



CAM ARC Report Number 1039

## Land at 16 - 18 Calvert St, Norwich, Norfolk:

---

An Archaeological Evaluation

Heather Wallis and Thomas Lyons

July 2008

CAM ARC Report Number 1039

## Land at 16 - 18 Calvert St, Norwich, Norfolk:

---

### An Archaeological Evaluation

Heather Wallis BA MIFA and Thomas Lyons BA

With contributions by Sue Anderson (BA, MPhil,  
PG Dip), Chris Faine (MA, MSc) and Rachel  
Fosberry (HNC (Cert Ed), AEA)

Site Code: XNF CAS 08  
NHER Event Number: 51566 N  
Date of works: June 2008  
Grid Ref: TG 2301 0909

Status	Approved		
Author	H Wallis/T Lyons		
Checked By	R Mortimer		
Authorised By	R Mortimer		

***Editor: Richard Mortimer MIFA***

***Illustrator: Caoimhín Ó Coileáin***

## CAM ARC OASIS Report Form

OASIS Number: cambridg1\_46787

PROJECT DETAILS				
Project name	Evaluation at 16 – 18 Calvert St, Norwich			
Short description	Evaluation excavation consisting of two trenches, one of which was not excavated below post-medieval deposits due to modern intrusions. Although located on the line of the Late Saxon defensive bank, no evidence of this was encountered. The earliest features were two ditches possibly of a 12th century date. Following this there was a period pitting followed by general makeup. The first structural evidence is probably 13th century, an early post-built structure being replaced by a more substantial beam slot and post building. From the 14th to 16th century the area was used for rubbish disposal either in pits or as general ground make up. The site was re-occupied possible in the 16th century, and at a later date a building of flint construction was built against the St George's Street frontage. Modern buildings with cellars had been built against both the St George's Street and Calvert Street frontages.			
Project dates	Start	12/6/2008	End	30/6/2008
Previous work	No		Future work	?
Associated project reference codes	51566 N XNF CAS 08			
Type of project	evaluation			
Site status	none			
Current land use (list all that apply)	Brownfield			
Planned development	Residential			
Monument types / period (list all that apply)	Ditches, pits and dump layers			
Significant finds: Artefact type / period (list all that apply)	Middle Saxon pottery Late Saxon pottery Medieval pottery Post-medieval pottery Medieval slag			
PROJECT LOCATION				
County	Norfolk	Parish	Norwich	
HER for region	Norfolk			
Site address (including postcode)	16-18 Calvert St, Norwich			
Study area (sq.m or ha)	515 sq m			
National grid reference	TG 2301 0909			
Height OD	Min OD		Max OD	
PROJECT ORIGINATORS				
Organisation	CAM ARC			
Project brief originator	Ken Hamilton			
Project design originator	Richard Mortimer			
Director/supervisor	Thomas Lyons			
Project manager	Richard Mortimer			
Sponsor or funding body	Oakbuild Ltd			
ARCHIVES	Location and accession number		Content (e.g. pottery, animal bone, database, context sheets etc)	
Physical	Norfolk County Store		Pottery, animal bone etc	
Paper	Norfolk County Store		Paper archive	
Digital	OA East, Bar Hill, Cambridge		Digital archive	
BIBLIOGRAPHY				
Full title	Land at 16-18 Calvert St, Norwich , Norfolk: An Archaeological Evaluation			
Author(s)	Heather Wallis and Thomas Lyons			
Report number	1039			
Series title and volume				
Page numbers	33			
Date	July 2008			

## **Summary**

Two evaluation trenches were excavated on a plot of land which lies between Calvert Street and St Georges Street, Norwich. Excavation of one of these was hindered but the presence of a post-medieval well and modern cellars. The top of medieval deposits was exposed but further excavation proved impossible. The second trench revealed a sequence of archaeological deposits the earliest of which took the form of ditches and pits and probably dates to the 12th century. Evidence of at least two sequential 13th- to 14th-century buildings was recorded. These were followed by a series of 14th- to 15th/16th-century pits. post-medieval evidence showed further pits and revealed evidence suggesting buildings along the St George's Street frontage. The construction of buildings with cellars in the late 19th to 20th century had truncated the post-medieval deposits.

## Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
<b>2</b>	<b>Geology and Topography</b>	<b>1</b>
<b>3</b>	<b>Archaeological and Historical Background</b>	<b>1</b>
	3.1 Pre-historic and Roman	2
	3.2 Saxon	2
	3.3 Medieval	2
	3.4 Post-Medieval	3
<b>4</b>	<b>Methodology</b>	<b>4</b>
<b>5</b>	<b>Results</b>	<b>5</b>
	5.1 Trench 1	5
	5.2 Trench 2	6
<b>6</b>	<b>Discussion</b>	<b>8</b>
<b>7</b>	<b>Conclusions</b>	<b>10</b>
	<b>Acknowledgements</b>	<b>11</b>
	<b>Bibliography</b>	<b>11</b>

## List of Figures

- Figure 1: Site location plan
- Figure 2: Trench 1. Plan
- Figure 3: Trench 1. Section
- Figure 4: Trench 2. Plan of ditches 87 and 89
- Figure 5: Trench 2. Plan of early pits
- Figure 6: Trench 2. Plan of Structure 1
- Figure 7: Trench 2. Plan of Structure 2
- Figure 8: Trench 2. Plan of later pits
- Figure 9: Trench 2. Plan of Structure 3 also showing modern cellar
- Figure 10: Trench 2. South facing section (composite)
- Figure 11: Trench 2. East facing section (composite)
- Figure 12: Trench 2. West facing section

## **List of Plates**

Plate 1: Trench 1 showing well and cellar

Plate 2: Trench 2 showing beamslot 60

Plate 3: Trench 2 recording intercutting pits

## **List of Appendices**

Appendix 1: Context Summary	12
Appendix 2: Finds Summary	16
Appendix 3: Small Finds	18
Appendix 4: Pottery, by Sue Anderson	19
Appendix 5: Animal Bone, by Chris Faine	25
Appendix 6: Environmental Assessment, by Rachel Fosberry	29

## **1 Introduction**

This archaeological evaluation was undertaken in accordance with a Brief issued by Ken Hamilton of Norfolk Landscape Archaeology (Planning Application No. 06/01265/F), supplemented by a Specification prepared by CAM ARC, Cambridgeshire County Council (formerly Archaeological Field Unit).

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

The site archive is currently held by CAM ARC and will be deposited with the appropriate county stores in due course.

## **2 Geology and Topography**

The site sits on River Terrace Gravels overlying chalk (British Geological Survey Sheet 161/162). The River Wensum flows c.100m to the south with the site itself lying towards the northern edge of the valley.

This area, to the north of the River Wensum, sits within the medieval walled city of Norwich. The site occupies part of a narrow block of land bordered by Calvert Street (formerly Snailgate) to the east, St George's Street (formerly Gildengate) to the west, Cross Lane (formerly Tubbis Lane) to the north and Colegate to the south.

The modern topography of the site is generally flat.

## **3 Archaeological and Historical Background**

Many excavations have illuminated the history of the city of Norwich. Two are particularly relevant to the present study, due to their close proximity to the present site. In 1976 an area excavation was undertaken on the opposite side of St George's Street, this site is known as Alms Lane has been fully published (Atkin 1985). The second excavation was on the plot of land adjacent and to the south of the present site for which an interim report is available (Shelley 1999).

### **3.1 Prehistoric and Roman**

Little evidence of prehistoric activity has been found below modern Norwich, although recent excavations are beginning to change this picture. No finds of this period have however, been found in the vicinity of the present site.

Evidence of activity dating from the Roman period is also not prolific within the city as Norwich does not overlie a Roman predecessor. The regional *civitas* lay c.5km to the south of Norwich at Caistor St Edmund. It has long been suggested however, that Roman roads lie beneath the city. An east to west alignment from Bishopgate to St Benedict's and a north to south route along Ber Street or King Street to Oak Street have been suggested (Ayers 2003, 19-21). The latter of these lies some c.300m to the west of the present site. Despite there being no known Roman settlement Roman material is often found within the city in contexts of a later date.

### **3.2 Saxon**

The settlement of Norwich is thought to have Middle Saxon origins. During this period a number of small settlements lay along the valley bottom adjacent to the river. Finds of this period include Ipswich ware as well as metal objects. One of the Middle Saxon settlements 'Northwic' is thought to lay to the north of the river centring on the river crossing at Magdalen Street some 250m south-east of the present site. Excavations in Fishergate in both 1985 (Ayers 1994) and 2003 (Adams 2006) recovering artefacts of a Middle Saxon date.

It was however, during the Late Saxon period that Norwich came to prominence. The town occupied the north and south banks of the river, both of which were defended by a substantial bank and ditch. The line of the northern defences has been the subject of several archaeological investigations (Botolph Street, St George's Street and Alms Lane (Atkin, Carter and Evans 1985; Calvert Street, Bown 1990; Anglia Square, Percival and Westall 2007). These indicate that the western arm of the ditch is likely to lie immediately to the west of the present site, under St George's Street, with Calvert Street reflecting the line of the intramural street within the Saxon settlement.

### **3.3 Medieval**

At the start of the medieval period, with the arrival of the Normans in the city, the focus of activity clearly turned to the south bank of the river with the construction of the Castle and cathedral as well as the establishment of the new French Borough. The north bank however was not deserted as the presence of several churches of this date indicate (Ayers 2003, fig.23).



The medieval defences of the city were begun in the mid-13th century, with the masonry city wall being constructed between 1297 and 1344. This covered a much greater expanse than the preceding Late Saxon defences and the present site lies well within its boundary.

During the 13th to 14th century the tenement pattern of the medieval city was largely established. This has been well illustrated by excavation at the north end of Calvert Street where a post-hole alignment (which respects the line of the earlier Late Saxon defences) is retained and gradually updated being replaced by a flint wall and then by a brick wall being maintained until relatively recently (Ayers 2003, 97) and also by documentary evidence (Atkin et al., 94, 144). During this period much of the north bank of the river appears to have been utilised for industry metalworking evidence being recovered at Botolph Street, metalworking and brewing at Alms Lane and metalworking adjacent to the present site at 14 Calvert Street (Shelley 1999).

The excavations at Alms Lane in 1976 revealed buildings of clay and timber construction dating to the early 15th century (Atkin et al. 1985). Few stone buildings of this period are known to the north of the river with a survey of stone-undercrofts by Robert Smith (Ayers 2003, 122, fig 69) identifying only 4 on the north bank of the Wensun, while over 60 such buildings were identified on the south bank. The majority of these are 15th century in date.

### **3.4 Post-medieval**

Cunninghams map of 1558 shows that much of the area both to the east and north-west of the site to be open ground or orchard, though St Georges Street remains densely occupied. Settlement of the area subsequently expanded becoming occupied by Flemish migrants. This is evident from the Alms Lane excavations which showed building continued in use along the street frontages, with a subdivision of the properties and artefactual evidence for the presence of immigrants from the Low Countries (Atkin 1985; also Bown 1990). The migrants played an important part in the economic prosperity of the city at this time reinvigorating Norwich's textile manufacturing and cloth trade (Ayers 2003, 144).

Both Cleer's (1696) and Hochstetter's (1789) maps show that both the Snailgate (Calvert Street) and Gildengate (St George's Street) frontages as fully built up, possibly with small yards behind.

The area remained built up with housing up to the 2nd World War, when part of the area was obliterated by the bombing raids. Following this many of the cleared areas, including the present site, were re-occupied by light industry.

## 4 Methodology

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

Two trenches were excavated (Fig. 1), each measuring 4m x 4m, one was located towards the Calvert Street frontage (Trench 1) and the other towards the St George's Street frontage. Initial machine excavation was carried out, under constant archaeological supervision, with a mechanical excavator using a toothless ditching bucket. When a depth of c.1.2m had been reached both trenches were photographed and recorded in section and in plan.

It was intended that metal sheeting would be inserted in both the trenches however the nature of the deposits revealed in Trench 1 prevented the insertion of shoring in this instance. These deposits consisted of a cellar with a substantial concrete base occupying the southern half of the trench and extending beyond the west, south and east limits of excavation. Associated with this was a number of brick walls as well as extremely loose brick rubble fill. A well located under the northern section prevented the insertion of any shoring along this face of the trench. Following consultation with Ken Hamilton of Norfolk Landscape Archaeology, it was agreed that a small sondage would be excavated and recorded in the northern part of the trench. Excavation of the remainder of the trench was abandoned.

Shoring was successfully inserted into Trench 2 and further machine excavation was undertaken to a total depth of c.1.4m when a significant archaeological horizon was noted. All further excavation was undertaken by hand. After further excavation, in order to maintain a safe working area the base of the trench was stepped. Excavation within this central area continued until the natural soils were revealed.

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

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

Site conditions were generally good with the excavation lasting for ten days with a three week period during June 2008.

## 5 Results

### 5.1 Trench 1 (Figs 2 and 3)

As noted above excavation beyond a depth of 1.2m was limited to a sondage c.1.3m x 0.6m located in the north-east corner of the trench. The lowest deposit recorded here was a mid brown clayey loam (111). No dating evidence was recovered from this deposit, but the lack of inclusions within it, particularly the lack of ceramic building material, indicates it was most likely to have been a deposit of medieval date. This date is supported by the similarity between this deposit and several of the medieval deposits excavated in Trench 2.

Lying above this was a fairly compact orangey red make-up deposit (110) which was sealed by a brown sandy silt (109) that became noticeably lighter towards its top. An organic sandy layer (108) sat above this, above which was a light brown sandy clay (107) containing some large flints and lumps of mortar. These deposits are all thought to be Post-medieval make-up layers.

Over these was a substantial deposit of dark brown loam (04=106) with frequent brick, mortar and charcoal inclusions, along with some chalk and flint. This deposit contained noticeably more charcoal towards the bottom and more brick and mortar fleck towards the top. It is probable that was a garden soil which had gradually built up over time.

Cut into this was a circular well c.2m in diameter (Plate 1). It was constructed of red brick, probably Norfolk Reds. The upper parts of the construction included both whole and fragmentary bricks as well as the occasional large flint. These were set in a coarse grey mortar with large fragments of lime frequently apparent. The lower parts of the well were not seen.

Seen in the sondage dug to the east of the well were two deposits which may be contemporary with its use. The first of these was a dark brown clay loam (105) upon which a deposit of lime mortar (104) had been deposited. It is possible that this formed a surface. Sealing these deposits, and also probably sealing the well was dark brown silty loam (103) which may have been a garden soil.

The most recent archaeological feature uncovered was a cellar (05) which occupied the entire southern half of the trench. The concrete floor of this cellar was revealed at a depth of c.1.4m from the present ground surface. Two walls were revealed one crossing the trench from east to west (04), and the other at right angles to this along the western edge of excavation. These had been constructed of red brick in a hard white mortar. The cellar had been backfilled with large pieces of demolition debris (08).

All other deposits relate to the raising and levelling of the area in the latter part of the 20th century.

## 5.2 Trench 2

Natural gravel geology was encountered c.3m below the modern ground level at a depth of 1.4m OD.

The earliest archaeological features recorded were two ditches (**89** and **87**), the bases of which were cut in to the natural gravels (Figs 4 and 10). These linear features were orientated north-to-south. Ditch **89** was 1m wide and almost 1m deep. Ditch **87** was 0.8m wide and 0.5m deep and truncated the western edge of **89**. Both ditches were filled with dark brown gravel in a silty matrix. Neither contained any datable material.

Above was a series of deep intercutting pits (Figs 5 and 10) and homogeneous layers. These pits include **63**, **65**, **67**, and **82**. The primary fill of **65** was a light orange brown silty sand with occasional charcoal fleck (83) and the first fill of **67** was a loose grey chalky silt (84). The upper fills of these two pits and the fills of 63 and 82 were very similar, consisting of a dark orange brown sandy silt with moderate small and medium pebbles and occasional charcoal fleck. Of the five sherds of pottery recovered from these fills, four date between the 11th and 14th centuries, while the fifth is intrusive dating to the 15th to 17th centuries.

Immediately above these pits fills was layer 61=68. This was a homogeneous dark silty soil, 0.3m thick, with no distinctions visible in plan. It was removed as a spit although some of this material probably formed the upper fills of the underlying pits. Fifty-nine sherds of pottery were recovered from this deposit, including Late Saxon sherds (Thetford-type ware), early medieval wares (including Pingsdorf and Yarmouth-type shelly ware) and medieval wares (Andenne and Local medieval unglazed). Slag, including hearth bottoms were also recovered from this deposit.

Sitting above this deposit was evidence for a possible structure (Structure 1, Fig. 6). This consisted of one shallow posthole (**59**), part of a clay floor surface (54), an hearth (58) and an area of occupation material (55). The hearth was a shallow scoop (c.0.2m deep) which had been filled with fine layers of ashy and burnt material containing great quantities of charcoal and brown silty clay. Only a small area of the clay floor survives in the north-east corner of the trench where it appears to have slumped into one of the underlying pits. The deposit interpreted as occupation material (55) was made up of a dark reddish brown silty sand with frequent small flints, charcoal flecking and lenses

of burnt silty material. Pottery sherds of both Late Saxon and medieval date were retrieved.

Above these deposits was further evidence of occupation in the area. (53) was reddish brown silt with frequent charcoal fleck and lump and lenses of reddish orange baked sandy silt and covered all the central area of the trench to a depth of c.0.2m. Finds included oyster shell, animal bone and pottery including both Late Saxon and medieval wares. Above this in the north-east corner was the possible remnants of a second clay floor surface (52), again slumping into an underlying pit and a further deposit (51) incorporating occupation debris including charcoal, oyster shell and pottery indicating a 13th- to 14th-century date.

Occupation continued on the site with the construction of a more substantial building (Structure 2, Figs 7 and 11). This was made up of a beam slot (60), three post pads (45, 48 and 99) and a clay floor (50). The beam slot/foundation cut (60) (Plate 2), which ran on an east-to-west alignment was located in the north-west corner of the trench and extended beyond both the east and north edges of excavation. It was 0.70m wide and 0.80m deep with almost vertical sides and a flat base. Both its base and sides were lined with a yellow clay with charcoal and ceramic building material flecks (49) up to 0.3m thick. The three post-pads were on the same east-to-west alignment, but were to the south of the beam-slot and extended towards the western edge of excavation. All had been truncated by later features. The most complete had a diameter of c.0.65m and was 0.36m deep. All were filled with a very firm brownish yellow clay containing chalk lumps, charcoal and ceramic building material flecks, and lenses of grey silty material towards their bases. On the southern edge of the beam slot, the clay fill of the slot had been spread out to form a floor surface, another part of this surface (50) lay close by. From these structural elements three sherds of Local medieval unglazed ware (11th to 14th century) and a single sherd of Badorf-type ware of Middle Saxon date (8th to 9th century) were recovered.

The disuse of the building is represented by the upper fills of construction cut (60). These consisted of alternating layers of uncompacted dark grey clayey silt (34 and 36) which was so loose that voids existed within the material and mid grey compacted silty clay (33 and 35).

Cutting into the top of these features were a several intercutting pits (Figs 8, 10, 11 and 12, Plate 3). The earliest of these (30, 32 and 71) were located in the south-eastern part of the trench. These were all over 1.25m deep and contained fills of similar dark orangey brown sandy silt. Pottery indicates a possible 14th-century date for their backfill. Four later pits (24, 39, 43 and 73) were also identified. The pottery from the fills indicate a 15th- to 16th-century date for their backfilling.

Sealing these features was a thick cultivation soil (20). This deposit was a dark brown clay silt up to 0.6m thick and contained thirteen sherds of pottery, both medieval and late medieval which overall indicate a possible 15th century date for the accumulation of this soil.

Above this deposit there was slight evidence of a further structure. Two postholes were recorded (141 and 144), along with an area of compacted mortar floor surface (142). Part of a large pit (26) was seen in the north-east corner of the trench. This was over 1.2m in diameter and in excess of 1.2m deep. No dating material was recovered from its fills.

Part of a post-medieval flint and lime mortar wall (137) was noted in the north-west corner of the trench. This was associated with deposits of fire debris to its west.

Abutting the eastern side of this wall was part of a modern (20th century) cellar. This formed an entrance way into the cellar proper which had occupied much of the trench. Its north, east and west walls had been formed by red brick and floor was of 9inch pammments. The western wall of the cellar was of flint and mortar construction the inner face of which had been rendered. Where visible the mortar was a hard grey with visible line fragments within it. This was earlier than the build of cellar itself, but its date of construction was not established as it formed the west edge of the trench against which the shoring was inserted. It is possible that this may have formed the rear wall of a substantial Post-medieval building fronting onto St Georges Street.

## **6 Discussion**

### Trench 1

Due to the constraints of excavation within this trench only a limited picture of the archaeology was established. The medieval soil horizon was located at a depth of c.1.8m below present ground surface. Post-medieval deposits appear to have consisted of various episodes of either raising the ground surface or periods when the area may have occupied as gardens. The only structural evidence revealed dates to the 20th century.

### Trench 2

The earliest features recovered were two linear, north-to-south ditches. The location of these ditches is intriguing within the known topography of the Late Saxon town. The Late Saxon defensive ditch runs on a similar alignment to the west of the site, under St Georges Street. Its

western lip was revealed by excavations at Alms lane in 1976 (Atkin 1985). It is unlikely that the ditches recovered in the present excavation form the eastern edge of the ditch as this would indicate the ditch to be excessively (over 15m) wide. Excavations on Calvert Street 1989 (Bown 1990) and Botloph Street (Atkin et al., 1985) have revealed the ditch which has a maximum width of 8m, including recuts.

It is possible that the site under investigation was occupied by the inner bank associated with the defensive ditch or lay immediately to the east of the bank. No evidence of this bank was recovered. A similar situation was revealed at the adjacent excavation in Calvert Street (Shelley 1999) although the ground level at the west side of this plot was noted as being higher than at the east.

The date and purpose of the excavated ditches remains unclear, they could pre-date the defensive circuit and have been sealed by bank deposits, they may be contemporary with the defensive bank, perhaps forming roadside drainage ditches for an intra-mural road, or they could post-date the Late Saxon defences forming either roadside ditches or early property boundaries. The lack of pre-defensive features in the area, and the absence of such features contemporary with the bank in nearby excavations (Bown 1999) suggest that a later date for these features is most likely.

The following activity on the site showed no regard for the early ditches and took the form of a number of intercutting pits with pottery indicating an 11th- to 14th-century date. Given their location in the stratigraphic matrix these pits are likely to have been excavated and back filled in the earlier part of this time span. This accords with the adjacent excavation where a series of pits dating to the 11th to 12th centuries were the first activity identified on the site (Shelley 1999, Period 1). The lack of finds from the pits suggests that they may have been dug as quarry pits, rather than refuse pits.

Following this there was a period of general disuse where material was either dumped and soils allowed to accumulate so raising the level of the ground surface. Pottery indicates a 12th century date (equates with Shelley 1999, Period 2).

Occupation of the area in the form of built structures followed. The first phase of such activity took the form of floor surfaces, as hearth and a single posthole. Overlying this was a series of occupation deposits indicating that the structures themselves may have migrated slightly to another part of the area. Pottery indicates a time span of 12th to 14th centuries for this occupation comparable with structural evidence from adjacent excavations (Shelley 199) which was dated to the 13th and 14th centuries.

Further and more substantial structural evidence overlies this. This consisted of a beam slot, three post pads and an area of clay floor

surface. The beam slot is such that it was likely to have carried substantial timber-framed building.

The date of this activity also accords with other excavations in the area including Alms Lane where occupation was established in the 13th century (Atkin 1985). Little evidence of trade, industrial or craft activity was found during this evaluation. This is somewhat unusual as both nearby sites have produced evidence for metalworking.

Disuse of the building appears to date to the 15th century. The loose deposits within the clay filled beamslot suggests that timber may have deliberately removed. and soils allowed to fall into their place.

During the 15th to 16th centuries two phases of pitting , separated by a period of soil build up took place. This pitting is similar to the evidence from the adjacent site (Shelley 1999).

Slight evidence of a flint and mortar structure found in the north-west corner of the excavation. Much of this had been destroyed by later activity, but it also extends beyond the northern edge of excavation. A 15th- to 16th-century date is suggested for this building.

During the 17th to 18th century the adjacent site recorded a build up of soils across the site. This was not apparent Trench 2 although the small size of the trench and the extent of the 20th century cellar may have prevented this episode being recording in this area.

One feature which remains un-dated is the substantial north-to –south wall which formed the western edge of the excavation. It is possible that this represents the back wall of a substantial building which fronted onto St George's Street.

## **7 Conclusions**

Dating of the earliest features remains elusive. The area however was occupied by probable quarry pits during the 12th century. Makeup deposits were laid down, following which structures were built towards the St George's Street part of the site during the 12th to 14th centuries. Subsequent to a period of disuse the area was occupied by pits. Later buildings are hinted at and there may have been a substantial Post-medieval building fronting onto St George's Street. Modern activity has truncated much of the later archaeology although deposits from the 12th to 16th centuries lay reasonably undamaged.

Recommendations for any future work based upon this report will be made by the Norfolk Landscape Archaeology.



## Acknowledgements

The author would like to thank George Wilson of Oakbuild Ltd who commissioned and funded the archaeological work. The project was managed on behalf of CAMARC by Richard Mortimer and the excavators were the authors and Dave Brown.

The brief for archaeological works was written by Ken Hamilton, who visited the site and monitored the evaluation.

## Bibliography

- |  |       |   |
|--|-------|---|
| Adams, D.,                             | 2006, | <i>Archaeological Assessment and Updated Project Design for 40 Fishergate, Norwich</i> NAU Archaeology Rpt No. 1096   |
| Atkin, M.,                             | 1985, | 'Excavations on Alms Lane (site 302N)' in Atkin, M., Carter, A. and Evans, D.H., <i>Excavations in Norwich 1971-1978 Part II E.</i> Anglian Archaeol. 26, 144-260 |
| Atkin, M., Carter, A. and Evans, D.H., | 1985, | <i>Excavations in Norwich 1971-1978 Part II E.</i> Anglian Archaeol. 26   |
| Ayers, B.S.,                           | 2003, | <i>Norwich 'A Fine City'</i>  |
| Ayers, B.S.,                           | 1994, | <i>Excavations at Fishergate, Norwich 1985 E.</i> Anglian Archaeol. 68  |
| Bown, J.,                              | 1990, | <i>Excavations at Calvert Street/St George's Street, Norwich 1908-90</i> (Norfolk Archaeological Unit)  |
| Percival, J.W. and Westall, S.,        | 2007  | <i>An Archaeological Evaluation at Anglia Square, Norwich; Phase 1</i> NAU Archaeology Rpt No. 1538   |
| Shelley, A.,                           | 1999, | <i>Report on an Archaeological Excavation at 14 Calvert Street, Norwich</i> Norfolk Archaeological Unit Rpt No. 400   |

## Appendix 1: Context summary

Context	Trench	Type	Description
1	1	layer	rubble
2	1	layer	demolition debris
3	1	layer	rubble
4	1	layer	garden soil (=106)
5	1	cut	cellar cut
6	1	fill	fill of 5
7	1	cut	cellar wall
8	1	fill	fill of cellar
9	1	cut	well
10	1	masonry	well
11	1	fill	fill of 10
12	2	layer	rubble
13	2	layer	sand
14	2	fill	fill of cellar
15	2	masonry	floor of cellar
16	2	masonry	cellar wall
17	2	masonry	flint wall
18	2	cut	cellar
19	2	cut	cellar entrance (=22)
20	2	layer	makeup
21	2	fill	fill of 22
22	2	cut	cellar entrance (=19)
23	2	fill	fill of 24
24	2	cut	pit
25	2	fill	fill of 26
26	2	cut	pit
27	2	fill	fill of 26
28	2	fill	fill of 26
29	2	fill	fill of 30
30	2	cut	pit
31	2	fill	fill of 32
32	2	cut	pit
33	2	fill	fill of 37
34	2	fill	fill of 37
35	2	fill	fill of 37
36	2	fill	fill of 37
37	2	cut	pit
38	2	fill	fill of 39
39	2	cut	structure disuse
40	2	fill	fill of 43

Context	Trench	Type	Description
41	2	fill	fill of 43
42	2	fill	fill of 43
43	2	cut	pit
44	2	fill	fill of 45
45	2	cut	posthole
46	2	fill	fill of 48
47	2	fill	fill of 99
48	2	cut	posthole
49	2	fill	fill of 60
50	2	layer	surface
51	2	layer	occupation debris
52	2	layer	occupation debris
53	2	layer	occupation debris
54	2	layer	surface
55	2	layer	occupation debris
56	2	layer	fill of 59
57	2	fill	fill of 58
58	2	cut	hearth
59	2	cut	posthole
60	2	cut	beam slot
61	2	layer	makeup
62	2	fill	fill of 63
63	2	cut	pit
64	2	fill	fill of 65
65	2	cut	pit
66	2	fill	fill of 67
67	2	cut	pit
68	2	layer	makeup/pit fill
69	2	layer	fill of 87
70	2	fill	fill of 71
71	2	cut	pit
72	2	fill	fill of 73
73	2	cut	pit
74	2	fill	fill of 75
75	2	cut	pit
76	2	fill	fill of 77
77	2	cut	pit
78	2	fill	fill of 58
79	2	layer	fill of 26
80	2	layer	fill of 26
81	2	layer	fill of 26
82	2	cut	pit
83	2	fill	fill of 65

Context	Trench	Type	Description
84	2	fill	fill of 67
85	2	fill	fill of 82
86	2	fill	fill of 87
87	2	cut	ditch
88	2	fill	fill of 89
89	2	cut	ditch
90			not used
91			not used
92			not used
93			not used
94			not used
95			not used
96			not used
97			not used
98			not used
99	2	cut	posthole
100	1	layer	rubble
101	1	layer	orange sand
102	1	layer	rubble
103	1	layer	garden soil
104	1	layer	surface
105	1	layer	makeup
106	1	layer	garden soil (=4)
107	1	layer	makeup
108	1	layer	makeup
109	1	layer	makeup
110	1	layer	makeup
111	1	layer	buildup
112			not used
113			not used
114			not used
115			not used
116			not used
117			not used
118			not used
119			not used
120	2	fill	fill of 124
121	2	layer	makeup
122	2	layer	makeup
123	2	layer	makeup
124	2	cut	pit
125	2	layer	garden soil
126	2	layer	makeup
127	2	layer	rubble
128	2	layer	makeup

---

<b>Context</b>	<b>Trench</b>	<b>Type</b>	<b>Description</b>
129	2	fill	fill of 130
130	2	cut	demolition cut
131	2	fill	fill of 132
132	2	cut	hearth
133	2	fill	fill of 136
134	2	layer	makeup
135	2	layer	construction debris
136	2	cut	hearth
137	2	masonry	wall
138	2	cut	construction cut
139	2	layer	makeup
140	2	fill	fill of 141
141	2	cut	posthole
142	2	layer	surface
143	2	fill	fill of 144
144	2	cut	posthole
145	2	layer	makeup
146	2	layer	makeup
147	2	layer	makeup
148	2	fill	fill of 149
149	2	cut	pit
150	2	fill	fill of 43

## Appendix 2: Finds Summary

Context	Material	Object Name	Weight (kg)
20	Ceramic	Vessel	0.15
20	Shell	Oyster	0.03
20	Ceramic	Vessel	0.02
20	Organic	Bone	0.04
23	Organic	Bone	0.17
23	Ceramic	Vessel	0.15
23	Ceramic	Ceramic Building Material	0.21
27	Organic	Bone	0.36
27	Organic	Bone	0.38
27	Shell	Oyster	0.01
27	Shell	Oyster	0.04
27	Ceramic	Ceramic Building Material	0.02
27	Ceramic	Vessel	0.09
29	Organic	Bone	0.01
29	Ceramic	Vessel	0.10
31	Organic	Bone	0.18
31	Ceramic	Vessel	0.15
34	Organic	Bone	0.48
34	Ceramic	Vessel	0.09
34	Ceramic	Ceramic Building Material	0.11
36	Organic	Bone	0.38
36	Ceramic	Vessel	0.08
36	Ceramic	Ceramic Building Material	0.17
40	Ceramic	Vessel	0.05
40	Organic	Bone	0.02
40	Ceramic	Ceramic Building Material	0.78
48	Organic	Bone	0.04
48	Ceramic	Vessel	0.04
48	Shell	Oyster	0.01
50	Ceramic	Vessel	0.00
51	Organic	Bone	0.02
51	Shell	Oyster	0.01
51	Ceramic	Vessel	0.05
51	Ceramic	Ceramic Building Material	0.01
52	Organic	Bone	0.01
52	Ceramic	Vessel	0.13
53	Organic	Bone	0.07
53	Ceramic	Vessel	0.14
53	Shell	Oyster	0.00
53	Ceramic	Ceramic Building Material	0.05
53	Bone	Bone	0.00

<b>Context</b>	<b>Material</b>	<b>Object Name</b>	<b>Weight (kg)</b>
53	Bone	Bone	0.02
53	Bone	Bone	0.00
54	Organic	Bone	0.07
54	Ceramic	Vessel	0.01
54	Shell		0.02
55	Organic	Bone	0.16
55	Ceramic	Vessel	0.19
55	Shell	Oyster	0.04
56	Ceramic	Vessel	0.01
56	Organic	Bone	0.04
56	Ceramic	Vessel	0.00
56	Ceramic	Vessel	0.00
57	Organic	Bone	0.00
57	Ceramic	Vessel	0.02
57	Bone	Bone	0.00
57	Bone	Bone	0.00
57	Bone	Bone	0.00
61	Organic	Bone	0.40
61	Horn		0.05
61	Organic	Bone	0.19
61	Ceramic	Vessel	0.20
61	Slag	including hearth bottoms	0.37
61	Ceramic	Vessel	0.33
61	Ceramic	Ceramic Building Material	0.09
62	Ceramic	Vessel	0.07
62	Bone	Bone	0.04
62	Bone	Bone	0.01
62	Bone	Bone	0.00
62	Bone	Bone	0.01
64	Organic	Bone	0.01
64	Ceramic	Vessel	0.01
64	Bone	Bone	0.02
64	Bone	Bone	0.00
68	Slag		2.09
68	Organic	Bone	0.22
68	Organic	Bone	0.12
68	Ceramic	Vessel	0.39
68	Shell		0.01
68	Ceramic	Ceramic Building Material	0.02
68	Ceramic	Vessel	0.04
68	Bone	Bone	0.01
68	Bone	Bone	0.00
68	Bone	Bone	0.02
99999	Organic	Bone	0.08
99999	Ceramic	Ceramic Building Material	0.11

**APPENDIX 3: Small Finds**

SF No	Context	Material	Description
1	25	Copper alloy	rectangular decorative fitting (0.90m x 0.38m) with flat socket at base (0.24m wide and 0.06m deep)
2	20	Stone	whetstone (incomplete) 0.90m long, tapered
3	36	Bone	goose ulna with one end sliced to make a point
4	27	Copper alloy	fragment of large vessel
5	34	Iron	nail fragment
6	56	Iron	nail fragment



## APPENDIX 4: POTTERY

Sue Anderson, July 2008.

### Introduction

A total of 160 sherds of pottery weighing 2523g was collected from 21 contexts. Table 1 shows the quantification by fabric; a summary catalogue by context is included as Appendix 1.

Description	Fabric	Code	No	% No	Wt/g	% Wt	eve	MNV
Badorf Ware	BAD	7.60	1		13			1
Thetford-type ware	THET	2.50	8		243			8
Thetford-type ware (Grimston)	THETG	2.57	4		184		0.15	3
Stamford Ware Fabric A	STAMA	2.61	1		10			1
Saxo-Norman wares	SXNO	2.80	2		12			2
Early medieval' sandwich wares	EMSW	3.16	2		60			2
<i>Total Middle-Late Saxon</i>			18	11.3	522	20.7	0.15	17
Early medieval wares	EMW	3.10	15		68		0.08	14
Early medieval ware gritty	EMWG	3.11	1		4			1
Yarmouth-type shelly ware	YAR	3.17	5		63			4
Early medieval sparse shelly	EMWSS	3.19	2		23			1
Pingsdorf Ware	PING	7.24	12		363		0.20	1
<i>Total early medieval</i>			35	21.9	521	20.7	0.28	21
Medieval coarsewares	MCW	3.20	1		24		0.10	1
Grimston coarseware	GRCW	3.22	1		5			1
Local medieval unglazed	LMU	3.23	63		665		1.12	57
Unprovenanced glazed	UPG	4.00	2		57		0.15	2
Grimston-type Ware	GRIM	4.10	18		351			15
Yarmouth-type glazed ware	YARG	4.11	4		71		0.41	1
Yorkshire glazed wares	YORK	4.43	1		23			1
London-type Ware	LOND	4.50	1		13			1
Andenne Ware	ANDN	7.62	2		16			1
<i>Total medieval</i>			93	58.1	1225	48.6	1.78	80
Late Medieval and Transitional	LMT	5.10	5		69			5
Late Grimston Ware	GRIL	5.30	4		77			2
Dutch-type Redwares	DUTR	7.21	3		86		0.09	3
Dutch-type Whitewares	DUTW	7.22	1		11			1
<i>Total late medieval</i>			13	8.1	243	9.6	0.09	11
Unidentified	UNID	0.001	1	0.6	12	0.5		1
<b>Total</b>			<b>160</b>		<b>2523</b>		<b>2.3</b>	<b>130</b>

Table 1. Pottery quantification by fabric.

### Methodology

Quantification was carried out using sherd count, weight and estimated vessel equivalent (eve). A full quantification by fabric, context and feature is available in the archive. All fabric codes were assigned from the author's post-Roman fabric series, which includes East Anglian and Midlands fabrics, as well as imported wares. Imports were identified from Jennings (1981). Form terminology follows MPRG (1998). Recording uses a system of letters for fabric codes together with number codes for ease of sorting in database format. The results were input directly onto an Access database.

## **Pottery by period**

### ***Middle to Late Saxon***

One sherd of Badorf-type ware of Middle Saxon date (8th–9th c.) was recovered from pit [48]. It was decorated with a band of diamond rouletting. No other material of this date was identified.

Local Late Saxon wares (THET, THETG, EMSW) comprised body and base sherds, including three pieces decorated with an applied strip, and an unusual beaded jar rim. A fairly coarse whiteware base from oven fill (57) with external spots of yellow glaze has been tentatively identified as Stamford Ware, but it is possible that the sherd could be French and medieval in date. Two sherds were probably Late Saxon but of uncertain provenance. One was an oxidised sherd which may be a Thetford-type variant, and the other was a brownish body sherd in a fine fabric tempered with occasional coarse quartz; the latter may be an import.

### ***Early medieval***

The usual range of early medieval wares was present in this group, including the typical medium sandy thin-walled handmade wares, plus a few sherds of gritty and calcareous-tempered pottery. Most sherds were body and base fragments, but one jar with a simple everted rim was present in EMW.

Imported ware of this date comprised 12 sherds of a Pingsdorf spouted pitcher in the hard reduced fabric. The shoulder was decorated with red-painted dashes. The sherds were found in two contexts, layer [61] and pit fills (68).

### ***Medieval***

Over half the assemblage by count was of high medieval date. Coarsewares were dominated by the typical Norwich LMU fabrics, ranging from very fine micaceous through to moderately sandy, and generally pale to dark grey, though a few sherds were oxidised and possibly early. Ten LMU vessels were identifiable to form, all jars. Of these, six had early, simple everted rims (11th–13th-century) and three had developed, thickened everted rims (13th/14th-century). One other rim was in a more unusual form, having an upright neck and shorted everted top. One jar rim was probably of non-local, but likely regional, origin; it was a medium sandy greyware with occasional calcareous and large flint inclusions and the rim was a flanged form. One body sherd of Grimston-type coarseware was also present.

Thirty percent of the medieval group comprised glazed wares; this is a relatively high proportion which is comparable with high status sites in the City. The majority were Grimston-type wares, but apart from one wide strap handle, all fragments were body sherds. One sherd was decorated with applied feathers, one was rilled, and two had shoulder cordons. Cross-matches were noted between pits [30] and [32], and within the fills of pit [37]. The latter was a large globular jug of probable 14th-century date. Four sherds of Yarmouth-type glazed ware were from a jug with yellowish-brown glaze. Non-local wares included single body sherds of Yorkshire-type and possibly

London origin, and two unprovenanced wares. One of these was similar to Grimston but with more abundant sand tempering and patches of brick-red oxidation externally; this may be a regional or Low Countries product. The other was a jug rimsherd in an oxidised medium sandy fabric with some coarser ?quartz inclusions and a reduced surface, possibly another London ware. The only certain import of this period comprised two sherds of an Andenne Ware vessel from Belgium.

### **Late medieval**

Late medieval pottery was not common in the assemblage. The local wares (LMT and GRIL) were represented by body and base sherds only, although one ?GRIL sherd in layer [20] was a large knob, possibly from an ornate lid. Three sherds of Dutch-type redwares included a tripod base from a cauldron, and a skillet rim. A body sherd of fine whiteware from pit fill (23), with copper green glaze externally and incised horizontal lines, is most likely of late medieval date. It has been identified as Dutch, although Dutch whitewares tend to be glazed on both surfaces. A French origin is also possible.

### **Unidentified**

A base sherd from oven fill [57] in a coarse fabric, with oxidised surfaces and reduced core, could be a rural THET variant or a medieval coarseware.

### **Pottery by context**

A summary of the pottery by feature is provided in Table 2. All pottery was recovered from contexts in Trench 2.

<b>Context</b>	<b>Description</b>	<b>Fabric</b>	<b>No.</b>	<b>Date</b>
20	layer	EMSW, LMU, UPG, YORK, GRIM, GRIL, LMT	13	15th c.
23	fill of pit 24	THET, LMU, GRIM, DUTW, LMT	19	15th-16th c.
27	fill of pit 26 (upper)	EMSW, DUTR	2	15th-16th c.
29	fill of pit 30	GRCW, LMU, GRIM	7	13th c.?
31	fill of pit 32	EMW, LMU, GRIM, YARG	13	14th c.
34	fill of pit 37	GRIM, DUTR	2	15th c.?
36	fill of pit 37 (lower)	YAR, LMU, GRIM, UPG	4	13th c.?
40	fill of pit 40	LMT	1	15th/16th c.
48	pit	BAD, LMU	3	11th-14th c.
50	layer	EMW	1	11th-12th c.
51	layer	LMU, GRIM	2	13th-14th c.
52	layer	THETG	2	11th c.
53	layer	SXNO, EMW, LMU, GRIM	9	13th c.?
54	layer	EMW	2	11th-12th c.
55	layer	THETG, EMW, LMU, GRIM	12	13th c.?
56	fill of pit 59	LMU, LOND	2	12th-14th c.
57	fill of oven 58	STAMA, UNID	2	LSax?
61	layer	THET, THETG, SXNO, EMW, EMWSS, YAR, PING, ANDN, LMU	42	12th c.
62	fill of pit 63	EMWG, LMU, MCW, DUTR	4	15th-16th c.
64	fill of pit 65	LMU	1	11th-14th c.
68	intercutting pit fills	PING, LMU	17	11th-13th c.

Table 2. Pottery types present by context.

Several contexts contained residual material, indicating the high degree of disturbance typical of urban sites. However, the spotdates suggest that features of Late Saxon, early medieval, high medieval and late medieval date can all be identified on the site.

## Discussion

Unusually, early medieval wares were more common in this assemblage than Late Saxon pottery. This may suggest that, despite the single Middle Saxon sherd, activity was limited on the site before the 11th century. Wares and forms of Late Saxon and early medieval date are generally comparable with the ranges of pottery found on most contemporary Norwich sites, although one unusual jar form was present.

Medieval wares formed the largest group in the assemblage and – whilst local wares predominated as usual – included pottery from a number of English and European sources, some of which are unidentified. However, it is likely that these were sourced from the broader East Anglian region or the near-Continent. Certainly nothing exotic, such as Iberian or Italian wares, were present in this group. However, the presence of imported wares on a site which is located some distance from the Quayside may be indicative of status, as is the high proportion of glazed wares overall. The assemblage was probably domestic, containing both cooking pots and decorative table wares, and probably represents the disposal of waste from one or more nearby households.

The few sherds of late medieval wares and lack of anything later suggest that the disposal of rubbish within the confines of the site had largely ceased by the 16th century. This may indicate that the excavated area was covered by a building at this point. Apart from the decorative lid, all vessels of this date were typical cooking pots of the period.

The period groups are individually too small for further interpretation, but the assemblage does appear to provide tentative evidence for moderate to high status in the medieval period.

## References

Jennings, S., 1981, *Eighteen Centuries of Pottery from Norwich*. E. Anglian Archaeol. 13, Norwich Survey/NMS.

MPRG, 1998, *A Guide to the Classification of Medieval Ceramic Forms*. Medieval Pottery Research Group Occasional Paper 1.

## Pottery catalogue

Context	Fabric	Form	Rim	No	Wt/g	Spot date	Fabric date range
20	LMU	jar	THEV	1	13		11th-14th c.
20	EMSW			1	26		11th-12th c.

Context	Fabric	Form	Rim	No	Wt/g	Spot date	Fabric date range
20	GRIM			3	23		L.12th-14th c.
20	GRIM			1	11		L.12th-14th c.
20	YORK			1	23		Medieval
20	UPG	jug	UPTH	1	38		L.12th-14th c.
20	GRIL	lid?		1	40	15th/16th c.	14th-15th c.?
20	GRIL			3	37		14th-15th c.?
20	LMT			1	6		15th-L.16th c.
23	THET			1	13		10th-11th c.
23	LMU			9	48		11th-14th c.
23	LMU			1	5		11th-14th c.
23	LMU	jar	SEV	1	4		11th-14th c.
23	DUTW			1	11	LMed?	15th-17th c.
23	GRIM			3	25		L.12th-14th c.
23	LMT			1	23		15th-L.16th c.
23	LMT			1	10		15th-L.16th c.
23	LMT			1	16		15th-L.16th c.
27	EMSW			1	34		11th-12th c.
27	DUTR			1	14		15th-17th c.
29	LMU			2	4		11th-14th c.
29	LMU			2	28		11th-14th c.
29	GRCW			1	5		11th-M.13th c.
29	GRIM			1	42		L.12th-14th c.
29	GRIM			1	15		L.12th-14th c.
31	EMW			1	11		11th-12th c.
31	EMW			1	6		11th-12th c.
31	LMU			3	18		11th-14th c.
31	GRIM			2	22		L.12th-14th c.
31	GRIM			1	1		L.12th-14th c.
31	GRIM			1	12		L.12th-14th c.
31	YARG	jug	UPPL	4	71		13th-15th c.
34	GRIM			1	54	14th c.	L.12th-14th c.
34	DUTR			1	35		15th-17th c.
36	YAR			1	11		11th-12th c.
36	LMU			1	6		11th-14th c.
36	GRIM	jug		1	43	14th c.	L.12th-14th c.
36	UPG			1	19		L.12th-14th c.
40	LMT			1	14		15th-L.16th c.
48	LMU	jar	UPEV	1	29		11th-14th c.
48	LMU			1	8		11th-14th c.
48	BAD			1	13		MSax
50	EMW			1	3		11th-12th c.
51	LMU	jar	THEV	1	34		11th-14th c.
51	GRIM			1	19		L.12th-14th c.
52	THETG	jar	BD	2	134		10th-11th c.
53	SXNO			1	7		850-1150
53	EMW			1	6		11th-12th c.
53	LMU			4	23		11th-14th c.
53	LMU			2	47		11th-14th c.
53	GRIM			1	60		L.12th-14th c.

Context	Fabric	Form	Rim	No	Wt/g	Spot date	Fabric date range
54	EMW			2	5		11th-12th c.
55	THETG			1	12		10th-11th c.
55	EMW			2	7		11th-12th c.
55	LMU			6	81		11th-14th c.
55	LMU	jar	SEV1	1	27	11-13	11th-14th c.
55	LMU	jar	THEV	1	39	13-14	11th-14th c.
55	GRIM			1	24		L.12th-14th c.
57	STAMA			1	10		M.10th-L.11th c.
57	UNID			1	12	LSax?	
56	LMU			1	4		11th-14th c.
56	LOND			1	13		L.12th-E.14th c.
61	THET			5	74		10th-11th c.
61	THET			1	32		10th-11th c.
61	THET	LSV		1	124		10th-11th c.
61	THETG			1	38		10th-11th c.
61	EMW			6	25		11th-12th c.
61	EMW	jar	SEV1	1	5		11th-12th c.
61	EMWSS			2	23		11th-12th c.
61	YAR			2	30		11th-12th c.
61	YAR			1	17		11th-12th c.
61	YAR			1	5		11th-12th c.
61	LMU			14	69		11th-14th c.
61	LMU	jar	SEV1	1	36		11th-14th c.
61	LMU	jar	SEV1	1	8		11th-14th c.
61	LMU	jar	SEV2	1	13		11th-14th c.
61	SXNO			1	5		850-1150
61	PING			1	15		10th-13th c.
61	ANDN			2	16		12th-13th c.
62	EMWG			1	4		11th-12th c.
62	LMU			1	27		11th-14th c.
62	MCW	jar	FLAN	1	24		L.12th-14th c.
62	DUTR	skillet	FTEV	1	37		15th-17th c.
64	LMU			1	14		11th-14th c.
68	LMU	jar	SEV1	6	80		11th-14th c.
68	PING	pitcher	SQBD	11	348		10th-13th c.

*Notes:*

Form: LSV – large storage vessel

Rim: BD – beaded; UPTH/EV/BD – upright thickened/everted/bead; SQBD – square-beaded; FLAN – flanged; FTEV – flat-topped everted; THEV – thickened everted; SEV(1 & 2) – simple everted

## APPENDIX 5: The Animal bone

By Chris Faine

### Introduction/Methodology

A total of 41 “countable” bones were recovered from the Calvert Street, Norwich evaluation with a further 45 fragments not identifiable to species. Faunal remains were primarily recovered contexts dating from late to post-medieval periods. All data was initially recorded using a specially written MS Access database. Bones were recorded using a version of the criteria described in Davis (1992) and Albarella & Davis (1994). Sheep/goat differentiation was attempted on the distal metapodials using Payne (1969). Measurements were largely carried out according to the conventions of von den Driesch (1976). Measurements were either carried out using a 150mm sliding calliper or an osteometric board in the case of larger bones. This report includes material from sieved samples

### The assemblage

The following contexts contained no identifiable fragments: **5, 20, 44, 55, 56 & 57**. As one would expect the assemblage is dominated by domestic mammals along with smaller numbers of wild mammal and fish remains. As shown in table 1 cattle remains make up the largest number of identifiable fragments, along with smaller numbers of sheep/goat and pig remains. Cattle remains largely consist of distal limb elements such as astragali and radii, along with smaller numbers of meat bearing elements. All fragments are from physically mature animals, aside from three metacarpals from context **27** from animals around ½ -2 years of age. Only one ageable mandible was recovered from context 68 from an animal aged 2 ½ to 3 years of age.

Interestingly sheep/goat remains consist largely of mandibles, with only a few postcranial elements being represented. Out of 6 ageable mandibles two were from animals aged 3-4 years, three from animals aged 4-6 years and one aged 6-8 years at death. All mandibles were recovered from contexts dated to the 12<sup>th</sup> –14<sup>th</sup> centuries. Two distal metacarpals were identified as goat, with one being identified as sheep. Aside from this little metrical data was available from the long bones. However, analysis of the average width of the mandibular molars (see table 2) suggests a population comparable in size to that from the Castle Mall assemblage (Albarella et al, forthcoming). Only one fragments of pig remains was recovered in the form of a single butchered atlas from context **27**.

Domestic fowl remains were recovered from a number of contexts. Of the three elements that could be assigned to sex all were female. No juvenile remains were recovered. A single measurable femur is at the larger end of the size range seen at Castle Mall. One example of worked bone was recovered in the form of large needle or awl fashioned from a left goose ulna.

Fish bone was largely recovered from sieved samples, with two pieces present in the hand-collected assemblage. The assemblage consisted entirely of vertebrae from a large gadid species, most likely cod. These remains are of similar and concentrated

in 3 contexts (54, 62 & 68), therefore it is possible that each context contains the remains of single fish.

## Discussion

Although extremely small the assemblage is indicative of domestic waste of type commonly found in urban deposits of this period such as those from Castle Mall and Music House lane (Wallis, 2008). From the limited evidence it appears that cattle were exploited in this case primarily for meat, with sheep being kept till old age as the late medieval and post medieval economy concentrated on wool rather than meat production. The presence of goat remains is unusual. In terms of the archaeological record they are rare in all periods (particularly in the late and post medieval), being mainly bred in the country for milk at this time (Albarella et al, forthcoming). It has never been highly regarded as a meat animal. Analysis of goat remains (as well as preserved skins) from the nearby Castle Mall site suggests that goat hides and attached skeletal elements were brought into the town for craft purposes rather than whole animals (Ibid). Cod, along with herring, were the main food fish for the city during the periods in question. Although cod of this size were often salted or dried no evidence for this was seen in the assemblage. Domestic fowl were primarily raised for eggs and meat, with geese also being raised for meat, eggs and feathers.

## References

Albarella, U & Davis, S. J. M. 1994. *The Saxon & Medieval animal bones excavated 1985-1989 from West Cotton, Northamptonshire*. AML Rep. Ser. 17/1994.

Albarella, U., Beech, M., Locker, A., Moreno-Garcia, M., Mulville, J. & Curl, J. Forthcoming. *Norwich Castle: Excavations and Survey 1987-98. Part III: A Zooarchaeological Study*. East Anglian Archaeology

Davis, S. 1992. *A rapid method for recording information about mammal bones from archaeological sites*. AML rep. 81/91 London.

Driesch, A von den. 1976. *A guide to the measurement of animal bones from archaeological sites*, Harvard: Peabody Museum of Archaeology and Ethnology Bulletin 1.

Grant, A. 1982. The use of tooth wear as a guide to the age of domestic ungulates. In B. Wilson, C. Grigson & S. Payne (eds.) *Ageing and sexing animal bones from archaeological sites*. Oxford: BAR British Series 199

Payne, S. 1969. A metrical distinction between sheep and goat metacarpals, in Ucko, P.J. & Dimbelby, G.W. (eds.) *The domestication and exploitation of plants and animals* pp. 295-305. London

Wallis, H. 2008. *Music House Lane, Norwich: Evaluation*. CAMARC Rep. 1038



<b>Domestic Mammals</b>	<b>NISP</b>	<b>NISP%</b>	<b>MNI</b>	<b>MNI%</b>
Cattle ( <i>Bos</i> )	14	32.9	9	33
Sheep/Goat ( <i>Ovis/Capra</i> )	10	22	7	25
Pig ( <i>Sus scrofa</i> )	2	4.5	1	3.5
Sheep ( <i>Ovis aries</i> )	1	2.2	1	3.5
Goat ( <i>Capra hircus</i> )	1	2.2	1	3.5
<b>Other Mammals</b>				
Cat ( <i>Felis sylvestris</i> )	2	4.5	1	3.5
<b>Birds</b>				
Domestic Fowl ( <i>Gallus sp.</i> )	6	13.6	4	14
Domestic Goose ( <i>Anser sp.</i> )	2	4.5	2	7
<b>Fish</b>				
Cod ( <i>Gadus morhua</i> )	6	13.6	2	7
<b>Total:</b>	<b>44</b>	<b>100</b>	<b>28</b>	<b>100</b>

Table 1: Species distribution for entire assemblage (NISP &amp; MNI)

<b>Castle Mall</b>			
	<b>Mean</b>	<b>Min</b>	<b>Max</b>
<b>M1W</b>	71	63	79
<b>M2W</b>	79	72	86
<b>M3W</b>	81	69	86

<b>Calvert St</b>			
	<b>Mean</b>	<b>Min</b>	<b>Max</b>
<b>M1W</b>	71	64	76
<b>M2W</b>	79	71	87
<b>M3W</b>	82	68	88

Table 2: Comparison between Sheep/Goat lower molar widths between the Castle Mall and Calvert St assemblages

<b>Context</b>	<b>Weight (g)</b>
20	41
27	756
31	373
34	485
36	298
40	29
48	41
51	15
52	11
53	71
55	160
56	41
57	2
61	629
62	34
64	10
68	340
<b>Total:</b>	<b>3.33</b>

Table 3: Weight of all bone by context (includes material from sieved samples).

## **APPENDIX 6: Environmental Assessment**

By Rachel Fosberry

### **Introduction**

Six samples were taken from across the evaluated area and submitted for an initial appraisal. Features sampled include secure archaeological contexts within pits, an oven or hearth and a medieval layer. The features were all dated to the medieval period by pottery spot dates.

### **Methodology**

The volume of bulk soil samples collected was between 5 – 20L. Up to ten litres of each sample were processed by water flotation for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The flots were collected in a 0.5mm nylon mesh and the residues were washed through a 1mm mesh. Both flot and residue were allowed to air dry. The dried residues were passed through 5mm and 2mm sieves and a magnet was dragged through each resulting fraction prior to sorting for ecofacts (e.g. animal bone, fish bone, charcoal, shell, etc..) and artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds. The flot was examined under a binocular microscope at x16 magnification. Identifications were made by the author without comparison to the OA East reference collection and should be seen as provisional. Nomenclature for the plant classification follows Stace (1997).

### **Quantification**

The results obtained are summarised on Table 1

### **Results**

#### ***Preservation***

The plant remains were preserved by carbonisation except for Sample 5 which contained woody material preserved by waterlogging in addition to charred remains.

#### ***Plant Remains***

##### ***Cereals***

Charred cereal grains are present in three of the samples. Barley (*Hordeum* sp.) grains predominate. Wheat (*Triticum* sp.) and Rye (*Secale cereale*) grains are both found in Sample 1. Sample 1 contains the most number of grains but none of the

samples produced cereal grains in quantities of more than 15 grains. Chaff elements are absent.

### **Weed seeds**

Weed seeds are rare and include brassicas (*Brassica* sp.), corn gromwell (*Lithospermum arvense*) and large grass (*Poaceae* sp. ). Most of the samples contain uncharred seeds of elderberry (*Sambucus* sp.).

### **Other plant remains**

Charred heather (*Calluna vulgaris*) is present in Samples 1 and 2 where it is mixed with wood charcoal and in Sample 3 in which it predominates. Seeds of *C.vulgaris* are also present in Sample 3.

### **Ecofacts and Artefacts**

#### **Bone**

Small fragments of animal bone are present in most of the samples and elements of fish bone occur in all of the Samples except for Sample 3.

#### **Pottery**

Small sherds of pottery were recovered from four of the sample residues.

#### **Slag**

Fragments of undiagnostic slag were recovered from Samples 1, 4, 5 and 6.

#### **Contamination**

Modern seeds and roots were present in most of the samples

### **Discussion**

The plant remains in this assemblage are dominated by wood charcoal and burnt heather . Heather turves were traditionally used as fuel and heather was also used as bedding/packing material and may have been burnt after use. Cereal grains are relatively rare. Large well-preserved grains of barley predominate along with a few grains of wheat and rye, but numbers are low indicating that spillage/discard of whole grains was rare. The grains may have been accidentally burnt while being dried prior to storage or during cooking over open fires prior to being deliberately deposited in pits or accumulating on the excavated area of the layer.

Fish bones predominate in this assemblage suggesting that fish was a dietary constituent. All elements of the bones seem to be represented although fish scale was relatively rare. Samples 4, 5 and 6 all contained fragmented bones.

This assemblage closely resembles that from a nearby site at Coslany Street situated to the west of Calvert Street, adjacent to the river (Heather Wallis, pers comm.). The charred plant remains from Coslany Street also included stem fragments of heather together with low quantities of cereal grains.

### **Conclusions and recommendations**

The preliminary appraisal of a selection of samples from this site have shown that there is potential for the recovery of plant remains, however the low density of charred plant macrofossils in this assemblage limits interpretation of the features sampled. It is not considered that full analysis would add significantly to this and further work is not recommended.

10 litres of each sample has been examined the first instance. From the results obtained, it is not recommended that further material should be processed. Analysis of the fish bones could provide an insight into diet and butchery practice.

### **Bibliography**







Stace, C., 1997      *New Flora of the British Isles*. Second edition. Cambridge University Press

Sample No.	Context No.	Cut No.	Feature Type	Sample Size (L)	Comments	Flot Volume (ml)	Cereals	Weed Seeds	Charcoal <2mm	Charcoal >2mm	Small Bones	Flot comments	Small animal bones	Large animal bones	Fishbone	Marine molluscs	Pottery	CBM	Slag	Metal	Residue comments		
1	53		layer		Burnt silt. Medieval deposit. Fireplace waste? 20 Industrial or domestic?	450	###	##	###	###		mix of wood charcoal and burnt heather	##				#			Fe nail			
2	57	58	pit	10	mixed burnt material from possible oven	400	###	##	###	###		mix of wood charcoal and burnt heather	#				#		#				
3	56	59	pit	10	dark ashy deposit with some pot	300		#	###	###		predominantly burnt heather										No finds	
4	68		pit	5	Intercutting pit fills with some pot	15			##	##		small bone fragments, predominantly fish bone	##				#		##		Fe nail		
5	64	65	pit	5	base of pit fill with some pot	20			##	##		small bone fragments, predominantly fish bone				#		#	#			waterlogged preserved twigs	
6	62	63	pit	5	base of pit fill with some pot	10			##	##		small bone fragments, predominantly fish bone	#						##				






Key: # = 1-10 specimens, ## = 11-50, ### = 51+

## Drawing Conventions

### Plans

Limit of Excavation	—————		
Deposit - Conjectured	-----		
Sondages/Machine Strip	- - - - -		
Intrusion/Truncation	-----		
Illustrated Section	<u>S.14</u>		
Cut Number	<b>118</b>	Deposit Number	117
Archaeological Feature		Wall	
Natural		Archaeological Deposit	
Modern Deposit		Brick / CBM	

### Sections

Limit of Excavation	-----		
Cut	—————		
Cut-Conjectured	-----		
Deposit Horizon	—————		
Deposit Horizon - Conjectured	-----		
Intrusion/Truncation	-----		
Top Surface/Top of Natural	—————		
Break in Section/ Limit of Section Drawing	-----		
Cut Number	<b>118</b>	Ordnance Datum	18.45m OD 
Deposit Number	117		
Stones		Clay	
Brick		Charcoal	



© Crown Copyright. All rights reserved Cambridgeshire County Council 100023205 2008

Figure 1: Location of trenches (black) with the development area outlined (red)



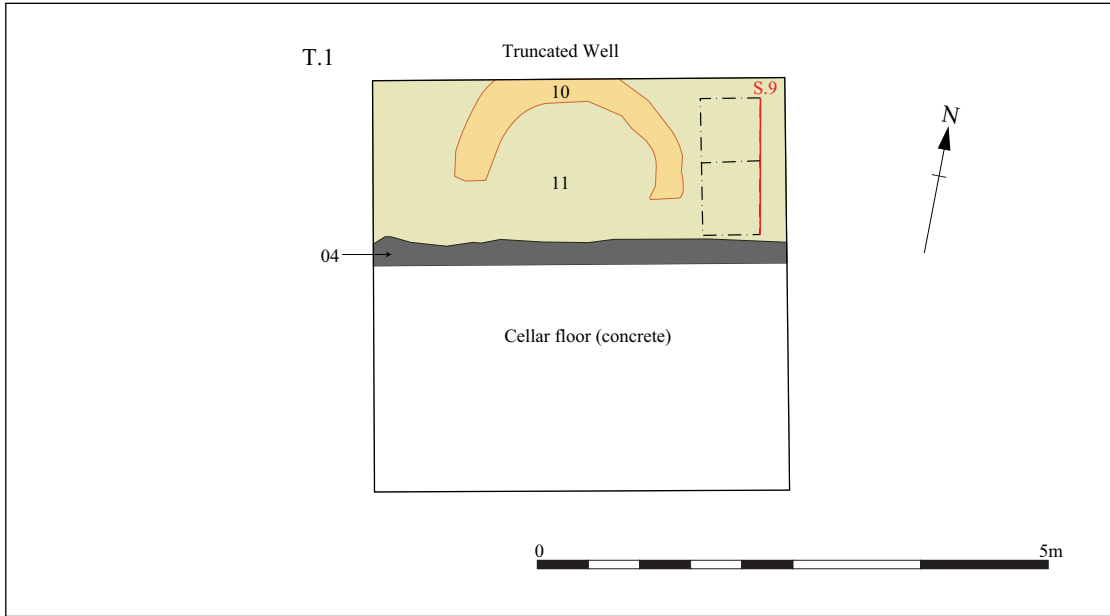


Figure 2: Trench 1 plan

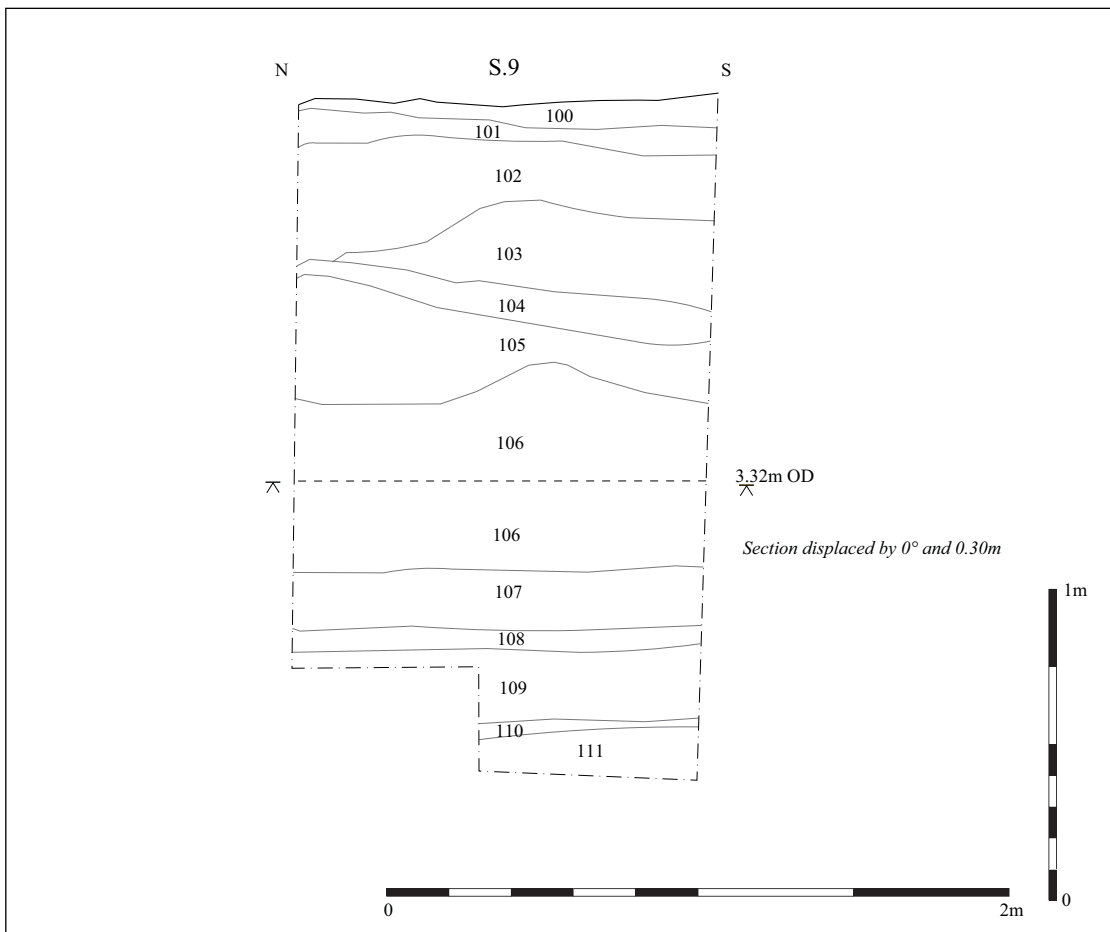


Figure 3: Trench 1 section

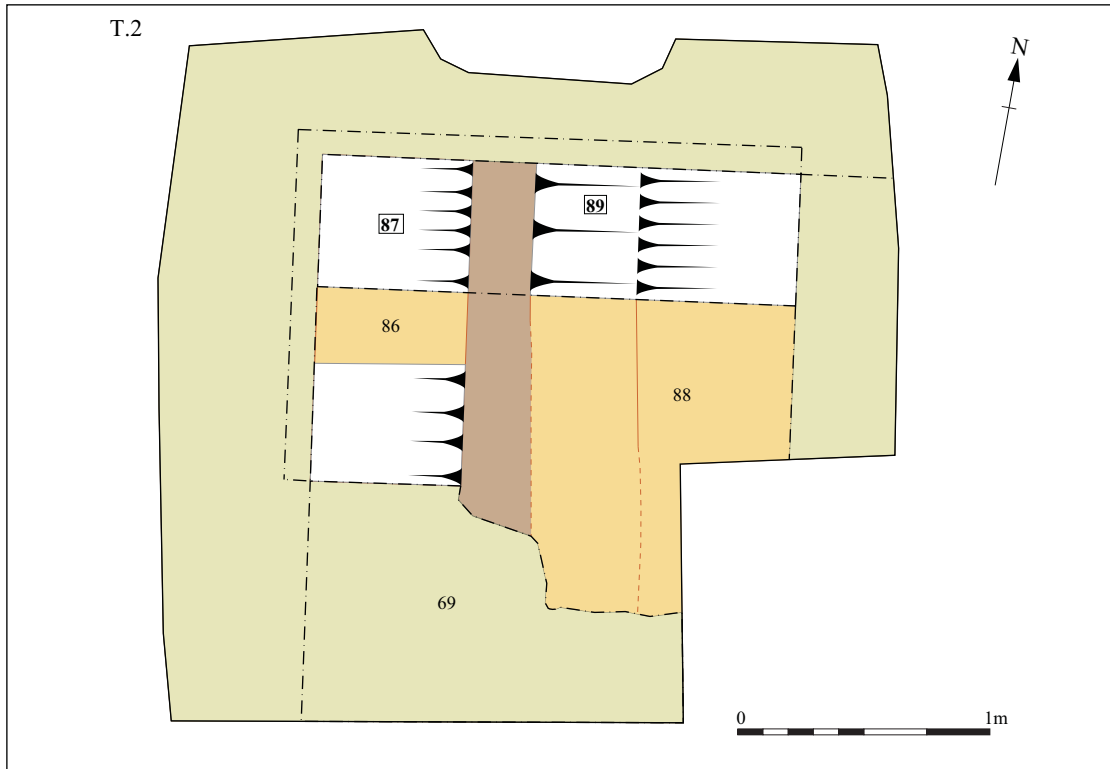


Figure 4: Trench 2 plan of ditches 87 and 89

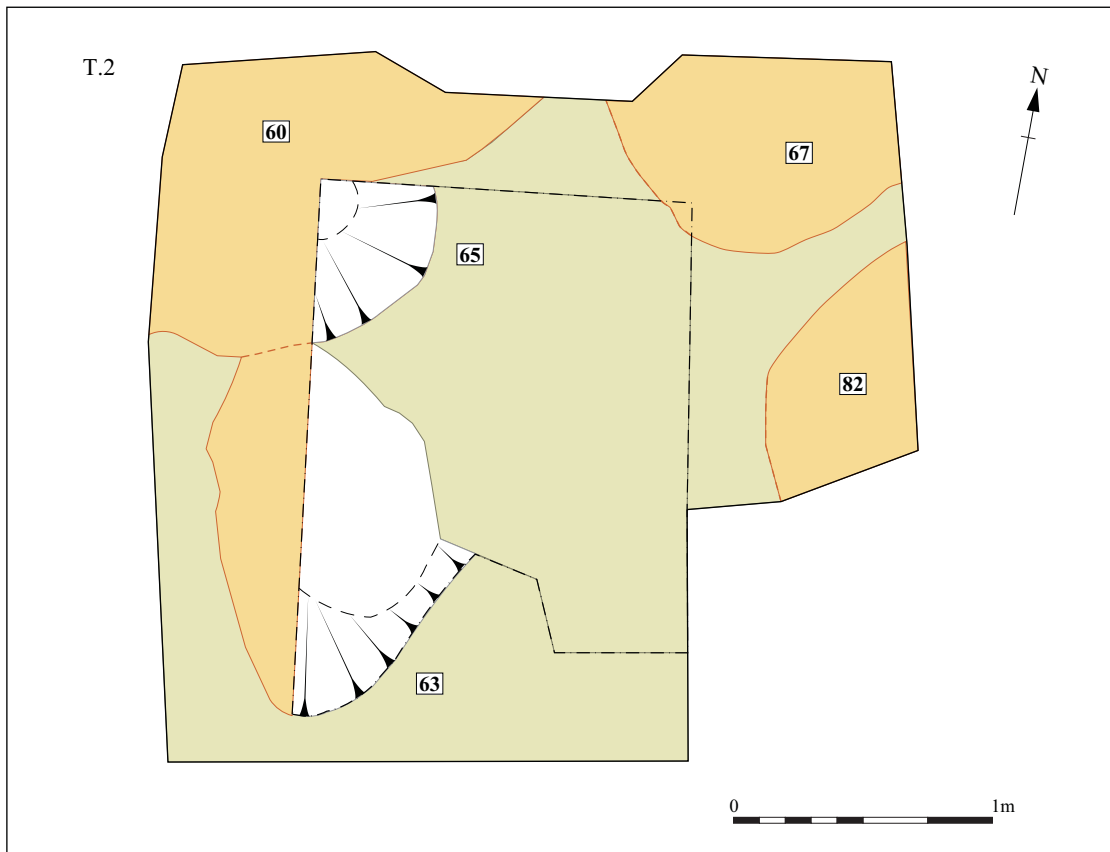


Figure 5: Trench 2 plan of early pits

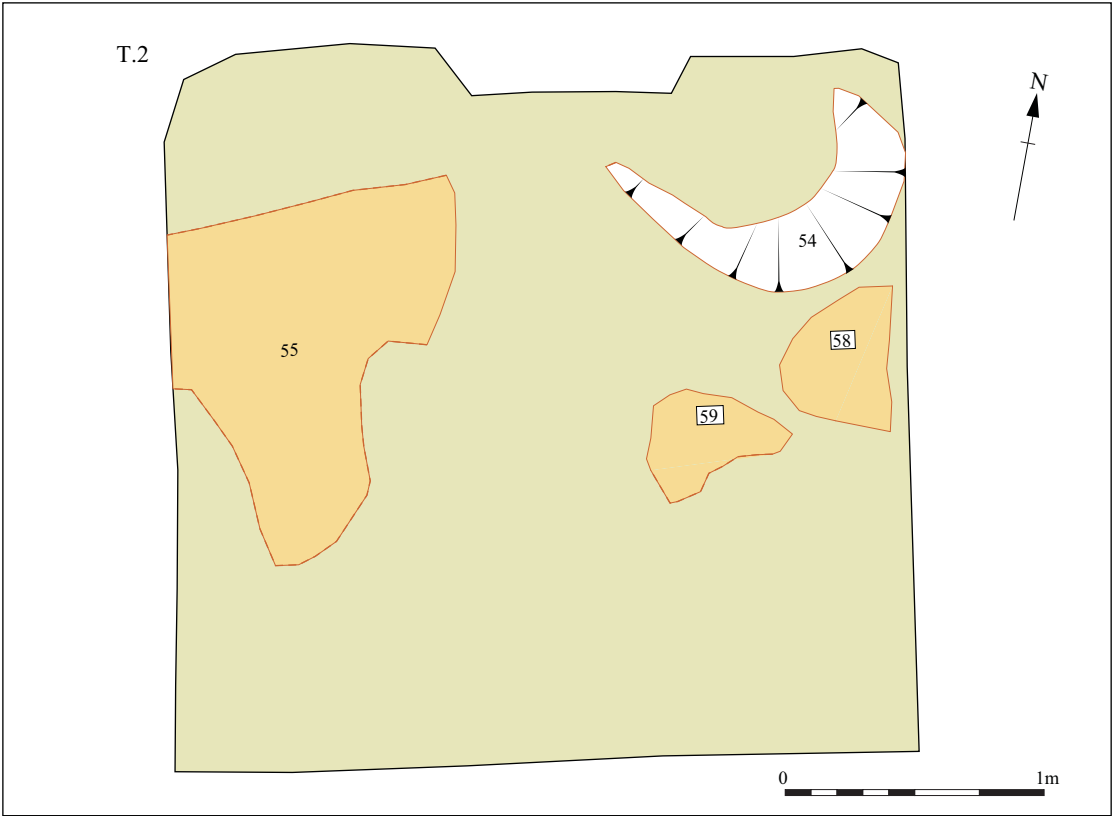


Figure 6: Trench 2 plan of Structure 1

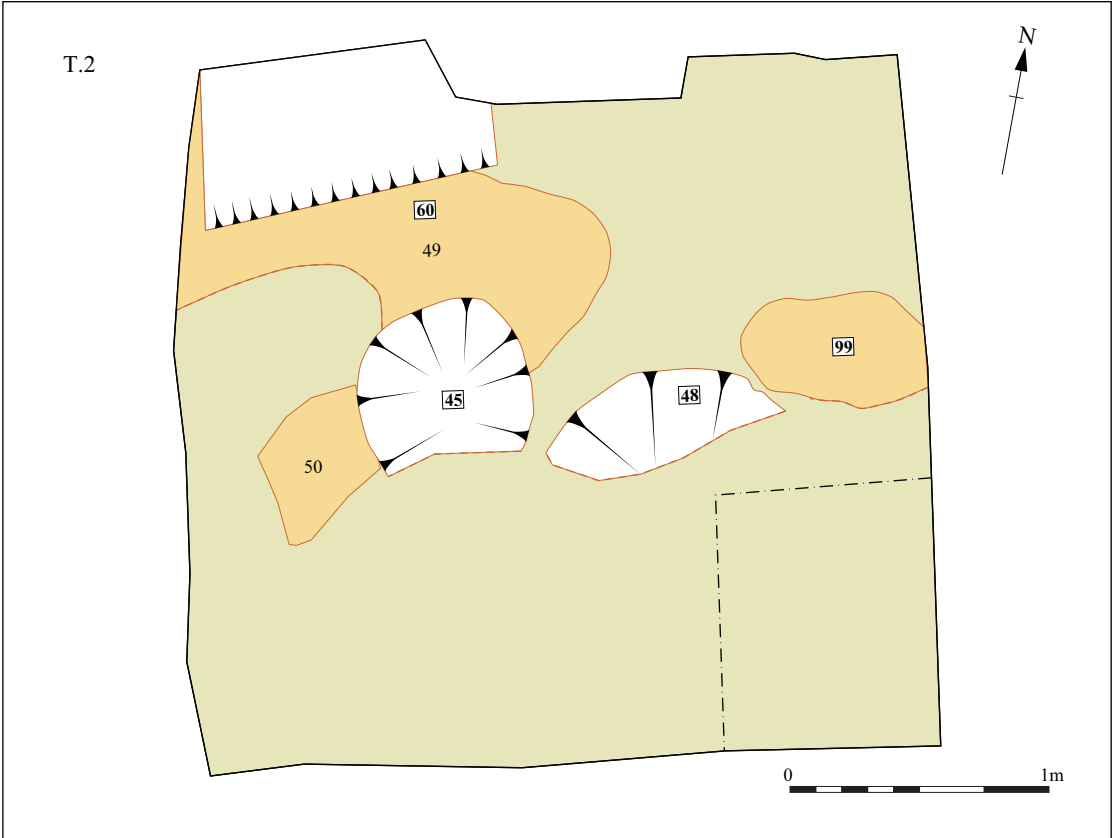


Figure 7: Trench 2 plan of Structure 2

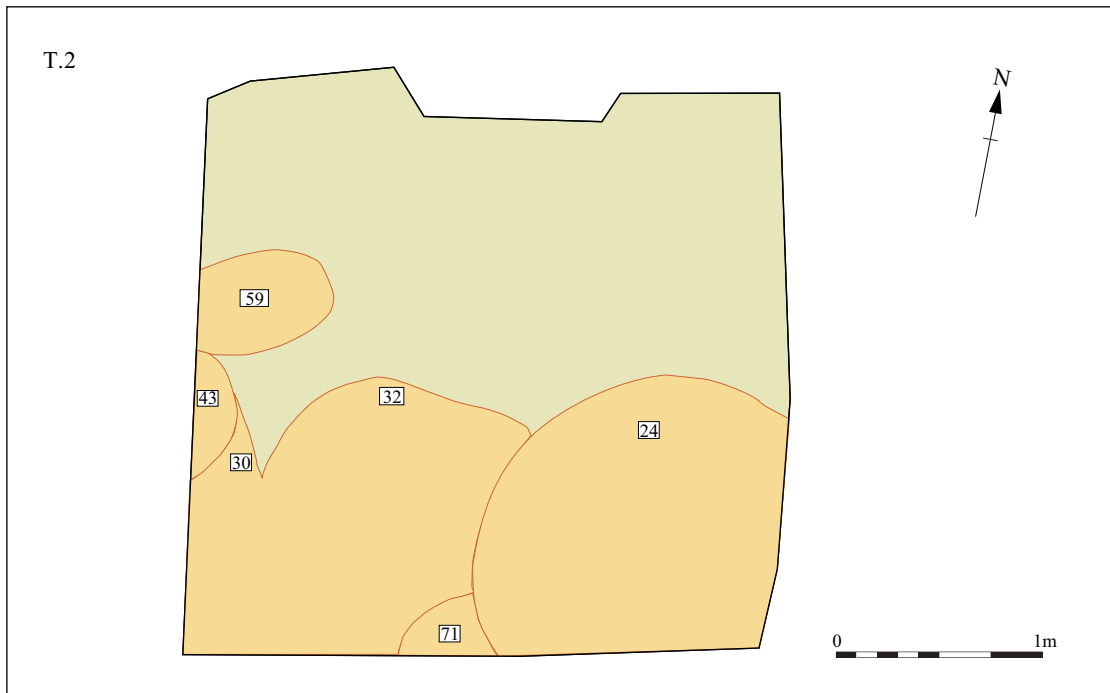


Figure 8: Trench 2 Plan of later pits

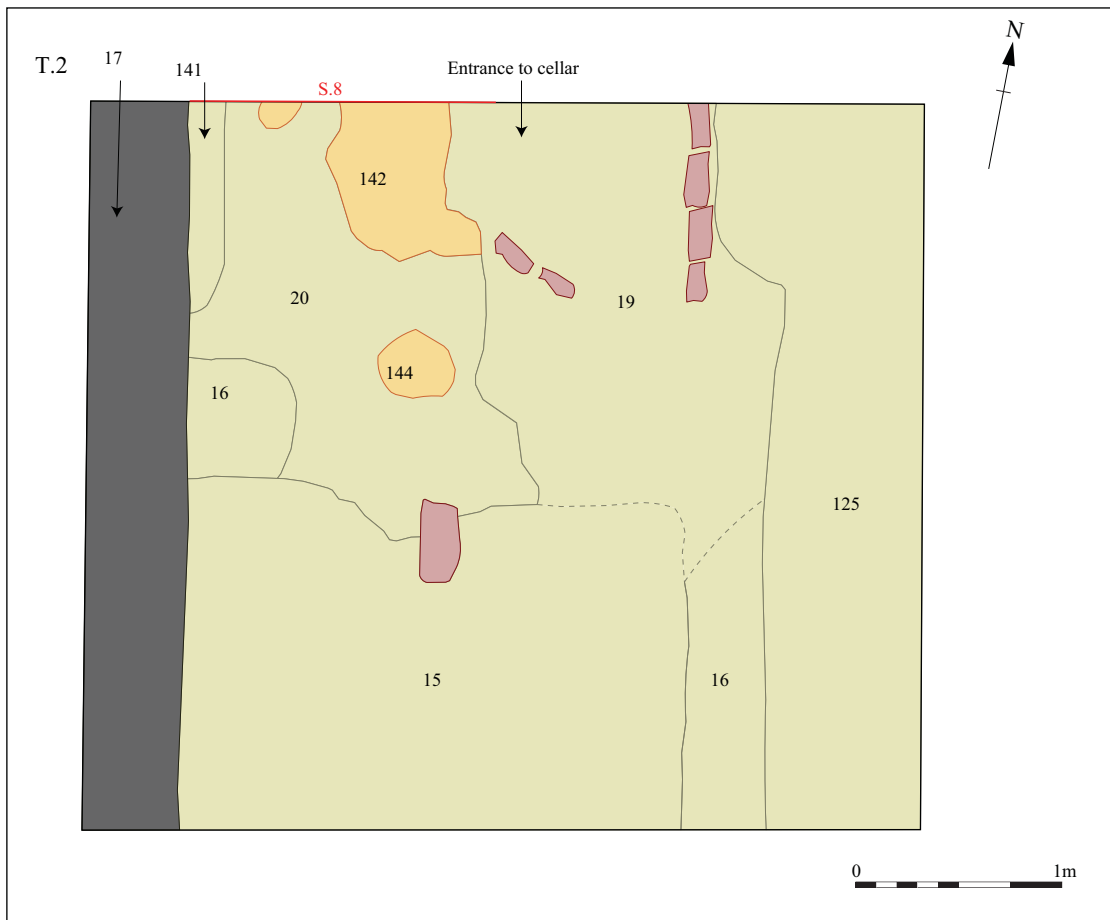


Figure 9: Trench 2 Plan of structure 3 also showing modern cellar

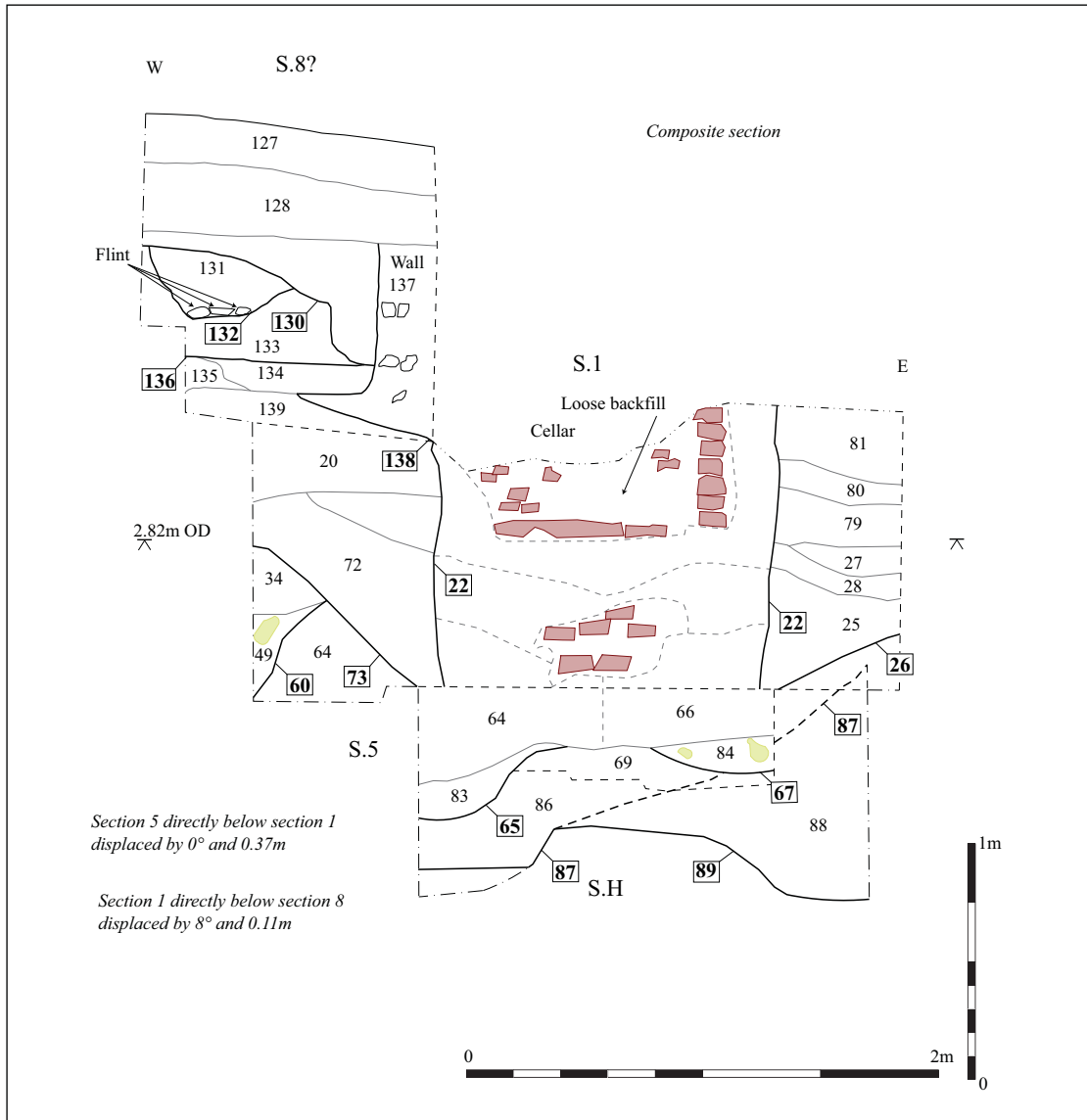


Figure 10: Trench 2 South facing section (composite)

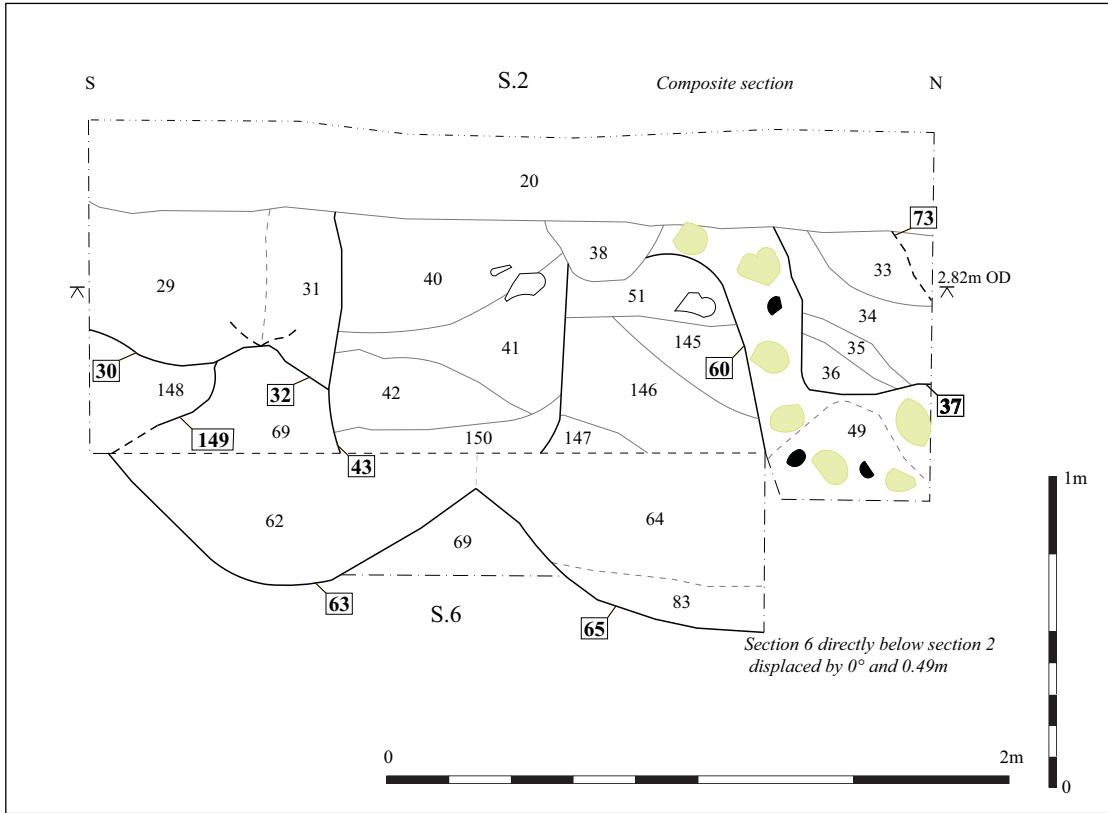


Figure 11: Trench 2 East facing sections (composites)

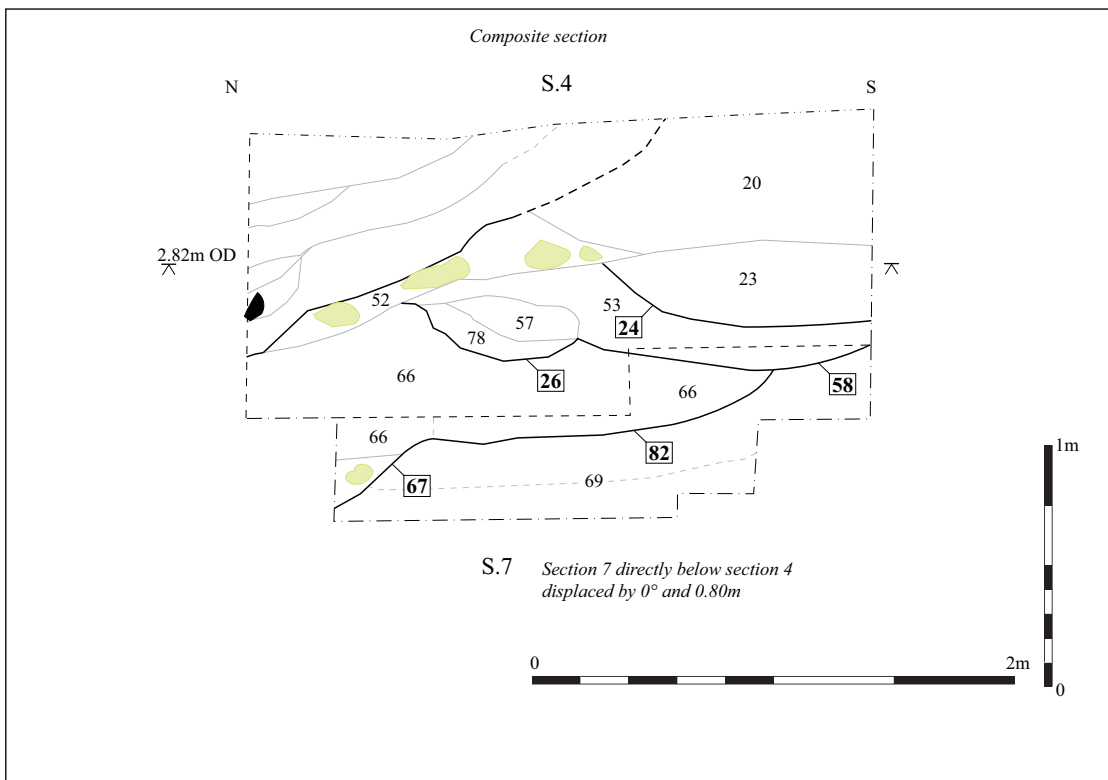


Figure 12: Trench 2 West facing sections (composites)



Plate 1: Trench showing well and cellar

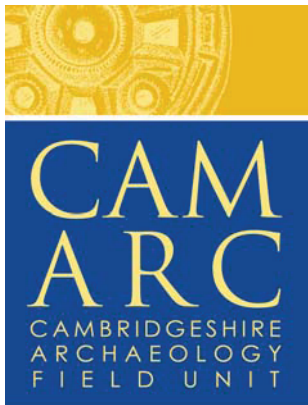


Plate 2: Trench 2 showing beamslot 60



*Plate 3: Trench 2 showing recording of intercutting pits*





CAM ARC,  
Cambridgeshire County Council,  
15 Trafalgar Way,  
Bar Hill,  
Cambridgeshire,  
CB3 8SQ

General Enquiries: 01954-204191  
Fax: 01954-273376

<http://www.cambridgeshire.gov.uk/archaeology>