



Archaeological Field Unit

**Medieval and Early Post Medieval Structural Remains at  
Market Mews, Wisbech.  
An Assessment and Post Excavation Project Design.**

Mark Hinman

March 1997

PSLA 24

**Cambridgeshire County Council**

*Commissioned By Garnett Netherwood Architects*

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## **SUMMARY**

*Between 19/6/96 and 27/6/96 The Archaeological Field Unit (A.F.U.) of Cambridgeshire County Council carried out an archaeological evaluation at the junction of Market Mews and Little Church Street, Wisbech (TF 4630 / 0969). The work was commissioned by Garnett Netherwood Architects on behalf of Wisbech Retail Ltd. / Bilsdale Properties and was carried out within the terms of a brief set by the County Archaeology Office (Development Control; Louise Austin : Design brief for archaeological evaluation at Market Mews, 1996).*

*Subsequent excavation revealed an impressive sequence of deeply stratified medieval and post medieval deposits. The stratigraphic sequence contains conclusive evidence for metalworking activity in addition to at least eight distinct building phases, the earliest of which has been provisionally dated to the thirteenth century. Floors associated with these buildings were sealed by extensive accumulations of fine silts deposited during episodic flooding. Despite excavation in excess of 3.00m below the current ground surface no natural geology was encountered and there is every indication that the archaeological sequence continues below this level.*

*The excavation represents the most comprehensive sample of medieval archaeology ever recorded in Wisbech. Further analysis of the excavated materials and records is highly desirable in order to fully characterise the range of activities and dates on the site. Such information will be of great significance to both the research of this important Fenland Town (and to the medieval fenland as a whole) and to the future management of its archaeological heritage.*

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**WISMM 96. TF 4630 / 0969**

The following represents an interim assessment of the results of an archaeological investigation and preliminary post - excavation analysis.

**1 INTRODUCTION**

Between 19/6/96 and 27/6/96 The Archaeological Field Unit (A.F.U.) of Cambridgeshire County Council carried out an archaeological evaluation at the junction of Market Mews and Little Church Street, Wisbech. The work was commissioned by Garnett Netherwood Architects on behalf of Wisbech Retail Ltd. / Bilsdale Properties and was carried out within the terms of a brief set by the County Archaeology Office (Development Control; L Austin : 'Design brief for archaeological evaluation at Market Mews', 1996). The development proposal for the evaluated area included the construction of an extension to the rear of two shop units.

During the course of the evaluation it became apparent that a considerable depth of medieval and early post medieval stratigraphy survived over the whole of the evaluation area. Given that the construction programme for the new development was already set so that any excavation must be completed by 15/7/96 a rapid response was required. With a minimal delay it was possible to commence excavation of a portion of the development area on 2/7/96 and to conclude the excavation on schedule on 15/7/96.

**2 GEOLOGY AND TOPOGRAPHY**

Solid geology in the vicinity of Wisbech comprises Jurassic Ampthill clays, and pre-Flandrian gravels have been observed at below -15.0m O.D. (Waller 1994, 228). Settlement patterns however have been dictated by a complex and locally variable Flandrian sequence of marine transgressions, river channel, (or roddon), formation, and reed swamp growth. These have lead to the deposition of a thick accumulation of silts, clays, and peats.

Peat growth has been recently dated to the Late Bronze Age near Wisbech, and may have continued into the Romano-British period in some places, (Waller 1994, 250). Romano-British salt manufacturing sites occupied slightly raised ground (such as roddons) in the area, and a series of Middle Saxon sites, occupy similarly precarious sites to the north-east of the town

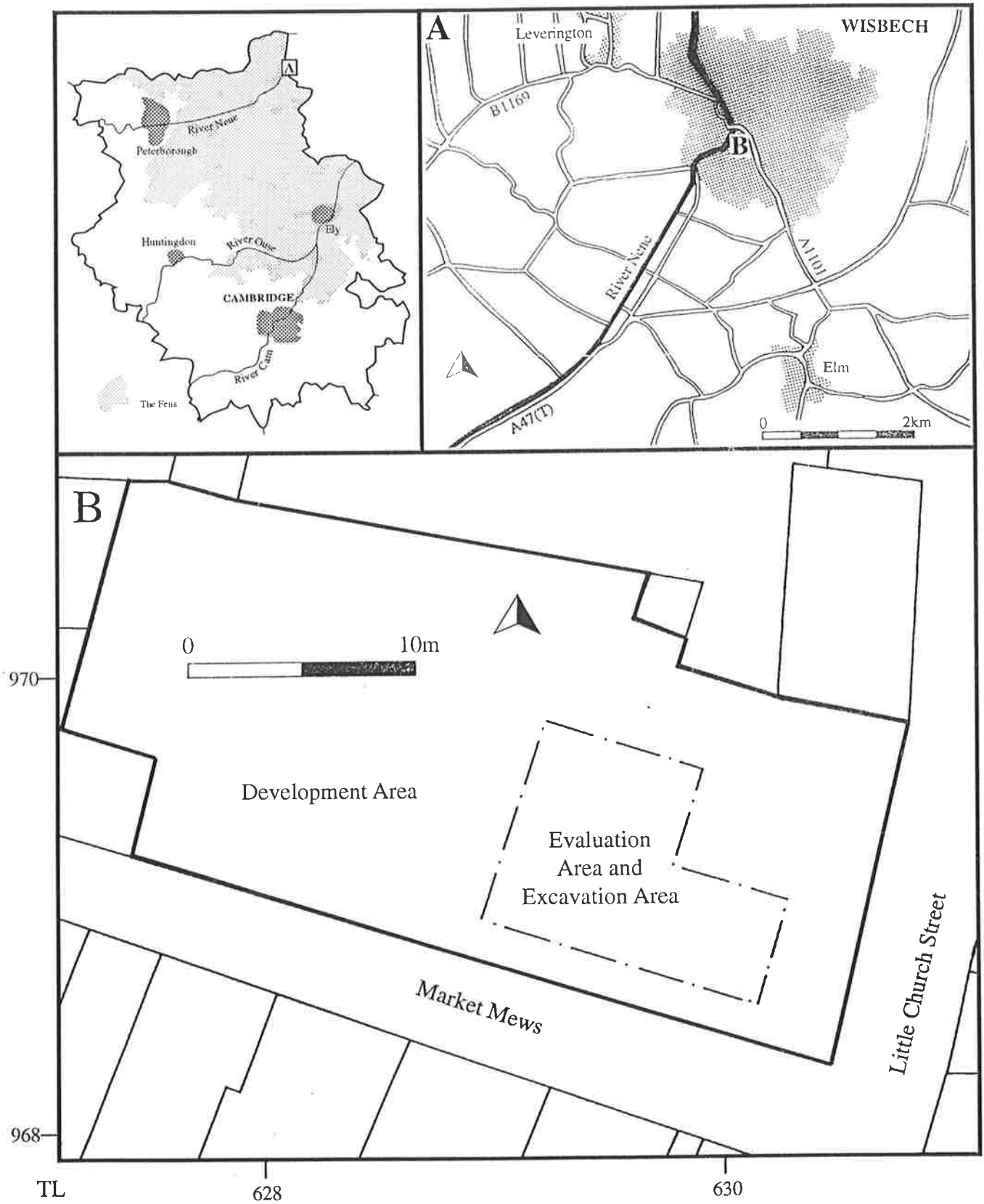


Figure 1 Site Location Plan

### **3 HISTORICAL BACKGROUND**

Wisbech is first referenced as a grant to the abbey at Ely *c* 1000AD (VCH Vol. 9, 243). It is possible that a trading centre was established around Ely's manor on the west bank of the Nene. This area was known as the "Old Market" as early as the thirteenth century (Taylor 1975, 251).

The "New Market" on the opposite side of the river was probably established as a response to the foundation of the castle during the late eleventh or early twelfth century AD, and its medieval development outstripped that of the old market area.

The development of the port town of Wisbech has been inextricably linked to the viability of the Nene outfall and Fenland waterways. The town has also suffered episodic severe flooding. In 1236, for example, flooding destroyed the castle and probably dramatically affected the whole area around the market place, (Hoyland 1992, 3).

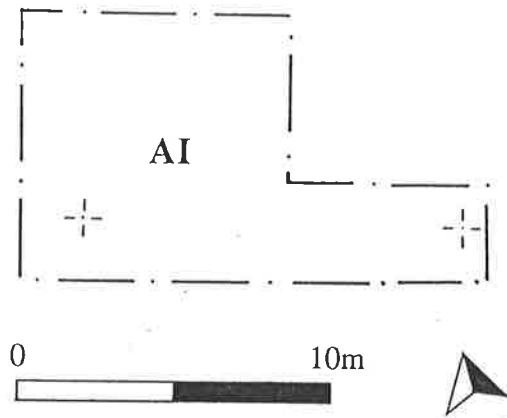
The area subject to evaluation and excavation lies to the north of the castle site, within the postulated "New Market" area.

### **4 CARTOGRAPHIC STUDY**

There are no maps which show the entire town of Wisbech prior to the 1830 map by J. Wood, (cartographic sources are fully covered in *Hoyland 1992*). At this time the subject site is occupied by buildings.

### **5 METHODOLOGY**

The area available for evaluation was limited to 26m E-W by 15m N-S as a building which was to be demolished prior to construction was still present at the western end of the site. A 6m strip on the Little Church street front was unavailable for evaluation as this area was not going to be disturbed by foundation trenching. The total area available for development measures approximately 33m E-W by 16m N-S.



*Figure 2 Plan of Evaluation Area*

## 5.1 The Evaluation

The physical limitations within the development area in terms of space and access requirements largely determined the positioning of the evaluation area. An area (AI), of 12m E-W by 4m N-S positioned 1m from the eastern boundary of the site was opened using a JCB.

Archaeological deposits consisting of clay floors, beamslots and postholes associated with post medieval timber framed structures were encountered directly below the compacted rubble of the recent demolition, 0.20m - 0.30m below current ground level (c 6.60 m OD).

Given the requirement to establish the nature and depth of the surviving archaeological deposits the western end of the trench was increased in width to c 7m N-S over what appeared to be a uniform area of mid brown clay devoid of intrusive features. This deposit and the underlying light brown fine silt were removed to a depth of 1.20m from the current ground surface to allow the investigation of more deeply stratified deposits.

The re-excavation of a recently backfilled (but not recorded) engineer's test pit within the evaluation area revealed in section a sequence of timber framed structures with associated floors separated by (and most importantly sealed by) varying depths of light brown fine silt interpreted as distinct flooding episodes. Removal of the modern backfill reached a depth of 5.40m OD after which an auger was used (with limited success) to try to establish the total depth of archaeological stratigraphy.

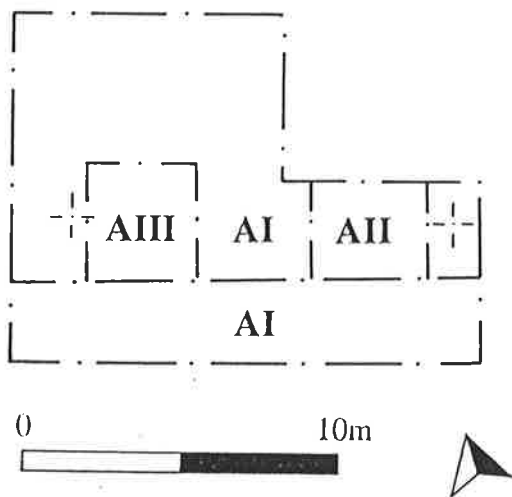
Excavation of a small archaeological test pit to a depth of 5.81m OD at the eastern end of the site confirmed that this sequence of buildings extended into this area.



Excavation of a small archaeological test pit to a depth of 4.50m OD at the western end of the site, within the centre of the machine reduced area, revealed early 13th century floor deposits to 2.3m below the present ground level.

## 5.2 The Excavation

Given that there was only a break of four days between the end of the evaluation and the commencement of the excavation no separation of the evaluation and excavation archives was made. The scope of excavation was agreed in consultation between the County Archaeology Office and Garnett Netherwood. A specification for archaeological excavation within the agreed constraints was subsequently produced by Cambs. County Council AFU.



*Figure 3 Detail of Excavation Area*

The excavation took place largely within the bounds of the evaluation trench, building upon the results of the first phase of work. Prior to excavation a further strip *c* 2m wide was machined along the southern edge of the site down onto the top of the latest surviving archaeological phase in order to clarify the layout and alignment of these structures. In order to safely excavate the deeply stratified deposits two areas were selected for shoring using sheet piling supplied and installed by the clients.

Area II at the eastern end of the evaluation trench measured 3m E-W by 2.50m N-S and Area III at the western end measured 3m sq.

All features and other deposits were recorded according to the Archaeology Field Unit's single context recording system. All site records and artefacts are currently held at the AFU headquarters at Fulbourn and stored under the site code WISMM 96.

## **6 RESULTS**

### **6.1 Excavation**

#### **Area II**

A preliminary study of the site record has identified at least 8 distinct phases of building within AII separated in most instances by flooding episodes characterised by the presence of largely sterile bands of very light brown fine sandy clay silt. Excavation by hand reached a depth of 4.20m OD, *c* 2.40m below pre-development ground level. The use of an auger for a further 1.70m (to a depth of 2.50m OD) seemed to indicate the continuation of archaeological deposits to this depth. The results however, were by no means conclusive given the small diameter of the borehole.

The earliest excavated activity, which may be dated to the fourteenth century AD, is clearly industrial in nature. Vast quantities of slag, bloom and other waste products from smelting / metalworking were retrieved from the backfill of a wood lined drain (which incidentally also contained two complete pottery vessels and a bronze barrel lock) and associated surfaces. This clearly suggests the presence of a furnace and associated structures in the immediate vicinity, although specialist analysis of the materials recovered is required before the specific nature and range of activities taking place can be identified.

Repeated and severe flooding and erosion causing a build-up of at least 1m of virtually sterile silt appears to have caused either the relocation or cessation of heavy industrial activity. Timber buildings, aligned with and presumably fronting onto Little Church Street, replace the earlier industrial activity. These buildings ranging in date from 1350 - 1550 all respect the same rear boundary line despite repeated destruction as a result of inundation. Each building in the sequence is known to comprise at least two rooms with clay flooring. The poorer quality and higher ash content of the floors at the western (back) end of the buildings are suggestive of working or possible kitchen areas. Numerous bulk environmental samples have been taken in addition to samples for micromorphological analysis in order to try and identify the range of activities taking place within these buildings.

### Area III

A preliminary study of the site record has identified at least 9 distinct phases of building within Area III, separated in most instances by flooding episodes characterised (as in Area II), by the presence of largely sterile bands of very light brown fine sandy clay silt. Excavation by hand reached a depth of 3.80m OD. The use of an auger for a further 1.20m to a depth of 2.60m OD seemed to indicate the continuation of archaeological deposits to this depth. The results however, were by no means conclusive given the small diameter of the borehole required to obtain a sample.

The earliest excavated activity, provisionally dated to between 1230 and 1350 AD, consists of a fragment of a building of unknown function with wall foundations which comprises of wooden posts set at regular intervals along each side of a vertically sided slot, postholes and associated floors . It should be noted that a sequence of at least four more earlier floor levels were observed within the cut sides of this slot.

As preservation of floor deposits is excellent a variety of functions and activities are likely to be identified within this building sequence during further analysis. Apart from internal features, such as oven 120, a variety of artefacts including a net maker's awl or bone needle, spindle whorls, a leather shoe, coins and an engraved coal or jet decorative fitting were retrieved from the floors of these properties.

The major difference between Area III and Area II would seem to be the absence of many of the phases of the early post medieval buildings present in AII. The build-up of sterile silts is more pronounced within AIII suggesting the possibility that the land behind the Little Church Street frontage remained as open ground for a period following episodes of repeated and severe flooding and erosion. It is suggested that a natural drainage gully may have formed within the excavated area during flooding episodes, and that this possibly extended onto Market Mews making this area unsuitable for building. It would appear that the movement of silt downslope from the west towards the former course of the Ouse to the east was partially obstructed by buildings fronting onto Little Church Street. The build-up of this silt against the rear of these properties may have been responsible for their collapse or de-stabilisation.

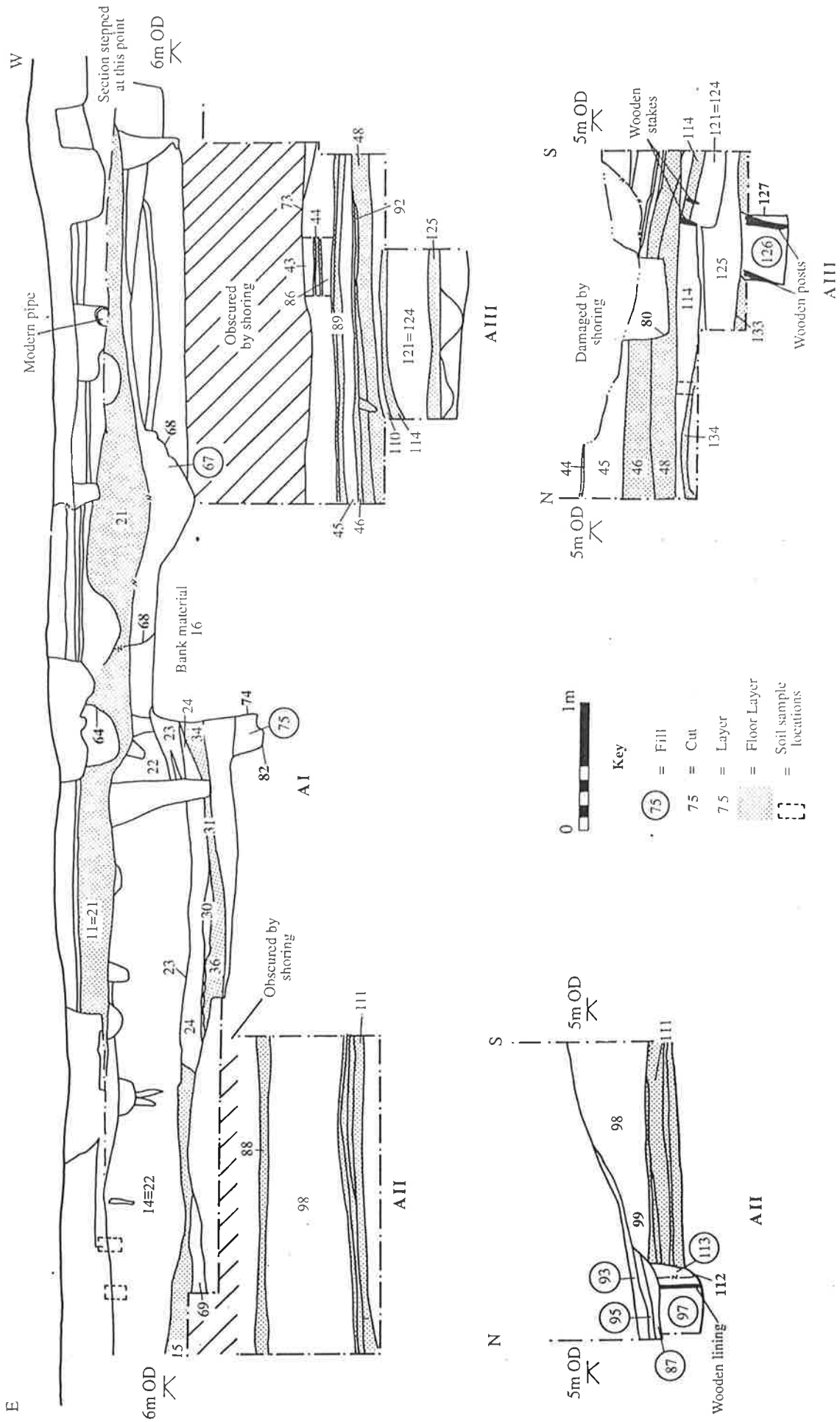


Figure 4 Composite North Facing Section Through AI, AII and AIII

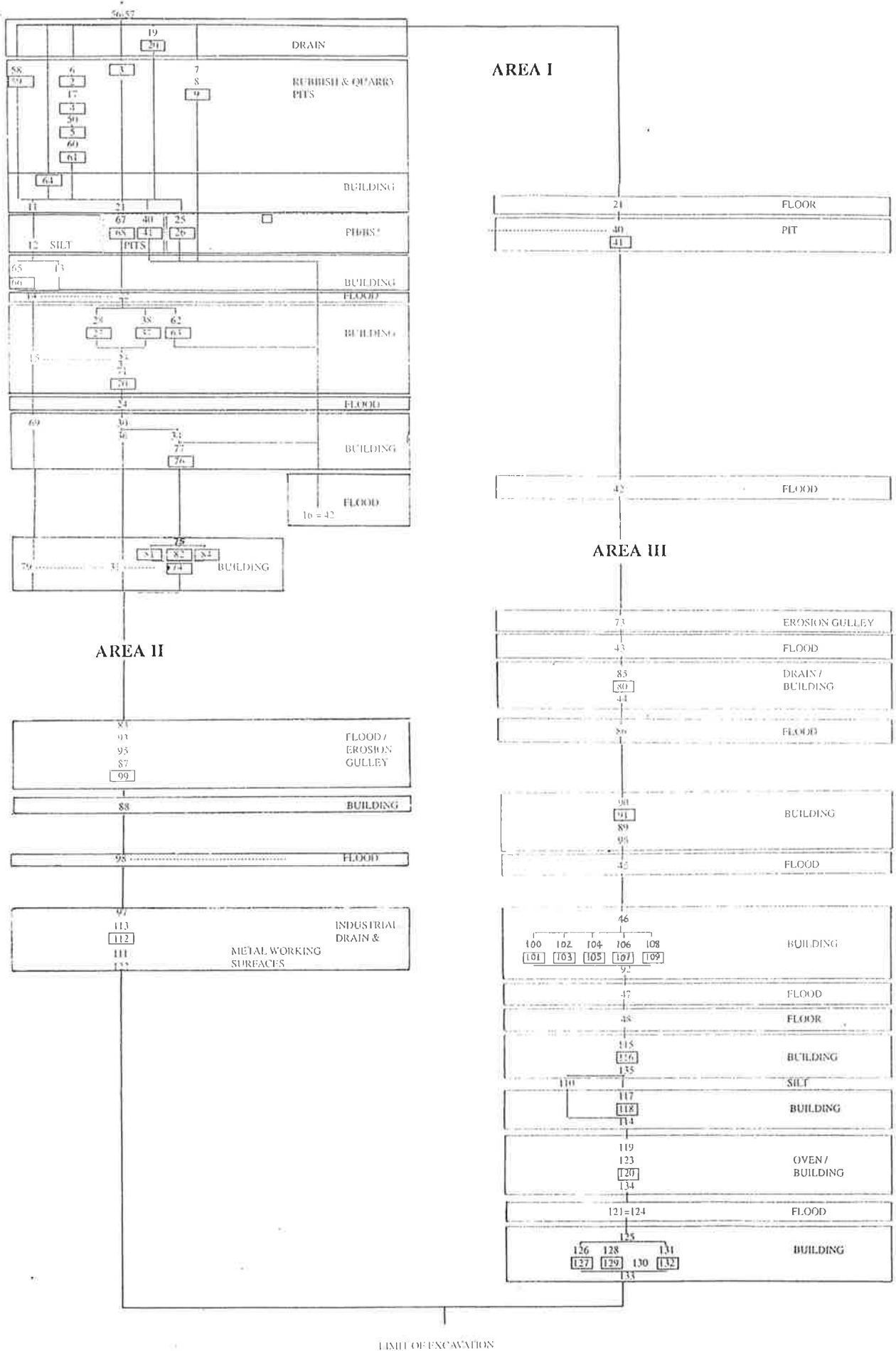


Figure 5 Site Matrix

## 7 CONCLUSION

Considerable post excavation analysis of the site archive and its integration with reports from the pottery, bone, metalworking, environmental and micro morphological specialists is required before a definitive statement can be made concerning the nature and use of the many structures excavated and the industrial and domestic activities taking place within them.

What is clear at this early stage however, is that a sequence of well stratified, extremely well preserved archaeological deposits of major regional importance is present within the development area. Such deposits are likely to exist in a similar state well beyond this area. It is also likely that, given the depth of the overlying stratigraphy and the proximity of the water table, the earliest medieval, (and possibly Saxon), wooden structures as well as organic artefacts and ecofacts will be present in an even better state of preservation.

The limitations placed on the excavation, although frustrating detailed enquiry into the layout and specific character of this area of the historic town, have not prevented the excavation from providing a wealth of new archaeological information about the town. As this is the first full scale excavation within the town the results of the analysis of the excavation record will be immensely important in laying the foundations for further archaeological investigation of medieval Wisbech.

The excavation has demonstrated that an exceptional sequence of well preserved archaeological deposits is likely to survive under substantial portions of the historic town. It is therefore imperative that any future archaeological investigations, whether undertaken in advance of development or as research initiatives, should take place within a well considered research and conservation framework.

## 8 AN ASSESSMENT OF THE ARTEFACTUAL AND ECOFACTUAL EVIDENCE

### 8.1 Wisbech Market Mews, Pottery Assessment and Spot-Dating

Paul Spoerry BTEch, PhD

#### Introduction

The assemblage consists of two large boxes of pottery from 46 contexts.

Material from all contexts was scanned to identify the broad range of fabrics and forms, and then 23 larger and/or key context groups were studied in more detail to provide spotdating and characterisation of the assemblage over time.

The spot-dates are provided below.

#### Spot-dates and additional information

Context	No. Sherd	Fabrics	Date-Range	Comments
6	4	BOND GRIM OSW	1450- 1550	
7	22	SSHW MEL BNBT GRIM LMT	1450- 1550	LMT identified at Norwich but not entirely certain is the same. BNBT is a variant; poss. Essex redware.
8	47	GRIM MEL LMT	1450- 1500	GRIM Fe-lines under glaze, but not true highly dec style; is probably late med.
11	4	GRIM	1350- 1500	Late type with thick glaze
13	1	GRIM	1350- 1500	Whole base of drinking jug; altered yellow surface colour (fire or cess?). Illustrate.
15	51	LMT GRIM BNBT	1450- 1500	LMT j/ptch with arcaded Fe-slip line decoration. BNBT actual source unknown.

17	89	TUDG RAER GRIM DUTR OSW LMT CSTN BOND	1470- 1530	Different to most other groups on site. Is a little later than most and has imports represented; but no definitely post-medieval local types.
23	71	GRIM MEL LMT	1350- 1500	Is LMT Colchester ware? Grim with buff surfaces! Also cookpot with buff slip lines; parallels?
30	21	GRIM DUTR	1250- 1500	Grimston sherd with curious dark slip area under glaze; parallels?
31	13	GRIM MEL LMT BOND	1450- 1500	If the Grimston bowl is contemp. with BOND and LMT, then it provides a v. late date for this form. Also heavily sooted. Ill.
40	36	OSW or LMT or TOYN	1450- 1550	Date is a bit of a guess. 'LMT' may be too sandy. 1 vessel with square sec handle, clear glaze and buff slip Ill.
44	153	GRIM MEL LMT OSW BRILL?	1400- 1500	Mix of a little med, also late-med and 1x transitional piece. Small sherds (mostly GRIM). Unknown types need ID.
46	68	MEL GRIM LMT	1400- 1500	A little bit of probable LMT could signify a start after 1450 but ID not secure. small sherds in this assemblage.
48	40	GRIM BRILL?	1350- 1450	Has a little high-med (highly dec GRIM) as well as late med.
69	127	GRIM MEL DUTR YORKS?	1250- 1400	Is significant amount of decorated Grimston indicative of pre-1400 date?
75	28	GRIM MEL OLIVE LMT	1400- 1500	Olive is fairly undateable, but first Iberian import.
79	41	GRIM BLEND LMT	1350- 1400	Blackborough end products? (Ill)- an EMW development. Also LMT is uncertain origin. Buff sandy pottery poss. GRIM but not certain>
83	73	GRIM LMT MEL	1400- 1500	Maybe LMT-type appears earlier than 1450. Is it going to be identifiable as something else (eg Toynton or Essex?). Deposit may need analysis.



92	33	GRIM OSW TOYN?	1350- 1500	Oxid. jug base, Toynton/Thornholme Lincs? OSW could be same vessel as in (40). Maybe not LMT.
97	47 plus circa 50	GRIM FLEMG MEL UNK	1350- 1450/ 1500	Two whole vessels in 'altered' Grimston ware (III). Late-med, but poss not after 1450. Grey-brown upright rim could be Flemish greyware.
111	24	GRIM MEL YORKS/	1350- 1450	Late-med GRIM jug handle, but applied strip decor GRIM as well ?earlier in date. Buff, smooth fabric poss Scarborough/Yorks.
113	7	GRIM MEL?	1200- 1500	Undiagnostic group
125	15	GRIM MEL	1230- 1350	Various Highly dec GRIM jug fragments, but oxidised (buff) fabric looks a bit like some Yorks wares. MEL is a very smooth variant not seen in Ely.

#### Fabric codes

BLEND	Blackborough End, Middleton type ware
BOND	Bourne D ware
BNDT	Bourne D type ware variants
BRILL	Brill/Boarstall glazed fineware
CSTN	Cistercian type wares
DUTR	Dutch redware
FLEMG	Flemish greyware
GRIM	Grimston type wares
LMT	Late Medieval-Transitional ware (as described at Norwich)
MEL	Medieval Ely type ware
OLIVE	Iberian Olive jars
OSW	Orange Sandy ware (as described by Moorhouse)
RAER	Raeren stoneware
SSHW	Sandy shelly ware (descriptive)
TOYN	Possible Toynton All Saints type ware
TUDG	Tudor Green wares
UNK	Unknown pottery type which requires special consideration
YORKS	Various Yorks glazed finewares with light fabric (e.g. Scarborough)

## **General Discussion of Assemblage**

Grimston glazed wares and Grimston-type unglazed cooking pots dominate. This is not surprising considering the proximity of this industry to Kings Lynn and the Ouse/Nene below Wisbech. There is some uncertainty just how much of the more oxidised unglazed pottery is in actual fact from other Norfolk producers such as Blackborough End. Some of this material is indeed present, but other examples may have been grouped with unglazed Grimston products.

Medieval Ely type ware forms a small but consistent component in the medieval to late medieval assemblages. Some examples are finer than that so far observed at Ely, and may be from a different source, however, other pieces are directly comparable with Ely examples. Again, contact along the River Ouse renders the presence of this product unsurprising.

Those types that have been identified as LMT ware and OSW need further consideration. It seems that there is much to learn about the medieval to post-medieval assemblage here. The possible presence of both Toynton type ware from Lincolnshire and Essex redwares are part of the same problem.

No pottery of definite pre thirteenth century date was identified, even as a residual component, the earliest spotdates being derived from highly decorated wares present from the mid-thirteenth to mid-fourteenth centuries. The latest groups studied provided dates in the late fifteenth to early sixteenth centuries. Thus the sequence could represent a period of between 150 and 300 years duration, although the former is rather unlikely. The implications are that occupation on the site is tightly bounded, in a temporal sense, and that the bracket for this is circa 1230-1550 at most.

The origin of the assemblage is likely to be mostly domestic, however, this is by no means the whole story. It is very likely that some vessels represented here, particularly those from (97), were used in industrial processing, although they are standard products otherwise used in the domestic market.

Imports seem to suggest that Holland was the most important overseas source for ceramics here, although the Rhineland and Iberia are also represented. The lack of French products is noteworthy.

## **Significance and Further Work**

The fact that this assemblage derives from an extended sequence of closely related deposits gives it far more value than other similarly sized or dated groups. In addition it is the first assemblage from Wisbech to be studied through modern methods. It provides an opportunity to gain a unique initial statement on the ceramic sequence in the town over three centuries. It fills a void in ceramic studies, and allows comparison with past work in Kings Lynn and recent work in

Ely and Peterborough, thus contributing to a growing understanding of ceramic use and supply in the medieval Fenland.

The two whole vessels from (97), and associated artefacts and data, plus evidence in other contexts for alteration and use of ceramics during possible industrial processing, provides a valuable, and rare, window into one element of Wisbech's past. Scientific observation, and possibly analysis, to identify residues/processes would be a worthwhile theme for study. Consideration of organic (absorbed) residues within ceramics to consider level of domestic, as opposed to industrial, activity might also form a valuable exercise.

## **8.2 Environmental Evidence**

### **Duncan Schlee BA Msc**

The site consisted of a sequence of floor deposits ranging in date from the thirteenth century to post - medieval, separated by periodic flood deposits. Samples were taken throughout the depth of the deposits representing the whole range of occupation deposits excavated. Twenty-three 10 or 20 litre samples were taken from floor, and other deposits for the recovery of plant remains.

### **Methods**

Bulk flotation samples were processed using a standard Siraff-type flotation machine, collecting flots in a 0.5 mm mesh and heavy residues in a 1 mm mesh. The sampled deposits generally consisted of fine silts and finely laminated occupation deposits. The laminated floor deposits were too fine to be separated for more detailed depositional analysis, but samples were taken for micromorphological analysis which will hopefully yield useful information about the depositional history of the floor deposits and intervening flooding episodes. Because flotation is generally biased towards the recovery of charred plant remains, 500 ml sub-samples were also taken from floor deposits, in order to assess the preservation and recovery of waterlogged plant remains using peroxide flotation. Two blocks of soil were also taken for careful excavation of the finely laminated floor deposits since delicate impressions of plant material within these laminations which were observed during excavation would not survive the other recovery processes. These were excavated and found to consist of thin (approximately 1mm or less) layers of compacted silt, clay, ash, denuded charcoal and organic material with layers of fish bones, avian eggshell, and straw, the latter presumably representing flooring material.

For the purposes of this assessment, the flot fractions were scanned for the range of plant macrofossils and other environmental artefacts. Other items represented

in the heavy residues (not all of which have been sorted yet) are also included where possible.

## **Results**

### **Preservation**

Although soil conditions do not appear to have been consistently waterlogged, organic preservation is generally good, especially in the compacted floor deposits. The quality of preservation in the charred component varies from very good (with the fine hairs on cereal grains still surviving), to very bad (with fragmented, puffed and distorted grains). This is probably a consequence of the original condition of the grain and of different charring conditions.

### **Charred Seeds**

Charred seeds occurred in varying quantities in the majority of the samples. Wheat, barley and oats, were represented in differing ratios in several samples. Other food crops recovered in small quantities include cherry, apple, peas and beans. Charred weed seeds were also present in a few samples, often, but not always in association with cereal grains. This suggests that some of these weeds were growing in association with cereals, while others are more likely to be present through their use as fuel. Charred rachis fragments and straw nodes were occasionally present but were most numerous in sample 24 which appears to be either unprocessed grain or whole straws used for fuel.

### **Waterlogged Seeds**

Waterlogged seeds and other plant parts were present in most of the samples. The deposits do not appear to have been permanently waterlogged, but the periodic episodes of flooding during the original deposition, and subsequent conditions of preservation have allowed for reasonable preservation of organic material. The bulk of this material consists of compacted and partially decomposed plant roots, wood fragments, twigs and leaves etc. A variety of seeds have also survived. On the whole these probably represent plants growing locally, possibly used as fuel, fodder, roofing or floor material, but further analysis may suggest a dietary or economic explanation for their presence. Numerous *Juncus* Sp. seeds present in some of the floor deposits suggest that rushes may have been used as flooring material. Careful examination of laminated floor deposits did not, however, reveal the presence of reed matting, although straw impressions were apparent.

### **Animal Bone**

The majority of the floor deposits contained numerous fish bones, occasionally charred, which appeared to represent several different species. In many cases these appeared to be articulated and to form distinct layers within floor deposits,

often in association with avian egg shell. In addition, fragments of larger animal bones (occasionally charred) and some bird bone were recovered.

### **Insects**

Fly pupae, beetle wing cases and other insect body parts were present in several samples. Individual specimens of whole insects were also occasionally present. These insect remains may be helpful in characterising the conditions prevailing in occupation phases.

### **Marine Molluscs**

Fragments of mussel shells and occasional fragments of cockle shells (occasionally burnt) were recovered from several samples. Their fragmented state is presumably due to their being trampled into the floor deposits.

### **Avian Eggshell**

Egg shell fragments were recovered from several samples and appeared to form distinct layers within the laminated floor deposits.

### **Industrial Activity**

Sample 21 contained evidence of metal working in the form of lumps of iron rich slag and smaller quantities of copper rich slag. Other samples (22, 16, 17) contained small spherical droplets of metallic or slaggy material. Sample 10 consisted entirely of Coal fragments. Coal and coke fragments were also present in samples 6, 7, and 8.

### **Interpretation**

The remarkable preservation, the richness of the samples, and the depth of the stratigraphic sequence has resulted in a very useful assemblage which, with more detailed analysis and interpretation, will provide important information on the range of plant and animal resources available to the inhabitants, and the domestic and industrial activities that were carried out at the site. This body of information will undoubtedly help in the understanding and interpretation of this site, which suffers from being only a partial exposure of the buildings and occupation deposits that survive in the area. In addition it will form a valuable assemblage for comparison with deposits of similar or earlier date that may be exposed in any future excavations in Wisbech.

The range of foodstuffs represented strongly suggests domestic activity at the site, with episodes of industrial activity. More detailed analysis may indicate whether these activities are mutually exclusive or are occurring side by side. Comparison of the assemblages from stratigraphically distinct layers may indicate

changes in the prevailing environmental and domestic conditions throughout the use history of the site between flooding episodes and any differences in the activities carried out in the buildings, either spatially or through time.

While the charred plant assemblage is not large or varied enough to be of great value in terms of interpreting agricultural techniques etc., it is useful in understanding the likely means by which certain plants came to be represented at the site and the nature of domestic activity in the excavated buildings. The waterlogged assemblage will further indicate what plants were growing nearby, or were imported onto the site for economic or other reasons.

Analysis of the insects recovered may further indicate the conditions of habitation, while analysis of the fish, mammal and bird bone assemblage will increase the list of food sources exploited by the inhabitants.

### **Recommendations**

To date, the flotation samples have been processed and a limited evaluation of the floating fractions has been undertaken. In addition, two floor deposits have been processed using peroxide flotation.

Further work includes sorting through the heavy residues of the flotation samples for more charred and waterlogged seeds, fish bones and any other environmental artefacts. In addition, peroxide flotation of approximately eight of the samples is also required for a more thorough recovery of waterlogged organic remains.

A critical examination of all available environmental data is likely to significantly enhance the interpretation of the original site record and enable an examination of the function of separate rooms in buildings of the same period and possible changes in use over time within buildings of separate phases.

## **8.3 Micromorphological assessment of medieval and post-medieval floor levels**

### **C A I French**

#### **Observations**

Investigation of a building plot at the south-eastern corner of Market Mews and Little Church Street in the centre of Wisbech has revealed a series of 13th to 16th century AD structures with intact floor levels interspersed with tidal, river derived very fine sand and silt deposits, or 'river muds'.

Two profiles through the extant floor levels were sampled for

micromorphological analysis (after Courty et al 1989; Murphy 1986).

Profile 1 was taken through context 21, or a series of finely laminated organic and sand/silt lenses of probable 16th century date.

Profile 2 was taken through floor contexts 14 and 15 of probable 13th century date, about 60cm beneath floor context 21. Floor 14 was comprised of alternate organic and sand/silt laminae over a thickness of c 4-7cm. Floor 15, immediately below floor 14, was comprised of successive levels of 'clean', pale brown silty clay, which appear to have been disturbed. It was the excavator's opinion that existing floor levels had been dug over with a spade prior to the laying of the next silty clay floor in succession.

### **Potential**

The micromorphological analysis of floors and occupation sequences is a relatively recent application of the technique, pioneered at tell sites in the Near East by Matthews (Matthews and Postgate 1994; Matthews et al in press). The detailed contextual analysis of these floor deposits using micromorphological and palaeobotanical techniques has provided exact evidence of the use of space in domestic and ritual structures, roofed and unroofed areas, cooking and food preparation areas, as well as the post depositional context of preservation.

In England, micromorphological studies of dark earths in medieval towns (Macphail and Courty 1985; Macphail 1994) has given much information on life activities and rubbish disposal in towns. But only recently has any attention been paid to actual floor deposits. In the past two years, the writer has sampled 14th century floor deposits at sites in Newcastle-upon-Tyne, Ely and Peterborough; the analyses for all of these sites are currently in progress. For example, at Ely Fore Hill, the floor deposits are much more likely to be material which is accumulating beneath floor boards rather than the floors themselves, but they show how filthy and smelly these floors were, that they were sometimes covered with grass plant material (Milek and French in prep)

In general, micromorphological analysis of floor deposits is capable of:

- 1) providing exact evidence of composition;
- 2) suggesting a possible derivation for the deposits;
- 3) indicating use of space both in life and after abandonment;
- 4) identifying post-depositional distortions of the surviving record.

The Wisbech site gives a chance to look at floor levels in what are perceived to be within rather 'shanty' structures constructed on a tidally active river bank in the marine silt fens of East Anglia. This will contrast with the hillslope position of Ely Fore Hill, the dry river terrace position of Long Causeway, Peterborough, and the river's edge location of the Stockbridge site in

Newcastle-upon-Tyne.

It is therefore recommended that full analysis of the Wisbech floor levels is undertaken to begin to build up the repertoire of micromorphological studies within English medieval towns. An estimate of the costs of analysis is set out at the end of this report.

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## 8.4 Animal Bone

Lorrain Higbee BA, MSc

A small assemblage of animal bone (441 fragments) was recovered from hand excavated deposits. All material was rapidly scanned in order to determine species present, skeletal element, age and butchery. Less than half of the assemblage was identifiable, the rest is made up of unidentifiable fragments (mostly rib, vertebrae, and fragments of skull and long bones) greater than 1cm. Material recovered from the wet sieving of bulk soil samples could not be assessed at this stage.

The preservation of bone is on the whole very good. Only a few fragments have suffered slight chemical and physical weathering which has caused the surface of the bone to flake. One specimen however, is extremely pitted with tiny holes suggesting a fungal infestation whilst in the burial environment.

A number of species are represented within the assemblage (table. 1), however sheep/goat and cattle bones make up the bulk of the identifiable part of the assemblage.

Sheep/Goat <i>Ovicapra</i>	78
Cattle <i>Bos</i>	48
Pig <i>Sus</i>	13
Horse <i>Equus</i>	1
Dog <i>Canis</i>	2
?Hare/Rabbit <i>Leporid</i>	1
Bird <i>Ave</i>	17
Fish <i>Pisces</i>	25
unidentifiable	256
TOTAL	441

Table. 1 Number of identifiable specimens

Horse was only represented by a single foot bone (the corpus calcanei of the calaneus) and dog was represented by an ulna and one very worn molar only. It was not possible to be definite as to the species of Leporidae (?hare/rabbit) present due to the fragmentary nature of the evidence (i.e. a single mandible with poorly preserved teeth). Identifiable bird remains belong to two species, goose and a small wader species. Some of the goose bones are large enough to represent fully evolved domesticates. The exact species of fish present have not been determined, however, they are generally quite large.

With such a small assemblage analysis of skeletal distribution (table. 2) for the major domesticates only reveals that most parts of the skeleton are represented

particularly for sheep/goat and cattle. No concentrations of bones suggestive of particular economic activities were apparent.

It was only possible to estimate the age of Sheep/goat and cattle using the established methods of tooth eruption and wear, and epiphyseal fusion of the post cranial skeleton (Silver, 1969; Payne, 1973). Only a few specimens of each of these species were suitable for ageing so no significant statements can be made as to the type of husbandry practised based upon this data. Age estimates for sheep/goat range from <6 months to 1.5-2 years, with the majority aged at between 3-4 years. For cattle, age estimates rely heavily on the more unreliable epiphyseal fusion method these range from <12-18 months, <2-2.5 years, >2.5- <3 years, and <3.5-4 years.

Butchery marks were evident on all of the three main domesticates as well as horse, fish and bird bones. Heavy chop marks were recorded with regularity at the major joints of the fore and hind leg (e.g. the pelvis/proximal femur, distal femur/proximal tibia, distal tibia/proximal metatarsal etc.). As well as those chop marks recorded on the epiphysis (articular end) of long bones, some mid shaft chops were also recorded. These tended to be either clean chops through the width of the bone or diagonal chops usually towards the distal epiphysis, presumably to separate the carcass into more manageable joints of meat. Likewise, a number of sheep/goat and cattle vertebrae had been chopped along their dorso-ventral axis, presumably in order to split the carcass into sides of beef and lamb. Some long bones had been split longitudinally for the extraction of marrow. Butchery marks on fish remains were recorded only on vertebrae which had been chopped width ways. Knife cuts were recorded on the foot bones (Metapodial) of sheep/goat and cattle, and on the glenoid facet of one goose humerus.

No pathological conditions were noted, but metallic calculus was recorded on a complete sheep/goat mandibular tooth row, this probably just relates to the animals diet.

Two pieces of worked bone were recovered. One is a complete, rather robust awl or net making needle possibly fashioned from a ?rib of a large mammal. One end has a regular hole through it whilst the other end has been sharpened to a point, the whole object has a highly polished surface. The other piece of worked bone is incomplete but possibly represents the sharpened end of a similar object.

## **Recommendations**

Further analysis of this assemblage would include the incorporation of the faunal material recovered from the processed environmental samples and would concentrate on the identification of the different species of fish present, their origins and any economic implications implied by the presence of certain species. The size of the faunal assemblage is likely to limit the amount of meaningful

statistical analysis that can be undertaken. However, a critical re evaluation of the assemblage by area and stratigraphic phase is highly desirable as a means of highlighting any possible indicators of specific activities.

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## 9 STATEMENT OF POTENTIAL

A) Taylor and others have proposed models for the medieval development of Wisbech, based on documentary information and the town's topography. This excavation, occurring within the presumed New Market area of the town, offers the opportunity to test some assumptions on which these models are based. It will provide a chance to evaluate and reconsider some of the available documentary evidence.

B) The site has been identified as being within the settlement of Wisbech from at least as early as the thirteenth century. The excavated evidence will bear close comparison with contemporary evidence from other fenland centres and will thus contribute to the long overdue and important investigation of the Fenland Towns.

C) The apparent change in use of the site over time from domestic housing to industrial metalworking, before reverting to what would appear to be domestic occupation raises a number of questions concerning the position of the site within the medieval and post medieval settlement.

D) The ceramic assemblage will provide the first step in the creation of a local type series and is likely to have important implications for the study of the local and regional economy.

E) The faunal assemblage provides the first indication of diet in medieval Wisbech. The presence of large numbers of fish bones may, in addition, provide an indication of specific economic activities.

F) The metalworking debris provides the first evidence for industrial activities identified within the medieval town. Is this activity limited to materials recycling, or does it also represent manufacture from raw materials? The sources of materials present within this phase of the excavation may enhance our understanding of coastal trading during the period.

G) The macro - botanical assemblage which contains waterlogged organic remains is likely to significantly enhance the interpretation of the original site archive. Detailed information on diet, climatic conditions, the change in use of the area over time and even the identification of specific activities within separate rooms of buildings of the same phase are all possible due to the excellent state of preservation encountered.

H) Data recovered from this site, (including details of preservation quality) and its subsequent interpretation, will provide the basis for the creation of a research framework for the town and will aid decisions on the future management of the towns considerable archaeological resource.

## 10 AIMS AND OBJECTIVES OF FURTHER WORK

### **Research Design**

The research aims of the post excavation analysis include the preparation of an integrated report and interpretation of the site archive produced as a result of excavation. The site should be placed within its local urban and regional context and used to generate future research questions.

Analysis of specific elements of the data collection will utilise the potential of that collection using the points set out in Section ? as follows:

### **Stratigraphic records**

Analysis of this data will contribute to a, b, c, d, e, f, g, h.

### **Pottery**

Quantification of all material, preparation of a type series and report will contribute to a, b, c, e, f, h.

### **Faunal remains**

Quantification, analysis and production of a report will contribute to a, b, d, h.

### **Macro Botanical Remains**

Quantification, analysis and production of a report will contribute to b, c, h, g.

### **Micromorphological sections**

Analysis of the micromorphological profiles will contribute to b, c, g, h.

### **Pollen analysis**

Establishing the presence / absence of pollen grains and the range of species represented will contribute to b, c, g, h.

### **Entomological Remains**

An assessment of the degree of survival of insect remains and their potential for enhancing the interpretation of distinct phases of activity will contribute to b, c, g, h.

### **Metal working debris**

Quantification and analysis will contribute to a, b, c, f, h.

### **Metallic objects and special finds**

Preparation of a catalogue of this material and selective publication will contribute to a, b, c, d, e, h.

### **Publication and presentation**

It is intended to publish the site report in PCAS. Material from the excavation and post excavation programme will be used in local exhibitions including a display at Wisbech Museum.

## 11 METHODS STATEMENT

The post excavation and publication project can be broken down into a number of tasks.

### **Analysis of stratigraphic data**

The site matrices will be divided into distinct periods of activity or flooding. Within each period the sequence will be broken down further into associated context groups incorporating data from artefactual and environmental analysis.

### **Documentary and background research**

The range and quality of the cartographic and documentary resource for the town of Wisbech is at present something of an unknown quantity. A priority for future work would be to conduct an assessment of these materials. For this project an attempt will be made to gather and assess sources which pertain to the subject site.

### **Pottery analysis**

A fully described type series will be produced. On this basis all material will be quantified and placed on a computer database. After background research into comparative material a report text will be produced with selected illustrations as appropriate. Complete but broken vessels will be refitted for display purposes.

### **Animal bones**

Material retrieved from the environmental processing programme will be incorporated into the faunal remains catalogue. Given the relatively small scale of the excavation the statistical significance of the assemblage is likely to be low. As a result particular attention will be given to the identification of fish species and a critical re - evaluation of the whole assemblage by stratigraphic phase. After processing and analysis a report will be written and a summary prepared for publication.

### **Environmental samples**

All bulk flotation residues will be sorted in order to separate charred and waterlogged seeds from the fish bones and other environmental artefacts. Peroxide flotation of up to eight further floor deposits will also be undertaken to maximise the recovery of waterlogged organics. After full processing and analysis of all bulk, block and micromorphological samples reports will be written with summaries suitable for publication.

### **Entomological remains**

An assessment of the quality and extent of preservation of the insect remains will be carried out on the completion of the peroxide flotation of the remaining bulk environmental samples. A statement concerning sampling strategies for future excavations within the town is to be produced in consultation with the relevant specialists.

### **Pollen**

An assessment will be made of the presence / absence of pollen grains within selected contexts. The range of species present is to be noted and comment made on the interpretative value of these remains within the urban environment by the relevant specialist.

### **Metalwork and other special finds**

Additional X - radiography to be undertaken at the request of appropriate specialists in order to ensure accurate identification and conservation. A catalogue to be produced with selected items for illustration and possible display.

### **Collation of specialist reports**

After the completion of all specialist reports a meeting of the project team will discuss the results and determine the format for their presentations part of the published report. The material will then be collated into an integrated site report, interpretation and discussion by the lead author and relevant action towards production of the final report taken by specialists.

### **Preparation of publication drawings**

After discussion by the project team, final publication drawings are to be produced by the illustrators of the Archaeological Field Unit of Cambridgeshire County Council.

### **Preparation of the report**

After reception of all the components the report will undergo final editing and submission for publication to Proceedings of the Cambridge Antiquarian Society (PCAS).

### **Storage of the archive**

The archive is currently held at the AFU's headquarters at Fulbourn. The bulk material archive be prepared and held at Cambs. County Council store at Landbeach. Sensitive organic remains and metalwork will be held in controlled environment stores at Fulbourn.

## 12 RESOURCES AND PROGRAMMING

### Staffing and equipment

#### AFU Project Team

The project will be managed by Ben Robinson Bsc, MA, who will also be acting as editor. Mr Robinson has been a Project Manager at the AFU for two years and has worked as an archaeologist in Cambridgeshire since 1989. Research interests include the archaeology of the fenland towns and landscape development.

Mark Hinman BA, will be lead author of the report, assisting with the background documentary research, preparing the stratigraphic report, supervising the project on a daily basis and writing the final integrated site report. Mr Hinman an archaeologist of many years experience has been involved in the excavation and post excavation programmes of a wide range of deeply stratified urban sites both in this country and abroad. He is interested in all aspects of urban archaeology.

Dr Paul Spoerry will analyse the pottery and produce the relevant report. Dr Spoerry is a specialist in medieval ceramics and is involved in research into the local pottery industries of medieval Cambridgeshire.

Duncan Schlee BA, MSc will analyse the environmental evidence and produce the relevant report.

Lorrain Higbee BA, MSc will analyse the animal bone and produce the relevant report. Ms Higbee obtained an MSc in Bioarchaeology and Geoarchaeology from the Institute of Archaeology, London where she specialised in faunal identification and analysis. She has undertaken the production of a number of specialised faunal reports.

Illustrations will be prepared by AFU staff and the preparation of artefacts for examination by specialists will also be undertaken by Unit staff.

#### Consultant Specialists

Outside specialists will provide investigation, conservation and analysis of certain categories of material. These include

Celia Honeycombe who is involved in the X - raying, cleaning and conservation of the metalwork.



Dr Charly French who will be analysing and interpreting the prepared micromorphological samples taken through various floor deposits and producing that part of the environmental report in consultation with Mr D Schlee.

Catherine Mortimer DPhil, BTech, who will be identifying and analysing the metal working waste products.

Other specialists will be contacted as ongoing analysis dictates.

## 13 TIMETABLE

The time necessary to carry out the separate elements of the project are outlined below.

PO Project Officer  
PM Project Manager  
SC Specialist Consultant  
FS Finds Supervisor  
FA Finds Assistant  
SI Senior Illustrator  
C Consultant

### **Stratigraphic analysis and report writing**

Stratigraphic analysis and phasing (PO)	5 days
Drafting of report plans (PO)	3 days
Integration of specialist data and production of report (PO)	15 days

### **Documentary and background research**

Documentary/background research (PO/C)	3 days
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### **Illustration**

Publication line drawings (SI)	3 days
Artefact drawings (SI)	3 days
Pottery drawings (SI)	3 days

### **Pottery**

Quantification (FA)	3 days
Quantification and type series (SC)	3 days
Data Analysis and production of report (SC)	5 days
Selection of items for illustration (SC)	1 days
Refit (97) vessel and 1 -2 other cooking vessels (FA)	3 days

### **Animal Bone**

Processing of material for study (FS)	1 days
Data analysis and report production (SC)	5 days

### **Environmental**

Processing of material for study (SC)	3 days
Data analysis and report production (SC)	3 days

### **Micromorphology**

Slide manufacture (SC)	2 days
Analysis and report production (SC)	2 days

### **Pollen**

Analysis and production of statement of potential (SC)	3 days
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### **Metalwork**

Conservation and cleaning (SC)	2 days
Identification of artefacts and production of catalogue	2 days

### **Industrial Waste**

Identification and production of catalogue (CS)	1 days
Production of report	3 days

### **Archiving and storage**

Security copying (FA)	0.5 days
Accession of Archive (PO)	1 day
(FS)	0.5 days

### **Management and editing**

Active management, meetings, editing (PM)	2 days
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### **Publication**

Preparation for journal (PO)	1 day
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## Appendix A - Site Records

### WISMM 96

5 sheets of context lists  
 133 context records  
 1 sheet of plan register  
 1 sheet of section register  
 1 sheet of sample register  
 1 sheet of site objects register  
 16 photographic record sheets  
 3 area matrices

26 plans at 1:20  
 12 sections at 1:10

4 B / W print films  
 7 Colour Print films  
 5 Colour Slide films

### Appendix B Site Objects Register

NO.	AREA	CONTEXT	DATE	MATERIAL	DESCRIPTION
1	1	31	5/7/96	Cu alloy	Coin
2	3	44	10/7/96	Ag	Long cross silver penny
3	3	46	11/7/96	Stone	Spindle Whorl
4	3	46	11/7/96	Coal	Fitting / Seal matrix
5	3	46	11/7/96	Stone	Spindle whorl
6	3	46	11/7/96	Cu alloy	Coin
7	3	46	11/7/96	Cu alloy	Buckle
8	2	97	11/7/96	Cu alloy	Vessel fragments
9	3	48	12/7/96	Organic	Leather strap
10	3	48	12/7/96	Organic	Leather shoe
11	3	125	13/7/96	Bone	Awl
12	2	97	11/7/96	Cu alloy	Barrel lock

### Appendix C

Skeletal element	Species			TOTAL
	Cattle	Sheep/goat	Pig	
Skull				
Skull (incl. maxilla)		6	2	8
Horn core	1			1
Loose teeth	15	16	2	33
Mandible (half)	4	7	2	13
subtotal	20	29	6	55
Fore limb				
Scapular	1	4	1	6
Humerus (prox.)	1			1
Humerus (dist.)	1	2		3
Radius (prox.)		1		1
Radius (dist.)	1	1		2
Radius (shaft)		2		2
Metacarpal (prox.)	1	4		5
Metacarpal (shaft)	1			1
Metacarpal (whole)		1		1
subtotal	6	15	1	22
Hind limb				
Pelvis	1	3	2	6
Femur (prox.)	1			1
Tibia (prox.)	1		2	3
Tibia (dist.)	1	3		4
Tibia (shaft)		2		2
Astragalus	1	2	1	4
Calcaneus		1		1
Metatarsal (prox.)	2	1		3
Metatarsal (whole)		1		1
subtotal	7	13	5	25
Metapodium	4	6		10
Phalanx	5	6	1	12
cloven bone	2	1		3
Vertebrae	2	8		10
Carpals/tarsals	2			2
<b>TOTAL</b>	<b>48</b>	<b>78</b>	<b>13</b>	<b>139</b>

Table showing skeletal element distribution for domestic animals

## Appendix D Finds Quantification

WISBECH, MARKET MEWS 1996 - Finds Types by Context (in grammes)																		
Trench/ Location	Context	Pottery	Tile & Brick	Fired Clay/ Daub	Mortar/ Plaster	Metals Fe	Metals Cu	Metals Pb	Metal Slags	Animal Bone	Worked Bone	Shell	Organic	Stone	Shale/ Slate	Industrial Residue	Charcoal/ Coal	Total Weights by Context
	u/s	56	2813															2869
	1	24																24
	6	55	189			22				52		2						320
	7	160	231		2		9			1				10				413
	8	471				55	8			178							6	718
	10	4																4
	11	35				7				15								57
	13	119								5								124
	15	759	111				2		6	197								1075
	16	3																3
	17	1516	753	19		88			22	103				304	8			2793
	21	128	23							11								162
	22	164	82							85								321
	23	508	79			37				71		5						700
	24	21				22				21								64
	30	245		2		3				8								258
	31	176				51				43								270
	34	92	57			142			239					81				611
	40	674	60															734
	42	41				14				17								72
	43	64								1								65
	44	626	684							64				12			10	1396
	45	8								2								10
	46	137				15				10								162
	47	21																21
	48	261	34	3		5				256		13	584	175		9		1340
	50	312	867			8			19	1044		3			9	5		2267
	59	397	2156							61				366				2980
	62	3				2												5
	69	648	3							159								810
	73	323	159	40					4	1		1				2		530
	75	196	26			58			5	141					314	5		745
	79	378							41	129								548
	83	463	2						6	24					24		13	532
	86	3	520														7	530
	87	65				20	2		58			3				30		178
	89	6		17						3		1					11	38
	92	151				38				83				458				730
	93	355				47	5	3	729	42							1	1182
	97	6911				20			4461	15			156				346	11909
	111	315					5		1397	370								2105
	113	73					54		376						18			503
	114	61								26								87
	115	26								9								35
	117		160						327	87								574
	119	6								11								17
	122	48																48
	124	3								9								12
	125	153		12						73	41		12	479		1		771
	126	6				12				18			9	130				175
	130													1848				1848
	136	366								143								509
<b>Total Weights by Finds Type</b>		<b>17626</b>	<b>9009</b>	<b>93</b>	<b>2</b>	<b>646</b>	<b>85</b>	<b>3</b>	<b>7690</b>	<b>3586</b>	<b>41</b>	<b>28</b>	<b>761</b>	<b>3863</b>	<b>364</b>	<b>48</b>	<b>407</b>	<b>44254</b>





Cambridgeshire  
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Archaeology

The Archaeological Field Unit  
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