

Interim Report on  
Archaeological Excavations at  
Sudbrooke (Roman Villa)  
Lincolnshire

(SUD07)

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## CONTENTS

### Summary

- 1.0 Introduction
- 2.0 Site location and description
- 3.0 Archaeological and historical background
  - 3.1 Prior observations and interventions
  - 3.2 Summary of previous seasons' findings
- 4.0 Methodology
  - 4.1 The Project
    - 4.1.1 The 2007 Excavation
    - 4.1.2 Training activities
    - 4.1.3 Public archaeology and education activities
- 5.0 Results
  - 5.1 Area E
- 6.0 Discussion and conclusion
- 7.0 Review of methodology and proposals for future work
  - 7.1 Excavation methods
  - 7.2 Training activities
  - 7.3 Public archaeology and education activities
- 8.0 Acknowledgments
- 9.0 Site archive
- 10.0 References

## APPENDICES

Appendix 1 – Archaeological context descriptions

Appendix 2 – Context 'Harris' matrix

Appendix 3 – Report on human remains (by Maria Leroi)

*(Please note that to obtain further information on any aspect of the site, finds or environmental records please contact the author at Bishop Grosseteste University College Lincoln where the site archive is available for public consultation by appointment. This is an interim arrangement prior to the eventual deposition of all project materials with the Lincolnshire archaeological archive, City and County Museum – global accession number 2005.58).*

## SUMMARY

- During July and August 2007 controlled open area excavations were undertaken on arable land immediately to the north of New Ten Acre Wood, Sudbrooke, near Lincoln, Lincolnshire. This fieldwork was part of a broader multi-season programme of activities encompassing research, training, public archaeology and education activities that commenced in 2005.
- Earlier investigations – including geophysical survey, metal detector survey and trial trenching – indicated the presence of a complex series of features suggestive of a Romano-British settlement dating from the 1<sup>st</sup> to 4<sup>th</sup> centuries.
- During the first two seasons of open area excavation in 2005 and 2006 a number of features were revealed, recorded and investigated including a post and stake alignment, building debris dumps, construction/demolition features and in-situ masonry features comprising limestone foundation walls and the floor of a hypocaust (under-floor heated) room, additionally evidence for later demolition and robbing of walls was also revealed. Artefacts recovered included pottery, iron nails, painted wall plaster and quantities of redeposited tesserae and some very small elements of mosaic.
- During 2007 further archaeological features were revealed, recorded and investigated including building debris/demolition dumps, additional extents of masonry building including a second hypocaust room, an opus signinum lined feature interpreted as the base of a plunge-pool, additional robber trenches. A further partially robbed out masonry feature appeared to represent a later building. There was also evidence for an earlier large refuse-filled ditch and an infant burial. Artefacts recovered included pottery, iron nails, metal artefacts, painted wall plaster and quantities of redeposited tesserae and some very small elements of mosaic.
- The project was initiated by the Department of Cultural and Environmental Studies at Bishop Grosseteste University College Lincoln and facilitated by the heritage services company Lindum Heritage.

## 1. INTRODUCTION

The 2007 excavations were the third season of work within a multi-season campaign of controlled investigations. The project was devised and initiated by the staff of Bishop Grosseteste University College Lincoln. Both the University College and Lindum Heritage provided excavation and post-excavation management services. The project was primarily self-funded through attendance fees paid by the ‘trainee/volunteer’ excavators; further funding came from Bishop Grosseteste University College and ‘HEIF3 Enterprise’ funding.

The project has three key purposes:

1. To address a set of research driven objectives concerned with enhancing knowledge of rural/villa settlement during the Roman period within the hinterland/*territorium* of the Roman city of Lindum Colonia (Lincoln) and its surviving archaeology.
2. To provide a properly managed training excavation open to archaeology students and interested amateurs, both local and international. (This builds on an earlier proposal by

Lincolnshire County Council and lays the foundations for a more extensive Archaeological Field School to be instituted by the University College during 2008).

3. To provide an opportunity for community archaeology through organised site tours, talks and educational activities for local children.

With reference to point 1 above the following statement was presented within the original research design and project specification:

There have been previous excavations of Roman villa sites in Lincolnshire but the overwhelming majority of these took place during the 18<sup>th</sup>, 19<sup>th</sup> or early 20<sup>th</sup> centuries; as a result it is thought that more ephemeral evidence of timber structures and related features have been poorly recorded, if at all.

Generally it is assumed that villas in Lincolnshire were built and occupied between the late 2<sup>nd</sup> and 4<sup>th</sup> centuries. Little is known of the possible Iron Age to Roman transition of rural settlement sites; the Sudbrooke site is of particular interest in this regard given the ceramic material of high quality and dated earlier than the late 2<sup>nd</sup> century that has been recovered at Sudbrooke previously.

A further research focus is in connection with our knowledge of the relationship between the city of Lincoln and the surrounding hinterland, and the potential extents of the *territorium*; the Sudbrooke site is likely to contribute to this question. Any information that might be gained in relation to the late Roman-Saxon transition would also be of value.

The site has been known of since the 1980s, if not before, yet despite the high quality of recovered finds cultivation has continued since that date. The current excavation will allow an investigation into the extent of plough damage in relation to presumed archaeological survival, the effectiveness of evaluation trenching as a means of resource assessment, and will allow informed comment to be made on issues of future land-use and archaeological conservation.

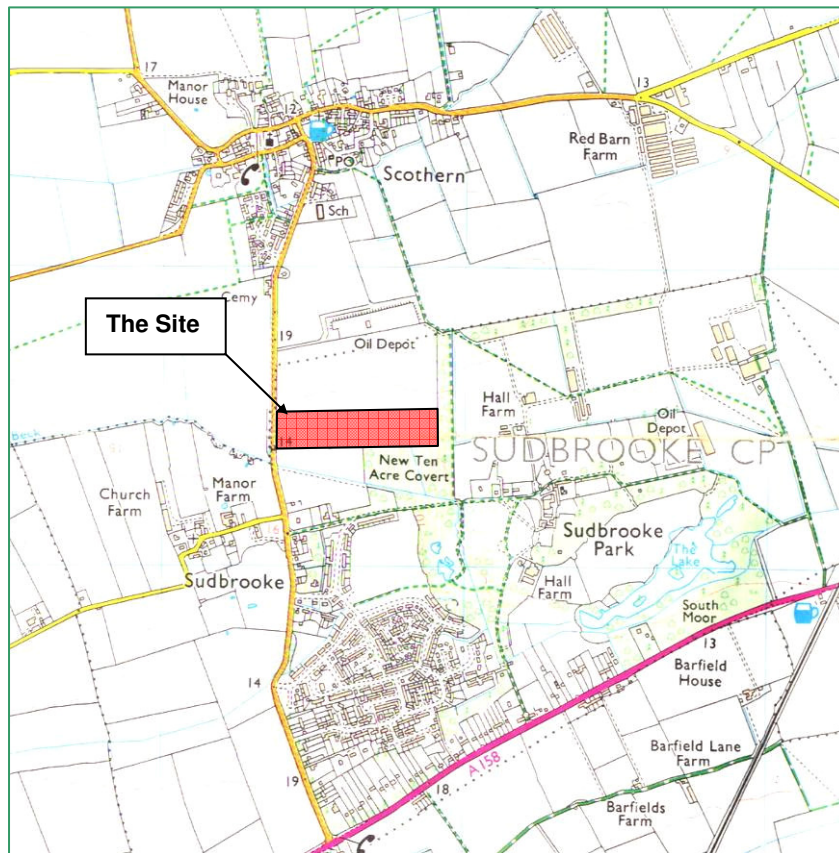
The fieldwork, reporting methodologies and post-excavation procedures employed throughout this project are fully consistent with the recommendations and principles of *Management of Archaeological Projects* (English Heritage, 1991), *Management of Research Projects in the Historic Environment* (English Heritage, 2005), *Standards and Guidance for Archaeological Excavation* (IFA, 2001), and the Lincolnshire County Council document *Lincolnshire Archaeological Handbook: a Manual of Archaeological Practice* (LCC, 1998). Despite the current project falling outside of the remit of planning controlled archaeological fieldwork due reference, where relevant, has been given to the principles of *Archaeology & Planning: Planning Policy Guidance Note 16* (Department of the Environment, 1990).

Copies of this report will be deposited with the Bishop Grosseteste University College Lincoln library and archive, and the Historic Environment Record for Lincolnshire. In the longer term reports will also be deposited at the City and County Museum, Lincoln, along with an ordered project archive for future storage and curation. Making this report available in an on-line format through the University College's website will fulfil a further level of public dissemination (see [www.bishopg.ac.uk/fieldschool/](http://www.bishopg.ac.uk/fieldschool/)).

## 2. SITE LOCATION AND DESCRIPTION

The village of Sudbrooke is situated approximately 7 km north-east of central Lincoln. The site occupies a rectangular field (approximately 530m x 130m), to the north of New Ten Acre Covert, a wooded area immediately north of the village, on the east side of Scothern Lane. The field slopes very gently downwards from an average height of 14.30m OD by the road to c.12.50m OD adjacent to the excavated areas. Cultivated land bounds the field on the north while on the south and east sides there is woodland. During the 2007 season the field contained a mature crop of wheat.

The site lies on a geological boundary, with Cornbrash towards the west side of the site, and Kellaways Formation sandstone to the east (British Geological Survey, 1999).



**Fig.1: Site location (scale 1:25,000)**

National Grid Reference TF 03700 76500

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### 3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

#### 3.1 PRIOR OBSERVATIONS AND INTERVENTIONS

There is limited evidence of pre-Roman activity in the vicinity of the site. A number of Neolithic polished stone and flint axes have been found in the area; one from Scothern, one from the fields to the east of the village, and two from Sudbrooke Park (HER refs. 53105, 50991, 53059, 53063). These were high value objects, and the number recovered from this area is unlikely to represent casual loss in every instance, more likely they represent deliberate deposition in a ritual context. Cropmarks to the south of the village, partially obscured by medieval ridge and furrow, are indicative of prehistoric field systems (HER refs. 52962, 54171, 54174, 54175).

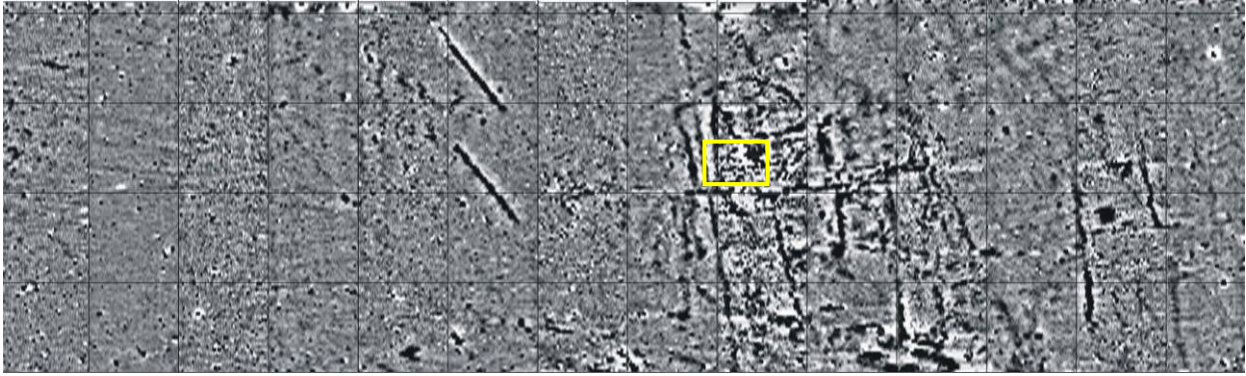
The A158, to the south of the site approximately marks the line of the Roman road running from the *colonia* of Lincoln to the coast. This route runs north-east from Lincoln, through the Wolds to the north of Horncastle, before turning to the south-east and passing through Burgh-le-Marsh, finally reaching the Roman coastline at a now lost settlement which may have occupied a ferry point across the Wash (Whitwell, 1992).

In the early medieval period, Sudbrooke and Scothern appear to have been closely related, as the land attached to both villages forms a single entry in the Domesday Survey, under the ownership of St. Peter's of Peterborough, and Kolsveinn, who paid dues on the land to St. Peter's (Foster & Longley 1976). Sudbrooke was without a parish church until 1860 (Pevsner & Harris, 1989). Furthermore, the place name evidence closely links the two villages. Sudbrooke is a derivation of the Old English *suth* and *broc*, meaning, 'the brook to the south', a name derived from its geographical relationship with Scothern (Cameron, 1998).

Prior to the current project, the site has been investigated on a number of occasions. The Historic Environment Record lists the site as a location of a possible Roman villa (HER ref. 50991). The entry for this site lists a number of fieldwalking projects that recovered a wide range of Roman domestic pottery and building material, it also mentions a bronze hand, possibly from a statue of Mars or Minerva recovered during the cleaning of a dyke running along the field boundary. A further entry suggests that the find of a Claudian coin originated from the project field (HER ref. 53065).

Between 1994 and 1998 a small number of geophysical and trial trenching interventions were undertaken, seemingly accompanied by ad hoc fieldwalking activities (Lyll & Clemence, 1994; Bee, 1998). These clearly demonstrated the archaeological potential of the site and confirmed its predominantly Roman dating. The 1998 report also includes a description of a stone column reportedly found within the field during the 1930s (during the course of the current project the present location of the column, now in private ownership, was ascertained).

More recently, a metal detector survey was carried out on the site under the guidance of the Finds Liaison Officer for Lincolnshire. A total of 276 artefacts were recovered, of which many were undiagnostic scrap lead and iron. The dateable finds were dominated by objects of Romano-British date, and were concentrated in the eastern half of the field. These included two brooches of 1<sup>st</sup>/2<sup>nd</sup> century date, twenty-nine 3<sup>rd</sup>/4<sup>th</sup> century coins, four copper alloy pin-heads, a rare lead lamp holder, and 109 iron nails of probable Roman date. A limited number of the finds were of medieval or post medieval date (Daubney, 2004).



**Fig. 2: Site Magnetometer Survey Results**  
Also showing excavation Area E.  
(Geophysics courtesy of Lincolnshire County Council)

A subsequent geophysical survey, commissioned by Lincolnshire County council, identified a large number of archaeologically significant anomalies (Fig. 2). These were interpreted as evidence of ditched enclosures and possible building remains of Romano-British date. The distribution of the anomalies paralleled that of the metal detector finds, being largely in the eastern half of the field (Bunn, 2005).

In early 2005 Pre-Construct Archaeology rapidly excavated a small number of trial trenches on the site for Lincolnshire County Council. Several linear slots and gullies, a number of small pits or postholes, and a single-coursed diagonally pitched roughly dressed limestone foundation feature were recorded. Dating was uniformly Roman – predominantly 1<sup>st</sup>-2<sup>nd</sup> century – while environmental analysis suggested the site was ‘calcareous grassland’ during its earliest phase (Clay, 2005, and *pers comm*).

During July 2005 a number of crop marks were observed across the field, which was planted with wheat at the time. Of particular note were indications of a large angular double ditched enclosure to the west of the present excavation area that was poorly indicated on the earlier geophysics plot (Spence, 2006).

(The foregoing text partially draws upon research originally conducted by Chris Clay of Pre-Construct Archaeology for Lincolnshire County Council; his work in this context is fully acknowledged).

### 3.2 SUMMARY OF PREVIOUS SEASON'S FINDINGS

The 2005 season of open area excavation provided excellent results upon which a number of interim observations and conclusions can be drawn. It is clear that the lower extents of the plough-soil remain generally undisturbed by modern ploughing, though there have clearly been episodes of damage and disturbance in the past. Some evidence was found for modern damage at a lower level (approximately 350mm below the current topsoil surface) caused by drainage improvement works using a 'flat-lifter'. This damage was not however uniform across the site, was no closer together than 800mm spacings, and penetrated only the upper levels of the Roman period stratification.

In Area A the presence of negative features within the lower levels of the topsoil, in the form of postholes and stakeholes, was of great interest. Although these features could not be firmly dated they were clearly not recent in origin, indeed the differential decay associated with the fence line in the northern half of the area suggest an early date(?) The fence line is of interest and is thought to represent either a reuse of the site for purely agricultural activities post the destruction of the earlier buildings or evidence for open-area activities to the immediate north of any constructional land-use, and hence contemporaneous with that use. The fence was not substantial and was likely to have been a short-term structure used for penning animals or to divide off a horticultural area.

The southern part of Area A provided evidence for, at this stage, three distinct phases of activity. Earliest was the laid-mortar floor, though fragmentary this was clearly of Roman date and most likely represented a good quality floor surface [excavation during 2006 confirmed this as the floor of a hypocaust system]. Convex moulded fragments of *op. sig.* found elsewhere on the site suggest the presence of features such as tanks or pools amongst the original buildings. It was difficult, given the area investigated and time available, to ascertain the true relationship between this flooring and surrounding contexts, but it was clear that damage and destruction had occurred at some point in the past. This damage may have been the result of earlier plough damage, however given the evidence for systematic demolition in Area B, it is possible that destruction was deliberate and involved the robbing of walls and foundations [again excavation during 2006 confirmed that the latter interpretation was primarily correct].

To the north of the mortar floor there was some rather weak evidence for what may have been an east-west orientated shuttered clay wall, or similar constructional feature, possibly with associated flooring (or sub-flooring) deposits. This feature had also suffered a robbing action but some time after disuse (destruction?), in particular after a deposit of soil-like material had formed over/around it ('dark-earth'?). At the eastern end of this feature a substantial post-pit had been dug.

In Area B two significant deposits of building material were revealed; deliberately dumped in this area they can have only been moved a short distance from their original structure, and indicate the intentional demolition of a once standing building. The northernmost dump contained significant quantities of painted wall plaster with a wide range of colouring and some evidence for figurative work and small-scale geometric pattern work. It was not possible on site to identify the plaster as having either an interior or exterior origin, though some substantial pieces with red and white colouration are suggestive of a possible external use.

Initial analysis of the recovered ceramics gave an indication of occupation at the site between the first and the later third centuries. In more detail the assemblage included a reasonable content of first to second century pottery, such as south Gaulish samian, but also a sherd of Iron Age tradition gritty ware. A significant proportion of the pottery indicated dates between the second and early third century, and displayed a range of forms appropriate to most



functional categories. Notably there were no sherds for which a fourth century date was applicable. Combined with the coin evidence gathered during the metal detecting survey it would not be unreasonable to suggest early occupation of the villa site during the first century with perhaps abandonment and demolition at some point during the later third, however it would seem that activity at the site – possibly robbing – continued into the fourth century.

The second season of excavation activity at Sudbrooke during 2006 provided substantive evidence for the presence on the site of a masonry building of Roman date. In area C a group of limestone wall footings, and associated robber-trenches, formed the walls of a square room equipped with an under-floor heating system or hypocaust. Finds evidence gathered from a sequence of robbing actions indicate that the room (or adjacent rooms) were furnished with (monochrome?) mosaic pavements and painted wall plaster. The deeper nature of the wall foundation trench to the north suggested that was an external wall of at least ten metres in length. This wall alignment was on an identical orientation to the fence alignment found some eleven metres further north during 2005. Close inspection of the various wall footings suggest that further internal rooms extend to both the south and east of the room uncovered during 2006, and which therefore lay beyond the limits of excavation during 2006.

Two small pits, or postholes, positioned above the inner faces of both the north and south walls of the hypocaust room – and which can be inferred to post-date the major phase of robbing activity – may be tentative evidence for some sort of structural re-use of the site.

In area D a substantial diagonal cut trench was found to contain a relatively modern field drain, however the material it principally cut through – extensive building material demolition dumps of Roman date – mirrored the findings in area B of the 2005 season. No evidence was found for any underlying in-situ constructional features and it is therefore believed that the deposits were formed by material taken from another part of the site. Two linear cut features of interest were found to contain material that was on the whole absent of finds. These later features were tentatively interpreted as having a possible horticultural function.

Overall the 2005 and 2006 excavations demonstrated positive evidence for the presence of a substantial masonry built villa-type structure of Roman date, which was provided with mosaic pavements, painted plaster walls, hypocaust system(s) and possibly tanks or pools; together suggestive of a bath-house. A series of post and stake features to the north indicate external activity on a similar alignment to the masonry structure. The building was, at some time in antiquity – probably during the late-Roman period – deliberately demolished. There is further evidence for some continuity of activity at the site that may have involved agricultural/horticultural use, and certainly included the systematic robbing of masonry. Other activity may have included later squatting or scavenging actions, though the current evidence for particular activities is weak.

## **METHODOLOGY**

### **4.1 THE PROJECT**

The project methodology was based upon a careful review of all available prior evidence concerning the site's archaeological potential, together with the key objectives to undertake a multi-season programme of research investigation in concert with fieldwork training. Prior to initiating the project various discussions took place with the land-owner (the late Mr Owen-Day), the county archaeological planning officer, the Finds Liaison Officer for Lincolnshire, the City of Lincoln Archaeologist and other interested parties, most notably Mr Bill Bee (a well respected local amateur archaeologist who had conducted previous work on the site), and representatives from Sudbrooke Parish Council. A 'project design' was drawn up and made available to interested parties. Prior to each season's activity the project design is reviewed and where necessary restructured.

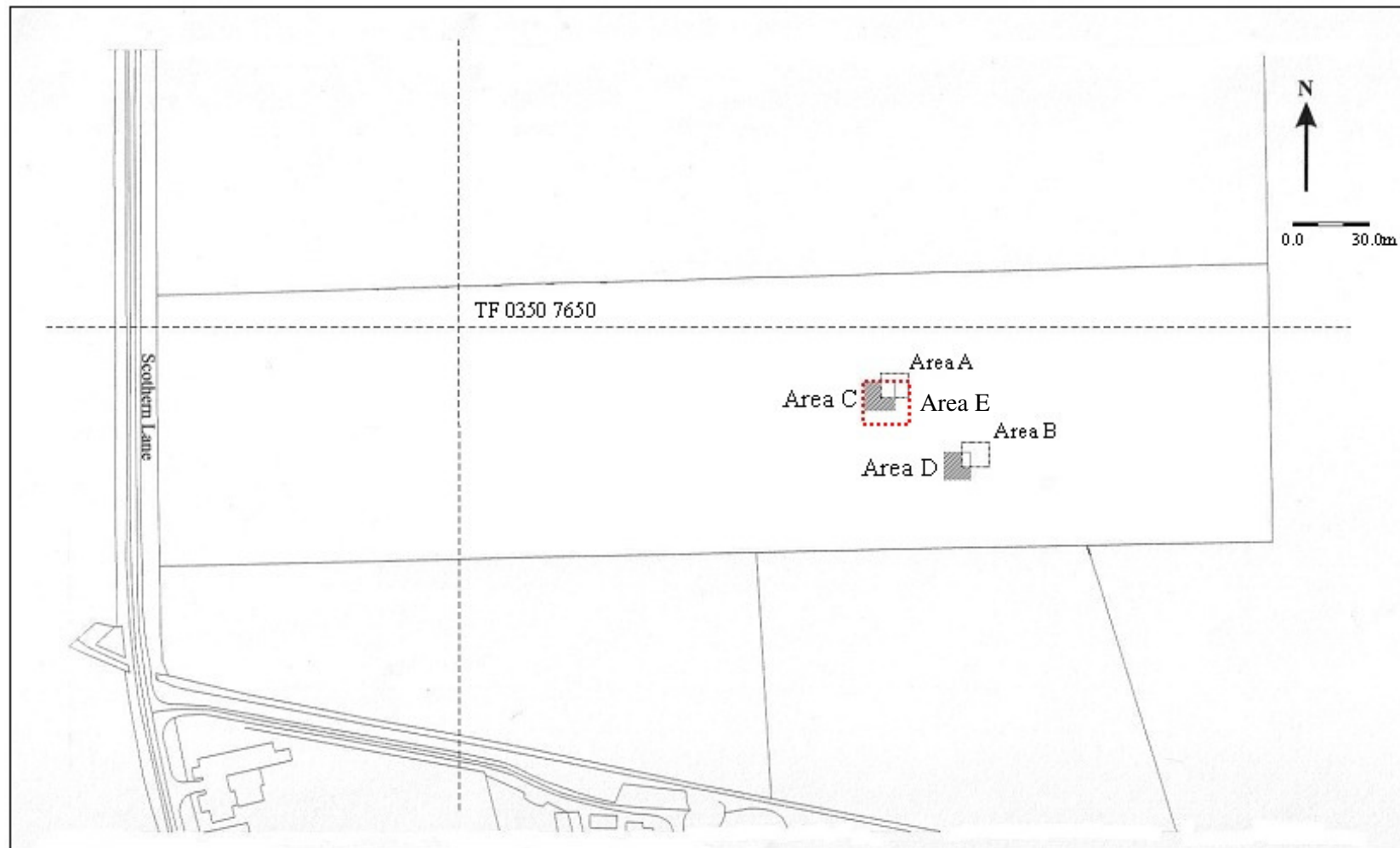
Immediately prior to the 2006 season of excavation it became apparent that the landowner had placed his land under Defra's environmental stewardship scheme. This meant that the archaeology present on this land required management within the limitations of the scheme's directives. It was therefore necessary for the landowner to obtain derogation from the scheme before the excavation could be allowed to go ahead – failure to gain derogation would have resulted in financial penalties being imposed against the landowner's grant income. Following negotiations with the Rural Development Agency, and approval of the Project Design, derogation was granted for the period of the 2006 season's excavation and for the area of the field. This process of approval and derogation will be repeated each year for the duration of either the project or the scheme.

#### **4.1.1 THE 2007 EXCAVATION**

Drawing on evidence from the geophysical surveys, metal-detector survey, the trial trenches and the results of the 2005 and 2006 excavations it was decided to open a single trench of 20 x 15 m (Area E). The trench was positioned to include the extents of Area C (2006) and extended beyond that area to the east, west and south. The intention was to reinvestigate the stratification of Area C and ascertain the position and form of any other structural elements associated with it which ran beyond the limits of the 2006 excavation. (See Fig.3 for location of excavation area).

Fieldwork began with topsoil clearance using a wheeled 'JCB' type excavator equipped with a 1.2m toothless ditching bucket. The topsoil was carefully removed in 10cm spits to a total depth of between 25-30cm. All excavation following clearance was conducted by hand, principally by trowelling. Prior to further excavation, and at regular intervals during the course of the fieldwork, an experienced metal detector operator scanned the surfaces of the trenches tagging the position of all signals to ensure enhanced object recovery during stratigraphic excavation (this procedure was slightly altered following the illegal trespass, damage and theft of metal objects from the excavation area by an unknown individual during the week prior to excavation). All excavated deposits were systematically dry-sieved using a 4.0mm mesh.

Single context recording was employed throughout the stratigraphic excavation of the site (see, Spence, 1990). For planning purposes a 5.0m survey grid was used that was unique to the 2006 season although sufficient measurements were taken to relate this grid with the grids used during previous seasons. All vertical measurements were made to Ordnance Datum using a localised TBM. The author directed the excavation with the assistance of three experienced field archaeologists. An experienced archaeological student acted as on-site finds assistant supported by Roman ceramic specialists Barbara Precious and Maggi Darling who



**Fig. 3: Site location plan showing Areas A & B (2005); C & D (2006) and Area E (2007)**  
(Location data: SUD07 Area E grid-points 100/200 [OS TF 03712/76456]; 120/200 [OS TF 03732/76457])

made weekly visits to conduct training and ceramics review. Conservation advice was obtained from Lincolnshire County Council Conservation Services. A full photographic record was compiled under the supervision of a professional and appropriately experienced photographer, Lynne McEwan. Osteological advice and analysis was provided by Maria Leroi, a qualified human osteologist.

Excavation proceeded at a sufficiently slow pace to allow suitable time for training activities and considered decision-making prior to each stage of excavation. Where significant archaeological features were uncovered they were either systematically sampled or preserved in-situ.

At the end of the 2007 season an extensive checking and review of the site records was undertaken to ensure that a sufficiently complete record of the site as it was left was available with the intention to return to continue the fieldwork during 2008. On completion the excavated areas were covered in a semi-permeable membrane and backfilled by hand using sieved sub-soil up to the level of the base of the surrounding topsoil. Where appropriate inert sand was used as a protective marker over higher elements of the surviving stratification, in particular over the walls and floor of the hypocaust. The same mechanical excavator used to open the site was employed to conduct further backfilling and making-good of the agricultural topsoil.

Machine clearance was undertaken on 2 July and controlled excavation commenced on 9 July. Recording ended on 8 August with machine backfilling completed on 30 August. In all 23 days were spent on site in excavation and recording activities.

#### 4.1.2 TRAINING ACTIVITIES

One of the key objectives of the project is to provide a well-structured programme of fieldwork training. The training excavation was devised and delivered in accordance with the 'EAA Code of Practice for Fieldwork Training' (2000). The nature of the archaeology and stratification on the site are considered suitable and appropriate to the level of training offered. Prior to the project commencement appropriately qualified and suitably experienced archaeologists or specialists were secured to deliver each aspect of the training programme.

All trainees were assessed for previous fieldwork experience before joining the excavation; a number were found to have had useful previous experience while others were currently studying archaeology at undergraduate or other levels. On arrival all trainees were issued with a training folder with background information, including the project research design, information on fieldwork methods and the recording system, health and safety information, and a personal journal.

**TABLE 1**  
***Weekly Programme of Training Activities***

<b>Training Activities</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
<b>Morning</b>	Induction Health & Safety Site History Site Procedures	Surveying Levelling  <i>Excavation Finds Processing</i>	Roman Ceramics Workshop  <i>Excavation Finds Processing</i>	Photography Workshop  <i>Excavation Finds Processing</i>	<i>Excavation Finds Processing</i>
<b>Afternoon</b>	Recording System Excavation Finds Processing	<i>Excavation Finds Processing</i>	<i>Excavation Finds Processing</i>	<i>Excavation Finds Processing</i>	<i>Excavation Finds Processing</i>

Each week of the excavation repeated a pattern of training that ensured that all new arrivals received the same level of formal instruction (Table 1). Trainees were strongly encouraged to undertake independent recording and planning activities under close supervision and guidance – the integrity of the site record was protected by immediate record checking and, if necessary, correction. The site director or assistants made all decisions concerning the course of stratigraphic excavation and the deployment of trainees.

The training programme covered a variety of areas from fieldwork induction through instructional learning, such as recording and planning methods, to practical activities, including excavation and surveying. In addition to basic fieldwork skills volunteers also participated in specialist led workshops on Roman ceramics and archaeological photography.

Sixty-four trainees attended for five or more days, in addition eight Bishop Grosseteste students attended for up to ten days each. While it was not possible at this point in time to provide institutional accreditation all participants were offered the opportunity to receive a 'letter of participation' outlining the activities undertaken.

#### **4.1.3 PUBLIC ARCHAEOLOGY AND EDUCATION ACTIVITIES**

The excavation site is well known within the immediate local community and it was recognised that the excavation itself would generate considerable interest, as it had done in previous seasons. It was therefore decided to continue to offer a range of public archaeology activities commensurate with the level of resources available during the 2007 season of fieldwork. Contact was made initially with local archaeology and heritage groups to provide information about the excavation. Following a successful bid for HEIF3 'enterprise' funding eight undergraduate students taking the Heritage Studies degree programme at Bishop Grosseteste University College Lincoln were recruited to devise and deliver the public archaeology programme working in partnership with Lindum Heritage.

The core elements of the programme were:

1. The production of a leaflet publicising the excavation and giving information about activities at the site.
2. The review and re-erection of the three display boards from previous seasons.
3. Activities for children during National Archaeology Week.
4. Weekly public site tours.

The display boards focused on three themes; the history of the Sudbrooke site, archaeological excavation techniques, and the nature of Roman villas in Britain.

The National Archaeology Week activities were particularly targeted at children attending the two local schools – Ellison Boulter Primary School in Scothern and Nettleham Junior School. Leaflets were distributed through the schools, local libraries and public venues in Lincoln (including The Collection) thus reaching a wide section of the local community. The students constructed a 'digging pit' filled with clean sieved topsoil and seeded with clearly marked unstratified pottery from a small teaching collection. This proved extremely popular with the children who ranged in age from approximately two to twelve, and also a number of enthusiastic adults. An additional area was made available for metal-detecting activities with

clean sieved topsoil seeded with modern, but pre-decimal, coins. A key element of the metal detecting activity was to explain ‘responsible detecting’ thus each child was given a leaflet explaining this approach and the nature of the Portable Antiquities Scheme. The children were also shown how to sieve for finds, and wash and draw finds. Arrangements were made for the Lincolnshire Finds Liaison Officer, Adam Daubney, to be present on site and to work with both children and adults during the event. In all some sixty children attended the NAW session. The activities (minus the FLO) were repeated for a year 5 group of sixty children from a local primary school and a local Cub Scout group numbering twenty-five boys and girls.



**Fig. 4: School children viewing finds**

Public site tours were scheduled for each Thursday afternoon throughout the course of the excavation; in addition two local archaeology groups (Navenby Archaeology Group and the Friends of Lincoln Archaeology) also booked private evening tours. Unfortunately the exceptionally wet weather experienced during the summer of 2007 meant that a number of these tours had to be cancelled on health and safety grounds. Bishop Grosseteste University College brought a group of sixty prospective students on a special site visit during the final week of the excavation. The Heritage Studies students undertook all general guiding activities, though archaeologists were on hand to answer questions from each group. In total some 250 members of the public participated in these tours with numerous others making casual visits to the site at other times.

The 2007 season saw two further visits of note. During the second week of the excavation staff of the Lincolnshire County Council Heritage Section brought a group of international visiting archaeologists and antiquities workers on an extended site visit. The archaeologists in question came from Ethiopia, Egypt and Turkey. Another extended visit was made by Sam Gorin, co-author of *The Archaeology Coursebook*, in order to review best practice in excavation techniques prior to the production of a new edition of this work.

#### **VISITOR NUMBERS FOR 2007**

Children	150
Adults	300
<b>TOTAL</b>	<b>450</b>

## RESULTS

*Note: Given the incomplete nature of excavation at this point in time it was decided that the following text would be written in reverse stratigraphic order, commencing with the latest unit of stratification. The context descriptions in the following text are generally presented in an abridged form; the results section should therefore be read in conjunction with Appendix 1, which provides the full context descriptions. Context numbers are to be found in square brackets.*

### 5.1 SITE WIDE INVESTIGATIONS

Throughout the course of the excavation a number of unstratified finds were recovered occasionally from the surface of the field, these were allocated the general context number [100]. During the topsoil clearance of area E unstratified finds, derived from the ‘plough soil’, were systematically collected and given the context number [101]. Such finds included pottery and tile fragments, tesserae, iron nails, and glass.

### 5.2 AREA E

Excavation in Area E began with the cleaning of the surface of the stratification and collection of finds disturbed during that process [102]; this activity also removed any spoil generated by the activities of the unknown metal-detectorist who trespassed onto the site on the night of 4<sup>th</sup> July, and helped to delineate the extent of any damage caused. This was followed by the hand-excavated removal of an area-wide deposit of loosely compacted mid-brown silty-sand; this was interpreted as the lower levels of the plough-soil at the interface with the underlying archaeological stratification ([103] to [114]). The deposit contained a range of inclusions but principally moderate medium fragments of limestone and ceramic building material assumed to have derived from occasional plough disturbance of the underlying stratification and had an upper height of between +12.28 and +12.42 m OD. In order to affect more efficient excavation and to allocate finds to more closely defined spatial locations the deposit was divided into twelve contexts according to grid square (see Fig. 5).

Grid Square 100/210  Context [111]	Grid Square 105/210  Context [112]	Grid Square 110/210  Context [113]	Grid Square 115/210  Context [114]
Grid Square 100/205  Context [107]	Grid Square 105/205  Context [108]	Grid Square 110/205  Context [109]	Grid Square 115/205  Context [110]
Grid Square 100/200  Context [103]	Grid Square 105/200  Context [104]	Grid Square 110/200  Context [105]	Grid Square 115/200  Context [106]

**Fig. 5: The allocation of context numbers to grid squares in Area E. North to the top.**



A further deposit of similar description and interpretation was removed across the westernmost five metres of the excavation area. This was a loose to firmly compacted, mid-brown silty sand, with occasional to moderate small fragments limestone and tile [128]. On removal of this deposit a number of discrete features were found to overlay or cut into the underlying natural orangey-yellow sand [184]. The latest of which was presumed to be a stretch of south-east/north-west orientated field drain represented by a linear cut 140-160mm wide with a sharp break of slope at the top, vertical sides breaking sharply with a regular flat base and having a maximum depth 130mm [166]; the backfill [167] consisted of a softly compacted, orangey yellow-brown sandy silt, with frequent fine angular pebbles and pea-grit. In the north-east part of the excavated area two mixed deposits of mid to light brown silty coarse sand, with very frequent large and medium fragments of limestone and tile, and moderate medium patches and lenses of ash and charcoal [115] and [118] were interpreted as activity/demolition disturbance post-dating the main phase of structural robbing actions. Similar deposits were revealed across the extents of the southern central part of the excavated area; context [117] was a loosely compacted, mid to dark brown silty medium sand which overlay an almost identical deposit [152] confined to a 1.90 x 2.00 m investigative 'sondage' excavated within grid square 105/200.



**Fig. 6: General view of area E looking toward the south-west during the first week of excavation**

Removal of [152] revealed the mixed dark brown, silty sand backfill [160] of an L-shaped robber trench [164] with an average width of 950mm and which bottomed at +11.56m OD (see Fig.7). Further evidence of the robber trench and backfill was found some three metres to the west, where context [169] – a firmly compacted, orangey-brown silty sand, with frequent medium and large irregular limestone fragments – was found to fill a regular east-west orientated cut [185] with an average width of 800mm which ran west for a further 700mm (not excavated). To the north, 6.60 m, the continuation of the robbed-out feature was found to include the in situ remains of a wall-footing comprised of roughly shaped limestone blocks

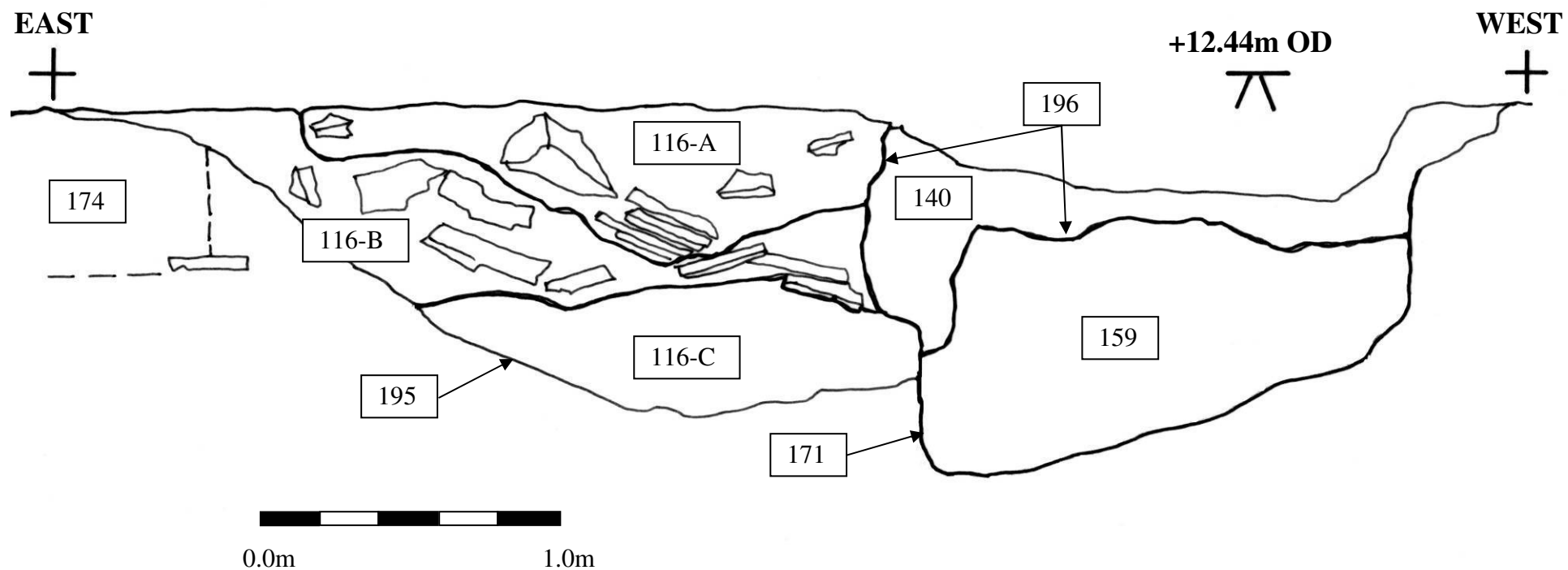


100 x 300 x 50mm, two courses of which survived laid on edge in a vertical herringbone fashion bonded with a dry mortar and sand mix [159]. The masonry had an average width of 900mm and was exposed over 2.20 m of its length, although it extended further to the north beyond the limit of excavation. The masonry sat within a regular linear trench [171] with a sloping base which bottomed at +11.79 m OD. The top of this wall had been robbed by a later cutting action [196] this cut also cut through the backfill of an earlier robbing action associated with the western wall [174]/(SUD06 [44]) of the hypocaust room first revealed during the 2006 season. Cut [196] was backfilled with a weakly cemented and friable, mid-grey brown, medium sand mixed with very frequent small angular pebbles, occasional large fragments of tile, and limestone, medium fragments of painted plaster. (See Figs. 8 & 9).



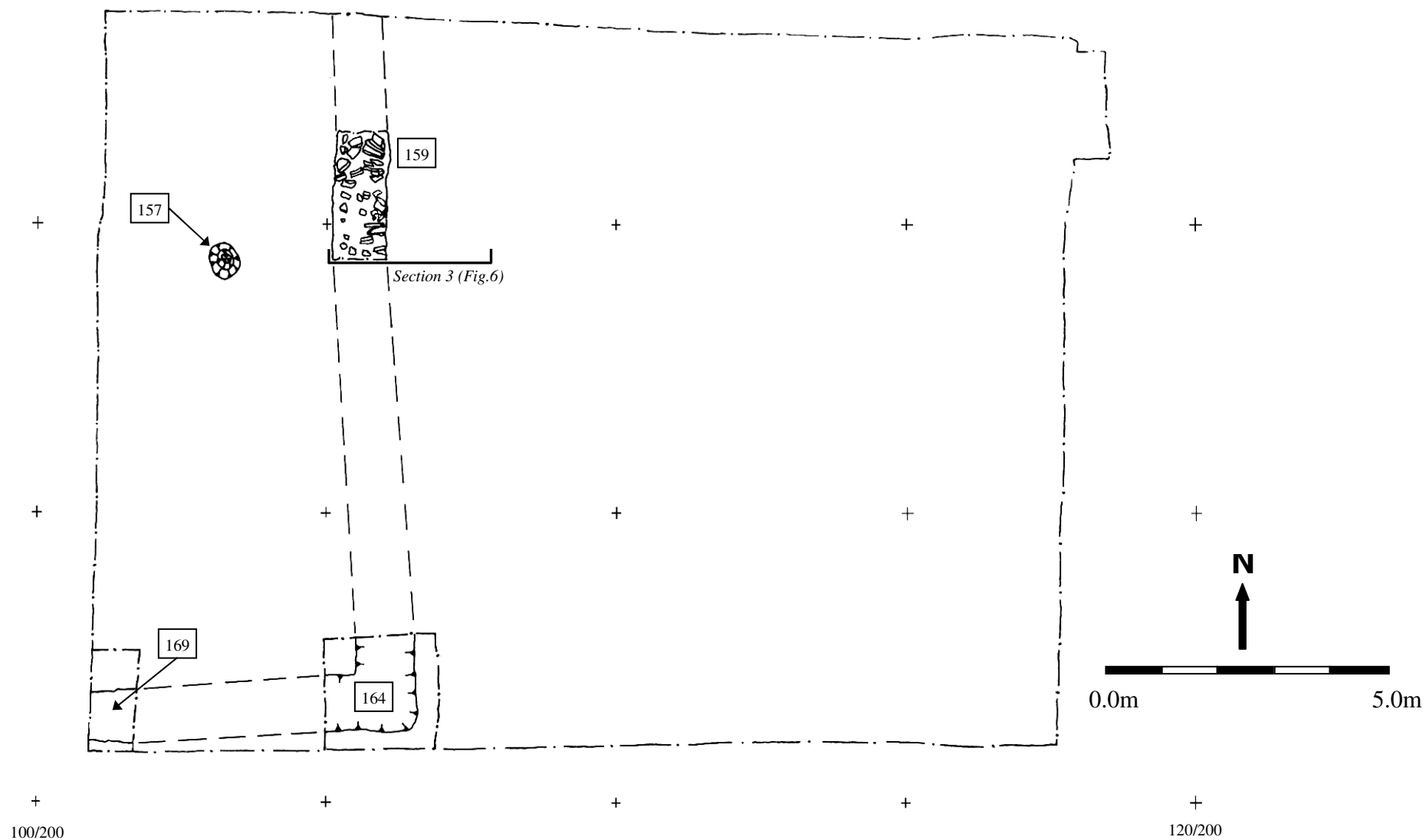
**Fig. 7: The south-eastern turn of the large L-shaped robber trench [164] with backfill [160] still in situ prior to excavation, looking toward the south**  
*Scale 0.5m*

To the west, and north, of the line of this L-shaped wall footing/robber trench three discrete features were excavated. At the western limit of Area E an irregular patch of loosely compacted, light greyish-brown, silty sand, with occasional large fragments of limestone [154] was found to fill a cut that was very irregular circular in plan, extending 1700mm north-south and 1550mm east-west (truncated). The cut had an imperceptible break of slope at the top with very gently sloping sides which again broke imperceptibly with an uneven shallow and concave base; maximum depth 140mm [173]. Approximately a metre further north another irregular patch of soft to loosely compacted mid-brown silty medium sand, with frequent large and medium fragments limestone, was also recorded [155]. This was set within an elongated irregular oval shaped cut with a north-south length of 1320mm and an east-west width of 550mm. The break of slope with the top was sharp, the sides very shallow and gradually sloping to meet imperceptibly with an irregular concave base; maximum depth 50mm [199]. Both of these features were interpreted as building material debris levelling dumps introduced into irregular shallow disturbances of the underlying natural. At a point some 1.5 m to the west of the north-south element of the herringbone wall footing [159] a post-pit and post-pipe feature was excavated. The posthole itself was oval in plan, 480-600mm, with a depth of 370mm, the sides were steeply sloping, gently stepped then steeply sloping again, they had a sharp break of slope with a flat base [157]. The packing inserted into



**Fig. 8: North-facing section (3) through robbing and construction cuts for walls [174] and [159]**

*Scale 1:10*



**Fig. 9: Plan showing evidence for large western masonry structure**  
*Scale 1:100*

the posthole comprised moderately compact, orangey brown silty medium sand, with frequent large fragments of limestone and moderate large fragments of mortar and plaster [153]. This had been originally packed around a post which had since been removed or rotted and was now represented by a post-pipe and fill. The post-pipe [156] was vertical and circular in plan with a diameter of 180mm; the sides were vertical but irregular with a sharp break of slope at the base onto an inserted flat faced stone (part of [153]). The fill of the post-pipe was a loosely compacted mid-light brown clayey fine sand with occasional small fragments of tile and sub-angular pebbles [198]. (See Fig. 9).

In the north-east corner of Area E there was evidence of activities that post-date the main phase of structural robbing but appear, by their characteristics, to have occurred soon after the demise of the building suggesting that the wider robbing actions took place soon after the structure was vacated. At the eastern limit of excavation two successive deposits the later of which appeared to include a small quantity of refuse material; context [129] comprised firmly compacted mid-dark brown sandy silt, with frequent small and medium fragments of tile, shell, mortar and limestone. Beneath this deposit context [137] comprised a firm to loosely compacted brown grey silty sand with few inclusions; this deposit was stratigraphically later than the fill [192] of pit [193] but also physically overlay the robbing backfill [130] above wall [139]. Pit [193] was not excavated during 2007 but was observed to be roughly circular in plan with an approximate diameter of 1.0m.; the pit clearly cut through the backfill [130] which overlay wall [138].

Immediately to the west of this feature, and approximately 700mm south of wall [138], an elongated pit was excavated. In plan the pit cut was an elongated dumbbell shape with rounded ends, width varied between 360-620mm, length was 2540mm (see Fig.11). The break of slope at the top was sharp with vertical sides which had a concave break of slope with a generally concave base which had a gentle slope towards centre. This cut was oriented east-west [147]. The original purpose of the pit is unknown, based on comparable shaped pits on other excavations, it may have had an oven or furnace type function, however the absence of direct evidence for in situ burning might indicate it either un-used or had a lining which had been removed. The pit was deliberately backfilled with a loosely compacted dark grey-black sandy silt, with very frequent small fragments and flecks of charcoal, and moderate very large (almost complete) fragments of roofing tiles (tegulae and imbrices). The finds also included a blunt-conical shaped mortar 'plug' (length 160mm, diameter 160-100mm), and a large fragment of limestone cylindrical column (diameter 270mm), which had a flat base(?) with a roughly squared central mortise (50 x 50mm and 15mm deep), the top(?) appeared to have been roughly hewn away (length 195mm) – it is possible that the interpretation of base and top should be transposed (further comparative research on this item is required).

The main phase of robbing activity concentrated on the walls of the hypocaust structure to the north of the excavated area and a further masonry structure to the south. The latest element of this phase was a relatively small pit (or posthole) that cut into wall [139] (SUD06 [45]), the cut was sub-square in plan tapering toward the south, 1100 x 1040mm in dimensions with corners which varied from sharp to rounded. The sides changed from a vertical to concave slope and meet the flat base smoothly, maximum depth was 200mm (this cut [123] is the southern continuation of SUD06 [29]). The cut was backfilled with moderately compact, light grey-brown silty sand, with moderate small and medium fragments mortar and opus signinum [122]. This pit also cut through an extensive spread of material to the south of wall [139] and laying over the floor and walls of the eastern smaller hypocaust room (see below). The deposit was a moderate to loosely compacted mid orangey-brown medium sand with some silt and very frequent small angular pebbles and fragments of tile and mortar [119], interpreted as a spread of demolition related tread stratigraphically later than but probably contemporary with robber trenches to the south and east.

Beneath [119], and seen principally in section, was a friable light pinky-red spread of crushed and disturbed opus signinum [131] (not excavated during 2007). Towards the central part of the excavated area a linear robber trench, orientated east-west, was found to extend at least 7.0 m across the site. The cut had parallel linear edges with a width that varied between 770-840mm; the excavated length was 2500mm (in two separate sections). Whilst the south side was steeply sloping with a sharp break of slope with base the north side was more gradual and irregular with an imperceptible to gradual break of slope with base, which was uneven but generally flat. The trench had a maximum depth 280mm [146]. This robber trench was backfilled with a mixed deposit comprising a loosely compacted dark grey to mid yellow flecked brown silty sand, containing moderate medium fragments of limestone, tile and small pebbles [135] and [136]. To the east of the smaller hypocaust room the line of a north-south orientated robber trench was delineated [148], the backfill of this trench [134] was cut through by the robber trench to the south [146] indicating two episodes of wall robbing activity. Robber trench [148] comprised a linear cut orientated north-south with a maximum width of 780mm. Although observed over a length of approximately 3.0m it was only excavated along 2450mm of its length. The sides of the cut were steeply sloping with a sharp break of slope to a flat base, maximum depth was 110mm. The cut was backfilled with a weakly cemented to loosely compact dark grey-brown silty sand, with frequent small fragments of limestone, mortar and angular small pebbles [134]. (See Fig. 11).



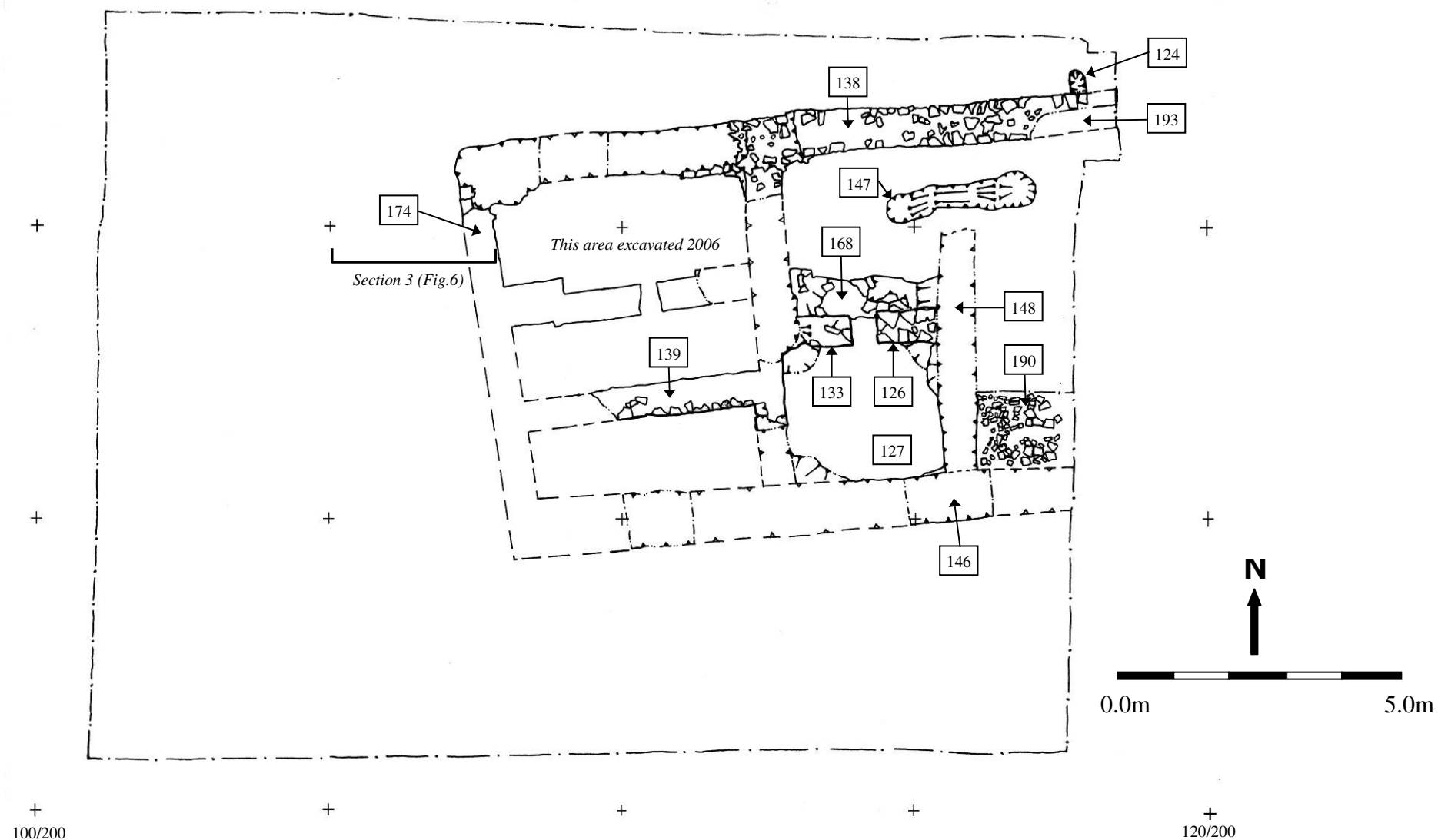
**Fig. 10: Robber trench [191] in the foreground with the surviving length of wall foundation [138] beyond, looking toward the east**  
*Scales: 0.5m*

To the north of the site the large east-west robber trench first investigated during 2006 was subjected to further excavation. The robbing action had totally removed evidence for the wall footings within the western extents of the trench, apart from a small section of north-south orientated wall along the western side of the larger hypocaust room [174] (SUD06 [44]). An extensive length of 7.45m of masonry wall footings [138] did survive however within the eastern extents of the robber trench (see Figs. 10 & 11). The robber trench itself was recorded in both plan [191] and section [195] and was found to be a regular linear cut with parallel sides, its width varied from 700-1150mm, total length within excavated area equated to approximately 13.0m. The sides had a sharp break of slope at the top and were uniformly vertical, with a generally sharp break of slope with the base. The base of the robbing cut varied from flat but stepped where it bottomed onto the surviving masonry to smooth and flat where wall removed, in which case it was up to 450mm deep. At its western end the robber trench was found to turn to the south and follow the western edge of the hypocaust room. At the base of this turn a small deposit was interpreted as tread associated with the robbing action prior to backfilling; the tread deposit was a softly compacted dark grey-black sandy silt, with occasional small fragments and flecks of shell, charcoal and tile [172].

The main backfill of the robber trench comprised three deposits recorded at both the eastern and western ends of the robber trench. At the western end the fill was a loosely compacted mid to light orange-brown slightly silty medium sand, with very frequent small, medium and large fragments of mortar, and moderate medium fragments of tile and limestone, small fragments tile, limestone and medium angular pebbles [116]. Towards the western end – but restricted to grid square 110/210 the fill was recorded as a loosely compacted yellow brown coarse sand with some small angular and sub-round pebbles, and occasional tesserae and small and medium fragments tile, mortar and limestone [120]. Within grid square 115/210 – and predominantly overlying the remains of the in situ wall footings [138] – the fill was recorded as varying from firm to softly compacted mid-light orange-brown crushed coarse to medium sandy-mortar including some very fine angular 'pea-grit' [130].

The main elements of the masonry structure to the north of the excavated area comprised two adjoining hypocaust rooms and a further 'room' thought to represent the hypocaust furnace, or stoke-hole, area. The larger hypocaust room was excavated during the 2006 season with little additional work conducted on this feature during 2007, although two elements were further investigated. One of these was the north-south element of the western wall which was found, in section, to have a width of 500mm [174] (SUD06 [44]). The other was the T-shaped wall footing [139] (SUD06 [45]) this investigation revealed both the further line of its southern edge and the limits of its eastern edge (width 500mm). To the east of this wall a roughly square area (2.35 x 2.60m) was formed by a level surface deposit of very compact well cemented mid-orangy pink-brown opus signinum [127]. This mortar surface had been laid over a foundation raft of irregularly hewn medium sized fragments of flattened limestone set roughly on edge at irregular angles from 45 degrees to horizontal [194]. Together these were interpreted as the sub-floor of a hypocaust system (the surface of this floor was plough damaged to a much greater extent than the floor of the larger room excavated during 2006). The northern limit of the room was formed by two small lengths of limestone wall [126] and [133] orientated east-west but separated by a gap of 450mm into which the surface material of [127] extended, and was thus interpreted as a flue. The room was bounded to the south by robber trench [146] and to the east by robber trench [148]. On the eastern side of robber trench [148] a deposit of moderately compact mid-brown roughly hewn large limestone set in a very mixed rough opus signinum sandy matrix and containing frequent medium fragments of tile and mortar was recorded; this (possibly plough disturbed deposit) was interpreted as either a floor make-up raft, indicative of a further 'room' to the east, or an external cobbled surface [190] (see Figs. 11 & 12).





**Fig. 11: Plan showing evidence for northern masonry structure with hypocausts**  
*Scale 1:100*



**Fig. 12: The op sig sub-floor [127] of the smaller hypocaust room,  
looking toward the west**  
*Scale: 1.0m*

To the immediate north of this flue (and apparently extending further to the east than the line of the robber trench [148]) were a series of deposits which by their character have been interpreted as representing evidence for the hypocaust system's furnace or stoke-hole. The earliest of these was a mid-pink red crushed opus signinum spread (principally seen in section and not excavated during 2007) [189]. Above this and immediately adjacent to the flue structure was a relatively small deposit of firmly compacted material coloured pinky red with darker burnt patches comprising large fragments of flat limestone and tiles set into a crushed mortar/opus signinum matrix [168]. This evidence of clear, though not extensive, in situ burning suggests that this deposit represented the rough flooring of the furnace room or area. Two further deposits in this area extended north to the line of wall [138]. The earliest of which was a moderately compact dark grey-brown silty sand with a large component of crushed charcoal and moderate small and medium fragments tile and limestone, also frequent inclusions of large fragments of tile and limestone [150]. This was tentatively interpreted as destruction/demolition debris – but with a certain amount of reworking. The other deposit was a weakly cemented light grey crushed charcoal and coarse to medium sand with patches of black charcoal and yellow ash, interlaced with bands of coarse pebbles [149]. This was interpreted as the debris from furnace operations, however once again this deposit appeared partially disturbed and reworked. Neither of these deposits was fully excavated during 2007 and should be further investigated during 2008.

To the north of these deposits the constructional phase of activity associated with wall [138] was recorded. This comprised the cutting of a generally regular linear east-west orientated construction trench, revealed to a maximum length 8700mm. The trench width varied between 700-1000mm and was regular along southern edge although more irregular along northern edge which appeared to have been over cut. There was a sharp break of slope at the top, sides steeply sloping to vertical with a sharp break of slope which was generally flat. The cut had a maximum depth of 480mm [143]. Within the trench wall [138] was constructed;

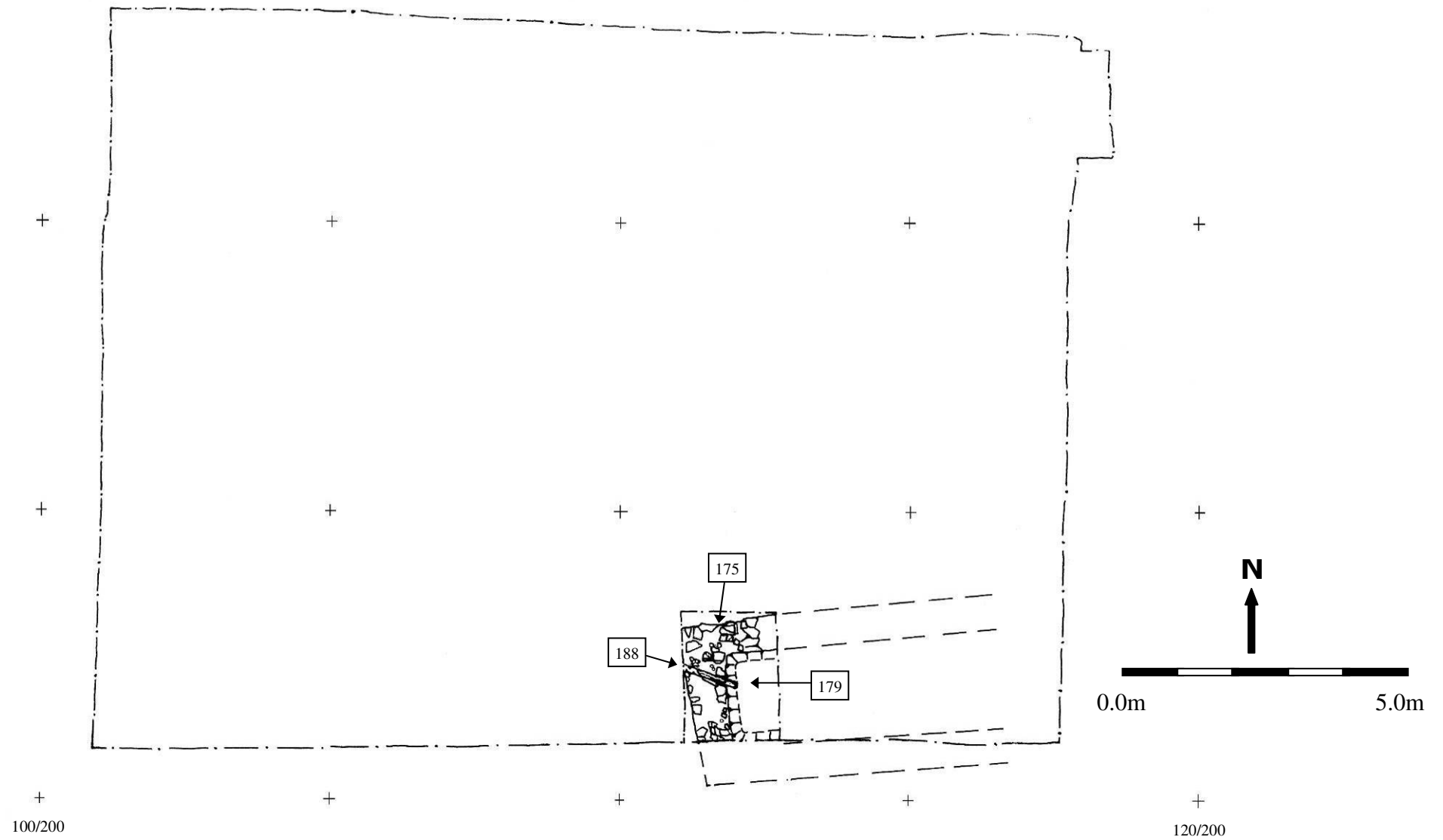


comprised of roughly finished and squared limestone pieces, set in a yellow-orange brown sandy mortar, and roughly faced on both north and south sides. The maximum excavated length was 7450mm, the width varied between 700-800mm. Approximately 100mm from west end there was a north-south oriented return wall running to the south, 700mm wide, and which formed the eastern wall of the larger hypocaust room. The space between the northern side of the masonry and the irregular edge of the construction trench was backfilled with a firmly compacted dark grey-brown sandy silt and a small proportion of fine grit, with moderate pea-grit and small angular pebbles, also occasional large limestone and tile fragments set vertically within the fill [142]. (See Fig. 10 & 11).



**Fig. 13: The op sig 'plunge pool' base [179] set within wall [175], also showing the lead out-flow pipe [188], looking toward the east**  
*Scale 0.20m*

At the southern extents of the excavated area a further masonry structure was recorded, selectively excavated and interpreted as a narrow east-west aligned room forming a plunge-pool. The earliest element of this feature was the cutting of a rectangular construction trench [181] (not excavated) which contained an L-shaped (where exposed) masonry wall footing [175]. This element was constructed of roughly shaped irregular blocks of limestone set with irregular courses bonded with a soft very light creamy brown sandy mortar; the north-south length extended to 2000mm, with a width of 620mm, the east-west length was exposed along 1600mm of its length. A linear slot had been formed within the north-south element of [175] with regular, parallel sides, 90-100mm wide and with a maximum depth 120mm [177]. The sides were vertical with a very gradual break of slope with the base which was smooth and concave. The slot was orientated north-west-west by south-east-east and sloped down 60mm over its length from east to west. Set into this slot, and presumably once concealed by the now truncated upper courses of masonry, was a lead pipe [188]. The pipe was constructed from 5-10mm thick lead sheet which was rolled into a tube and crimped with a c.30mm wide flat joint running along its 620mm length. The external diameter was c.80mm and was well finished at its eastern end but truncated at the western limit. The pipe was interpreted as an outfall from the base of the plunge pool. The pool itself was formed by the introduction of a smooth light grey to brown grey opus signinum render [179] laid over a foundation raft of



**Fig. 14: Plan showing evidence for masonry 'plunge pool' structure**  
*Scale 1:100*



very compact dark grey to pinky red medium sand with small and medium fragments of tile and limestone [187]. The junction between the walls and base was consolidated with the introduction of a reddish-pink opus signinum quarter-round moulding, this was then carried up the adjoining walls to form a thin upstanding render (to a maximum height of 60mm) [178]. (See Figs.13 & 14).

Evidence for the demise of this building/room was evidenced by a relatively thin deposit of very loosely compacted black very fine silt, fine sand and crushed charcoal [165] overlaying the opus signinum floor [179]. The deposit contained frequent inclusions of small and medium fragments of painted plaster, including a significant quantity of red and green painted plaster that appeared to have fallen during destruction or collapse, this material was however poorly sorted. Above and sealing this deposit was a further layer of moderate to well compacted mid-yellow brown silty sand, with frequent inclusions of small and medium angular pebbles, small and medium fragments orangey sandy mortar and limestone, and moderate medium fragments of tile, plaster, and large fragments limestone; this was interpreted as evidence of post-destruction demolition activity [151].



**Fig. 15: Infant skeleton [121] prior to excavation, north is to the right**  
*Scale 0.10m*

Two features excavated during 2007 provided clear evidence for activity on the site pre-dating the construction of the masonry structures. To the north of the excavated area a single inhumation was found to have been cut through by the large east-west construction trench [143]. The burial was of a new or still born infant [121], positioned in a north-south orientation within a shallow (but truncated) oval grave cut [124] (see Figs. 11 & 15) and backfilled with softly compacted mid-brown medium sand with small angular pebbles and grit [125]. (See appendix 3 for further analysis). [Note that all appropriate permissions were obtained from the Ministry of Justice prior to excavation of the human remains]. The other feature was observed (but only very partially excavated) to the south of the excavated area. Here four observations were made of a loose to moderately compacted very dark grey brown sandy organic silt, with frequent inclusions of small and medium fragments of limestone, tile and shell, also moderate small and medium fragments of tile, occasional whole oyster shells

and small fragments of bone and pottery [161], [162], [180] and [183]. These deposits were thought to be contained within a deep cut, only observed in one section, but having a regular shaped profile with a sharp break of slope at the top and steeply sloping sides (not bottomed) [141]. Taken together these deposits were interpreted as being the refuse derived backfill of a substantial ditch which appears to run from east-west across the excavated area.

Redeposited natural was recorded in two areas of the site. To the north of wall [138] this was recorded as a firmly compacted orange-brown silty fine sand, with occasional small rounded and angular pebbles [144]. To the south of the excavated area this material was recorded as well-compacted orangey-brown sand, with occasional flecks of shell and charcoal [176]. Apparently undisturbed natural was recorded on three occasions during the excavation. This was recorded to the north of the site as a firmly compacted orange-yellow brown fine sand, with occasional sub-angular pebbles [186], to the west as a firmly compacted reddish-orange fine sand [184] and to the south of the site as a loosely compacted light yellow silty fine sand [163].

## **6. DISCUSSION AND CONCLUSION**

The third season of excavation activity at Sudbrooke was very successful and despite being hampered by bad weather conditions has provided evidence upon which a number of interim observations and conclusions can be drawn. The excavation supplied evidence for a substantial masonry structure (mainly robbed out) to the west of the excavated area. This was evidenced by a large north-south orientated wall footing which, as an entirely robbed out feature, was found to turn to the west at the southern limit of Area E. The relationship of this structure to the masonry building revealed in 2006 was not entirely clear but it seemed, on the current evidence, to post-date it. The 2007 season provided a further opportunity to investigate that building of Roman date, with further rooms and structures associated with the building being delineated. The structure was found to comprise at least two rooms which were equipped with under-floor heating or hypocaust systems, a room or area associated with furnace or stokehole activity, and possibly an adjacent external area. Finds evidence gathered from a sequence of robbing actions indicate that the rooms were furnished with (monochrome?) mosaic pavements and painted wall plaster. The deeper nature of the wall foundation trench to the north suggests that this was likely to have been an external wall. The alignment of this wall was on an identical orientation to the fence alignment found some eleven metres to the north during 2005. To the south of Area E a further masonry structure was investigated, interpreted as a plunge-pool, the structure is likely to have been contemporary with the hypocaust rooms to the north. This building seemed to have been damaged, or destroyed by fire and subsequently demolished.

Evidence was also found for activities that both pre- and post-date the masonry structures. The later activity concentrated on various robbing actions, particularly the removal of wall footings. The earlier activities were evidenced by the burial of an infant to the north of the site and the cutting and backfilling of a large ditch-like feature to the south. This latter feature, and its refuse-like backfill, will certainly merit further investigation during 2008.

Thus the 2007 excavation has provided evidence for occupation of the site prior to the construction of either of large masonry structures identified. The occupation activity has yet to be firmly dated but is most likely to be (early) Roman in date. There was further evidence for the presence, and form, of a substantial masonry built villa-type structure of Roman date. This structure was provided with mosaic pavements, painted plaster walls, hypocaust systems, and engineered water features indicative of a bath-house. The building was, at some time in antiquity – possibly during the later Roman period – destroyed or damaged, at least in part by fire, and subsequently demolished deliberately. Later activity on the site (at least within Area E) appeared to focus on the systematic robbing of masonry, particularly walls. This is an interim conclusion based upon three seasons' excavation.

## **7. REVIEW OF METHODOLOGY AND PROPOSALS FOR FUTURE WORK**

### **7.1 EXCAVATION METHODS**

The excavation methods were appropriate for the work undertaken. The careful and methodical manual excavation technique generated a great deal more information than previous excavators had been able to gather. The systematic dry sieving of all spoil from the site was a fruitful procedure with large quantities of tesserae, small ceramic fragments and bones being recovered, although this approach was somewhat hampered during 2007 as a result of unusually wet weather. The protection and preservation of in-situ structural remains combined with sampling of other significant deposits will remain central to the excavation strategy.

Work during the 2008 season will concentrate on re-opening and extending area E. This will allow further investigation of the in-situ masonry remains in area E, in particular the area to the north-east and the plunge-pool building to the south. By extending the excavation area some five metres to the east and south investigation of wall footing continuations and adjoining rooms or structures will be possible. If resources allow a small (two metre wide) extension to the west of area E may be undertaken to both follow the westward line of the western robbed out masonry structure and to take in the line of an earlier field boundary, now ploughed out, and so investigate its origins and possible relationship to the Roman stratification. It is also intended that a secondary trench some two metres wide by 15-20 metres in length be opened to the north and west of Area E in order to investigate the nature of the double-ditch feature seen in aerial photographs and an adjacent circular anomaly indicated by the earlier geophysics.

### **7.2 TRAINING ACTIVITIES**

The training activities were very successful providing an excellent introduction to modern archaeological excavation and recording methods for a suitable number of trainees. Many of the trainees have already expressed a keen interest and intention to return for a further season or more of work.

The recognised success of the training excavation has provided an impetus for Bishop Grosseteste University College Lincoln to further the provision of archaeology on its undergraduate degree programmes. Following discussions within the University College a decision has been taken to extend the training activities in two additional directions, both of which have recruited sufficiently well to become operational during the 2008 season. Firstly a number of University College students will participate in the excavation for two-weeks as part of an 'Archaeological Methods and Techniques' module as an element of their BA (Hons) Heritage Studies programme. Secondly a four-week academically validated and credit-bearing 'international archaeological field-school' will welcome a further group of undergraduate archaeology students requiring field work placements. The field school is being developed as part of wider research proposal addressing the character of the territorium of Lindum Colonia (Lincoln). As usual a proportion of places on the excavation will remain available for amateur participation. These developments have resulted in a significant increase in available resources for the project.

### **7.3 PUBLIC ARCHAEOLOGY AND EDUCATIONAL ACTIVITIES**

Despite the exceptionally poor weather endured during the 2007 season the public archaeology activities were clearly successful with some 450 members of the public visiting the site. The provision of information for visitors through tours and display boards continued to be successful. The children's activities, which focused on National Archaeology Week, were also successful though limited in scope. Press interest in the site was good with both local and national newspapers running associated stories; the excavation also featured on local radio and television news programmes, and the BBC news website – unfortunately the main focus for this related to the 'nighthawking' raid, although the coverage was balanced and clearly supportive of controlled archaeological work and in opposition to illegal activities. Follow-up talks to local groups continue to be well received.

Following on the success of the 2007 activities organised by the Bishop Grosseteste University College Lincoln students a further bid was made for continuing HEIF3 Enterprise funding. The bid was successful and an increased level of funding has been made available which will be used to repeat the public tours and NAW activities, on this occasion focusing on a larger event: 'Sudbrooke Archaeology Day' on Saturday 19 July. It is expected that structured site visits by children from local junior/primary schools will once again take place.

The University College's Business Development Manager has initiated a drive for commercial sponsorship of aspects of the excavation programme which has been greeted with a positive response by local companies. Some small scale sponsorship has already been secured and discussions have taken place with a potential major sponsor.

## **8. ACKNOWLEDGMENTS**

We would like to thank Mr Ralf Day, the landowner, for enthusiastically allowing access to his land for the purposes of the project, and for his continuing support. Once again we received much useful advice and encouragement from figures within the Lincolnshire archaeological community, in this regard particularly thanks go to Susan Hardwick (Rural Development Agency/Defra), Beryl Lott (Lincolnshire County Council), Adam Daubney (Finds Liaison Officer), Mick Jones (City of Lincoln Archaeologist), Anthony Lee (City and County Museum), Barbara Precious, Maggie Darling, and Pearl Wheatley (Chair of the Lincolnshire Historical and Archaeological Society). Lincolnshire County Council Conservation Department provided conservation advice and assessment. Special thanks go to Bill Bee for practical assistance and his continuing enthusiasm.

The excavation would not have taken place without the hard work of the following site and finds assistants, and technicians – thanks are extended to them all: Maria Leroi, Iris de Boer, Fred Coupland, Oliver Harder, Gwen Green, Richard Whatling, William McAulay, Lynne McEwan, and Karl Wilkinson. Mention must also be made of Alan Watts and Colin Porter, who both came as short-term volunteers but simply stayed and stayed. Particular thanks go to Anthony Bevan, farm manager, for continuing to support and facilitate our time on site. The smooth running of the excavation as a whole was the responsibility of Zoë Tomlinson (Lindum Heritage); her contribution to the project continues to be immeasurable.

Bishop Grosseteste University College Lincoln did much to support the project with both staff and resources. In particular the support of the College Principal, Muriel Robinson, and Head of Department Jean MacIntyre is gratefully acknowledged. This season's Heritage Studies and History students were exceptionally enthusiastic and committed, thanks to them all for making the at times miserable conditions almost a pleasure; Paul Berry, Sam Cocks, Ann Ford, Keith Kelway, Anna Peacock and Micheal, Karen Ulyatt, Maureen Bailey and Sharon

MacFarlane. Continuing thanks are extended to Stuart Curtis, Martin Dickie and Christine Myers (Sudbrooke Parish Council) for their continued interest in the project.

## 9. SITE ARCHIVE

The documentary and physical archive for the site is currently in the possession of Bishop Grosseteste University College Lincoln. This will be deposited at Lincoln City and County Museum (The Collection) in due course. Access to the archive may be gained by quoting the global accession number 2005.58.

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# Appendices

## Appendix 1: Archaeological Context Descriptions

### General contexts

Context	Type	Description
100	Finds	Unstratified finds from across the full extents of the field and more than 5m from the edges of excavation area E.
101	Finds	Unstratified finds from the top soil clearance of area E and surface finds recovered within a 5m margin around the excavation trench.
102	Finds	Finds recovered from initial clean across surface of excavation trench E; includes material recovered from spoil debris generated by 'nighthawk' disturbance. {Unstratified surface finds disturbed mainly by ploughing and trench clearance}.

### SUD07 - Area E

Context	Type	Description
103	Deposit	Loose to firm compaction, mid-brown, silty (50) sand (50), occasional to moderate small fragments stone and tile. {Base of topsoil/upper interface of archaeological stratification. Evidence of ploughing and earthworm action. Number allocated to grid square 100/200}.
104	Deposit	Loose compaction, mid-brown, silty (40) sand (60), moderate small fragments limestone and tile, occasional large fragments limestone and tile, medium fragments bone. {Base of topsoil/upper interface of archaeological stratification. Number allocated to grid square 105/200}.
105	Deposit	Loose compaction, mid-brown, silty (40) sand (60) - increased quantity of inclusions including tile and mortar fragments in this grid square, moderate small fragments limestone and tile, occasional large fragments limestone and tile, medium fragments bone. {Base of topsoil/upper interface of archaeological stratification. Number allocated to grid square 110/200}.
106	Deposit	Loose compaction, mid-brown, silty (40) sand (60), moderate small fragments limestone and tile, occasional large fragments limestone and tile, medium fragments bone. {Base of topsoil upper interface of archaeological stratification. Number allocated to grid square 115/200}.



107	Deposit	Loose to firm compaction, mid-brown, silty (50) sand (50), moderate small fragments limestone and tile, occasional large fragments limestone and tile, medium fragments bone. {Base of topsoil upper interface of archaeological stratification. Number allocated to grid square 100/205}.
108	Deposit	Loose to firm compaction, mid-brown, silty (50) sand (50), moderate small fragments limestone and tile, occasional large fragments limestone and tile, medium fragments bone. {Base of topsoil upper interface of archaeological stratification. Number allocated to grid square 105/205}.
109	Deposit	Loose to compact, mid to dark-brown, silty (20) medium sand (80), frequent small to fine limestone pebbles, occasional to moderate small fragments tile and mortar, very occasional large fragments limestone and tile. {Base of topsoil upper interface of archaeological stratification. Number allocated to grid square 110/205}.
110	Deposit	Loose to compact, mid to dark-brown, silty (20) medium sand (80), frequent small to fine limestone pebbles, occasional to moderate small fragments tile and mortar, moderate large fragments limestone and tile. {Base of topsoil upper interface of archaeological stratification. Number allocated to grid square 115/205}.
111	Deposit	Firm to loose to compaction, mid-brown, silty (50) sand (50), occasional to moderate small fragments tile. {Base of topsoil upper interface of archaeological stratification. Number allocated to grid square 100/210}.
112	Deposit	Firm to loose to compaction, mid-brown, silty (50) sand (50), occasional to moderate small fragments tile. {Base of topsoil upper interface of archaeological stratification. Number allocated to grid square 105/210}.
113	Deposit	Loose to compact, mid-brown, silty (20) medium sand (80), frequent small to fine angular pebbles of limestone, occasional to moderate small fragments tile and mortar, very occasional large fragments tile and limestone. {Base of topsoil upper interface of archaeological stratification. Number allocated to grid square 110/210}.
114	Deposit	Loose to compact, mid-brown, silty (20) medium sand (80), frequent small to fine angular pebbles of limestone, occasional to moderate small fragments tile and mortar, very occasional large fragments limestone and tile. {Base of topsoil upper interface of archaeological stratification. Number allocated to grid square 115/210}.
115	Deposit	Moderate to well compacted, mid-light brown, silty (30) coarse sand (70), very frequent large fragments of limestone and tile, moderate medium patches and lenses of ash and charcoal, occasional small and medium fragments limestone, tile and orange

		sandy mortar. {Disturbed demolition debris, possibly post or immediately pre-destruction disturbance of underlying burning deposits}.
116	Fill	Loosely compacted, mid to light orange-brown, silty (10) medium sand (90), Very frequent small, medium and large fragments of mortar, moderate medium fragments of tile and limestone, small fragments tile, limestone and medium angular pebbles. {Small section of robber trench backfill north-west of main hypocaust floor exposed in previous season. Excavated to investigate return to south}.
117	Deposit	Loosely compacted, mid-dark brown, silty (40) medium sand (60), Moderate small fragments of limestone and tile, occasional large fragments limestone and tile, medium fragments bone. {Upper layer of archaeological deposits - principally dumping and demolition/destruction debris, but very mixed with lower topsoil deposits through ploughing}.
118	Deposit	Firm to soft compaction, brown, silty (30) sand (70), very frequent medium and small fragments limestone and tile. {An extensive spread of dumped material associated with context [115], which immediately overlay it. Postdates robbing of major east-west wall footing}.
119	Deposit	Moderate to loose compaction, mid orangey-brown, medium sand (90) some silt (10), very frequent small angular pebbles and fragments of tile and mortar, moderate medium fragments tile, mortar and limestone. {Demolition/robbing tread over opus signinum surface [127], badly damaged by ploughing. Stratigraphically later than, but possibly contemporary with, backfill of robber trenches to south [146] and east [148]}.
120	Fill	Loosely compacted, yellow brown, small angular and sub-round pebbles (10), coarse sand (90), occasional tile and tesserae, small and medium fragments mortar and limestone, very occasional small and medium fragments painted wall plaster, (increase in large fragments of limestone and mortar to east). {Backfill of robber trench [191]}.
121	Skeleton	North-south orientated infant skeleton in a prone (although somewhat disturbed) position. Skull mostly present though collapsed and fragmented. Right humerus, radius and ulna present and extended, hand missing. Left humerus present but truncated at distal end. Vertebrae largely present, as are ribs. Lower part of body truncated and missing. {Inhumation of an infant, probably orientated north-south but truncated by a cutting action which has removed the lower half of the skeleton. (See appendix 3 for further analysis)}.
122	Fill	Moderately compact, light grey brown, silty (30) sand (70), moderate small and medium fragments mortar and opus signinum, occasional small fragments tile. {Backfill of robbing pit (posthole?) [123]}.

123	Cut	Sub-square in plan tapering toward the south, maximum length 1100mm (N-S), maximum width 1040mm (S-E). Corners vary from sharp to rounded. Break of slope at top sharp (truncated), sides vertical to concave. Break of slope with base smooth, base flat and slightly irregular, maximum depth 200mm. (Filled by [122]). {Robbing cut (or later posthole) associated with masonry footing [139]}.
124	Cut	Truncated oval shape in plan, maximum length 282mm (N-S), maximum width 184mm (E-W). Break of slope at top varies from sharp to gradual, sides concave. Break of slope with base gradual, base uneven. Maximum depth 46mm. {Small oval grave cut for skeleton [121]. (Truncated to south by cut [143])}.
125	Fill	Softly compacted, mid-brown, medium sand (85) small angular pebbles and grit (15). {Fill of grave cut [124] which contained skeleton [121]}.
126	Masonry	Roughly squared limestone blocks ranging from 85 x 120 x 38mm to 340 x 240 x 38mm. Roughly finished on north and south faces with stones laid in a random pattern. Bonded with a yellow-orange sandy mortar. Wall footing running east-west, maximum length 1130mm, maximum width 620mm. {Wall footing to north of floor surface [127], associated with wall footing [133] to west}. <i>Not excavated.</i>
127	Deposit	Very compact well cemented, mid-orangey pink-brown (surface finish - skim - dark blue grey), opus signinum. A levelled deposit composed of fine crushed mortar with frequent small and medium fragments of tile; also frequent small and medium fragments of angular limestone. {Opus signinum sub-floor of a hypocaust room}. <i>Not excavated.</i>
128	Deposit	Loose to firm compaction, mid-brown, silty (50) sand (50), occasional to moderate small fragments stone and tile. {General context related to a thorough cleaning of grid squares 100/200, 100/205 and 100/210. (The clean revealed mainly natural deposits with a small number of cut features)}.
129	Deposit	Firmly compacted, mid-dark brown, sandy (30) silt (70), frequent small and medium fragments of tile, shell, mortar and limestone. {Small deposit of mixed destruction/(refuse?) material.}.
130	Fill	Varying from firm to soft compaction, mid-light brown orangey-yellow mortar, coarse to medium crushed sandy-mortar (90), very fine angular 'pea-grit' (10), Occasional small and medium fragments tile, mortar and limestone. {Robbing backfill within cut [191], directly overlying remaining wall footings [138]}.
131	Deposit	Friable, light pinky-red, spread of opus signinum (seen in section, not excavated). {Thin floor/surface spread of opus signinum to south of wall footing [139]}. <i>Not excavated.</i>

132	Fill	Loosely compacted, dark grey-black, sandy (30) silt (70), very frequent small fragments and flecks of charcoal, moderate very large (almost complete) fragments of tile (tegulae and imbrices), occasional small and medium fragments of limestone. Finds also included a blunt-conical shaped mortar 'plug' (length 160mm, diameter 160-100mm), and a large fragment of limestone cylindrical column (diameter 270mm), base(?) flat with roughly squared central mortise (50 x 50mm and 15mm deep), top(?) roughly hewn away (length 195mm). {Deliberate backfilling of dumbbell-shaped cut [147]}.
133	Masonry	Roughly squared and finished limestone pieces, ranging in size from 120 x 100 x 30mm to 220 x 220 x 70mm. Bonded with orange-yellow brown sandy mortar. Faced on north, east and south sides, west side truncated by robbing. Maximum length 1040mm, width 540mm. { Wall footing to north of hypocaust surface [127], forms west side of flue in north wall formed in association with [126] to the east. }. <i>Not excavated</i> .
134	Fill	Weakly cemented to loosely compacted, dark grey-brown, silty (30) sand (70), frequent small fragments of limestone, mortar and angular small pebbles, occasional medium fragments of tile. {Backfill of robber trench [148]}.
135	Fill	Loosely compacted, dark grey-brown, silty (30) sand (70), moderate medium fragments limestone, tile, small pebbles, and occasional tesserae. {Backfill of robber trench [146] contained in slot-excavation across western part of cut [146]}.
136	Fill	Loosely compacted, mid-brown yellow flecks, silty (30 sand (70), occasional small fragments of limestone and tile, occasional small angular pebbles. {Backfill of robber trench [146] contained in slot-excavation across eastern end of cut [146]}.
137	Deposit	Firm to loose compaction, brown grey, silty (30) sand (70), occasional fragments tile, occasional to moderate small angular pebbles, moderate medium fragments limestone. {Small deposit possibly related to activity that post-dates the robbing of underlying wall footing [138]}.
138	Masonry	Linear east-west foundation wall comprised of roughly finished and squared limestone pieces, set in a yellow-orange brown sandy mortar, and roughly faced on north and south sides within limits of construction trench. Overall maximum length 7450, width between 700-800mm. (Individual stones range from 100 x 100 x 50mm to 500 x 50 x 30mm). Surviving maximum height 360mm. Approx. 100mm from west end N-S orientated return wall runs to south (width 700mm). {Extensive E-W foundation wall probably forming northern external wall of masonry structure (bath house?)}. <i>Not excavated</i> .
139	Masonry	Same as SUD06 [45]. {Limestone wall footing to south of main hypocaust room excavated in 2006}. <i>Not excavated</i> .

140	Fill	Weakly cemented and friable, mid-grey brown, medium sand (80), small angular pebbles (20), occasional large fragments of tile, and limestone, medium fragments of painted plaster. {Robbing backfill overlying large N-S wall [159]}.
141	Cut	Regular shaped cut, sharp break of slope at top, steeply sloping sides. {Cut for what appears to have been a large pit or ditch, backfilled with relatively organic refuse type material [162]}. <i>Not excavated.</i>
142	Fill	Firm to hard compaction, dark grey-brown, sandy (40) silt (50) fine grit (10), moderate pea-grit and small angular pebbles, occasional large limestone and tile fragments (set on edge). {Packing material set into irregular linear slot (over-cutting of northern edge of construction trench [143]) and against north face of wall footing [138]}. <i>Surface visible finds collected but otherwise not excavated.</i>
143	Cut	Linear east-west trench cut. Regular along southern edge, irregular along northern edge. Width varies between 700-1000mm. Maximum excavated length 8700mm. Sharp Break of slope at top, sides steeply sloping to vertical, sharp break of slope with base, base generally flat. Maximum depth 480mm. {Construction trench for wall footing [138], particularly evident to northern side where trench appears to have been over-cut (backfilled with [142])} <i>Partially excavated.</i>
144	Deposit	Firmly compacted, orange-brown, silty (20) fine sand (80), occasional small rounded and angular pebbles. {Redeposited natural to the north of wall [138]}. <i>Not excavated.</i>
145	-	Not used.
146	Cut	Linear cut orientated east-west, width varies between 770-840mm. Excavated length 2500mm in two sections (maximum observed length approx 7.0m). Break of slope at top sharp, south side steeply sloping with sharp, break of slope with base, north side more gradual and irregular with an imperceptible to gradual break of slope with base. Base uneven but generally flat, maximum depth 280mm. {Robber trench related to a non-extant east-west wall footing}.
147	Cut	Dumbbell shaped cut with rounded ends. Width varies between 360-620mm, length 2540mm. Break of slope at top sharp, sides vertical. Break of slope with base concave, base generally concave with a gentle slope towards centre. Cut orientated east-west. {Dumbbell shaped cut backfilled with [132]. Unknown function; parallels would suggest possibly use for burning/baking activity however no clear evidence for in-situ burning}.
148	Cut	Linear cut orientated north-south, maximum width 780mm. Excavated length 2450mm (maximum observed length approx 3.0m). Break of slope at top sharp, sides steeply sloping with sharp break of slope to a flat base, maximum depth 110mm. {North-

		south robber trench along eastern edge of hypocaust floor [127], backfilled with [134]].
149	Deposit	Weakly cemented compaction, light grey with patches of black charcoal and yellow ash, crushed charcoal (50) coarse to medium sand (50) interlaced with bands of coarse pebbles. Frequent flecks and small fragments charcoal, moderate small fragments of mortar. {Consolidated spread of charcoal and ash possibly from burning associated with the hypocaust rooms to the south and west}. <i>Partially excavated.</i>
150	Deposit	Moderately compact, dark grey-brown, silty (20) sand (60) with large component of crushed charcoal (20), moderate small and medium fragments tile and limestone, frequent large fragments tile and limestone fragments. {Mixed layer of possible destruction debris(?)}. <i>Not excavated.</i>
151	Deposit	Moderate to well compacted, mid-yellow brown, silty (15) sand (85), frequent small and medium angular pebbles, small and medium fragments orangey sandy mortar and limestone, moderate medium fragments tile, plaster, and large fragments limestone. Increasing quantity of mortar and plaster towards base of the deposit and toward the north. {Destruction debris within the base of the plunge pool}.
152	Deposit	Loosely compacted, mid to dark brown, silty (40) medium sand (60), moderate small fragments of limestone and tile, occasional large fragments limestone and tile, medium fragments bone. {Deposit removed in small trial excavation overlying the line of large robber trench, which consequently revealed north-south/east-west corner of robber trench.}.
153	Fill	Moderately compact, orangey brown, silty (10) medium sand (90), frequent large fragments limestone, moderate large fragments of mortar and plaster. {Packing in posthole [157], introduced around a post, which is now represented by postpipe [156] and fill [198]}.
154	Deposit	Loosely compacted, light greyish-brown, silty (30) sand (70), occasional large fragments limestone, also small to medium fragments of limestone, plaster and mortar. {Small deposit of building material debris filling an underlying depression [173] (perhaps the remnants of a levelling dump?)}.
155	Fill	Soft to loose compaction, mid-brown, silty (30) medium sand (70), frequent large and medium fragments limestone, moderate small fragments limestone. {Irregular deposit of rough building material (limestone) debris, filling underlying shallow cut (possibly the remnants of a levelling dump?)}.
156	Cut	Circular in plan, diameter 180mm. Break of slope at top sharp, sides vertical but irregular, sharp break of slope at base, onto inserted stone that provides a generally flat base (see [153]). Vertical axis. {Post-pipe within posthole [157], associated with packing material [153], and filled by [198]}.

157	Cut	Oval in plan, 480-600mm, depth 370mm. Break of slope at top sharp, sides steeply sloping, gently stepped then steeply sloping again. Break of slope with base sharp with a flat base. {Posthole cut filled by post-pipe [156] and packing [153]}.
158	-	Not used.
159	Masonry	Linear wall footing(?) comprised of roughly shaped limestone blocks 100 x 300 x 50mm. Two courses laid on edge in herringbone fashion, top course angled 45 degrees (top to north) lower course 45 degrees (top to south), total width approximately 900mm, exposed length 2200mm. Very loosely bonded with a dry mortar and sand mix. {Substantial foundation for a north-south aligned wall, which extended beyond the limit of excavation to the north and 8.20m to the south where it turned to the west (see [160]) – southern extents robbed out}.
160	Fill	Compact, becoming loose towards base, dark brown, silty (40) sand (60), changing to a sandy (20) silt (80) near base. Moderate medium fragments of limestone, occasional medium fragments tile and shell, increasing amount of organic material toward base. {Backfill of robber trench [164], apparently mixing with organic fill of an earlier ditch(?) toward base of the cut}.
161	Deposit	Loosely compacted, dark brown, sandy (20) silty (30) clay/organic (50), frequent small and medium fragments of limestone, tile and shell. {Refuse material with high organic content. Likely to be equivalent to [162] which is interpreted as representing a ditch or pit fill}.
162	Deposit	Loosely compacted, dark brown, sandy (20) silty (30) clay/organic (50), frequent small and medium fragments of limestone, tile and shell. {Refuse material with high organic content fill of pit (or ditch?) cut [141]. (Same as [161])}.
163	Deposit	Loosely compacted, light yellow, silty (40) fine sand (60). {Natural}.
164	Cut	Linear, L-shaped cut in plan, width average 950mm. Break of slope at top sharp, sides steep but smoothly sloping. Break of slope with base gradual, which is smooth and rounded. {Robber trench related to wall footing [159] to north and robber trench [185] to west}. <i>Partial excavation.</i>
165	Deposit	Very loosely compacted, black, very fine silt (10), fine sand (40) and crushed charcoal (50), frequent small and medium fragments painted plaster, occasional medium fragments of mortar and large fragments of painted plaster. Very indistinct layer at base of overlying deposit [151]. Includes a significant quantity of red and green painted plaster seemingly having fallen during collapse onto the underlying opus signinum surface [179], but poorly sorted. {Burnt material representing in situ destruction debris, some evidence of burning on mortar and limestone fragments}.

166	Cut	Narrow linear cut, width 140-160mm, sharp Break of slope with top, sides vertical. Break of slope with base sharp, base regular flat, maximum depth 130mm. Orientated north-west/south-east. (Excavation restricted to one 800mm length). {Field drain cut; backfilled by [167]}.
167	Fill	Softly compacted, orangey yellow brown, sandy (50 silt (50), frequent fine angular pebbles and pea-grit. {Backfill of field drain cut [166]}.
168	Deposit	Hard to firmly compacted, pinky red with darker burnt patches, large fragments of flat limestone and tiles set into a crushed mortar/opus signinum deposit (20mm thick), overlying a fine mortar/sand mix (20mm thick). {Possible internal surface related to stokehole/furnace activity associated with hypocaust room to south}.
169	Fill	Firmly compacted, orangey-brown, silty (40) sand (60), frequent medium and large irregular limestone fragments. {Robber trench [185] backfill}.
170	-	Not used.
171	Cut	Linear in plan with parallel sides, maximum width 1000mm. Break of slope at top on west side sharp, east side truncated by [196], sides steeply sloping but irregular. Break of slope with base gradual, base flat and regular but sloping down from west to east, maximum depth 640mm. {Construction trench for wall footing [159]}.
172	Fill	Softly compacted, dark grey-black, sandy (30) silt (70), occasional small fragments and flecks of shell, charcoal and tile. {Refuse type deposit interpreted as tread in the base of robbing/construction cut [195]}.
173	Cut	Very irregular circular in plan, N-S 1700mm by E-W 1550mm (truncated). Break of slope with top imperceptible, sides very gently sloping. Break of slope with base imperceptible, base uneven, shallow and concave, maximum depth 140mm. {Very shallow cut or scoop backfilled with mixed building material [154]}.
174	Masonry	See context (SUD06 [44]) for description. Additional information from SUD07 excavation: wall width 500mm. {Western wall of main hypocaust room, orientated north-south. Northern extent, and junction with east-west wall, removed by robbing}.
175	Masonry	L-shaped wall footing. Comprised of roughly shaped irregular blocks of limestone (average dimensions 220 x 120mm). Irregular courses bonded with a soft very light creamy brown sandy mortar. N-S length 2000mm, E-W length 1600mm, width 620mm. Includes shaped slot [177] for insertion of lead pipe [188]. Internal faces rendered with opus signinum mortar [178]. {Lowest levels of wall footings forming N-W corner of plunge pool}.



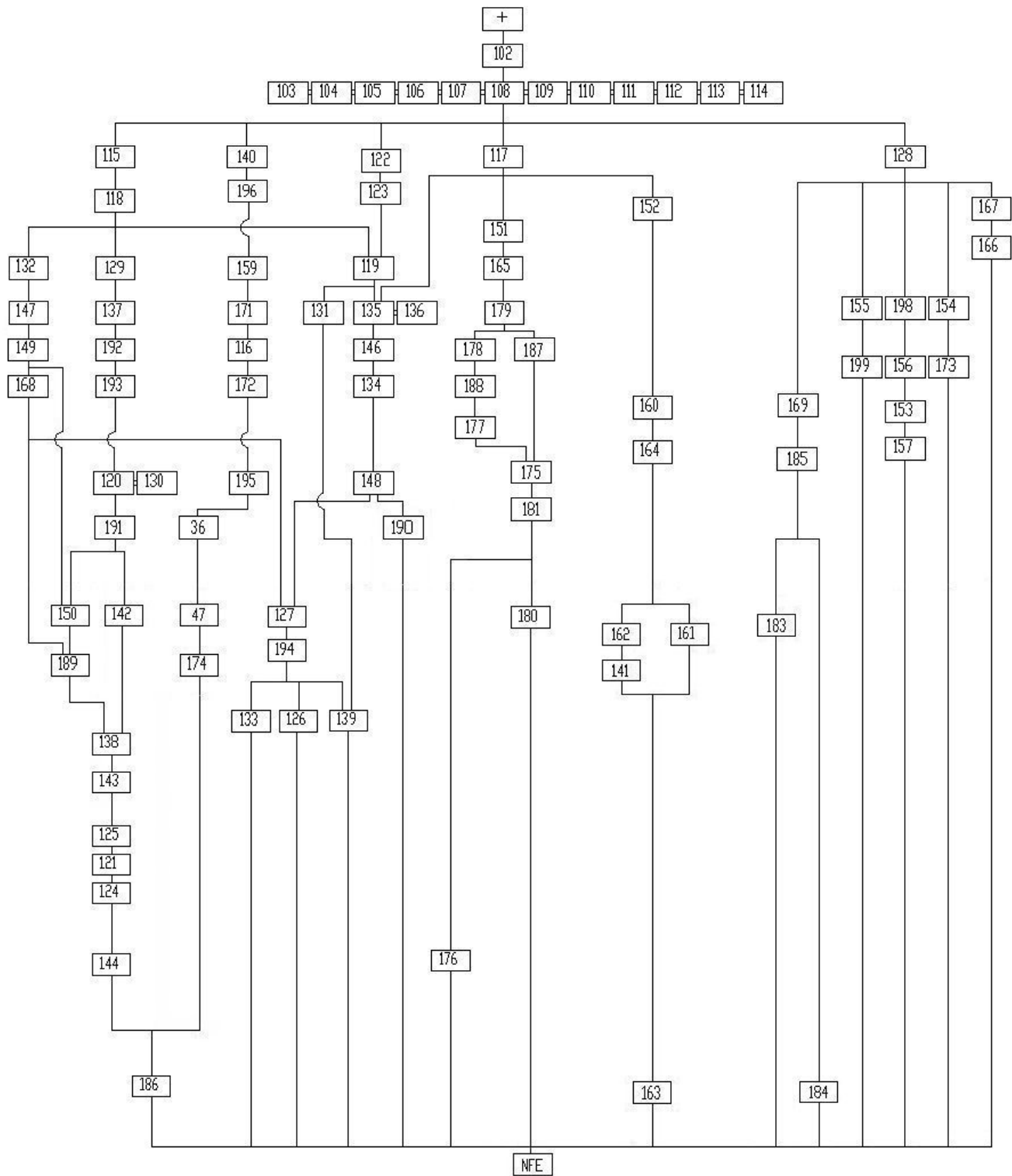
176	Deposit	Well-compacted, orangey-brown, sand (100), occasional flecks of shell and charcoal. {Redeposited natural, to west of wall footing [175] within trial area excavation}.
177	Cut	Linear slot formed in wall footing [175]. Sides regular and parallel in plan, width 90-100mm, maximum depth 120mm, observed length 920mm (inferred total length 1220mm). Top truncated, sides vertical. Break of slope with base very gradual, base smooth and concave. Orientated NWW-SEE. Base slopes down (60mm) toward NWW end (which is disturbed by later robbing action). {Slot formed in north-south arm of wall footing [175] for the insertion of lead pipe [188]}.
178	Deposit	Cemented, reddish-pink, crushed tile and mortar (100), opus signinum, with frequent small fragments of tile and sub-rounded limestone pebbles. Formed in a quarter-round moulding (115mm deep -55mm high) between base of plunge-pool and walls where it formed a thin upstanding render (maximum height 60mm). {Opus signinum quarter round moulding and wall render within base of plunge pool}.
179	Deposit	Cemented, light grey to brown grey, opus signinum mortar render. {Opus signinum render forming floor of plunge pool}.
180	Deposit	Moderately compact, very dark grey, silty (50) sand (50), moderate small and medium fragments of tile, occasional whole oyster shells and small fragments of bone. {Refuse type deposit to north of wall [175], possible eastern continuation of 'ditch' fills [161], [162] and [183]}.
181	Cut	L-shaped linear cut, see [175] for plan dimensions. {Construction cut for wall footing [175]}. <i>Not excavated</i> .
182	-	Not used.
183	Deposit	Moderately compact, very dark grey brown, silty (20) sand (80), moderate small angular pebbles, small flecks of charcoal, occasional medium and small fragments tile, mortar, oyster shell and pottery. {Refuse type deposit possible western continuation of 'ditch' fills [161], [162] and [180]}.
184	Deposit	Firmly compacted, reddish-orange, fine sand (100), occasional very small fragments and flecks of chalk, limestone and charcoal (inclusions confined to upper surface area). {Natural}.
185	Cut	Linear cut with parallel sides, orientated E-W, min length exposed 700mm, maximum width at top 800mm. {Robbing (construction) cut continuation of cut [164]}. <i>Not excavated</i> .
186	Deposit	Firmly compacted, orange-yellow brown, fine sand (100), occasional sub-angular pebbles. {Natural}.

187	Deposit	Very compact, dark grey to pinky red, medium sand (30) with small and medium fragments of tile and limestone (70). {Make-up deposit beneath opus signinum. floor [179] of plunge pool}.
188	Object	Lead pipe set into constructional slot [177]. Constructed from 5-10mm thick lead sheet, rolled into a tube and crimped with a c.30mm wide flat joint running along its 620mm length. External diameter c.80mm. (Weight 12.8 kg). Original orientation NWW-SEE; slopes down toward NWW within slot [177] (gradient = 12.4 in 1). {Lead pipe inserted into wall [175] to act as an outfall drain from the plunge pool}.
189	Deposit	Mid pinky red, crushed opus signinum spread (principally seen in section). {Construction/destruction deposit?}. <i>Not excavated.</i>
190	Deposit	Moderately compact, mid-brown, roughly hewn limestone fragments, maximum dimensions 300 x 200 x 200mm (30), set in a very mixed rough opus signinum sandy matrix, containing frequent medium fragments of tile and mortar (70). Limestone fragments gradually decline in number towards the eastern extents of the deposit. {Possible (disturbed) wall or floor footings or make-up raft to the east of robber trench [148], indicative of a further 'room' to the east, alternatively they may represent an external cobbled surface?}
191	Cut	Regular linear cut, parallel sides width varies from 700-850mm, length (as excavated) 8650mm. Break of slope at top sharp, sides vertical. Break of slope with base generally sharp. Base varies from flat but stepped where over wall [138], smooth and flat where wall removed. {Robbing cut over wall [138] (western excavated extents of robbing; same as [195] which represents the eastern excavated extents of what appears to have been the same robbing event)}.
192	Fill	Not described or excavated in 2007. {Pit fill to the north-east limits of excavation in area E.}. <i>Not excavated.</i>
193	Cut	Roughly rounded in plan, not excavated in 2007. {Pit cut associated with fill [192]}. <i>Not excavated.</i>
194	Deposit	Irregularly hewn medium sized fragments of flattened limestone (maximum dimensions 100 x 80 x 30mm) set in a hard sandy matrix. Fragments set roughly on edge at irregular angles from 45 degrees to horizontal. {Foundation raft below opus signinum floor [127]}.
195	Cut	Cut observed in section 1: Sides vertical, break of slope with base relatively sharp, base flat and level, width at top 1150mm, depth 350mm. {Robber trench cut related to wall [138]. Equals [191]}.
196	Cut	Cut observed in section 3: Sides irregular curving slightly concave to east, break of slope with base relatively sharp, base irregular, flat above wall [159], width at top 1000mm, maximum depth 380mm. {Robber trench cut related to wall [159], backfilled with [140]}.

197	-	Not used.
198	Fill	Loosely compact, mid-light brown, clayey (40) fine sand (60), occasional small fragments tile and sub-angular pebbles. {Fill of post-pipe [156] within packing [153], within posthole cut [157]}.
199	Cut	Elongated irregular oval in plan, maximum length 1320mm and width 550mm. Break of slope with top sharp, very shallow gradually sloping sides. Break of slope with base imperceptible, base irregular concave, maximum depth 50mm. {Shallow disturbance scoop under deposit (levelling fill?) [155]}.
SUD06 [36]	Deposit	Opus signinum floor of hypocaust exposed in 2006 – context number relates to SUD06 description.
SUD06 [47]	Deposit	Foundation raft beneath floor of hypocaust exposed in 2006 - context number relates to SUD06 description.

## Appendix 2: Context ‘Harris’ Matrix

SUD07 - Area E



**Appendix 3:**

**Report on**  
**Human Remains recovered from Sudbrooke Villa site**  
**Sudbrooke, Lincolnshire**  
**July 2007**

Maria Leroi  
MSc, BA (Hons)

November 2007

## **Contents**

Introduction	15
Inventory	15
Analysis	18
Conclusion	19
Further Research	19
Bibliography	19
Figures	
1 - Parts of the Occipital Bone	16
2 - Remains of cranial vault	16
3 - Right mandible with root damage in the central area	16
4 - Post-cranial skeletal remains	17
Tables	
1 - Full inventory of Sudbrooke skeletal remains	15
2 - Skeletal measurements of the Sudbrooke remains	18

## Introduction

The following report is produced for Bishop Grosseteste University College and Lindum Heritage, on the human remains recovered during the 2007 excavation season.

## Inventory

The human remains are in a reasonable state of preservation, with some post-mortem damage and deterioration, as can be seen in Figures 1, 2, 3 and 4 below. Most of the damage is in the form of postmortem breakage. This is most likely due to the taphonomic conditions of the burial environment, and subsequent post-burial disturbance in ancient times. A full inventory of the remains can be found in Table 1.

**Table 1** - Full inventory of Sudbrooke skeletal remains

<i>Element</i>	<i>Right</i>	<i>Left</i>	<i>Indeterminate</i>
Frontal	Present	Present	
Parietal	Present	Present	
Occipital	Present	Present	
Temporal	Present	Present	
Sphenoid	Present	Present	Present
Zygomatic	Present	Present	
Maxilla	Present	Present	
Palatine	Present	Present	
Mandible	Present		
Clavicle	Present		
Scapula	Present		
Vertebrae			
C 1			Present
C2			Present
C3 - 6			Present
T 1 - 12			Present
L1 - 5			
Ilium			
Ischium			
Pubis			
Sacrum			
Ribs	Present	Present	
Humerus	Present	Present	
Radius	Present		
Ulna	Present		
Femur			
Tibia			
Fibula			
Carpals			
Metacarpals			
Tarsals			
<u>Metatarsals</u>			



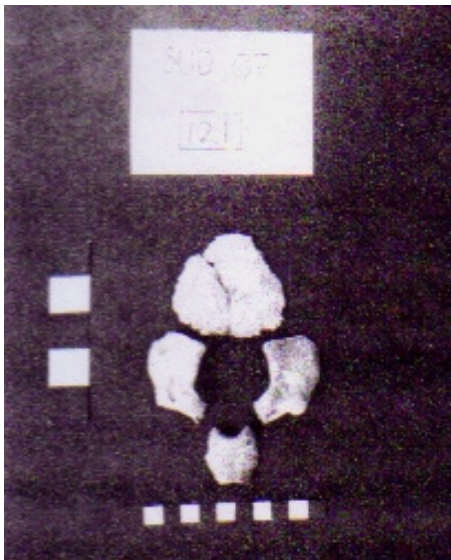


Fig. 1. Parts of the Occipital Bone

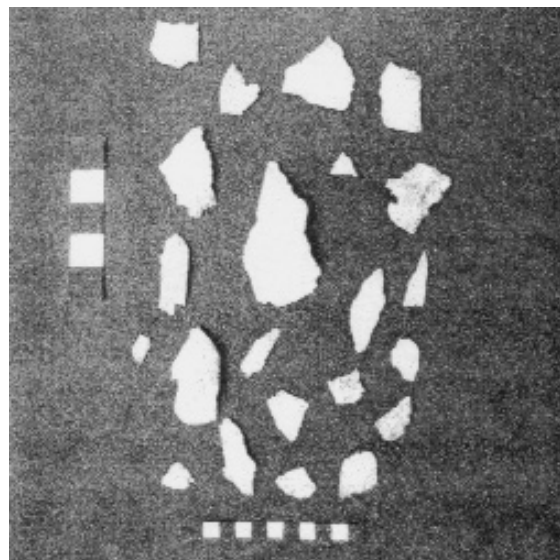


Fig. 2. Remains of cranial vault

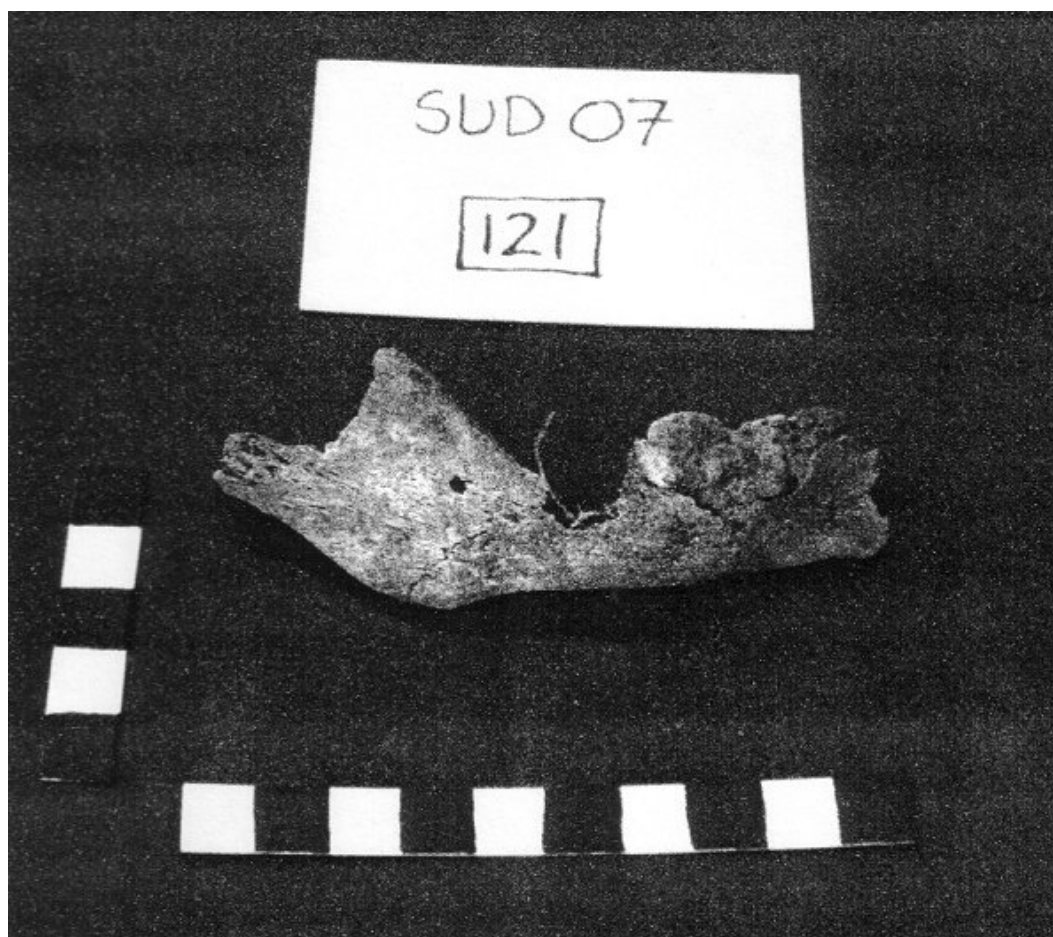


Fig. 3. Right mandible with root damage in the central area

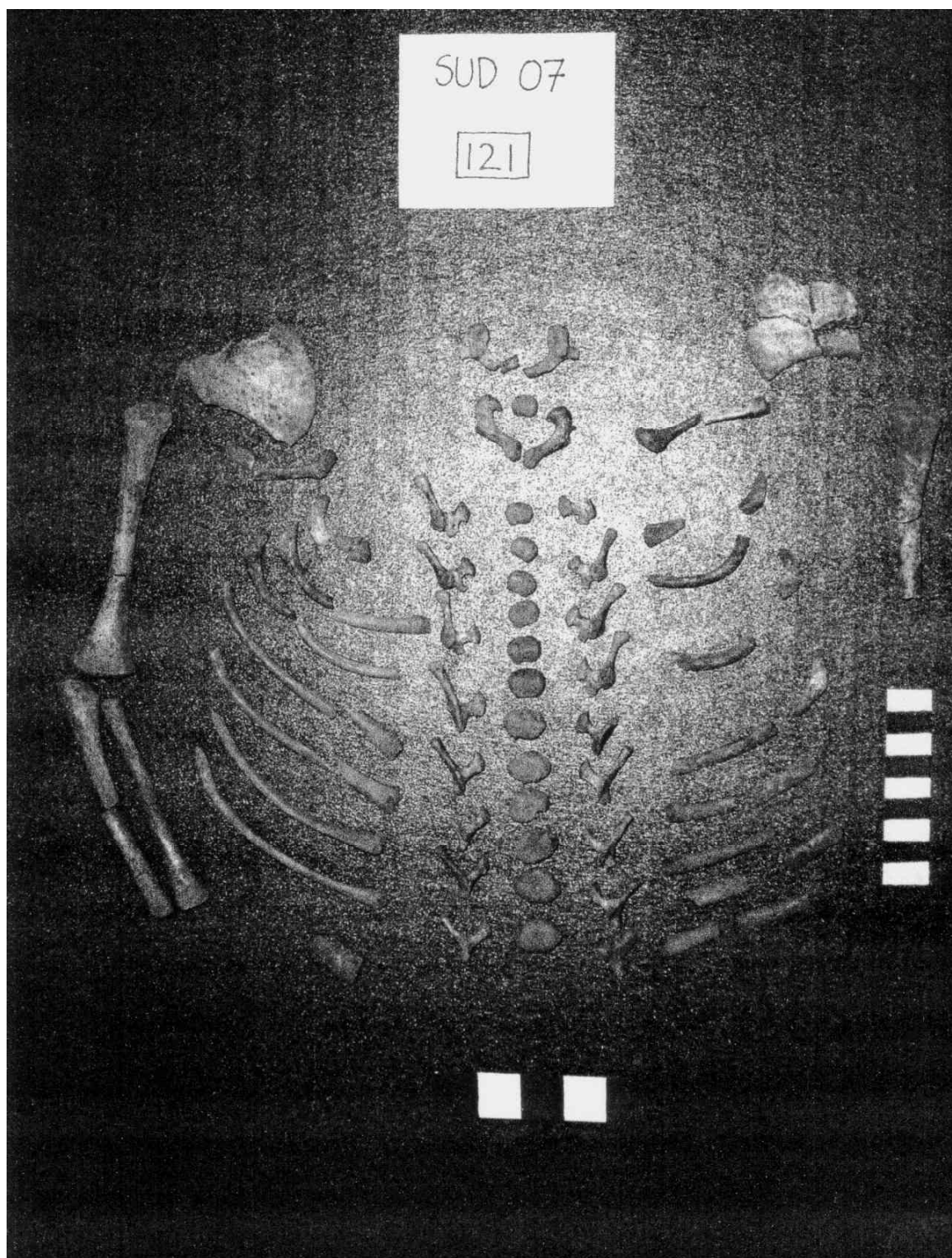


Fig. 4. Post-cranial skeletal remains

## Analysis

The remains were analysed in the archaeology Laboratory at Bishop Grosseteste University College, Lincoln. The remains were cleaned, elements identified, laid out in anatomical position, and then all possible measurements were taken. The measurements taken can be seen in Table 2.

**Table 2** - Skeletal measurements of the Sudbrooke remains  
(All measurements in mm)

<i>Element</i>	<i>Length</i>	<i>Width</i>	<i>Medial</i>
Lesser Wing of Sphenoid (L)	11.45	10.05	
Lesser Wing of Sphenoid (R)	9.80	10.05	
Greater Wing of Sphenoid (L)	-	20.80	
Greater Wing of Sphenoid (R)	29.10	19.25	
Body of Sphenoid	18.85	10.65	
Petrous and Mastoid portions of the Temporal (L)	36.70	18.05	
Petrous and Mastoid portions of the Temporal (R)	36.20	16.75	
Basilar part of the Occipital	12.90	14.75	
Zygomatic (L)	-	-	
Zygomatic (R)	22.10	17.95	
Maxilla (L)	-	-	
Maxilla (R)	-	-	
Mandible (L)	-	-	
Mandible (R)	33.10	18.30	47.55
Clavicle (L)	-	3.80	
Clavicle (R)	-	4.15	
Scapula (L)	-	-	-
Scapula (R)	32.90	28.25	30.85 (spine length)
Humerus (L)	-	-	5.35 (diameter)
Humerus (R)	65.40	15.65	5.15 (diameter)
Radius (R)	52.15	4.10	
Ulna (R)	59.40	4.60	

From the information gathered during the analysis of the human remains it was determined that they were of a non-adult (Scheuer and Black, 2004). Using the measurements taken, and tables in Scheuer and Black (2000) the following determination of age was made:

The remains are of an infant, with a fetal age of between 36 and 40 weeks gestation.

## **Conclusion**

These are the remains of a non-adult individual aged around 38 weeks gestation.

The age estimate of 38 weeks (fetal) suggests the probability that the individual died either as a result of a stillbirth, or was an infant who died soon after birth.

## **Further Research**

The following research could be conducted to further the analysis and knowledge of these remains:

Analysis of the early stages of the teeth that are present may be able to aid in determination if the infant survived birth by more than around a week. The presence of 'harris' lines in the enamel are indicative of survival of infants after birth.

DNA analysis, although it may not be possible due to the state of preservation of the remains, could aid in the determination of the sex of the infant. This of course has some relevance to the issue of infanticide in the Roman world.

## **Bibliography**

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