



Archaeological Field Unit

**Prehistoric, Roman and Anglo-Saxon Remains at  
Land off Brandon Road, Thetford:  
Post-Excavation Assessment**

**VOLUME 1**

Rob Atkins and Aileen Connor

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**Prehistoric, Roman and Anglo-Saxon Remains at Land off  
Brandon Road, Thetford:  
Post-Excavation Assessment**

(TL 855 832)

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**Excavations on Land off Brandon Road, Thetford:  
Post-Excavation Assessment  
(TL 855 832)**

**Summary**

*Excavation of an area of land (1.4ha) close to Brandon Road, Thetford, Norfolk was conducted in September 2002 by Cambridgeshire County Council Archaeological Field Unit (AFU). Important evidence for occupation from the mid 2nd century (Roman) to the 8th or 9th centuries (Middle Saxon) was found and a significant prehistoric component was also present.*

*The skeleton of a child of probable prehistoric date had been buried in a crouched position associated with the bones of a calf. Nearby, debris from flint knapping during the Mesolithic or Early Neolithic was preserved in a natural hollow. Over 100m to the west was a deposit of very burnt flint, possibly associated with feasting, pottery making or other specialised activity. The date of this activity is not known although similar deposits are often interpreted as Bronze Age.*

*Ephemeral and fragmentary evidence for a ditched field system and animal stock enclosures related to the earliest Roman phase. The early field system appears to have been replaced and re-aligned throughout the Roman period. Field systems, stock enclosures, barns, wells and rubbish dumps are all represented, although shifts in emphasis and focus over time are suggested by changes in alignment. Both pottery and metalwork imply continuity at the site from the Roman into the Early Saxon period.*

*Early Saxon activity attributable to the 5th to 7th centuries is attested by buildings, ovens and pits. The majority of the buildings may have been deliberately located around a rectangular space. Metalworking debris in the backfill of one of the buildings appears to represent a hoard of scrap gathered for recycling and, significantly, the scrap metal includes pieces of Roman as well as Anglo-Saxon date. After the abandonment of these early buildings, during the Middle Saxon period (8th to mid 9th centuries) the site reverted to fields confined within north to south boundary ditches. These ditches were later replaced by a large enclosure with two internal buildings, an industrial oven complex and rubbish dumps. This enclosure seems to have been short-lived and was overlain by a building and a large pit backfilled with another hoard of scrap gathered for recycling. The site appears to have been abandoned by the middle of the 9th century.*

## **1 INTRODUCTION**

Excavation by the Archaeological Field Unit (AFU) of Cambridgeshire County Council at Brandon Road, Thetford (NGR TL 855 832) was completed in September 2002. The work was commissioned by Abbey Developments Ltd in advance of the construction of a proposed new residential housing development. The excavation was carried out as a condition of planning consent 3/98/0083 of Breckland District Council.

The excavation was conducted in accordance with a design brief drawn up by David Gurney of Norfolk Landscape Archaeology (Gurney 2000) and a specification by Aileen Connor of the AFU (Connor 2002). The aims of the excavation laid out in the brief and specification were to provide information on the site's origins, date, development, phasing, spatial organisation, character, function, status, significance, as well as the nature of social, economic and industrial activities.

## **2 GEOLOGY AND TOPOGRAPHY**

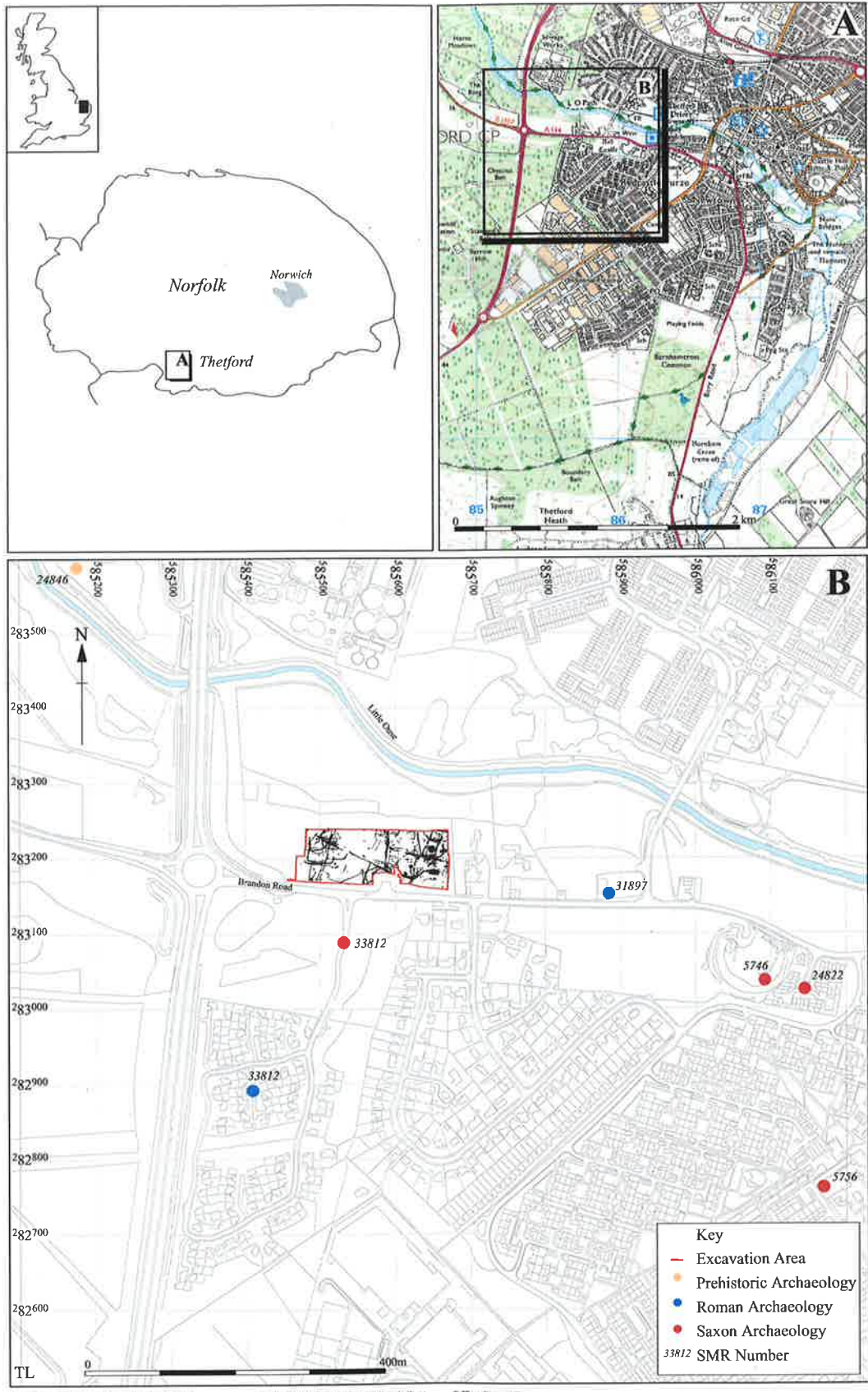
The site is located on the south bank of the Little Ouse River, 2.4km west of Thetford town centre and adjacent to the north side of Brandon Road (centred on TL 855 832). The proposed development area is roughly rectangular in size, measuring *c.*190m by *c.*70m (approximately 1.4ha; Fig.1).

The south-western part of the site lies at approximately 12m OD and the natural geology here consists of sands and gravels. The land falls sharply to the north and west to *c.*9m OD, at which point the site becomes relatively flat although there is a slight slope northwards towards the Little Ouse River (Fig.2). Here, on the lower ground, the natural subsoil consists of soft brown sands.

## **3 PROJECT BACKGROUND**

### **3.1 Historical and Archaeological Background (Fig.1)**

Thetford is located at the confluence of the Rivers Thet and Little Ouse. Prehistoric populations would have utilised these rivers, as is demonstrated by the



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**Figure 1** Location of Excavation showing SMR sites in its vicinity





Figure 2 Site Plan and Contours

presence of a burnt mound 600m to the north-west of the site, directly to the north of the Little Ouse (SMR No. 24846).

The ancient route of the Icknield Way passes through Thetford several hundred metres to the east of the development area. Romano-British features found in its vicinity seem to relate to farmsteads and include Romano-British field or boundary ditches and circular post-built structures less than 0.5km to the east of the subject site (Dallas 1993; SMR No. 31897 and Andrews 1995; SMR No. 24822). A few Roman features were found c.450m to the south-east at Red Castle (Knocker 1967; SMR No. 5756), while a Roman ditch was found in an evaluation c.400m to the south-west (Brennand 1999).

Early and Middle Saxon remains have been uncovered in four separate excavations in the vicinity of the site. It is probable that these remains are part of a single settlement which lay along the Little Ouse valley over an area of at least 800m by 200m. An archaeological evaluation and subsequent excavation found a sunken-featured building, pits and postholes c.100m to the south-west of the site (Brennand 1999 and 2000; SMR No. 33812). At Red Castle, c.450m to the east, there was only residual artefactual evidence for probable Early and Middle Saxon settlement. Here the Saxo-Norman occupation, which included the Late Saxon or early medieval church of St. Martin's with 85 burials and an 11th- to 12th-century earthwork, seems to have destroyed all physical evidence of earlier remains (Knocker 1967; SMR No. 5746). About 500m to the east of the site, nine sunken-featured buildings were found as well as evidence of ironworking in the Early Saxon period: very little Middle Saxon occupation was discovered (Andrews 1995; SMR 24822). About 600m to the south-east an Early Saxon sunken-featured building, hearth and pits were located (SMR No. 5756).

### **3.2 Evaluation**

In 1990 the Norfolk Archaeological Unit (NAU) evaluated the eastern c.0.7ha of the site (Rogerson 1990). No archaeological work was carried out on the western part of the site as it was believed that archaeological remains here would probably not have survived due to the area having been used as a compound for the Thetford Bypass. In the 1990 evaluation a total of thirteen trenches was excavated, each measuring 10m x 3m. Archaeological features and deposits were exposed in ten of the trenches, with no archaeological features in the three trenches placed on the western side of the evaluation.

A limited amount of residual prehistoric material was recovered by the evaluation consisting of a few Neolithic worked flints, a small number of pottery sherds and a copper alloy pin thought to be Iron Age in date. A moderate assemblage of Roman finds was recovered from layers and features predominantly from the northern evaluation trenches. Evidence for Early Saxon occupation was largely concentrated at the southern end of the site and features identified included a

sunken-featured building, pits, postholes, ditches and two possible kilns or ovens, though the latter were undated. Middle Saxon evidence consisted of pottery and metal objects although no features could be attributed to this period.

## **4 METHODOLOGY**

### **4.1 Introduction**

The AFU excavation took place in three phases. The initial investigation comprised 300m of 1.6m wide trial trenches placed across the western area as a rapid evaluation. These trenches demonstrated that the western area contained surviving archaeological features. The second phase consisted of an open area excavation of the eastern area of the site (evaluated in 1990), while the third phase comprised an open area excavation of the western part of the site.

### **4.2 Machining**

Topsoil and subsoil were removed separately by a 360° tracked excavator fitted with a flat-bladed ditching bucket under archaeological supervision. The exposed subsoil was then subjected to a metal detecting survey. Subsoil was subsequently removed to expose archaeological features or layers. Excavation on the eastern area was completed in early August and, after permission from Development Control at Norfolk Landscape Archaeology, the western area of the site was stripped.

### **4.3 Recording**

The excavation areas were cleaned by hand in preparation for planning and excavation. All features and deposits were described using the AFU single context *pro forma* recording sheets. Plans were hand drawn at 1:50 then digitised with the aid of *AutoCAD* as excavation progressed. Sections were drawn at a scale of 1:10 or 1:20 as appropriate. Monochrome, colour slide and colour print photographs were taken of all features. The site and spoil heaps were repeatedly subjected to metal detector sweeps throughout the excavation.

### **4.4 Assessment**

During assessment master numbers were assigned to major features (especially ditches) in order to facilitate phasing and interpretation. The preliminary phasing is based on a combination of stratigraphic relationships and finds. Difficulties in phasing the site were caused by the presence of modern contamination resulting from the presence of moles and rabbits, coupled with the very soft characteristics of the underlying sand geology.

Provisional site phasing was distributed to all specialists prior to assessment. This phasing has been subsequently altered: there is therefore a slight discrepancy in the phasing of some of the assessment reports and Figs 2-4. These discrepancies will be addressed during analysis.

## 5 SUMMARY OF RESULTS

Evidence for human activity comprised features of prehistoric, Roman, Anglo-Saxon and modern date (Phases 1-7). The site was used intermittently from the Late Mesolithic to Bronze Age, with continuous occupation beginning in the middle of the 2nd century AD and ending in the 9th century AD. Modern features associated with a former golf course and construction of the adjacent Bypass were also present. The following text provides a summary of the major features, although many more were recorded (Figs 2-4).

### 5.1 Phase 1: Prehistoric (Mesolithic/Neolithic/Bronze Age) (Fig.3)

The small but significant prehistoric evidence dated predominantly to the Late Mesolithic and Early Neolithic periods. A general scatter of 291 struck flints was recovered. These were mainly Mesolithic although a few of the flints were Neolithic or Bronze Age (see Bishop, Section 7.3). Two small areas contained prehistoric features. At the eastern edge of the site there was a Late Mesolithic or Early Neolithic flint scatter (358 struck pieces) in a probable working hollow (2240; fills 947-952, 1041-1043) measuring *c.*3m by *c.*2m and up to 0.3m deep. This flintworking possibly represented the initial preparation of a single nodule. The position of the flakes suggests that there may have been more than one flint knapper at work, or that one person changed their working position part way through the process. To the east of the working hollow, and possibly contemporary with it, were the skeletal remains of a child (grave 859, sk.858) buried in a crouched position with the head to the east (see Duhig, Section 8.1). To the south of the burial and possibly associated with it were fragments from the skull and part of the feet bones of a calf (881). The skull of a second burial



Figure 3 Prehistoric Phases

(sk.752) was located in the same general area, although had been disturbed and no related grave survived.

Towards the western edge of the site was a shallow depression measuring 2.2m by 1.2m and 0.05m deep; this was filled with charcoal and more than 5000 small burnt flint fragments (2066). The quantities involved suggest that these flints may have originated from industrial or specialised activities, such as communal cooking, or for use in saunas and/or food drying areas. Given the very fragmented nature of the burnt material, it may even have represented a cache of flint temper for use in pottery production.

## 5.2 Phases 2-4: Romano-British (mid 2nd to ?early 5th century) (Fig.4)

Romano-British features were present across the site and largely consisted of ditches delineating a farmstead and associated field system. Preliminary analysis has identified three phases of activity. Pottery indicates that the earliest features may have been established in the middle 2nd century AD with the latest Roman pottery possibly continuing into the 5th century. This late date for the Roman pottery, coupled with a 5th century start date for the Anglo-Saxon pottery, is important since it implies continuity of occupation.

Several post-built structures were identified, along with wells and rubbish dumps or middens. These features would have been central to the activity of a farming community. Although the broad character of the occupation remained largely unchanged throughout the Roman period, shifts in alignment and focus can be identified that correspond approximately to the main phases.

### 5.2.1 Phase 2: c.mid 2nd to 3rd century

The earliest evidence for Roman activity was fragmentary and ephemeral. The initial features occurred in the central southern area of the site and consisted of two slightly curvilinear ditches (2269 and 2274) on a north-east to south-west orientation. Ditch 2274 was cut by a large east to west boundary ditch and its recuts (2220, 2221 and 2222). This substantial boundary ditch (*i.e.* 2220) was at least 85m long running from the eastern edge of the site with a 7.5m wide entrance way on its west side. Further north, was a fragmentary ditch (2257). To the south, an enclosure ditch (2268) confined a beamslot and posthole structure (2327), part of which appeared to have been burnt *in situ*. On the northern edge of the site a curving ditch was partially visible, providing possible evidence for a circular building (2288) although few finds were recovered. Other fragmentary ditches were present on the southern and western sides of the site: these did not form any recognisable pattern and again few finds were recovered from them. A small number of pits also date to this phase, some of which contained moderate quantities of pottery (*e.g.* pit 1722).

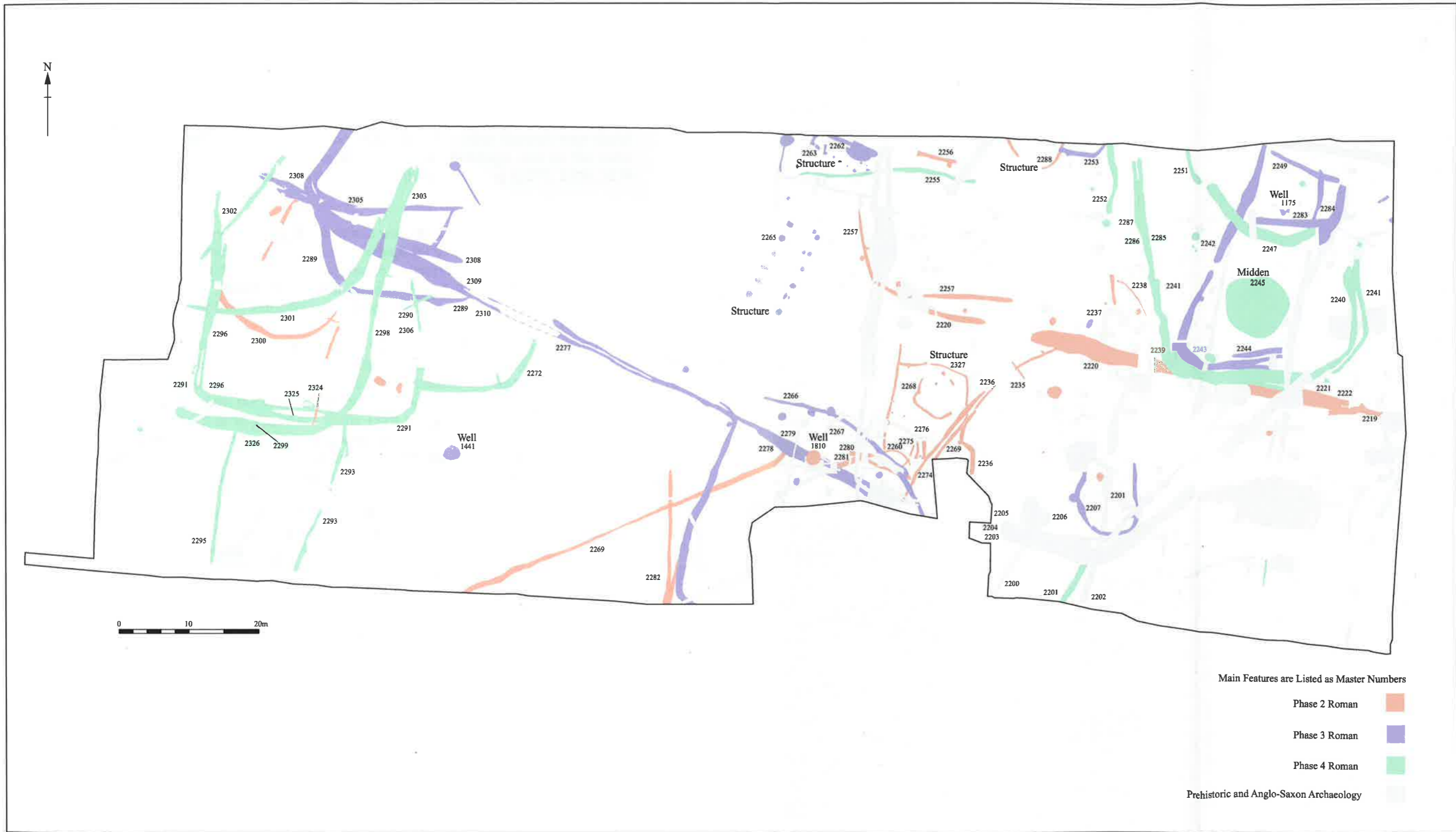


Figure 4 Roman Phases

### 5.2.2 Phase 3: c.3rd to 4th century)

This phase included two adjacent post-built structures (2263 and 2265) in the centre of the site. These may have been aisled barns. The most complete structure (2265) measured c.13m by c.6m and consisted of six pairs of parallel postholes, several of which contained packing and postpipes although very few finds were recovered. An additional pair of postholes at the north-east corner may have formed an entrance. Adjacent to the north was the second structure (2263) that measured c.8.5m by more than 3m. Few other features were found near these buildings. To the south of the aisled buildings and on the same alignment was a linear boundary ditch more than 100m long (2277, 2278, 2279 and 2310).

Other fragmentary ditches at the east and west ends of the site may represent the remains of sub-rectangular enclosures, perhaps for stock control. A few nebulous postholes, which did not form recognisable structural patterns, were found within the enclosures. Finds distribution within fills of the enclosure ditches was variable ranging from individual items to occasional dumps of domestic waste.

Three wells were situated near to or within the enclosures in the north-east (1175), south central (1810) and western parts of the site (1441). Impressions of wattle lining survived below the water table in the lower section of well 1175. Well 1810 cut into the long boundary ditch and may therefore date to the latter part of Phase 3 or to Phase 4. Wells 1810 and 1175 both contained domestic waste, the former containing an unusual coarse ware flask (SF424; see Lyons, Section 7.5). Preliminary assessment of the waterlogged samples from this well indicates that it contained grassland and weed species (see Fryer, Section 8.3).

A few pits scattered across the excavation area date to this phase with some containing domestic rubbish: of particular note was pit 1201, from which 2kg of pottery was recovered.

### 5.2.3 Phase 4: 4th to ?early 5th century

Stock control appears to have continued into the subsequent phase. The enclosure ditches first noted in the preceding phase were re-cut and re-aligned on several occasions. Evidence for re-alignments and re-cutting of the enclosures and other ditches was particularly marked on the western area of the site, although few finds were recovered from the ditches. The eastern enclosures were more finds-rich and several coins and quernstone fragments were found in ditches 2240 and 2241.

Midden deposits (2245 and 1237) were apparently associated with two of the enclosures. Layer 1237 (not shown on Fig.4) measured c.20m by c.15m and sealed Phase 3 deposits in the western part of the site. Midden 2245 may have been associated with one of the eastern enclosures. Both midden deposits produced large artefactual assemblages. Several coins were found in midden



1237 including a small hoard of five coins found stuck together which may represent a purse group: two coins have been dated during assessment and are both of 4th century date (see Crummy, Section 7.1). A large amount of pottery came from midden 2245. Several pits may date to this phase although few artefacts were found in their fills.

### 5.3 Phase 5: Early Saxon (5th to 7th century) (Fig.5)

Evidence for Early Saxon occupation was concentrated in the south-eastern part of the site, where it overlay part of the Roman field system. Some of the pits in the western area (1280, 1814, 2129) may also date to this period: although each of these features contained possible Saxon pottery, these were often small abraded sherds or in some cases of uncertain provenance.

Seven sunken-featured buildings (2206, 2233, 2232, 2229, 2218/9, 2217 and 2211) were found, spaced at fairly regular intervals around a roughly rectangular area measuring approximately 40m east to west and 25m north to south. The buildings were located on the higher ground and, with the exception of building 2211, were placed at or just below the 11m contour. The buildings were generally sub-rectangular in shape with two postholes at either end of the long axis. Overall, they survived well and were up to 0.8m deep. Within building 2232 were nearly twenty loomweights positioned along its base. Building 2217 yielded two spindlewhorls (see Atkins, Section 7.4) and a worked bone needle, while buildings 2218 and 2229 each contained a pin beater (see Riddler, Section 7.10). A large quantity of smithing debris was recovered from building 2233 including slag and iron objects (see Fosberry, Section 7.2 and Crummy, Section 7.1). All of the buildings contained moderate to large assemblages of animal bone and pottery in their backfills with most deposited in buildings 2229 and 2232, including large unabraded sherds (see Goffin; Section 7.6). Some contamination was noted in three buildings (2211, 2233 and 2229) where a few sherds of Middle Saxon pottery were found. Building 2229 also contained a Middle Saxon copper alloy pin (SF192; see Crummy; Section 7.1).

A probable hall (2209) survived in fragmentary condition and consisted of postholes and slots. There was an another possible posthole structure (2234) with fourteen surviving postholes covered an area of c.9m by c.6m, although the postholes did not form a coherent pattern. Most produced at least one sherd of abraded Early Saxon pottery.

Four or possibly five ovens were recorded together in the north-east corner of the site (2313). Their condition varied from very fragmentary to good with the clay lining of one oven surviving to 1.95m in length and 0.6m wide and upstanding to 0.27m.



Figure 5 Anglo-Saxon Phases

#### 5.4 Phase 6: Middle Saxon (8th to 9th century) (Fig.5)

Evidence dating to the Middle Saxon period was more widespread and included features on lower lying land to the north and west. Preliminary analysis suggests that the Middle Saxon occupation may be sub-divided into three sub-phases.

The earliest sub-phase comprises a series of roughly parallel north to south ditches (2202, 2231 and 2225), running approximately 11m apart and perhaps representing field or property boundaries. Their relationship with the Early Saxon structures requires further analysis.

These field boundaries were later replaced by a large slightly irregular enclosure over 130m in length which was recut twice. Within the eastern part of the enclosure was an industrial complex including ovens, a fragmentary clay floor, pits and postholes (2230). A small amount of metalworking waste was found within some of these features. A fragmentary slot ?building (2237) lay at the centre of the enclosure. Other possible contemporary features include a scatter of pits within and just outside the enclosure. A large midden deposit (2315; not shown on Fig.5) extended along the north-eastern corner of the site spreading over an area of c.30m by c.30m and sealing the north to south ditches. This midden contained unabraded pottery, animal bone, several metal objects, worked stone fragments, a piece of worked antler and fired clay including hearth or oven lining. The fills of several pits included large sherds of Ipswich ware.

The enclosure subsequently went out of use and a posthole structure (2271) comprising ten postholes in an area c.10m by 4m cut into the enclosure ditch on its western side. On the eastern side, a large pit (2223) was also dug into the former enclosure boundary and was backfilled with iron objects and metalworking waste, possibly relating to the industrial complex mentioned above. The latest features consisted of three pits backfilled with pebbles.

#### 5.5 Phase 7: Modern

Two features relating to Thetford golf course were found cutting archaeological features on the site. A large bunker of the former 18th hole measuring c.18m by c.8m was found in the south-eastern part of the site and a west to east boundary ditch (2250) on the extreme north-east of the site. The Thetford Bypass compound cut into natural subsoils in the western part of the site including an area c.30m by 12m partly within the north baulk.

## 6 ASSESSMENT

### 6.1 Quantification of the Archive

Item	Quantity
Sheets of context lists	64
Context records	1,996
Sheets of plan registers	3
Plans at 1:10	2
Plans at 1:20	2
Plans at 1:50	89
Sheets of section registers	7
Sections at 1:10 or 1:20	252
Sheets of sample registers	11
Environmental samples	104
Bulk samples (10 litres +) of which 9 are 10 litre and the rest mostly 20 or 30 litres	82
Small samples from postholes <i>c.</i> 5 litres	3
Phosphate samples	13
Charcoal samples	6
Sheets of site objects registers	8
Small Finds	c.330
Sheets of photographic index	3
Photographic register sheets	26
B&W print films	7
Colour Print films	10
Colour Slide films	9

### 6.2 Stratigraphy and Phasing

#### 6.2.1 Provenance and Dating

The activity revealed through excavation has been attributed to six broad phases for the purposes of assessment, although these will be refined during analysis. The number of contexts currently assigned to each phase is indicated below. Although a significant proportion of contexts have not been assigned to a particular phase during assessment, it is anticipated that it will be possible to phase many more during the analytical stage.

Phase	No. contexts at assessment
Phase 1: Mesolithic/Neolithic to Bronze Age	14
Phase 2: Roman (c. mid 2nd into 3rd century AD)	283
Phase 3: Roman (3rd century to c. 4th century AD)	496
Phase 4: Late Roman (4th to ?early 5th century AD)	361
Phase 5: Early Saxon (5th to 7th century AD)	184
Phase 6: Middle Saxon (8th to mid 9th century AD)	373
Unphased at assessment	285
<b>Total</b>	<b>1,996</b>

### 6.2.2 Range and Variety

Archaeological remains were found across the whole excavation area. In some places these were relatively dense with relatively complicated stratigraphy, although in others the remains comprised scattered features, with few stratigraphic relationships.

Feature types varied from period to period. Structures of posthole and/or slot construction were found in the Roman, Early Saxon and Middle Saxon phases. Sunken-featured buildings only occurred in the Early Saxon period. Several probable domestic ovens occurred in one area during the Early Saxon period, while an industrial complex was present in the Middle Saxon period. The only evidence for surviving floor levels came from these two complexes.

The majority of features were ditches or pits, largely dating to the Roman and Middle Saxon periods. These features were often backfilled with a single fill. Three wells were located next to or within enclosures which originated in the Roman period and may have continued later.

During both the Roman and Middle Saxon periods midden layers appear to have been deposited at specific locations on the site.

Features were largely cut directly into the natural underlying geology, requiring a heavy reliance on artefactual assemblages for dating purposes. Intercutting or recut features were almost exclusively ditches, primarily intended as boundary markers.

### 6.2.3 Condition

The survival of archaeological remains ranged from very good to heavily truncated negative features, the latter generally in parts of the western area of the site. Despite probable intensive agricultural usage in the medieval and post-medieval periods there was no evidence of plough damage (*i.e.* plough marks). The absence of banks or other up-standing features was probably due to later use

as part of a golf course. Construction of the Thetford Bypass resulted in topsoil and, in a few small areas, subsoils being removed before hardcore was brought in to provide foundations for the compound.

Local soil conditions (sand and gravel) had affected the both archaeological remains and artefacts, while there were occasional difficulties in finding the edges of features. Animal bone survival was variable depending on where the bone had been deposited, while some metalwork had suffered damage in the acidic conditions.

Both moles and rabbits have been prolific at the site in recent years; rabbit contaminants were found although the degree of contamination is difficult to gauge.

#### 6.2.4 The Site Record

The site record has been checked for internal consistency and preliminary interpretation, and has been fully cross-referenced. Drawn records in pencil have been fully checked and cross-referenced with the context record. The drawn record has also been combined with electronic survey data to produce a definitive site plan using *ProCAD* and *Adobe Illustrator* software. The photographic record has been labelled and fully cross-referenced with the context record.

All site records are held currently at the AFU headquarters at Fulbourn, stored under the site code 37158THD. The finds and environmental materials are currently held by the relevant specialists.

Records and artefacts from the 1990 NAU evaluation of the eastern area have not been incorporated into this assessment. It is proposed to integrate the evaluation records and artefactual data during analysis.

## 7 THE FINDS

### 7.1 Metal Objects by Nina Crummy

#### 7.1.1 Summary

A total of 358 objects was examined during assessment and a complete catalogue is provided in Appendix 1. About two-thirds of the items are iron, the stratified pieces of which are concentrated in one feature: sunken-featured building 2233 (Phase 5). The assemblage from this feature consists of small fragments of fittings and sheet metal, nails, some broken chisels/sets and punches, and, most distinctively, a number of lozenge-shaped roves from holdfasts and one complete

holdfast. The largely fragmentary nature of this material suggests that it is scrap assembled by a smith for recycling. The roves and holdfasts may be scrap derived from a single object, possibly a boat, or they may be end-products of the metalworking activity. The building was almost certainly a smithy.

Of the remaining material some is Roman and Early Saxon, but most derives from Middle Saxon contexts or is unphased or unstratified. A few medieval/post-medieval and modern items were recovered.

### 7.1.2 Condition

Most of the copper-alloy and silver objects are in good condition, though some objects, for example coin SF116, pin SF192, and buckle SF151 have begun to develop the bright green corrosion of bronze disease. Pin SF318 is copper-alloy but is almost entirely coated in a ferrous accretion.

Many of the iron objects are in fair condition, but a few have begun to delaminate. Unusually, there is little surface corrosion present, and many objects are quite 'clean'; on some the original surface has flaked. This characteristic, the result of local soil conditions, is detrimental to the preservation and detection of surface decoration. Many iron objects of Middle Saxon date are decorated with white metal and this information may therefore have been lost. The objects are packed to a good standard of storage in either small crystal boxes or polythene bags, supported in both cases by pads of foam. The bags and boxes are stored in large airtight Stewart boxes with silica gel.

### 7.1.3 Assemblage

The objects break down by material thus:

Material	No.
Copper-alloy	117
Silver	2
Lead	15
Iron	224
<b>Total</b>	<b>358</b>

*Table 1: Metal objects by metal type*

Many bags of ironwork contain several items; the maximum number is given here. Preliminary phasing and identification allows the assemblage to be broken down by phase and function to demonstrate emerging patterns of deposition (Table 2):

Phase	Object Category	Qty	Phase Subtotal
Phase 2	Tool	1	
	Varia	4	
	Nails	3	8
Phase 3	Coins	6	
	Dress accessories	4	
	Tool	1	
	Fitting	1	
Phase 4	Nails	5	17
	Tool	1	
	Varia	2	
Phase 5	Nails	1	4
	Dress accessories	1	
Phase 6	Fittings	10	
	Metalworking (including tools)	40	
	Varia	28	
	Nails	33	112
	Coins	3	
unphased	Dress accessories	6	
	Toilet instruments	2	
	Weighing/measuring	4	
	Fitting	2	
	Household (?)	1	
	Tool	1	
	Metalworking	1	
	Varia	15	
	Nails	6	41
	Coins	4	
	Dress accessories	5	
unstratified	Fittings	5	
	Varia	22	
unstratified	Nails	23	59
	Coins	59	
	Dress accessories	17	
	Toilet instrument	2	
	Household	3	
	Tools	2	
	Fitting	4	
	Metalworking	4	
	Fishing?	1	
	Varia	15	
	Nails	10	117
<b>Total</b>		<b>358</b>	

Table 2: Metal objects by phase and function

The objects are listed as a brief tabulated catalogue in Appendix 1, subdivided into six groups: coins (irrespective of metal), copper-alloy objects, silver object, lead objects, iron objects other than nails, and iron nails. They are listed within



these groups in phase number order, followed by stratified but unphased items, and then unstratified items.

No stratified prehistoric objects were recovered and the stratified Roman material (Phases 2 to 4) is limited to coins, nails, dress accessories, knife blade fragments, and odd scraps or fragments. There are also a number of diagnostically Roman objects among the unphased items, for example coins, a brooch, and a hairpin, while the unstratified material includes fifty-six Roman coins, Baldock-type tweezers, a bow brooch catchplate and a penannular brooch.

Though only sixteen coins derive from stratified Roman levels, all but three of the seventy-two coins in the assemblage are Roman. The three are an Anglo-Saxon Northumbrian *styca* dated c.AD 858, and two farthing tokens of the first half of the 17th century. All three are unstratified. The Roman coins are all of 3rd or 4th century date, with the earliest identifiable (pre-cleaning) an *antoninianus* of Gallienus, AD 260-8, and the latest several bronze issues of the House of Valentinian, AD 364-78. The assemblage is typical of a rural site. One interesting group is a small hoard of five coins, only two of which are legible at this stage; one is a House of Constantine issue of the early 340s, the other a House of Valentinian issue of the later 360s or 370s. If these coins represent a purse group, as seems likely, it is rather unusual to have a mix of issues; other purse groups of small *aes* tend to be tightly dated, containing only those coins in common circulation at the time.

The Phase 5 (Early Saxon) material is remarkable for the finds from sunken-featured building **2233**. Apart from one small piece of copper-alloy binding, this material consists entirely of ironwork, some nails, but mostly small fragments of broken items, such as fittings and metal-working tools, with at least two chisels or sets present, and three possible punches. A distinctive feature of the group is a number of lozenge-shaped roves from holdfasts and one complete holdfast with its rove in place. A large corroded lozenge-shaped mass of iron may prove on X-ray to be related to these items.

This assemblage is probably scrap assembled by a smith for recycling. The roves and holdfasts may also be scrap, perhaps derived from a single object, possibly a boat, or they may be end-products of the metal-working activity. All the fragments and tools may be of contemporary origin or may have been salvaged from earlier (?Roman) features in the area.

There is little among the unphased or unstratified material that is positively of Migration Period (Early Saxon) date, the exceptions being a fragment of an Anglian girdle-hanger and part of a small-long brooch. A pin of Middle Saxon type from structure **2229** is given as Phase 5. It provides a stratigraphically early example of the form.

The Phase 6 material is much more varied in its functional groupings than that from any other phase. It includes residual Roman material (a long-handled toilet spoon), several dress fittings of Middle Saxon type, tweezers, some lead weights and other objects, iron nails and fittings, an awl, probably from leather-working, and an unusual two-pronged iron implement, the ends of the tines of which are rolled over, a feature that seems to preclude its use as a functional household item.

A piece of silver scrap from floor 426 may be evidence of silver-working, but is probably more likely to have been hoarded for its intrinsic value, or for recycling.

Middle Saxon items among the unphased and unstratified objects consist of several pins and a spoon of distinctive form and decoration.

A very few later medieval/post-medieval and modern objects were recovered. They include a curved pick from a toilet set and a finger-ring with a high collet and self-coloured round glass setting.

#### 7.1.4 Recommendations

1. *Report on the assemblage from sunken-featured building 2233*

The early date of this assemblage makes it particularly important within the period as a whole and in the context of the development of Thetford in particular.

It is recommended that the smithing scrap and any other debris such as slag or hammerscale is reported on by the laboratory of the English Heritage Centre for Archaeology (CfA), Portsmouth.

The analysis should include consideration of the origin of the scrap metal. Was it contemporary to the smithing activity, perhaps generated within the workshop, or had it been salvaged from earlier structures or features?

A detailed catalogue of the objects, with illustrations, should be prepared to make the CfA report consistent with the report on the other metalwork. Should CfA prefer not to undertake this part of the work, the current author will be able to complete it.

2. *The styca*

This should be reported on by Philip Wise, Curator of Archaeology, Colchester Museum.

3. *Report on the other objects*

The remaining coins and other objects of Phases 2-6 should be catalogued and a full report prepared. The assemblage of Middle Saxon pins is particularly useful as a guide to the spread of these items.

A coin graph should be prepared as part of the report on the coins to enable the assemblage to be set in context with similar collections from the region, e.g. earlier excavations at Thetford and at West Stow.

Any items dating to Phases 2-6 within the unphased and unstratified material should also be included in the catalogue, report and coin graph recommended above, as should a limited number of the later medieval/post-medieval items.

#### 4. *Conservation*

All the coins will need to be fully cleaned and stabilised to 1) enable full identification and referencing, 2) permit accurate weights and diameters to be taken, and 3) ensure their long term survival.

Many of the non-ferrous metal objects also need to be cleaned to enable details of manufacture and typology to be established, and for illustration. Objects requiring cleaning for these purposes are identified in the catalogue. However, all the non-ferrous metal items should ideally be cleaned and stabilised to ensure their long-term preservation in accordance with current UK practice.

All the iron objects should be X-rayed. This includes nails, as nails of Saxon date can occasionally be inlaid with decorative patterns of white metal.

A small number of iron objects may need to be cleaned for illustration. This will depend upon the quality of the X-rays.

#### 5. *Illustration*

A maximum of thirty-eight copper-alloy objects should be drawn.

The Northumbrian *styca* may need to be photographed for illustration in the report.

The piece of silver scrap should be drawn.

A maximum of eight lead objects should be drawn.

A maximum of seventy-one iron objects, including nails and objects from sunken-featured building **2233**, should be drawn.

## 7.2 Metalworking Debris and Burnt Deposits

by Rachel Fosberry

### 7.2.1 Summary

A total of fifty-six contexts contained material associated with metalworking activities or burning (weighing 4.7kg). The metalworking debris included smelting and smithing slags, hammerscale, fragments of hearth or furnace structures and metalworking tools. A catalogue of metalworking debris and burnt deposits is included as Appendix 2.

The majority of the material was recovered from Saxon features notably sunken-featured buildings, middens, pits and ditches. Some 77% of the total material was recovered from the backfill of just two deposits, a sunken-featured building (2233; Phase 5; Early Saxon) and a pit (2223; Phase 6; Middle Saxon). Sunken-featured building 2233, contained a substantial amount of smelting and smithing waste (1.7kg). It also contained remains from a furnace structure and metalworking tools such as chisels and punches (see Crummy, Section 7.1). Pit 2223 contained large quantities of smelting slag, smithing slag and furnace structure debris (1.8kg).

### 7.2.2 The Assemblage

The material was examined, weighed and classified according to morphological criteria. Slags with a flowing, ropey surface were classed as smelting slags. Smithing slags were considered to be more fayalitic with an agglomerated texture and often contained stone inclusions. Hearth debris tended to be burnt clay with glassy slag layers coating one surface.

Hammerscale was recovered from soil samples by running a magnet through the washed residues and was viewed under a binocular microscope at x 8 magnification. Flake hammerscale is indicative of smithing whereas spheroidal hammerslag can be formed in either of the smelting or smithing processes.

Some of the slags examined could not be assigned to a specific activity and were classed as 'undiagnostic'. Small quantities of non-metallurgical hearth lining were found in two Roman phases. It is uncertain if these hearths served domestic or industrial functions. Burnt or vitrified sand, seen in some prehistoric contexts, was taken as evidence of burning.

Although the majority of metalworking debris was found in secondary deposits and dumping layers, a definite pattern of distribution emerges. There was a concentration of metalworking activity in the south-west corner of the excavated area situated on the edge of the gravel terraces. This industrial area included two sunken-featured buildings (2233 and 2217), an industrial oven complex (2230)

and backfill from a metalworking area (2223). It is likely that the groups from 2233 and 2223 are smithy/bloomery waste products. Very small quantities of charcoal were recovered from 2233. It is perhaps significant that these two features also contained a considerable amount of iron objects (many damaged prior to deposition) in their backfills. In her report on the metalwork (see Section 7.1 above), Nina Crummy has independently described the contents of 2233 as indicating the presence of a smithy.

Phase	Origin of Metalworking debris									
	Smelting slag	Smithing slag	Bloom	Evidence of burning	Non-metallurgical hearth	Metal waste	Metalworking hearth lining	Ore	Undiagnostic slags	Total Of Weight
Unphased	19	0			86	0			237	342
1				32						32
2	114					0			22	136
3				0		0				
4	11				31	0				42
5	1313	188		15	7	49	104	9	60	1745
6	1669	73	53	1			384		170	2350
	3126	261	53	48	124	49	488	9	489	4647

Table 3: Phase distribution of the origin of metalworking debris by weight

### 7.2.3 Conclusions

The material evidence strongly suggests that this site is of metallurgical importance. The relatively small quantities of tap slag are possibly indicative of small scale secondary iron smelting as some secondary iron-working produce slag that has a similar external appearance to smelting tap slag (Salter 2002). Primary smelting waste is likely to be deposited in tons rather than kilos and smelting may have taken place off site (Lynne Keys, pers. comm.).

Anglo-Saxon smelting sites in the area are relatively rare. The Brandon Road site provides evidence of metalworking in both the Early and Middle Saxon periods. This evidence was concentrated in the backfill of one feature from either period that contained smithy waste/abandonment products including slag and iron objects. In contrast, elsewhere in Norfolk there is little evidence for metalworking in rural Early and Middle Saxon sites. At Spong Hill for example, there was a small-scale Early Saxon iron smithy (Bayley 1995). Here, a total of 2.3 kg of slag was recovered, mostly spread out in the backfill of several sunken-featured building deposits in the north-west corner of the excavated area. No sunken-featured building contained more than 0.7kg of slag deposits. At Melford Meadows, Thetford small-scale Early Saxon metalworking debris totalling 1.7kg

occurred largely within several sunken-featured building backfill deposits (Salter 2002).

#### 7.2.4 Recommendations

1. Full analysis of the metallurgical material recovered from sunken-featured building **2233** and pit **2223** could include chemical and micro-structural examination to assess the efficiency of the smelting and smithing technologies on this site.
2. Charcoal associated with the more productive features could be analysed for species identification. This could provide valuable information on the exploitation of wood resources used for metalworking including charcoal production and woodland management (CfA 2001).
3. Slags with a high metallic iron content should be stored under conditions of low relative humidity (CfA 2001).
4. The details of the assemblage should be reported to English Heritage, Centre for Archaeology (incorporating the former Ancient Monuments Laboratory). Material that contributes to current research projects is dealt with free of charge (CfA 2001).

### 7.3 Lithics

by Barry John Bishop

#### 7.3.1 Introduction

The excavations recovered 652 struck flints and just under 8kg of burnt flint fragments. This report quantifies the material according to a basic technological/typological scheme (see Table 4 and Appendix 3), and assesses its ability to contribute to further understanding of the nature and chronology of the activities identified during the excavations.

As the material was only cursorily examined, a more detailed examination may alter or amend any of the interpretations offered here.

#### 7.3.2 Quantification

The lithic material recovered from the site consisted of 485 flakes and blades, 155 pieces of unclassifiable flake fragments and core shatter, ten cores and two hammerstones/pounders.

Type	Qty
Primary/Core preparation Flakes	92

Maintenance/trimming/modification flakes	108
Core rejuvenation flakes	4
Useable flakes	59
Specialized flake/blade	5
Chips (< 15mm max dimension)	92
Unclassifiable Flake Fragments <10mm	57
Unclassifiable Flake Fragments >10mm	62
Chunks/core shatter	36
Blades	27
Broken Blades	59
Narrow, blade-like flakes	23
Blade/Narrow Flake Core	5
Flake Core	2
Minimally Reduced Core	3
Arrowhead	1
Burin	1
Edge-trimmed	1
Core-Tool	1
Scraper	5
Backed pieces	5
Notch	2
Hammerstone / Pounder	2
<b>Total Struck</b>	<b>652</b>
<b>Burnt flint weight (g)</b>	<b>7895.3</b>

Table 4: Quantification of lithic material

In addition, just under 8kg of burnt flint was recovered; this had been humanly modified by being burnt but exhibited no signs of previous or subsequent modification. A contextual breakdown of this material may be found in Appendix 3.

### 7.3.3 Discussion

The lithic material recovered from the excavations can be divided into three main areas of significance:

#### *a) General scatter*

From later features and unstratified contexts, 291 pieces of struck flint and small quantities of burnt flint were recovered. The density across the site varied although no significant concentrations were apparent within any particular feature or location, and the majority of pieces occurred singly or in very small quantities within any one context. The burnt flint probably represents 'background' waste from domestic-type hearths. Despite its residuality, the general condition of the struck flint was very good and, although there was a high degree of breakage due to the thinness of the products, it would appear that the assemblage was mostly recovered close to where originally deposited.

With a few exceptions the material appeared reasonably homogenous, representing a systematically reduced, blade-based industry of Mesolithic characteristics. The blades were mostly small, rarely exceeding 50mm in length although a few attained lengths up to 90mm (*e.g.* contexts 600/220 and 638). Most stages of reduction were present, suggesting on-site manufacture of useable blanks. Some reuse of earlier material is evidenced from the flakes struck from recorticated parent material, including the large blade from 638, struck from an earlier blade core, and a blade core from context 1813, reused to produce blades after a period of recortication. A Mesolithic date for the bulk of this assemblage may be supported by a few of the retouched pieces, such as the two backed blades (probably rod-like microliths) from 825 and 661, and the possible burin-on-a-blade from 752. From context 909 and also probably part of the Mesolithic assemblage was an obliquely truncated blade with a retained bulb of percussion, and a point made by transversely truncating the bulbar end and obliquely truncating the distal. Neither were microliths in the true sense but backed points, characteristic of Late Upper Palaeolithic and Mesolithic industries. None of the scrapers were particularly chronologically diagnostic although most would not be out of place within Mesolithic assemblages.

The assemblage as a whole does not contain the quantities of struck flint that may be expected from persistent 'home-base' type settlement, but is sufficient to suggest repeated visiting of the site (as indicated by re-use of earlier material), probably for short-stay, task-specific type activities. Mesolithic settlement in the vicinity is well attested, possibly concentrated towards the lighter sandy soils and gravels along the river margins, including sites such as Two Mile Bottom, some 3km downstream from Brandon Road (Robbins 1998), or the many sites located towards the west around Lakenheath/Wangford (Jacobi 1984).

Although the assemblage was predominantly Mesolithic in character, the recovery of an elaborate and large transverse arrowhead (Clark 1935 type C1; Green 1980 chisel type) indicated some form of activity during the Later Neolithic (Green 1984). Such elaborate forms are not common although there is a marked concentration of chisel-types in the Brecklands (*ibid.*), many of which are also large and elaborate (*e.g.* Pieksma and Gardiner 1990, figs 38-39).

A few pieces may be later prehistoric, *i.e.* Middle Bronze Age or later, such as the core from 754, but these pieces are ambiguous and few in number.

Also recovered was an hexagonal shaped piece of tabular flint from context 983 (SF 321), this had slightly abraded edges but showed no obvious traces of human modification, but was very distinctive and may have been seen as a curiosity to the inhabitants of the site. The unstratified core-tool is somewhat problematic to interpret. It consisted of a large, rather crudely bifacially worked axe or chopping tool, possibly waisted when complete (*cf.* Gardiner 1987, fig.5.13). Its edges were abraded and had evidently been used as a heavy-duty chopping tool, but it was



otherwise uncharacteristic and could potentially have been made during the Palaeolithic to Bronze Age or even afterwards.

*b) Knapping Scatter*

(Contexts 947, 948, 949, 950, 951, 952, 1042 and 1043. Context 1041 was also included within this scatter but produced no lithic material.)

This scatter produced the largest assemblage comprising 358 struck pieces, predominantly decortication, core shaping, trimming and maintenance flakes, and a substantial quantity of small knapping shatter. No cores or quantities of useable pieces were present; the only potentially retouched piece consisted of a small chronologically undiagnostic notch made on a blade-like flake. The pieces exhibited occasional edge-nicking consistent with limited trampling but were otherwise in a good, unchipped or abraded, condition, supporting their interpretation as representing an *in situ* knapping scatter. No refitting was attempted although it was clear that some pieces did refit, and that many more would, given sufficient effort. One abandoned 'testing nodule' was present (probably discarded due to a serious thermal flaw running through the middle of the nodule), and the rest of the assemblage may have resulted from the reduction of a single additional nodule. Some blades and potentially useable flakes were present but even these may have been rejected due to breakages, failed terminal fractures, their thickness, or other perceived faults.

The raw material for the 'testing nodule' and the reduced flint consisted of fine-grained black/grey flint with a thick iron stained chalky cortex and some completely recorticated thermal scars. This had probably been obtained from superficial deposits close to the parent chalk, rather than fluvial gravel deposits, and although such material was not present on site, it could probably be obtained in the vicinity.

The distribution of this scatter was very localised, it was all contained within a shallow, possibly natural hollow, with two main concentrations occurring close to each other and occupying less than 1m<sup>2</sup> each. As stated above, it was quite possible that the entire scatter represents the reduction of only a single nodule and, interestingly, the two main concentrations had different technological 'signatures'. The more southerly concentration contained higher proportions of larger decortication and initial shaping flakes, whilst the northerly scatter (context 952) contained smaller, secondary shaping flakes. It is very tempting to view this as representing a nodule being initially prepared in one location, the knapper then either adjusting their position, moving slightly to the north, or handing the nodule over to a companion, where the preparation was finished. After this was completed, the cores as well as any useable pieces produced were removed for use elsewhere. As such, the scatter would appear to represent a location where nodules, which had been procured elsewhere, were prepared for use elsewhere, an activity that may have only lasted for a matter of minutes. However, a few pieces of unmodified burnt flint were also present and some of the struck flint also

showed signs of being burnt, suggesting that a small hearth may have been constructed within the hollow, and occupation may have been of longer duration, consisting of a short-stay camp involving an episode of knapping.

Although an unusually detailed picture can be reconstructed for the events occurring within the hollow, the fact that the assemblage consisted predominantly of primary core reduction waste, with no diagnostic types present or any idea of the metrical traits of the full reduction sequence, results in difficulties in attempting to date when this might have happened. That such effort was made to prepare the cores carefully, utilising 'cresting' techniques, that blade production appeared to be the aim, as well as the presence of technological traits such as carefully edge-trimmed platforms and occasional platform faceting, all strongly indicated a systematic, blade-based industry, which although conceivably of late Upper Palaeolithic date, would probably be Mesolithic or Early Neolithic in origin.

#### *c) Burnt Feature (Layer 2066)*

In excess of 5000 mostly very small fragments weighing just over 7kg were recovered from a half-sample of this layer. The material was evidently imported to the site and had been systematically burnt, to the extent that all of the flint had become 'fire crazed', changed colour and shattered, suggestive of deliberate rather than incidental burning. Recovered from within the sample, but in an unburnt condition, were two broken blades and a proximal narrow blade microburin, diagnostically Later Mesolithic in date. However, it cannot be unequivocally demonstrated whether these relate to the burnt feature or were residually incorporated. The quantities involved were greater than would be expected from even persistent 'domestic' type hearth use, and suggest that this accumulation may have originated from industrial or specialised activities, such as communal (?ritualised) cooking (*e.g.* Hedges 1974-5). Other interpretations for the presence of large quantities of burnt flint on prehistoric sites include use in saunas and/or food drying areas (Barfield and Hodder 1987). Given the very fragmented nature of the burnt material, it may have represented a cache of flint temper for use in pottery production.

Such accumulations of burnt stone, often termed 'burnt mounds', have been identified from the Mesolithic to the Iron Age, although Bronze Age examples are probably most common, and have frequently been identified from throughout East Anglia, usually close to water-courses (*e.g.* Apling 1931; Layard 1922).

#### 7.3.4 Recommendations

The general lithic scatter provides evidence of prehistoric activity at the site, which would otherwise not be apparent from the stratigraphic record, and it is

therefore recommended that this material should be more thoroughly examined and a description of its general nature produced, including illustrations of the more diagnostic pieces.

The knapping scatter provides an interesting and relatively rare example of *in situ* flint knapping of probably Mesolithic or Early Neolithic date, and as such warrants a detailed description of the technological strategy employed to produce it. Some attempts at refitting should be undertaken, in order to demonstrate that this assemblage does represent a single knapping episode, although it is unlikely that a full, systematic refitting program would significantly further understanding. As the knapping scatter is predominantly composed of primary reduction waste, it is also unlikely that any statistically based metrical or technological analyses would provide a representative picture of the assemblage as a whole.

Little further work on the material from the burnt feature would be productive, although if possible radiometric dating of the feature would be of interest.

The findings of this report, in conjunction with the further work proposed, should be finalised and published alongside other accounts of this fieldwork. The publication should also include some consideration of local geology, raw material sources and previous finds and research in the area.

#### 7.4 Clay and Glass Objects by Rob Atkins

##### 7.4.1 The Assemblage

The excavation produced six clay and two glass objects. The clay objects comprised three spindlewhorls, two loomweights and a gaming counter. 20 possible loomweights from building 2232 were identified during excavation. These loomweights were made from unfired clay and had deteriorated to such an extent as to be impossible to collect, they were therefore recorded in the field and all but one was discarded.

Context	SF No.	Object	Feature	Phase
470	212	Spindlewhorl	Sunken-featured building 2217	5
470	217	Spindlewhorl	Sunken-featured building 2217	5

901	434	Spindlewhorl	Pit	6
369	204	Loomweight	Sunken-featured building 2206	5
636	268	Loomweight	Sunken-featured building 2232	5
1124	348	Gaming counter	Ditch 2250	-
952	337	Glass	Layer 2314	1
U/S	314	Glass	-	U/S

*Table 5: Fired clay and glass objects*

Two spindlewhorls were recovered from an Early Saxon sunken-featured building (2217). One is fragmentary while the other is complete, measuring externally 45mm in diameter, with an internal hole of 10.5mm diameter. Similar spindle whorls were found at Spong Hill (Rickett 1995, fig.137.37-42). A fragmentary spindle whorl was recovered from a Middle Saxon pit.

Two unfired loomweights were recovered from two sunken-featured buildings (2206 and 2232). A further 19 were identified from building 2232. The fabrics were both a light pale green clay. One example is complete and measures externally 105mm in diameter with an internal hole measuring c.26mm in diameter. It is 40mm wide. A clay gaming counter 15-16mm in diameter and 1.5mm thick was recovered from an unphased ditch.

Two glass pieces were recovered. One was a decorated fragment of a neck of a vessel comprising of pale green glass with white and yellow internal bands probably Saxon in date: it was found intrusively in a prehistoric deposit. An unstratified possible window glass fragment is of Roman or post-medieval date.

#### 7.4.2 Recommendations

It is recommended that all eight objects should be properly catalogued and reported on by Nina Crummy. At least two of the objects may need to be drawn.

### 7.5 Roman Pottery by Alice Lyons

#### 7.5.1 Summary

This assessment is based on an examination of a substantial assemblage of Romano-British pottery, the majority of which constitutes locally produced coarse wares, although fine wares and specialist vessel types from the Nene Valley and Oxfordshire were identified as well as imported amphora and samian from Spain and Gaul respectively. Much of the assemblage was retrieved from deposits within Roman features such as ditches, pits, layers and a well. An equal (or slightly greater) proportion of this assemblage however, is residual in Early and Middle Saxon groups also recovered from ditches, pits, layers and structures (including sunken-featured buildings).

The Roman pottery broadly dates from the middle of the 2nd to the 4th (and possibly the early 5th) centuries AD. It is possible therefore, that some of the late Roman material is actually contemporary with the Early Saxon pottery it was found with. Appendix 4 contains a catalogue of the pottery and its spot dating.

#### 7.5.2 Quantification

A total of eleven boxes of Romano-British pottery, weighing 34.796kg, was included in this preliminary scan (with an additional box from the 1990 evaluation to be included in the final analysis).

#### 7.5.3 Condition and Size

The pottery varied considerably in terms of overall condition and sherd size. Several near complete Roman vessels were found, including a very unusual coarse ware flask (SF424). The majority of material however, consisted of abraded fragmentary sherds with some evidence of wear patterns and other surface deposits surviving.

#### 7.5.4 Methodology

An initial scan of the pottery was undertaken which involved opening each bag, making a note of the main fabrics and forms, weighing the material and providing a spot-date. Levels of abrasion were also recorded. The information was entered onto an Excel spreadsheet.

#### 7.5.5 The Assemblage

##### *a) Fabric and Form*

The majority of this assemblage comprises locally produced grey coarse wares with sand and/or mica (frequently a natural constituent of the clay in south Norfolk and north Suffolk) temper found in utilitarian forms including jars, bowls and dishes. Other coarse wares were identified including black burnished wares and shell tempered material, also found as jars. White ware and oxidised coarse ware fabrics were also identified, in lesser amounts, in the form of flagons and storage jars respectively.

Several fine ware colour coats were identified including Pakenham, Nene Valley and Oxfordshire types, identified mostly as beakers. Imported samian was also found generally in the form of cups, dishes and bowls. Specialist wares including Nene Valley mortaria and imported amphora were also present.

A total of twenty-seven fabrics (Table 6) was identified, although it is likely this number will increase with formal fabric analysis.

Amphora
Black Burnished ware
Colour coat
Fine ware colour coat
Grey fine ware
Hadham red ware
Horningsea type ware
London type ware
Micaceous grey ware
Micaceous oxidised ware
Micaceous reduced ware
Micaceous sandy oxidised ware
Nene Valley colour coat
Nene Valley grey ware
Nene Valley mortaria
Nene Valley shell tempered ware
Oxidised ware
Oxfordshire colour coat
Oxfordshire red colour coat
Pakenham colour coat
Parchment ware
Samian
Sandy grey ware
Storage jar ware
Sandy oxidised ware
Sandy reduced ware
Shell tempered ware
White ware

*Table 6: Roman pottery fabrics identified during the initial scan*

*b) Roman Pottery by Feature*

The majority of the assemblage appears to have been retrieved from within features. Roman pottery was recovered from many types of feature (Table 7) of both Roman and Saxon date.

<b>Feature Type</b>	<b>Weight (kg)</b>
Beam slot	0.012
Boundary marker	0.189
Ditch	11.407

Fill	0.010
Hollow	0.102
Layer	10.680
Natural (?disturbed)	0.072
Oven	0.026
Pit (including ?pit)	4.542
Post-hole	0.217
Structure (including SFBs)	0.952
Well	2.753
Not yet assigned to feature	3.834
<b>Total</b>	<b>34.796</b>

*Table 7: Roman pottery by feature type*

*c) Roman Pottery by Phase*

The Roman pottery was recovered from all phases of activity, other than prehistoric (Phases 2-6).

Phase	Weight (kg)	Weight (%)
2	5.644	16.95
3	13.517	40.6
4	8.041	24.15
5	1.407	4.23
6	4.567	13.72
Unphased	119	0.36
<b>Total</b>	<b>34.796</b>	<b>100.00</b>

*Table 8: Roman pottery by phase*

7.5.6 Discussion and Conclusions

This is a substantial assemblage of well recorded Romano-British pottery. The fabrics and forms found are consistent with other Roman sites of this date in south Norfolk, such as Scole (Lyons and Tester in prep.), being mostly of local coarse ware manufactured between the mid 2nd and 4th centuries AD, supplemented by fine and specialist wares imported from regional and international centres.

The Late Roman material found together with Early Saxon wares suggests the possibility that activity was continuous on this site between the 2nd and at least the 5th centuries AD.

*a) Archaeological Background*

Archaeologically little is known of the immediate surroundings of the sample area, although it is situated within the environs of the town of Thetford and close to a number of sites of archaeological interest. Excavations to the north (SMR No. 24849; Fig.1), the north-east (SMR No. 31897) and to the east (SMR No. 24822; Dallas 1993) have uncovered evidence of a system of Romano-British field or

boundary ditches dating from the 1st to 4th centuries AD. The sites to the east have also produced evidence for circular post-built structures dating from the Romano-British period (Dallas 1993, 7; Andrews 1995, 7). Thetford also occupies a position on the Fen Edge which was a place that enjoyed considerable expansion of settlement in the Romano-British period (Gurney 1986, 147).

Roman activity at St Nicholas' Street, Thetford (Lentowicz 1999, 46-51) produced significant assemblages of pottery that will provide a useful comparative reference.

*b) The Significance and the Potential of the Assemblage*

This assemblage has a significant potential for further analysis. Accurate fabric and form analysis will assist in establishing the range of forms produced in local kilns, while cataloguing the range of material imported from regional and international production centres will aid clarification of regional and international trade into this region and how this changed over time.

Integration of the pottery data with the site archive, and comparison with other artefacts, will assist in the interpretation of both date and function of the archaeological features. Furthermore, any changes of function through time should become apparent. It is possible that further study may establish if this site was in continuous use between the Roman and Saxon periods or resettled after a period of abandonment.

7.5.7 Recommendations

1. Formal catalogue (count, weigh, fabric and form analysis: levels of wear, abrasion, sooting and liming recorded, any additional comment).
2. Integration and analysis of site data (feature type, phase and spatial distribution) and artefact concordance (coins, brooches *etc.*).
3. At the analytical stage, sherds will be selected for illustration.



## 7.6 Anglo-Saxon Pottery by Richenda Goffin

### 7.6.1 Introduction

This assessment is based on an examination of the post-Roman pottery assemblage. It also includes material identified from the evaluation in 1990, excavated by the Norfolk Archaeological Unit, although this pottery has not been examined in any detail. The catalogue of post-Roman pottery appears in Appendix 5.

The post-Roman pottery recovered from the excavation made up a total of four boxes of material. Approximately 737 fragments weighing over 14kg were recovered, the precise figure being dependent on further identifications (Table 9). In addition about half a box of post-Roman pottery was identified from the 1990 evaluation, the remainder being of Roman date. The breakdown of Roman/post-Roman pottery from the evaluation by sherd count is as follows: 54.5% Roman, 45.5% post-Roman.

Phase	Weight (kg)	Weight (%)
1	0.012	0.08
2	0.168	1.17
3	0.175	1.22
4	1.534	10.65
5	7.289	50.61
6	5.155	35.80
Unphased	0.068	0.47
<b>Total</b>	<b>14.401</b>	<b>100.00</b>

*Table 9: Post-Roman pottery by phase*

The post-Roman pottery from the excavation is almost entirely Early and Middle Saxon in date, with two other medieval sherds. In addition several undecorated body sherds remain as yet of an undetermined date, since they show characteristics and features common to both Iron Age and Early Saxon pottery.

Type	SumOfWeight (kg)
ditch	2.731
hollow	0.143
layer	3.633
modern bunker	0.012
oven	0.007
pit	2.038
post hole	0.061
structure	2.373
structure (SFB)	3.085
well	0.034

*Table 10 Post-Roman pottery by Feature Type*

#### 7.6.2 Condition and Size

The pottery varies considerably in terms of overall condition and size. Only one Saxon vessel is almost complete (SF171) but there is one complete profile and several examples of vessels which have partially survived or consisted of large joining sherds. Much of the pottery is comparatively unabraded. Some of the pottery shows clear evidence of usage through sooting, and there are some indications of internal residues.

#### 7.6.3 Methodology

The post-Roman pottery from the excavation was scanned rather than fully spot dated for the assessment. The pottery was weighed in grammes and counted by broad chronological period rather than fabric types, and observations on fabrics, decoration and other characteristics were also recorded. Although examined by eye, some confirmation of fabrics of Early Saxon date was undertaken by using the binocular microscope. Only broad fabric types were noted at this stage, however, and it is likely that subsequent variations on the main categories will be added at the analysis stage. The information was inputted onto an Excel spreadsheet. Preliminary recommendations for possible illustration were also noted at the same time, but further illustrations may be needed for discrete stratigraphic groupings such as assemblages from sunken-featured buildings.

#### 7.6.4 The Early Saxon Pottery (5th to 7th century)

A provisional total of 483 sherds weighing 7.81kg of Early Saxon pottery was recovered from the excavation. In addition a further 103 fragments weighing 3.64kg which is mainly organic tempered could belong to the Early Saxon or Middle Saxon periods. A third smaller group comprises mainly flint-tempered

sherds which could be Early Saxon but may be of an earlier Iron Age date (12 sherds at 0.178kg). Early Saxon wares were also identified in some quantity amongst the pottery recovered from the evaluation in 1990.

*a) Fabrics*

An examination of the fabrics for the assessment indicated that a wide range of fabric types are present in the assemblage. The main groups include organic tempered wares (grass and chaff), sand, sand and mica, sand and organic, calcite, shelly, and gritty (?coarse quartz). However, these are very broad fabric categories and it is likely that there are other additional types which closer examination would confirm. Preliminary observations indicate that the fabrics are similar in their general type to those identified by Dallas in the excavation at Brandon Road, Thetford 1964-6 (Dallas 1993, 124). Like this previous site, a number of sherds were also recovered containing sparse small flint inclusions, which may be of Early Saxon or Iron Age date. Given the multi-period nature of the site, examination of the stratigraphy and the condition of individual sherds may provide clarification on the date of such wares.

*b) Forms*

The Early Saxon assemblage consists of a limited range of forms, that is cooking vessels/jars, and bowls. Very often, it was not possible to assign them to one particular type due to the small size of individual rims. One almost complete vessel (SF171) associated with a sunken-featured building (2206) is unusual. It is a small undecorated vessel made from a sandy shelly fabric, perhaps a bowl. It has a simple uneven upright rim and sagging base, and two large scars on one side where a handle is likely to have been originally attached. No parallels for this have so far been found. A small sooted bowl with a complete profile was present in context 689 (building 2229). It has a fabric which is heavily tempered with organic material, and also contains some shelly inclusions. It has a curved profile, inturned rim and flat base.

Jars are the most frequently represented form, with rims which are nearly upright and rounded, or slightly inturned. Several undecorated jars with rounded slightly everted rims and one bowl were recovered from context 590, a deposit associated with structure 2232. The forty-four fragments found in this context are mainly unabraded and of a reasonable size. Where present vessel bases overall are flat or slightly convex, but no footrings were recorded.

In addition to the above, a number of very thick-walled organic tempered storage vessels were recovered. A deposit (684) associated with an Early Saxon structure (2229) contained the lower part of a grass-tempered vessel. A ditchfill (1101) contained fragments of another large storage vessel which is chaff-tempered. A further chaff-tempered storage vessel was identified in layer 1046 and included a large rim with base fragments. The same context contained fragments of pottery

of Middle Saxon date and it is therefore possible that such pottery is of this date rather than earlier (see also discussion on fabrics).

Preliminary scrutiny of the Early Saxon pottery from the 1990 evaluation indicated that there was one vessel with a pedestal base and a lug (context 53).

*c) Surface treatment and decoration*

A considerable quantity of the Early Saxon wares have been tooled externally, and less frequently internally. Twenty-six fragments of Early Saxon pottery are decorated and originate from approximately twenty different vessels. The decoration consists of fragmentary elements identified as incised, impressed, bossed, stamped or cordoned. Two vessels had more than one surviving decorative element. Although some initial parallels have been found, further work is required to refine the dating of such vessels.

*d) Incised*

One distinctive type of decoration was identified on pottery recovered from two different contexts (454 and 467), although possibly representing more than one vessel. The best preserved fragments show a decoration of plain rectangular panels outlined with shallow incised vertical and horizontal borders. The horizontal lines were executed first and the vertical lines made on top of them. The form of the vessel is unclear since only a few sherds survive, but it appears to be a thick-walled jar with a slightly sagging base. No parallels for this type of decoration have yet been found.

Also in context 454 was a single fragment of a bossed jar, with incised decoration framing the boss and with horizontal incised lines of 5th to 6th century date (K. Penn, pers. comm.). A small quantity of other sherds also show evidence of partial incised decoration.

A single burnished body sherd from context 270 has two rows of shallow rusticated decoration. At West Stow rusticated wares were found from sunken-featured buildings from the whole span of the Early Saxon settlement, from the early 5th century through to the late 6th century (West 1990, 135). A small fragment from [690] is decorated with a row of three small circular impressions.

*e) Stamped*

A large jar with rounded upright rim was found in context 190, the fill of an Early Saxon sunken-featured building (2211). It is made from a hard sandy micaceous fabric, with four lines of shallow corrugations around the neck, a band of diamond stamps and more corrugated bands below. Preliminary investigation shows that the stamps have a similarity to those found on a vessel with more complex decorative scheme recovered from Witton, which is likely to be of 6th century

date (Wade 1983, fig.66, No 26, 64). A further parallel is the Group 7C stamp type at West Stow, also dating to the 6th century (West 1990, fig.293).

Two other examples of stamped wares were present. A small fragment from the fill of a sunken-featured building (538; building **2233**) is decorated with two repeating stamps which were of a similar type to one of the decorative elements on a vessel recovered from Structure J at Witton (Wade 1983, fig.68, 66). Another stamped sherd was found in fill 590 of structure **2232** and consists of two concentric rings outlined by dots, perhaps similar to the West Stow Group 3A stamps (West 1990, fig.292).

#### *f) Cordonned*

A single abraded thick-walled and burnished sherd from the fill (636) of a structure (**2232**) is decorated with a cordon.

A small quantity of the Early Saxon pottery recovered from the evaluation in 1990 also showed evidence of decorative elements (contexts in brackets). These comprised impressed dots (3), horizontal grooves (35 and 39), grooved and stamped (56).

### 7.6.5 The Middle Saxon Pottery (c.720-850)

A hundred and thirty-nine fragments of Ipswich type ware weighing 3.81kg were recovered from the excavation, with further sherds present in some quantity in the evaluation assemblage. This total is a provisional one for Middle Saxon pottery, since there is the likelihood that in addition to Ipswich wares, there are some hand-made local wares which are of a Middle Saxon date. This will be confirmed after fuller analysis.

#### *a) Fabrics*

The two main Ipswich-type ware fabric variants were both present on the site, that is Sandy and Gritty types. Some of the Ipswich Sandy have been considerably affected through burial and some is likely to have been burnt.

Several fragments of imported wares were identified during the assessment. A single fragment of a possible continental import was present at Redcastle Furze (Little 1995, 103).

It seems likely that some additional hand-made vessels may also be of Middle Saxon date, in particular some of the chaff-tempered wares.

#### *b) Forms*

All of the rim forms identified from the excavation are jars. There is one example of a large Gritty Ipswich ware sherd from a costrel or pitcher, as it has a pierced vertical lug (context 716).

*c) Decoration*

None of the Ipswich-type wares from the excavation are stamped and no such decoration was noted from the evaluation assemblage.

7.6.6 The significance and the potential of the assemblage

The post-Roman assemblage consists of a range of pottery which spans the Early to Middle Saxon periods. Finds of this date have previously been found nearby, both on the site of the 1990 evaluation, and to a lesser extent, an adjacent watching brief (Goffin 2000A). In addition, an excavation at Brandon Road in the spring of 1999 revealed evidence of an Early Saxon sunken-featured building, together with associated pottery and other artefacts (Goffin 2000B). The site is significant in that, in addition to the Early Saxon occupation, it appears to be in an as yet undefined area of a Middle Saxon settlement which may have extended along the south bank of the Little Ouse river, perhaps around a fording point (Andrews 1992, 26).

The considerable quantity of ceramics of both Early and Middle Saxon date provides a valuable opportunity to study the extent, nature and date of these early post-Roman settlements:

1. In the first instance a study of the pottery will be a valuable tool in establishing the chronology of the features on the site itself and, it is hoped, provide dating on any changes in land-use and settlement throughout the 5th to 9th centuries. Other artefacts such as coins or dateable objects may also contribute to this objective.

In particular it is hoped that the ceramics will contribute to distinguishing between different settlement phases. Since the area was clearly used during the Early and Middle Saxon periods, an analysis of the pottery will enable a more precise determination of the location and extent of the two different occupations. One important aspect of the analysis may be to establish whether there was any continuity of occupation between the Early and Middle Saxon periods. This was not shown to be the case at Redcastle Furze (Andrews 1995, 14). At Brandon Road there are some instances of both Early and Middle Saxon wares being recovered from deposits associated with structural features.

2. In addition to establishing the chronology, a study of the distribution and spatial analysis of the pottery may provide information concerning the extent and character of the settlement. It may also shed light on land-use between

the Roman and Early Saxon, and Early to Middle Saxon periods (see above). The pottery and other types of finds can be discussed in the context of the sunken-featured buildings and the possible hall with which they are associated.

3. A number of decorated sherds of Early Saxon date were recovered and a stylistic analysis of these may provide further dating evidence, as well as information on the cultural links of the settlement. However the decorated sherds recovered from the Brandon Road site are mainly fragmentary and often represent only one of the decorative elements of a vessel. Such dating is based primarily on decoration and form. Due consideration should be given to the dating of the archaeological deposits in which they were found, together with a consideration of other associated artefacts.

In spite of these limitations, a study of the decorated fragments may provide significant information on the dating of the Early Saxon settlement, as some sherds may be indicative of a 5th century date, rather than 6th to 7th century. The pottery can be compared with similar decorated material from other settlement sites in the vicinity such as Kilverstone, Witton and West Stow.

4. The quantity of Saxon pottery recovered from the excavation is relatively large. In addition the survival of deposits and features is good, especially those related to some of the sunken-featured buildings. It is to be hoped that the Saxon stratigraphy may be sufficient to provide valuable information on the chronology and development of the ceramic sequence during this period. As such the assemblage provides an opportunity for increasing our regional knowledge of ceramic types during this period. It is therefore important that the body of material is carefully studied and recorded by specialists who are acquainted with pottery from other sites of a similar date in the region.

In the vicinity of the western side of Thetford, a number of previous published excavations have provided evidence of pottery of Early and Middle Saxon date. These include Brandon Road (Early and Late Saxon; Dallas 1993, 121-124), Red Castle (Early and ?Middle Saxon; Knocker 1967, 136-140), and Redcastle Furze (Early and Middle Saxon; Little 1995, 101-103). These sites should provide comparative data for the pottery from Brandon Road. Such analysis should also include the site of Kilverstone on the eastern side of Thetford (Tipper 2002). Here a number of Early Saxon sunken-featured buildings were recorded with many associated ceramics. The assemblage included a wide range of fabric types, and a number of stamped and decorated vessels of a similar date to some of the Early Saxon pottery from the Brandon Road excavation. The Early Saxon settlement of Witton near North Walsham is also of direct relevance (Wade 1983, 61-67).

Within the broader context of the county of Norfolk itself, there have been a number of recent small-scale excavations and other interventions which have

shown evidence of Early and/or Middle Saxon activity. These include the excavations at Downham Market on the western edge of the county (Early and Middle Saxon) (Goffin forthcoming A), settlements at Broome Ellingham and Grange Farm Snetterton (A11) (both Early Saxon) (Goffin forthcoming B and C) and, to a lesser extent, Wash Lane Snetterton (Early Saxon). The latter sites are located closer to Brandon Road, around the headwaters of the River Ouse.

The Saxon pottery from the recent excavation is also significant in terms of regional ceramic studies. The range of ceramics from a settlement site spanning the Early Saxon through to the Middle Saxon period provides an opportunity for comparison with a limited although growing number of settlement sites within the region. These include sites at Carlton Colville and Eriswell on the RAF Lakenheath airbase, but also cemetery sites of Flixton, Coddenham, Hadleigh, Eriswell and Sutton Hoo in Suffolk (S. Anderson, pers. comm.). In addition some sites in Cambridgeshire may also be worthy of comparison, such as Gamlingay and Godmanchester (S. Anderson, pers. comm.). For the Middle Saxon period, comparative material from the excavations at Brandon will be useful.

A study of the Early and Middle Saxon pottery will make a valuable contribution to the work which has been done so far on the fabric groupings from regional sites. For example, preliminary observations have been made on the frequency or otherwise of different fabrics from the Eriswell sites, Coddenham, Flixton and Sutton Hoo (S. Anderson, pers. comm.).

5. The pottery will be analysed with a view to establishing the date of the sunken-featured buildings which have both Early and Middle Saxon pottery associated with them. In addition a considerable quantity of the Ipswich-type ware was deposited into ditch and pitfills, which may also provide valuable evidence on the extent and nature of the settlement during the Middle Saxon period. It may be that during this period the focus of the settlement had moved away from the excavated area.

#### 7.6.7 Recommendations

1. All the pottery should be marked to facilitate cross context matches and for the archive.
2. All work should include the material recovered from the 1990 evaluation at Brandon Road.
3. Full quantification of the pottery should be undertaken, with sherd count, weight, and Estimated No. of Vessels or Minimum No. of Vessels. If possible, rim diameters should be measured and EVEs recorded (MPRG 2001).



The fabric identifications used should be the same as the most widely used Ceramic Type Series (CTS) or Reference Collection for pottery of this period in the area. In this instance it would be simplest to use the fabric series which has been originated by the Suffolk Archaeological Unit. Fabric identifications should be made if necessary using a binocular microscope.

If necessary, time should be spent at the beginning to ensure consistency of fabric recording with the CTS. It may be that some external collaboration may be required to facilitate this.

In addition to fabric, forms and decoration should also be recorded, together with evidence of usage. If sooting is present, it would be useful to record where on the pot this has taken place.

4. The condition of individual sherds should also be recorded, since this may be an important factor when interpreting the site. The question of the residuality or otherwise of different pottery types is likely to be a significant factor at the interpretation level.
5. Any sherd or vessel links between individual contexts should be noted. These may provide useful evidence of the disposal and movement of ceramics and contribute to the interpretation of site formation processes.
6. The Early Saxon stamped sherds should be properly classified according to the existing archive of Anglo-Saxon stamps available from Diana Briscoe. In addition, an external specialist may be needed to ensure consistency of fabrics with others in the region.
7. The basic paper record should be inputted onto a suitable database or spreadsheet.
8. All the decorated sherds should be illustrated, and a number of other partially complete vessels, including SF171, which could also be photographed. Pottery which can be closely associated with individual structures should be illustrated perhaps with other artefacts recovered from such features. Around thirty sherds require illustration.
9. The pottery report should include a discussion by period related to the stratigraphy and distribution. In addition a full discussion of the ceramics, their associations with other artefacts such as coins, with a thorough investigation of comparative material should be undertaken. Quantitative material should be presented in tabular form.
10. It would be very useful to conduct scientific analysis of some of the fabrics types undertaken to establish whether which are local and non-local and to

confirm the main petrological inclusions. Representative samples could be taken during recording.

11. Checking and editing final report/illustrations will be required.

## 7.7 Roman Brick and Tile

by Carole Fletcher

### 7.7.1 Introduction and Quantification

A small collection of twenty-nine Roman brick and tile fragments weighing 2.6kg was collected from eighteen different features ranging from Early Roman to Middle Saxon in date (Table 11; Appendix 6). More than a third of the assemblage was found in Saxon contexts with a further three pieces from contexts not yet phased: this may indicate residuality although the reuse of Roman building materials in Anglo-Saxon structures (for post-pads, hearth bases *etc.*) is common. All the material was small and abraded. The tile was found largely in the north-eastern part of the site though a few fragments were also recovered from the western part.

Phase	No. Features	No. Pieces	Weight (g)
2	2	8	476
3	-	-	-
4	6	8	846
5	4	5	626
6	3	5	463
Unphased	3	3	229
<b>Total</b>	<b>18</b>	<b>28</b>	<b>2640</b>

Table 11: Roman brick and tile by phase, weight and number

### 7.7.2 Type

Very few pieces could be identified to type although there are two tegulae and three further pieces with finger-applied signatures. The latter are also possibly tegulae. Within the small collection there are at least three fabric types.

### 7.7.3 Conclusions and Recommendations

The brick and tile seems to represent a background scatter with up to half of the group being residual in later features. There were no concentrations of material in any particular phase or part of the site. No further work is recommended.

## 7.8 Daub/Fired Clay

by Rob Atkins

### 7.8.1 Introduction and Quantification

Fired clay or daub was recovered from forty contexts (3.3kg), largely from the eastern side of the site (Table 12). An archive of the fired clay is presented in Appendix 7. There was a bias in the number of features containing daub/fired clay in the later Roman, Early Saxon and Middle Saxon periods though by weight there is a strong bias to the Early and Middle Saxon periods. The Middle Roman features/deposits were characterised by only small quantities of fired clay. Within a ditch segment of Phase 3 enclosure ditch **2207**, there was a piece of clay lining from a structure: either a domestic oven or craft/industrial feature. The Phase 4 Roman enclosure ditch (**2298**), on the west side of the site, was one of the few features in this area which contained fired clay. This may imply that industrial and domestic activity was largely restricted to near the eastern area of the site outside the excavation area.

Phase	Weight (kg)	No. of different features/deposits
2	0.060	3
3	0.035	2
4	0.217	6
5	0.854	4
6	1.725	8
Unphased	0.376	5
	<b>3.267</b>	<b>28</b>

Table 12: Fired clay by phase, weight and features/deposits

The Early Saxon phase was dominated by the fired clay collected as a sample from one of the ovens (0.678kg) in oven complex **2313**: the fired clay from the other ovens in this complex were left *in situ*. Small quantities of fired clay were also recovered from two of the sunken-featured buildings including one which had been backfilled with smithy material (**2233**).

The assemblage from the Middle Saxon phase was dominated by fired clay from two different features/deposits. Layer 2315, a midden deposit which sealed Early Saxon features on the south-eastern part of the site (including the oven complex noted above) contained 0.643kg of fired clay, including lining. Industrial complex **2230** yielded 0.963kg of fired clay. Two other features immediately to the south of this industrial complex contained a background scatter of fired clay. Of interest in the presently unphased features was 0.256kg of fired clay from a pit (together with burnt lenses containing charcoal) in the western part of the site.

## 7.8.2 Discussion

The majority of the fired clay was amorphous fragments of oxidised clay. This material was probably the debris from ovens and hearths used in domestic and industrial activities. At least some of this material could come from burnt wall daub although no examples with wattle impressions were found.

## 7.8.3 Recommendations

No further work is required on the daub/fired clay assemblage, although a final quantification by phase will be required for publication.

## 7.9 Stone Objects by Steve Critchley

### 7.9.1 Introduction

A total of fifty-seven querns or quern fragments was found, along with three whetstone fragments and a rubbing stone, all deriving from fifty-one separate contexts. An archive table of the collection is given in Appendix 8. The quernstones and whetstones have been divided into two rock types: vesicular basaltic lavas (40 samples) and siliclastic sediments of varying grade (17 samples). The latter has been subdivided into Millstone Grit, Hertfordshire puddingstone conglomerate and Greensand (Table 13).

	1	2	3	4	5	6	Unphased	U/S	Total
Lava	1	2	2	10	6	13	4	1	40
Millstone		1	2	2	1	2	1	4	13
Hertford				1			1		2
Greensand						1		1	2
<b>Total</b>	<b>1</b>	<b>4</b>	<b>4</b>	<b>13</b>	<b>7</b>	<b>16</b>	<b>6</b>	<b>6</b>	<b>57</b>

Table 13: Quernstones by type and phase

### 7.9.2 Quernstones

#### a) Vesicular basaltic lavas

All the lava samples are of a similar light to grey fine textured vesicular basalt. It is noteworthy that the majority of the samples are fragmentary, somewhat friable and with many rounded, obviously abraded pieces. Four examples exhibit portions of worked faces and clean angular breaks. The probability of a contemporary or later, secondary use of the lava querns after discard should be considered. Querns have been used for other purposes such as grinding the raw materials for dyeing cloth or reducing ore (Watts 2002, 33).

The four complete examples all have enough exterior face to give approximate diameters ranging from two at 0.40m, one 0.42m and the fourth c.0.55m and their thickness was 42mm (x 2), 90mm and 40 mm respectively. The thickest one has external grooves running vertically down the edge. All the faces are too worn to establish whether they are upper or lower stones.

The source area for the lava can only be determined with certainty by the examination of thin sections and particular geochemical analysis of the whole rock. The latter would allow the subtle yet consistent chemical signatures to be used to identify areas of origin or even individual lava flows, outcrops or quarries. The nearest source area with a known extensive production record from the Neolithic to the 19th century would be the Mayan Quarries in the Eifel region of Germany. Further afield less likely sources could include the Volvic area of Southern France or Ampurias in south-east Spain.

#### *b) Siliclastic sediments of varying grade*

The majority (13) are medium to coarse grained, often pebbly, sandstone of the Carboniferous, Namurian (millstone grit) and Westphalian (Coal Measures) Series. Geographically their source can be inferred as the Southern Pennine area.

Two samples are of a siliceous conglomerate identifiable as Hertfordshire Puddingstone. One is part of an upper stone from an East Anglian type Hertfordshire Puddingstone (beehive) quern.

Two samples of Lower Cretaceous Greensand were found. One complete millstone was found in unstratified contexts whilst machining. This is a lower stone which was 0.535m in diameter, its internal face being divided into eight equal segments comprising of a Ridge and Furrow (R + F) pattern. The angle of the R+F is different in each of the segments to help reduce the grain to meal. Bedfordshire has extensive outcrops of this formation and is a possible source area. The lateral equivalent of these beds, the Spilsby Sandstone of Lincolnshire could be considered, but is geographically more distant.

### 7.9.3 Other Stone Objects

Three whetstones were recovered from the excavation. Two are made from a rock type common in many geological formations. They could be from a glacial

erratic source or further afield from Carboniferous outcrops in the Southern Pennines. The third was a burnt sandstone fabric. The rubbing stone is from a possible glacial erratic.

#### 7.9.4 Distribution

The quernstone fragments were found across the site with no real concentration of deposits with the exception of enclosure ditches 2240 and 2241 which had seven separately recorded fragments of lava and millstone grit quernstones. The quernstones were also recovered from layers and all types of features including pits, ditches, sunken-featured buildings, a well and a posthole. There is a concentration in certain periods especially from later Roman and Middle Saxon deposits though whether this is significant will merit further study (Table 13). The presence of one lava fragment within a Mesolithic/Neolithic context may be blamed on the activities of either moles or rabbits which have greatly disturbed the site.

#### 7.9.5 Discussion

There is some similarity in the recovery of quernstones from the Brandon Road site and other sites in Thetford and other parts of Norfolk. Most sites of this period have four fabric types of quernstones (lava, millstone grit, greensand and Hertfordshire puddingstone) though the quantities of each type and their fragmentary size varies from site to site.

	Lava	Non-Lava
Davidson's	120	6
Mudd's	5	19
Brandon Road	40	17

Table 14: *Quern fragments recovered from three Thetford sites by type*

##### a) Lava Querns

Lava querns were traded in the 1st and 2nd centuries of Roman occupation before a temporary halt (Peacock 1980, 50). The trade restarted in the Middle and Late Saxon periods (Buckley 1995, 86).

In Thetford, at Davidson's excavations c.500m to the east, 120 lava fragments were found, all of which were small fragments except one (Dallas 1993, 121). These fragments came from contexts of all periods. Small lava fragments were common at Spong Hill and were found in 122 generally Roman contexts (Buckley 1995, 86). Buckley argues that the abraded nature of the lava showed that the quernstones were present on the site for some period before reaching the features and were therefore of little value for dating purposes. In contrast at Mudd's

excavation c.1.5km to the east of the Brandon Road site, lava quern was recovered from only five contexts, all but one of which were Roman (Roe 2002, 76).

#### *b) Other Querns*

Millstone grit stones were traded from the Pennines throughout the Roman period into Norfolk (Buckley 1995, 86). It has been argued that there was as a possible chronological difference between the Roman use of Millstone Grit and of lava, and the utilisation of Millstone Grit may on the whole be somewhat later than the use of lava (Buckley 1995, 86). Roe argues that this chronological difference may account for the greater amount of Millstone Grit at Melford Meadows, and also at Great Staunton, another Late Roman site (Roe 2002, 77). As Table 13 above shows, on this Brandon Road site there does not seem to be a chronological difference between the different types of quern stones.

The quantity of non-lava querns also varies remarkably from site to site (Table 12). The majority of quernstone fragments from Mudd's excavation were millstone grit which came from eighteen contexts as well as a Greensand fragment. At Davidson's excavation in Thetford only six fragments of non-lava types of quernstone were recovered on his site (Dallas 1993, 121). There are no obvious reasons for different quantities of quernstone types recovered in nearby sites of similar periods – cost and/or personal choice of the inhabitants of a particular site may be a factor.

#### 7.9.6 Recommendations

Though no further work is merited for the small collection itself, further comparisons, especially concerning chronological depositions with quernstones from other sites would be useful (linking to the scientific analysis of material provenance noted above). It is recommended that one complete millstone be illustrated.

### **7.10 Bone and Antler Objects** by Ian Riddler

#### 7.10.1 Introduction

Four objects of bone and antler were examined for this assessment. They consist of two double pointed pin-beaters, a needle and a complete red deer antler. These

have been identified under low magnification to material and object type, and they are considered here in the light of other objects from Thetford excavations, as well as broader perspectives.

### 7.10.2 Factual Record

#### *a) Identification, Species and Element*

Details of the four objects are provided in Table 15. Species identification is relatively easy for the antler and the needle, but is difficult here (as is usually the case) for the pin-beaters. Under low magnification one appears to be bone but the other is indeterminate. Artefact identifications are relatively straightforward and sufficient survives of each object to be able to determine its type as well, within its functional category.

<i>Context</i>	<i>Feature Type</i>	<i>Phase</i>	<i>SF</i>	<i>Material</i>	<i>Object</i>	<i>Type</i>	<i>Extent</i>
454	fill of sunken-featured building 2218	5	213	Bone ?	Pin-beater	Double pointed	Incomplete
690	fill of sunken-featured building 2229	5	274	Bone or Antler	Pin-beater	Double pointed	Fragment
1051	layer	6	391	Antler	Antler	Red Deer	Complete
522	fill of sunken-featured building 2217	5	218	Pig Fibula	Needle	Ipswich Type 1	Complete

*Table 15: Worked bone and antler objects*

The red deer antler is naturally shed and stems from a young animal. The beam bifurcates to form a crown of two tines, suggesting that the animal was only one or two years old when the antler was shed. It is interesting (from the point of view of the study of the development of antlers) that there is no sign of an emerging brow tine in this case, which would be expected (*cf.* van Vilsteren 1987, afb 3).

#### *b) Condition, Wear and Technology*

The objects survive in good condition in each case. One of the pin-beaters is fragmentary and the other is incomplete, but its original dimensions can be reconstructed. The antler is slightly damaged at the end of one tine, but is otherwise complete. None of the objects are composite and all are now stable; no further conservation is required.

Wear patterns are very difficult to discern on pin-beaters. Lateral marks are occasionally visible at the tapered ends, but that is not the case here. Traces of manufacture with the aid of a draw-knife are visible on the fragmentary pin-



beater. Both pin-beaters have been polished, as has the needle. The perforation of the needle has been cut by knife from both sides. It does not show traces of heavy wear but, as with the pin-beaters, wear patterns are difficult to observe in most cases with bone needles.

The red deer antler has not been modified. A part of the end of one of the tines at the crown is missing but this could have occurred during the life of the deer, or whilst the antler was shed, and there are no indications that the antler was ever worked.

### 7.10.3 Dating and Spatial Distribution

All four objects come from stratified contexts that have been assigned to provisional phases. The two pin-beaters and the needle have been placed in Phase 5 (Early Saxon) and the antler in Phase 6 (Middle Saxon). Double pointed pin-beaters occur throughout the Anglo-Saxon period, although they are less common from the 10th century onwards. Examples also occur in Roman contexts where, however, they remain a rare commodity. They do not change markedly in shape or size over time and they cannot usually be dated with any precision. Both pin-beaters can be placed into the Early Saxon period and their intrinsic dating does not conflict with the site phasing.

The antler cannot be closely dated. As a Middle Saxon example (dated by its context), it can be compared for its size with samples from Ipswich and elsewhere in East Anglia, as well as *Hamwic*, Middle Saxon Southampton. The bone needle can be defined as equivalent to Group 1 within the Ipswich typology (Riddler, Trzaska-Nartowski and Hatton forthcoming). This is a common type of needle which, as with the pin-beaters, occurs throughout most of the Anglo-Saxon period. In all four cases, therefore, the context dating is more precise than that provided by the objects themselves, and no discrepancies between the two forms of dating can be identified.

Three of the objects were confined to an area of 30m<sup>2</sup> on the eastern side of the site, occurring in features 455, 471 and 641. The antler lay nearby, in the north-east of the site, within the midden deposit 1051.

### 7.10.4 Potential for Analysis

The small assemblage of bone and antler objects can be assessed in terms of their potential in local, regional and national terms. In the following text they are described in that sequence.

#### *a) Bone and Antler Objects from Thetford Excavations*

The majority of bone and antler objects retrieved from previous Thetford excavations are of Late Saxon date or belong to the earlier part of the medieval period. A small quantity of Early Saxon implements was retrieved, however, from Redcastle Furze (Andrews 1995, 116 and figs 86-7). They include two fragmentary pin-beaters, both of which are likely to be of double pointed form. The examples from Brandon Road effectively double the number of double pointed pin-beaters to have come from Thetford. They can be contrasted with the thirty examples of single pointed pin-beaters, which are known from most of the larger Thetford sites. One of the Brandon Road double pointed pin-beaters is near-complete and its original length can be reconstructed. It belongs to the current author's Group B, essentially the longer type of Early Saxon pin-beater (Riddler 1993, 117-9; 1996, 136), and it represents a useful addition to that series. Both pin-beaters provide confirmation that the double pointed type is largely confined to Early and Middle Saxon contexts, whilst the single pointed variant is more common from the 10th to the 12th century (Walton Rogers 1997, 1755-6; Riddler, Trzaska-Nartowski and Hatton forthcoming).

Bone needles are relatively common implements of the Anglo-Saxon period. They have been found in a few graves of the Early Saxon period and they are widespread in settlement contexts of Middle and Late Saxon date, in particular. A detailed typological study of the Ipswich sequence identified six principal types and the example from Brandon Road is similar to those of Group 1 from Ipswich (Riddler, Trzaska-Nartowski and Hatton forthcoming). Both needles and pin-beaters change little in shape or size over time, and both object types decline in use at around the same time, during the 10th to 12th centuries. Relatively few examples have been published from Thetford, if bone needles are distinguished from pins. They include two from Early Saxon contexts at Redcastle Furze, as well as around seventeen of Late Saxon date from other sites. No type series for bone needles has yet been produced for Thetford, but most are likely to conform (as here) with the Ipswich sequence.

Surprisingly little antler waste has been found in Thetford and despite widespread excavation less than a dozen fragments have been recorded as yet (Riddler forthcoming A). The complete antler from Brandon Road has not been worked but it is likely to have arrived in the settlement for that purpose, given that it is naturally shed and is not associated, therefore, with food debris.

#### *b) Regional and National Significance*

Bone and antler objects from Early Saxon settlements are not common, outside of the extensive collection from West Stow. The same situation prevails also in northern Europe, where only a few settlements of this date which include bone and antler objects have yet been excavated and published to any extent (*e.g.* de Saint Jores and Hincker 2000-1; Westphalen 1999). As noted above, the pin-beaters can be compared with a sample of just over 100 from Early Saxon contexts, and this allows for some brief quantitative statements to be made

concerning material choice, dimensions and technology of manufacture. Previous survey results can also be updated (Riddler 1993, 117-9; 1996, 136 and forthcoming B).

Less attention has been paid to bone needles of Early Saxon date but comparisons can be made with the West Stow assemblage and the Middle Saxon groups from Ipswich, Brandon and related sites. The Brandon Road needle is useful because it is complete and it survives in good condition, allowing something to be said about raw material selection and manufacturing techniques.

The complete antler is of interest both for the indication it provides of antler working in the vicinity, and for its size. Its circumference measurement is smaller than any recorded from an archaeological sample to date, from England as a whole. It is possible to compare it with samples from Ipswich, Burgh Castle and Grimes Graves in East Anglia, as well as *Hamwic* from further afield. European statistics are also available, but are of less relevance in this case. Five dimensions can be taken (following Muller-Using 1953) and each of these can be compared with the other assemblages. Each is likely to emphasise the small size of this particular antler. A review of the other contents of the midden in which it was found may throw further light on the reasons for its deposition.

In a broader perspective, the objects are useful in each case in their own terms but also as additions to existing databases, which allow broader quantitative statements to be made or updated and reiterated. The Early Saxon pin-beaters have a certain rarity value, although around 100 examples are known from England. The needle and antler come from Middle Saxon deposits. In recent years there has been an increase in the publication of rural Middle Saxon sites, but the total number is still very small, in comparison with other periods. There may, indeed, still be more published Neolithic sites than Middle Saxon settlements. Inevitably, therefore, these objects are of interest simply because they are Middle Saxon, a period which is not well-represented either at Thetford, or in East Anglia as a whole.

#### 7.10.5 Recommendations

A final catalogue and report will be required for publication and two items need illustration.

## 8 THE ZOOARCHAEOLOGICAL AND BOTANICAL EVIDENCE

### 8.1 Human Bone by Corrine Duhig

#### 8.1.1 Introduction

Two specimens were examined: a child skeleton (sk.858; grave 859) of probable prehistoric date and fragments of an infant (layer 752) from the same general area of the site. Methods used are primarily those of Cho *et al.*, Stewart and Ubelaker (Cho *et al.* 1996; Stewart 1979; Ubelaker 1989) and the full skeletal recording forms are held by the author.

#### 8.1.2 Skeleton 858

Approximately 63% of the skeleton is present: the whole skull — shattered but restorable — much of the vertebral column and rib cage, the slightly damaged bones of the shoulder girdle and arms, a small piece of pelvis, both femora and a fragment each of tibia and fibula. One large piece of bone, a small femur and some fragments of tooth enamel, all animal, are also present.

##### *a) Assessment of age*

Thirty-seven teeth are either in the jaws or were loose with the skull, representing a dentition changing from deciduous to permanent. The first ('six-year') molars are fully erupted and the second are visible in their crypts, which are beginning to open, as occurs at approximately 9 to 10 years of age. One half-formed crown of a third molar was still in its crypt. In the anterior dentition, the permanent incisors are fully erupted but the deciduous canines and molars are still in occlusion, with their permanent replacements beneath them. Because of the breakage of areas of the jaws, it is possible to determine the stage of crown or root development of all these unerupted teeth, and to establish the dental age as 9.5 years  $\pm$  30 months.

Fusion of the arches to the bodies of the thoracic and lumbar vertebra had taken place, and this indicates an age of more than 7 years, although fusion had not been a long time before death (the fusion line is barely closed, and two vertebra are unfused). Determination of age by the length of the diaphyses (shafts) of the long bones gives an age range of 6.5–7.5 years for the humerus and 5.5–7.5 years for the femur.

##### *b) Pathological conditions*

###### Stress indicators

The skeletal age is at the lower end of the dental age range, suggesting that the child was genetically small or that there had been some growth interruption or inhibition. X-rays of the long bones is recommended, in order to determine whether Harris lines are present; these are lines of interrupted development caused by environmental stressors such as severe dietary deficiency or high fever.

Stronger evidence of extreme physiological stresses on the child comes from the state of the dentition. This has dental enamel hypoplasia (stripes or spots of defective or absent enamel) over wide areas of the crowns of most of the teeth,

which indicates the same developmental effects as above, dietary deficiency or severe fever. The affected deciduous canines and molars began forming prior to birth, showing that the uterine environment was deprived, and the crowns of the first permanent molars formed from shortly after birth to three years of age, showing that stress factors were present in this child's environment for that time period. The second molars are not observable, so it is possible that these too are affected, which would indicate the same stress factors from approximately 3 to 7 years. There are, however, no hypoplastic defects on the one third molar crown. For the last few years of its life, the child appears to have had an improved environment, either with adequate food supply or absence of episodes of feverish illness.

#### Dental caries

Unsurprisingly, dental enamel hypoplasia renders the tooth vulnerable to decay, as it causes thin enamel or fully exposes the underlying dentine. Several teeth in this child's jaws are carious, and the badly affected anterior teeth would have been likely to have become carious in a short time.

#### Malocclusion

The teeth are markedly overcrowded, with inadequate space for the permanent teeth to erupt in place. Examples of overlapping, angulation, rotation and eruption behind the predecessor teeth are all observable. Although dental overcrowding is, to some extent, heritable, it is also an indicator of developmental problems, and in this case might also result for unfavourable environmental factors.

#### 8.1.3 Skeleton 752

Twenty fragments of skull vault, one right first rib, a tibia and half of a fibula were present in a deposit phased to Phase 6 where they were probably redeposited. The tibia and rib are the length to be expected in a full-term foetus/neonate (Fazekas & Kósa 1978; Stewart 1979, fig. 37) and the other bones are of comparable size so are probably from the same individual. There are no pathological changes.

#### 8.1.4 Recommendations

A final report will be required for publication and it is recommended that the long bones from skeleton 858 should be X-rayed for detailed examination. Radiocarbon dating of the skeleton may be appropriate, given its currently undated condition.

### **8.2 Animal Bone**

by Ian L. Baxter

### 8.2.1 The Site and its Excavation

The excavations have produced a significant assemblage of animal bones dating from the prehistoric period to the Middle Saxon period. The Anglo-Saxon material is of particular importance as it pre-dates that described so far from Thetford which is generally Late Anglo-Saxon/Saxo-Norman (Albarella 1999; Jones 1984 & 1993).

### 8.2.2 The Animal Bone Assemblage

The preservation of the animal bone recovered varies from poor to excellent with most being good to fair. This is a consequence of the geology of the site, which is mostly sand and gravel. Material from provisional Phases 2-6 was used for assessment (Table 16). The assessment is based on 33% by weight of the total assemblage. The prehistoric material, though important, was not sufficient in quantity to be assessed. Some samples were taken, but those seen only contain fragments of larger bones.

### 8.2.3 Storage and quantity

The animal bones are presently stored 16 boxes measuring 52mm x26.5mm x16.5mm. The bones are washed and bagged by context. The total weight of the hand-collected animal bone is 63kg.

### 8.2.4 Assessment

All the bone was scanned. A sub-sample of 33% of the total bones was selected for assessment. These are from the following provisional phases:

- Phase 2: Romano-British
- Phase 3: Romano-British
- Phase 4: Late Romano-British
- Phase 5: Early Saxon
- Phase 6: Middle Saxon

The assessment was carried out using a counting and recording system based on Davis (1992) and Albarella and Davis (1994).

#### *a) Variety*

Cattle are the major taxon in all periods, although sheep/goat seem to be particularly important in the Middle Romano-British period (Phase 3). Pig is

always less frequent than sheep/goat but achieves particular prominence in the Early Saxon period (Phase 5). Horse remains are quite frequent in all periods and a partial dog skeleton was seen in Phase 6 (470). Also noteworthy is a cattle partial skeleton in Phase 6 (1051). The remains of a perinatal human infant were found in context 752 of the same phase (see Duhig above).

*b) Quantity*

This is an assemblage of moderate size, as is demonstrated in Tables 16-17.

#### 8.2.5 Potential and Recommendations

This assemblage should yield significant information regarding the Romano-British and Earlier Anglo-Saxon antecedents of modern Thetford. For the Anglo-Saxon period the site is of regional and national importance pre-dating archaeological evidence previously obtained from the town. The origins of towns are an English Heritage priority.

The calf burial in context 881, thought to be possibly associated with a prehistoric child burial, should be radiocarbon dated: previous experience on prehistoric sites has drawn attention to the problem of modern dead pits for fallen stock (Baxter 2000). All the 'countable' animal bones should be fully recorded with particular attention paid to the Anglo-Saxon material at the analysis stage where it may be compared with that obtained from previous excavations in Thetford (Albarella 1999; Jones 1984 & 1993). The analysis of the animal bones should not be undertaken until all pottery dates and full site phasing are available.

PHASE	COUNTABLE BONES							Total	Comments
	Cattle	Sheep/Goat	Pig	Others	Bird				
2. Early Romano-British assessment	6	1	1	2	-		10	Includes horse, rabbit	
2. <i>Early Romano-British estimated</i>	18	3	3	6	-		30		
3. Middle Romano-British assessment	13	12	4	9	-		38	Includes horse, red deer, rabbit	
3. <i>Middle Romano-British estimated</i>	39	36	12	27	-		114		
4. Late Romano-British assessment	8	3	-	4	-		15	Includes horse	
4. <i>Late Romano-British estimated</i>	24	9	-	12	-		45		
5. Early Saxon assessment	40	20	7	4	1		72	Includes horse, domestic fowl, rabbit	
5. <i>Early Saxon estimated</i>	120	60	21	12	3		216		
6. Middle Saxon assessment	19	7	7	3	-		36	Includes human, horse	
6. <i>Middle Saxon estimated</i>	57	21	21	9	-		108		
<b>Assessment Total</b>	<b>86</b>	<b>43</b>	<b>19</b>	<b>22</b>	<b>1</b>		<b>171</b>		
<i>Estimated Total</i>	258	129	57	66	3		513		

Table 16: Brandon Road, Thetford. Number of "countable" bones (Davis 1992; Albarella and Davis 1994) used for assessment and estimates of their total



PHASE	AGEABLE MANDIBLES				MEASUREMENTS						
	Cattle	Sheep/Go	Pig	Total	Cattle	Sheep/Go	Pig	Others	Bird	Total	
2. Early Romano-British assessment	-	-	-	-	1	1	-	2	-	4	
2. <i>Early Romano-British estimated</i>	-	-	-	-	3	3	-	6	-	12	
3. Middle Romano-British assessment	-	1	-	1	4	9	3	4	-	20	
3. <i>Middle Romano-British estimated</i>	-	3	-	3	12	27	9	12	-	60	
4. Late Romano-British assessment	1	1	-	2	3	2	-	-	-	5	
4. <i>Late Romano-British estimated</i>	3	3	-	6	9	6	-	-	-	15	
5. Early Saxon assessment	-	6	-	6	5	7	1	1	-	14	
5. <i>Early Saxon estimated</i>	-	18	-	18	15	21	3	3	-	42	
6. Middle Saxon assessment	1	-	1	2	3	3	1	1	-	8	
6. <i>Middle Saxon estimated</i>	3	-	3	6	9	9	3	3	-	24	
<b>Assessment Total</b>	<b>2</b>	<b>8</b>	<b>1</b>	<b>11</b>	<b>16</b>	<b>22</b>	<b>5</b>	<b>8</b>	<b>0</b>	<b>51</b>	
<i>Estimated Total</i>	<i>6</i>	<i>24</i>	<i>3</i>	<i>33</i>	<i>48</i>	<i>66</i>	<i>15</i>	<i>24</i>	<i>0</i>	<i>139</i>	

Table 17: *Animal bone measurements by phase*  
The estimated total is calculated on the basis of the weight used for assessment: this is 33% for all periods.

### 8.3 Charred Plant Macrofossils and Other Remains

by Val Fryer

#### 8.3.1 Introduction

Samples for the extraction of the plant macrofossil assemblages were taken from across the excavated area, and sixty-eight were submitted for an initial appraisal of the material recovered.

#### 8.3.2 Methods

All but two of the samples were bulk floated by a member of the AFU team, collecting the flots in a 500 micron mesh sieve. The remaining two waterlogged samples were processed by the author, collecting the flots in a 250 micron mesh. The wet retents from these latter samples were stored in water prior to sorting, but the remaining flots were air-dried. All material was scanned under a binocular microscope at magnifications up to x 16, and the presence/absence of charred plant macrofossils and other remains noted is listed on Tables 18–27. Nomenclature within the tables follows Stace (1997). All tabulated plant material is charred unless otherwise stated. Modern contaminants including fibrous roots, seeds/fruits and arthropods were present throughout.

With the exception of the two waterlogged samples (Table 27), no specific attempt has been made at this stage to quantify the material recovered: therefore x = presence of material and xx = a particular abundance of a material within an assemblage. Other abbreviations used in the tables are explained at the end of the text section.

#### 8.3.3 Results

##### *a) Plant macrofossils*

Charcoal fragments were common or abundant throughout, along with fragments of charred root, rhizome or stem. A large quantity of the stem fragments would appear to be heather (Ericaceae), and ling (*Calluna vulgaris*) capsules were also noted. Other plant remains (including cereal grains/chaff, seeds and nutshell fragments) were present at varying densities in all but six samples. Preservation was very variable, with a high density of the cereal grains being puffed and distorted, probably due to high temperatures during combustion.

##### Cereals

Grains were present in the majority of samples, although generally at a low density. Wheat (*Triticum* sp.), barley (*Hordeum* sp.), rye (*Secale cereale*) and oat (*Avena* sp.) grains were identified, with wheat and rye being predominant. Cereal chaff was extremely rare, being present in only twenty-two samples, frequently as

single specimens. However, spelt wheat (*T. spelta*) glume bases and bread wheat (*T. aestivum/compactum*) type rachis nodes were recorded.

#### Wild flora

Seeds/fruits of common weed species were also rare within individual assemblages. Many of the seeds present were from segetal plants, for example knotgrass (*Polygonum aviculare*), knawel (*Scleranthus annuus*), dock (*Rumex* sp.), black bindweed (*Fallopia convolvulus*) and wild radish (*Raphanus raphanistrum*), although grassland taxa and wetland plant macrofossils were also recorded. Single fragments of hazel (*Corylus avellana*) nutshell were found in only three samples.

#### *b) Other materials*

The fragments of black porous 'cokey' material and the siliceous globules are probably derived from the combustion of organic materials (including cereal grains, straw and grass) at extremely high temperatures. Animal macrofossils were not common but included fragments of large mammal bone, fish bone and small mammal or amphibian bone. A single charred arthropod was noted in Sample 105. Possible industrial residues included ferrous globules, slag and small fragments of vitrified material. A small piece of charred woven textile was recovered from Sample 1.

#### 8.3.4 Discussion

Given the brief nature of this appraisal, a full discussion is not possible. However, the following points may be of value in the planning of future work:

1. The assemblages from both the Romano-British and Saxon phases of occupation are generally characterised by a very low density of material and, most notably, cereals and other food residues are relatively scarce. This may indicate that the area was either sparsely settled or used on a seasonal basis. The high levels of ground water noted during excavation, even in the summer months, may add credence to the latter theory.
2. Cereal grains are present in both the Romano-British and Saxon assemblages, but chaff is rare. Although this apparent lack of chaff may be a result of the destruction of the more delicate elements during combustion, it may also indicate that the inhabitants of this site were primarily cereal consumers rather than producers. None of the assemblages studied appears to contain more than the smallest quantities of cereal processing debris, which is somewhat unusual in Romano-British contexts as this waste was frequently used as fuel and appears to have been traded as such.

3. Waterlogged plant macrofossils are present/common in the assemblages from the lower fills of Roman well **1810** (Samples 84 and 85; Table 25). Grassland plant and ruderal weed seeds (including thistles (*Cirsium* sp.), hemlock (*Conium maculatum*), grasses (Poaceae), buttercups (*Ranunculus* sp.) and stinging nettles (*Urtica dioica*)) are reasonably common and may indicate that the feature was sited within a slightly overgrown grassland area. Rushes (*Juncus* sp.) and blinks (*Montia fontana*) probably grew in damp ground around the top of the well, and the presence of duckweed (*Lemna* sp.) fruits may indicate that the water within the feature was still and slightly stagnant. The abundance of elderberry (*Sambucus nigra*) seeds in both samples may suggest nearby shrubby overgrowth.
4. The overall composition of the assemblages is very uniform and, most notably, spelt chaff appears in contexts from both Romano-British and Saxon phases of occupation. Large-scale spelt production had ceased in eastern England by the Early to Middle Saxon period, so although it is just conceivable that the chaff may be contemporary with the features from which it was recovered, its omnipresence may indicate that residual material has been distributed through the stratigraphic sequence by the digging and re-digging of features throughout the use of the site.

### 8.3.5 Conclusions and recommendations for further work

The assemblages studied are characterised by a low density of material, with only small quantities of grain, chaff and weed seeds being recovered. Cereal processing appears not to have taken place in the immediate vicinity, which may indicate that the occupants of the site were primarily consumers of grain rather than producers. Heather, which was locally abundant on the light Breck soils, was commonly used as fuel throughout both the Romano-British and Saxon periods.

Of the sixty-eight samples submitted, only eight (indicated in red in the tables) contain quantifiably viable assemblages (*i.e.* 100+ specimens), and two of these are currently un-phased. It is unclear at present how valid full analysis of such diverse assemblages would be to the overall interpretation of the site, and it is tentatively suggested that a written statement, based around a more comprehensive assessment of the above samples, may be more suitable for the final publication.

Sample No.	6	7	20	28
Context No.	324	276	812	836
Context type	Ditch	Pit		Ditch
Plant macrofossils				
Cereal grains	x	x		
Seeds/fruits		xx		
Charcoal	x	x	X	x
Charred root/rhizome/stem	x	x		x
Other materials				
Bone	x			
Burnt/fired clay	x			
Siliceous globules		x		
Sample volume (litres)				
Volume of flot (litres)	<0.1	<0.1	<0.1	<0.1

Table 18: Environmental samples by context

Sample No.	31	49	64	66	67	69	80	81
Context No.	837	1159	1022	1125	1368	1402	1731	1732
Context type	Layer	Ditch	Ditch	Ditch	Posthole	Posthole	Pit	Pit
Plant macrofossils								
Cereal grains	x	x	X	X			x	x
Cereal chaff	x	x					x	
Seeds/fruits	x	x	X	X			x	x
Charcoal	x	x	X	X	x	x	x	x
Charred root/rhizome/stem	x	x	X	X			x	x
Other materials								
Black porous 'cokey' material			X	X	x	x		
Bone		x					x	x
Fish bone		x	X					
Burnt/fired clay			X					x
Sample volume (litres)								
Volume of flot (litres)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Table 19: Environmental samples by context

Sample No.	48	83	89	99	105
<b>Context No. (Master Number)</b>	1155 (2247)	1765 (2272)	1864 (2298)	2071 (2298)	1978 (2298)
<b>Context type</b>	Ditch	Ditch	Ditch	Ditch	Ditch
<b>Plant macrofossils</b>					
Cereal grains		x	xx	X	xx
Cereal chaff			X		x
Seeds/fruits		x	X		x
Charcoal	x	x	X	X	x
Charred root/rhizome/stem		x		X	x
<b>Other materials</b>					
Black porous 'cokey' material			X	X	
Bone		x		X	
Charred arthropods					x
Burnt/fired clay			X	X	
Vitrified material				X	
<b>Sample volume (litres)</b>					
<b>Volume of flot (litres)</b>	<0.1	<0.1	<0.1	0.1	0.1

Table 20: Environmental samples by context

Sample No.	3	4	5	8	11	12	15
Context No. (Master Number)	180 (2206)	166 (2209)	190 (2211)	349 (2233)	506 (2218)	522 (2217)	645 (2232)
Context type	Sunken-featured building	Structure	Sunken-featured building	Sunken-featured building	Sunken-featured building	Sunken-featured building	Structure
Plant macrofossils							
Cereal grains	xx	x	x		x	x	x
Cereal chaff	x		x				x
Seeds/fruits	x	x	x			x	x
Nutshell				x			
Charcoal	x	x	x	x	x	x	x
Charred root/rhizome/stem	x		xx			x	x
<b>Other materials</b>							
Black porous 'cokey' material	x	xx		x	x		x
Burnt organic concretions		x					
Bone	x		x				x
Small mammal/amphibian bones					x		
Ferrous globules				xx			
Vitrified material				x			
Sample volume (litres)	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1
Volume of flot (litres)							

Table 21: Environmental samples by context

Sample No.	16	17	24	40	90	91	92	93
Context No. (Master Number)	639 (2229)	640 (2229)	234 (2206)	1133	2023 (2313)	2137 (2313)	2025 (2313)	2026 (2313)
Context type	Structure	Structure		Pit	Oven	Oven	Oven	Oven
Plant macrofossils								
Cereal grains	x	X	X	xx		x		x
Cereal chaff				x				
Seeds/fruits	x	X	X	x	x	x		x
Nutshell		X						
Charcoal	x	X	X	x	x	x	x	x
Charred root/rhizome/stem	x	X	X	x	x	x		x
<b>Other materials</b>								
Black porous 'cokey' material		X	X		x	x		
Bone		xx						
Small mammal/amphibian bones		X						
Burnt/fired clay						x	xx	x
Vitrified material			X	x				
Sample volume (litres)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Volume of flot (litres)								

Table 22: Environmental samples by context



Sample No.	1	10	13	14	18	21	22	27	29
Context No. (Master Number)	109 (2203)	423 (2230)	642 (2223)	621 (2230)	661 (2230)	809 (2225)	819 (2231)	529 (2216)	465 (2227)
Context type	Ditch	Pit	Pit	Pit	Pit	Ditch	Ditch	Ditch	Ditch
Plant macrofossils									
Cereal grains	x	x	X	X	x	x	x	x	x
Cereal chaff				X			x		
Seeds/fruits	x	x		X	x				
Charcoal	x	x	X	X	x	x	x	x	x
Charred root/rhizome/stem		x		xx	x			x	
<b>Other materials</b>									
Black porous 'cokey' material	x	x	X	X	x	x	x		x
Bone	xx			X	x		x	x	
Fish bone					x				
Burnt/fired clay				X	x	x			
Ferrous globules			X						
Slag			X					x	
Textile fragment	x								
Coal							x		
Vitrified material			X		x		x		x
Sample volume (litres)									
Volume of flot (litres)	<0.1	<0.1	0.2	0.1	0.1	<0.1	<0.1	<0.1	<0.1

Table 23: Environmental samples by context

Sample No.	30	34	41	43	44	47	50	68	104
Context No. (Master Number)	462 (2203)	891	1137 (2315)	936 (2204)	1226	1051 (2315)	1428 (2203)	1487	1442
Context type	Ditch	Pit	Layer	Ditch	Pit	Layer	Ditch	Pit	Well/pit
Plant macrofossils									
Cereal grains	x		X	X	x	x	x	x	
Cereal chaff	x		X			x			
Seeds/fruits		x	X	X	x	x	x	x	x
Charcoal	x	x	X		x	x	x	x	x
Charred root/rhizome/stem			X		xx				
Other materials									
Black porous 'cokey' material		x		X			x		x
Bone					x	x	x		x
Fish bone			X			x			x
Small mammal/amphibian bones							x		
Burnt/fired clay									
Virified material	x								
Sample volume (litres)	<0.1	0.2	<0.1	<0.1	0.1	<0.1	<0.1	0.1	<0.1
Volume of flot (litres)									

Table 24: Environmental samples by context

Sample No.	32	33	35	36	38	39	42	45	46
Context No.	428	876	916	1038	1003	1064	1135	1173	1279
Context type	Pit	Pit	Pit	Pit	Pit	Pit	Pit	Well	Pit
<b>Plant macrofossils</b>									
Cereal grains	x	x		X	x	x	x	x	x
Cereal chaff		x		X			x		
Seeds/fruits	x		X	X		x	x	x	xx
Nutshell				X					
Charcoal	x	x	X	X	x	x	x	x	x
Charred root/rhizome/stem	x	x							x
<b>Other materials</b>									
Bone	x	x		X		x			
Small mammal/amphibian bones					x				
Burnt/fired clay			X						
Vitrified material							x		
<b>Sample volume (litres)</b>									
<b>Volume of flot (litres)</b>	<b>0.1</b>	<0.1	<b>0.3</b>	<0.1	<0.1	<b>0.1</b>	<b>0.2</b>	<0.1	<b>0.1</b>

Table 25: Environmental samples by context

Sample No.	51	61	65	88	102	106
Context No.	1436	1174	889	1839	1587	2127
Context type	Pit	Well	Pit	Pit	Pit	Pit
<b>Plant macrofossils</b>						
Cereal grains	x		X	X	x	xx
Cereal chaff	x	x			x	x
Seeds/fruits				xx	x	x
Charcoal	x	x	X	X	x	x
Charred root/rhizome/stem	x	x	X	X	x	x
<b>Other materials</b>						
Black porous 'cokey' material	x					
Bone	x			X		
Ferruginiferous concretions			xx			
Vitrified material					x	
<b>Sample volume (litres)</b>	<0.1	<0.1	<0.1	<0.1	0.1	<0.1
<b>Volume of flot (litres)</b>						

Table 26: Environmental samples by context

Sample No.	84	85
Context No.	1859	1809
Context type	Well	Well
Phase	4	
<b>Cereals</b>		
<i>Hordeum sp. (grains)</i>		x
<i>Triticum sp. (grains)</i>		x
<i>T. spelta L. (glume bases)</i>		x
<b>Herbs</b>		
<i>Aphanes arvensis L.</i>	xw	
<i>Chenopodium album L.</i>	xw	
<i>Cirsium sp.</i>	xw	
<i>Conium maculatum L.</i>	xw	
<i>Lamium sp.</i>	xw	
<i>Plantago major L.</i>	xcfw	
Small Poaceae indet.	xw	
Poaceae indet.		xw
<i>Ranunculus acris/repens/bulbosus</i>	xw	
<i>Rumex sp.</i>	xw	x
<i>R. acetosella L.</i>	xw	
<i>Stellaria media (L.) Vill.</i>	xw	
<i>Urtica dioica L.</i>	xxw	
<b>Wetland/aquatic plants</b>		
<i>Apium graveolens L.</i>	xw	
<i>Juncus sp.</i>	xxw	xw
<i>Lemna sp.</i>		xw
<i>Montia fontana L.</i>	xw	
<i>Rorippa nasturtium-aquaticum (L.) Hayek</i>	xcfw	xcfw
<b>Trees/shrubs</b>		
<i>Sambucus nigra L.</i>	xxxw	xxxw
<b>Other plant macrofossils</b>		
Charcoal <2mm	x	xx
Waterlogged root/rhizome/stem	xxx	
<b>Animal macrofossils</b>		
Bone		x
Small mammal/amphibian bones		x
Waterlogged arthropods	x	x
<b>Sample weight (kg.)</b>	2ss	2ss
<b>Volume of flot (litres)</b>	0.4	<0.1
<b>% flot sorted</b>	12.50%	100%

Table 27: Environmental samples by context

**Key to Tables:**

x = presence    xx = abundance    w = waterlogged    ss = sub-sample

## 9 RESEARCH AIMS

The post-excavation analysis will produce both an accessible research archive and a publication which will succinctly interpret the main elements of the site. This publication will address the aims of the archaeological specification (Connor 2002) and relevant interest areas recorded in the regional strategy document: *A Framework For The Eastern Counties* (Brown and Glazebrook 2000).

### 9.1 Prehistoric

No research objectives relating to the prehistoric period were given in the project specification as the earlier evaluation had not found significant evidence for such remains (Rogerson 1990). Remains of this date were found, however, during the excavation in question and included a flint knapping area. The regional research framework emphasises the requirement to study lithic production, use and deposition throughout the region (Brown and Murphy 2000, 9): the Late Mesolithic/Early Neolithic flint working hollow from Brandon Road, adjacent to a crouched burial, therefore provides useful data. Other Neolithic flintworking in the immediate area, such as that found at Kilverstone (Garrow 2002), will be used for comparison with the Brandon Road site. The location of the Brandon Road flintworking hollow, adjacent to the Little Ouse River, may be significant as prehistoric peoples appear to have used the river banks for monuments, including a burnt mound also found on the site and the remains of another found nearby (SMR No. 24846; Fig.1).

### 9.2 Iron Age and Romano-British

The evaluation hinted that Iron Age artefacts were present at the site, although these were residual in later features. Although the subsequent excavation found no definite evidence for Iron Age occupation, a few sherds of pottery may date to this period: further analysis is required.

Despite the pessimism of the project specification, the discovery of Roman occupation during the excavation will contribute to relevant research themes, in particular that of Roman rural settlement layout and economy (Going and Pluviez 2000, 19). A significant part of a Roman farmstead with buildings and associated field systems survived and extended over an area of 1.4ha. Features generally survived in reasonable condition throughout all three Roman phases (mid 2nd century possibly into the 5th century).

Features included aisled barns, possible animal pens and related enclosures. Both the finds and structural evidence indicate that the Roman farmstead was of average status. Moderate artefactual assemblages were recovered (pottery, metal,

stone artefacts, animal bone and other finds) as well as environmental and industrial residues which collectively provide evidence of the character and function of the Roman settlement. There appears to have been a dominance of pastoral farming: the absence of charred grain and chaff may indicate that crop growing and related processing took place elsewhere. A collection of quern stones demonstrates that milling was taking place in the vicinity.

Comparisons with several Roman settlements or farmsteads in the immediate and surrounding areas can be tentatively made (Fig.1) as well as other excavations within a few kilometres of the subject site, for example at Fison Way, Kilverstone and Melford Meadows (Gregory 1991; Garrow 2002; Mudd 2002).

### 9.3 Anglo-Saxon

The 1990 evaluation dated the majority of features to the Early and Middle Saxon periods and the Early Saxon features included evidence for buildings, land divisions and craft working or industry. The specification noted that the subject site has the potential to contribute towards a greater understanding and knowledge of the Anglo-Saxon period for the research themes outlined below, which are discussed in relation to the recent findings:

#### 9.3.1 Transition from Roman to Anglo-Saxon

The Early Saxon period has been identified as a period in which there are still many gaps in current knowledge. In particular there is still much debate as to how Late Roman Britain became Anglo-Saxon England: the specification suggested that the excavation may contribute towards the study of this period of transition.

The evidence from the excavation may suggest continuity of occupation between the two periods. The Roman farmstead appears to have gone out of use in the late 4th or early 5th century with the Early Saxon settlement beginning during the 5th century. The Anglo-Saxon settlement was positioned in relation to local contours rather than in respect of earlier Roman features.

It is interesting to note that, at a local level, there is a general frequency of finds of Early Saxon material adjacent to Romano-British settlement although interpretation of their relationship is problematic (Scull 1992; Williamson 1993, 67-8). There are several local examples of Early Saxon settlement overlying Roman remains which can be used for comparison. At Melford Meadows c.1.5km to the east of the subject site, for example, the excavator believed that the Romano-British settlement had been abandoned by the time of the first Anglo-Saxon occupation (Mudd 2002, 113). It was noted that there were hints that Romano-British boundary ditches had some residual influence upon the pattern of the Early Saxon settlement suggesting that banks or hedges might still have been

visible. In contrast at Kilverstone, the Early Saxon settlement was located in the part of the site where the Romans had not occupied permanently for at least a hundred years (Garrow 2002).

### 9.3.2 Settlement

The characterisation of settlement forms and functions has been identified as an 'urgent priority' for the Early Saxon period in the region (Wade 2000, 23). The project specification noted that the subject site had the potential to contribute to this research theme, with the presence of probable buildings and other settlement features.

The excavation will greatly contribute to this research objective, as buildings, ovens and other features and finds associated with settlement were found. The Early Saxon occupation was defined by the geography of the area as it was largely limited to the higher ground. The seven sunken-featured buildings, possible hall and an oven area were fairly regularly spaced in a rough rectangular shape. The survival of the features was generally good with floor levels surviving in places.

Furthermore, parts of this settlement have already been categorised by four previous excavations in the vicinity, suggesting that the settlement was at least 800m by 300m in size (see Fig.1). The forthcoming publication will bring together the results of these excavations and compare settlement patterns within the whole settlement. The large size of this probable settlement may answer the research framework question which asks 'were there no 'villages' in this period?' (Wade 2000, 23). The projected size seems to contradict local theories that settlement in this period comprised small hamlets. Davidson (1967) suggested, for example, that Thetford grew from an amalgamation of Early Saxon hamlets adjacent to fords across the Little Ouse.

### 9.3.3 Agricultural production

The regional research agenda and strategy states that 'priority should be given to the detailed examination of good animal bone and charred cereal deposits' (Wade 2000, 25). Although little animal bone was recorded during the 1990 evaluation, a complete dog skeleton was found. The specification noted that excavations to the east and south of the site produced a large animal bone assemblage largely dated to the 10th and 11th centuries. This led to the expectation that, if the bone assemblage from excavations at this particular site proved to be of similar quality, it might greatly enhance studies of Anglo-Saxon agricultural production.

A moderate collection of animal bones was recovered during the excavation and is significant in both local and regional terms. There are, however, factors limiting its potential for analysis. There appears to have been a high level of



contamination both through residuality and intrusion, while survival of animal bone was also variable with the sandy natural soil conditions affecting the bone in certain areas. Despite these constraints, the material still has the potential to provide important new evidence for the economy of Early Saxon Thetford.

Only low densities of charred grain were found in most environmental samples and the potential for analysis is limited to key groups. The lack of charred material may indicate that this part of the settlement was animal-related, with cereal production taking place elsewhere.

#### 9.3.4 Craft production

The study of craft production during the Anglo-Saxon period is regarded as a priority (Wade 2000, 25). The 1990 evaluation demonstrated the presence of craft activities in the form of two stokeholes which may have belonged to kilns or ovens, while the results of the recent excavation will also greatly contribute towards this research theme. Primary evidence for ovens of both the Early and Middle Saxon periods was found, though the former were probably domestic-related rather than associated with craft activity. They were similar to Early Saxon ovens found at Melford Meadows and have been tentatively been interpreted as baking ovens (Mudd 2002, 68). In the Middle Saxon period an oven complex at Brandon Road included part of the internal clay floor of the building with the ovens adjacent. Parallels for this complex will be sought during analysis. The remains of smithing hammerscale, along with relatively large quantities of fired clay, seem to indicate metalworking.

Secondary evidence for two areas of smithing-related activity was found in the backfill of an Early Saxon sunken-featured building and a Middle Saxon pit (see above). This is of particular interest as relatively few such metalworking deposits have been excavated in the region. Additional evidence for craft activity comes from objects such as spindle whorls, pin beaters and loom weights used in weaving and spinning which were particularly well represented in three of the sunken-featured buildings: one building contained twenty loomweights.

#### 9.3.5 The impact of colonists

Questions about Anglo-Saxon, Danish and Norman settlers and whether they can be identified from distinctive cultural material have been raised (Wade 2000, 26). The specification suggested that pottery and metal objects from the site would be examined for distinctive cultural material: no such material has been directly identified during assessment although cultural links may be suggested through some of the 5th century pottery. Two metal finds (an Anglian girdle-hanger and part of a small-long brooch) were attributable to the Migration Period.

### 9.3.6 Possible Middle Saxon Shuffle

In addition to the aims listed in the specification, the excavation located occupation attributable to the 8th or 9th centuries AD. The regional research framework suggests that most Early Saxon settlements were deserted in favour of new locations during the 7th century: the so-called 'Middle Saxon shuffle' (Wade 2000, 23). The reasons behind this major change are still poorly understood. The subject site appears to be unusual in that occupation appears to have continued over the relevant period, continuing into the 8th to 9th centuries before it was abandoned and settlement presumably relocated to present day Thetford a kilometre to the north-east. Some of the nearby sites appear to have been abandoned in the Early Saxon period (Kilverstone and Melford Meadows) although at Brandon in Suffolk settlement continued into the Middle Saxon period.

## 10 OVERVIEW: NATURE AND DEVELOPMENT OF THE SITE

### 10.1 Prehistoric

There appears to have been activity at the site during the Late Mesolithic/Early Neolithic period as well as in the immediate locale, next to the Little Ouse River. At this time, the area appears to have been used for knapping, hunting, cooking and disposal of the dead. The date of the prehistoric activity on the site rests both on the dating of the flint assemblages and possible radiocarbon dating. The lack of later Neolithic, Bronze Age and Iron Age artefacts and the absence of features from these periods seems to indicate that no activity took place here during the later prehistoric periods.

### 10.2 Roman

In the Roman period the river would have provided an important route to the Wash and the North Sea. The influence of the nearby Roman Road (Icknield Way) remains uncertain: the general absence of Roman settlement along much of its length has been observed (West 1990, 111), although settlement had earlier been noted close to the line of the Icknield Way on its northern stretches (Gregory 1982, 360-6).

Roman occupation at the Brandon Road site appears to have commenced in the middle 2nd century. Adjacent evidence indicates that this was one of many farmsteads in the vicinity, utilising the nearby Icknield Way which led to the Roman town of Icklingham 12km to the south. The evidence suggests that this particular Roman farmstead was of average status. Each of the four Roman

structures along with contemporary field systems appear to have been related to animal husbandry, although quern stones and a millstone indicate that secondary processing took place nearby.

The three wells within or adjacent to enclosures were presumably used for watering cattle. There was a marked lack of Roman pitting on site with less than twenty small pits of the period being identified. The apparent absence of domestic occupation is indicated by the very few nails recovered, alongside the dearth of fired clay and oven/hearth deposits and the general paucity of evidence for craft or industrial activities at this time. Relatively little ceramic building material was recovered and much of the assemblage was residual in later contexts. Domestic structures probably lay nearby, however, as a relatively large amount of pottery was recovered, particularly from the north-eastern corner of the site. Coin evidence indicates that settlement continued at least until c.AD 380, although ceramic dating may imply continuity into the 5th century.

### 10.3 Early Saxon

The founding of an Anglo-Saxon settlement here was probably determined by the river location and its trade routes. This occupation apparently began in the 5th century, with no evidence for continuity of earlier patterns of land-use and a general change in settlement character (from farmstead to hamlet or village). The Early Saxon settlement, placed in relation to topographic considerations, consisted of six or seven sunken-featured buildings, a probable hall and an oven complex. The buildings appear to have been regularly spaced and this may imply a level of organization. The domestic character of the settlement is indicated by the oven complex where four or possibly five domestic ovens were uncovered in a 6m<sup>2</sup> area.

Industrial or craft working evidence came the sunken-featured buildings. Objects relating to weaving and spinning were particularly well represented in three of the buildings and metalworking (smithing) in a fourth. Primary crop processing was not apparent within the excavation area and the keeping of cattle may have continued, although there was little evidence for ditches at this period.

### 10.4 Middle Saxon

During the Middle Saxon period features were scattered across the site. The earlier sunken-featured buildings seem to have gone out of use to be replaced by a series of north to south ditches representing field boundaries. These appear to have been related to livestock control as there was only a background scatter of charred grain and chaff. A large irregular enclosure indicates change of use and contained industrial and possibly domestic structures. A midden deposit located in the north-eastern part of the site may have been a convenient rubbish heap.

Sparse domestic and industrial activity continued after the decline of the enclosure until the site was abandoned by the middle of the 9th century.

## 11 STORAGE AND CURATION

The archive is currently held at the AFU's headquarters at Fulbourn under the site code 37158THD. The bulk of the material archive is to be prepared for storage at the Norfolk Museums and Archaeology Service stores at Gressenhall, Norfolk.

## 12 PUBLICATION

It is proposed to publish the results of the excavations as an East Anglian Archaeology (EAA) Occasional Paper entitled *Archaeological Excavations to the North of Brandon Road, Thetford, 2002* by Rob Atkins, Aileen Connor and other contributors.

## 13 TASK LIST

### Key:

CO = Conservator, FC = Finds Co-ordinator, ILL = Illustrator, PEPM = Post Excavation and Publications Manager, PHOT = Photographer, PM = Project Manager, PO = Project Officer, SC = Specialist Consultant, AA = Archaeological Assistant

### 13.1 Stratigraphic Analysis and Publication Draft

Task	Days	Staff
Produce publication synopsis	1	PO/PEPM
Discuss issues raised through assessment with post-excavation team	2	PO
Finalise site phasing	5	PO
Dispatch final phasing to specialists for analysis	0.5	PO
Write group and phase text	10	PO
Compile full report for archaeological sequence	3	PO
Review results of specialist analyses	2	PO
Collate results of specialist analyses	2	PO
Project management and liaison with specialists <i>etc.</i>	2	PO/PM
Collate and review results of previous work from the local area	2	PO
Write background text	2	PO
Write discussion and conclusions	3	PO
Collate front matter for publication (lists, captions <i>etc.</i> )	2	PO
Collate back matter for publication (bibliography, appendices <i>etc.</i> )	2	PO
Internal edit	4	PM/PEPM
Incorporate internal edits	3	PO
Final edit	1	PM/PEPM
Produce SMR summary	1	PO
Submit to EAA for refereeing	2	PO
Post-refereeing revisions	0.5	PO
Archiving	2	FC
<b>Total person days</b>	<b>48</b>	

### 13.2 Illustration

Task	Days	Staff
Compile list of illustrations/liaise with illustrator	2	PO/ILL
Produce plans/sections/location drawings	2	ILL
Pasting-up	3	ILL
Finds illustration (finds-non metal, plans <i>etc.</i> )	35	ILL
Finds illustration (metal)	20	SC
Finds photography ( <i>styca</i> and pottery)	1	PHOT
<b>Total person days</b>	<b>63</b>	

### 13.3 Finds Analysis

### 13.3.1 Metalwork

<b>Task</b>	<b>Days</b>	<b>Staff</b>
Discuss issues raised through assessment with post-excavation team	0.5	SC
Discuss final grouping and phasing with post-excavation team	0.5	SC
Catalogue and report	15	SC
<b>Total person days</b>	<b>16</b>	

### 13.3.2 Conservation

<b>Task</b>	<b>Days</b>	<b>Staff</b>
Cleaning and stabilisation of non-ferrous objects	13.5	CO
Cleaning and stabilisation of ferrous objects	4	CO
X-rays of ironwork	2.7	CO
<b>Total person days</b>	<b>20.2</b>	

### 13.3.3 Metalworking Waste

<b>Task</b>	<b>Days</b>	<b>Staff</b>
Discuss issues raised through assessment with post-excavation team	0.5	SC
Discuss final grouping and phasing with post-excavation team	0.5	SC
Chemical and micro-structural analysis		SC
Analysis and report writing	2	SC
<b>Total person days</b>	<b>3</b>	

### 13.3.4 Lithics

<b>Task</b>	<b>Days</b>	<b>Staff</b>
Discuss issues raised through assessment with post-excavation team	0.5	SC
Discuss final grouping and phasing with post-excavation team	0.5	SC
Analysis	3	SC
Review results of specialist analyses	1	SC
Write lithic report	2	SC
Discuss issues raised / results of collation with post-excavation team	0.5	SC
Prepare assemblage for archive	0.5	FC
<b>Total person days</b>	<b>8</b>	

### 13.3.5 Clay and Glass Objects

<b>Task</b>	<b>Days</b>	<b>Staff</b>
Catalogue and report writing	1	SC
<b>Total person days</b>	<b>1</b>	

### 13.3.6 Roman Pottery

<b>Task</b>	<b>Days</b>	<b>Staff</b>
Discuss issues raised through assessment with post-excavation team	0.5	SC
Discuss final grouping and phasing with post-excavation team	0.5	SC
Catalogue	8	SC

Input data	2	SC
Report	4.5	SC
Select and check illustrations	1.5	SC
Prepare assemblage for archive	0.5	FC
<b>Total person days</b>	<b>17.5</b>	

### 13.3.7 Anglo-Saxon Pottery

<b>Task</b>	<b>Days</b>	<b>Staff</b>
Discuss issues raised through assessment with post-excavation team	0.5	SC
Discuss final grouping and phasing with post-excavation team	0.5	SC
Catalogue	9	SC
Input data	2	SC
Report	6.5	SC
Petrological Analysis of 10 samples		SC
Possible use of external specialist (fabric typology)	1	SC
Select and check illustrations	1.5	SC
Prepare assemblage for archive	0.5	SC
<b>Total person days</b>	<b>21.5</b>	

### 13.3.8 Stone Objects

<b>Task</b>	<b>Days</b>	<b>Staff</b>
Write final catalogue and report	1	SC
<b>Total person days</b>	<b>1</b>	

### 13.3.9 Bone and Antler Objects

<b>Task</b>	<b>Days</b>	<b>Staff</b>
Write final catalogue and report	1	SC
<b>Total person days</b>	<b>1</b>	

## 13.4 Zooarchaeological and Botanical Analysis

### 13.4.1 Human Bone

<b>Task</b>	<b>Days</b>	<b>Staff</b>
Radiocarbon dating: child skeleton 858		SC
X-rays of long bones (skeleton 858)		SC
Write final report	1	SC
<b>Total person days</b>	<b>1</b>	

### 13.4.2 Animal bone

<b>Task</b>	<b>Days</b>	<b>Staff</b>
Discuss issues raised through assessment with post-excavation team	0.5	SC
Discuss final grouping and phasing with post-excavation team	0.5	SC

Recording	4	SC
Data processing and analysis	4	SC
Radiocarbon dating: calf burial 881		
Write report	3	SC
Final edit	1	SC
Prepare assemblage for archive	0.5	FC
<b>Total person days</b>	<b>13.5</b>	

### 13.4.3 Charred Plant Remains

Task	Days	Staff
Discuss issues raised through assessment with post-excavation team	0.5	SC
Charcoal: species identification	0.5	SC
Data tabulation and report production	2	SC
<b>Total person days</b>	<b>2.5</b>	

### 13.5 Other

Task	Days	Staff
Mark pottery, animal bones and flint ready for storage	37	AA
Phosphates: preparation, analysis, data tabulation and report	2	SC

## 14 PROJECT PERSONNEL

Name	Role	Employer
Rob Atkins	Project Officer	AFU
Ian Baxter	Animal Bones	Freelance
Barry John Bishop	Lithic Analysis (flint)	Freelance
Aileen Connor	Project Manager	AFU
Steve Critchley	Worked Stone	Freelance
Nina Crummy	Small Finds	Freelance
Corrinne Duhig	Human Skeletal Remains	AFU
Carole Fletcher	Finds Officer	AFU
Rachel Fosberry	Environmental Assistant	Freelance
Val Fryer	Environmental Analysis	Norfolk Arch. Unit
Richenda Goffin	Anglo-Saxon Pottery	Freelance
Sue Holden	Illustrator (Metal)	Freelance
Lynne Keys	Metalworking residues	Norfolk Arch. Unit
Alice Lyons	Roman Pottery	AFU
Emily Oakes	Illustrator	AFU
Elizabeth Shepherd Popescu	Post-Excavation & Publications Manager	Freelance
Ian Riddler	Antler and Bone objects	Cambs CC
Celia Honeycombe	Conservator	



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The excavation was managed by Mark Hinman, while Aileen Connor managed the post-excavation assessment. Rob Atkins directed the fieldwork with a team consisting of Abby Antrobus, Tony Baker, Glenn Bailey, Celine Beauchamp, Emily Betts, Spencer Cooper, Nick Fitch, Adam Howard, Claire Jacklin, Jeni Keen, Neville Hall, David Leigh, Jane Matthews, Alison Morgan, Stephen Wadeson, Chris Montague, Simon Pickstone and Sam Whitehead.

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