



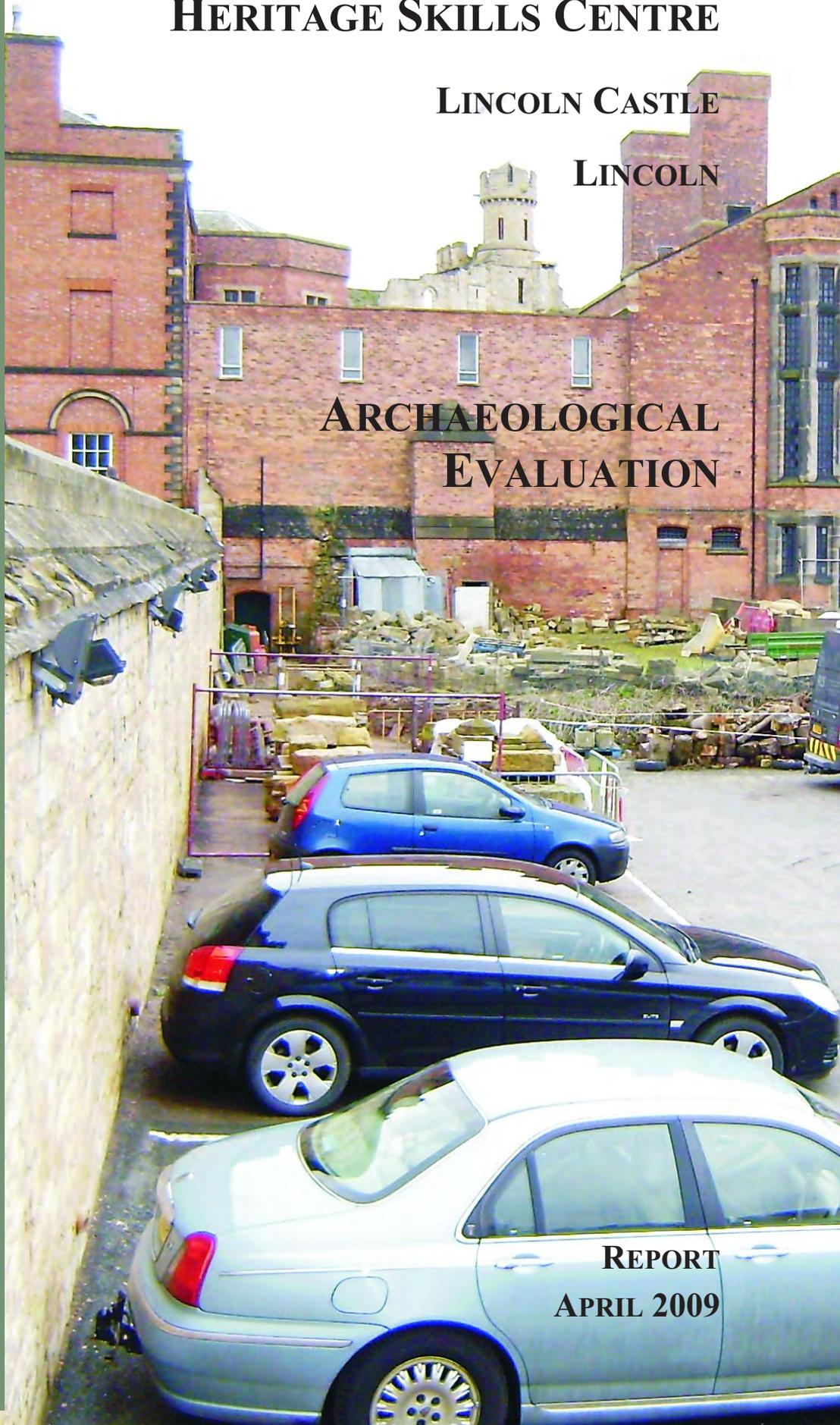
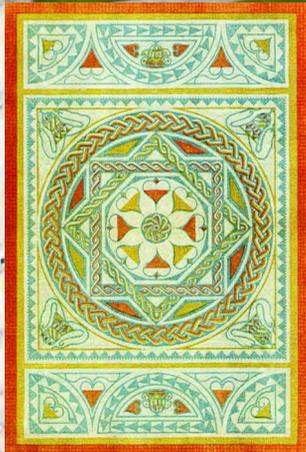
# HERITAGE SKILLS CENTRE

LINCOLN CASTLE

LINCOLN

## ARCHAEOLOGICAL EVALUATION

REPORT  
APRIL 2009





**ARCHAEOLOGICAL EVALUATION**  
HERITAGE SKILLS CENTRE  
LINCOLN CASTLE  
LINCOLN

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April 2009



# FIELD ARCHAEOLOGY SPECIALISTS LTD

Unit 8 Fulford Business Centre  
35 Hospital Fields Road  
York YO10 4DZ

TELEPHONE (01904) 652000  
FACSIMILE (01904) 749014  
fas@fieldarchaeologyspecialists.co.uk

**ON BEHALF OF**

ANDERSON & GLENN

Yew Tree Nurseries

Frampton West

Boston

Lincolnshire

PE20 1RQ

**CLIENT**

LINCOLNSHIRE COUNTY COUNCIL

Beech House

Witham Park

Waterside South

Lincoln

LN5 7JH

**PROJECT TEAM**

Justin Garner Lahire BA

Cecily Spall BSc MA MifA

Richard Jackson BA

**REPORT PREPARED BY**

Cecily Spall BSc MA MifA

**REPORT REVIEWED BY**

Nicola Toop BA MA PhD MifA

.....

**REPORT AUTHORISED BY**

Justin Garner-Lahire BA

.....

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## Summary

This document presents the results of a programme of archaeological evaluation undertaken within the castle car park and stone yard, Lincoln Castle by Field Archaeology Specialists (FAS) Ltd. The work was undertaken on behalf of Anderson and Glenn for Lincoln County Council between the 31st January and 28th February 2009.

The programme of evaluation consisted of a borehole traverse and four evaluation trenches positioned within the footprint of a proposed building and associated work area (Intervention 3 to 7). Accordingly the borehole traverse (Intervention 3) was designed to detect a ditch believed to flank the base of the Lucy Tower motte and the evaluation trenches were designed to characterise below-ground deposits in the area proposed for development.

The results of the borehole survey, Intervention 3, suggested the original base of the Lucy Tower motte has been obscured beneath later landscaping layers. The contours of the level of natural subsoil were also recorded and demonstrate a deposit depth of up to 7.0m in the area of the castle car park.

Evaluation trench, Intervention 4, encountered the wall of the 1820s debtors' yard and the western wall of the 1840s airing court and associated landscaping deposits. Similarly Intervention 5 encountered the northern wall of the 1820s debtors' yard. In both interventions evidence for internal refacing of the walls was encountered and attributed to 20th-century activity. Intervention 6 and 7 encountered deposits and surfaces thought to represent the 1820s debtors' yard and landscaping covered with 20th-century overburden. In all trenches an assemblage of redeposited archaeological material was encountered and included Roman and medieval ceramic and ceramic building material as well as assemblages of 17th- to 20th-century pottery.

## Acknowledgements

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## 1.0 INTRODUCTION

This document presents the results of a programme of archaeological evaluation undertaken within the castle car park and stone yard, Lincoln Castle, by Field Archaeology Specialists (FAS) Ltd. The work was undertaken on behalf of Anderson and Glenn for Lincolnshire County Council between the 31st January and 28th February 2009, in order to assess the archaeological impact of the proposed development of a Heritage Skills Centre on the site.

### 1.1 LOCATION AND LAND USE

Lincoln Castle lies in the Upper City of Lincoln, which occupies an elevated position on the western scarp of the Lincoln Edge, where the River Witham flows through a glacial gap in the Jurassic limestone ridge. The castle site overlooks the valleys of the rivers Trent and Witham, to the west and south respectively. The castle car park and stone yard occupy the area to the north of the 11th-century motte of the Lucy Tower. The area used for parking consists of a tarmac surface, while the stone yard occupies an elevated position adjacent to the west of the Crown Wing and is under a combination of concrete surfacing and rough ground with sand bins and three small garages along its southern perimeter wall (Figure 1; NGR SK 9739 7175; Plate 1).

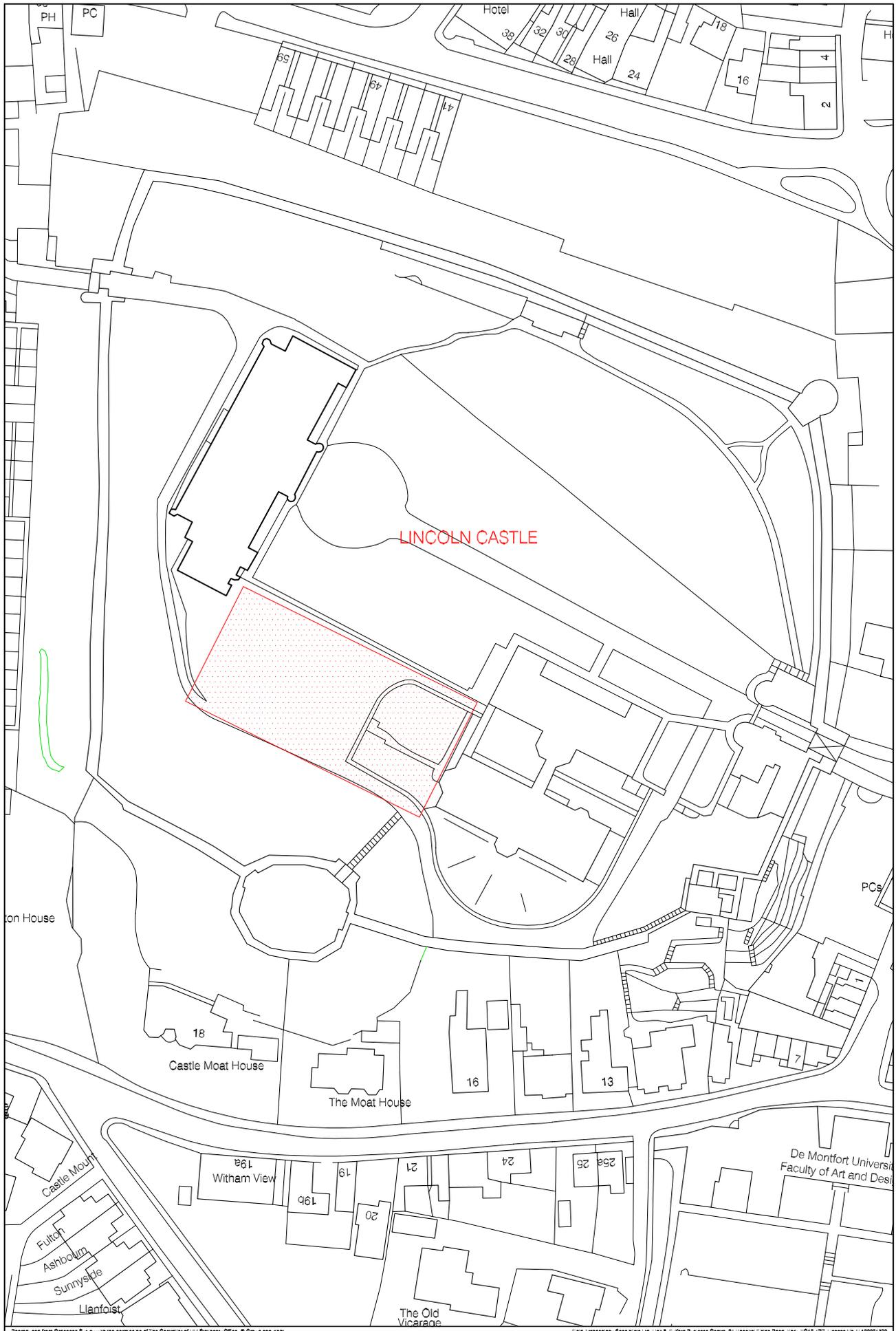


**Plate 1** The castle car park looking east

Within the Upper City the limestone bedrock, which has been quarried since the Roman period, occurs approximately 1.5m below ground level (BGL). Above this, the fragmented and laminating stone is covered by subsoil known as 'corn brash'. A stratum of Liassic clay, beneath the limestone, also outcrops on the hillsides north and south of the glacial gap. This clay has been exploited for ceramic production; a marked spring line occupies the interface between the clay and the limestone, which has influenced the development of the city since its foundation.

### 1.2 AIMS AND OBJECTIVES

The aim of the evaluation was to gather sufficient information to establish the extent, condition, character and date of any archaeological remains that may be adversely affected by the proposed site development works. The information gained was intended to allow the project design team to minimise the archaeological impact of the proposed works, and for an informed decision to be made regarding the planning application for the development, including the need for any archaeological mitigation prior to, or during the proposed development.



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Location map Scale 1:1250  Figure 1



### 1.3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

#### 1.3.1 Prehistory

There is little evidence for prehistoric activity in the vicinity of Lincoln Castle, and finds of lithic material are concentrated on the lower lying ground to the south (Jones and Stocker 2003, 19). Given the strategic location of the Upper City today, the absence of evidence for a pre-Roman settlement on the hilltop is surprising. It would appear that the river continued to represent a focal point throughout the pre-Roman period; the place-name itself is of pre-Roman origin, deriving from *lindon*, from the stem *lind-* for 'pool' or 'lake' (Rivet and Smith 1979, 19, 363; Cameron 1984, 1-3).

#### 1.3.2 Roman fortress and colonia

Two main phases of Roman activity have been identified within the city of Lincoln, and at the castle, defined as the 'military era' and the 'colonia era'.

##### *Military era*

By the late 1st century AD a legionary fortress had been established on the hilltop, and tombstones found in the city confirm the presence of the Ninth Legion (*legio IX Hispana*) (Whitwell 1970, 17). Some time around AD71, the Ninth Legion departed, to be replaced by the Second Legion (*legio II Adiutrix*), a supplementary legion from the region of the Rhine, who in turn departed in AD77-8 and moved to Chester. The fortress is then likely to have been maintained by a caretaker garrison (Webster 1988, 21; Donel and Jones 2004, 41).

The limits of the legionary fortress have been defined during a number of excavations. The site of Lincoln Castle occupies the southwestern corner of the fortress and the western defences of the castle lie over the Roman fortifications (Webster 1949; Thompson 1956; Petch 1960; Jones 1980). The early fortress defences have been contacted archaeologically at several sites close to the castle, notably at Westgate School, to the north of the castle, where timber-faced ramparts and a ditch were observed in 1973 (Jones 2003a, 43). During excavations at East Bight in 1980-1, evidence for repair to the ramparts was encountered (Site code EB66; Jones 2003a, 52).

Although the defences are well-located, the layout of the fortress, and buildings within it, are not well-attested archaeologically, having been masked by later activity. The site of the *principia*, to the immediate northeast of the castle, was investigated in 1978-9, and evidence for postholes and beam slots has been used to outline two successive structural phases of the cross hall (*basilica principiorum*) (Jones 2003a, 45). These results indicated that the *via principalis* would have run north-south, reflected in modern Steep Hill and Bailgate; the legionary gates would therefore have underlain those of the later *colonia*, with the fortress facing east (Jones 2003a, 43). At East Bight and Westgate, evidence for timber buildings was encountered, and interpreted as barrack blocks (Whitwell 1970, 21; Jones 2003a, 42). Ceramic material of early Roman date occurs residually in later Roman deposits at a number of sites, but little further structural evidence has been encountered and none of the other principal buildings of the fortress have yet been defined.

### *The colonia era*

Following the departure of the military forces, Lincoln was granted the status of *colonia*, forming a settlement for retired veterans (Webster 1988, 21). The approximate date for this foundation has been placed in the latter decades of the 1st century AD, based on a tombstone of a citizen of Lincoln at Mainz (Jones 2003b, 56). The place-name 'Lincoln' makes reference to this status, deriving from *Lindum colonia* (Rivet and Smith 1979, 19; Cameron 1984, 1).

The *colonia* was established within the confines of the legionary fortress, partly reusing the existing street plan, and building on the same defences (Jones 2003b, 58). The internal layout has been reconstructed by various scholars, each building on the work of their predecessors (Baker 1938; Richmond 1946, 35-6; Whitwell 1970, 26f; Wachter 1995, 132-150), identifying street layout, sewers, defences and buildings (Jones 2002). The four gates of the fortress were redeveloped during the 3rd century, as part of their continuing role in the defences of the *colonia*; the walls were thickened to a width of three to four metres, and reached a height of seven to eight metres (Jones 1993, 17). The upstanding Newport Arch lies to the north of the fortress, and was investigated in 1954. The east gate, which would have formed the front gate, was excavated in the 1950s and 1960s (Thompson and Whitwell 1973, 130-4), and like the north gate was found to have been a large structure, with several archways set in rectangular structures with flanking chambers. The south gate remains the least understood (Jones 2002, 60).

Most relevant for the castle, the removal of part of the castle ramparts in 1836 unexpectedly revealed the west gate of the *colonia*, immediately west of the castle's west gate. This was shown to be slightly different in layout to those to the north and east (Thomson and Whitwell 1973). As the 'back' gate, it was smaller than the others, with only a single archway. A chamber would have occupied a storey above the arch. Despite its collapse in the 19th century, this is believed to be a well-preserved entrance, with three-quarters of the fabric surviving beneath the castle ramparts (Wood 2004, 35). Immediately to the southwest of the castle, the Roman defences are extant, but ivy covered, in the grounds of Hilton House (Jones 1980, 28).

Further structural evidence relating to the *colonia* has been recovered from sites in and surrounding the castle, providing an indication of occupation in this area during the 2nd to 4th centuries. After the departure of the legion, the military buildings are thought to have been dismantled (Jones 2003b, 81), and new structures erected to accommodate the new administrative and religious centres of the *colonia*. Overlying the *principia*, a *forum-basilica* complex has been identified and outlined. The *forum* would have occupied a central position in the *colonia*, immediately northeast of the castle defences, consisting of substantial stone structures surrounding a central courtyard. At least two phases of redesign and adaptation have been recorded; the interior of the forum according to the first design seems to have comprised an extensive paved area, incorporating statue bases, and a structure to the northwest which may have been a temple. After the redesign, a double range of rooms with wide porticoes surrounded a courtyard on two or three sides, with a stone colonnade interrupted by two entrances fronting onto the main north-south street or *cardo* on its east side. The basilica of simple plan lay along the north side of the courtyard (a section of the north wall survives to a height of 7m for 23m, now known as the Mint Wall)(Jones 2003b, 70).

The quarter of the *colonia* now occupied by the castle would, during the 2nd to 4th centuries, have been home

to a wealthy elite, and evidence from this period suggests that a number of large, private dwellings were constructed. Within the castle, evidence for such buildings has been encountered. The Ordnance Survey edition of 1907 labels the site of a Roman mosaic ‘found 1786’, presumably when groundworks for the ‘new’ prison revealed Roman foundations with paintings on plaster within the walls. In 1822, excavations for the new County Hall revealed ‘many foundations of buildings...some of them having been anciently arched over with semicircular arches...’ (Willson 1848, xxxii).



**Plate 2** Lithograph of mosaic found in 1846

In 1845 groundworks revealed a hypocaust and mosaic, which may have been part of such buildings (HILL 46/4/4/5-16; Willson Collection; CoC6/24)(Plate 2).

During the 4th century, Lincoln was selected to become one of four provincial capitals of the diocese of Britannia, evidence for the continued importance of the site. This is further suggested by the presence of an ecclesiastical focal at Lincoln; in 314, the first recorded bishop of Lincoln, Adelphius attended the Council of Arles. Centrally within the *forum*, excavations at St Paul-in-the-Bail revealed two successive timber structures, a few degrees different to the Roman grid. The earlier took a simple, rectangular form, while the later building comprised a linear ‘nave’ and apse. The second structure has been identified as a church; one of an alignment of post-holes across the chord of the apse contained disarticulated human remains which have been radiocarbon-dated to AD441. The dating of this potential early church to the late Roman period is equivocal; some would argue for a late- or post-Roman date (Jones 1993, 25; 2003b, 129) while others would place them in the early medieval period, with the earlier remains representing a reinterment during a later century (Vince 2003, 141).

### 1.3.3 Early medieval activity

#### *Anglo-Saxon Lincoln*

At the end of the 4th century, therefore, Lincoln had an extant infrastructure, public buildings, and possibly a church (Vince 2003a, 141). Beyond the early 5th century, however, there is little evidence for continuity, and in common with many cities across Europe, with deposits of dark earth sealing the latest occupation deposits, representing a major dislocation in the settlement trajectory (Jones 1993, 24; Steane and Vince 1993, 76-7). It has been suggested that the city itself may have reverted to a semi-rural economy, which perhaps formed the centre of a small political territory before being subsumed into the Anglo-Saxon province of Lindsey, part of the kingdom of Mercia (Vince 2001; Donel and Jones 2004, 41).

By the end of the 7th century, historical references indicate that Lincoln was a Christian centre; Bede’s *Historia Ecclesiastica*, completed in the early 8th century, records that in AD628 Paulinus converted Blaecca the Reeve at Lincoln, and that

‘in this city he also built a stone church of fine workmanship, which today, either through neglect or enemy damage, has lost its roof, although the walls are still standing’ (Bede *HE* II.16)

Two cemeteries in the city have been dated to the 7th to 8th century, including a site in the lower city, at Silver Street (Vince 2003, 154), and also at the long-lived site of St Paul-in-the-Bail. The remainder of the evidence from the city consists almost entirely of finds of potsherds, metalwork and coins (Vince 2003, 143).

The distribution of ceramic of early and middle Anglo-Saxon date has been studied by Vince (2003, 145-7). The earlier ceramic has been found at several locations in the Upper City, including a sherd from St Paul-in-the-Bail, and four from the Mint Wall, which might indicate some limited activity in the area during the 5th to 7th centuries. The middle Saxon ceramic distribution differs slightly, but a concentration of pottery outside the city walls has been used by Vince to make the suggestion that, during the 7th and 8th centuries, settlement focussed outside the city walls; in the 9th century, settlement returned to the Roman town (Vince 2003, 147).

The excavated church structure at St Paul-in-the-Bail has been suggested by Vince to fit more comfortably in a 7th-century context; the early burial dates are suggested to derive from reinterment of relics. Immediately west of this 'foundation burial', a stone-lined grave was encountered on the chord of the apse, which produced a 7th-century hanging bowl from within the fill (Steane and Vince 1993, 74; Vince 2003, 149-150). Vince suggests that the church might even pre-date the arrival of Paulinus, being representative of a Christian British community occupying the city. The latter is suggested to explain the lack of pagan cemeteries in the vicinity of the city.

In the area of the castle, early medieval activity is suggested by the presence of four or five twisted bronze armillae, reportedly revealed when the foundations were being dug for the New County Hall in the castle yard, at a depth of 20 feet or more (Willson 1848, xxxii). The current location of these objects is not, however, known, and so more secure dating cannot be ascertained (NMR 326584).

#### *Anglo-Scandinavian Lincoln*

The arrival of the Viking army in the last quarter of the 9th century saw Lincoln become part of the Scandinavian-influenced kingdom of the north. In the second quarter of the 10th century, the English won back much of Mercian territory, although there is no documentation that Lincoln was reclaimed, and both coin finds and sculpture suggest that Lindsey retained close links with the kingdom of York. In AD 923, Edward was accepted as overlord by the Vikings of Northumbria, resulting in relative peace until AD 943, when Anlaf Sihtricson travelled south to combat the English at Leicester; hostilities continued until AD 954 (Vince 2003, 164).

The period between the 9th and 11th century saw the development of Lincoln as a town (Vince 2001); Lincoln was the site of a mint from the 9th century onwards (NMR 326575). Archaeological evidence suggests a resurgence in settlement from the end of the 9th century, primarily in the lower part of the city, evidenced at sites such as Flaxengate and Silver Street (Vince 2001). Continued expansion in the 10th century saw the growth of suburbs to the south and east of the city; activity within the upper city remains elusive, and Vince (2001, 161) suggests that this area may have remained in the control of the church. Evidence for increased investment and wealth within the city is provided by the early medieval sculpture of 10th- and 11th-century date, encountered at Lincoln Cathedral, and the churches of St Mark, St Mary le Wigford and St Paul-in-the-Bail (Everson and Stocker 1999, 194-217).

### 1.3.4 Medieval castle

In 1068, following the Conquest, William was faced with rebellion in the north of England and marched an army to York to deal with the problem. He was able to defeat the rebel forces and also prevent a Scottish invasion. To better secure the country he ordered the construction of a castle at York and a further string of castles on his return journey to London. Among the new castles was the construction of a castle at Lincoln, documented by Orderic Vitalis (Chibnall, II, 218), and the *Anglo-Saxon Chronicle* (Garmondsway 1953, 202). By 1070, this had been undertaken; when an uprising at Ely, led by Hereward of Lincolnshire, was quelled, William imprisoned hostages for all of Lindsey in the castle at Lincoln (Symeon of Durham *Historia Regum*, II 202). However, Lincoln does not appear to have been involved in any of the rebellions that flared up in this period, but its role as a prison was established.

On the basis of the extent of the castle today it has been argued that Lincoln Castle was constructed initially in the southwestern corner of the upper city of the extant Roman *colonia* (Thompson 2004, 23-9). That this was a densely occupied area of the city is attested by the Domesday book; the oft-quoted reference is that the area occupied by Lincoln Castle had previously been assessed as 166 *mensurae* out of a total for the city of 1150.

*‘De predictis wastis mansionibus. Propter castellum destructe fuerunt c.lx.vi’*

‘Of the aforesaid waste messuages, 166 were destroyed on account of the castle...’

(transcribed in Hill 1948, 373).

The motte, situated to the immediate south of the area of evaluation, would have formed one of the earliest elements of the castle, and has been assigned an 11th-century date, although this is not substantiated. From its external topography, and drawing comparison with other known sites, it is assumed that the mound would have been flanked by a moat, the upcast from which would have been used for the construction.

The stone shell keep atop the motte (the Lucy Tower) has been dated to the mid-12th century, and from this date, historical sources indicate that the castle would have been of stone construction. From this period onwards, changes to the medieval castle, including repairs and restoration, can be traced through the documentary sources.

### 1.3.5 Post-medieval to modern prison

The castle, or parts of it, were in use throughout the medieval period as a prison. Throughout the 15th and 16th centuries there are records of prisoners being transferred to the gaol in the castle, which appears to have remained one of the principal crown gaols in the country.

Speed’s plan of the city in 1610 depicts the castle from the west, showing the gates and towers of the eastern defences, and the west gate, and the keep to the south. Labelled only as ‘The Castell’, Speed shows three buildings centrally within the bailey area. The Parliamentary Survey of the castle in 1652 describes:

‘all that messuage or tenement situate and standing within the Walls of the Castle of Lincoln neere to the Castle there which is now called the Shire house and adjoyning the Gaole consisting of a Sellar, a Hall and Parlour below Staires, a Kitchen, a buttry, a large dining Roome, with foure chambers, and four

garretts over the same, with a Brewhouse and Buttry, two small Gardines to the same walled about with high stone walls and a small Hay house. All which wee value to be worth by the year six pounds' (PRO List and Indexes, xiv 38 (Duchy of Lancaster); LAO 7/FANE/3/5/2)

The survey demonstrates the presence of a Shire Hall (which was not included in the sale and therefore not described), the gaol (also not included in the survey or the valuation) and a house adjoining the gaol. Although Speed's depiction may be stylised, it is possible that the buildings he depicts relate to those described on the survey some 40 years later. In 1634, the keep of the castle is described as containing only a garden (Willson Collection 786/G, 93). No structures are shown directly in the area of the evaluation.

Despite the declining fortifications of the castle in the 17th century, it was still seen as a stronghold during the civil unrest of this period, and changed hands many times during the early years of the Civil War.

During the 18th century, activity within the castle, and perceptions of it, were dominated by its use as the County Gaol, which resulted in repairs to the medieval remains as a means of making the site secure, and the demolition of some major structures. Concurrently, this period also saw an emergence of antiquarian interest in the castle remains, and the first published accounts of the castle remains. Although repairs to the medieval fabric of the castle for the purposes of the prison were noted, the contemporary 18th-century structures were clearly of no interest to the antiquarians. As such, understanding the remains of the 18th-century prison and courts, which came to dominate the history and use of the castle for the next two centuries, relies largely on extant plans, and oral history recorded in the Willson collection.

#### *The County Gaol and the 'Old Shire Hall'*

Early 18th-century references attest to the use of the castle as the County Prison throughout this period. At this time, the prison lay in the northern half of the castle yard; the layout of the castle at the end of the 18th century is evidenced by a number of cartographic sources, including Stukeley's plan of 1722, a plan of the gaol by a prisoner, Edward Johnson, in 1782, and a Duchy of Lancaster survey of 1783. Further, a rough perspective plan of the castle yard in the Abell collection, dated to the early 18th century, also shows these buildings, although it has been suggested that the sketch shows the Old Shire Hall, rather than its successor of 1776.

#### *Debtors' and Felons' Graveyards*

Prior to the construction of the existing County Hall (Assize Court) this part of the castle yard was used for burial, for debtors whose families did not claim them for interment elsewhere. Several debtors had graves where the County Hall now lies; these were arranged 'as in a churchyard', with some having tombstones. During construction work of 1814, it was ordered that one such tomb be taken down, and the stone laid on the ground (Willson Collection 786/G, 93).

Archaeological watching briefs carried out during the excavation of service trenches in 1992-3 and 1997 (Donel 1993a; Jarvis 1997) contacted the remains of burials within the Debtor's Graveyard, situated immediately north of the Assize Court Building. In 1992-3, over five burials were encountered, with coffin nails, handles, buttons and an iron plaque. In 1997, two further inhumations were observed, in addition to further disarticulated human remains.

Willson's note record that felons whose remains were not claimed were buried at the foot of the mound, on the northwest side of the keep (Willson Collection 786/G, 93). These burials are referred to in Samuel Bamford's account of the castle, describing its condition in the 1820s:

'In a hollow at the foot of the tower were seen the green heaps above the graves of felons who had died within the prison, and of criminals who had been executed; and on a more level plot behind the Town Hall (which building fronted the gates at the extremity of the yard) was the place of interment for debtors, some with stones and inscriptions, and others only with the green mantle of their mother earth lapping over them...' (Bamford 1893, 311)

#### *New County Hall, 1776*

In the 1770s, the Old Shire Hall was again (or still) in poor condition and a new County Hall was constructed in 1776, apparently in the same location (Hill 1966, 20). Little is known about the structure of this County Hall, which survived for less than 50 years.

#### *New County Gaol, 1787-8*

In 1775, at a meeting of magistrates, it was resolved to petition Parliament for an Act to empower trustees to purchase the castle yard for use of the county in perpetuity (not to be achieved until 1831)(Hill 1948, 100). At this time, the gaol is reported to have been in a deteriorated state.

In 1774 and 1776, the prison at Lincoln Castle was visited by the reformer John Howard, who commented unfavourably on the state of the gaol at that time. The debtors' rooms in the gaol had floors of tarras (or plaster), which could not be kept clean, and the windows were close glazed. Those debtors who could not afford to pay for accommodation were housed in the free ward, which is described as a small room at the end of the building, paved with small stones, and which served as a thoroughfare (Hill 1966, 20). Two vaulted dungeons were accessed *via* a trapdoor in the pavement, of which one was the pit, the other the condemned dungeon. Both dungeons were found to be offensive, with little straw on the floor. The felons were not provided with water or sanitation; those who could afford beds were accommodated elsewhere. There was no chapel; services were held in the shire hall, and there was no infirmary (Howard 1777, 296-7; Hill 1966, 20).

Howard's criticism of the County Gaol was heeded by the magistrates - he had diplomatically stated that the prison was out of repair perhaps because the county had designs to build the new one. On 1st June 1774, Charles Amcotts had written to W.B. Massingberd, stating that:

'Mr Carr called here last October, and also took the trouble to follow me to Harrowgate the day after I had left that place to offer my services to my worthy friends at Boston. He therefore yesterday sent me a very sensible and genteel letter, with a design for a county gaole, which I propose to deliver to you at Ormesby, and I think you will approve, for it appears to me to be elegant, altho plain and neat, also convenient, but whether it will be carried into execution by our wise and frugal Lincolnshire gentry is more than I will promise. If it is, I shall attribute it to the fortunate alteration that was made at the last county election' (Massingberd Mundy MSS, Society of Genealogists, in Hill 1966, 20*n*)

In 1784, an Act of Parliament was passed, a design was settled on in 1785, and work on the new gaol began in

1786, completed in 1790. The new gaol occupied much of the southeastern quadrant of the castle yard. Although Robert Carr was responsible for the initial design, the executed design was the work of William Lumby, who designed the prison according to John Howard's principles (Hill 1966, 21). As Howard stipulated, an infirmary, surgeon and chaplain were provided, and the prison no longer charged fees. Briden's assessment of the building suggests that the elevations designed by Robert Carr were retained in the completed design, drawing parallels with those at Bootham Park, York, but that elements of his interior plan might have been altered to make the room more suitable for use as a prison (Briden 2004, 10).

Although a quantity of reused stone is preserved in the basement of the 1787 prison buildings, there is no indication that the existing barn/stable building in this location was reused, and it is likely that the ground was cleared prior to construction. The old gaol, situated to the north, would have remained standing initially. By 1812, however, the old gaol is no longer depicted on plans of the castle (although its location is dashed on Marratt's map of 1817), suggesting that once the new structure had been completed, the redundant prison was demolished.

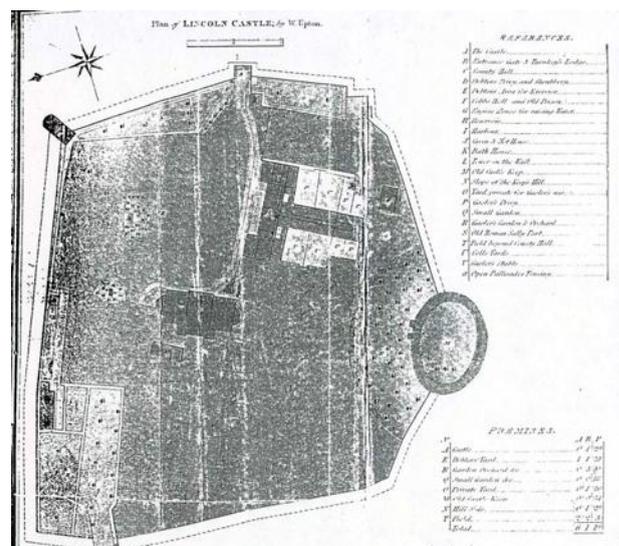
Although no original plans of the structure survive, plans of 1812 and 1824 provide some indication of the layout and function of buildings within the new prison. The building consisted of a main east-west range, with a north-south range forming a T-shape, flanked by yards. The available sources suggest that the initial phase of construction would have encompassed the east-west range, the H-plan of which is concealed by later infilling, and part of the north-south range of cells, with adjacent yards. The Willson Collection contains notes from a book of Minutes, Inquisitions &c. from the Court Rolls of the Duchy of Lancaster; in 1788 the New Gaol was to be surveyed, and it was ordered that four day-rooms and yards be erected on the south side of the new prison, with material from the old; this appears to relate to the four southernmost yards and cells. In 1790, £139-19-08 was due to the bank, above the sum of £7000 already raised, which may have been towards these further works.

### 1.3.6 19th to 20th century castle yard

The 19th century saw major developments to the main buildings within the castle, most notably the construction of a new County Hall from 1822, additions to the prison in 1847, and the subsequent closure of the gaol in 1878. Throughout the 19th century, particularly after 1835, a comprehensive programme of repair and restoration was carried out, much of which has been documented by Willson in both the report and in various handwritten notes preserved in the Willson collection.

#### *The castle yard and gaol in the early 19th century*

Plans of the site by Upton (1812)(Plate 3) and Bower (1813) provide evidence for the gaol and county hall structures. Bower's plan, in particular, provides a valuable level of detail. Behind the courthouse, a 'field'



**Plate 3** Upton's plan of 1812

is labelled. To the south of the prison, the gaoler's stable is shown, set within an extensive area described as the gaoler's private yard. The appearance of this building is unclear, although an undated 19th-century drawing suggests the possibility that this was adapted from an extant ruin, which contained lancet windows. The absence of this building from other illustrations, however, leaves such suggestions highly tentative.

In 1812, a report on the state of the Gaol was commissioned, printed copies of which were produced on 4th December of that year (Osgoode, Weyland and Becher 1812). At that time, the prison housed 57 debtors and fifteen prisoners, of whom eight were under sentence of transportation, five under sentence of imprisonment and two committed for trial. Of the latter two, one was held on a charge of forgery, the other 'for the murder of her bastard child' (possibly Elizabeth Witing, later hanged). Evidence for day-to-day life in the gaol in the 19th century is provided in a number of journals now deposited in the Lincolnshire Archives, including the Gaolers/Keepers/Governors' journals (LAO CoC5/1/1-8), the matrons' journals (LAO CoC5/1/9-10) and the surgeon's journals (LAO CoC5/1/11-19), and chaplains' journals (LAO CoC 5/1/20-29). The comprehensive documentary archive provides an indication of the nature of the furnishings and the interior of the prison. An inventory of 1828 (LAO CoC 5/6/2) details simple furnishings (tables, chairs, fenders, fire irons) in the day rooms, each of which also contained a salt box, a water tub, a sweeping brush, a mop and broom, and show brushes. The sleeping rooms contained bedspreads, blankets, bolsters, pots, and night stools (also discussed in Briden 2004, 11). An inventory of 1828 (LAO CoC 5/6/2) details simple furnishings (tables, chairs, fenders, fire irons) in the day rooms, each of which also contained a salt box, a water tub, a sweeping brush, a mop and broom, and show brushes. Maintenance payments in 1831 detail the use of paint in white, black, red ochre, yellow ochre and umber, with black lead which would have been used for grates (LAO CoC 5/6/60).

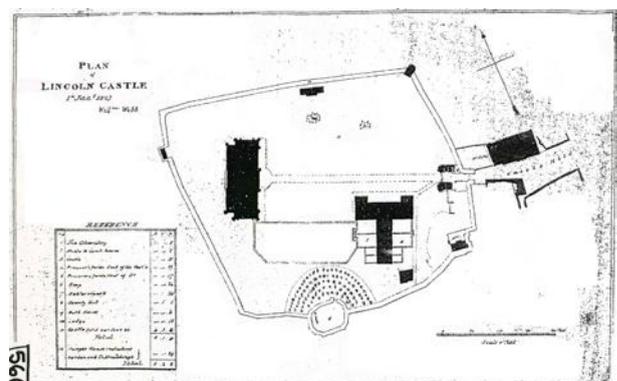
#### *The second New County Hall, 1822-1826*

Despite having been built less than 50 years previously, the county hall of 1776 was deemed insecure in 1822, and an Act of Parliament laid provision for its rebuilding. In 1824, schedules were issued for this work; surviving contracts with the mason, carpenter, painter, plasterer and plumber/glazier are preserved in the Lincolnshire Archive Office, revealing some of the specifics of the construction.

#### *Additional works 1826*

The construction of the new County hall, also included further provision to extend the prison block, and further changes were made. In February of the 1826, it was ordered that materials from the Old County Hall be used to build a fence to 'prevent the crowd at the assizes from interfering with the prisoners' (LAO CoC 5/6/63). The engineering project involved the lowering of ground to the south of the yard by approximately 3m below the level of the 1787 prison. The new debtor's yard had access from the debtor's area of the 1787 prison, via a new passage, detailed in Webb's notebook (Plate 4).

Changes to be carried out included the following: two night cells on the ground floor were to be made into a day room for ward 1, the present day room to have windows and doors blocked and be made into a debtor's day



**Plate 4** Webb's plan of 1827

room, and a cellar passage was to be made under the said room to communicate with the new debtors' area, while the front debtors day rooms to be made as visitor rooms (LAO CoC 5/6/63). Mason's timesheets indicate that the new yard was levelled in November and December 1827, and that work on the 'debtors' wall' began on December 5th, and that the 'privy vault' and the door from the prison were being constructed in 1828 (LAO CoC 5/6/69). The subterranean route incorporated a mortuary.

### *The new Crown Wing*

In 1831, a further Act of Parliament allowed local justices to purchase Lincoln castle from the Duchy of Lancaster estates for £2000, and after this date, major changes to the prison structure occurred, following general trends of prison design at the time.

In the 1830s, the prison system in England had no uniform system of discipline and management, and it was during this period that the new 'separate system' gained currency in prisons (Brodie, Croom and Davies 1999, 14; 2002, 84-5). The system was inspired by the East State Penitentiary, and had a great impact on the design of prisons, requiring that:

- each prisoner be confined day and night in a separate cell, thoroughly ventilated and warmed and of sufficient size to allow exercise and manual labour;
- cell construction preclude communication between prisoners;
- the cells be fitted with a washing sink and water closerly so that there is no need for prisoners to leave their cells;
- that prisoners are able to summon warders if ill;
- there be a means of unobserved inspection as well as general inspection and superintendence;
- that the system's integrity be preserved in the chapel, by means of separate cubicles, and at exercise, by means of separate yards (Kerr 1988, 62-3).

The system received approval in England. The Prisons Act of 1835 recommended complete separation of prisoners to avoid 'contamination', and the system was made lawful by a further Act of 1839 (previously, solitary confinement for over one month, or more than three months in one year, had been deemed unlawful) (Brodie, Croom and Davies 2002, 88-90). This system was adapted by Joshua Jebb, and embodied in the Pentonville Prison of 1840-2, which was intended to provide a practical example of the separate systems. Pentonville was deemed to have been a success, and in 1844, Jebb was appointed to the new office of surveyor of prisons.

In 1842, the seventh report of the Prison Inspectors laid down criticisms over the state of Lincoln gaol; these were detailed as a lack of an airing yard for female prisoners, the absence of an adequate infirmary, overcrowding in the male sleeping cells, and the impossibility of supervising the day rooms and exercise yard (Olney 1979, 118). Sir James Graham, then Home Secretary, brought this report to the attention of the magistrates, and made it clear that 'immediate measures' were required to address the problem (Olney 1979, 118). A scheme of alterations was prepared, to cost £2600, but this was rejected; in the autumn of 1843, Joshua Jebb convinced the magistrates to rebuild the crown wing of the prison (BNL box 3; CoC 4/1/17/111; Olney 1979, 118; Brodie, Croom and Davies 2002, 98).

In 1844, plans were prepared by W.A.Nicholson, who had recently built the City Gaol; these were accepted and construction began. Lincoln City and Lincoln County gaols represented two of four in the Northern and Eastern Prison District which had wholly adopted the separate system by 1850 (Brodie, Croom and Davies 2002, 97). The old crown wing, perpendicular to the front range, was demolished, and a new, east-west aligned wing constructed, with a chapel between the two. The design encompassed 34 sleeping cells for men and 13 for women, replacing 13 previous cells. As required of the separate systems, prisoners could then spend nights in solitary confinement; a new ventilation and sanitation system had been designed by Messrs Hadens of Trowbridge (Olney 1979, 118).

The prison, chapel and exercise yard were completed in 1847, at a cost of £11,000 (Olney 1979, 118), and shown on an adapted version of Willson's plan of 1832 (Plate 5). The new exercise yard consisted of a curving wall and radiating walls, reflecting those to the south of the prison. Unfortunately, prisoners inhabited the building before it had adequately dried out, resulting in an outbreak of fever, ended only by placing the prisoners into solitary confinement day and night (LAO CoC 6, in Olney 1979, 118-9).



**Plate 5** Amended version of Willson's plan of 1832

The new prison building was three-storied, consisting of a short, four-bay female wing, with accommodation for the matron, separated from a larger male wing (Brodie, Croom and Davies 2002, 110). The male wing is divided into a two-bay and seven-bay section by 'an area which looks like the centre of a radial prison, and this may indicate an intention to extend the wing and add further wings at a future date' (Brodie, Croom and Davies 2002, 110). The chapel, the original fittings of which survive, contained single pews for inmates, constructed so that no inmate could see another. Hayfield observes that, 'the chapel...best demonstrates the inhumanity of the Separate system' (Hayfield 2001).

### *Decline of the prison*

In 1855, the gaol sessions was appointed by an Act of Parliament to provide military storehouses for Lincolnshire. From this point, however, the significance of the gaol sessions declined, and control of the Castle Gaol was gradually usurped by the Home Office, to whom it ceded in 1877. In this year, the Prison Act transferred responsibility to a new central body, the Prison Commission. The first chairman was Edward du Cane, designer of Wormwood Scrubs, which demonstrated a move away from the separate system, coincident with the end of the County Gaol in Lincoln Castle. In 1872, a new prison had been constructed on the edge of the city (Brodie, Croom and Davies 2002, 119), and by 1878, the old prison closed. The prison buildings were emptied, and no further use was found for them until after the second World War. The military storehouses were rented by the War Office from 1872 (Olney 1979, 119). From this time, however, the court houses remained in use into the 20th century.

### *20th century changes*

The radiating walls of the western yard appear from Ordnance Survey sources to have been removed by the 1930s; possibly indicating a change of use at this time.

## **2.0 FIELDWORK PROCEDURE**

Permission for the programme of evaluation was granted by Dr Glyn Coppack, Inspector of Ancient Monuments, English Heritage, within an existing scheduled monument consent for evaluation work at the castle. Prior to any fieldwork the relevant service maps were consulted and the area scanned using a cable avoidance tool.

A site grid established during metric survey of elements of the castle by FAS was used during the evaluation programme and survey data were rectified to the Ordnance Survey (OS) National Grid on completion of fieldwork. All coordinates and alignments in this report refer to the OS National Grid, and all heights are expressed in metres above OS datum (AOD).

### **2.1 BOREHOLE SURVEY**

A borehole traverse consisting of seven boreholes was undertaken across the castle car park and was oriented broadly north-south in accordance with a Project Design prepared by FAS and approved by Lincolnshire County Council and English Heritage (Figure 2; Appendix A). Boreholes were spaced 5.0m apart with the exception of Borehole 7 which was positioned equidistantly between Borehole 2 and 3 to provide more detailed profile information in the area closest to the base of the Lucy Tower motte.

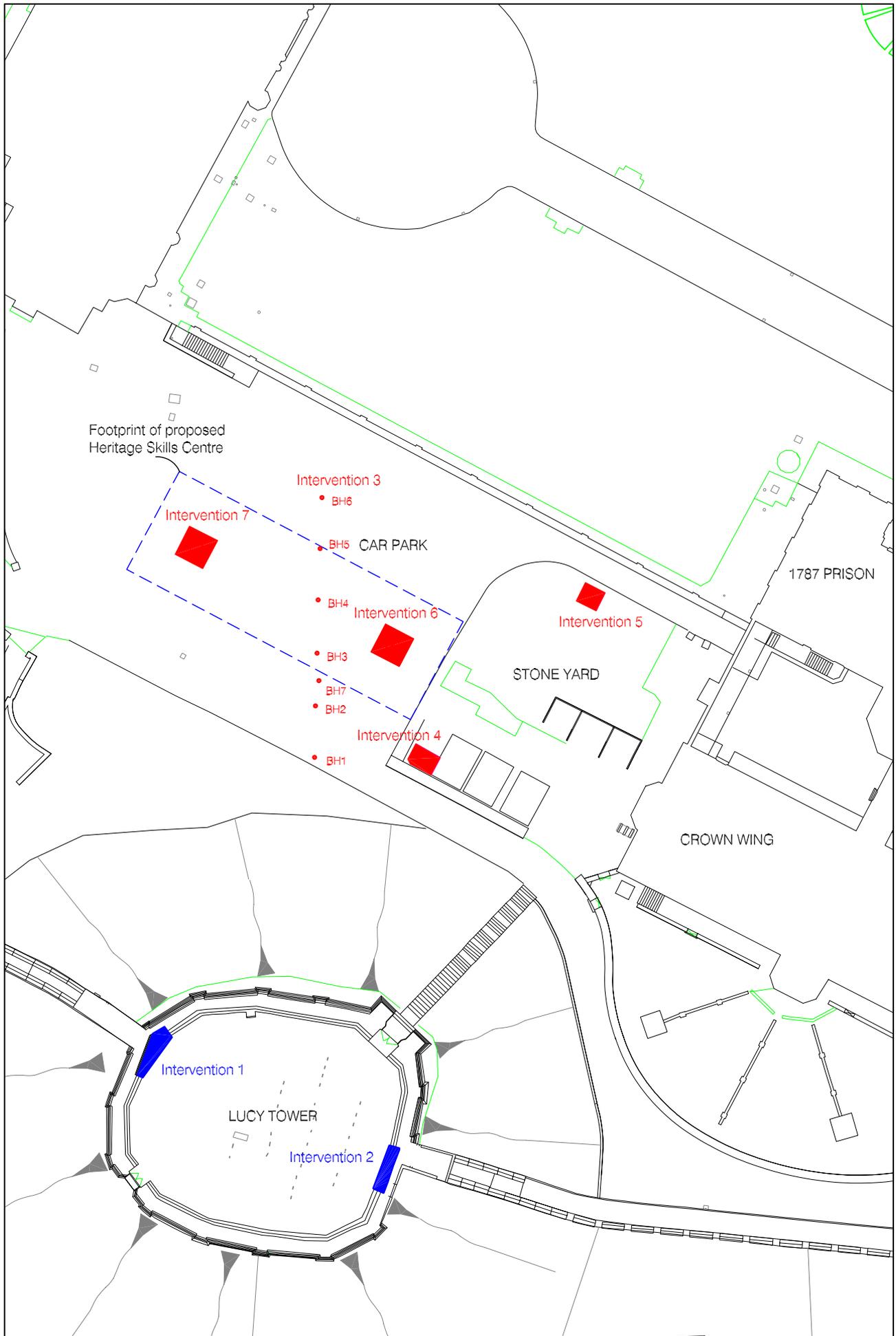
The boreholes were undertaken using a small closed-core percussion rig using 1.0m long 200mm open metal core casings (Plate 6). Each core section was trowelled clean and recorded using measured profile drawings annotated with soil descriptions. Where dateable material was identified it was retained and submitted for specialist assessment. The borehole survey was assigned Intervention 3 (Appendix B).



**Plate 6** Borehole survey

### **2.2 EVALUATION TRENCHES**

Following the borehole survey four evaluation trenches, assigned Intervention 4 to 7 (see Appendix B), were excavated across the site (see Figure 2). The trenches were positioned using a Total Station Theodolite, at locations agreed previously with English Heritage and Lincolnshire County Council. Intervention 4 measured 2.0 x 2.7m, Intervention 5 measured 2.0 x 2.0m, and Intervention 6 and 7 measured 3.0 x 3.0m. Fieldwork was monitored by Dr John Glenn, Anderson and Glenn, Dr Glynn Coppack, Inspector of Ancient Monuments, English Heritage and Dr Beryl Lott, Historic Environment Team Leader, Lincolnshire County Council, on the



Location of interventions

Scale 1:500



Figure 2



20th February 2009.

Where present tarmac and concrete surfaces were cut using a floor saw and modern topsoil and rubble overburden were removed by mechanical excavator, using a 1.0m wide toothless ditching bucket, under strict archaeological supervision; machine excavation ceased at the first archaeological horizon. Excavation continued by hand to a minimum depth of 1.25m BGL; within Intervention 6 and 7 it was deemed safe to continue excavation to a maximum depth of 2.25m BGL within a stepped-in 1m<sup>2</sup> area.

Written, drawn and photographic records were made of all archaeological deposits. All plans and sections were drawn to a scale of 1:10. A full photographic record was compiled, consisting of 35mm colour and monochrome photography.

The excavation and recording system employed during fieldwork is based on a set of principles known as *Field Research Procedure* (Carver 1999), the standard operating system employed by FAS. The procedure structures excavation data in a hierarchical system. Each stratigraphic unit defined during excavation, which is considered to have been formed by a single deposition, is referred to as a 'context', and where appropriate, contexts are grouped during excavation as 'features'; the site indices created for contexts and features during Intervention 1 and 2 was continued. Each unit has a structured *pro forma* recording sheet to be completed using a series of keywords. Indices of photographic recording, samples and drawings have been compiled and cross-referenced with the context and feature indices; a summary of contexts and features allocated is provided in Appendix C and a checklist of records in the archive in Appendix D. A stratigraphic diagram for the site was compiled on completion of the fieldwork (Appendix E).

### 3.0 FIELDWORK RESULTS

#### 3.1 INTERVENTION 3

A total of seven boreholes were undertaken along a north-south traverse (see Figure 2). Soil descriptions are summarised within Appendix C and profiles presented as Figure 3.

##### 3.1.1 Borehole 1

Borehole 1 was situated *c.*4.0m north from the base of the Lucy Tower motte and contacted natural subsoil (C1020) at 5.0m BGL equivalent to *c.*59.20mAOD. Natural subsoil consisted of banded yellow clay and sand at this point. C1020 was overlain by a reddish-brown clean, plastic silty clay (C1019) which yielded a sherd of Grey ware (Appendix F) and measured 0.50m thick. C1019 lay beneath a layer of friable, brown clayey sand (C1018) which measured 0.80m thick but was recorded with voids. C1018 also yielded a sherd of Grey ware and CBM. C1018 lay beneath a layer of clean, dark yellowish-brown, sticky sandy clay containing flecks of charcoal (C1017). Again C1017 was recorded with voids but appeared to measure 0.80m thick. C1017 was overlain by a dark greyish-brown clayey silt (C1016) which in turn was overlain by a weak red sandy clay containing frequent limestone fragments (C1015). The limestone within C1015 resulted in a voided section

SK 97391002.54/  
71757692.75  
64.10mAOD

SK 97391002.62/  
71757692.74  
63.95mAOD

SK 97391002.95/  
71757702.82  
64.10mAOD

SK 97391002.88/  
71757707.96  
64.26mAOD

SK 97391003.07/  
71757712.90  
64.42mAOD

SK 97391003.24/  
71757717.81  
64.57mAOD

SK 97391002.95/  
71757700.17  
64.10mAOD

Borehole 1

C1012
C1013
C1014
C1015
void
void
C1015
void
C1016
C1017
void
C1017
C1018
void
C1018
C1019
C1020

Borehole 2

C1012
C1013
C1021
C1022
C1023
void
C1023
C1024
C1024
C1024
C1025
void
C1026
C1027
void
C1027
void
C1028
void
C1028
C1029
C1030
void
C1030
C1020 rock

Borehole 3

C1012
C1013
C1031
C1032
C1033
void
void
C1033
void
C1033
C1034
C1035
C1036
void
C1036
void
C1036
C1020 clay

Borehole 4

C1012
C1013
C1037
C1038
C1039
C1040
void
C1040
void
void
void
l/s
void
C1041
void
C1020 rock

Borehole 5

C1012
C1013
C1042
C1044
void
C1044
C1045
C1046
void
C1046
C1047
C1048
void
C1048
void
C1048
void
C1048
C1020

C1043

Borehole 6

C1012
C1013
C1049
C1050
C1051
void
C1051
C1052
C1053
void
C1053
C1054
void
C1055
void
C1056
void
C1020

Borehole 7

C1012
C1013
C1057
C1058
C1059
void
C1059
C1060
void
void
C1061
void
void
C1061
void
void
C1061
void
void
C1061



Borehole survey profiles

Scale 1:25

Figure 3

through the layer and interrupted the interface between C1015 and underlying C1016. A layer C1014 of clayey sand containing mortar and gravel lay beneath tarmac and its preparation (C1012 and C1013).

### 3.1.2 Borehole 2

Borehole 2 was situated 5.0m to the north of Borehole 1 and contacted natural subsoil at *c.*57.50mAOD. At this point natural subsoil consisted of limestone bedrock (C1020). Bedrock was overlain by a voided layer of light reddish-brown, sticky clayey silt (C1030) which measured up to 0.70m thick beneath a thin layer of limestone fragments set in mortar (C1029). The four overlying layers, C1028 to C1025, produced voided profiles and consisted respectively of a wet, sticky reddish-brown silty clay, a sticky, pale red clayey sand, a dark greyish-brown, sticky sandy clay and a layer of lime mortar. The interfaces between these layers was not observable within the cores but they occupied levels between *c.*58.30mAOD and *c.*62.0mAOD. The latter layer C1025 may represent lime mortar preparation for overlying brick and ceramic drain encountered as C1024 (Plate 7). Over C1024 a layer of sandy clay containing mortar and limestone fragments was identified (C1023) and was sealed by thin layers of sandy clay (C1023), mortar (C1022) and tarmac and preparation (C1012 and C1013). No dateable material was noted during recording.



**Plate 7** Borehole 2 C1024

The latter layer C1025 may represent lime mortar preparation for overlying brick and ceramic drain encountered as C1024 (Plate 7). Over C1024 a layer of sandy clay containing mortar and limestone fragments was identified (C1023) and was sealed by thin layers of sandy clay (C1023), mortar (C1022) and tarmac and preparation (C1012 and C1013). No dateable material was noted during recording.

### 3.1.3 Borehole 3

Borehole 3 was situated 5.0m north of Borehole 2 and encountered natural subsoil at *c.*58.50mAOD where it proved to be made of striated yellow clay containing limestone and ironstone fragments (C1020). Overlying natural bedrock was a deep, voided layer of reddish-brown, wet, sterile sandy clay measuring approximately 2.80m thick (C1036). The overlying layer, C1035, consisted of a thin layer of compacted yellow clay and limestone fragments measuring less than 0.20m thick, beneath a further thin layer of clean, dark greyish-brown sandy silt containing rare charcoal, limestone fragments and mortar lenses measuring 0.20m deep (C1034). Overlying these layers a thick voided layer of mixed, dark greyish-brown sandy clay was recorded and assigned C1033. Though voided C1033 measured 1.30m deep and lay beneath a coarse sandy silt C1032, a thin layer of mortar 1031 and tarmac and preparation (C1012 and C1013). No dateable material was noted during recording.

### 3.1.4 Borehole 4

Borehole 4 lay 5.0m north of Borehole 3 and encountered natural subsoil at 59.90mAOD where it consisted of limestone bedrock (C1020). Overlying C1020, a voided layer of light brown, sticky sandy clay was identified and contained loose limestone fragments throughout (C1041). Over C1041 a deep, voided layer of dark greyish-brown sandy clay was identified and assigned C1040. C1041 contained a component of limestone fragments

which appears to have compromised the recording of the depth of the layer and its basal interface with C1040. The upper interface of C1040 was recorded at 63.20mAOD and it may have measured up to 2.80m thick. Overlying C1041 was a series of less substantial layers assigned C1039 to C1037 being a very dark grey sandy clay, a mixed, coarse, dark grey clayey sand and a layer of mortar respectively. These layers were beneath tarmac and its preparation (C1012 and C1013). No dateable material was noted during recording.

### 3.1.5 Borehole 5

Borehole 5 lay 5.0m north of Borehole 4 and encountered natural subsoil at 59.10mAOD where it consisted of limestone bedrock (C1020). Overlying C1020 was a deep and voided pack of very dark grey sticky, sandy clay recorded intermittently between 59.10mAOD and 61.30mAOD (C1048). Overlying C1048 were two less substantial layers of dark greyish-brown clayey sand (C1047) and a voided layer of limestone fragments in a matrix of mortar (C1046). Above C1046 a layer of very dark greyish-brown silty clay (C1045) beneath a voided layer of pale yellow coarse sand (C1044). A distinct thin layer of charcoal overlay C1044 and was assigned C1043 which in turn lay beneath a layer of mortar and limestone fragments (C1042) under tarmac and its preparation (C1012 and C1013). No dateable material was noted during recording.

### 3.1.6 Borehole 6

Borehole 6 was the most northerly borehole and lay 5.0m to the north of Borehole 5. Natural subsoil was encountered at *c.*58.80mAOD where it consisted of pale yellow clay containing limestone (C1020). The overlying two layers were recorded as voided but lay between 58.80mAOD and 61.30mAOD (C1056 and C1055). C1056 was recorded as a very dark gray clean sandy silt containing limestone fragments, while C1055 appeared very similar but included a greater proportion of limestone fragments. C1055 was sealed by a relatively thin, compact layer of yellow clay containing occasional limestone fragments (C1054) overlain by a further deep voided layer of light yellowish-brown clayey sand (C1053). Above C1053 a layer of dark greyish-brown silty sand was recorded and assigned C1052 and lay beneath a voided layer of pale yellow coarse sand (C1051). C1049, a layer of mortar, overlay C1051 and beneath tarmac and its preparation (C1012 and C1013). No dateable material was noted during recording.

### 3.1.7 Borehole 7

Borehole 7 was positioned equidistantly between Borehole 2 and 3 in order to provide more profile information between the two deepest measurements of natural bedrock levels. Bedrock was not securely encountered within the borehole since an unidentified hard obstacle was encountered at *c.*57.0mAOD; this may represent the top of bedrock or could represent a fragment of limestone. The earliest layer recorded within Borehole 7 was identified as a deep voided layer of a light yellowish-brown sandy clay (C1061) which lay between 57.0mAOD and 61.50mAOD and may therefore have measured up to 4.5m deep. C1061 was notably wetter and softer towards its base. Above C1061 was a dark greyish-brown friable silty sand assigned C1060 which contained occasional limestone and mortar fragments and lay beneath a voided layer of olive-brown sticky sandy silt (C1059). C1059 lay beneath a dark greyish-brown clayey silt (C1058) and layer of mortar (C1057) which in turn lay beneath tarmac and its preparation (C1012 and C1013). No dateable material was noted during

recording.

### 3.2 INTERVENTION 4

Intervention 4 measured 2.0m x 2.7m and was situated in the southwest corner of the stone yard adjacent to a small garage complex (see Figure 2; Plate 8). Modern overburden was removed by machine to the latest archaeological horizon represented by a lime mortar deposit encountered at *c.*64.90mAOD (C1067); excavation by hand continued to *c.*64.30mAOD (Figure 4).

The earliest feature encountered within Intervention 4 was the upstanding south perimeter wall of the stone yard, also being part of the remaining wall of the 1820s debtors' yard. The wall, built in lime mortar-bonded limestone ashlar, was assigned F6 (C1065) and was well-preserved where it had lain buried, while the upstanding north-facing elevation was heavily frost-damaged (Plate 9). The upstanding remains of wall F6 are oriented broadly WNW-ESE for a length of *c.*15.0m; the base or foundations were not exposed within Intervention 4. At its western end F6 was found to be abutted by a limestone and brick wall assigned F7. F7 is also partially extant and oriented broadly NNE-SSW and forms the western perimeter wall of the stone yard. Both walls separate the stone yard from the adjacent car park entrance and car park proper and internally enclose the elevated area of the stone yard. F6 was seen to be made of two different materials; the lower courses were made of bonded limestone blocks assigned C1088 which abutted the make-up of F6 at a right angle, although the limestone make-up was distinct from it (Plate 10).

Against the buried portion of both limestone wall F6 and the limestone make-up of wall F7 a layer of made ground was found to abut them both and consisted of a firm layer of very pale brown clay containing frequent limestone fragments and rare fragments of ceramic building material (CBM)(C1086)(see Figure 4; Plate 11). C1086 measured at least 0.45m thick and its full depth was not achieved within the intervention. The upper surface of C1086 was sealed by a compact buried soil assigned C1068. Excavation of C1068 revealed it be *c.*0.05m thick and heavily root disturbed. Residual Roman



**Plate 8** The stone yard looking north



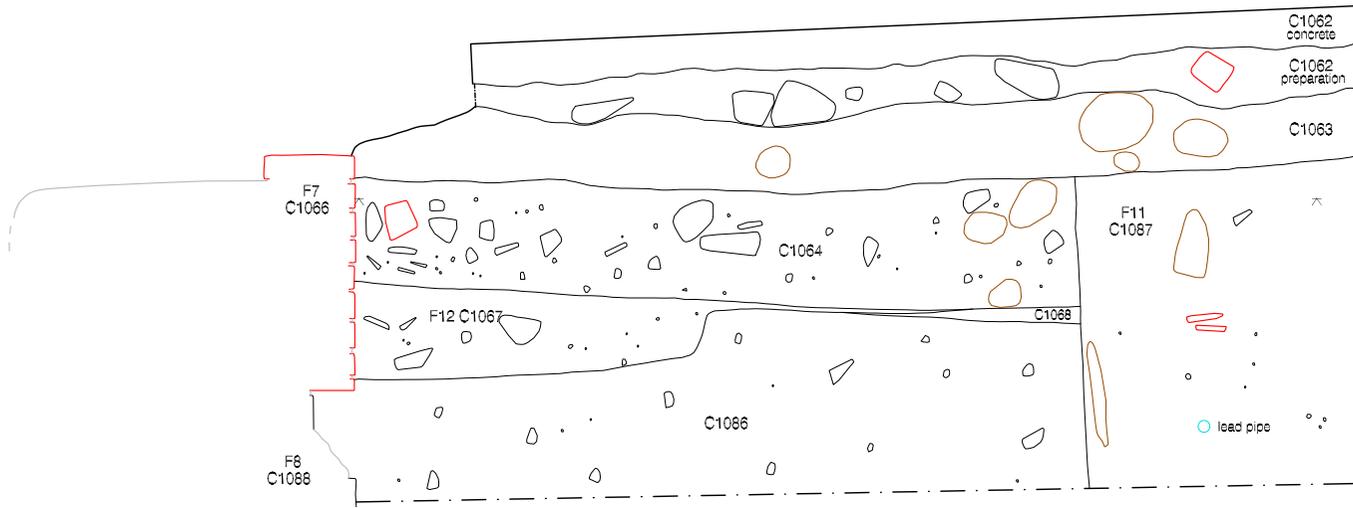
**Plate 9** Intervention 4 F6 C1065 north-facing elevation (scale 2.0m)



**Plate 10** Intervention 4 F7 C1088 and C1066 east-facing elevation (scale 1.0m)

W  
SK 97391012.24/71757694.06  
65.11m

E  
SK 97391014.45/71757692.85  
65.11m



- Brick/tile
- Roots
- Limestone
- Mortar
- Lead



Intervention 4 - south-facing section

Scale 1:20

Figure 4

and medieval ceramic was recovered during excavation alongside ceramic of mid-17th to 18th-century date, also considered residual (Appendix G). A fragment of glazed medieval ridge tile was also present (Appendix H).

C1068 was cut by a construction cut assigned F12 which appeared to have been excavated flanking F7. F12 was clearly visible in plan and appeared as a clean, compact deposit of lime mortar and limestone rubble fragments (C1067) abutting part of F6 and F7 (Plate 12). Excavation of C1067 revealed a small linear scoop flanking F7 the base of which was coincident with a change in the material of the east-facing elevation of the wall (C1066)(see Figure 4; see Plate 10). C1067 contained no dateable material.

C1067 was sealed by a consistent layer of limestone rubble-rich, humic clayey silt which was also heavily root-disturbed (C1064). To its east C1064 was cut by a service trench (F11 C1087) which was oriented broadly north-south and was found to contain a lead pipe. Material recovered from F11 was entirely residual and dated to the mid-17th to 18th century. Notably an ashlar block of F7 had been removed to allow F11 to pass through the wall (see Plate 9). F11 was sealed in turn by a buried topsoil (C1063) over which a concrete surface (C1062) and its preparation had been laid representing the current surface of the stone yard in that area.

### 3.3 INTERVENTION 5

Intervention 5 measured 2.0 x 2.0m and was situated against the north wall of the stone yard *c.*12.0m west of the Crown Wing (see Figure 2). Modern topsoil and overburden was removed by machine to the latest archaeological horizon represented by a feature against the yard wall (F8) encountered at *c.*65.0m AOD; excavation by hand continued to *c.*64.20m AOD (Figure 5).

The earliest feature encountered within Intervention 5 was the upstanding north perimeter wall of the stone yard which also represents the remains of the debtors' yard wall of the 1820s. The wall was assigned F9 and where exposed within the intervention was seen to be made of two distinct materials. The main fabric of the wall as exposed within Intervention 5 and visible on the north-facing elevation was limestone blocks bonded with lime mortar (C1079)(Plate 13). A layer of made ground was found to abut wall F9 and was assigned C1078.

C1078 consisted of a deep pack of dark grey clayey silt at least 0.90m deep the base of which was not encountered within the intervention (Plate 14). Several tip lines within C1078 were visible in section and in

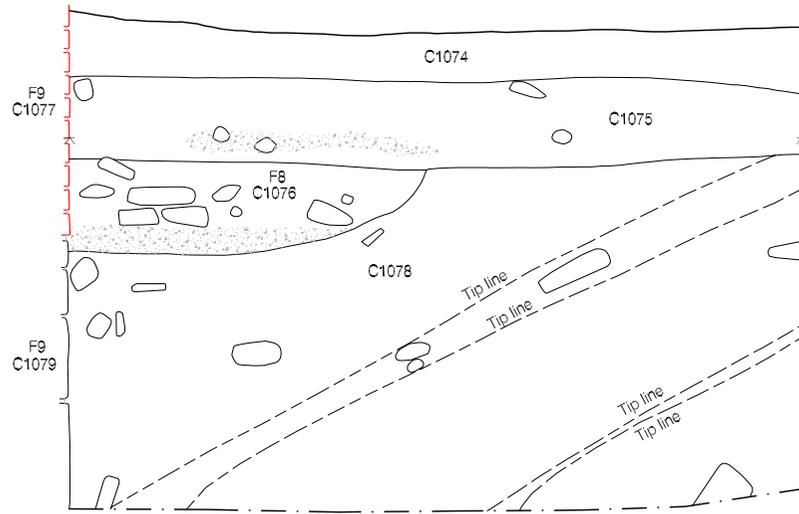


**Plate 11** Intervention 4 south-facing section (scale 2.0m)



**Plate 12** Intervention 4 C1067 pre-excitation (scale 1.0m)

N SK 97391030.29/7157708.66 65.06m  
S SK 97391029.47/71757706.93 65.06m



- Brick/tile
- Roots
- Limestone
- Mortar
- Lead



Intervention 5 - west-facing section

Scale 1:20

Figure 5

the base of the trench, although the layer appeared to have accumulated rapidly during a single episode of landscaping. A wide range of material was recovered from C1078 including Roman, medieval and early modern ceramic. Most notably a sherd of a Cream ware flagon bore a partial, crudely scratched graffiti, transcribed by Dr Roger Tomlin as [...].GONI[...], perhaps [*Anti*]goni meaning '(property) of Antigonus' (Plate 15). A small assemblage of 14 fragments of painted wall plaster was also recovered from C1078, along with four fragments of probable post-medieval date (Jenny Mann, pers. comm.). A Scottish copper turner (twopence) of Charles II minted 1663 to 1668, identified by Nick Holmes, numismatist, National Museums of Scotland, was also recovered from the layer and its recovery in Lincoln is unusual.

Cut into the upper surface of C1078 a linear feature was identified during excavation flanking wall F9, assigned F8. The feature appeared in section as a lime mortar and limestone rubble-filled scoop. During excavation of F8 six clay tobacco pipe fragments were recovered along with a rubber and red glass reflector from a bicycle or car. The base of F8 was coincident with a change in the make-up of the south-facing elevation of wall F9, which changed to a brick set in stretcher bond (C1077) (see Plate 13 and 14). F8 was sealed by a layer of limestone rubble and lime mortar crumbs (C1075) sealed in turn by a modern topsoil (C1074).

### 3.4 INTERVENTION 6

Intervention 6 measured 3.0 x 3.0m and was located within the castle car park c.4.0m from the west perimeter wall of the stone yard. The tarmac was cut using a floor saw and modern overburden was removed by machine to the latest archaeological horizon encountered in the form of a buried soil (C1083) lying at c.63.50m AOD. Excavation by hand continued to c.63.10m AOD equivalent to 1.25m BGL over the whole intervention, whereafter the excavation area was stepped-in to a 1m<sup>2</sup> area; excavation by hand continued to c.62.70m AOD coincident with the top of a drain (Figure 6).



**Plate 13** Intervention 5 F9 C100 and C1079 south-facing elevation (scale 2.0m)

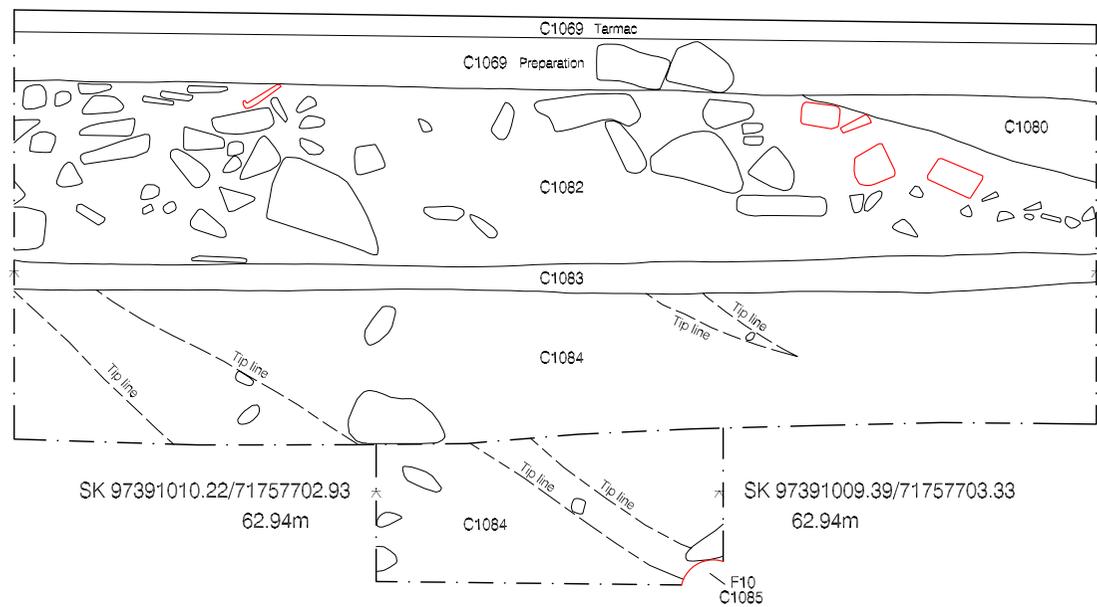


**Plate 14** Intervention 5 west-facing section (scale 2.0m)



**Plate 15** Flagon sherd with graffiti (Dr Roger Tomlin)

E SK 97391010.62/71757701.64 63.52m W SK 97391008.08/71757702.99 63.52m



- Brick/tile
- Roots
- Limestone
- Mortar
- Lead

sondage section projects north from main section by 1m

Intervention 6 - north-facing section

Scale 1:20

Figure 6



The earliest layer to be encountered within Intervention 6 consisted of a thick pack of made ground assigned C1084 (Plate 16). C1084 was a brown clayey silt containing frequent large and medium limestone fragments and tips of cleaner, more greyish-brown clayey silt visible in section and plan. The layer measured at least 0.80m thick and its base was not achieved within the intervention. Material recovered from C1084 during excavation included Roman and medieval ceramic including a fragment of decorated Samian bowl. Ceramic of 18th to mid-19th-century date was also recovered and provided a reliable date for the deposition of the layer. A salt-glazed drain oriented NNE-SSW was encountered within C1084 apparently not in a discrete service trench (F10 C1085).



**Plate 16** Intervention 6 north-facing section (scale 2.0m)

The upper surface of C1084 was marked by the accumulation of a buried soil providing a distinct change in deposition within the trench (C1083). C1083 was a clean dark greyish-brown clayey silt visible in section as level and consistent across the trench its upper surface lying at *c.*63.60m AOD (see Plate 16).

Deposition above C1083 continued with a layer of fragmentary large limestone blocks set in a matrix of voided, crumbly black clayey-silt. The limestone block component included pieces with dressed and tooled faces (C1082). C1082 was distributed across the eastern side of Intervention 6 and diminished in depth in a westwards direction. This differential was levelled by a layer of black clayey silt (C1081) visible in the south, east and west facing sections of the intervention and a pale brown clayey silt (C1080). C1081 contained a variety of modern detritus including coal and brick fragments, glass bottles, roof slate and a bullet casing. These layers were covered with tarmac and its preparation (C1069).

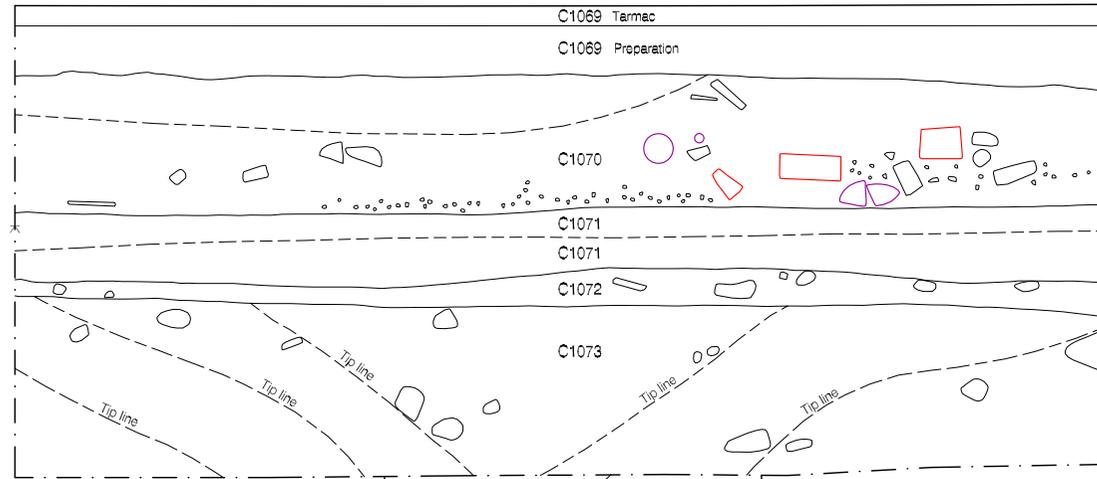
### 3.5 INTERVENTION 7

Intervention 7 measured 3.0 x 3.0m and was situated *c.*18.0m from the west side of Intervention 6. The tarmac was cut using a floor saw and modern overburden was removed by machine to the latest archaeological horizon encountered in the form of a buried soil (C1071) lying at *c.*63.55m AOD. Excavation by hand continued to *c.*62.90m AOD equivalent to 1.25m BGL over the whole intervention, whereafter the excavation area was stepped-in to a 1m<sup>2</sup> area; excavation by hand continued to *c.*61.90m AOD (Figure 7).

The earliest layer to be encountered within Intervention 7 consisted of a deep pack of made ground assigned C1073. The layer measured at least 1.40m thick and its depth was not exceeded during excavation. The layer consisted of a variable pack of clay, limestone rubble and soil occasionally observed as distinct tip lines in section and plan (Plate 17). Material recovered from C1073 included residual archaeological material in the form of Roman, medieval ceramic and painted wall plaster. In addition a total of 45 fragments of clay tobacco pipe as well as early modern ceramic were recovered providing a late 18th to early 19th-century date for the deposition of the layer.

E  
SK 97390991.84/71757711.08  
63.54m

W  
SK 97390989.28/71757712.40  
63.54m



SK 97390991.43/71757712.41  
62.73m

SK 97390990.58/71757712.90  
62.73m

sondage section projects forwards  
from main section by 1m



Intervention 7 - north-facing section

Scale 1:20



Figure 7

The upper surface of C1073 was marked by a clean, compact layer of limestone hardcore measuring *c.*0.15m thick and interpreted as a deliberate surface preparation (C1072), which yielded residual medieval and 18th-century ceramic during excavation. A buried soil appeared to have accumulated over mortar surface C1072 and was assigned C1071. C1071 consisted of a clean, homogenous dark brown clayey silt containing only rare charcoal flecks and fine gravel. C1071 was consistent in composition, although its upper level, the top of which lay at *c.*63.62mAOD, was slightly cleaner and more compact. Ceramic recovered from C1071 provided an 18th to early 19th-century date for its deposition.



**Plate 17** Intervention 7 north-facing section (scale 2.0m)

C1071 was sealed by a thick layer of black clayey silt which contained many different inclusions giving it a mixed appearance. Material contained within C1070 included glass beer bottles, a shoe polish tin, a lavender-water bottle, a variety of 20th-century metalwork and brick and ceramic of 18th to 20th-century date. The layer was consistently 0.40m thick across the intervention and was sealed by modern tarmac and its preparation (C1069).

## 4.0 DISCUSSION

### 4.1 RESIDUAL ARCHAEOLOGICAL MATERIAL

A wide range of material was recovered from all evaluation trenches, much of which was residual belonging broadly to the Roman, medieval and post-medieval periods, while a comparatively small component of material was considered contemporary with the construction of the debtor's yard and airing court. Nonetheless, the residual material reflects the principal phases of occupation at the site and thus provides some useful information.

Roman ceramic was recovered from all interventions and was accompanied in some instances by Roman CBM and painted wall plaster. The ceramic assemblages represents the earliest to latest Roman occupation in the city. The presence of painted wall plaster in deposits adjacent to and contemporary with the Crown Wing is of note, since a Roman building with mosaic floor (and presumably painted wall plaster) was destroyed during its construction. In addition, among the residual Roman ceramic two sherds were noteworthy, the flagon sherd with graffiti and a segmented bowl not yet paralleled in the corpus of Roman ceramic from the city. The incidence of graffiti on ceramic has been noted as higher in areas of dense population such as fortress or urban sites where common ceramic forms needed marks of ownership.

A range of medieval ceramic was present in the deposits and also suggests that medieval archaeology had been disturbed during the construction of the prison or during quarrying for the layers of made ground. The ceramic

ranged in date from the mid-9th century to the mid-16th century. Three sherds of Late Saxon ceramic, if derived from the same archaeological context, together suggest a mid- to late 11th-century date and may belong to the earliest occupation of the castle. In this light the proximity of the trenches to the Lucy Tower motte is noteworthy.

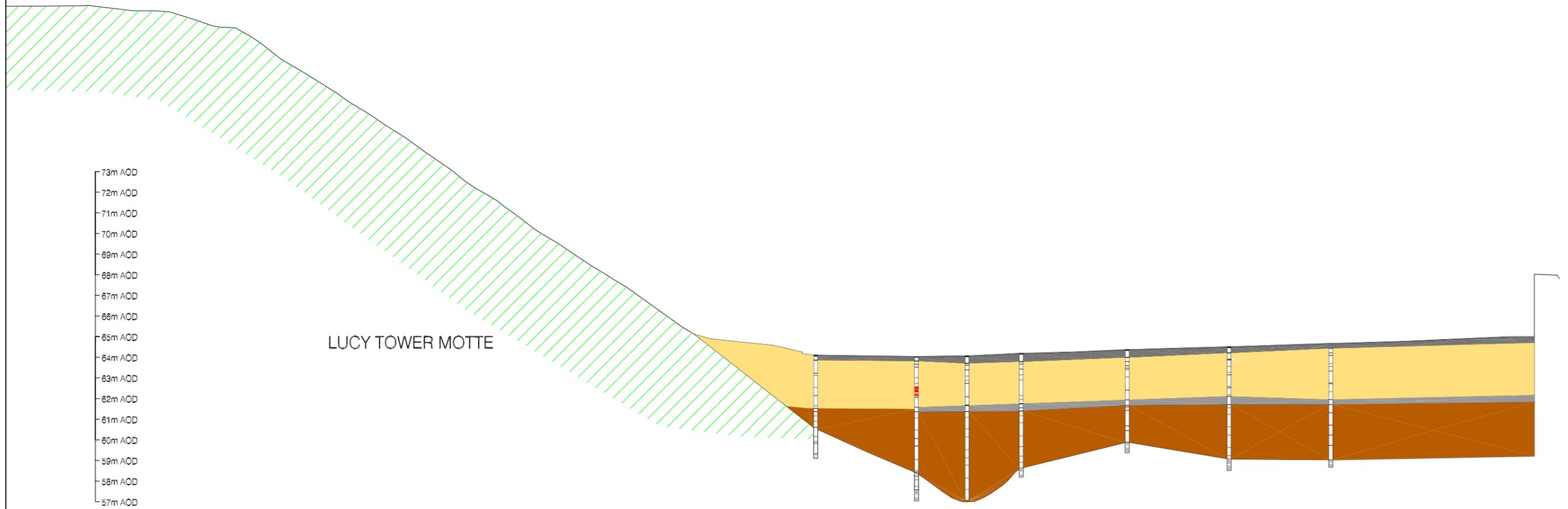
The main phases of post-medieval occupation within the castle are represented among the later residual ceramics. A number of vessels reflect assemblages recovered from deposits associated with the Civil War elsewhere in the castle and the later assemblage may relate to the late 18th-century New County Gaol construction and occupation. The 1660s Scottish turner of Charles II appears remarkably out of place, but is perhaps only of anecdotal interest.

#### 4.2 LUCY TOWER MOTTE PROFILE

The results of the north-south borehole profile through the castle car park are difficult to interpret confidently for a number of reasons. Only two layers encountered within the boreholes contained dateable material and the presence of limestone fragments within most layers resulted in many voids within the soil profiles. In several boreholes this removed the interface between layers and their depth could not be recorded accurately. With the exception of the level of natural subsoil, original ground level of any date was also difficult to detect. Nonetheless, the broader information of the contours of the level of natural subsoil and potential changes in the depth and nature of layers allows some insight into the archaeological deposits in the area.

The depth of archaeological deposits across the car park area is substantial measuring up to 7.0m in places. While no dateable material was recovered from most layers it is assumed that there was a general absence of stratified Roman and medieval occupation deposits, since the layers recorded are surprisingly lacking in dateable material, were few in number and homogenous in make-up. Notwithstanding the voids, the profiles suggest that the layers which constitute the 7.0m of archaeological strata, may well post-date the construction of the Lucy Tower motte. Indeed the construction of the motte would provide a clear need to quarry make-up from the surrounding area which may have resulted in the removal of Roman strata and scalping of natural subsoil. (The proximity of well-preserved Roman buildings, which were clearly still intact in the 19th century in the area of the nearby Crown Wing, is noteworthy). Moreover, if the 7.0m of strata do post-date the Lucy Tower motte, its original height and footprint lies buried within the area.

With this in mind it seems possible that the two boreholes closest to the motte, Borehole 1 and 2, may have captured layers belonging to the buried make-up of the motte. Borehole 1 contained Roman ceramic within its two basal layers (C1018 and C1019). These layers could conceivably represent a small remnant of stratified Roman layers, but perhaps more likely may represent residual finds amidst the upcast of the motte. In addition the basal layers within Borehole 2 are distinct from homogenous deep layers in adjacent boreholes and may also represent motte upcast (C1030 and C1029). If these suppositions are correct a deeper original profile for the motte can be modelled (Figure 8). A small depression in levels is detectable within Borehole 7 though not substantial enough to withstand interpretation as a ditch or moat. Clearly further profiles along different traverses radiating from the lower make-up of motte into the area of supposed buried mound would be required to confirm or refute this suggestion.

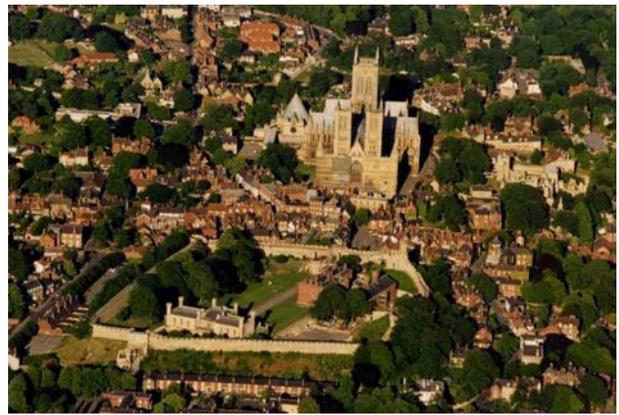


Borehole deposit model

Scale 1:200

Figure 8

Further away from the motte base, the contours of natural subsoil appear to have been levelled with relatively few layers to a height of *c.*61.0mAOD. This activity would appear to have levelled the area in a single episode and since these deposits begin the process of burying the original profile of the Lucy Tower motte, these deposits are interpreted as broadly post-medieval in date. At this horizon deposition appears different and represented by less substantial and more variable layers. Above this possible horizon of ground consolidation and occupation further made ground is laid and is assumed



**Plate 18** Aerial view of Lincoln Castle

to be analogous to activity encountered in Intervention 6 and 7 of 19th-century date. Accumulatively the 7.0m of archaeological strata in the area does much to mask the contours of natural bedrock in the immediate vicinity of the motte. Notably, even with this depth of strata the area is still significantly sunken in relation to the surrounding levels of the castle (Plate 18).

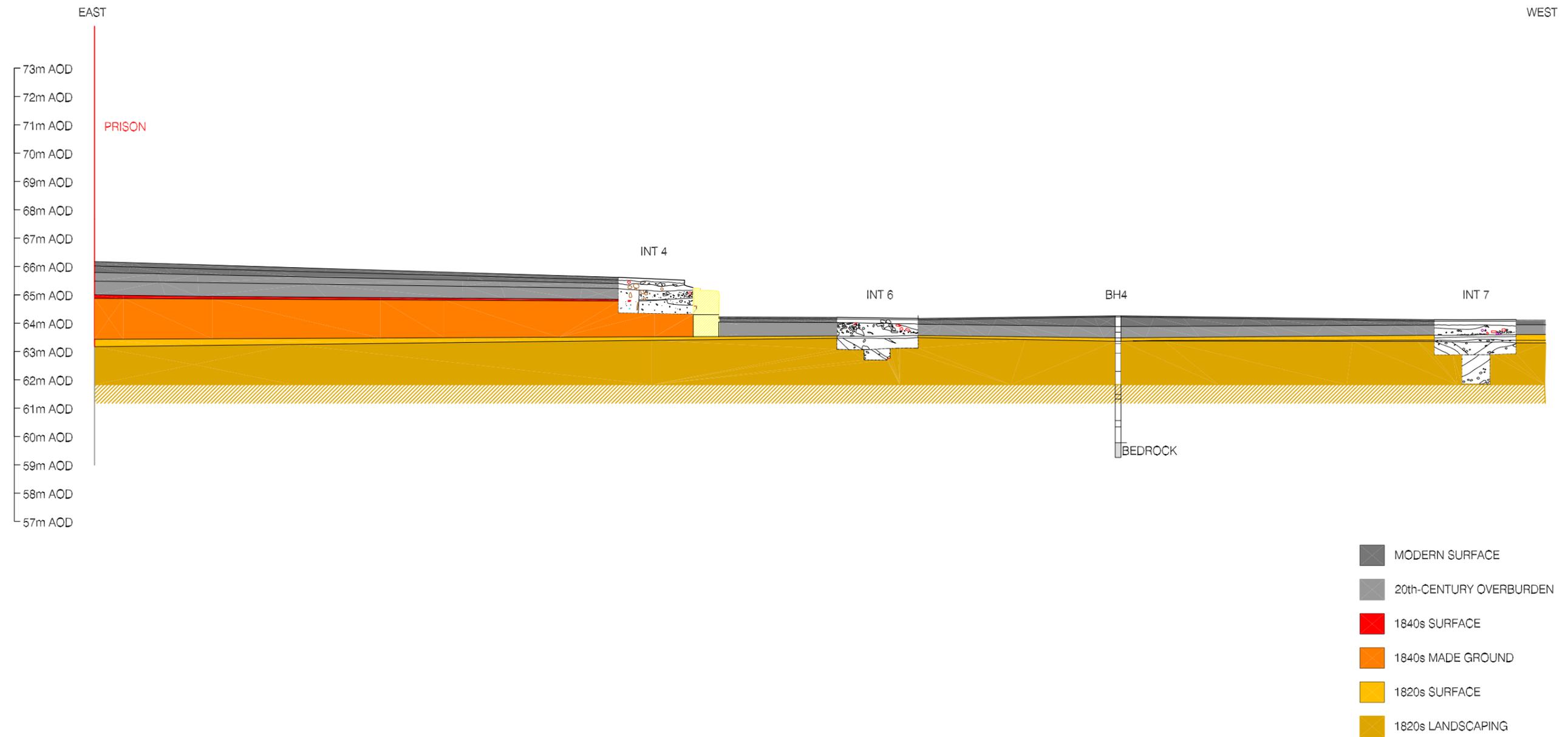
#### 4.3 1820s DEBTORS' YARD

Within Intervention 6 and 7 and Borehole 4 a consistent horizon of consolidated ground surface was encountered at *c.*63.60mAOD over a deep pack of made ground (Figure 9). In Intervention 6 the horizon was indicated by the clean, level and consistent buried soil C1083 overlying made ground C1084. Likewise, within Intervention 7 the horizon was represented by a deliberately lain limestone hard core surface C1072 on made ground C1073 and in turn overlain by a buried soil C1071. In Borehole 4 C1039 has been interpreted as a possible buried soil, since its height corresponds within surfaces in the Intervention 6 and 7 deposit model, while the voided C1040 beneath may represent made ground. Reliable dateable material was recovered from both C1084 and C1073 and suggested deposition during the late 18th to early 19th century. This corresponds well with the date of the creation of the Crown Wing and associated debtors' yard in the 1820s and the consolidated ground surfaces almost certainly represent this open exercise area.

Willson's plan of 1832, albeit amended to show 1840s developments, shows the perimeter wall of the 1820s debtors' yard clearly and the westernmost portion survives as the south perimeter wall of the stone yard (Intervention 4 F6)(Figure 10). Accordingly this consolidated surface has been modelled throughout the area from the position of Intervention 7 to the east-facing elevation of the Crown Wing. Whether remodelling of the area within the stone yard in the 1840s removed this horizon is not known, but seems unlikely given the evidence for ground raising encountered within Intervention 4 and 5.

#### 4.4 1840s AIRING COURT

The results of Intervention 4 and 5 revealed information about the construction of the west and north perimeter wall of the 1840s airing court which is partially extant as the western and northern perimeter wall of the stone yard. The exposed internal lower portion of both walls was built in limestone blocks noticeably different to the ashlar of the 1820s debtors' yard wall encountered as the buried portion of F6. Against these walls a deposit



Evaluation trench deposit model

Scale 1:150

Figure 9



Location of interventions overlaid on Willson's amended 1832 plan      Scale 1:500            Figure 10

of made ground was encountered as C1086 and C1078 which appeared to have created the raised area of the 1840s airing court. Buried soil C1068 was the only possible intact floor surface for the airing court and suggests that the 1840s ground level is buried by *c.*0.70m of overburden at this point.

The original level of the airing court is lower than the present day level of the stone yard. Notably, an original doorway within the adjacent southern airing court appears to have had stairs leading down into the slightly sunken airing court (Plate 19). If blocked doorways visible in the east-facing elevation of the Crown Wing were also furnished with steps leading down, the west airing court may also have been slightly lower than the corresponding internal floor.



**Plate 19** South Airing Court looking west

When the position of Intervention 4 and 5 is overlaid onto Willson's amended plan they are situated within the belt of open space flanking the perimeter wall. To the immediate east of Intervention 4 and the immediate south of Intervention 5, low brick wall with railings would have been constructed and allowed the divided areas to be viewed from the open area. The proximity of Intervention 4 and notably the lead water pipe trench F11 to the WC block is noteworthy, although F11 appears to cut through layers overlying original floor level. OS maps suggest the internal radial walls of the airing court were removed in the 1930s, although the lower levels of these brick walls are intermittently visible in the current surface of the stone yard.

#### 4.5 20TH-CENTURY OVERBURDEN

Layers of overburden attributed to 20th-century activity were encountered within Intervention 4 and 5 and are represented by Intervention 4, F12 C1067, C1064, C1063, C1062 and Intervention 5, F8 C1076, C1075 and C1074. The evidence for the construction of a brick 'skin' on the interior elevations of the original airing court walls is also assigned to 20th-century activity. A more precise date for this activity is not clear, although the amendment was presumably made while the wall was upstanding.

The results of Intervention 6 and 7 and Borehole 4 suggest that across the area of the castle car park there are layers of 20th-century overburden overlying the remains of the 1820s debtors' yard. The layers identified as belonging to this group are: Intervention 6 C1082, C1081 and C1080; Intervention 7, C1070; Borehole 4, C1038, C1037. The latest ceramic recovered from C1070 was dated to the 20th century and C1082 appeared to represent the demolition of a limestone wall, possibly the nearby west perimeter wall of the airing court, also believed to have been remodelled in the 20th century. The depth of overburden across the car park area appeared consistent and represents a deposit depth of 0.50m BGL and lies between *c.*63.60mAOD and *c.*64.10mAOD (see Figure 9). These deposits are considered to be of limited archaeological value.

## 5.0 ASSESSMENT

### 5.1 MITIGATION STRATEGY

The 20th-century overburden present within the footprint of the proposed development is considered to be of limited archaeological value. Foundations and services constructed within the 0.50m deep layer of overburden are unlikely to have a significant impact.

### 5.2 RECOMMENDATIONS FOR FURTHER WORK

#### 5.2.1 Deposit model

The results of the borehole survey suggest that further traverses have the potential to model the area close to the Lucy Tower motte with greater accuracy. A study of the comparative levels of archaeological deposits throughout the castle would also enhance understanding of the impact that the quarrying and construction the motte had on the site.

#### 5.2.2 Airing Court

The clearance of the stone yard to enable recording of surface level remains of the 1840s airing court radial walls could be easily achieved. Other elements of the airing court, for example, the WCs may well survive as surface level features currently obscured by stockpiled stone. Targeted and small-scale test pits against the brick walls of the airing court might also detect original 1840s airing court level allowing more accurate deposit modelling in the area.

#### 5.2.3 Stonework

The stock piled stone within the stone yard clearly includes fragments of some antiquity with several Roman capitals and fragments of medieval stonework easily identifiable. While the provenance of these pieces is not well-documented, even as detached antiquities they are of some archaeological value and should be curated as such.

## 6.0 ARCHIVE

A paper and electronic copy of this report will be sent to Dr Beryl Lott, Historic Environment Team Leader, Lincolnshire County Council and Dr Glyn Coppack, Inspector of Ancient Monuments, English Heritage. The report will also be made available *via* OASIS (OASIS reference number: fieldarc1 - 57606). A short note on the results of the evaluation will be prepared and submitted to *Lincolnshire History and Archaeology* and *Post-medieval Archaeology*.

An assemblage of 76 sherds of Roman ceramic was recovered during the evaluation and has been submitted for

specialist assessment by Ian Rowlandson. The sherd bearing graffito has been transcribed by Dr Roger Tomlin and will be entered into the inscriptions section in *Britannia*. The sherd has also been recommended for full illustration and reporting which will be undertaken during a future stage of work. A sherd of segmented coarseware bowl is also recommended for illustration since it is not easily paralleled in the Lincoln corpus. Specialist study of the Samian has been recommended and will be undertaken during a future stage of work. An assemblage of 94 sherds of post-Roman ceramic, 61 fragments of clay tobacco pipe, and 35 fragments of ceramic building material have been the subject of specialist assessment by Jane Young and are recommended for retention. Catalogues of this material have been prepared for archive. The copper turner was submitted for conservation assessment. The coin was x-rayed prior to cleaning and consolidation by Karen Barker, Antiquities Conservation. The conservation record and x-ray plate forms part of the site archive. The assemblage of painted wall plaster has been inspected and identified by Jenny Mann and requires no further work.

The material, paper and photographic archive along with a copy of the report will be deposited with Lincoln City and County Museum under accession number LCNCC:2009.27 Site code PYL09.

## References

### Primary sources

- Chibnall, M. (ed.) *The Ecclesiastical History of Orderic Vitalis*, 6 volumes (1969-1980), II  
 Garmondsway, G.N. 1953. *The Anglo-Saxon Chronicle* (London)  
 Osgoode, W., Weyland, J. and Becher, J.T. 1812. 'A report of the Commissioners appointed to acquire into the condition and treatment of prisoners confined in Lincoln Castle and the conduct and management of the said prison' (LAO CoC7/1)

### Cartographic sources

- Speed, J. 1610. Lincoln  
 Upton, W. 1812. Commissioners' Report plan of building  
 Webb, W. 1827. 'Plans of 18th-century prison'  
 Willson, E.J. 1832 'Plan of Lincoln Castle with the premises adjoining' (LAO CoC6/5a)

### Secondary sources

- Baker, F.T. 1938. *Roman Lincoln* (Lincoln)  
 Bamford, S. 1893. *Passages in the life of a radical* (London)  
 Briden, C. 2004. 'Lincoln Castle: The Prison Buildings: A description and assessment of the historic fabric'  
 Brodie, A., Croom, J. And Davies, J.O. 1999. *Behind bars: the hidden architecture of England's prisons* (Swindon)  
 Cameron, K. 1984. *The place-names of Lincolnshire, Part 1: The place-names of the County and the City of Lincoln*, English Place-Name Society 58 (Cambridge)  
 Carver, M.O.H. 1999. 'Field Archaeology', in G. Barker (ed) *Companion Encyclopaedia of Archaeology* (London): 128-181  
 Donel, L. 1993. 'Lincoln Castle Service Trenches: Archaeological recording' CLAU (unpublished report)  
 Donel, L. and Jones, M.J. 2004. 'Archaeology at Lincoln Castle: Before and after 1068' in Lindley, P. (ed.): 41-52  
 Everson, P. and Stocker, D. 1999. *Corpus of Anglo-Saxon Stone Sculpture: Volume 5* (Oxford)  
 Hayfield, C. 2001. 'Lincoln Castle; Conservation Plan' (2 vols, unpublished report)  
 Hill, J.W.F. 1966. *Georgian Lincoln* (Cambridge)  
 Hill, J.W.F. 1948 repr. 1990. *Medieval Lincoln* (Cambridge)  
 Howard, J. 1777. *State of the Prisons in England and Wales* (Warrington)  
 Jarvis, M. 1997. 'New Gas Main, Lincoln Crown Court, Lincoln Castle: Archaeological watching brief' CLAU 299 (Unpublished report)  
 Jones, M.J. 1980. *The defences of the Upper Roman enclosure*, Archaeology of Lincoln VII-1 (Lincoln)  
 Jones, M.J. 1993. 'The latter days of Roman Lincoln' in Vince (ed.) 1993: 14-28  
 Jones, M.J. 2002. *Roman Lincoln: Conquest, Colony and Capital* (Stroud)  
 Jones, M.J. 2003a. 'The Roman military era' in Stocker, D. (ed.): 36-55  
 Jones, M.J. 2003b. 'The *colonia* era' in Stocker, D. (ed.): 56-138  
 Jones, M. and Stocker, D. 2003. 'Geological and topographical background', in Stocker, D. (ed.): 13-18  
 Kerr, J. 1988. *Out of site, out of mind: Australia's places of confinement, 1788-1988* (Sydney)

- Petch, D.F. 1960. 'Excavations at Lincoln, 1955-58' *Archaeological Journal* 117: 40-70
- Olney, R.J. 1979. *Rural society and County Government in Nineteenth Century Lincolnshire*, History of Lincoln Volume X (Lincoln)
- Richmond 1946. 'The Roman city of Lincoln and the four coloniae of Roman Britain' *Archaeological journal* 103.25-68
- Rivet, A.L.F. and Smith, C. 1979. *The place-names of Roman Britain* (London)
- Steane, K. and Vince, A. 1993. 'Post-Roman Lincoln: Archaeological evidence for activity in Lincoln from the 5th to the 9th centuries', in Vince (ed): 71-79
- Thompson, F.H. 1956. 'Roman Lincoln 1953' *JRS* 46: 22-36
- Thompson, F.H. and Whitwell, J.B. 1973. 'The Gates of Roman Lincoln', *Archaeologia* 104: 129-209
- Thompson M. 2004. 'The early topography of Lincoln Castle', in Lindley, P. (ed.) *The early history of Lincoln Castle*, Occasional Papers in Lincolnshire History and Archaeology (Lincoln)
- Vince, A. 2001. 'Lincoln in the Viking Age' in Graham-Campbell *et al* 2001: 157-179
- Vince, A. 2003. 'Lincoln in the early medieval era, between the 5th and the 9th centuries: the archaeological account' in Stocker, D. (ed.) 2003: 141-156
- Wacher, J. 1995. *The towns of Roman Britain* (London)
- Willson, E.J. 1848. 'Lincoln Castle' *Memoirs illustrative of the History and antiquities of the county and city of Lincoln communicated to the annual meeting of the Archaeological Institute of Great Britain and Ireland, Held at Lincoln, July 1848* (London)
- Wood, J. (ed.) 2004. *Conservation Plan for Lincoln's Roman monuments* (2 vols, Lincoln)
- Webster, G. 1949. 'The legionary fortress at Lincoln' *JRS* 39:57-78
- Webster, G. (ed.) 1988. *Fortress into City: The consolidation of Roman Britain first century AD* (London)
- Whitwell, J.B. 1970. *Roman Lincolnshire*, History of Lincoln II (Lincoln)

## APPENDIX A PROJECT DESIGN

Field Archaeology Specialists Ltd

### 1.0 INTRODUCTION

A scheme of archaeological evaluation Has been designed to establish the archaeological impact of the proposed development of a Heritage Skills Centre at Lincoln Castle. The site of Lincoln Castle is of national and international significance, being associated with major historical events and including the remains of one England's most important castles of the late 11th to early 13th centuries. In addition, the site retains nationally important Roman structures and archaeological deposits along with evidence for Anglo-Saxon occupation.

This Project Design has been prepared by Field Archaeology Specialists (FAS) at the request of Anderson & Glenn. The proposed site development works include the construction of a new single-storey Heritage Skills building with associated boundaries and services.

### 1.1 LOCATION AND USE

Lincoln Castle lies in the Upper City of Lincoln, which occupies an elevated position on the western scarp of the Lincoln Edge, where the River Witham flows through a glacial gap in the Jurassic limestone ridge. The castle site overlooks the valleys of the rivers Trent and Witham, to the west and south respectively.

The area of proposed development is situated immediately to the east of the prison and north of the Lucy Tower motte, within an area currently used as the castle car park..

### 1.2 AIMS AND OBJECTIVES

The aim of the evaluation is to gather sufficient information to establish the extent, condition, character and date of any archaeological remains that may be adversely affected by the proposed site development works. The information gained will allow the project design team to minimise the archaeological impact of the proposed works, and for an informed decision to be made regarding the need for any archaeological mitigation during the proposed development.

### 1.3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Lincoln Castle was constructed in the 11th century, shortly after the Conquest in the southwestern corner of the upper city of the extant Roman *colonia* (Thompson 2004, 23-9). After quashing rebellion in the north, King William I secured the country with the construction of a castle at York and a further string of castles on his return journey to London. Among the new castles was the construction of a fortification at Lincoln, documented by Orderic Vitalis (Chibnall, II, 218), and the *Anglo-Saxon Chronicle* (Garmondsway 1953, 202). By 1070, this had been undertaken; when an uprising at Ely, led by Hereward of Lincolnshire, was quelled, William imprisoned hostages for all of Lindsey in the castle at Lincoln (Symeon of Durham *Historia Regum*, II 202). Lincoln does not appear to have been involved in any of the rebellions that flared up in this period, but its role as a prison was established.

The castle played a minor role in the Civil War which resulted in alterations to its defences. In the 18th and early 19th centuries the justice and gaol facilities of the castle were redeveloped and many new buildings erected. Many of these buildings survive in addition to the ancillary structures associated with them, and include unique features such as the 'Pentonville' style chapel.

Antiquarian interest in the castle can be traced from the 18th century while from the early 20th century the castle site has received tourist visitors, a role which continues to develop. Much of the open area of the castle bailey has become something of a civic amenity, and frequently is used to host open air events.

## 2.0 METHODOLOGY

### 2.1 FIELDWORK PROCEDURE

#### 2.1.1 *Evaluation Strategy*

The evaluation will be undertaken in two phases. The first phase will involve a borehole survey across the infilled motte ditch in order to establish its limits, depth, and profile, along with the character of the ditch deposits. The second phase would involve the excavation of two 3m x 3m x 1.25m trenches within the area of the proposed development. Once modern overburden has been machine-excavated, hand-excavation will be undertaken to a maximum depth of 1.25m with the aim of defining the archaeological impact of the proposed site development works.

#### 2.1.2 *Borehole Survey Procedure*

A series of small-core boreholes will be undertaken along a traverse across the projected position of the motte ditch. Boreholes will initially be undertaken at 2.5m intervals with further intermediate boreholes to establish the profile of the ditch. Ditch deposits will be sampled as appropriate to assess their character and condition. The deposits will also be scanned to recover dating evidence in the form of pottery or other datable material.

FAS will make every effort to locate any drainage pipes, service pipes, cables *etc* which may cross the borehole traverse, and will take the necessary measures to avoid disturbing such services which may include alterations in the location of some boreholes.

With the approval of English Heritage and Lincolnshire County Council Historic Environment Team the proposed location of the evaluation trenches may be subject to minor alteration based on the results of the borehole survey.

#### 2.1.3 *Excavation Procedure*

Recent overburden will be removed using a mechanical excavator fitted with a wide toothless ditching bucket. Mechanical excavation equipment will also be used to remove deep modern intrusions. In all instances, mechanical excavation will be undertaken under strict archaeological supervision. Archaeological hand-excavation will be undertaken in a controlled and stratigraphic manner.

FAS will make every effort to locate any drainage pipes, service pipes, cables *etc.* which may cross any of the trench lines, and will take the necessary measures to avoid disturbing such services which may include minor alterations in the location of some trenches.

If human burials are encountered, the remains will be recorded and where possible left *in situ*. The provisions of Section 25 of the Burial Act (1857) will be complied with.

#### 2.1.4 *Recording Procedure*

A site grid based on the Ordnance Survey National Grid and Ordnance Survey Datum will be established. Survey stations will then be set out around the site using a total station theodolite to facilitate archaeological recording.

A full written, drawn and photographic record will be made of all material recovered during the course of the evaluation. Archaeological deposits, features and structures will be recorded using a standard system of context and other record forms.

A series of indexes, capable of interrogation, will be maintained for all site records. A stratigraphic site matrix will be compiled during the course of the evaluation. The planning of features will be at scales of 1:10 or 1:20; sections will be recorded at a scale of 1:10. The photographic record will consist of 35mm colour and monochrome photography. Monochrome photography will be undertaken using silver-based film to ensure archival stability.

#### 2.1.5 *Environmental Evaluation Strategy*

The principal aim of the Environmental Evaluation Strategy will be to assess the value, range, quality and potential of any archaeological environmental evidence present at the site. It is anticipated that the proposed evaluation would encounter dry and wet archaeological deposits containing moderate assemblages of biological material. The evaluation will seek to characterise the nature of deposits and environmental assemblages, from different periods and context types, with an emphasis on establishing the environmental setting of settlement and industrial activity, understanding food preparation, rubbish disposal strategies, and the identification of social status. The Environmental Evaluation Strategy will be implemented in accordance with *Environmental Archaeology: A guide to the theory and practice of methods from sampling and recovery to post-excavation* (English Heritage, Centre for Archaeology Guidelines 2002) and *Environmental Archaeology and Archaeological Evaluations: Recommendations concerning the environmental archaeology component of archaeological evaluations in England* (Association of Environmental Archaeology 1995).

A systematic environmental sampling method will be employed. Deposits which are clearly of a mixed/secondary origin such as make-up layers or deposits, which display a high degree of residual/intrusive artefactual material would not be the subject of environmental sampling unless a specific question relating to function or social status can be addressed. Where deposits are thought to be of primary origin and have potential to contain biological remains, the following sampling regime will be undertaken:

*Coarse sieving* samples will be collected from deposits which appear to contain primary and useful vertebrate and mollusc assemblages, and sieved using 10mm mesh to enhance recovery. An appropriate sample will be set ranging from 10-100% of the excavated deposit.

*Flotation samples* will be collected from deposits which appear to contain small vertebrate and mollusc assemblages, charred plant remains, organic plant remains, cress and insect remains. Samples of 40 litres will be collected and processed using a water-recycling tank with rapid water-flow washover. A 1mm mesh will be used to recover the dense residue and a 300 micron mesh will be used to recover light fractions. 10 litres (*GBA*) will be retained for sub-sampling for paraffination for insects remains, and other specialist analyses (eg parasites, pollen etc), where deemed appropriate.

*Block samples* (spitted soil columns, monoliths or kubienas) will be collected from undisturbed sequences which appear to have the potential for a dateable environmental sequence or information about deposit origin and grain structure and condition. These samples will be recovered by the project Soil Science Consultant.

The project Environmental Consultants will be afforded the opportunity to visit the site during the fieldwork in order to assess the effectiveness of the Environmental Evaluation Strategy.

#### 2.1.6 *Finds Recovery and Treatment*

All finds identified during excavation will be hand-collected and processed. Residues recovered as part of the Environmental Evaluation Strategy will be routinely sorted for cultural material and scanned with a magnet for small ferrous objects and hammerscale. Where deemed appropriate, coarse sieving (10mm mesh) or bulk samples (1mm mesh) will be collected specifically for finds recovery, particularly for industrial residues.

Finds treatment will be undertaken in accordance with guidelines set down in *First Aid for Finds* (Watkinson and Neal

1998). Archive preparation will be undertaken in accordance with *Guidelines for the preparation of excavation archives for long-term storage* (Walker 1990). In accordance with guidelines laid down in MAP2, all metalwork and a sample of metallurgical residues will be submitted for X-radiography prior to assessment.

All wet-preserved artefacts will be treated in accordance with *First Aid for Finds* (Watkinson and Neal 1998), *Guidelines for the care of waterlogged archaeological leather* (1995) or *Waterlogged wood, guidelines on the recording, sampling, conservation and curation of structural wood* (1990).

The terms of the Treasure Act 1996 will be followed with regard to any finds which might fall within its purview. Any such finds will be removed to a safe place and reported to the local coroner as required by the procedures as laid down in the "Code of Practice". Where removal cannot be effected on the same working day as the discovery, suitable security measures will be taken to protect the finds from theft.

## 2.2 ARCHIVE PREPARATION

Prior to the commencement of fieldwork an accession number for the project archive will be agreed with the Lincoln City and County Museum. After completion of the field investigation all records and material will be curated in accordance with the Lincolnshire Archaeological Handbook and will be indexed, ordered, quantified and checked for consistency. Context, finds, sample and other paper-based records will be transferred to an integrated computer based system. The drawn record will be digitised in an appropriate format that will permit the output of standard AutoCAD type DXF files.

The archival record will include all material relating to the site and its excavation including correspondence, written, drawn and computerized records. As part of the preparation for the post-excavation programme, the artefactual, ecofactual and samples will be quantified and described. In addition the stratigraphic matrix and a site summary will be prepared.

The digital archive will be provided in a non-magnetic storage medium using generic file formats including PDF.

Preliminary conservation and stabilization of objects will be undertaken prior to an assessment of long-term conservation and storage needs.

## 2.3 POST-EXCAVATION AND REPORTING PROCEDURES

Upon completion of the fieldwork, all finds, samples and stratigraphic information will be assessed for their potential for further analysis. An Evaluation Report will be prepared and will include the archaeological background, fieldwork procedure, the results of the evaluation, the results of the specialist assessment, interpretation and phasing, illustrations (photographs, plans and sections) and assessment, conclusions and recommendations.

## 3.0 PUBLICATION AND DISSEMINATION

A note will be prepared on the results of the recording work for publication in an appropriate local journal. If the results of the work merit it, a full paper will be proposed for publication in an appropriate journal.

An *Online Access to Index of Archaeological Investigations* (OASIS) form will be submitted for the project.

## 4.0 PUBLIC ARCHAEOLOGY

Display panels explaining the purpose of the archaeological investigation and history of the site will be prepared and

positioned adjacent to the trenches in order to inform visitors.

## **5.0 PROJECT SPECIALISTS**

Allan Hall and Harry Kenward (Environmental Consultants)

Deborah Jacques (Zooarchaeology)

Alan Vince (Pottery)

Karen Barker (Conservation)

Cecily Spall (Small Finds)

Katie Tucker (Human Remains)

Hugh Willmott (Glass)

## **6.0 MONITORING ARRANGEMENTS**

The work will be monitored by the Inspector of Ancient Monuments, English Heritage and the Lincolnshire County Council Historic Environment Team, who will be notified prior to each stage of work. The archaeological scientific aspects of the project will also be monitored by the English Heritage Regional Advisor on Archaeological Sciences.

## **7.0 HEALTH & SAFETY**

FAS will operate with due regard for Health and Safety regulations, and will ensure that all relevant requirements are met with regard both to site personnel and to members of the public. A Risk Assessment will be prepared, in accordance with the Health and Safety at Work Regulations prior to the start of the site investigation.

## **8.0 INSURANCE**

FAS carry appropriate levels of Public Liability, Employers Liability and Professional Indemnity insurances.

**APPENDIX B** INDEX OF INTERVENTIONS

<b>Int. No.</b>	<b>Location</b>	<b>Activity</b>	<b>Originator</b>	<b>Date</b>
1	Lucy Tower	Evaluation	JRC	06/08
2	Lucy Tower	Evaluation	JRC	06/08
3	Castle car park	Borehole survey	JGL	02/09
4	Stone yard	Evaluation	JGL	02/09
5	Castle car park	Evaluation	JGL	02/09
6	Castle car park	Evaluation	JGL	02/09
7	Castle car park	Evaluation	JGL	02/09

## APPENDIX C SUMMARY OF CONTEXT AND FEATURE RECORDS

Context	Int	Feature	Borehole	Identity	Description	Munsell
1012	3	-	all	layer	tarmac	-
1013	3	-	all	layer	black gravel preparation	-
1014	3	-	1	layer	clayey sand layer, mortar-rich with mixed gravel and some larger stone	10YR 6/2
1015	3	-	1	layer	sandy clay with rare charcoal flecked with small gravel	2.5Y 5/2
1016	3	-	1	layer	friable clayey sand mottled with occasional rounded gravel and pebbles	10YR 3/2
1017	3	-	1	layer	clean, sticky sandy clay with CBM flecks and occasional charcoal	10YR 4/4
1018	3	-	1	layer	friable clayey sand with frequent mortar throughout, also contained CBM flecks, oyster shell fragments, occasional charcoal flecks	10YR 5/3
1019	3	-	1	layer	clean, plastic silty clay containing occasional limestone fragments	2.5Y 4/3
1020	3	-	all	layer	yellow mixed clays and sands containing frequent limestone fragments becoming bedrock	10YR 6/8
1021	3	-	2	layer	layer of mortar	-
1022	3	-	2	layer	mottled, sticky sandy clay	2.5Y 4/1
1023	3	-	2	layer	light yellowish-brown sandy clay layer, flecked with charcoal, mortar and limestone fragments	2.5Y 6/3
1024	3	-	2	layer	brick bonded with lime mortar	-
1025	3	-	2	layer	salt-glazed drain fragments	-
1026	3	-	2	layer	clean, sticky, sandy clay, gritty texture contained CBM flecks	10YR 3/2
1027	3	-	2	layer	sticky, mottled clayey sand containing frequent mortar and charcoal flecks and limestone fragments	2.5Y 4/2
1028	3	-	2	layer	sticky, wet, silty clay with occasional charcoal flecks and some limestone fragments	2.5Y 5/3
1029	3	-	2	layer	layer of limestone fragments with mortar	-
1030	3	-	2	layer	sticky silty clay containing occasional CBM flecks and limestone chips	2.5Y 6/3
1031	3	-	3	layer	layer of mortar and CBM fragments	-
1032	3	-	3	layer	coarse sandy silt with grit, occasional gravel and frequent charcoal flecks	2.5Y 3/1
1033	3	-	3	layer	sticky, mottled sandy clay, containing mortar and clods of clean clay throughout. Also contained fragments of charcoal, shell and flecks of CBM	2.5Y 4/2
1034	3	-	3	layer	clean sandy silt containing occasional charcoal flecks, lime mortar lenses and limestone fragments	2.5Y 3/2
1035	3	-	3	layer	compacted clay and limestone fragments	2.5Y 7/6
1036	3	-	3	layer	sterile, sticky sandy clay with occasional limestone fragments throughout	2.5Y 5/3
1037	3	-	4	layer	layer of mortar	-
1038	3	-	4	layer	mixed, coarse clayey sand with frequent gravel throughout and charcoal and CBM flecks	2.5Y 4/1
1039	3	-	4	layer	sticky sandy clay with occasional gravel and modern glass fragments	2.5Y 3/1

Context	Int	Feature	Borehole	Identity	Description	Munsell
1040	3	-	4	layer	mixed, sticky sandy clay containing frequent limestone fragments throughout, mortar flecks and rare shell fragments	2.5Y 4/2
1041	3	-	4	layer	mottled, sticky sandy clay containing loose limestone fragments	7.5Y 6/3
1042	3	-	5	layer	layer of mortar and limestone fragments	-
1043	3	-	5	layer	black charcoal layer	-
1044	3	-	5	layer	coarse sand with limestone gravel and sterile mortar	2.5Y 7/3
1045	3	-	5	layer	friable, mottled silty clay with sand, containing limestone fragments throughout and occasional mortar and CBM flecks	2.5Y 3/2
1046	3	-	5	layer	layer of loose limestone fragments with mortar and charcoal flecks	-
1047	3	-	5	layer	friable, clean clayey sand with occasional charcoal and CBM flecks	10YR 4/2
1048	3	-	5	layer	sticky sandy clay containing limestone fragments, mortar and CBM flecks and occasional charcoal throughout	2,5Y 3/2
1049	3	-	6	layer	layer of mortar	-
1050	3	-	6	layer	sticky sandy silt containing rare charcoal flecks	2.5Y 3/1
1051	3	-	6	layer	coarse sand with limestone gravel and sterile mortar	2.5Y 7/3
1052	3	-	6	layer	friable silty sand containing occasional limestone fragments, CBM flacks and rare mortar flecks	10YR 3/2
1053	3	-	6	layer	layer of limestone fragments in mottled clayey sand	10YR 6/4
1054	3	-	6	layer	compact clay containing occasional limestone fragments and rare charcoal flecks	2.5Y 7/6
1055	3	-	6	layer	very mixed, sticky sandy clay containing frequent limestone fragments, charcoal flecks and rare mortar and shell flecks	2.5Y 3/2
1056	3	-	6	layer	clean sandy silt with occasional charcoal flecks	2.5Y 3/1
1057	3	-	7	layer	layer of mortar	-
1058	3	-	7	layer	plastic clayey silt containing occasional charcoal flecks, frequent mortar flecks and rare limestone fragments throughout	2.5Y 4/3
1059	3	-	7	layer	sticky, mottled sandy silt, containing frequent charcoal and occasional mortar, limestone and CBM flecks	2.5Y 3/2
1060	3	-	7	layer	friable silty sand containing frequent charcoal and occasional mortar and limestone flecks	2.5Y 3/2
1061	3	-	7	layer	variable layer of coarse sandy clay containing lenses of mortar, yellow clay and small gravel	2.5Y 6/3
1062	4	-	-	surface	concrete and surface and limestone hardcore preparation	various
1063	4	-	-	buried soil	clean, very dark greyish-brown clayey-silt with occasional rounded pebbles and limestone flecks. Heavy root disturbance throughout	10YR3/2
1064	4	-	-	rubble layer	shallow layer of rubble-rich, very dark greyish-brown clayey-silt abutting F6 and F7. Contained frequent limestone fragments and occasional pieces of brick	10YR 3/2
1065	4	6	-	wall make-up	limestone make-up of wall F6, in poor condition above ground. Seen below ground as tightly-jointed limestone ashlar, formed from blocks between 300mm and 700mm wide and a more uniform 200mm high	2.5Y7/4
1066	4	7	-	wall make-up	limestone and brick make-up of wall F7, comprising limestone ashlar above ground with a below-ground component of stretcher-bonded stock brick with upper course laid on end	various

Context	Int	Feature	Borehole	Identity	Description	Munsell
1067	4	-	-	surface make-up	very compact, clean layer of pale yellow mortar and occasional limestone forming a surface beneath rubble C1064	2.5Y7/4
1068	4	-	-	made ground	layer of very dark greyish-brown, plastic silty clay containing fragments of limestone, and pottery of Roman to modern date	10YR3/2
1069	6 7	-	-	tarmac surface	tarmac surface and limestone hardcore preparation	various
1070	7	-	-	levelling layer	black clayey-silt layer containing 20th-century rubbish, frequent angular gravel and frogged brick. Interpreted as deliberately imported material to level the car park in the mid-20th century	10YR2/1
1071	7	-	-	buried soil	very dark greyish-brown clayey-silt with charcoal inclusions and fine gravel, possibly representing an accumulating layer associated with use of the prison yard	10YR3/2
1072	7	-	-	surface make-up	pale yellow limestone hardcore, up to 0.15m in depth and containing Roman and later ceramic	2.5Y7/4
1073	7	-	-	made ground	deep, variable deposit of clay, rubble and soil clearly made of discrete dumps but essentially a single unit. Primarily a silty clay with frequent limestone rubble inclusions. Roman to 19th-century ceramic was recovered	various
1074	5	-	-	topsoil	humic, very dark greyish-brown slightly clayey-silt with occasional gravel inclusions, limestone rubble and charcoal flecks, up to 0.40m deep	10YR3/2
1075	5	-	-	layer	distinct but variable layer of limestone fragments and crumbs of lime mortar. Possibly associated with the removal of limestone from the south-facing elevation of the yard wall	2.5Y4/4
1076	5	8	-	backfill	backfill of construction cut, consisting of a deposit of limestone fragments set in a matrix of crumbly clayey-silt and lime mortar	2.5&7/4
1077	5	9	-	wall make-up	brick and cement make-up of south-facing elevation of yard wall, consisting of stock brick 230mm x 110mm x 70mm bonded with hard grey cement	various
1078	5	-	-	layer	thick pack of dark grey clayey-silt containing frequent charcoal flecks, limestone fragments and large lenses of redeposited sandy mortar. C1078 also produced frequent Roman and medieval material alongside 19th-century ceramic	10YR3/2
1079	5	9	-	wall make-up	limestone block make-up of south-facing elevation of yard wall, comprising blocks up to 1000mm x 250mm bonded with lime mortar in tight joints	2.5Y7/4
1080	6	-	-	levelling layer	mixed layer of pale brown clayey-silt containing lenses of darker material, mixed angular gravel and limestone chippings, up to 0.10m deep, and interpreted as a soil imported to level a small area of the car park	various
1081	6	-	-	levelling layer	black clayey-silt layer containing a variety of components including mixed gravel, coal, limestone and stock brick. 20th-century rubbish included glass bottles, roof slate and a bullet casing. Up to 0.35m deep, and interpreted as a levelling layer	10YR3/1
1082	6	-	-	demolition layer	deposit of fragmentary large and medium limestone blocks in a voided crumbly matrix of black clayey-silt, possibly derived from the demolition or remodelling of the west wall of the debtor's yard.	2.5Y7/4

Context	Int	Feature	Borehole	Identity	Description	Munsell
1083	6	-	-	buried soil	clean, very dark greyish-brown clayey-silt with inclusions of charcoal and fine gravel	10YR3/2
1084	6	-	-	made ground	layer of brown clayey-silt with frequent large and medium limestone fragments and tips of slightly cleaner material. Roman and 19th-century ceramic and CBM was recovered	10YR4/4
1085	6	10	-	drain make-up	salt glazed ceramic drain pipe encountered within C1084	grey
1086	4	-	-	made ground	firm layer of very pale brown clay with frequent limestone fragments throughout and rare fragments of CBM.	10YR7/4
1087	4	11	-	backfill	mixed backfill of service trench F11, consisting of dark greyish-brown sandy clay with frequent limestone blocks and mortar flecks. Pottery of Roman to Victorian date was recovered, in addition to a copper alloy object	10YR 4/2

## SUMMARY OF FEATURES

Feature	Int	Contexts	Identity	Description	Profile
6	4	1065	wall	south wall of prison yard, visible above ground for a length of 15m east-west and measuring 1.7m high. Made of tightly jointed limestone ashlar. Abutted by north-south wall F7	rectangular
7	4	1066	wall	west wall of prison yard, visible above ground and abutting F6. F7 was constructed from limestone blocks, and possibly lined/refaced internally with stock brick	rectangular
8	5	1076	construction cut	interpreted as a cut abutting wall F9, created in order to expose the elevation of the wall to enable refacing. F8 was backfilled with limestone fragments and lime-based mortar	irregular
9	5	1077 1079	wall	north wall of the former prison yard and later stone mason's yard, F9 was initially constructed in limestone and later evidence suggests refacing in brick, possibly coincident with reuse as the stone mason's yard	rectangular
10	6	1085	drain	salt-glazed composite drain encountered within C1084 made ground, and consisting solely of the pipe itself, orientated NE-SW	not seen
11	4	1087	service trench	service trench running north-south containing an <i>in situ</i> lead pipe. The construction cut measured up to 0.65m wide with near-vertical sides to a concave base 0.80m in depth. F11 cut wall F6	U-shaped

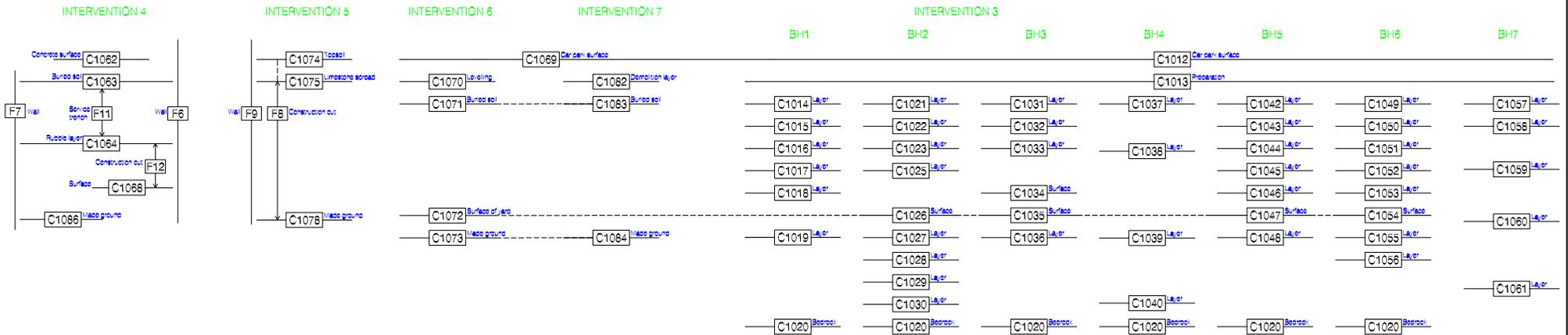
## APPENDIX D INDEX TO FIELD FILE

CODE	DESCRIPTION	RECORD	FORMAT
<b>Indices</b>			
YO1	Index of notebooks	-	-
YO2	Index of contexts	3	A4
YO3	Index of features	1	A4
YO4	Index of structures	-	-
YO5	Index of drawings	1	A4
YO6	0 Index of photographs	2	A4
	0 Index of film processing	1	A4
YO7	0 Index of finds	1	A4
	0 Index of finds by context	-	-
	0 Index of finds by grid square	-	-
	0 Sample Register	-	-
	0 Artefact Register	-	-
	1 Finds Storage Register	-	-
YO8	Index of geophysical data files	-	-
YO9	0 Index of survey stations	-	-
	0 Index of co-ordinate files	-	-
	0 Index of topographic files	-	-
YO10	Index of interventions	1	A4
Y1			
<b>Notebooks</b>			
<b>Contexts</b>			
Y2	0 Context Record	27	A4
	0 Skeleton Record	-	-
	0 Coffin Record	-	-
	0 Masonry Record	-	-
	0 Timber Record	-	-
<b>Features</b>			
Y3	0 Feature Record	7	A4
	0 Auger Record	-	-
<b>Structures</b>			
Y4	Structure Record	-	-
<b>Site drawing</b>			
Y5	0 Legend	-	-
	0 Plans	-	-
	0 Maps	-	-
	0 Sections	5	A1
<b>Photographs</b>			
Y6	0 Black and white negatives	27	35mm
	0 Colour negatives	28	35mm
	0 Colour slides	-	-
	0 Colour enprints	28	4" x 6"
	0 Black and white prints	1	A4
<b>Finds</b>			
Y7	0 Finds Location Record	-	-
	0 Artefact Record	-	-
<b>Survey</b>			
Y8	0 Record of geophysical data files	-	-
	0 Record of .RAW data file	-	-
	0 Record of .FLD data file	-	-
	0 Surface Reconnaissance Record	-	-

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**APPENDIX E** STRATIGRAPHIC DIAGRAM





Stratigraphic diagram

**APPENDIX F ASSESSMENT OF ROMAN CERAMIC**

I.M. Rowlandson

**1.0 INTRODUCTION**

The pottery has been archived using count and weight as measures according to the guidelines laid down for the minimum archive by *The Study Group for Roman Pottery* (Darling 2004) using the codes developed by the City of Lincoln Archaeological Unit- CLAU (see Darling and Precious forthcoming). An attempt at a 'maximum' vessel estimate has been made following Orton (1975 31). The pottery selected as suitable for illustration, fabric samples and the specialist wares (Samian, Amphorae and Mortaria) have been bagged separately for ease of future reference. The archive record (Appendix 1) is an integral part of this report and will be curated in an Access database available from the author in a digital format. The report was produced on the basis of a draft report provided by FAS. The reference photograph is the work of the author. Thanks go to Barbara Precious for discussing the assemblage and other Roman pottery found during excavations at the Castle with the author.

**2.0 CONDITION**

The Roman pottery from the evaluation totalled 76 sherds, weighing 1.731kg, from 11 contexts. The condition of the sherds was mostly fresh with only 15 sherds showing signs of abrasion 4 sherds showed signs of burning. The base of an Oxford Colour-coated bowl from C1078 showed signs of internal abrasion suggesting use as a grinding bowl. The average sherd weight was reasonably high at 22.78g per sherd as would be expected from a site within the Upper City of Lincoln. The group represents a maximum total of 69 vessels. No cross context joins or 'sherd families' were evident during recording. A graffito on a early Roman flagon sherd provides evidence for literacy (discussed further below).

Although an interesting group of early Roman pottery is present from a poorly understood area of the 'Upper City' the limited nature of the intervention and the fact that most of the groups also contained post Roman pottery (see report by J. Young) limit the value of the group to the presence of a small quantity of early Samian and a flagon sherd with a graffito. The pottery is stable and should deposited with the relevant museum.

**3.0 DATING**

The detailed archive is presented as Appendix 1. Table 1 provides a quantified spot dating summary by context. It should be noted that nearly all of the groups contained post-Roman pottery.

Table 1 Dating summary

Area	Context	Spot date	Comments	Total vessels	Total sherds	Total weight
3	1018	ROM	Single sherd from Borehole 1	1	1	5
3	1019	ROM	Single sherd from Borehole 1	1	1	4
4	1068	PRO/2C+	Single greyware rim	1	1	9
4	1086	PRO/1-2C	A single amphora sherd	1	1	69
4	1087	PRO/L3-4	A single greyware ?jar sherd	1	1	68
5	1078	PRO/VL4	A small group of mixed date including early samian and graffito	20	20	653
6	1084	PRO/3-4C	A small mixed group including early samian	8	8	93
7	1070	PRO/M1-2C	Single flagon base	1	1	77
7	1071	PRO/ML1	Single jar rim	1	1	11

Area	Context	Spot date	Comments	Total vessels	Total sherds	Total weight
7	1072	PRO/1-2C	Single flagon sherd	1	1	8
7	1073	PRO/L3-4C	A medium sized group of mixed date including a good group of early samian	33	40	734
<b>Totals</b>				<b>69</b>	<b>76</b>	<b>1731</b>

As the majority of the pottery was probably residual little more needs to be said about the dating range other than sherds typical of the earliest through to the latest phases of Roman ceramic usage were present. The majority of sherds are in reasonably fresh condition which suggests that they have not been repeatedly redeposited, perhaps having been disturbed during the redevelopment of the gaol. The two sherds retrieved from Borehole 1 may be from *in situ* Roman layers but this cannot be supported on such meagre evidence.

#### 4.0 OVERVIEW OF FABRICS AND FORMS

The fabrics and forms from the site as a whole are shown in Tables 2 and 3.

Although the GREY fabric is most common there is a broad range of imported pottery and finewares as would be expected from an urban site including samian, colourcoats, legionary finewares and a range of amphorae. It is notable that there are no mortaria present but this may be as a result of the small sample size.

The samian includes early forms such as the decorated form 29 and the platter 15/17. An early example of the Curle 11 form in a South Gaulish samian fabric was also present. A small quantity of 2nd century Central Gaulish samian was present including a decorated 37 bowl. Of the Legionary period products notable inclusions are a small beaker in the PINK fabric from C1073 and the rim of a necked jar in the LEG fabric from C1071. The worn base of an Oxford red colour-coated bowl was also present, a fabric type only usually found in later 4th century contexts in Lincoln or as a residual inclusion in later deposits.

The most prevalent fabric was the reduced sandy GREY fabric with examples of everted rimmed jars typical of the 2nd century through to a number of large jars and bowls typical of the 4th century Swanpool production. An example of a Segmental bowl (D2), probably manufactured in the 2nd century, was of note as it was not easily paralleled in the forthcoming Lincoln pottery corpus. As is usually the case in Lincoln the majority of the coarse grey wares were produced at nearby kilns. Small quantities of shell tempered pottery, Iron Age Tradition Gritty pottery and Black Burnished Ware (BB1) made up the remainder of the kitchen wares. With the exception of the lack of mortaria this group is fairly typical of the residual material found in the 'Upper City' area of Lincoln.

Table 2 Fabric overview

Fabric	Fabric details	Vessels	Vessel %	Sherds	Sherds %	Weight	Weight %
BB1	Black burnished 1, unspecified	1	1.45	1	1.32	6	0.35
CC	Other colour-coated wares	2	2.90	2	2.63	37	2.14
CR	Roamn cream wares (various)	5	7.25	6	7.89	214	12.36
CR?	Roman cream wares	2	2.90	2	2.63	18	1.04
DR20	Dr20 amphorae	1	1.45	1	1.32	91	5.26
DWSH?	Dales ware; lid-seated jars	1	1.45	1	1.32	17	0.98
GREY	Miscellaneous grey wares	27	39.13	32	42.11	748	43.21
GRSA	Reduced sandy version of OXSA	1	1.45	2	2.63	5	0.29
IAGR	Native tradition grit-tempered wares	2	2.90	2	2.63	32	1.85

<b>Fabric</b>	<b>Fabric details</b>	<b>Vessels</b>	<b>Vessel %</b>	<b>Sherds</b>	<b>Sherds %</b>	<b>Weight</b>	<b>Weight %</b>
IAGR?	Native tradition grit-tempered wares	1	1.45	1	1.32	32	1.85
L555?	London 555 amphorae	1	1.45	1	1.32	69	3.99
LEG	Lincoln 'Legionary' type cream/light grey	1	1.45	1	1.32	11	0.64
NVCC?	Nene Valley Colour-coat	2	2.90	2	2.63	180	10.40
NVCC2	Nene Valley Colour-coat - late fabric	1	1.45	1	1.32	1	0.06
OXRC	Oxfordshire red colour-coated	1	1.45	1	1.32	55	3.18
PINK	Pink micaceous flagons etc Lincoln	1	1.45	1	1.32	6	0.35
SAMCG	Central Gaulish samian	5	7.25	5	6.58	51	2.95
SAMSG	South Gaulish samian	7	10.14	7	9.21	58	3.35
SAMSG?	South Gaulish samian	3	4.35	3	3.95	14	0.81
SHCM	Shell - common medium	1	1.45	1	1.32	16	0.92
SHEL	Misc. undifferentiated shell-tempered	1	1.45	1	1.32	32	1.85
SHMC	Shell - moderate coarse	1	1.45	1	1.32	17	0.98
SPOX	Swanpool oxidised wares	1	1.45	1	1.32	21	1.21

Table 3 Form overview

<b>Form</b>	<b>Form type</b>	<b>Form description</b>	<b>Vessels</b>	<b>Vessel %</b>	<b>Sherds</b>	<b>Sherd %</b>	<b>Weight</b>	<b>Weight %</b>
A	Amph	Unclassified form	2	2.90	2	2.63	160	9.24
BKCOR	Beaker	Cornice rim	1	1.45	1	1.32	34	1.96
CU11	Bowl	Samian form - see Webster 1996	1	1.45	1	1.32	15	0.87
BSEG	Bowl	Segmental Gillam 294-5	1	1.45	1	1.32	36	2.08
BL	Bowl	Large	1	1.45	1	1.32	16	0.92
B	Bowl	Unclassified form	2	2.90	2	2.63	86	4.97
37	Bowl	Samian form - see Webster 1996	3	4.35	3	3.95	38	2.20
29	Bowl	Samian form - see Webster 1996	1	1.45	1	1.32	23	1.33
BFB	Bowl	Bead and flange bowl	1	1.45	1	1.32	144	8.32
18/31-31	Bowl/dish	Samian form - see Webster 1996	1	1.45	1	1.32	8	0.46
CLSD	Closed	Form	10	14.49	15	19.74	259	14.96
CLSD?	Closed	Form	3	4.35	3	3.95	59	3.41
33	Cup	Samian form - see Webster 1996	2	2.90	2	2.63	17	0.98
27?	Cup	Samian form - see Webster 1996	2	2.90	2	2.63	3	0.17
DPR	Dish	Plain rim	2	2.90	2	2.63	86	4.97
D?	Dish	Unclassified form	1	1.45	1	1.32	29	1.68
FL?	Flagon	Large	1	1.45	2	2.63	105	6.07
F?	Flagon	Unclassified form	3	4.35	3	3.95	104	6.01
JCR	Jar	Collared rim as Swanpool type C40-1	1	1.45	1	1.32	17	0.98
JNN?	Jar	Narrow neck	1	1.45	1	1.32	31	1.79
JNK	Jar	Necked	1	1.45	1	1.32	11	0.64
JL?	Jar	Large	1	1.45	1	1.32	68	3.93
JL	Jar	Large	1	1.45	1	1.32	73	4.22
JEV	Jar	Everted rim	3	4.35	4	5.26	64	3.70
J	Jar	Unclassified form	1	1.45	1	1.32	6	0.35
J?	Jar	Unclassified form	2	2.90	2	2.63	15	0.87

Form	Form type	Form description	Vessels	Vessel %	Sherds	Sherd %	Weight	Weight %
JBKEV	Jar/Beaker	Everted rim	1	1.45	1	1.32	6	0.335
JBK	Jar/Beaker	Unclassified form	1	1.45	2	2.63	5	0.29
JBL	Jar/Bowl	Large	1	1.45	1	1.32	9	0.52
JBEV	Jar/Bowl	Everted rim	1	1.45	1	1.32	17	0.98
JB	Jar/Bowl	Unclassified form	1	1.45	1	1.32	6	0.35
JBL?	Jar/Bowl	Large	1	1.45	1	1.32	27	1.56
L	Lid	Unclassified form	1	1.45	1	1.32	32	1.85
OPEN?	Open	Open form	1	1.45	1	1.32	3	0.17
OPEN	Open	Form	4	5.80	3	3.95	37	2.14
18?	Plate	Samian form - see Webster 1996	1	1.45	1	1.32	2	0.12
15/17	Plate	Samian form - see Webster 1996	1	1.45	1	1.32	4	0.23
-	unknown	Form uncertain	5	7.25	5	6.58	44	2.54

#### 4.1 THE GRAFFITO - D1 - C1078

The Graffito is from a closed vessel in the early light firing CR fabric. The sherd comes from a flagon and the inscription was located just above the girth of the vessel. The Graffito probably reads GONI although the opinion of a specialist would be required to confirm this and provide an interpretation. The fabric of this sherd suggests that it may have been in use during the legionary occupation of the fortress or a short time after. Jerry Evans in his survey of graffiti on Romano-British coarsewares (1987) has noticed a high proportion of marked vessels come from fortress or urban sites. This is probably the result of a higher overall literacy amongst soldiers and the urban population and an increased need to mark possessions to prevent dispute over ownership. He notes that decorated Samian bowls are seldom marked as the decoration scheme is sufficient to differentiate ownership but when multiple plain ware vessels are in circulation, in places such as a barrack block or a tavern, marks of ownership were probably more common. This would fit with a location within the fortress or the colonia. This sherd provides a valuable, very personal record of an inhabitant of Roman Lincoln.

## 5.0 DISCUSSION

It has been noted by Darling that there has been little opportunity to learn more about the Legionary fortress area of Lincoln because of the presence of historic buildings (1981a, 397). There are few good quantified groups of Roman pottery from this area of the 'Upper City' and much of the Roman pottery has been retrieved from post-Roman deposits. The truncation in the castle area may result in the removal of much of the later archaeological deposits in this area perhaps leaving areas of Roman deposits near to the surface in some areas. The freshness of these groups suggests that the sherds are unlikely to have been repeatedly redeposited.

## 6.0 CONCLUSIONS

This site small assemblage highlights the important potential of this site for informing our understanding ceramic supply and usage in the Legionary fortress and subsequent *Colonia*. It is likely that groups from this site have the potential to be extremely significant both regionally and nationally.

## 7.0 RECOMMENDATIONS

As the majority of the pottery is from post-Roman contexts no vessels from this evaluation are suitable for illustration on the basis of their stratified significance. A single coarseware bowl (D2) for would be suitable for illustration on the basis

of it not being easily paralleled in the forthcoming Lincoln Roman pottery corpus. The most important further work required for this group is to send the flagon sherd with the graffito (D1) to the national expert, Dr Tomlin of Wolfson College, Oxford, for inclusion in the inscriptions section of the journal *Britannia*. The inscription should be illustrated with a drawing accompanied by a photo with raking light to highlight the graffito.

The Samian should be presented to a specialist for the identification of the decorated vessels to add them to the growing corpus of decorated vessels from Lincoln. A full report on the material would benefit from comparisons with the City of Lincoln Archaeological Unit work in the Upper City area.

An excavation on this site could produce a large and highly significant assemblage of Roman pottery. As highlighted above, this site gives a rare opportunity to understand ceramic supply and usage in the Legionary Fortress and subsequent *Colonia*. This might help to resolve many of the 'unresolved discrepancies' about the dating of the uphill fortress (Jones 2003, 53, Stocker 2003 Lincoln Research Agenda Zone 6.9- The Neronian Fortress). Research and publication of the Roman ceramics from any further work on this site would be extremely important, especially if groups of stratified Roman pottery were produced. Further assemblages from this site would be of great significance as this is the first quantified Roman assemblage from the castle area (B. Precious personal communication).

## BIBLIOGRAPHY

- Darling, M.J. 2004. 'Guidelines for the archiving of Roman Pottery', *Journal of Roman Pottery Studies* 11, 67-74
- Darling, M.J. 1999. Roman Pottery, in C. Colyer, B.J.J. Gilmour & M.J. Jones, *The Defences of the Lower City Excavations at The Park and West Parade 1970-2*, CBA Research Report 114, 52-135
- Darling, M.J. and Precious, B.J. *forthcoming*. Corpus of Roman Pottery from Lincoln, Lincoln Archaeological Studies No. 6 (Oxbow: Oxford)
- Darling, M. J. 1981a. Early red-slipped ware from Lincoln, in Anderson A.C. and Anderson, A.S. (eds), *Roman Pottery Research in Britain and North-west Europe. Papers presented to Graham Webster*, BAR Int Ser123, 397- 416
- Evans, J. 1987. 'Graffiti and the Evidence of Literacy and Pottery use in Roman Britain', *Archaeological Journal*, 144, 191-204
- Gillam, J. P. 1970. Types of Coarse Roman Pottery Vessels Found in Northern Britain, 3rd ed, University of Newcastle upon Tyne, Newcastle upon Tyne
- Jones, M.J. 2003. The Roman Military Era (c.AD45-c.AD90): The archaeological account, in *Stocker (ed) 2003*, 36- 53
- Orton, C. R. 1975. 'Quantitative pottery studies, some progress, problems and prospects', *Science and Archaeology* 17, 30-5
- Stocker, D. (ed) 2003. *The City by the Pool: Assessing the Archaeology of the City of Lincoln*, Lincoln Archaeological Studies No 10 (Oxbow: Oxford)
- Webster, P. 1996. Roman Samian Pottery in Britain, Practical Handbook in Archaeology 13 (Council for British Archaeology: York)
- Webster, G. & Booth, N. 1947. 'The excavation of a Romano-British pottery kiln at Swanpool, Lincoln', *Antiquaries Journal*, 27, 61-79

## Appendix 1

Int	CNo	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight
3	1018	GREY	-		1	VABR		BS		1	5
3	1019	GREY	-		1	VABR		BS		1	4
4	1068	GREY	J?	B	1	ABR		RIM; SCRAP; EVERTED?		1	9
4	1086	L555?	A		1			BS; SANDY EXT SURFACES SALT WASH		1	69
4	1087	GREY	JL?	B EXT; SHG	1			BS; AS ROOKERY/SWPOOL LARGE JAR		1	68
5	1078	NVCC?	BFB		1	ABR		RIM AND FLANGE; BROWN SLIP MESSY OFF CREAM FABRIC		1	144
5	1078	GREY	JNN?		1	DUNTING CRACKS		RIM NECK; LOC; PROB JAR		1	31
5	1078	SAMCG	37	OVOLO	1			RIM - OVOLO; SCRAP OF OVOLO		1	25
5	1078	OXRC	B		1	BURNT; WORN INT		BASE; WORN INTERNAL SURFACE - USE AS MORTAR?		1	55
5	1078	DWSH?	CLSD		1	ABR		BS; FIRING AS DSWH		1	17
5	1078	GREY	JEV		1			RIM SHLDR; LOC PALE CORE - EM2C		1	35
5	1078	GREY	JEV		1			RIM; LOC PALE CORE		1	21
5	1078	DR20	A		1	ABR; BURNT OVER BREAK		BS - ?2C FAB		1	91
5	1078	SAMSG	37	OVOLO; MOULD	1			RIM; OVOLO AND FOLIAGE		1	9
5	1078	SAMCG	33		1	ABR		RIM-BASE		1	10
5	1078	CR	F?	B	1	GRAFFITO	D1	BS; GRAFFITO ?READS - 'GONI'; SEND TO TOMLIN		1	19
5	1078	GREY	D?		1			BASE; LOC		1	29
5	1078	CC	BKCO R	RCC	1	BURNT		RIM SHLDR; FORM AS D&P76; FABRIC UNCLEAR DUE TO ?OVERFIRING		1	34
5	1078	GREY	DPR	B EXT	1			RIM; LOC		1	53
5	1078	GREY	CLSD	B EXT	1	ABR		RIM; LOC; LATE FAB		1	12
5	1078	GREY	JB	B EXT	1	ABR		BS NECK - ?BWM TYPE?		1	6
5	1078	GREY	CLSD	BVL	1			RIM; ?JAR		1	8
5	1078	NVCC2	CLSD		1			BS; LATE NVCC		1	1
5	1078	SHEL	JDLS?		1	VABR		RIM; HARD FIRED - SOME SAND LATE FAB; VL4C		1	32
5	1078	SPOX	CLSD	B EXT	1			BS; OX/R/OX		1	21
6	1084	GREY	CLSD ?		1			BS; LARGE VESSEL		1	12
6	1084	SAMSG	27?		1			RIM SCRAP		1	1
6	1084	SAMSG?	OPEN		1			BS FLAKE		1	4
6	1084	SAMSG	29	MOULD	1			BS; HIGH GLOSS		1	23
6	1084	BB1	J		1	ABR		RIM		1	6
6	1084	CR	CLSD		1	ABR		BS		1	5
6	1084	NVCC?	CLSD		1	BURNT		BASE; DISCOLOURED		1	36
6	1084	GREY	J?	BA	1	ABR		BS		1	6

Int	CNo	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight
7	1070	CR	F?		1			BASE; FTR - FOOTRING 80MM; TRACES OF STRING CUT NOT SMOOTHED; MICA - EFAB?		1	77
7	1071	LEG	JNK		1			RIM; NECK; NEAT RIM SIMILAR SHAPE TO D&P 787 BUT NARROWER		1	11
7	1072	CR	F?	SHG	1			BS		1	8
7	1073	SAMSG	18?		1			RIM ONLY		1	2
7	1073	GREY	CLSD	BIA?; BHL	1			BS; LOWER WALL SHERDS FROM ?STORAGE JAR; LOC ROOKERY/SPOOL TYPE		6	133
7	1073	SAMSG	CU11	BARB	1			RIM; FLANGE; BODY; WEBSTER FLANGE 'B' WITH INTERNAL MOULDING - FLAVIAN		1	15
7	1073	SAMSG	15/17		1			RIM WALL ONLY AS O&P PLLXLIL NO 40?		1	4
7	1073	SAMSG	37	OVOLO	1			RIM TO OVOLO - ONLY SCRAP OF TOUNGE SURVIVES - FLAVIAN?		1	4
7	1073	SAMSG?	33		1	ABR		RIM; SLIGHTLY ODD SPARSER CALC; EARLY CPLAYED FORM INTERNAL OFFSET		1	7
7	1073	SAMSG?	OPEN		1	ABR		BS LOWER WALL		1	3
7	1073	GREY	JCR	SHL	1			RIM; CLUMSY FINISH; LOC; ?WORN LID SEATING		1	17
7	1073	IAGR	-		1			BS		1	12
7	1073	CC	OPEN ?		1			RIM; ATYPICAL CC - IMPORT		1	3
7	1073	CR?	CLSD		1	ABR		BS; PARTLY REDUCED SURFACE		1	11
7	1073	PINK	JBKE V		1	ABR		RIM SHLDR; A SIMILAR FORM TO RDSL BEAKER D&P 32		1	6
7	1073	CR?	-		1	ABR		BS; PINK?		1	7
7	1073	CR	FL?		1			BS; LOC MICA EFAB; ?LARGE FLAGON AS GAU 4 COPIES		2	105
7	1073	GREY	BL	BIA	1			BS LOWER WALL; LOC		1	16
7	1073	GREY	CLSD		1			BASE; FTM; FOOT MOULDED BASE DIAM 70MM; LOC; 2C TYPE?		1	15
7	1073	GREY	B		1			RIM; LOC		1	31
7	1073	GREY	DPR	B EXT	1			RIM; LOC		1	33
7	1073	SHCM	-	WM	1			BS; REDUCED HARD FIRED		1	16
7	1073	GREY	JBL?		1			BS LOWER WALL; LOC		1	27
7	1073	SAMCG	OPEN		1			BS		1	6
7	1073	GREY	JBL	B EXT	1			BS SHLDRL LOC		1	9
7	1073	GREY	JL		1			RIM; LOC		1	73

Int	CNo	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight
7	1073	GREY	CLSD ?	STAB	1			BS FINE STAB DECORATION; LARGE JAR?; LOC		1	27
7	1073	IAGR	CLSD ?	HM?	1			BS NEAR BASE; OX/R/OX; PALE BROWN SURFACES		1	20
7	1073	SHMC	JBEV	HM	1			RIM ONLY; OX/R/OX - LIGHT BROWN SURFACES		1	17
7	1073	IAGR?	L	WF	1	BURNT OVER BREAK		RIM; GROGGY AND SANDY - TRANSITIONAL SEE D&P 850		1	32
7	1073	GRSA	JBK		1			BS		2	5
7	1073	GREY	JEV		1	SOOT OVER RIM		RIM; LOC PALE CORE; 2C		2	8
7	1073	GREY	BSEG		1		D2	RIM LOWER WALL VARIANT ON A SEGMENTALLY FLANGED BOWL SIMILAR TO D&P BUT WITH HIGHER FLANGE - 2C		1	36
7	1073	SAMCG	27?		1			RIM		1	2
7	1073	SAMCG	18/31- 31		1			RIM		1	8
7	1073	GREY	OPEN		1			BS; RARE FINE SHELL		0	24

## APPENDIX G ASSESSMENT OF POST-ROMAN CERAMIC

Jane Young, Ceramic consultant

### 1.0 INTRODUCTION

A small assemblage of ninety-four sherds of post-Roman pottery (representing eighty-three vessels) and sixty-one clay pipe fragments was submitted for examination. The pottery was recovered from four different trenches on the site and ranges in date from the Late Saxon to the early modern period (Table 1). The assemblage was quantified by three measures: number of sherds, weight and vessel count within each context. Fabric identification of some sherds was undertaken by x20 binocular microscope. The ceramic data was entered on an Access database using fabric codenames agreed locally and nationally. Recording of the assemblage was in accordance with the guidelines laid out in Slowikowski, *et al.* (2001) and complies with the Lincolnshire County Council's *Archaeological Handbook* (section 13.4.2). The clay pipes have been initially scanned and dated by Jenny Mann and a full report will be lodged with the site archive.

### 2.0 CONDITION

The pottery is in a fairly fresh to slightly abraded condition with sherd size mainly falling into the small to medium size range (below 50grams). Only eight vessels are represented by more than one sherd and there are no cross-context joining vessels.

### 3.0 OVERALL CHRONOLOGY AND SOURCE OF THE POTTERY

A range of twenty-eight different pottery ware types, ranging in date from the Late Saxon to the early modern period were identified, the type and general date range for these fabrics are shown in Table 1. Local, regional and continental productions are represented amongst the material. A narrow range of vessel types was recovered, mainly various types of jugs, jars and bowls but also including examples of bottle, plate and a range of drinking vessels.

Table 1 Pottery codenames and date ranges with total quantities by sherd and vessel count

Codename	Full name	Earliest date	Latest date	Total sherds	Total vessels
BERTH	Brown glazed earthenware	1550	1800	3	1
BEVO2	Beverley Orange Ware Fabric 2	1230	1350	1	1
BL	Black-glazed wares	1550	1750	20	18
BS	Brown stoneware	1680	1850	1	1
CREA	Creamware	1770	1830	18	15
ENGS	Unspecified English Stoneware	1750	1900	1	1
FREC	Frechen Stoneware	1530	1680	4	4
GRE	Glazed Red Earthenware	1500	1650	2	2
HUM	Humberware	1250	1550	1	1
LERTH	Late earthenwares	1750	1900	1	1
LHUM	Late Humber-type ware	1550	1750	1	1
LLSW	Late Lincoln Glazed Ware	1350	1500	1	1
LS/SNLS	Late Saxon/Saxo-Norman Lincoln Sandy ware	850	1050	1	1
LSW1	12th century Lincoln glazed ware	1100	1200	1	1
LSW1/2	12th-13th century Lincoln glazed ware	1100	1300	1	1
LSW2	13th to 14th century Lincoln Glazed ware	1200	1320	5	4

<b>Codename</b>	<b>Full name</b>	<b>Earliest date</b>	<b>Latest date</b>	<b>Total sherds</b>	<b>Total vessels</b>
LSW2/3	13th to 15th century Lincoln Glazed ware	1200	1450	1	1
LSW3	14th to 15th century Lincoln Glazed ware	1280	1450	3	3
LSWA	Lincoln Glazed ware Fabric A	1100	1500	2	2
NOTS	Nottingham stoneware	1690	1900	13	12
PEARL	Pearlware	1770	1900	2	2
PGE	Pale Glazed Earthenware	1600	1750	1	1
RGRE	Reduced glazed red earthenware	1600	1850	2	1
ST	Stamford ware	970	1200	1	1
STSL	Staffordshire/Bristol slipware	1680	1800	3	3
SWSG	Staffordshire White Saltglazed stoneware	1700	1770	2	1
TGW	Tin-glazed ware	1640	1770	1	1
TORKT	Torksey-type ware	850	1100	1	1

### 3.1 LATE SAXON TO SAXO-NORMAN

Three sherds of late 9th to mid-12th century date were recovered residually from C1073 in Intervention 7. A grey sand-tempered local sherd (LS/SNLS) is either of late 9th to early 10th or late 10th to mid-11th-century date. The same fabric was used for two different local Late Saxon productions (LSLS and SNLS) and unfortunately the jar sherd from this site is totally undiagnostic. The jar sherd in Torksey-type ware (TORKT) contains sparse fragments of flint in the fabric suggesting that it is not a product of kilns in Torksey itself. Torksey-type ware dates to between the late 9th and mid-/late 11th centuries. A small unglazed jar sherd in Stamford ware (ST) Fabric A/B probably dates to between the mid-11th and early 12th centuries. If all three sherds were disturbed from the same original deposit all three sherds could belong to the period between the mid and mid-/late 11th centuries.

### 3.2 MEDIEVAL

Fifteen vessels in nine different ware types may be considered to be of medieval type (dating to between the mid-/late 12th and late 15th centuries). Thirteen of the vessels are Lincoln glazed ware products (LSWA, LSW1, LSW1/2, LSW2, LSW2/3, LSW3 and LLSW) and include a variety of plain and decorated jugs. The 12th-century Lincoln Glazed ware (LSW1) jug sherd recovered from C1078 in Intervention 5 has an inturned rim which is diagnostic of a mid-/late 12th to early/mid-13th-century date. A jug handle with pressed edges from C1068 in Intervention 5 is of undiagnostic ware type (LSW1/2), but can be dated to between the mid-/late 12th and early/mid-13th centuries. The four 13th to 14th-century Lincoln Glazed ware (LSW2) jugs are all likely to be of 13th-century date and include one decorated with applied overlapping scales. An undiagnostic jug sherd from context 1072 in Intervention 7 has a rounded cuff rim which is likely to date to between the late 13th and early/mid-14th centuries. The two decorated LSWA jugs are probably of 13th century date, possibly belonging to the second half of the century. All three of the 14th to 15th-century Lincoln Glazed ware (LSW3) sherds come from large jugs. The two jugs from C1073 in Intervention 7 are of mid-/late 14th to mid-15th-century date. A Late Lincoln ware sherd (LLSW) from C1073 in Intervention 7 is from a squat jug of the type produced at the St Marks kiln site in the Wigford suburb of Lincoln. These jugs appear to have been produced from the mid-14th to late 15th centuries.

Only two non-local medieval sherds, both from the Humber area, were recovered from the site. The large fresh fragment found in C1068 in Intervention 4 is from a jug in Beverley ware Fabric 2. This jug is probably of 13th-century date. The Humber ware jug sherd (HUM) is less diagnostic and could date to anywhere between the late 13th and mid-16th centuries.

### 3.3 LATE POST-MEDIEVAL TO EARLY MODERN

The bulk of the pottery recovered from the site dates to between the late 17th and mid-19th centuries. This material includes local and regional coarsewares (BERTH, BL, GRE, LERTH, LHUM and RGRE), regional finewares (BL and PGE), slipwares (STSL), tin-glazed earthenwares (TGW), regional and imported stonewares (BS, ENGS, FREC and NOTS), industrial finewares (CREA, PEARL and SWSG).

A small narrow-based jar in a brown-glazed earthenware (BERTH) is of a type not seen in Lincoln before. The vessel is almost certainly a regional or continental import and is of 18th to 20th-century date. A range of coarseware vessels in black-glazed earthenwares (BL) includes vessels in coarse and sandy fabrics produced in Lincolnshire, Derbyshire, Staffordshire and possibly Yorkshire. Vessel forms include a variety of jars and bowls. Two vessels in Glazed Red Earthenware (GRE) and one in Late Humberware (LHUM) are probably of late 16th to 17th-century date. The two Glazed Red Earthenware sherds are both from jars or pipkins, one of which has a copper bichrome glaze. The Late Humberware vessel is a large jar with internal and external glaze. Similar vessels were produced in Boston, Grimsby and the Hull area from the last quarter of the 16th to the late 18th centuries.

Fineware vessels in black -glazed earthenwares (BL) were being produced at a number of centres throughout the country from the mid-17th to 18th centuries. The most likely sources for most of the pottery from this site are Boston in Lincolnshire, Ticknall in Derbyshire and the Staffordshire potteries. Vessels are in fine red, purple or orange earthenware fabrics and usually have a good quality black or brown glaze. Most of the vessels found are small bowls, chamber pots or small to medium-sized jars, although the assemblage also includes a number of drinking vessels. A single Pale Glazed Earthenware sherd is from a lid with a copper-coloured external glaze.

Three Staffordshire-type slipware vessels were recovered from the site (STSL). None of the vessels are likely to predate the mid-/late 17th century and all probably predate the last quarter of the 18th century. These vessels may have been produced either in Staffordshire or in Ticknall in Derbyshire. The vessels comprise two possible cups and one press-moulded dish that have all been decorated with slip-trailing.

A single small Tin-glazed Earthenware (TGW) sherd is possibly from a jar or chamber pot.

Four different types of post-medieval to early modern stonewares were recovered from the site. The earliest vessels are from imported German Stoneware (FREC) drinking jugs of mid-/late 16th to 17th-century date.

Nottingham Stoneware (NOTS) was first produced in the late 17th century and continued in production until the beginning of the 19th century. Production was mainly of drinking vessels, plain and ornamental jars and bowls. There are no obviously early examples from this site and only two vessels appear to be of late 18th to 19th century date. Vessel forms include bowl, dish and jar. A single small brown stoneware (BS) sherd is from a cup of possible Staffordshire production. A tiny stoneware bottle (ENGS) of 18th to 19th-century type may be a product of kilns in London.

Three industrial finewares, Staffordshire Salt-glazed Stoneware (SWSG), Creamware (CREA) and Pearlware (PEARL) were found on the site. The earliest of these is the Staffordshire White Salt-glazed ware vessel (SWSG) which is of early/mid-to late 18th-century date. The two sherds from a single vessel are identifiable as a tiny bowl, possibly a drinking bowl. Creamware was developed in the mid-1760s and continued to be made until at least the mid-1830s by which time it had been superseded by modern whitewares. Lighter coloured Pearlwares with underglaze blue transfer printing first occur in the 1780s, again diminishing by the 1830s. Fifteen Creamware vessels were recovered from the site. Vessels are mainly small bowls and plain undecorated plates, although one vessel is transfer-printed and two others have underglaze painted decoration. The two Pearlware vessels appear to be of early type, probably belonging to the late 18th to early 19th centuries.

#### 4.0 THE CLAY PIPES

A total of sixty-two fragments of clay pipe were recovered from the site. A full report by Jenny Mann can be found in the site archive. Forty-eight of the fragments are stems, ranging in date from the 17th to 19th centuries. The forty-eight bowls include three examples of 17th-century date and eleven of late 18th to 19th-century date.

#### 5.0 THE SITE SEQUENCE

Post-Roman pottery and clay pipe fragments were recovered from four of the seven interventions excavated for the evaluation (Interventions 4, 5, 6 and 7). Most of the pottery came from Intervention 7 (Table 2).

Table 2 Ceramic dating of the post-Roman pottery found on the site by Intervention

Intervention	Saxo-Norman (late 9th to mid-12th)	Medieval (mid-/late 12th to 15th)	Post-medieval to early modern (mid-16th to mid-19th)	Total vessels
4	0	3	9	12
5	0	5	7	12
6	0	0	2	2
7	3	7	47	57
<b>Total vessels</b>	<b>3</b>	<b>15</b>	<b>65</b>	<b>83</b>

##### 5.1 INTERVENTION 4

Layer C1068 produced a small group of five vessels and four clay pipe fragments. Three of the vessels recovered from this deposit are of medieval date and represent either re-deposited or disturbed material. A single sherd comes from a Frechen Stoneware narrow-necked drinking jug of 17th-century date. The latest vessel is a Black-glazed ware bowl in a coarse orange fabric that dates to between the mid-17th and 18th centuries. The three clay pipe stems from this context are of general 17th-century date but the bowl can probably be dated to between *c.*1660-90. The only other post-Roman pottery to be found in this intervention came from fill C1087 of a pipe trench (F11). The seven vessels are all of post-medieval date and include two mid-/late 16th to 17th century imported Frechen stoneware drinking jugs and two early to mid-17th century Black-glazed ware drinking vessels, although the latest sherd is a Nottingham Stoneware jar or bowl of late 17th to 18th-century date. The three clay pipe stems are of 17th to early 18th-century date.

##### 5.2 INTERVENTION 5

A single context in this intervention produced pottery (soil layer C1078). The small mixed group of twelve vessels contains two Staffordshire Slipware cups of probable late 17th-century date, although a pantile of at least 18th-century date was also recovered from this context. Five of the vessels from this context are of medieval date and two of the Black-glazed ware drinking vessels are of early to mid-17th-century type. The two clay pipe stems date to the 17th and 18th to 19th centuries and the single bowl to *c.*1600-40). The backfill (C1076) of the construction cut for wall F9 contained five clay pipe stems and a single bowl fragment. The stems are of mid-17th to 18th-century date and the bowl of possible *c.*1630-50 type.

##### 5.3 INTERVENTION 6

Two sherds from a small Creamware bowl and one from an unglazed earthenware garden pot came from made ground layer C1084. The Creamware sherd can be dated to between the mid-/late 18th and mid-19th centuries and while the garden pot

could date anywhere between the 18th and 20th centuries it is similar to other examples recovered from the castle in pre-mid-19th century deposits.

#### 5.4 INTERVENTION 7

This intervention produced the largest assemblage of pottery consisting of fifty-seven vessels ranging in date from the Late Saxon to early modern periods, as well as forty-five clay pipe fragments. Layer C1073 contained a small very mixed group of forty-five vessels. The earliest material comprises two Late Saxon greyware vessels (LS/SNLS and TORK) dating to between the late 9th and mid-/late 11th centuries and a small unglazed Stamford ware jar of probable mid-11th to early 12th-century date. Six vessels are of medieval type with dates ranging from the 13th to 15th centuries. Most of the pottery however is of 18th to early 19th-century date with the latest sherds post-dating *c.*1780. Included in the group are a range of tablewares (plates, small dishes and drinking bowls) and domestic vessels (jars, bowls, bottles and possible chamber pots) from local and regional production sites. The thirty-four clay pipe stems are of general 18th to 19th-century date and could be contemporary with the pottery, however some of the bowls post-date the mid-19th century and therefore may provide a better date for the deposit.

Mortar surface C1072 contained sherds from eight vessels ranging in date from the medieval period to the 18th century. The latest vessel a tiny White Salt-glazed bowl dates to between the early/mid and mid/late 18th century. Only three sherds came from buried soil C1071 the latest of which comes from a Creamware small bowl of mid-/late 18th to mid-19th-century date. Made ground C1070 produced a single unusual Brown-glazed jar of 18th to 20th-century date.

#### 6.0 SUMMARY AND RECOMMENDATIONS

This is only a small group of pottery and therefore difficult to assess, however there are some notable aspects to the assemblage. The presence of at least two pre-conquest vessels is unusual for castle assemblages, although it cannot be used to suggest pre-conquest activity in the immediate area, as the vessels were recovered from made ground. A number of vessels are of early to mid-17th-century type and may represent disturbed Civil War deposits as similar vessels were recovered during previous interventions at the castle. The latest pottery found probably dates to no later than the early to mid-19th century, although most of the pottery recovered is likely to date to the period of the New County Gaol construction in the late 18th century.

The assemblage should be kept for future study, especially as part of any further characterisation of the Lincoln ware fabrics.

#### REFERENCES

Lincolnshire Archaeological Handbook 2003 edition [internet]

Available from <<http://www.lincolnshire.gov.uk/section.asp?catId=3155>>

Slowikowski, A. Nenk, B. and Pearce, J. 2001. *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics*. Medieval Pottery Research Group, Occasional Paper 2

## APPENDIX H ASSESSMENT OF CERAMIC BUILDING MATERIAL

Jane Young, Ceramic Consultant

### 1.0 INTRODUCTION

A total of thirty-five fragments of ceramic building material weighing 6736 grams and ranging in date from the Roman to the early modern period were recovered from the site. The material was examined visually and then recorded using locally and nationally agreed codenames. Tegula flange types follow the classification by Betts (1986). The resulting archive was then recorded on an Access database and complies with the guidelines laid out in Slowikowski, *et al.* (2001) and the Lincolnshire County Council's *Archaeological Handbook* (section 13.4.2). The CLAU tile type series was consulted for comparative material (Kemp *et al.*).

### 2.0 CONDITION

The material is in variable condition with most tile fragments showing at least a little abrasion. Fragments range from large-sized (707 grams) to small (48 grams). A small number of the tiles have mortar still adhering and in a few instances this extends over previously broken edges suggesting reuse of broken fragments in rubble infill.

### 3.0 THE CERAMIC BUILDING MATERIAL

A range of ceramic building material including roof tile and brick was found on the site. The types are shown and quantified in Table 1. With the exception of a small number of fabric variants, all of the fragments found on the site are typical of those recovered from previous excavations within the castle.

Table 1 Ceramic Building material codenames and total quantities by fragment count and weight

Codename	Full name	Fragments	Weight (g)
BRK	Brick	3	835
GRID	Glazed ridge tile	2	416
IMB	Imbrex	3	284
MODTIL	Modern tile	3	335
NIB	Nibbed tile	4	1004
PANT	Pantile	1	89
PNR	Peg, nib or ridge tile	4	394
RFURN	Roof furniture	1	317
RID	Unidentified ridge tile	1	270
RTIL	Roman tile	1	330
RTMISC	Roman or post-Roman tile	3	294
TEG	Tegula	9	2168

#### 3.1 ROMAN

Thirteen identifiable Roman tile fragments were recovered from the site. The collection includes examples of undiagnostic tile (RTIL), Tegula (TEG), and Imbrex (IMB). A wide range of fabrics is present suggesting that the material does not all come from a single source. The nine Tegula fragments found include four flanges. There are three examples of Type 31 and a single instance of a Type 1 variant. These are common types to be found in the Upper City. At least five different

fabrics are represented including two that are unlikely to be of local origin. Two examples of Imbrex (IMB) were found on the site. The fabrics of these are probably of local origin. An undiagnostic fragment with no external surfaces (RTIL) may be from a Roman brick. Three other fragments may be of Roman date (RTMISC) but are too fragmentary to determine type or exact date.

### 3.2 MEDIEVAL

Eight fragments from five different tiles are examples of medieval flat roof tile. A variety of local fabrics (Fabrics 1/7, 7, 15/17 and 17) and one non-local fabric are represented with only Fabric 7 being represented by more than one example. Fabric 7 is the earliest medieval tile fabric to be used in the city, possibly being used as early as the mid 12th century and falling out of use by the mid 13th century. Fabric 1/7 is an intermediate fabric and is in use during the 12th and 13th centuries. Two tiles in Fabrics 15/17 and 17, which were first defined on two sites associated with the Dominican Friary situated between Monks Road and Lindum Road (LCMR03 and LCSZ03), are present amongst the assemblage. Evidence from the two Monks Road sites suggests that these fabrics are mainly of late 12th to mid-14th century date. The tile from C1078 in Intervention 5 is in a non-local fabric that has common calcareous inclusions and can only be dated to between the mid-12th and 16th centuries.

Only two diagnostic medieval suspension nibs were found. One is of a moulded triangular shape, which is the earliest nib type to be found in the city. As only one nib is present on each fragment it is not possible to determine if they are a Type 1, or a Type 2 nib. Single Type 1A nibs probably date to between the mid- and late 12th century while the double Type 2 nibs may continue in use until the early/mid-13th century. The other nib is of a later type (Type 7c) which is in use in the city between the mid 15th and 17th centuries.

Fragments of two decorated glazed ridge site came from the site. One has the scar of an applied diagonal strip or crest and is in Fabric 1. The other tile is more unusual and has part of a lengthways crest of unknown type as well as having what appear to be incised lines, possibly graffiti on the side. This tile type is rarely found in Lincoln. Both tiles are likely to be of 13th to 14th century date. An extremely abraded piece of roof furniture came from C1078 in Intervention 5. The fragment is similar to one recovered from the Park (P70) in the lower city which is part of a louver dating to the 13th century.

### 3.3 POST-MEDIEVAL TO MODERN

Three of flat roof tiles and a pantile found on the site are of early modern type (MODTIL). Similar tiles of 18th to 20th century date have been recovered from previous excavations at the castle. An unglazed ridge tile found in context 1073 in Intervention 7 may be of Roman or post-medieval date.

Three handmade bricks were recovered from the site. Each of the bricks is in a different fabric, two of which are uncommon in the city. The fragments are too fragmentary to date closely but belong to the period between the late 17th and 19th centuries.

## 4.0 THE SITE SEQUENCE

Ceramic Building Material was recovered from three of the Interventions excavated for the evaluation (Interventions 4, 5 and 7). Most of the fragments came from Intervention 5 (Table 2).

Table 2 Ceramic dating of the Ceramic Building Material found on the site by Trench by fragment count

Intervention	Roman	Medieval	Post-medieval to early modern	Roman/post-Roman	Total fragments
INT 4	0	1	0	0	1
INT 5	10	8	6	3	27
INT 7	3	2	1	1	7
Total fragments	13	11	7	4	35

#### 4.1 INTERVENTION 4

One of the two glazed ridge tile found on the site was recovered from clay layer C1068. The tile which is in a local fabric has a lengthways applied crest of unknown type and is of a type rarely found in the city. The fabric and thick olive glaze suggest that it dates to the 13th or 14th centuries.

#### 4.2 INTERVENTION 5

Twenty-two tiles, two bricks and a fragment of medieval roof furniture were found in layer C1078.

At least ten of the fragments are of Roman date and include examples of Imbrex (IMB) and Tegulae (TEG). The medieval flat roof tiles appear to be of different types and dates with the latest identifiable example being of early/mid 14th to 15th century date. An abraded fragment of roof furniture, possibly from a louver is probably of 13th-century date. The latest tiles comprise three flat roofers and a pantile, all of general 18th to 20th-century date. Two fragments of handmade brick could date anywhere between the late 17th and 19th centuries.

#### 4.3 INTERVENTION 7

Made ground C1073 produced a small mixed group of four tiles and a post-medieval brick. Two of the tiles are of definite Roman date (IMB and TEG) and an unglazed ridge tile is either of Roman or post-medieval date. The medieval nibbed tile is of a type commonly found in mid-15th to 17th-century deposits in the city. A late 17th to 19th-century handmade brick has mortar over broken edges suggesting that it has been reused.

### 5.0 SUMMARY AND RECOMMENDATIONS

The ceramic building material recovered dates between the Roman and the early modern periods and is mainly typical of types found on sites elsewhere in the City. The group undoubtedly represent material re-deposited from elsewhere, either from within the castle grounds, or the local area. A wide range of fabrics is found within the Roman tile suggesting a variety of sources and dates for the material. The fragment of medieval roof furniture and one of the glazed ridge tiles are the first examples of these types to be found at the castle. Undiagnostic fragments and the early modern material have been discarded in agreement with the Collection and the remaining ceramic building material from this site should be retained for further study as part of any future development of the Lincoln Tile Type Series.

#### REFERENCES

- Betts, I. 1986. *Identifying Ceramic Building Material*. Unpublished: Museum of London Department of Urban Archaeology.
- Lincolnshire Archaeological Handbook 2003 edition [internet]. Available from <<http://www.lincolnshire.gov.uk/section.asp?catId=3155>>
- Kemp, R., Vince, A. and Young, J no date *The Medieval and Post Medieval Ceramic Building Material from Lincoln*. Unpublished.

Slowikowski, A. Nenk, B. and Pearce, J. 2001. *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics*. Medieval Pottery Research Group, Occasional Paper 2.



**FIELD ARCHAEOLOGY SPECIALISTS LTD**

Unit 8 Fulford Business Centre  
35 Hospital Fields Road  
York YO104DZ

TELEPHONE (01904) 652000  
FASCIMILE (01904) 749014  
[fas@fieldarchaeologyspecialists.co.uk](mailto:fas@fieldarchaeologyspecialists.co.uk)