scalloped edge with stitch marks down each edge, and the forepart and waist are as broad as each other at 102mm wide. The shoe is made of one piece of leather known as a 'one piece wrap-around' with the main seam on the outer side of the ankle indicated by regular stitch marks, more of which are visible at the heel which could indicate possible insertion of a small piece of reinforcement leather. The vamp is cut quite low across the foot and has stitch marks continuing along these edges indicating either an insert of more leather or more likely, ornamental edging. The inner side of the shoe has been crudely cut from the mid-point of the vamp right up to the heel, indicated by a rough unfinished edge and absence of stitch marks. This could be due to manual re-sizing or amending the shoe for a better fit, or for repairs. The absence of the inner side also makes it difficult to determine the method of fastening used, as there are no marks indicating lacing, drawstrings, latchets or buckles. It is possible for there to have been no fastening hence a 'slip-on' shoe or slipper, but it is more likely to have had a fastening probably of a lacing type, indicating a date of early to late 13th century. No parallels discovered. (216mm x 102mm) (Grew and de Neergaard, 1988; 15-36).

1. Leather shoe sole, very worn with even stitch marks on the edges. Heel is intact but worn, the toe is also worn on the left side and incomplete. Absence of a 'waist' to the sole indicates an early date, and the shoe is the equivalent of between a child's size '13' and an adult size '1' (216mm x 84mm). Leather of both the upper and the sole is 4mm in thickness.

2. Square fragment of leather, two sides roughly cut, two sides with a scalloped edge. Possibly an insert for reinforcement or a corner of waste material (53mm x 59mm).
3. Triangular fragment of leather with stitch marks on all edges. Centre of the piece has teo parallel slits made for threading either a thong or a latchet-fastening (96mm x 28mm tapering to 3mm).
4. Allowing for stretching and wearing, the sole and upper are probably of the same shoe, and the wear holes in the sole indicate this was worn on the right foot, and the size is the equivalent of between a child size '13' and an adult size '1'. There is no way of telling if the two small fragments were a part of the main shoe of SF456. A8.2008 Area B, Phase 9.

Fasteners and fittings

SF467: (4222) [4225] Corroded rectangular piece of copper alloy sheet. One side shows traces of organic material, possibly wood (38mm x 29mm). A8.2008 Area A, Phase 10.

Objects the function or identification of which is unknown or uncertain

SF403: (u/s) Lead sheet with damaged edges and a 7mm wide ridge running the length of the piece, on the reverse this is a groove. This suggests the sheet may once have been part of a larger vessel (125mm x 90mm x 1mm). A8.2008

Post-Medieval Small Finds

Objects of personal adornment or dress

SF238: (2277) [2254] Two Fragments of a copper alloy pin (2mm width). A2.2007 Trench 3, Phase 11.

SF239: (2277) [2254] Three Fragments of a copper alloy pin (2mm width). A2.2007 Trench 3, Phase 11.

SF241: (2277) [2254] Curved L-shaped fragment of copper alloy wire or pin with surface texture which may be corrosion (3mm width). A2.2007 Trench 3, Phase 11.

SF242: (2277) [2254] Two fragments of a copper alloy pin (3mm width). A2.2007 Trench 3, Phase 11.

SF243: (2277) [2254] Three fragments of a copper alloy pin (3mm width). A2.2007 Trench 3, Phase 11.

SF244: (2277) [2254] Two fragments of copper alloy wire (1.5mm width). A2.2007 Trench 3, Phase 11.

SF245: (2277) [2254] Fragment of copper alloy wire or pin (2mm width). A2.2007 Trench 3, Phase 11.

SF246: (2277) [2254] Two fragments of thick copper alloy wire with a surface texture (4mm width). Trench 3, Phase 11.

SF247: (2277) [2254] Four fragments of copper alloy wire or pin (2mm width). A2.2007 Trench 3, Phase 11.

SF227: (2253) [2254] Two fragments of a tapering copper alloy pin (3mm width). A2.2007 Trench 3, Phase 11.

SF228: (2253) [2254] Fragment from a copper alloy hair pin (2mm width). A2.2007 Trench 3, Phase 11.

SF229: (2256) [2254] Copper alloy wire hoop in three fragments, badly corroded. Possibly a rough suspension loop (3mm wire width). A2.2007 Trench 3, Phase 11.

SF230: (2256) [2254] Complete copper alloy tapering dress pin with a rounded head (26mm x 2mm). A2.2007 Trench 3, Phase 11.

SF205: (2101) [2100] Large copper alloy buckle. Square frame with a central bar, 51mm x 51mm. No notch or slot for a pin, and the profile is slightly convex. Each corner of the frame has a quarter-circle rabbet (Egan and Prichard 1991: 97-98; fig.62.448). A2.2007 Trench 3, Phase 11.

SF234: (2259) [2254] Very decayed wood fragments of Ash at 30mm dia., 3 rings 10 years; possible surrounding of the cesspit or discarded wood. A2.2007 Trench 3, Phase 11.

Objects of Personal Adornment or Dress

SF420: (u/s) Circular copper alloy flat mount or button, multifoil style. There is a chunk of corrosion on the reverse (15mm diameter, 1mm thick). Parallel not recognised. A8.2008

SF421: (4125) [4126] Lead vessel with present but broken handle, crushed but the base is still elliptical proving the original cylindrical shape. Has a small rim of 8mm around the top. Handle is made from one piece of folded lead. Surface of vessel has an unknown white substance clinging to the surface, which may be organic (120mm tall x 77mm diameter base x 75mm width) No parallel recognised. A8.2008 Area A, Phase 12. Illustrated below.

Toilet, Surgical or Pharmaceutical Instruments

SF231: (2256) [2254] Two fragments of flattened copper alloy wire formerly of a hoop shape, possibly a suspension hoop (18mm x 13mm; internal diameter = 4mm). A2.2007 Trench 3, Phase 11.

Objects employed in weighing or measuring

SF419: (u/s) Circular lead piece, probably a weight used with scales (36mm diameter x 5mm). A8.2008

Military equipment

Lead

SF442: [4004] Heavy lead ball, slightly chipped. Musket Ball, dated to the Civil War (17.5mm diameter). A8.2008 Area A/B, Phase 11.2.

Objects the function or identification of which is unknown or uncertain

SF235: (2259) [2254] White plain-woven textile with z spun rather coarse bast fibres, 5 – 35 µm, of a definite linen structure, the thread count is 12 x 12 threads per cm. The edges are frayed, suggesting tearing. Clinging to the piece are some small wooden fragments which may originate from the wooden cesspit surround. This textile may either be discarded material or material used as toilet paper (largest piece is 80mmx34mm) A2.2007 Trench 3, Phase 11.

SF233: (2259) [2254] A sherd of pottery with a white plain-woven textile with z spun rather coarse bast fibres, 5 – 35 µm, probably of linen. The thread count is 12 x 12 threads per cm. Probably the same textile as SF235. A2.2007 Trench 3, Phase 11.

Other Small Finds of unknown exact date

SF218: (2187) [2192] Roman or medieval pale grey coloured fragment of a worn down whetstone. The thickness tapers, and two parallel linear grooves appear to have been carved on one side (63mm x 26 x 11 – 5mm). A2.2007 Trench 3, Phase 8.2.

SF232: (2267) Roman or medieval corroded iron object, could possibly be a handle for a piece of furniture or even part of a tool used for agriculture, horticulture and animal husbandry. An x-ray would be very useful in determining this (70mm x 13-35mm). A2.2007 Trench 3, Phase 8.1.

Coins Richard Buckley

Edited by Siobhan Brocklehurst

A total of 16 coins were recovered in the course of the excavation of the four sites, 11 are of Roman date, 1 Medieval, and 4 Post-Medieval. All are of a copper alloy material with the exception of the Medieval long cross penny which is silver. The coins were identified by Richard Buckley and a catalogue is provided below:

Roman Coins

SF101: A11.2006 Area E, Phase 10. (1126) [1125]

As or *Dupondius* of the 1st or 2nd century AD. Copper alloy, 29mm diameter, 4mm thick.
Obverse: Bust Right
Reverse: Partial figure facing left, Illegible

SF201: A2.2007 Trench 3 Phase 11 (2027) [2025]

Nummus. House of Constantine, AD 335-41. Copper alloy, 15mm diameter. .
Obverse: Bust Right
Reverse: GLOR[IA EXERCITVS] 1 standards

SF204: A2.2007 Trench 3, Phase 3. (2125) [2124]

Illegible, probably 4th century. Copper alloy, 12mm diameter.
Obverse:Illegible
Reverse: Illegible

SF210: A2.2007 Trench 3, Phase 11. (2155) [2156]

Illegible, probably 4th century. Copper alloy, 13mm diameter.
Obverse: Illegible
Reverse: Illegible

SF214: A2.2007 Trench 3, Phase 3. (2177) [2153]

As of Vespasian, AD 69-79. Copper alloy, 26mm diameter.
Obverse: Laureate Bust right [VESP]ASIANAVGC[]
Reverse: PROVIDENT SC altar

SF217: A2.2007 Trench 3, Phase 8.2. (2187) [2192]

Nummus, House of Constantine, AD 330-35. Copper alloy, 17mm diameter.
Obverse: Bust Right
Reverse: GLOR[IA EXERCITVS] Two soldiers with two standards

SF301: A7.2008 (u/s)

Antoninianus, irregular, possibly of Tetricus I, AD 270-73. Copper alloy, 17mm by 15.5mm).
Obverse: Radiate Bust, Right
Reverse: Illegible

SF417: A8.2008 (u/s)

Nummus, Constantine I, Trier AD 317-24. Copper alloy, 17.5mm diameter.
Obverse: CONSTANTINVSIV[] bust left with victoriola
Reverse: [VIRTVS EXE]RCIT.

SF418: A8.2008 (u/s)

Nummus, Theodora, AD 337-41. Copper alloy, 15mm diameter.
Obverse: Bust Right [FL]MAX T[HEODORAE AVG]
Reverse: Illegible [PIETAS ROMANA]

SF426: A8.2008 Area A, Phase 9 (4218) [4219]

Nummus, possibly of Constantine II as Caesar, AD 335-41. Copper alloy 14mm diameter.
Obverse: [CONSTANTIN]VSIVN
Reverse: GLOR[IA EXERCITVS] Two soldiers, one standard

SF460: A8.2008 Area B, Phase 3. (4679) [4680]

Irregular *Antoninianus,* 3rd Century. Copper alloy, 21mm x 18mm
Obverse: Radiate Bust Right
Reverse: Illegible

Medieval Coins

SF402: A8.2008 (u/s)

Long Cross penny, 1247-1550. Silver, 18.5mm diameter

Post-Medieval Coins

SF401: A8.2008 (u/s)

Farthing, James I 1603-25. Copper alloy, 15mm diameter
Obverse: [I]ACO[DGMAG]BR
Reverse: [F]RA ET HIB REX harp

SF409: A8. 2008 (u/s)

Farthing, James I 1603-25, possibly has a cinquefoil mintmark at top centre which may indicate a more precise date of 1613. Copper alloy, 16mm diameter. Illustrated below

Obverse: IACO DG MAG B [R]I
Reverse: FRA ET HIB REX harp

SF415: A8.2008 Area A, Phase 12 (4122) [4123]

Farthing, Charles I, 1625-49. Copper alloy, 17mm diameter.
Obverse: CARO [DG] MAG BRI
Reverse: [FRA ET HIB REX] illegible

SF416: A8.2008 Area A, Phase 13. (4016) [4007]

Farthing, Charles I or James I, 1603-49. Copper alloy, corroded, 16mm diameter.
Obverse: Illegible
Reverse: FRA ET [HIB] REX harp

Glass

Siobhan Brocklehurst

A total of 28 sherds of glass were recovered from the four sites during the course of the excavation, 10 are of Roman date, 17 medieval and 1 post-medieval. Most of the material is either flat glass from windows or curved fragments from bottles or similar curved receptacles. The Roman glass is mostly of a clear, green or blue colour; medieval window glass is also clear, blue or green if from a household item, whereas window glass from this period is dark, brown, and mostly painted. Four sherds of painted window glass (SF104) come from demolition deposits associated with Structure 5, one has a clearly distinguished pattern on its surface. The single sherd of Post-Medieval glass is of a naturally dark brown-green colour. The material was examined by Siobhan Brocklehurst and a catalogue is provided below:

Roman Glass

Buildings and services

SF103: (1126) [1125] Clear flat glass, possibly from a window (36.5mm x 15mm x 3mm) + (19mm x 10mm x 3mm). A11.2006 Area E, Phase 10.

SF208: (2141) [2100] Clear/Green glass, thick and flat, possibly from a window (31mm x 28mm x 4mm). A2.2007 Trench 3, Phase 11.

SF249: (2334) [2330] Two glass sherds, possibly from a window. Glass lies between two layers of dark, thin material – possibly painted or patinated petrified glass, late Medieval (33mm x 20mm x 1.5mm; 35mm x 14mm x 1.5mm). A2.2007 Trench 3, Phase 11.

Household utensils and furniture

SF211: (2177) [2153] Blue-Green glass, triangular sherd, thick and flat, looks "frosted" on one side. From a bottle base (45mm x 22mm x 4mm). A2.2007 Trench 3. Phase 3.

SF212: (2177) [2153] Blue-Green glass triangular sherd. May be a base fragment of a prismatic bottle which has a design of four concentric circles in relief (50mm x 23mm x 5mm). A2.2007 Trench 3, Phase 3.

SF213: (2177) [2153] Clear/Green glass, slightly curved. Triangular sherd, may have been from a bottle or similar receptacle. (29mm x 23mm x 3mm). A2.2007 Trench 3, Phase 3.

SF405: (4022) [4021] Blue/green glass concave bottle base. Underside is rounded and has a possible mark on the base (75mm diameter; 2mm thickness). A8.2008 Area A, Phase 12.

SF406: (4022) [4021] Colourless, fine glass sherd with slight curvature (2mm thickness). A8.2008 Area A, Phase 12.

SF407: (4022) [4021] Two sherds of colourless, fine glass with a slight curvature, and feint linear etchings (0.5mm thickness). A8.2008 Area A, Phase 12.

SF408: (4022) [4021] Blue/green fine glass fragment from a globular vessel with a long narrow cylindrical neck (1mm thickness, internal bottleneck diameter 14mm). A8.2008 Area A, Phase 12.

SF423: (4188) [4198] Small rectangular sherd of very pale blue/green fine glass with some curvature, is either painted or patinated (0.5mm thickness). A8.2008 Area A, Phase 11.1.

SF458: (4571) Blue/green glass sherd from the rim of a vessel. The sherd has no curvature with the exception of the rim edge (4.5mm thickness). A8.2008 Area A, Phase 2.2.

SF461: (4659) [4658] Pale blue/green glass sherd with a slight curvature (4mm thickness). A8.2008 Area A, Phase 2.2.

Medieval Glass

Buildings and services

SF104: (1204) Four sherds of painted window glass. A11.2006 Area E, Phase 9.

Sherd 1: Triangular sherd of flat dark painted glass with straight, smooth edges. Red paint decoration on one side of a partial wide line and dot pattern (36.5mm x 34mm x 34mm x 2mm thick).

Sherd 2: Rectangular sherd of flat dark painted glass, edges display cut marks indicating cutting for window fitting. One side of the glass has a visible layer of paint with a sheen to it, the colour is very dark, possibly black, blue or deep purple (35.5mm x 21mm x 3mm thick).

Sherd 3: Triangular sherd of flat, dark glass with obvious paint layer all over; paint has chipped away from one edge exposing clear glass. Edges display cut marks indicating cutting for window fitting (26mm x 24mm x 24mm x 1mm thick).

Sherd 4: Triangular sherd of flat, dark painted glass with straight smooth edges (44mm x 29mm x 30mm x 2mm thick).

SF304: (3010) [3011] Very fine triangular sherd of window glass, dark brown in colour; possible layer of paint on either side of the glass (26mm x 15mm x 2.5mm thick). A7.2008 Area 1, Phase 10.

SF305: (3010) [3011] Solid sherd of dark brown window glass with possible layer of paint on either side. One side shows visible scratch marks which may be either natural scratching or sketchmarks for a pattern (29mm x 23mm x 3mm thick). A7.2008 Area 1, Phase 10.

SF306: (3010) [3011] Large sherd of window glass with a possible layer of paint on each side (49mm x 49mm x 2mm thick). A7.2008 Area 1, Phase 10.

SF424: (4196) [4197] Rectangular piece of window glass which has a thick patinated surface which looks and feels like bone. Cross section reveals thin clear textured glass in what looks like three layers between the patination. (51mm x 26mm x 3.5mm thickness). A8.2008 Area A, Phase 9.

Household Utensils and Furniture

SF207: (2101) [2100] Clear, thin glass with a scored linear pattern on the outer surface. This sherd is curved and may have been part of a bottle or similar curved receptacle (43mm x 34mm x 1mm). A2.2007 Trench 3, Phase 11.

SF219: (2193) [2192] Clear, thin sherd of glass, slightly curved. Possibly originates from a glass bottle or similar curved receptacle (35mm x 12mm x 1mm). A2.2007 Trench 3, Phase 8.2.

SF220: (2193) [2192] Clear thin sherd of glass, slightly curved. Possibly originates from a glass bottle or similar curved receptacle (23mm x 16mm x 1mm). A2.2007 Trench 3, Phase 8.2.

SF222: (2185) [2184] Thick slightly curved glass, opaque throughout. May be from a glass bottle or a receptacle of similar curvature (17mm x 13mm x 3mm). A2.2007 Trench 3, Phase 8.2.

SF225: (2241) [2242] Thick green glass with a frosted coating on both sides, very curved in shape, possibly from a rim of a bottle (25mm x 20mm x 5mm). A2.2007 Trench 3. Phase 8.2.

SF226: (2248) [2247] Thin clear/green glass sherd, quite curvy – probably from a bottle or similar curved receptacle (40mm x 15mm x 1mm). A2.2007 Trench 3, Phase 9.

Post-Medieval Glass

Household utensils and furniture

SF404: (4022) [4021] Dark green/brown sherd of post-medieval curved glass, probably from a bottle or similar curved receptacle (45mm x 22mm x 3mm thickness). A8.2008 Area A, Phase 12.

THE ENVIRONMENTAL EVIDENCE

Plant Remains

Anita Radini

Introduction

Between February 2006 and July 2008 University of Leicester Archaeological Services carried out a series of watching-briefs, evaluations and excavations across the footprint of the former James Went Building west of Oxford Street in De Montfort University's Leicester Campus .

During excavation of the site environmental samples were taken for the recovery of plant and animal remains which can provide evidence of domestic and other activities on the site as well as evidence of food and trade remains. Such information can aid interpretation of the features and provide information to compare with other areas of the town.

The samples were taken in line with ULAS Guidelines to be prioritised for processing and examination by considering their archaeological integrity (whether they are datable and uncontaminated), and their potential to contain remains which may provide useful evidence about the site. Most of the samples were of medieval date and came from sites A2.2007 and A8.2008. Samples taken from Site A2.2007 were bulk samples of charred plants remains and mineralized items from cesspits. Sample from A8.2008 were preserved as waterlogged material and were processed as consequence.

Methods

From a total of 151 samples taken from the two sites, selected samples were taken for processing by wet-sieving with flotation in a sieving tank to recover charred and mineralized plant remains, small bones and other animal remains. All the samples were wet-sieved by using a 0.5mm aperture mesh for the retention of the heavy residue with flotation onto a 0.3mm mesh. Samples taken from Site A2.2007 were bulk samples of charred plants remains and mineralized items from cesspits. Residues were all air dried and separated on a 4mm mesh riddle and the coarse fraction (CF) over 4mm sorted for all remains and finds which are included in the relevant sections of this report, the fine fractions (FF) below 4mm were reserved for sorting during the analysis stage if required. The flotation fractions (Flots) were transferred from the sieve into plastic boxes and air dried. Some samples from A8.2008 preserved waterlogged organic material and so were processed specially to recover this. This work was carried out by Anne Cradock and Anita Radini at ULAS.

Each selected sample was sorted completely when the concentration of the remains was low, and for rich samples a known fraction of the flot was sorted. Other samples were scanned and the range of remains noted. This was done using a stereoscope with magnifications ranging from x7 to x45. The charred and watelogged plant remains were separated from the flots, recorded and quantified on the basis of the number of intact items (such as whole cereal grains or seeds), while in those cases in which the remains were found in fragments or in waterlogged samples, they were quantified by estimating their abundance (+ = present; ++ = common; +++ = abundant).

The identification was carried out using morphological criteria, a reference collection consisting of both modern and archaeological carpological material and seed identification manuals (e.g. Anderberg, 1994, Berggren, 1981, Cappers *et al*. 2006). Plant names follow Stace (1997).

The best analyzed samples were then tabulated by type of feature and by phase (see Table 36 and Table 37).

Preservation

The most common form of preservation found was by charring on Site A2.2007, while almost all samples from A8.2008 consisted of waterlogged deposits. Charred plant remains were found in almost all samples examined. Heavy mineralized remains were found in samples from waterlogged contexts especially in Late Medieval Pits.

Several pits from A2.2007 site had remains preserved by mineralisation, mainly from samples from cesspit contexts from outside the Newarke precinct.

Seeds of elder (*Sambucus nigra*) in an un-charred state of preservation were recovered in several samples.

Samples

Phases

Samples analyzed for this report ranged from Earlier High Medieval to Early Post Medieval period as shown below:

Phase 8	Earlier High Medieval (AD *c.*1100-1250)
Phase 9	Later High Medieval (AD *c.*1250-1400)
Phase 10	Late Medieval (AD *c.*1400-1500)
Phase 11	Early Post-medieval (AD *c.*1500-1650)

Contexts analyzed mainly came from pits, but samples from one oven and a tree or post-hole were also scanned and analysed from site A2.2007.

Cereal remains: grains and chaff

The cereals remains found included *Hordeum vulgare* (hulled barley) grains, the most common crop on the site and high numbers of grains of free-threshing wheat (*Triticum aestivum* type*)* and wheat (*Triticum* sp.) were also recovered. Also grains of rye (*Secale cereal*e) were found in small numbers but present in many samples. Grain of wild oat (*Avena* sp.) were also present, identified from their small size and the form of the scar on the chaff. Moreover cereal bran of wheat and rye was found as large numbers of tiny fragments amongst the waterlogged remains.

Abundant chaff remains were found which were mainly of barley and bread wheat (*Triticum aestivum*), with some of indeterminate free-threshing wheat, and rye. No rivet wheat chaff was positively identified from the samples. One glume-base (chaff fragment) of spelt was recovered from a sample, and it is likely to represent Roman residual material.

Cultivated and collected

Mineralized grape pips (*Vitis vinifera)* were found in cesspits of late medieval dates. Hazel nutshell fragments (*Corylus avellana)* were also recovered. Mineralized seeds of blackberry (bramble) (*Rubus fruticosus*) and mineralized kernels of sloes (*Prunus spinosa*) were very common in cesspits and waterlogged remains. Apple pips and endocarp were found in several pits.

Legumes were also found, mainly as charred remains of peas or beans (*Vicia/Pisum*) with some vetches (*Vicia* sp.) present in almost all pits.

Arable/disturbed ground and grassland

Wild species, mainly arable weeds, included grasses (Poaceae), goosefoot seeds (*Chenopodium* sp.), docks (*Rumex* sp.), possibly pale persicaria (*Persicaria* cf *lapathifolia* (L.) Gray) and a few indeterminate seeds. Ribwort plantain (*Plantago lanceolata*), a plant commonly found in grassland, and wild carrot (*Daucus carota*), common in sunny spots of disturbed ground were also present. The latter seeds can be used for flavouring food and the roots, although small, are edible and rich in nutrients. Seeds of plants of the cabbage family (*Brassica/Sinapis*,) were also present, both types have species that are weeds of arable field, but also species that are edible, in this case the seeds are very small, the surface of the seeds did not survive charring so that further identification was difficult. Other seeds included corncockle (*Agrostemma githago*) and cleavers (*Galium aparine)*. Corncockle seeds are about the same size as cereal grains so often remain with the crop which is undesirable because they are not only poisonous but the seeds are very gritty and can cause problems to the teeth (Banham, 2004). Some seeds indicate soil conditions, for example goosefoots and docks require loam and sandy soils. Several species of these plants have edible leaves or stalks and are also used as fodder for pigs and other farm animals. Docks are also commonly found in wasteland, and could have grown on or near the site.

A few seeds belonging to the Daisy Family (Asteraceae) were also recovered. This group includes species commonly found in fields and meadows, some species have edible leaves and roots and also have very aromatic seeds used to flavour food. Seeds of the Brassicaceae were found in several samples both charred and waterlogged. A few seeds of small seeded legumes, (*Medicago, Meliolotus or Trifolium*), charred and mineralized, were recovered from all the phases. These plants can be used as fodder or green manure in crop rotation systems, they also grow in disturbed ground and could have easily grown on the site. Seeds of wild grasses (Poaceae), large and small, were recovered in several samples. Grasses, particularly Brome grass (*Bromus* sp.) are commonly found as an arable weed, and they can be difficult to separate from the crop because they are a similar size to cereal grains. They could have been brought to the site with the crop and be part of the waste of the last cleaning of the crop (Hillman, 1981). A few seeds belonging to plants associated with wetland such as sedges and rushes (Cyperaceae and *Juncus* sp.) were recovered from several waterlogged samples.

Phase 8 (Earlier High Medieval: c.1100-1250)

Phase 8 was represented on site by contexts of kiln/oven [2129], postholes and pits from A2.2007 beneath the Newarke, and from a possible large communal cesspit [4084] from A8.2008 containing waterlogged remains.

*Kiln/oven [2129], phase 8.2 (*Table 35 *and* Table 36*)*

Twelve samples were sieved from different layers related to the use and demolition of the kiln, in order to understand its possible use. All the samples were found to contain at least 50 items or more in the flot and had high concentrations of charred grains. The most common cereal grains in the deposits were of barley, often hulled, and large numbers of free-threshing wheat grains were also recovered from the samples. A few grains of rye and wild oat were also present. Charred seeds of several species of weeds were also recovered from all samples. Some poorly preserved cereal grains could only be identified as wheat type or indeterminate cereal grains. Chaff remains of barley and bread wheat were found to be abundant suggesting that this was the major source of cereals for the period on site. A few fragments of rye rachis and wild oat chaff were also found. The weeds recovered were mostly of arable land and are often found associated with cereal grain deposits in other areas of town. Seeds of corn-marigold, scentless mayweed, sorrels and goose-foots were also common with seeds of corn-cockle and cleavers also common. While the composition of the samples was similar in terms of type of remains the concentration of the material varied according with the location in the oven. Sample **237**, from ash layer (2234), represented the bottom of the oven and consisted of a large amount of ash, charcoal flakes and few over-charred grains and weeds, suggesting that this layer had been exposed to fire for prolonged period of time. The richest samples came from lateral layers above (2234), from samples **219** (2471), **220** (2148) and **227** (2191) which all had high concentrations of cereal grains, again dominated by barley and wheat, but with few grains of rye and oat. In these samples evidence of germination was found in both wheat and barley consisting of short sprouts attached or detached from the grains. Some of the grains of barley appeared empty and were deformed and this has been interpreted as evidence of germination. However, no large numbers of well-spouted grains was recovered from any of the samples in the kiln/oven and the evidence was insufficient to suggest malting was carried out. It is possible that a crop harvested whilst damp was being processed. Barley could have been parched before removing the papery hulls for human consumption, wheat may have been parched for storage or to improve milling qualities. It is possible that the area of these layers was the part of the oven where the "rake out" took place.

Farther away from the deepest part of the kiln and the ash layer, samples appeared to have a lower concentration of seeds especially cereals, this is visible in sample **225** (2181), in which the content of cereal grains drops together with the concentration of material in the flot. Samples **236** (2203) of the clay lining and sample **217** (2138) from the residue in the flue of phase 8 and were examined in order to understand the composition of the archaeobotanical assemblage at the end of the use of the kiln. Sample **236** was mostly composed of cereal grains of barley and free-threshing wheat, with a higher amount of weeds and wild plants, especially small seeded legumes, and large lumps of fired clay possibly of fragments of the super structure. In this sample one glume-base of spelt wheat was recovered and probably is residual material from Roman occupation on site. Sample **217** (2138), came from the layer above context 2148 and shows a similar composition, but a lower concentration of seeds and it possibly represents a redeposit of the fill of the oven. As the kiln did not provide strong evidence of malting, it is possible that it was used for drying crops.

Table 35: Numbers of plant remains by type in selected samples from Kiln/oven [2129].

Sample	237	219	220	227	225	236
chaff	14	10	6	2	0	9
grains	33	114	71	77	21	28
weeds	117	168	108	88	37	47

Post-holes, Phase 8.2

Samples from two post-holes were scanned: sample **203** [2115] and sample **231** [2209], and they consisted of charcoal flakes and small fragments of building material and did not provide information useful for the site.

*Pits (*Table 36 *and* Table 37*)*

Other samples from Phase 8 were from pit [2192], sample **228** (2193) beneath the Newarke, the pit was not well dated ranging from c.1100 to c.1400. The plant remains was sparse represented only by poorly preserved cereal grains of wheat and barley and few seeds of sorrel and goosefoots. No mineralized plant remains were found, the context is likely to represent re-deposited material due to soil shifting on site.

Pit [4084] from site A8.2008 consisted of waterlogged remains of a communal cesspit and a sample from this pit provided good evidence of food consumption in phase 8. Of the eight samples collected from the cesspit deposit six were scanned for this report. Sample **413** (4090), sample **415** (4092), sample **416** (4099) and sample **418** (4100) were the richest in plant remains of which sample **416** was analysed (Table 37). The samples were all rich in remains of food plants and the matrix consisted of cereal bran of wheat and barley. Cereal bran of barley is delicate and does not survive well and therefore is less often found in the sample. Food items included figs, hazelnut, blackberry, sloe and small plums, and few fragments of apple endocarp from the apple core were also recovered from sample **416**. Weeds of arable land similar to the ones found in the charred remains were also recovered. Among the weeds, it is interesting to note that fragments of the outer coat of corncockle seeds were found in the samples, suggesting this weed was accidentally consumed with the cereal grains. The sample contained wings of beetles (Coleoptera) and larva of flies of cesspits. No fish remains were recovered from any of these samples. Degraded cereal bran, insect remains and lower numbers of sloe fruit stones, mixed with insect remains and plant fibres were recovered from the bottom layers of the pit from sample **419** (4102) within cut [4084], and from sample **420** (4115) within cut [4111], this last sample represented the original fill of the pit as cut 4084 truncated the original deposit. Probably the continuity in the use of the communal pit may have compacted the layer at the bottom. Microscopic eggs of intestinal parasites of both humans and animals were seen during the scanning of the samples and were recorded. Sample **420** was tabulated (Table 37).

Phase 9 (Later High Medieval: c.1250-1400)

Ten samples from this phase were examined. One came from a small pit on A2.2007 and the others from a cesspit containing waterlogged deposits from A8.2008.

Very interesting material was found in the pit [2247], sample **238**. The fill of the pit consisted of a deposit of barley grains and mixed chaff, and it is likely to represent crop processing on a large scale on the site. Cereal remains found in the samples were mainly of barley, but few free-threshing wheat grains were recovered and small numbers of rye grains and oat were present too. The chaff was very abundant, mainly barley rachis fragments with smaller amounts of bread wheat although still very numerous. There are usually three grains to each chaff segment (the ratio of rachis to grains is about 3:1) in these cereals chaff remains were the most common remains found in the sample suggesting the crops of barley and wheat, but also rye were brought into town to be processed. Fragments of straw, possibly the part attached to the spikelet, were also recovered, almost all of the same length (below 1cm), suggesting the crop was cut below the ear and transported to town. The sample was also very weedy, with common crop weeds that showing that uncleaned cereals were brought into the town, the weed seeds probably represent cereal cleanings of the crops in the deposit. Similar samples were found at the nearby site of Bonners Lane (Monckton 2004a).

Cesspit [4563] was rich in finds of fruit stones. Nine samples were collected from the pit. The three best samples were **455** (4458), sample **456** and **457** from (4459) consisting of a deposit of sloe fruit stones.

The assemblage is very similar to pit [4084], but the concentration of the remains is much greater. In addition five grape pips were recovered from sample **457**. Sample **475** (4561) from the vertical soil layer trapped in the wicker structure of the pit lining shows a similar composition to the other samples but lower concentration of large fruit stones, suggesting that these remains have the tendency to move towards the centre of the pit by gravity. Two seeds of fool's parsley were recovered from sample **457** and **475**. The plant grows in well-drained soils and it is poisonous to humans. It is likely to have been growing nearby as it has been recovered from other samples in the town. In addition microscopic remains of plant fibres were observed, these were possibly the remains of leafy vegetables consumed and legume pods. Other remains include fragments of mosses (cf. *Sphagnum*) (perhaps used as medieval toilet paper), eight coprolites from sample **457,** and eggs of intestinal parasites of both humans and animals were seen during scanning in all these samples showing the presence of dung and sewage.

Wood fragments were also identified from sample **475**, including some of willow (*Salix* sp.), hazel (*Corylus avellana*) and oak (*Quercus* sp.), the latter being the most common. Moreover, compacted layer of plant fibres, possibly straw and small wood fragments were found in the samples. It is possible that straw, wood chips and ash or lime were deliberately put in the pit to reduce the smell.

Phase 10 (Late Medieval: c.1400-1500)

Activity during the 15th century was dominated by the construction of the Newarke Wall and environmental samples represented pitting activity outside the Newwarke precinct.

Cesspit [2254], A2.2007

The sample from the pit **239** (2253) contained only twenty-four items of which charred cereal grains of wheat and barley with a single grain of rye were recovered (Table 37). Mineralized remains of legumes were found in small numbers too poorly preserved to be identified, but possibly bean or small peas. Mineralized remains of collected fruits such as sloe and cherries were found in the form of fruit stones and several fig seeds were collected. The assemblage was very poor but it is simliar in content to the other cesspits found on the site.

Stone-lined cesspit [4466], A8.2008

Eleven samples were taken and scanned to assess the content of the pit and two samples **478** (4647) **80** (4649) located twards the bottom of the pit were tabulated as they had they highest concentration of remains found on site (Table 37). A very large amount of blackberry pips and fig seeds were recovered from these samples, particulary from sample **480**. Numerous grape pips, partially mineralized, were recovered from all the samples scanned, with the most in (45) sample **480**. The matrix of the pit again contained cereal bran of wheat and barley, degraded organic matter, long plant fibres and mosses. Again the presence of fragments of the outer seed-coat of corncockle suggest this plant represented a problematic weed across the whole medieval period. Seeds of fennel and wild carrot were recovered from samples **478** and **480,** both are edible and are aromatic plants. Fennel is well know as a food flavour and herb and this is the first find in a sample from Leicester. A few seeds of fool's parsley were recovered from both of the recorded samples. Moreover, broken fragments of the ridges from the outer layer of some Apiaceae (Umbellifereae) 'seeds' were common in all these samples suggesting that plants such as fennel and wild carrot were used and probably consumed as food on the site. Remains of apple pips and endocarp (core fragments) were also found together with different types of plums with cherries and sloes. Remains of mineralized chewed cherries or small plums were recovered from sample 480 but they were too damaged to establish which fruit they came from. Fragments of hazel nutshell were also recovered. It is interesting to note that the several seeds of yellow flag iris (*Iris pseudacourus)* were the first find of this plant in samples in Leicester. The plant is poisonous to humans so would not have been used as food, however, the leaves were sometimes used in the past for thatching and it has a decorative flower. Remains of rushes and sedges (*Juncus* sp. and Cyperaceae) were also found in the samples, all could be used as roofing or flooring material so could have been brought to the site for these purposes. It is possible that this is the case for the yellow flag iris, brought with such waterside vegetation and so entered the archaeological record on the site. Human and animal intestinal parasites were also present as evidence of sewage, and sample **472** (4645) consisted of a lime deposit suggesting that lime was used to reduce the smell of the cesspit.

Phase 11 (Early Post-Medieval: c.1500-1650)

Two pits from this phase were processed: pit [2269] and pit [2100] both from site A2.2007, from the area outside Newarke. Sample **254** (2283) from pit [2269] consited of a clayey sandy deposit with lumps of building material and only had nine items, including three charred grains of barley, two mineralized seeds of fig, and a few seeds of goose-foots: the latter probably a weed of the barley crop. A larger number of items, totalling forty-nine, were recovered from sample **214** (2141) from pit [2100] (Table 37). The assemblage also consisted of charred grains of barley and wheat and a few legumes (beans/peas) in which the hilum was lost. Mineralized remains of edible fruits were dominant and they consisted of fig and apple seeds, small cherry and sloe stones and a small plum. Charred seeds of common arable weeds such as corncockle and stinking mayweed were found in low numbers, together with a charred seed of dock and mineralized seeds of sedges. The pit possibly represent domestic rubbish and it is very similar in its composition to the cesspit found in the previous phases.

Discussion

Evidence of food consumption

Evidence of food plants was found in pit fills from both sites and covered the whole of the medieval period. The staple diet through the medieval period consisted of cereals, as shown by the abundant cereal bran found amongst the waterlogged remains, fruit and nuts (collected foods such as sloe, blackberry and hazelnut) cultivated fruits (such as apple, cherry and plum) and possibly imported items such as figs and grapes. Grape pips were found to be very abundant in Phase10. Evidence for the consumption of legumes was low, in contrast with Bonners Lane and Freeschool Lane (Monckton 2004, Radini 2009), but numbers compared to other areas of town as a scatter across the site. Although the low numbers here may be due to a lower chance of survival of this type of food remains in the acid environment of the cesspits. There is direct evidence for the consumption of plant fibres from green leafy vegetables and more detailed identification will be the subject of future investigations. This evidence suggests a relatively healthy but staple diet. The comparison of evidence from cesspits over time points to a more diverse diet towards the later periods, with higher amount of imported items (figs and grapes), and seeds of fennel and other plants of the Apiaceae family possibly used as herbs for food flavouring. The presence of human and animal gut parasite ova, seen during the examination of waterlogged remains, suggests parasites of human gut were a problem to human health at the time. The remains from cesspits, including the large stone lined pit of phase 10, represent continuous domestic activity on the site. Unlike other cesspits in the town fish remains were absent from the waterlogged deposits. This could be due to the phosphate of the fish bones being dissolved in the acid conditions, the phosphate could then be available in the cesspit environment and could explain the high level of mineralisation of fruit stones and pips recovered in all cesspits. These cesspits add to the evidence for food and living conditions from an increasing number of cesspits from the town and suburbs (Monckton 2004b, and forthcoming), but differ from most in containing waterlogged organic material in addition to the mineralised remains more usually found.

Feeding Medieval Leicester

The bulk of the cereal remains came from charred plant remains from the kiln in Phase 8 and the small pit in Phase 9. In both assemblages there is a large amount of barley. The remains from the oven did not provide strong evidence of germination and they were very different from those malting kilns found at Freeschool Lane (Radini and Monckton 2009) where a high percentage of germinated grains were found with the cereal sprouts were almost as long as the grains. The assemblages from both the kiln and the pit resemble those found at Bonners Lane (Monckton, 2004), in terms of cereal and chaff composition, but they showed higher proportions of weed seeds. The amount of chaff recovered from the pit of Phase 9 suggests that crops of wheat, barley and rye were taken into town to be processed. The large amount of weeds could be explained if the final cleaning of the crop occurred within the town, seeds of weeds would then be cleaned from the crop and would therefore concentrate in the deposits sampled. The assemblages from the kiln and posthole therefore provide evidence of trade activity on the site similar to that found at Bonners Lane (Monckton 2004a). These sites are near to the location of the town fields which may be the source of some of the cereals and the similar types of weed seeds may indicate the growing conditions which will be investigated in future studies. The sites did not provide strong evidence of brewing activity at any time. The evidence of large scale of crop processing disappears after phase 9 suggesting a change in the use of the site after this period. Evidence of cereal processing waste and part cleaned cereal crops have been found at sites within the town from the Highcross Excavations at Vaughan Way and Vine

Street during phases 8 and 9 (Monckton 2009, Monckton and Radini 2009) where it is thought that cereals were processed to supply the townspeople. Sites in the Southern Suburb have also produced crop processing remains from Grange Lane (Phase 8) and Bonners Lane of late medieval date in particular (Monckton forthcoming).

The urban environment

Seeds of wild plants and weeds were recovered from all the samples. While those from charred cereal deposits were probably the arable weeds from un-cleaned crops brought into the town, wild and weed species found in the cesspits are likely to include plants growing nearby and so can provide information about the urban environment. Waterlogged remains from phase 8 and 9 were rich in seeds of goosefoots and docks which commonly grow on disturbed ground. They could also have been used for food for people and animals because the leaves of some of these species are edible. Parasites ova common in pigs can be considered to be positive evidence of pig keeping on the site. The waterlogged remains from Phase 10 suggest a more open environment as wild plants such as fool's parsley, which grows in open and well-drained soils, increases. The presence of plants associated with the waterside such as rushes and sedges is also strongly represented across all periods. These seeds of yellow flag iris were recovered from waterlogged deposits in Phase 10 and they could have entered the archaeological record as plants used as flooring and roofing material together with rushes and sedges, or possibly have been collected for their ornamental flowers. In any case it is clear that the nearby riverside environment provided useful plant material regularly transported to the site.

Conclusions

The archaeobotanical assemblages confirmed that un-cleaned crops of barley and bread wheat were taken, probably from nearby fields, to the town and processed on site in Phases 8 and 9. Backyard activity and domestic use of the site was shown by a range of food and other remains preserved in cesspits which produced information about the diet of the people in this area of town. Moreover a change in the use of the land was detected from Phase 9 to 10, from the evidence of a higher concentration of wild plant remains that were recovered from waterlogged samples in phase 10 while the evidence of large scale crop processing and cereal related trades disappeared after Phase 9. The site has therefore provided useful information on the use of the land nearby the site as farming land.

Table 36: Cereal Grain Deposits

Sample	**237**	**219**	**220**	**227**	**225**	**236**	**217**	**228**	**238**	**Sample**
Context	2234	2147	2148	2191	2181	2203	2138	2193	2248	**Context**
Phase	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	9	**Phase**
Principal context	2129	2129	2129	2129	2129	2129	2129	2192	2247	**Principal context**
Feature type	oven ash layer	oven fill	oven fill	oven fill	oven fill	clay lining	residue in flue	pit fill	post-hole	**Feature type**
Cereal chaff										**Cereal chaff**
Triticum spelta L. glume base						1				Spelt
Triticum aestivum L. rachis	3	2	3	2		2	3		31	Bread wheat
Secale cereale L. rachis							1		12	Rye
Hordeum vulgare L. rachis	11	8	3			6			52	Barley
Avena sp. wild									11	Oats
Cereal grains										
Triticum free-threshing grain	6	18	21	14	3	8	12	15	32	Bread wheat type
Triticum cf. free-threshing grain sprouted		3	2	3					5	Bread wheat type
Triticum sp.	3	8		17	2			3	30	Wheat
Secale cereale L.	1	3		1		2			18	Rye
cf. *Secale cereale* L.		6	5	1					6	Rye
Hordeum vulgare L. hulled	6	42	16	32	8	18	24	6	125	Barley
Hordeum vulgare L. hulled sprouted		14	11						18	Barley, germinated
Avena sp.	3	2	4	1			3	2	6	Oats
Cereal/Poaceae	6	11	4	5	3		6	3		Cereal/Grass
Cereal indet.	8	7	8	3	5			1	12	Cereal indet.

Sample	**237**	**219**	**220**	**227**	**225**	**236**	**217**	**228**	**238**	**Sample**
Context	2234	2147	2148	2191	2181	2203	2138	2193	2248	**Context**
Phase	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	9	**Phase**
Principal context	2129	2129	2129	2129	2129	2129	2129	2192	2247	**Principal context**
Feature type	oven ash layer	oven fill	oven fill	oven fill	oven fill	clay lining	residue in flue	pit fill	post-hole	**Feature type**
Embryos, detatched		11	9				1		18	Cereal embryos
Cereal sprouts, charred		3	3						6	Cereal sprouts
Legumes										
Vicia faba v. sativa L.									3	Beans
*Vicia faba v. minuta*L.		3							6	Field bean
cf. Vicia faba v. minuta L.		1								Field bean
Vicia/Pisum	1	3		3				5	4	Beans/Peas
Arable/Disturbed Ground										
Agrostemma githago	2	8	6	8	*3*	1	1		*7*	Corncockle
Chenopodium sp.	8	3		1			1	1	26	Goosefoots
Galium aparine	13	6	8			2	2		32	Cleavers
Persicaria maculosa/lapthifolia									3	Persicaria
Polygonum aviculare L.	2	7	5	3			1		11	Knotgrass
Rumex sp.	3	18	12	11			1		18	Docks
Rumex cf. acetosella L.		3	2		1				17	Sheep's-sorrel
Brassica/Sinapis		3	2					3	3	Cabbage/Mustard
Chrysanthemum segetum	5	11	5	3	2	3	1	3	11	Corn Marigold
Tripleurospermum sp.	3	8	2	3	4	1	1	2		Scentless Mayweed

Sample	**237**	**219**	**220**	**227**	**225**	**236**	**217**	**228**	**238**	**Sample**
Context	2234	2147	2148	2191	2181	2203	2138	2193	2248	**Context**
Phase	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	9	**Phase**
Principal context	2129	2129	2129	2129	2129	2129	2129	2192	2247	**Principal context**
Feature type	oven ash layer	oven fill	oven fill	oven fill	oven fill	clay lining	residue in flue	pit fill	post-hole	**Feature type**
Brassica/Sinapis	11	11	5	5	3	1	3	3	2	Cabbage/Mustard
Vicia sp.	3	5	1		3	1	1	1		Vetches
Lithospermum arvense	2	1								Corn Gromwell
Anthemis cotula L.	3	6	7	8	2	5		2	8	Stinking Mayweed
Grassland										
Plantago lanceolata L.	1		3	3	1			1		Ribwort Plantain
Hedge or Woodland										
Sambucus nigra L. (u)	1	1	1	3	1	1			1	Elder
Unclassified										
Polygonum sp.	5	6	2	4	1	1	1	3	5	Knotweed
Brassicaceae	8	9	1	6	1	1	1	2	2	Cabbage family
Medicago/Meliolotus/Trifolium	3	14	12	4	1	13	1			Clover type
Asteraceae	3	4	2	4					8	Daisy Family
Carex spp (3-sided)	4	3	5	5	2	3	3	6	6	Sedges
Poaceae (small) m	14	12	13	5	5	5	3	6	16	Grasses
Poaceae (large)	12	15	8	7	3	2	3	7	7	Grasses (large)
Indeterminate seeds (fragments)	11	14	6	5	4	7	6	3	4	Indet.
Other										

Sample	**237**	**219**	**220**	**227**	**225**	**236**	**217**	**228**	**238**	**Sample**
Context	2234	2147	2148	2191	2181	2203	2138	2193	2248	**Context**
Phase	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	9	**Phase**
Principal context	2129	2129	2129	2129	2129	2129	2129	2192	2247	**Principal context**
Feature type	oven ash layer	oven fill	oven fill	oven fill	oven fill	clay lining	residue in flue	pit fill	post-hole	**Feature type**
Fragments	x	x	x	x	x	x	x	x	x	Fragments
total	**165**	**313**	**197**	**170**	**58**	**84**	**80**	**78**	**582**	Total
Flot, part analyzed	100%	50%	50%	50%	100%	100%	100%	50%	25%	Sorted %
Sample Volume L	5.0	3.8	6.0	7.0	10.0	10.0	7.2	9.8	2.0	Sample volume (litres)
items per litre of soil	**33**	**165**	**65**	**49**	**5.8**	**8.4**	**11**	**16**	**1164**	Items/litre

Table 37: Pit Contents

Sample	**416(w)**	**420 (w)**	**457 (w)**	**475 (w)**	**480 (w)**	**478 (w)**	**239**	**247**	**254**	**214**	**Sample**
Context	4097	4115	4459	4561	4649	4647	2253	2259	2283	2141	**Context**
Cut	4084	4100	4563	4563	4466	4466	2254	2254	2269	2100	**Cut**
Area/Trench	C	C	B	B	A	A	3	3	3	3	**Area/Trench**
Phase	8	8	9	9	10	10	10	10	11	11	**Phase**
Feature type	cess	cess	pit	pit	cess	cess	pit	pit	pit	pit	**Feature type**
Cereal grains											**Cereal grains**
Triticum free-threshing grain							6	3		5	Wheat
Secale cereale L.							1				Rye
Hordeum vulgare L. hulled		2		4			8	5	3	5	Barley
Cereal bran (Triticum sp. Secale cereale) **w**	xxx	xxx	xxx	xxx	xxx	xxx					
Legumes											**Legumes**
Vicia cf. *faba* L.	4	6									Beans
Vicia/Pisum		4	1		2		2	1	2	3	Bean/Peas
Cultivated, Collected											**Cultivated, Collected**
Ficus carica L.	12		84	32	112	89	4	5	2	5	Fig
Corylus avellana L. (w)	3		17	6	3	6				1	Hazel nutshell
Rubus fruticosus L. agg (m)	35		78	30	223	118					Brambles
Prunus spinosa L.	6		82	18	18	8	4	1		3	Sloe
Prunus sp. small	5		18	12	x	3				1	Plums, small
Prunus sp. kernels cultivated type	3		6	3	x	6					Plums, large cultivated
Malus sp. (cultivated?)			8	6	6	12				2	Apple
Prunus sp. cherry	6				16	3		2		3	Cherry

Sample	**416(w)**	**420 (w)**	**457 (w)**	**475 (w)**	**480 (w)**	**478 (w)**	**239**	**247**	**254**	**214**	**Sample**
Context	4097	4115	4459	4561	4649	4647	2253	2259	2283	2141	**Context**
Cut	4084	4100	4563	4563	4466	4466	2254	2254	2269	2100	**Cut**
Area/Trench	C	C	B	B	A	A	3	3	3	3	**Area/Trench**
Phase	8	8	9	9	10	10	10	10	11	11	**Phase**
Feature type	cess	cess	pit	pit	cess	cess	pit	pit	pit	pit	**Feature type**
Vitis vinifera L. m			5		45	16	1				Grape pips
Malus sp. (cultivated?)endocarp	x		x	x	x	x					
Arable/Disturbed Ground											**Arable/Disturbed Ground**
Aethusa sp.			2	2	6	3					fool's parsley
Daucus carota wild type					2	1					wild carrots
Foeniculm vulgare L.					6	3					fennel
Agrostemma githago seeds							2	2		3	Corncockle
Agrostemma githago coat fragments	x	x	xx	xx	xx	x					Corncockle
Centaurea nigra	x	x	xx	xx	x	x					Knapweed
Galium aparine L.	x				x	x					Cleavers
Rumex sp.	x		x	x	x	x	1			1	Docks
Chenopodium spp.	x		x		x	x			4		Goosefoots
Brassica/Sinapis			x	x		x	1	2		1	Cabbage/mustards
Vicia sp.											Vetches
Anthemis cotula L.			x				1	2		3	Stinking Mayweed
Grassland											**Grassland**
Plantago lanceolata L.				x			3	1		1	Ribwort Plantain

Sample	**416(w)**	**420 (w)**	**457 (w)**	**475 (w)**	**480 (w)**	**478 (w)**	**239**	**247**	**254**	**214**	**Sample**
Context	4097	4115	4459	4561	4649	4647	2253	2259	2283	2141	**Context**
Cut	4084	4100	4563	4563	4466	4466	2254	2254	2269	2100	**Cut**
Area/Trench	C	C	B	B	A	A	3	3	3	3	**Area/Trench**
Phase	8	8	9	9	10	10	10	10	11	11	**Phase**
Feature type	cess	cess	pit	pit	cess	cess	pit	pit	pit	pit	**Feature type**
Hedge or Woodland											**Hedge or Woodland**
Sambucus nigra L. (u)	x		x			x	3	2		6	Elder
Wetland											
Irirs pseudacourus					8	3					Yellow flag iris
Elocharis palustris	x		x	x	xx	x					Spike-rush
Juncus **sp.**	x		x	x	xx	x					
Unclassified											**Unclassified**
Brassicaceae						x					Cabbage family
Medicago/Meliolotus/Trifolium (w)					x	x					Medick/Melilot/Clover
Medicago/Meliolotus/Trifolium (m)	x									5	Medick/Melilot/Clover
Apiaceae	x	x	x	x	x	x					Carrot family
Asteraceae						x		3			Daisy family
Cyperaceae	x	x	x	x	x	x					Sedge family
Carex spp (3-sided)	x	x	x	x	x	x	2			3	Sedges
Poaceae (small) m						x			x		Grasses, small
Indeterminate seeds (fragments)	x	x	xx	xx	xx	xx					Indeterminate seeds
Indeterminate seeds (m)	x	x	x	x			x	x	x		Indeterminate seeds (m)

Sample	**416(w)**	**420 (w)**	**457 (w)**	**475 (w)**	**480 (w)**	**478 (w)**	**239**	**247**	**254**	**214**	**Sample**
Context	4097	4115	4459	4561	4649	4647	2253	2259	2283	2141	**Context**
Cut	4084	4100	4563	4563	4466	4466	2254	2254	2269	2100	**Cut**
Area/Trench	C	C	B	B	A	A	3	3	3	3	**Area/Trench**
Phase	8	8	9	9	10	10	10	10	11	11	**Phase**
Feature type	cess	cess	pit	pit	cess	cess	pit	pit	pit	pit	**Feature type**
Other											**Other**
Fragments of unidentified seeds	x	x	x	x	xx	xx					Fragments of unidentified seeds
Fruit fragments	x	x	x	x	xx	xx					Fruit fragments
Vegetable fibers	x	x	x	x	xx	xx					Vegetable fibers
Sfagnum sp.	x	x	xx	xx	xx	xx					Sphagnum sp. moss
Mosses unid.	x	x	x	x	x	x					Mosses unid.
Insect remians	xx	xx	xx	xx	x	x	x	x	x	x	Insect remains
Parasites eggs	x	x	x	x	x	x					Parasites eggs
total	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**22**	**20**	**11**	**38**	***total***
Flot part analyzed	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	Flot part analyzed
Sample Volume litres	0.5	0.5	0.5	0.5	0.5	0.5	7.0	9.0	2.5	2.0	Sample Volume litres
items per litre of soil	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**3**	**2**	**4.5**	**19**	items per litre of soil

Animal Bones

Jennifer Browning

Introduction

This report presents the results of analysis of the faunal remains recovered from Roman and medieval levels during four archaeological interventions associated with De Montfort University, Leicester. The analysis of faunal remains from urban sites presents particular challenges; on the one hand assemblages are often large and well-preserved, however, re-working of deposits is common and since bone is not intrinsically dateable, the integrity of the stratigraphy is of great importance. The assemblage was briefly scanned and selection criteria were applied to the assemblage to target features notable for large and well-preserved faunal assemblages, as well as those features considered important by the Site Director. The chronological phases assigned to the site are directly comparable with those used by ULAS on other recent excavations in Leicester, such as the Highcross development (Buckley et al forthcoming).

This report includes analysis of bones from the following individual sites (listed by Accession code):

A11 2006	Area E
A2 2007	Trench 3
A8 2008	Area A, Area B, Area C

Methodology

Specimens were identified with reference to comparative modern and ancient skeletal material held at the School of Archaeology and Ancient History, University of Leicester. Information was compiled directly into a database with facility for recording data on species, bone element, state of epiphysial fusion and completeness to elicit information on species proportions, skeletal representation, age and condition. Where possible, the anatomical parts present for each skeletal element were recorded using the 'zones' defined by Serjeantson (1996), with additional zones ascribed to mandibles based on Dobney and Reilly (1988) and a simple system applied to skulls by the author (four commonly found recordable points were defined on each side of the skull to make assessment of zones present rapid and comparable: pre-maxilla; upper and lower orbit; and occipital condyle. Skull fragments were also recorded). Condition was assessed on a scale ranging from 'excellent' through 'good', 'medium', 'poor' to 'very poor', where 'excellent' denotes a bone surface with no cracking or flaking and 'very poor' indicates that the fragment is disintegrating into splinters. Joining fragments were re-assembled and the resulting specimen counted as a single fragment. The location and nature of modifications such as burning, gnawing and pathologies were also recorded. Butchery marks were located by zone, where feasible, categorised, using simple codes, and described. Measurements were taken, as appropriate, following von den Driesch (1976), Payne (1969) for sheep/goat metacarpals and Payne and Bull (1988) for pigs. Species proportions were calculated using both NISP (Number of Identified Specimens). Minimum Numbers of Individuals (MNI) is not considered an appropriate method of quantification for urban sites (O'Connor 2003, 156) and has consequently only been used when describing material from particular groups. The raw counts for skeletal elements were first standardised using the zones recorded, to ensure that only non-repeatable parts were included. The results were made comparable across species by dividing by the number of times the element occurred in the body. Side was not taken into account during this calculation, since most of the bones are likely to result from procurement of joints of meat.

Age at death was assessed for the three main species using a combination of epiphysial fusion and dental eruption and attrition. For the purposes of analysis, 'fusing' specimens (defined as where the fusion line was clearly visible) were considered to be fused. Although there is no definitive sequence and age at which epiphysial fusion of each element occurs, it is possible to use the ranges provided by various authors as a guide. This report follows the figures from Silver (1969), grouping epiphyses into 'early', 'middle', 'late' and 'final' after O'Connor (2003, table 34). Recording of tooth-wear followed Grant (1982) and the resulting wear stages were then grouped into age categories following O'Connor (2003, table 31) (Table 38).

Table 38: The Animal Bones: Definitions of dental eruption and attrition stages used in analysis of age at death (O'Connor (2003: table 31)

Cattle and Sheep Mandibles		
N	Neonatal	DP4 unerupted or just in the process of eruption
J	Juvenile	DP4 in wear, LM1 not in wear
I	Immature	LM1 in wear, LM2 not in wear
SA	Sub-adult	LM2 in wear, LM3 not in wear
SA1		LM3 forming, to just erupting
SA2		LM3 erupting
A	Adult	LM3 in wear
A1		LM3 up to minor dental exposure (stages a and b)
A2		LM3 dentine exposure across central column (stages c and d)
A3		LM3 dentine exposure on distal column (stages e to h)
E	Elderly	Dentine exposure to or beyond stage j
Pig Mandibles		
N	Neonatal	DP4 unerupted or just in the process of eruption
J	Juvenile	DP4 in wear, LM1 not in wear
I	Immature	LM1 in wear, LM2 not in wear
I1		LM2 present in crypt
I2		LM2 erupting
SA	Sub-adult	LM2 in wear, LM3 not in wear
SA1		LM3 present in crypt
SA2		LM3 erupting
A	Adult	LM3 in wear
A1		LM3 with enamel attrition only (stage a)
A2		LM3 with minor dentine exposure (stages b to d)
A3		LM3 dentine exposure merging on mesial cusps (stages e to h)
E	Elderly	Three main zones of dentine exposure across LM3 merging (stage j)

Attempts were made to separate sheep and goat using criteria defined by Boessneck (1969) and Prummel and Frisch (1986), paying particular attention to horn core, skull and teeth, scapula, humerus, femur, metacarpal and metatarsal. In addition, all metacarpals were measured after Payne (1969). Sheep and goat bones are frequently difficult to distinguish and post-cranial fragments were recorded as sheep/goat unless positive goat attributes were present. However, in view of the absence of goat elements present, it is considered that this is a cautious approach and most of the sheep/goat remains were actually likely to be sheep.

Suitable deposits were routinely sampled for charred plant remains and small bones, a strategy supplemented by the taking of spot samples of particularly rich deposits. Selected, well-dated samples were wet-sieved in a York tank using a 0.5mm mesh with flotation into a 0.3mm mesh sieve. Samples were processed in parts up to 10 litres with additional parts processed for contexts with good potential. The purpose of examining the bone from the sieved samples was twofold: (1) to identify bones from small mammal, birds and fish species that would not otherwise be recovered; and (2) to check the recovery rates of the larger species. Unfortunately, in this case the samples from the prioritised contexts produced little animal bone and a typically high proportion of this material consisted of tiny fragments of unidentifiable bone. Consequently, the material could add little to the current interpretation. A separate record of the material from coarse fraction and flots was retained.

Quantity, condition and preservation

A total of 4097 bone fragments were hand-recovered and fully recorded from 88 different contexts (Appendix). None of the Roman phases produced very good stratified bone assemblages (Table 39) and the largest proportion of bones was recovered from late and post-medieval phases. The proportion of identified to indeterminate fragments was generally high among all the phases, averaging 57% and ranging from 30% (Phase 3) to 90% (Phase 2.2).

Table 39: The Animal Bones: relative proportion of hand-recovered assemblage assigned to each phase

Phase	Period	Fragment No	Relative proportion of assemblage %
2.2	Early Roman (mid-1st - early 2nd century)	147	4
3	Mid Roman (mid-2nd to 3rd century)	124	3
4	Late Roman (4th century)	19	<1
8	Earlier medieval (c.1100-1250)	47	1
8.2		27	<1
9	Medieval (c. 1250-1400)	357	9
10	Late Medieval (c.1400-1500)	714	17
11	Early post-medieval (1500-1650)	597	15
11.1		1842	45
11.2		34	<1
12	Late post-medieval (1650-1750)	189	5
Total		4097	100

Bones from the excavations were generally in a suitable condition to allow recognition of butchery marks, pathologies and other modifications. Across all phases 49% of the bone was deemed ‘good’, while a further 36% was classed as ‘medium’, 12% was assessed as ‘excellent’ but only 3% was considered ‘poor’ or ‘very poor’. There was some variation among phases and features; the worst preserved bone was from Phase 4 and the best, although with greater variation in condition, was Phase 11.1.

Table 40: Condition of the assemblage in each phase (%)

Phase	Excellent	Good	Medium	Poor	Very Poor
2.1			100		
2.2	17	67	16	0	0
3	0	14	82	4	0
4	0	17	72	6	6
8	2	57	40	0	0
8.2	4	42	54	0	0
9	2	45	46	5	2
10	0	56	43	0	0
11	4	52	41	1	0
11.1	24	49	24	2	2
11.2	0	29	68	3	0
12	1	38	61	1	0
Total	12	49	36	2	1

The prevalence of gnawing may also suggest residual or re-deposited material. Gnawing occurred rarely in the assemblage, affecting less than 2% (n=79) of specimens overall, suggesting that bones in all phases were rapidly buried and therefore rarely available to scavengers. A scan of the numbers of gnawed bones per feature did not reveal any particular concentrations, with a number of contexts containing only one or two gnawed bones. A slightly higher proportion was recorded in pit [2330], where 5% (n=19) of bone was gnawed. In pit [4258], which contained the largest proportion of the assemblage, less than 1% (n=15) of bones were gnawed.

Burnt bone was rarely encountered in the assemblage (n=25) and did not occur in meaningful concentrations in any feature.

The Roman Phases

Phase 2.2 (Early Roman mid-1st - early 2nd century)

Phase 2.2 is characterised by two major events: the surfacing of the roads; and the presence of possible habitation adjacent to the Tripontium Road. Only two features, both within Area E, were prioritised for bone analysis. There were insufficient numbers of bones to examine species proportions, age profiles or patterns of butchery for the phase as a whole. However, in each of the features examined there were points of interest. Cat was the most common species in ditch [1004], with bones representing a minimum of two animals. However, this was only apparent by the number of distal tibiae and most of the bones appear to represent a partially articulated skeleton. The limbs, feet, vertebrae and ribs were all represented but the skull and mandibles were absent. Very fine cut marks were noted on the anterior face of the distal tibia, possibly indicating skinning. Epiphyseal fusion suggested that the animal was adult, although the separate distal tibia was unfused; indicating the presence of an animal less than 40-52 weeks (Smith 1969, 526).The other bones included a calf mandible from a juvenile and three sheep/goat distal humeri, possibly representing waste from butchery and consumption. In pit 1002, the cleanly-chopped cleithrum of a large cod was identified, possibly indicating the decapitation of the fish prior to preservation by smoking or salting. A number of medium mammal ribs and a cattle femur were also butchered. Although a small assemblage, the bones appear to represent food waste.

Table 41: Number of identified and indeterminate specimens in Phase 2.2 features

Phase 2.2	**1002**	**1004**	**%**
Cattle	2	4	5
Sheep/Goat		4	3
Pig		1	1
Cat		112	86
Domestic Fowl	1	1	2
Goose	3		2
Cod	2		2
Total identified	8	122	100
Large mammal		5	
Medium mammal	5	3	
Indeterminate			
Total	13	130	

Phase 3: Mid Roman (mid-2nd to 3rd century)

Phase 3 witnessed the continuation and maintenance of the Tripontium Road, and activity comprised the re-cutting of some of the road-side ditches. A hiatus of associated road-side activity was followed by small-scale industrial activity. Features from Areas C, E and Trench 3. Phase 3 produced few bones,

which mostly consisted of the main domestic species. Bones belonging to both lambs and piglets were identified in pit [4065], along with a large section of cattle frontal and horncore. A fragment of antler, comparable with red deer was recovered from pit [2153]. The only bone identified from [1207], an oven or furnace, was an un-burnt human metacarpal (H. Jacklin *pers. comm*), which is presumably not contemporary with the use of the feature.

Table 42: Number of identified and indeterminate specimens in Phase 3 features

Phase 3	**2153**	**4065**	**1207**	**%**
Cattle	2	7		25
Sheep/Goat	10	3		36
Pig	3	6		25
Red deer	1			3
Human			1	3
Domestic Fowl	3	1		11
Total identified	18	17	1	100
Large mammal	22	20		
Medium mammal	19	3		
Bird-Unidentified	2	2		
Indeterminate	13	6		
Total	75	48	1	

Phase 4: Late Roman (4th century)

In the late Roman period use of the Tripontium Road probably continued and was associated with largely uncharacterised road-side activity.

Pit [1245], located on Area E, was a small circular feature, *c.*0.8m in diameter, situated at the northern end of the site. It contained evidence for the three main domestic species, predominantly represented by long-bones and ribs. A cattle mandible from an adult animal was recovered. A more poorly preserved bone than the rest of the assemblage was tentatively identified as a human metatarsal but this identification is uncertain due to the condition of the bone.

Table 43: Number of identified and indeterminate specimens in Phase 4 features

Phase 4/Feature	**1245**
Cattle	2
Sheep/Goat	3
Pig	1
Total identified	6
Large mammal	5
Medium mammal	4
Indeterminate	4
Total	19

The medieval and post-medieval phases

Phase 8: Earlier medieval (c.1100-1250)

Phase 8 features from Areas A, C and E were examined. The features produced few bones and only 32 were assigned to species. In cess pit [4084] the remains of a human skull was identified, including part of the occipital with partially fused sutures indicating that this was an adult (H. Jacklin, *pers. comm.*). Dog bones comprising ribs, mandible and pelvis, conceivably from the same animal, were recovered from cess pit [4084].

Phase 8.2 produced an even smaller group of material, in which the main domestic species (cattle, sheep/goat and pig) were identified. Both studied features were located in Trench 3 and included corn-drier [2129] and a ditch [2184]. Given the nature of the feature, the material from the corn-drier is not thought to be contemporary with its use.

Table 44: Number of identified and indeterminate specimens in Phase 8 features

Phase 8	**1084**	**4084**	**4214**	**4403**	**%**
Cattle	1		3	5	28
Sheep/Goat		1	1	1	9
Sheep		1			3
Pig		1			3
Horse		1		2	9
Dog		9			28
Human		1			3
Domestic Fowl	1	1			6
Goose		3			9
Total identified	2	18	4	8	100
Large mammal		4	1	1	
Medium mammal	1	1		5	
Indeterminate	1				
Total	4	23	5	14	

Table 45: Number of identified and indeterminate specimens in Phase 8.2 features

Phase 8.2	**2129**	**2184**	**%**
Cattle	3	1	25
Sheep/Goat	4		33
Pig	3		25
Domestic Fowl	1		8
Total identified	11	1	100
Large mammal	3	3	
Medium mammal	4	2	
Indeterminate	2	1	
Total	20	7	

Phase 9: Medieval (c. 1250-1400)

Phase 9 features in Areas A, B, and C were examined.

Table 46: Number of identified and indeterminate specimens in Phase 9 features

Phase 9	**4052**	**4197**	**4212**	**4219**	**4321**	**4563**	**%**
Cattle	5	7	1	8	5	6	13
Sheep/Goat	1	1		2	184	3	76
Sheep			1		5	2	3
Pig	1	2			1	3	3
Horse	1					1	1
Red deer						1	0
Human					1		0
Dog					1		0
Cat				4			2
Goose				1		3	2
Total identified	8	10	2	15	197	19	100
Large mammal	5	3	1	6	12	10	
Medium mammal				2	55	6	
Indeterminate					3	3	
Total	13	13	3	23	267	38	

Pit [4321]

Pit [4321], in Phase 9, is dominated by sheep bones, consisting almost entirely of metapodials, phalanges and fragments from the skull and horncore. No bones were positively identified as goat. The composition of the assemblage was strongly reminiscent of the tawyering waste identified in later pits. The bones referred to were recovered from context (4320), the upper fill of the pit, which is stratigraphically truncated by a Phase 10 pit. However, as the pit is not completely sealed until Phase 11, intrusive material could have been deposited in the top. It is worth noting that pit [4321] is over 16m away from the main source of the tawyering waste in pit [4258] (4193). The sheep bones represented a minimum of 10 animals (based on distal metacarpal) (Figure 67). Butchery noted on the bones was primarily cut marks and was similar to that observed in pit [4258], which is discussed in the Phase 11 section.

Latrine pit [4563]

The bone from latrine pit [4563] was very well-preserved, smooth and stained a dark brown, characteristic of material that had been waterlogged. Two partial skull and horncores from sheep (including a probable ram) were identified. An articulated goose wing, consisting of the radius, ulna and carpo-metacarpus was also recovered. The tine of a red deer antler was unusually smooth and shiny, suggesting that it may have been used as some manner of tool (Figure 68).

Other pits

Many of the cattle bones in Pit [4197] were from juveniles, including a mandible from an animal with the first molar erupting. An unusually worked sheep/goat ulna was noted, exhibiting a series of parallel 'nicks' on the posterior side of the bone. Pit [4219] contained a mixture of waste along with the metatarsals from the hind foot of a cat.

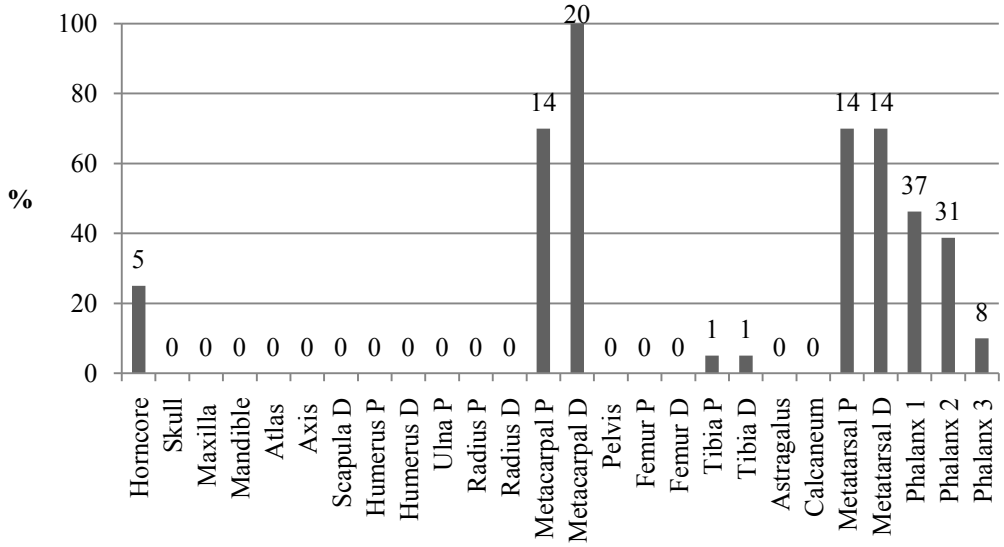


Figure 67: Skeletal representation of sheep bones in pit [4321], showing percentage of most common bone. Data labels are MNE (Minimum Number of Elements)

Figure 68: Worked antler from [4458]

Phase 10: Late Medieval (c.1400-1500)

A range of features were analysed from Phase 10, permitting an assessment of the phase as a whole. These were predominantly from Area E but a small number of features from Area A and Trench 3. The Newarke precinct was constructed in the late 14th century and pits [1007], [1022] and [1092] were located within the walls.

A total of 13% (n=10) of the identified cattle bones were considered to belong to juvenile animals. These included bones of the limbs and the head and the single age-able jaw from the phase was from a juvenile animal with the first molar erupting, therefore aged between six and 18 months depending on breed

(Hillson 2005, 233). A small number of neonatal and juvenile specimens were also observed among the pig assemblage.

A humerus with a morphology suggesting goat rather than sheep, based on criteria in Prummel and Frisch (1986) was identified in pit [4448].

Goose was nearly twice as common as domestic fowl in the phase as a whole, although this is largely influenced by the frequency within pit [4255].

Few of the fish bones in the phase were identifiable to species due to fragmentation. Cod was the only species identified and the identifiable elements were vertebrae and cleithra, which are the parts generally found in fish which had preserved by drying or salting, as the heads were usually removed at the production site (Cutting 1955, 133).

Table 47: Number of identified and indeterminate specimens in Phase 10 features

Phase 10	**1007**	**1022**	**1060**	**1073**	**1092**	**1155**	**1181**	**1186**	**2131**	**4255**	**4448**	**%**
N=within Newarke precinct	**N**	**N**			**N**							
Cattle	4	9	1		1	1	9		1	41	11	27
Sheep/Goat	3		1		3		2	6	8	22	7	18
Sheep								1		1		1
Goat											1	0
Pig	3	2	3				1		12	27	5	18
Horse										1		0
Dog	1											0
Cat					1*			1				0
Red deer										2		1
Roe deer	1											0
Fallow deer							1		2			1
Rabbit		5		1							1	2
Domestic Fowl	2				1				5	5	6	7
Goose	5		1	1	1			2	2	17	6	12
Duck							1					0
Teal/Garganey	1											0
Pigeon											1	0
Jackdaw											1	0
Frog					3							1
Fish (Gadid)		4		1					5	7	9	9
Total identified	20	20	6	3	10	1	14	10	35	123	48	100
Large mammal	17	2	6		1	3	6	7	23	96	19	
Medium mammal	7	1			3	1	4	2	23	29	25	
Bird-Unidentified	5	3		1					3	6	6	
Indeterminate	5	5	2						14	27	18	
Total	54	31	14	4	68	5	24	19	98	281	116	

*Fifty-five cat bones from the same skeleton counted as '1'

Refuse pit [4255]

The animal bones from [4255] were very well preserved and the pit produced over a hundred identifiable fragments. Cattle bones were much more common than pig, the next most frequently recovered species and almost twice as common as sheep/goat. The large bones in the context had been especially heavily butchered, often only small shards of bone were recovered from the major limb bones suggesting that they had been deliberately smashed and fractured to extract the nutritious marrow. The bones of juvenile cattle and neonatal pig were identified. Goose was much more frequent than domestic fowl. Goose skull, wings and feet were represented but fragments of the radius were most common, representing a minimum of two birds. A domestic fowl femur belonging to an unusually large bird was recovered. Despite its size, this compared morphologically with chicken rather than other Gallus species. Two fragments of cod cleithrum were identified and the other fish bones may have been cod but were not diagnostic enough to identify to species.

Pit [1092]

Part of an articulated cat skeleton was recovered from pit [1092] in the Newark Enclosure. Although not complete, the bones represented the entire skeleton, including skull, ribs, vertebrae, limbs and feet. The distal radius and ulna were unfused and therefore suggested that the animal was aged between 1 and 2 years (Smith 1969, 525). The skull exhibited a series of very fine cut marks running around the orbits and frontal, indicative of skinning. A small number of frog bones were also identified in the feature, possibly suggesting that it had been damp and was left open for a time.

Pit [4448]

The identifiable fish bones in [4448] belonged to cod and included a section consisting of two articulating vertebrae (anterior abdominal), which had been cleanly chopped (creating a cutlet?). Bones identified as feral pigeon and jackdaw were also recovered.

Phase 11: Early post-medieval (1500-1650)

Features from Area E and Trench 3 were identified. Only one feature, pit [2330], was located inside the Newark precinct.

Table 48: Number of identified and indeterminate specimens in Phase 11 features

Species	**1111**	**2100**	**2216**	**2226**	**2254**	**2269**	**2330**	**2336**	**%**
N=within Newarke precinct							**N**		
Cattle	1			2	6	7	67		27
Sheep/Goat	2	3		1	9	6	106	1	41
Pig	1		1	2	4	1	11	1	7
Horse							1		0
Dog	1						5		2
Cat							2		1
Rabbit							1		0
Fallow deer				1		1	1		1
Fish		1			2				1
Domestic Fowl		1		2	5	1	2	43	17
Goose	1				3			4	3
Jackdaw							1		0
Total identified	6	5	1	8	29	16	197	49	100

Species	1111	2100	2216	2226	2254	2269	2330	2336	%
N=within Newarke precinct							N		
Large mammal	23	1	2	9	10	8	72	7	
Medium mammal	2	1		13	13	6	40	3	
Indeterminate					7	1	53	4	
Indeterminate bird	1	2	1	1		1	5		
Total	32	9	4	31	59	32	367	63	

Pit [2336]

A pit in Trench 3, [2336], contained an assemblage dominated by domestic fowl bones. Most of the skeleton was retrieved and a minimum of two birds were represented. Although most bones were adult, juvenile bones suggest that one bird was immature.

Pit [2330]

Pit [2330] contained over 200 bones which were identifiable to species. Fifty-two percent of the bones were identified as sheep/goat and a further 33% belonged to cattle. A high proportion of bones, 28%, were butchered.

The most common bones for sheep were radii and tibiae. Femora, scapulae and distal humeri were also well-represented. A high percentage of sheep/goat bones were butchered (42%). Limb bones were primarily affected, with a particular concentration on tibiae which were generally hacked through the mid and distal shaft. A number of bones had shallow cut marks on the shaft, which were suggestive of filleting. Vertebrae were more often chopped transversely, suggesting the division of the spine into sections but were also sagitally chopped, indicating splitting of the carcass. Portioning of the rib slab was also apparent.

The most common cattle element was the distal humerus, while ulna, pelvis and femur were also relatively well-represented. Cattle bones were predominantly chopped with a cleaver or equivalent and there were very few knife cuts. Butchery was noted on the limb bones but was most common on the pelvis. Marks suggested both dismemberment and portioning of the carcass. A pelvis had been sawn through the ilial part of the acetabulum. Large mammal vertebrae were divided sagitally, while ribs exhibited evidence for both disarticulation and filleting.

Thirty-four percent of cattle bones in the feature were considered to be juvenile, based on characteristics such as size and texture. These included fragments from the skull, mandible, metapodials and tibiae although humeri fragments were most common. No adult mandibles were recovered but there were three from juveniles with the deciduous fourth premolar barely in wear, therefore unlikely to be more than 2-3 months old. Thirty percent of cattle bones with epiphyses were unfused. By contrast, there was only one unfused sheep/goat bone, amounting to 3% of the total (n=31) and both the sheep mandibles belonged to older adults.

Pig bones were considerably less frequent. A large open-rooted canine belonging to an adult male was observed but there was also evidence for juvenile animals. Butchery included division of the carcass down the sagittal plane, noted on both mandible and vertebrae. A small number of dog and domestic fowl bones were present and isolated elements of horse, fallow deer, rabbit and cat were also recorded.

The high proportion of limb bones, particularly of cattle and sheep/goat, coupled with the degree and type of butchery, suggests that the pit contains waste from meat preparation and consumption.

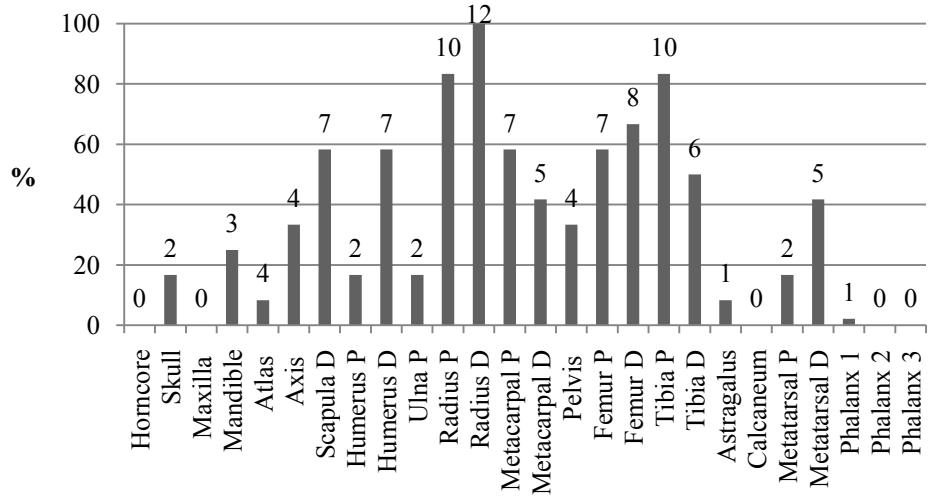


Figure 69: Skeletal representation of sheep bones in pit [2330], showing percentage of the most common bone. Data labels are MNE (Minimum Number of Elements)

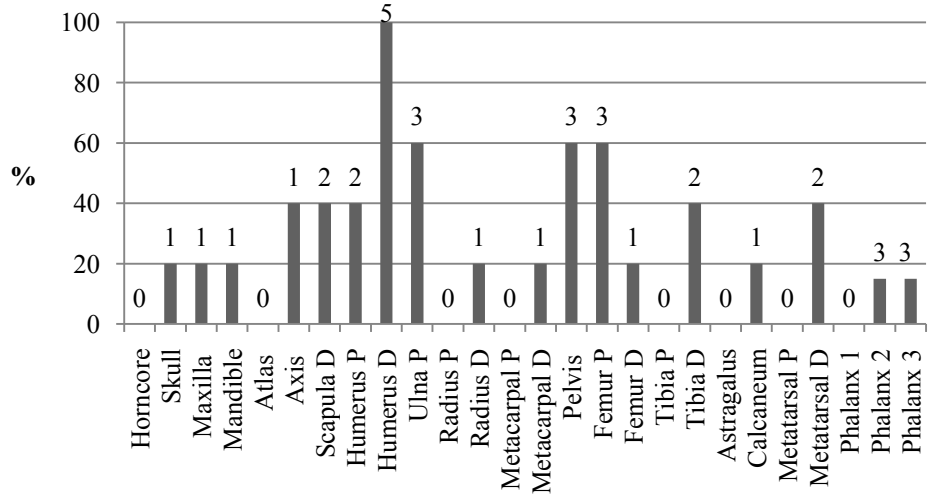


Figure 70: Skeletal representation of cattle bones in pit [230], showing percentage of the most common bone. Data labels are MNE (Minimum Number of Elements)

Phase 11.1

The majority of features in Phase 11.1 (all within Area A) each contained fewer than 25 identifiable bones. More than 90% of bone fragments from this phase were recovered from a single feature [4258], which is discussed in detail below.

Table 49: Number of identified and indeterminate specimens in Phase 11 features

Phase 11.1	**4178**	**4198**	**4210**	**4229**	**4248**	**4258**	**4264**	**4266**	**%**
Cattle		3	2	6	5	13	2	3	2
Sheep/Goat		10	1	4	7	1356		1	93
Sheep		1			1	13			1
Goat		2							0
Pig	1	1			6	2	1	2	1
Horse						14		1	1

Phase 11.1	4178	4198	4210	4229	4248	4258	4264	4266	%
Dog						2			0
Fallow deer		1	1		2	3	1		1
Domestic Fowl			1		2	1			<1
Goose					1				0
Frog						3			0
Total identified	1	18	5	10	24	1407	4	7	100
Large mammal		3	1	6	14	22	2	4	
Medium mammal	1	3			12	209			
Bird-Unidentified					1	1	1		
Indeterminate					12	74			
Total	2	24	6	16	63	1713	7	11	

Pit [4198]

Pit [4198] produced two horncores belonging to goat, as well as one identified as sheep. A number of sheep/goat metapodials were also recovered but none were positively identified as goat. One of these had white powdery substance adhering to the bone, which was thought to be lime. A fallow deer femur was recovered among the other bones.

Pit [4258]

The bulk of the assemblage was retrieved from pit [4258], a rectangular stone-lined pit, which was located at the edge of excavation, running partially into the baulk. It was estimated that between a quarter and a half of the feature was excavated (M. Morris *pers. comm*.). The bones were generally in very good condition, with well preserved cortical surfaces that allowed easily identification of butchery marks and pathologies. Most of the bones were in excellent or good condition. However, a smaller number were very poorly preserved, with eroded, pitted surfaces suggesting attack from localised acidic or strong alkaline conditions. The assemblage consisted primarily of sheep bones (96%). Although elements from cattle were few, they mostly consisted of skull, horncore and metapodials: few limb bones were present. *Equid* bones were predominantly from the limbs. Fallow deer was represented by antler, a metatarsal and a tooth, while a canine and humerus of dog and a single domestic fowl bone were also recovered.

A small number of frog bones were also present, possibly suggesting that the pit was damp or kept open for a period of time.

Table 50: Condition of the bone in pit [4258]

Phase	PContext	Species	Excellent	Good	Medium	Poor	Very Poor
11.1	4258	S/G	422	744	141	20	24

The Sheep Bones

The bones represent a minimum of 54 sheep based on a total of 425 first phalanges. This high number is confirmed by the number of right proximal metacarpals (n=49). There are similar numbers of metacarpals and metatarsals. In addition to the elements quantified on the chart, significant number of carpals (n=66) were also present (these included the trapezoid, scaphoid and semi-lunar), and a smaller number of tarsal bones (including the cuneiform and centrotarsal). Very few astragali or calcanea were recovered (Figure 71) and it is evident that carpals and tarsals do not occur in equivalent numbers to metapodials or phalanges. The low representation of phalanx 2 and phalanx 3, compared to the larger phalanx 1, is also likely to be a recovery bias and could be partly attributed to hand-collection. However, it could also suggest which parts of the animal arrived on site with the skin. A relatively small number of caudal

vertebrae from medium-sized mammals were also recorded (n=23), these almost certainly belong to sheep and suggest that the tails were attached to the skins.

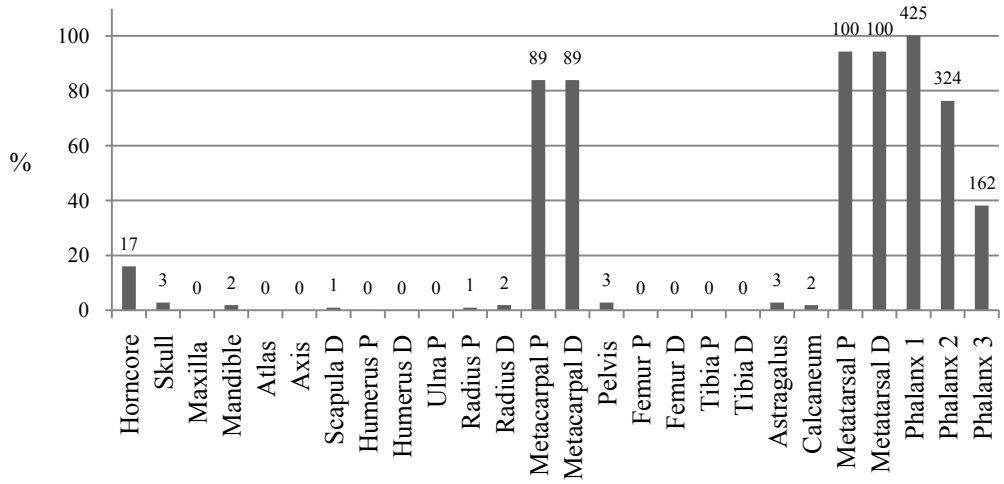


Figure 71: Skeletal representation of sheep bones in pit [4258], shown as percentage of most common bone. Data labels are MNE

Butchery

Table 51: Location of cut marks on sheep metacarpals and metatarsals in pit [4258]

Location		**Metacarpal**		**Metatarsal**	
		Chop	Cut	Chop	Cut
Proximal	articulation		3		
Proximal shaft				2	
	anterior		1		
	posterior				
	circling shaft				5
Mid-shaft		4		3	
	anterior		3		
	posterior				7
Distal shaft				2	
	anterior		10		
	posterior		3		4
	medial				3
	lateral				1
Distal articulation		1		2	

In total, 7% of sheep bones had butchery marks (n=93). Horncores had been cleanly chopped from the skull, as a matter of routine. A small number of 1st phalanges were chopped in half, perhaps when separating them from the sheepskin. A similarly small number of carpals and tarsals (n=8) had fine cut marks, suggesting disarticulation of the feet from the rest of the carcass. Cut marks were more common on the shafts of the metapodials. Some metapodials (n=22, 18%) were chopped transversely or obliquely through the mid-shaft section and occasionally cleaved through the articulations. Cut marks were more common but a distinction was noted between the locations of knife cuts on metacarpals and metatarsals. On metacarpals, cut marks were mostly single and occurred most frequently on the anterior face of the

distal shaft, with few noted on the posterior face. By contrast, the most common site for butchery of the metatarsal was the posterior face around the mid-shaft, and to a lesser degree, the distal shaft. Discontinuous cut marks circling the proximal metatarsal were also observed. Metatarsals were also more likely to bear clusters rather than single cut marks. On both bones, marks tended to be short, were inflicted with a sharp knife and predominantly occurred transverse to the axis of the bone. The distal condyles of the metapodials were relatively unaffected by butchery, which further suggests that the skins arrived on site with metapodials and phalanges articulated, as postulated at Walmgate, York (O'Connor 1984, 38).

Age

Evidence of epiphyseal fusion was obtained for only a limited number of elements due to the nature of the assemblage (primarily metapodials and phalanges). Although the majority of bones were fused, indicative of adult animals, the unfused epiphyses suggest that slaughter was starting to occur in the second and third year of life. There were no unfused bones among those fusing before 13 months, but an increase in those fusing between 13 and 28 months and no fused bones after this age.

Table 52: Epiphyseal fusion of sheep bones in pit [4258]

Bone	**Age (mo)**	**Fused**	**Unfused**	**Total**	**%**
Pelvis	6-10	2		2	100
Radius P	10	1		1	100
1st Phalanx P	13-16	351	72	423	83
2nd Phalanx P	13-16	307	21	328	94
Metacarpal D	18-24	59	19	78	76
Tibia D	18-24			0	
Metatarsal D	20-28	61	23	84	73
Calcaneum P	30-36		1	1	0
Radius D	36		1	1	0
Total		781	137	918	85

Three age-able mandibles were placed in the A3 category (O'Connor 2003, table 31) probably denoting animals over the age of 3 to 4 years.

Pathologies

Figure 72: Pathologies observed on proximal metatarsals

Five bones (out of 163 where the shaft could be examined) bore a superficial and usually smooth linear swelling on the anterior portion of the shaft. A similarly-described condition was observed at Walmgate, York, where it was interpreted as possible evidence for 'severe bruising…which could be caused by continuous firm pressure located at one point on the bone, leading to sub-periosteal bleeding and new bone formation' (O'Connor 1984, 42). A small number of bones with exostoses of various kinds, including possible ossification of ligaments, were also recorded (n=7) and three first phalanges had expansion and lipping of articular surfaces, as well as new bone formation, suggesting some form of arthropathy.

Sheep/goat distinction and biometrical analysis

On the basis of morphological criteria described by Boessneck (1969), Payne (1969) and Prummel and Frisch (1986), the bones are believed to almost entirely represent sheep. Scatter plots showing measurements taken on the adult metapodials (after Payne 1969) appear to show one species with size variation, possibly attributable to the present of rams, wethers and ewes, although there are no clearly defined groupings (Figure 73 and Figure 74).

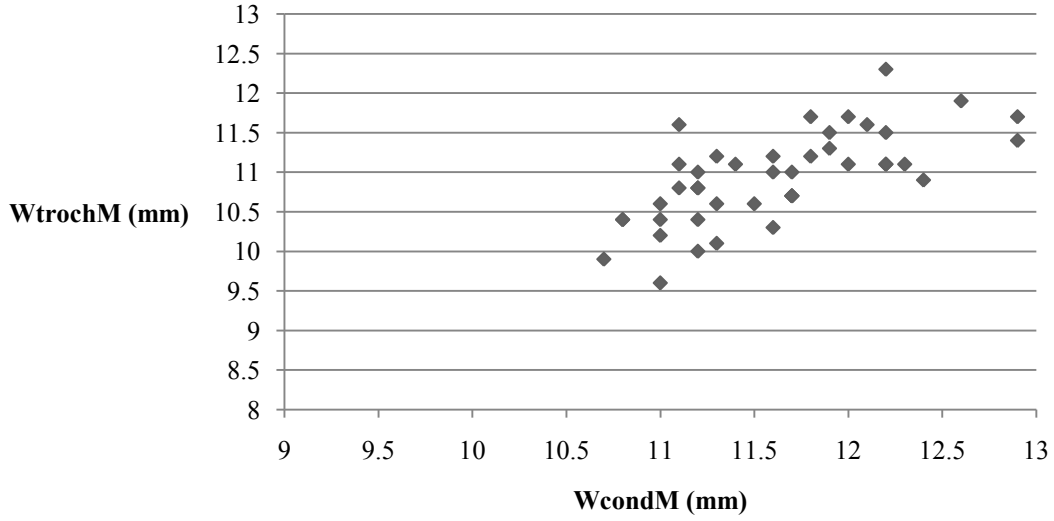


Figure 73: Plot of medial trochlea (WcondM) and condyle (WcondM) measurements on sheep metacarpals from pit [4258] (after Payne 1969)

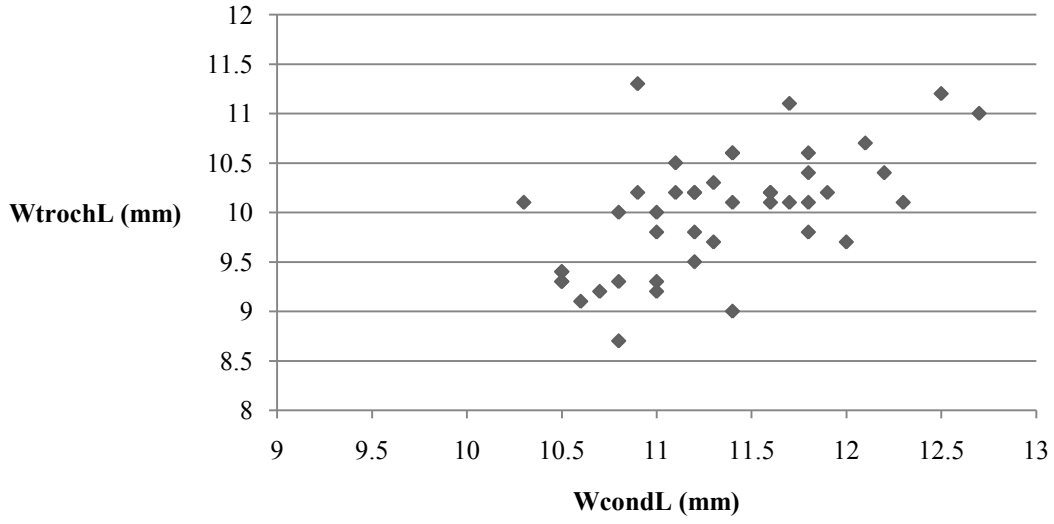


Figure 74: Plot of lateral trochlea (WtrochL) and condyle (WcondL) measurements on sheep metacarpals from pit [4258] (after Payne 1969)

Cranial morphology and stature

There was no evidence for any polled animals in the assemblage. Horncores varied slightly in size and shape but most were curved with a flattened, oval cross-section. None were thought to belong to goats. Stature estimates from metacarpals ranged from 0.51-0.64m, averaging at 0.57m, while those from metatarsals indicated a range of 0.52-0.65m, with an average height of 0.60m.

Very similar material was produced by a pit (c1450-1550) from the nearby site of Bonner's Lane, Leicester (Baxter 2004). The De Montfort animals appear to be of slightly greater stature than those at Bonner's Lane, which averaged 0.55m and 0.56m from metacarpals and metatarsals respectively. This trend is also seen when comparing the breadth of the proximal and distal articulations (Bp; Bd) and the minimum shaft width (SD).

Table 53: Summary of sheep metapodial measurements (based on von den Driesch 1976 and calculation of withers height (based on Teichert 1975)

Metacarpals	**GL (mm)**	**Bp (mm)**	**SD (mm)**	**Bd (mm)**	**Dd (mm)**	**W. H. (m)**
MIN	105.0	19.7	11.2	22.2	13.9	0.51
MAX	131.0	26.5	16.1	28.6	16.9	0.64
COUNT	44	42	43	54	52	44
MEAN	117.1	22.5	13.2	25.0	15.5	0.57
Standard deviation	6.01	1.33	1.03	1.40	0.79	0.03
Metatarsals						
MIN	115	17.9	9.6	22.1	14.0	0.52
MAX	144	21.9	15.5	26.4	17.5	0.65
COUNT	44	45	45	53	51	44
MEAN	129.4	20.1	11.9	23.8	15.6	0.60
Standard deviation	7.82	1.02	1.03	1.09	0.78	0.04

Only fused bones were measured and proximal breadths were not measured where specimens were incomplete, as these fuse very early and significant growth could occur post-fusion

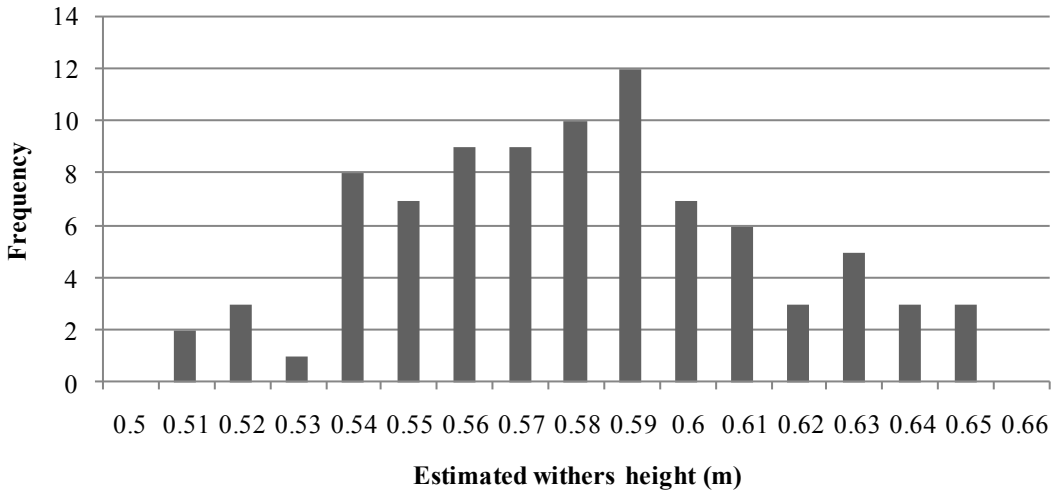


Figure 75: Distribution of withers heights for sheep in pit [4258]

Sex ratio of rams, ewes, wethers

Bone length (GL) was plotted against shaft width (SD) in an attempt to define clusters that might be attributable to rams, ewes or wethers. The data formed a continuous group, suggesting overlaps between the categories, although differences in size were evident. A similar result was noted at Walmgate, York where it was suggested that the bones were drawn from different types of sheep, rather than one population (O'Connor 1984, 41).

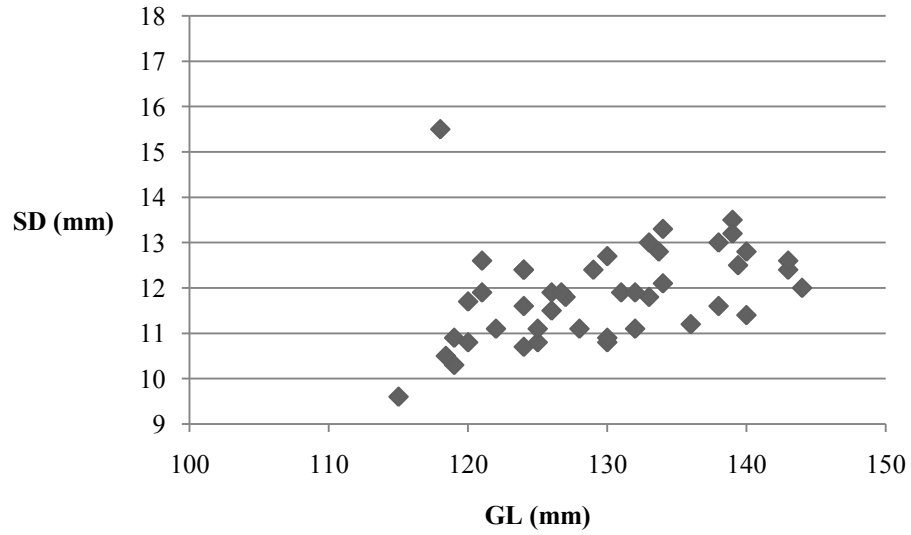


Figure 76: Plot of greatest length (GL) and smallest diameter (SD) measurements for metacarpals from pit [4258]

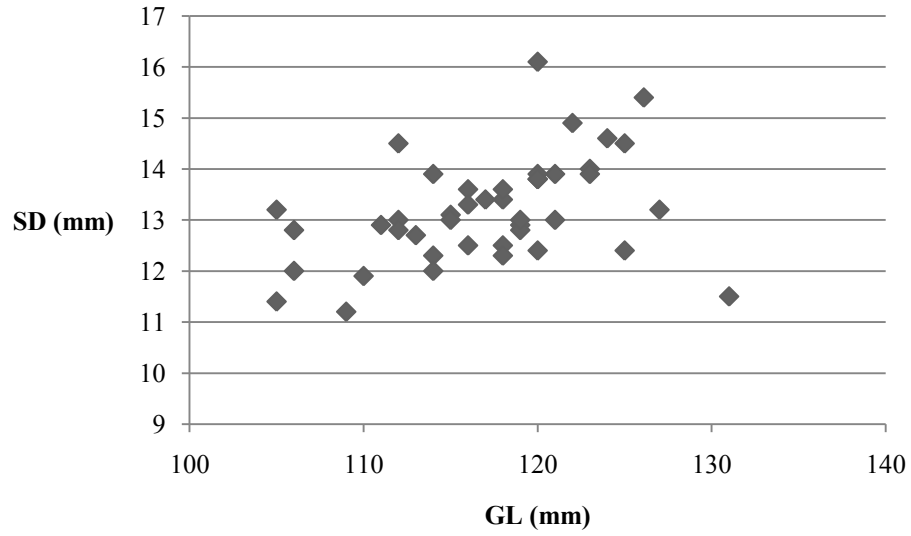


Figure 77: Plot of greatest length (GL) and smallest diameter (SD) measurements for metatarsals from pit [4258]

Phase 11.2

The only feature examined in Phase 11.2 was the Civil War ditch [4004], in Area A/B, which produced a small number of animal bones. The presence of two bones belonging to a young cow/calf was noted but there was little else of note. Just under of a quarter of the bones (n=8) had cut, chop or saw marks, suggesting that the remains consist of waste from butchery and consumption.

Table 54: Number of identified and indeterminate specimens in Phase 11.2 features

Phase 11.2	4004
Cattle	8
Sheep/Goat	6
Pig	3
Domestic Fowl	2
Total identified	19
Large mammal	11
Medium mammal	4
Total	34

Phase 12: Late post-medieval (1650-1750)

Table 55: Number of identified and indeterminate specimens in Phase 12 features

Phase 12	4055	4126	4161	Total	%
Cattle	6	11	29	46	39
Sheep/Goat	6	16	15	37	31
Pig	3	7	6	16	14
Fallow deer	1		2	3	3
Domestic Fowl		3	2	5	4
Goose	2	7	2	11	9
Total identified	18	44	56	118	100
Large mammal	12	7	17		
Medium mammal	1	11	3		
Indeterminate	6		13		
Total	37	62	89		

Three Phase 12 features in Area A were recorded. These were two pits, [4055] and [4126] and a layer (4161), consisting of a thick blanket of soil overlying the Civil War ditch. Looking at the features as a group, cattle bones were most frequently recovered, with sheep/goat contributing just under a third of identified bones and pig, fallow deer, domestic fowl and goose considerably less well- represented. A sheep/goat mandible from pit [4126] bore characteristics associated with goat (Halstead et al 2002). A number of the cattle bones belonged to juvenile animals (n=17), although adults were also present, as reflected by both epiphyseal fusion and mandibles. A third of the bones were butchered, with cleaver marks relating to dismemberment and portioning and, less frequently, knife marks suggesting disarticulation and filleting.

Discussion

Bones from 54 features ranging in date from the early Roman to the post-medieval period were analysed. These were found to represent a range of activities reflecting the diverse uses of the site over time. The Roman deposits at DMU spanned the 2nd to the 4th century AD and produced a small assemblage of animal bone. Although the number of recorded specimens was very low, cattle and sheep/goat were the most common species, with pig in third place.

The medieval and post-medieval deposits produced a far larger quantity of bones with several informative feature assemblages. Despite this it is difficult to summarise the general trends in each phase, such as species proportions or age profiles, as many individual feature assemblages were fairly small and therefore each phase tended to be dominated by one or two, possibly atypical, assemblages. The exception was Phase 10, which produced several features that contained over a hundred fragments and also, significantly, had the greatest species variety.

Table 56: Individual features containing over 100 bone fragments

Phase	Feature	Description
2.2	ditch [1004]	Renewal of the roadside ditch
9	refuse pit [4321]	One of a group of four pits.
10	pit [4448]	
10	refuse pit [2131]	Large rectangular feature with an early 15th century date
10	refuse pit [4255]	One of a group of four pits
11	pit [2330]	Pit north of boundary wall, initially naturally silted before being backfilled with animal bones and building material and later capped with clay.
11.1	Stone-lined trough [4258]	A sunken stone-lined trough, measuring 2.7m x over c. 0.8m and contained a thick deposit of lime. Unfortunately, it was not completely exposed during the excavations.
12	layer 4161	A thick blanket of soil covering the civil war defences and containing material dating from the mid-17th to mid-18th century.

Cattle

Cattle bones occurred in all phases. A significant number of juvenile cattle bones, (defined as small, porous and unfused where fusion surfaces were present) were observed in Phases 10 onwards but appeared to be less frequent (although not unknown) in the earlier phases. All the mandibles in Phase 10 and 11 were from juvenile animals. However, post-cranial bones did not clearly illustrate this trend; the proportion of fused to unfused bones is the same in both the medieval and post-medieval periods (69%), which could possibly be the result of a taphonomic bias against juvenile bones.

Sheep/goat

Positive evidence for goat was only identified in Phases 10 and 11 (n=3), and the available evidence suggests that the majority of sheep/goat bones at the site belonged to sheep. Sheep bones were more common than those of any other species but this was largely due to the presence of a large quantity of metapodials and phalanges, which occurred primarily in pit [4258] (Phase 11.1) and were also observed in pit [4231] (Phase 9); these are discussed below. This evidence may indicate that skin working activity in the area continued from the medieval to the post medieval period or, alternatively, the bones could possibly represent a dump of later material in the top of an earlier feature.

Pig

Pig bones occurred in all phases but were most frequent in Phase 10, where they comprised 18% of the identified assemblage. The majority of animals did not survive to adulthood, as shown by the proportion of fused to unfused bones in all phases (39% fused in all phases). There is evidence for pig-keeping at the nearby site of Bonner's Lane (Baxter 2004) and a very small number of neonatal pig bones in Phase 10 pits may indicate that the same activity was taking place at the DMU sites (n=3). Neonatal pig skeletons were also identified in the medieval phases at York Road, located directly to the south-east of the current site (Browning 1999 unpublished).

Dog

Dog bones were uncommon but were recovered in small quantities from Phases 8, 9, 10 and 11. There was no evidence for juvenile animals. Shoulder heights of 0.36 and 0.45m were obtained from a Phase 10 femur and a Phase 11.1 humerus respectively, using the multiplication factors in Harcourt (1974).

Cat

Two main groups of cat bones, representing partially articulated skeletons, were recovered from the Phase 2.2 ditch [1004] and the Phase 11 Newark enclosure [1092]. In both cases, they appear to have been deposited along with other discarded materials. Fine knife cuts observed on the bones appear to suggest the procurement of cat skins, in both periods. This was evidently taking place on a small scale, as neither set of remains represent more than two animals, and may even denote the opportune utilisation of casualty animals. A very small number of cat bones were also recovered in a Phase 9 cesspit [4219], Phase 10 pit [1186] and Phase 11 pit [2330].

At St Nicholas Place, Leicester (Browning, unpublished), cat bones contributed 20% of the identified assemblage in a post-medieval phase (1550-1775) and had evidently been utilised for their fur. The medieval and post-medieval phases at Causeway Lane produced similar proportions of cat to St Nicholas Place (Gidney 2000, 327) where they were also interpreted as the waste from skins.

Deer

Red deer and roe deer were both represented in the assemblage but fallow deer was more prevalent, particularly in the later phases. Phases 3 and 9 produced red deer antler only, which could have been collected, and therefore provides no direct evidence for hunting. Examples of all three deer species occurred in Phase 10 pits, with recovered elements including limb bones, metapodials and antler. In Phases 11 and 12, fallow deer was the only species represented. The presence of limb bones, as well as metapodial and antler, suggest that the animals were utilised for meat as well as skins. The proportion of fallow deer in the late medieval period is consistent with evidence from other sites, for example Freeschool Lane, Leicester (Browning unpublished) where by Phase 10, fallow deer is by far the most common deer species.

Rabbit

Very few rabbit bones were recovered. They occurred predominantly in Phase 10 pits (Newark Enclosure [1022], pit [1073], pit [4448]) but a single specimen was retrieved from a Phase 11 pit [2330]. Since none were butchered, it is difficult to prove what they were used for, but likely explanations are meat and/or fur.

Birds

The bird bones were dominated by domestic fowl and goose. Domestic fowl bones occurred in all phases at the site but were most common in Phase 11, where they comprised 17% of the identified assemblage. However, this is mostly due to the large number of bones in pit [2336]. No bones with medullary bone, thereby signifying birds in egg-laying condition were identified. Sex was difficult to determine; of four domestic fowl tarso-metatarsi, two bones from a Phase 11 pit [2336] had a roughened area or spur scar where the spur should emerge. These may represent males with developing spurs (Serjeantson 2009, 277).

Table 57: Domestic fowl femora measurements

Record	Phase	PContext	Species	Elements	GL	Bp	Bd	Dd	SC
1944	10	2131	Dom Fowl	Femur		14.3			
1853	10	4255	Dom Fowl	Femur	80.4	16.9	16.0		6.6
1867	***10***	***4255***	***Dom Fowl***	***Femur***	***104.9***	***20.5***	***22.2***		***10.4***
1875	***10***	***1092***	***Dom Fowl***	***Femur***	***97.7***	***20.9***	***20.0***		***9.3***
1787	11	2330	Dom Fowl	Femur			16.6	13.8	
1788	11	2330	Dom Fowl	Femur		16.9			
1795	11	2254	Dom Fowl	Femur		15.0			
1915	11	2336	Dom Fowl	Femur	89.3	18.1	17.8	14.8	7.8
1916	11	2336	Dom Fowl	Femur	89.0	18.3	18.1	14.9	7.8
1835	12	4161	Dom Fowl	Femur	74.7	15.4	14.3		6.0

The domestic fowl at the site varied in size quite considerably, probably as a result both of sex and breed. Two bones from unusually large birds were recovered in deposits in Phase 10 [1092] and [4255], shown in italics in the table below (Table 57).

Goose bones were very rare in Roman features but were recovered in all subsequent medieval phases. Goose was almost twice as common as domestic fowl in Phase 10, a phenomenon which accords with trends observed at Bonner's Lane (Baxter 2004, 140). Worked goose radii were recovered from Phase 10, pit [1186] and Phase 11 [4248], a well. Neither was complete but the unbroken end of the shaft had been cut at an oblique angle, possibly forming a point for a writing implement. Even in the absence of a split nib, it may still have been possible to draw lines with them or alternatively they could have been used to strengthen quill pens (MacGregor 1999, 1976).

Figure 78: Worked goose radius from pit [4247]

Figure 79: Worked goose radius from pit [4247]

Wild bird bones are few and it is evident that they provided only a small supplement to the diet. Pits in Phase 10 produced single bones of duck, pigeon and teal (or garganey). Corvid bones identified as jackdaw were recovered from pits in Phase 10 and 11, [4448] and [2330], and may represent urban scavengers.

Fish

Few fish bones were recovered from the deposits studied. Fish occurred most commonly in Phase 10 pits but small quantities were also present in Phase 2.2 and Phase 11 features. Where these were identified, they belonged primarily to cod and no small species were present. Among the hand-recovered material

this could easily be attributed to the size of the bones; only large Gadids, such as cod, are likely to be recovered by hand. However, the sieved samples also produced few fish bones, suggesting one of several explanations; poor preservation of small bones, disposal of fish remains in unexcavated or un-sampled features, or simply little exploitation of fish at the site. With the exception of a small number of amphibian bones, few bones of small species were identified in any deposits, which may add weight to the preservation argument.

It is unusual to find a large sea fish, such as cod, in the Roman phases, which in previous Leicester assemblages are usually dominated by freshwater species, with the large Gadids entering the assemblage in the medieval period, reflecting the rise of the fishing industry (Nicholson 2004, 151). It is possible therefore, that this material may have been re-deposited in the medieval period, however, the feature did contain Roman pottery and the fill differed significantly from the known medieval pits in the vicinity (M. Morris *pers. comm*).

The tawyering pit [4258]

A pit containing an unusual concentration of sheep bones was identified in Area A and dated to the early post-medieval period (1500-1650). The representation of bone elements, as well as their archaeological context, is strongly suggestive of skin working rather than primary butchery, when more skulls might also have been expected. Similar deposits have been previously recovered at Bonner's Lane, Leicester, dated 1450-1550 (Baxter 2004), located just south of the present site, as well as in other urban centres such early 18th century Walmgate, York (O'Connor 1984), Hungate, Lincoln (dated early-mid 16th century) (Dobney et al 1996) and The Green, Northampton (Harmon 1996). At DMU, activity was concentrated south of the boundary line, over the site of Structure 6. As well as the stone-lined trough, a neat row of three large circular pits were situated along the property's northern boundary. Pits for skins often measured approximately 1.2m in length and could be lined in clay or wood (Serjeantson 1989, 135). Although, no evidence of lining was identified in any of these three pits (and one had been backfilled with rubbish) they were excavated into clay subsoil, which would have afforded them a degree of natural waterproofing.

Measurements suggest that the animals in the De Montfort sample were similar in build to the unimproved animals noted at Bonner's Lane and other Leicester sites and were mostly adult. The skins would have been mostly procured from the butcher but the tawyer may also have obtained animals that had died naturally. This could also explain the presence of horse, dog and deer bones. Once on site, the initial processing would have involved trimming out the bones and washing the skins, before treating them, possibly with urine, and then leaving them in a warm atmosphere to loosen the hair (Cherry 1991, 296). Sheep feet could have provided neats-foot oil, which could have been used in the tawing process (Serjeantson 1989, 141). A distinction was drawn between the trades of tanner and the tawyer in the medieval period. The fifteenth century Northampton Borough Records confirms that 'the tanner shall tan no sheeps' leather, goats' leather, deers' leather, horse leather or hounds' leather' (Markham and Cox 1898 quoted in Cherry 1991, 299), which were materials available to the tawyer, who was similarly not allowed to process bovine hides. The tanner used oak bark whereas the tawyer could use only alum and oil (Cherry 1991, 301). The use of alum often gave the leather a white colour, which gave rise to the alternative term 'whit-tawyer' for the processors of these light skins (Cherry 1991, 307). Water was an important component in the skin processor's workshop. However, as is clear in this case, close proximity to the river was not strictly necessary and it is likely that water from wells was used (Cherry 1991, 296).

Similar waste, almost certainly constituting the same activity, was recovered from pit [4321] (Phase 9) and a small number of horncores and metapodials were retrieved from another Phase 11 pit, [4198].

Conclusion

The faunal remains from DMU suggest that there was little evidence for occupation in the Roman period but an expansion in activity in the medieval and post-medieval periods. The site is located south of the Roman and medieval town, although it is partially within the boundary of the Newarke, which was laid out in the early 14th century. The medieval remains, particularly those in Phase 10, may represent the disposal of household refuse into purpose-dug pits. Few features from within the Newarke precinct were examined; these were pits [1007], [1022] and [1092]. Two of the pits, [1022] and [1007], were situated against the Newarke wall in Phase 10 and probably represent backyard activity within the Newarke itself. The faunal assemblages did not noticeably differ from those outside the precinct, which was surprising as

one might have expected evidence for a richer and more varied diet, as has been suggested by recent work at Leicester Abbey (Browning unpublished). The notable feature about pit [1092] was evidence for utilisation of cat fur, which is more in keeping with the evidence for tawyering outside the precinct. A pit in Phase 11, [2330], also within the precinct, provided evidence for preparation and consumption of mutton, beef and veal, rather than primary butchery or skin processing. Interpretation of the remains found in the early post-medieval assemblages outside the Newarke is in accord with previous findings at nearby sites, which demonstrated a range of semi-industrial activities. In addition to tawyering, there is evidence for a dye works, grain processing and pig-keeping at Bonner's Lane, although much of this activity ceased around 1600 (Finn 2004, vi). Similarly, although many of the bones from the nearby site at Grange Lane, located south of Bonner's Lane (Thomas forthcoming,) represent discarded domestic waste from cooking and consumption, the utilisation of cattle, sheep and goat horncores indicate that small-scale craft activity was taking place from the 14th century (Browning forthcoming). The accumulating faunal evidence from the area therefore suggests the development of specialised workshops, as well as occupation, from the medieval through to the post-medieval period in Leicester's south suburb.

Appendix

Raw data from the site is currently compiled within an Access database.

Roman contexts analysed for this report

Phase	Area	PContext	Context	Category	Number
2.2	Area E	1002	1002	Pit	13
2.2	Area E	1004	1003	Ditch	128
2.2	Area E	1004	1177	Ditch	2
2.2	Area E	1192	1192	Ditch	1
2.2	Area B	4553	4553	Initial Roman road surface	3
3	Area E	1207	1202	Oven or furnace	1
3	Trench 3	2153	2154	Pit	16
3	Trench 3	2153	2176	Pit	5
3	Trench 3	2153	2177	Pit	34
3	Trench 3	2153	2178	Pit	20
3	Area C	4065	4062	Pit	27
3	Area C	4065	4063	Pit	16
3	Area C	4065	4064	Pit	5
4	Area E	1245	1244	Pit	19

Medieval contexts analysed for this report

Phase	Area	PContext	Context	Category	Number
8	Area E	1084	1066	Stone lined pit	4
8	Area E	1246	1247	Cess pit	1
8	Area C	4084	4090	Cess Pit	16
8	Area C	4084	4093	Cess Pit	3
8	Area C	4084	4097	Cess Pit	2
8	Area C	4084	4100	Cess Pit	2
8	Area A	4214	4213	Cess Pit	5

Phase	Area	PContext	Context	Category	Number
8	Area A	4403	4402	Pit	14
8.1	Trench 3	2238	2228	Hearth	1
8.2	Trench 3	2129	2108	Corn-drier	8
8.2	Trench 3	2129	2130	Corn-drier	6
8.2	Trench 3	2129	2147	Corn-drier	4
8.2	Trench 3	2129	2181	Corn-drier	1
8.2	Trench 3	2129	2183	Corn-drier	1
8.2	Trench 3	2184	2185	Ditch	3
8.2	Trench 3	2184	2186	Ditch	4
9	Area C	4052	4053	Well or pit?	13
9	Area A	4197	4196	Pit	13
9	Area A	4212	4211	Pit	3
9	Area A	4219	4218	Cess Pit	13
9	Area A	4219	4232	Cess Pit	10
9	Area A	4321	4320	Refuse Pit	267
9	Area B	4563	4458	Cess Pit	35
9	Area B	4563	4459	Cess Pit	3
10	Area E	1007	1005	Newarke Enclosure - Refuse Pit	48
10	Area E	1007	1006	Newarke Enclosure - Refuse Pit	6
10	Area E	1022	1021	Newarke Enclosure - Refuse Pit	31
10	Area E	1060	1120	Pit	14
10	Area E	1073	1072	Pit	4
10	Area E	1092	1090	Newarke Enclosure - Pit	4
10	Area E	1092	1094	Newarke Enclosure - Pit	64
10	Area E	1155	1156	Pit	3
10	Area E	1155	1157	Pit	2
10	Area E	1181	1182	Pit	24
10	Area E	1186	1185	Pit	19
10	Trench 3	2131	2132	Refuse pit	98
10	Area A	4255	4222	Refuse Pit	281
10	Area A	4448	4416	Pit	107
10	Area A	4448	4464	Pit	9

Post-medieval contexts analysed for this report

Phase	Area	PContext	Context	Category	Number
11	Area E	1111	1111	Pit?	2
11	Area E	1111	1112	Pit?	30
11	Trench 3	2100	2145	Pit	9

Phase	Area	PContext	Context	Category	Number
11	Trench 3	2216	2214	Pit	4
11	Trench 3	2226	2221	Pit	18
11	Trench 3	2226	2222	Pit	4
11	Trench 3	2226	2223	Pit	2
11	Trench 3	2226	2225	Pit	7
11	Trench 3	2254	2253	Pit	25
11	Trench 3	2254	2256	Pit	19
11	Trench 3	2254	2277	Pit	3
11	Trench 3	2254	2278	Pit	12
11	Trench 3	2269	2271	Pit	23
11	Trench 3	2269	2276	Pit	5
11	Trench 3	2269	2287	Pit	4
11	Trench 3	2330	2333	Pit	367
11	Trench 3	2336	2337	Pit	63
11.1	Area A	4178	4177	Pit	2
11.1	Area A	4198	4188	Pit	24
11.1	Area A	4210	4210	Layer	6
11.1	Area A	4229	4228	Pit	16
11.1	Area A	4248	4247	Well	63
11.1	Area A	4258	4193	Stone-lined tanning trough	1599
11.1	Area A	4258	4245	Stone-lined tanning trough	106
11.1	Area A	4258	4246	Stone-lined tanning trough	6
11.1	Area A	4258	4254	Stone-lined tanning trough	2
11.1	Area A	4264	4263	Pit	7
11.1	Area A	4266	4266	Metalling	11
11.2	Area A/B	4004	4488	Civil War Ditch	1
11.2	Area A/B	4004	4498	Civil War Ditch	4
11.2	Area A/B	4004	4532	Civil War Ditch	5
11.2	Area A/B	4004	4533	Civil War Ditch	17
11.2	Area A/B	4004	4534	Civil War Ditch	7
12	Area A	4055	4051	Pit	37
12	Area A	4126	4125	Pit	62
12	Area A	4161	4161	Layer	90

Tooth wear and age stages (after Grant 1982 and O'Connor 2003)

Phase	PContext	Context	Species	Elements	Dp4	p4	m1	m2	m3	MWS	Age category
2.2	1004	1177	Cattle	Mandible	f		U				J
4	1245	1244	Cattle	Mandible	k		g	f	C	24	A2

Phase	PContext	Context	Species	Elements	Dp4	p4	m1	m2	m3	MWS	Age category
9	4197	4196	Cattle	Mandible	b		E				J
10	4255	4222	Cattle	Mandible	b		E				J
11	2269	2271	Cattle	Mandible	b						J
11	2269	2271	Cattle	Mandible	c		V				J
11	2330	2333	Cattle	Ldp4	a/b						J
11	2330	2333	Cattle	Ldp4	b						J
11	2330	2333	Cattle	Ldp4	c						J
12	4055	4051	Cattle	Lm3					k		E
12	4126	4125	Cattle	Mandible	b		E				J
12	4126	4125	Cattle	Lm3					g		A3

Phase	PContext	Context	Species	Elements	Dp4	p4	m1	m2	m3	MWS	Age category
9	4563	4458	Sheep/Goat	Mandible			h	g	d	34	A2
10	4448	4416	Sheep/Goat	Mandible		g	l	g	f	39	A3
10	4448	4416	Sheep/Goat	Mandible		j	m	h			5-6yrs/A3
10	4255	4222	Sheep/Goat	Mandible		g	h	g	f	36	A3
11	2226	2221	Sheep/Goat	Mandible					g		A3
11	2100	2145	Sheep/Goat	Mandible	g		d	V			I
11	2330	2333	Sheep/Goat	Mandible					g+		A3/E
11	2330	2333	Sheep/Goat	Mandible		g	k	g			4-5yrs/A3
11.1	4248	4247	Sheep/Goat	Mandible			l	g	g	40	A3
11.1	4258	4245	Sheep/Goat	Mandible				g	g		A3
11.1	4258	4193	Sheep/Goat	Mandible		g	g	g	e	34	A3
11.2	4004	4532	Sheep/Goat	Lm3					h		A3
12	4055	4051	Sheep/Goat	Mandible					b		A1
12	4126	4125	Sheep/Goat	Mandible		g	h	g			A3

Phase	PContext	Context	Species	Elements	Dp4	p4	m1	m2	m3	Age category
9	4563	4458	Pig	Mandible		b	e	b		SA
10	4448	4416	Pig	Mandible	f		a	V		I2
10	4255	4222	Pig	Mandible	a					N
10	2131	2132	Pig	Mandible		0.5	e			
11	2330	2333	Pig	Mandible	e		a			J

Epiphyseal fusion

Cattle		Phase	9		10		11		11.1		11.2		12	
Stage	Bone	Age (mo)	F	U	F	U	F	U	F	U	F	U	F	U
Early	Pelvis (acetabulum)	7-10	1		2		2		3				2	
	Scapula D	7-8	2		1		1		1					

Cattle		Phase	9		10		11		11.1		11.2		12	
Stage	**Bone**	**Age (mo)**	**F**	**U**	**F**	**U**	**F**	**U**	**F**	**U**	**F**	**U**	**F**	**U**
	1st Phal P	13-15	1	1	3					1			1	
	Humerus D	15-18	1		4			1				1	1	1
	Radius P	15-18	3		1	1			2		1		2	
	2nd Phal P	18			1		6		1				2	
Middle	MetaC D	24-36		1	3	2		2	3				1	1
	Tibia D	24-30			2	1	1	2						
	Metat D	27-36				1		2	2				1	
	Calc P	36-42		1	1	2	1	3					1	
Late	Femur P	42	1				1							
	Radius D	42-48		1									1	
	Ulna P	42-48					1	1						
	Humerus P	42-48				1	2						1	
	Femur D	42-48					1	2						
	Tibia P	42-48			1								1	1
Final	vertebral centrum	84-108		2	4	14	2	12	2	1				

Sheep		Phase	9		10		11		11.1		11.2		12	
Stage	**Bone**	**Age (mo)**	**F**	**U**	**F**	**U**	**F**	**U**	**F**	**U**	**F**	**U**	**F**	**U**
Early	Pelv (acet)	6-10	1		5		5		3				2	
	Scapula D	6-8			4		6						3	
	Humerus D	10			8		7		2				5	
	Radius P	10	1		2		11		2		1		5	
	1st Phal P	13-16	27	8	1		1		352	72				
	2nd Phal P	13-16	30	1					304	21			2	
Middle	Metac D	18-24	6	6			2		59	20			2	
	Tibia D	18-24	1		3		6				1		3	
	Metat D	20-28	11		1		4		63	25				1
	Ulna P	30			1		1		1		1			
Late	Femur P	30-36					1							
	Calc P	30-36					1	1		1			1	
	Radius D	36	1		2		7	1		2			4	1
	Humerus P	36-42				1								
	Femur D	36-42					3	1	1					
	Tibia P	36-42	1	1	1		1	2					1	1
Final	Vertebral centrum	48-60			3	5	7	20		2			5	3

PIG			9		10		11		11.1		11.2		12	
Stage	**Bone**	**Age (mo)**	**F**	**U**	**F**	**U**	**F**	**U**	**F**	**U**	**F**	**U**	**F**	**U**
Early	Scapula D	12				1							1	

	Humerus D	12			2							1	
	Radius P	12			2	1	1				1		1
	Pelvis (acet)	12			1			1					
	2nd Phal P	12											
Middle	Metac D	24			1	2							
	Tibia D	24			2	1			1	2			
	1st Phal P	24											
	Calc P	24-30				1	1						1
	Metat D	27			1								1
Late	Ulna P	36-42											
	Humerus P	42						1					1
	Radius D	42				1							1
	Femur P	42				1							
	Femur D	42											1
	Tibia P	42				3				1			2
Final	Vertebral centrum	48-84					3	5	3				

F=fused; U=unfused; P=proximal; D=distal;

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Abbreviations:

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BGS	British Geological Survey
CBA	Council for British Archaeology
HMC	Historic Manuscripts Commission
HMSO	Her Majesty's Stationary Office
LAU	Leicestershire Archaeological Unit
TLAAS	Transactions of the Leicestershire Architectural and Archaeological Society
TLAHS	Transactions of the Leicestershire Archaeological and Historical Society
ULAS	University of Leicester Archaeological Services

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