

**West Row Primary School new classroom  
and MUGA pitch, Beeches Road,  
Mildenhall, MNL 637**

**Archaeological Excavation Report**

**SCCAS Report No. 2011/083**

**Client: Suffolk County Council**

Authors: Rob Brooks and Andrew Tester

April/2012



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## HER Information

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**Report Number:** 2011/083  
**Site Name:** West Row Primary School, Beeches Road  
**Planning Application No:** Pre-planning  
**Date of Fieldwork:** 05 – 24/01/2011  
**Grid Reference:** TL 6726 7641  
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### Disclaimer

Any opinions expressed in this report about the need for further archaeological work are those of the Field Projects Team alone. Ultimately the need for further work will be determined by the Local Planning Authority and its Archaeological Advisors when a planning application is registered. Suffolk County Council's archaeological contracting services cannot accept responsibility for inconvenience caused to the clients should the Planning Authority take a different view to that expressed in the report.

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

## **Summary**

Archaeological excavation and monitoring were carried out on the playground and sports field at West Row Primary School, Mildenhall, Suffolk. The work revealed well preserved and intensive use of the site throughout the Roman period, indicated by a large quarry pit and a poorly surviving soil layer, both of which contained large quantities of pottery and animal bone, as well as CBM, fired clay, quernstone, iron nails, marine shells, and other material. There were also several smaller late Roman pits/small linear features. Roman coins were found scattered over both areas of the fieldwork. The finds, as well as the environmental samples indicated that it is likely that many agricultural and food processing tasks were occurring nearby, possibly to supply the local villa, although it is thought that a domestic structure of some importance is also likely to have been located close to or on the site.












Other features included two ditches which were probably post-medieval and are likely to have been part of the fenland agricultural drainage works in the area.

# Drawing Conventions

## Plans

- Limit of Excavation 
- Features 
- Break of Slope 
- Features - Conjectured 
- Natural Features 
- Sondages/Machine Strip 
- Intrusion/Truncation 
- Illustrated Section  S.14
- Cut Number 
- Archaeological Features 

## Sections

- Limit of Excavation 
- Cut 
- Modern Cut 
- Cut - Conjectured 
- Deposit Horizon 
- Deposit Horizon - Conjectured 
- Intrusion/Truncation 
- Top of Natural 
- Top Surface 
- Break in Section 
- Cut Number 
- Deposit Number 0007
- Ordnance Datum  $\frac{18.45\text{m OD}}{\times}$

# 1. Introduction

---

An archaeological excavation was carried out in advance of development at West Row Primary School, Mildenhall, Suffolk (Fig. 1). The project includes the construction of a new classroom in the present playground area and a Multi Use Games Area (MUGA) pitch on the playing field (Fig. 2). The work was carried out to a Brief and Specification issued by Dr Jess Tipper (Suffolk County Council Archaeological Service, Conservation Team – Appendix 1) and follows on from an evaluation of the site by trial trenching (SCCAS Report 2010/157). The project was funded by the developer, Suffolk County Council Corporate Property.

Of the two areas to be investigated, full excavation was required in the location of a new classroom (evaluation Trench 2), whilst the second area was recorded through monitoring (evaluation Trench 1).

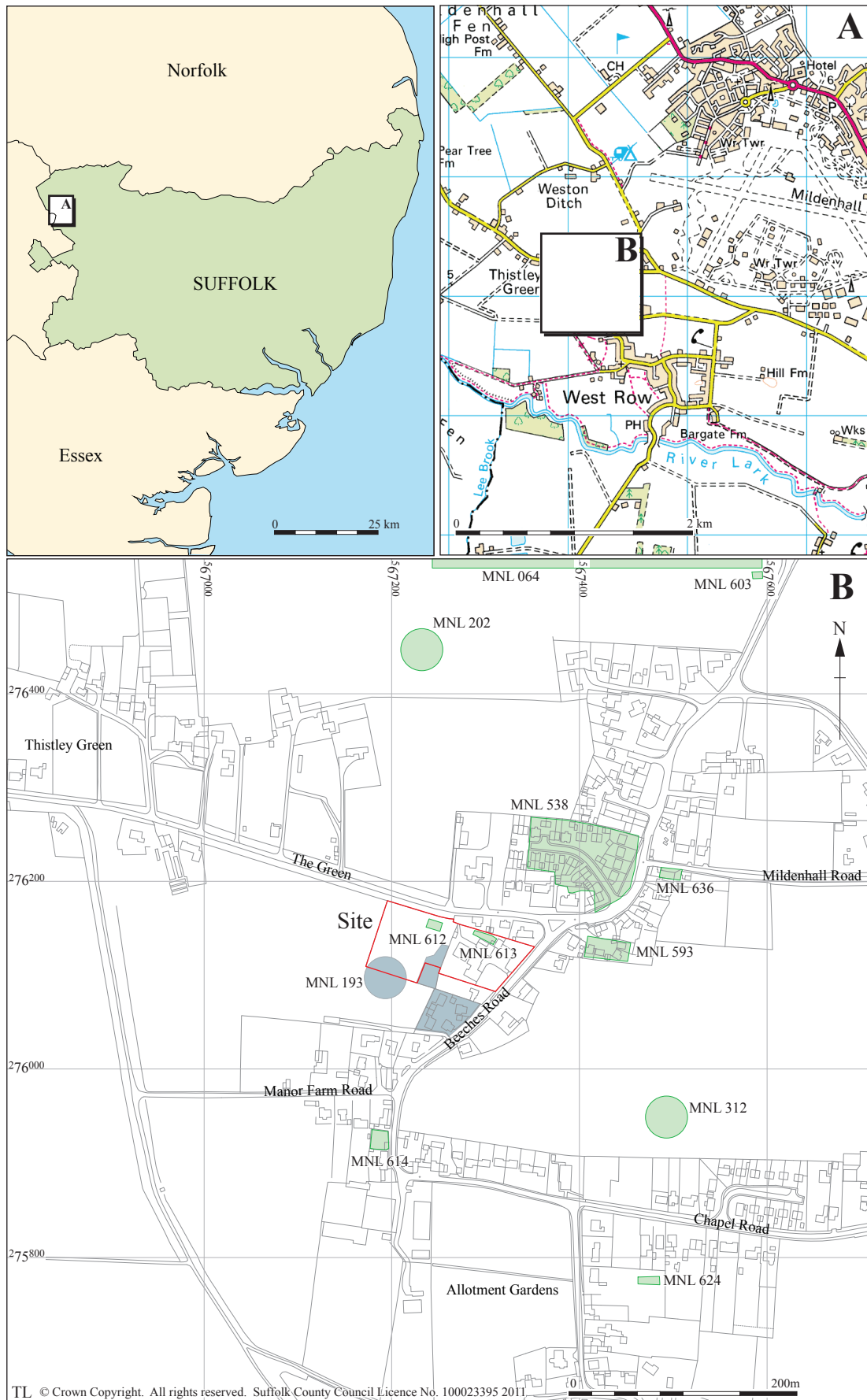


Figure 1. Location map showing school grounds (red), HER sites mentioned in the text and MNL 193 sites (blue)



Figure 2. Site plan

## **2. The Excavation**

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### **2.1 Site location**

Both excavation areas were located within the grounds of West Row Primary School, Mildenhall, Suffolk, at grid reference TL 6726 7641 and on the corner of Beeches Road and The Green (Fig. 1). The area of full excavation was positioned just south-west of the main school building, whilst the MUGA pitch monitoring was west of the school in the middle of the existing playing fields (Fig. 2).

### **2.2 Geology and topography**

The site lies on an area of broadly level ground at a height of c.6m AOD, c.1.3km to the north of the River Lark and overlooking the fen-edge to the west and north (Fig. 1). There is no superficial geology recorded for the site, whilst the bedrock is recorded as Zig Zag chalk formation (BGS, 2011). On site this presented itself as chalky-silty topsoil overlying chalk geology.

### **2.3 Archaeological and historical background**

The site is in an area of archaeological importance, as defined in the County Historic Environment Record, within the dense band of prehistoric and Roman activity that exists along the edge of the fens.

Early activity in the vicinity consists of a Palaeolithic Acheulean hand-axe (MNL 202, Fig. 1) which has been recorded 300m to the north-east and a Neolithic flint axe head 230m to the south-east (MNL 312).

The main evidence for past activity in the area relates to the Roman period. A dense spread of Roman occupation lies c.500m to the north, centred around the site of a Roman villa or possible bathhouse (MNL 064) and the findspot of the late 4th century Mildenhall Treasure (MNL 231). It appears, from the limited number of sites investigated, that the local area was also quite intensively occupied, and it is not unusual to find activity spanning the whole of the Roman period within this part of Suffolk (Plouviez, pers. comm.). A program of fieldwalking identified a large scatter of



Roman pottery and flue tile 50m to the south-west of the school (MNL 193). This led to a small evaluation and excavation at School Close, 25m to the south of the main school building. Fairly dense Roman ditches and finds, as well as a post-medieval chalk quarry pit and ditch were excavated (also recorded as MNL 193; Gill, 2001, and Craven, forthcoming). A pond and four test pits were also monitored as MNL 193 within the school, south-west of the school building and north-west of School Close. This work was carried out voluntarily by Roger Pigerham. Whilst some of the deposits recorded were mixed with post-medieval material, a probable ditch was excavated and found to contain 4th century pottery and animal bone (predominantly cattle, with evidence for butchery) in substantial quantities, as well as roof, floor or wall tiles and decorated plaster. The ditch was thought to represent an enclosure, whilst the CBM is evidence of a nearby building, possibly of timber construction incorporating tiles and plaster (Plouviez, pers. comm.).

The Portable Antiquities Scheme has also recorded c.20 Roman copper alloy coins, together with other metal objects, pottery and quernstone at several spot locations within 150m to the west and south of the school.

As well as the work associated with the MNL 193 sites, evaluations and excavations have already been carried out within the school grounds. Evaluation and excavation in advance of the construction of a pre-school building, immediately to the north of the proposed sports pitch, has identified a series of ditches, two pits and a posthole (MNL 612, Muldowney, 2010). Although most of the finds are Roman, the ditches which are parallel to the present road are likely to be medieval or later in date. Further evaluation and monitoring on the north side of the school identified another ditch that was probably a continuation of a feature from MNL 612 (MNL 613, Muldowney, 2009). The evaluation works for the current developments revealed pits, ditches, post holes and a possible building slot, as well as patches of a highly organic, finds-rich layer (Craven, 2010). These features produced Roman pottery, quantities of CBM, coins and mortar, as well as animal bone. However, it is important to note that evidence of medieval and later settlement in this area often contains, or is located close to, large quantities of Roman finds, features and layers. Therefore, whilst some of the features identified in the evaluation are likely to have been Roman, it is also possible that some of the activity in the area is medieval or post-medieval, particularly as many of the features identified within the MNL 612 works produced medieval finds.

The 1858 Tithe map of the site shows the area as an open field (Fig. 3). There were no associated apportionment listings, although the nearby listing for 2422 was 'Old enclosure corner' and 2429 was 'Old enclosure farmstead', whilst 2615 was listed as 'Old enclosure, pear tree and orchard'. By the time of the First and Second Edition Ordnance Survey maps (1885 and 1904, respectively), the site had been developed into the school, the main building of which still functions as the school now (Fig. 4). Although there is little evidence from these documents for the site's use in relation to the archaeology encountered on site, a boundary on the Ordnance Survey map does potentially highlight a feature that may at some point have been one of the excavated ditches.



Figure 3. 1858 Tithe map with approximate site position (red)

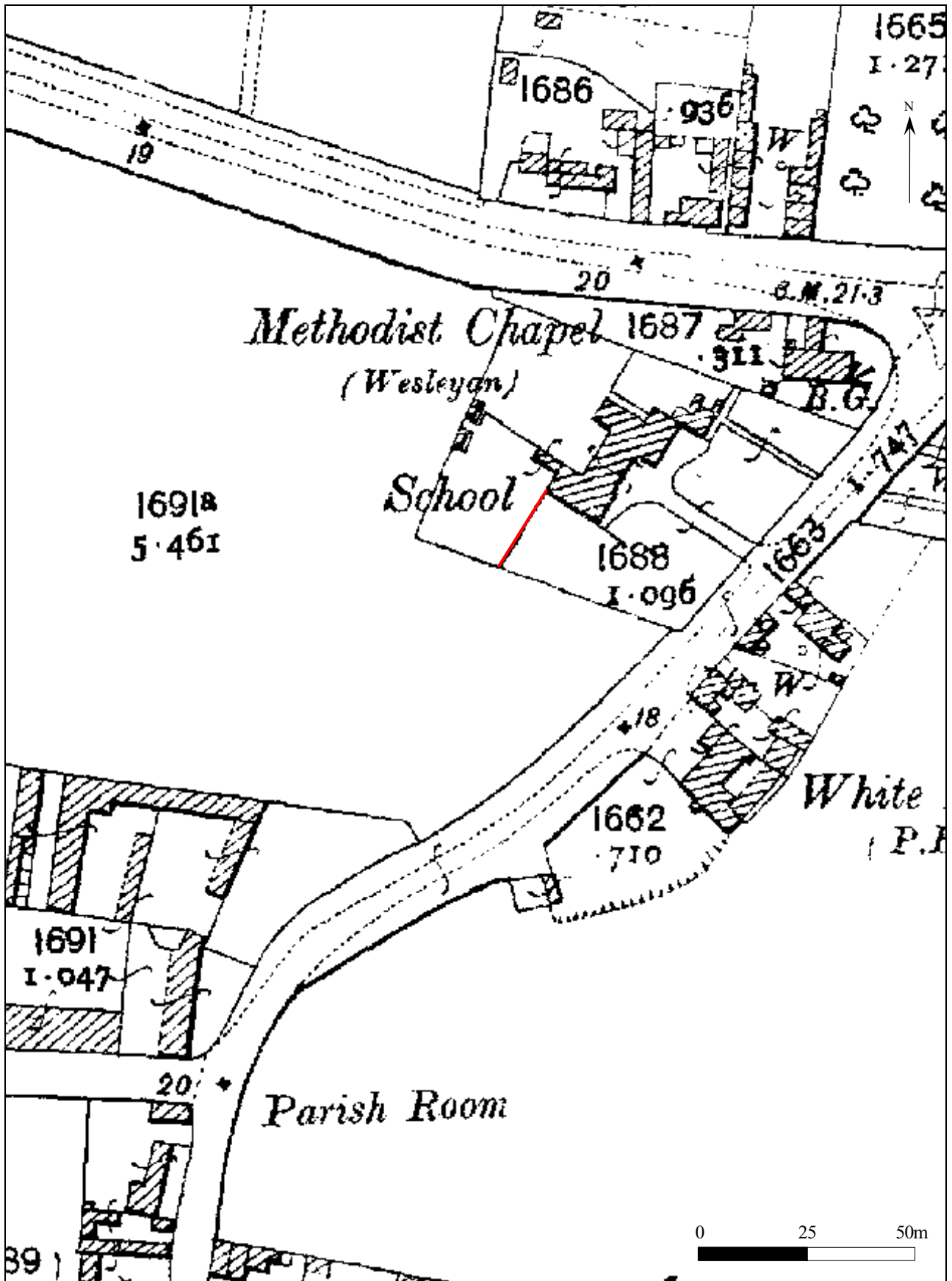


Figure 4. 1904 Second Edition Ordnance Survey map, with possible ditch boundary (red)

### 3. Methodology

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The area of the playground extension was marked out and following the removal of the tarmac the subsoil was stripped to the top of the first archaeological level using a mechanical excavator equipped with a ditching bucket. This amounted to c.178sqm (the edges of the excavation were irregular due to the various live drains that crossed the site). The stripped surface and spoil heaps were examined by an experienced metal detectorist (Fig. 3) and the surface was cleaned and planned to show the levels of disturbance, as well as small find distribution. As the features were not entirely exposed, being covered partially by remnants of topsoil and modern overburden, the area was further lowered by c.0.05-0.1m by hand. This revealed the archaeological horizons in more detail, as well as reducing the level sufficiently to remove the worst of the drain disturbances and the modern layers (Fig. 5). A second area, the location of a MUGA pitch, was monitored in the playing fields (Fig. 6). This measured 18.5m (WNW-ESE) x 9.3m (NNE-SSW) and amounted to an area of 172.05sqm. The topsoil and subsoil were largely stripped from the site under the supervision of an archaeologist. The various layers and spoil heaps were metal detected throughout the process. When the construction team had reached their specified depth (at which point the underlying archaeological deposits were never fully exposed), the area was planned by hand and metal-detected. No machinery was allowed to cross the site once the stripping had taken place. A layer of protective geotextile was placed over the exposed surface, followed by aggregate, to preserve the underlying archaeology.

The excavation was recorded using a single context continuous numbering system (Appendix 2). Sections were recorded at a scale of 1:20 and hand drawings were made on A3 gridded permatrace. Plans were drawn at a scale of 1:50, with stations for location and benchmarks for elevation established using a Real Time Kinematics global positioning system (GPS). Site levels were recorded using a total station Theodolite (TST). Digital colour and monochrome film photographs were taken of all stages of the fieldwork, and are included in the digital and physical archives respectively. Bulk environmental samples were taken from several contexts including a sequence through the fills of feature 0078.

Site data has been input onto an MS Access database and recorded using the County HER code MNL 637. Bulk finds were washed, marked and quantified. An OASIS form has been initiated for the project (reference no. suffolkc1-105425, Appendix 3) and a digital copy of the report will be submitted for inclusion on the Archaeology Data Service database (<http://ads.ahds.ac.uk/catalogue/library/greylit>) upon completion of the project.

The site archives are kept in the main store of Suffolk County Council Archaeological Service at Bury St Edmunds under HER code MNL 637.

## **4. Results**

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### **4.1 Excavation**

An area of c.178 square metres for the new classroom was stripped with the mechanical excavator. This entailed the removal of c.0.2m of tarmac and sub-base, immediately below which were several live services cutting into topsoil and the archaeological layers. The exposed surface was metal detected, cleaned and then planned to show the levels of disturbance and the small finds distribution (Fig. 5). Based on the initial plan and the results of the evaluation, which suggested a large depression with ditches aligned approximately north – south, several slots were excavated into the dark earth, in an attempt to isolate individual features and relationships. Within this area a total of seven definite features was uncovered, including two ditches (with possible re-cuts), one large pit-like feature, two linear pits or short ditches and two possible shallow pits or layers. During the initial cleaning of the site one glass bead of possible Roman or modern date was excavated (SF 1050), whilst one possible Roman coin (SF 1056) and three 4th century to late Roman coins were found by metal-detection (SFs 1051, 1052 and 1054).

### **Roman**

#### **Pit 0078**

Large pit 0078 was well dated as a Roman context. It was irregularly shaped in plan, and its NW edge sloped gently, although somewhat unevenly down to the slightly sloped base (Pls. 1 and 2). The feature measured 7.5m NW-SE x 5.5m NE-SW x at least 1.65m deep and was notably comparable in terms of size and form to pits from

Roman sites FSM 021 (Beverton in prep) and MNL 598 (Craven in prep) (Pls. 3 and 4). These two pits also appeared to target patches of chalk and pit 2924 from MNL 598 contained several distinct fills and fairly large finds quantities, like pit 0078. It was excavated in one segment to investigate its form and relationship with ditch 0089, which cut the pit. This section revealed a series of up to eight separate fills, although two of these (0064 and 0085) were probably the same as others in the section (0075 and 0062, respectively, see Fig. 5). The fills comprised a series of mid-dark grey chalky-silty-clay mixes, excluding the basal fills which were generally paler and chalkier. Varying levels of organic material were also present, as shown by the green colouration of some of the layers, the charcoal content and the results from the soil samples.

The material from this pit included 111 pot sherds (weighing 4651g, with only one instance of abrasion), animal bone, oyster shell, fired clay, Roman glass, lava quern, fired clay and several nails. Small finds from the feature consisted of a coin of Theodora dated c. AD 337-350 (SF 1081, spit 0056), an iron point, which may be a stylus or goad end (SF 1097, fill 0074), copper alloy fragments (SF 1090, fill 0063), a material scoop/pin and glass fragments (SF's 1089 and 1094, fill 0075), a chalk spindle whorl (SF 1098, fill 0082) and a sheep metatarsal shaft that may have been used for weaving (SF1099).

Pottery was present in most of the fills, with upper spits 0055 and 0056, and top fill 0062 producing the highest amount with a combined total of 138 sherds (weighing 1968g). Only basal fill 0082 and fill 0085 produced no pottery, although during excavation fill 0085 was difficult to differentiate from the fills of ditch 0059 and cut 0083. Most of the fills were given pottery spotdates of late 3rd to 4th century, with only one fill being assigned an earlier range of mid 2nd to 4th century, which was one of the lower fills (0075). The pottery includes a number of imported wares such as samian, and Gaulish and Spanish *amphorae*. Whilst the quantity of pottery varied (in terms of weight and number of sherds) across the fills, there were still significant quantities from all contexts, excluding 0082 and 0085. CBM was also present within spit 0055/0056 and its associated upper fill 0062 (sixty-two pieces, weighing 3606g), fill 0073 (seven pieces, 847g), fill 0063 (seven pieces, 86g) and fill 0064/0075 (three pieces, 39g). There were also fifty pieces (328g) of fired clay within the pit (fills 0062, 0073 and 0074). The two largest pieces were from 0074 and may be the remains of the mouth of a clay oven or



kiln. Further fragments of fired clay were also found within fills 0062 and 0073, some of which might be from the same structure.

Seven samples were taken from contexts 0056, 0062, 0063, 0073, 0074, 0075 and 0082. They all contained significant plant macrofossil assemblages including wheat and barley, indicating waste from various stages of crop processing and potential brewing activity. There were also varying quantities of weed remains and other species. The largest quantity of environmental material was recovered from fill 0074; a notably darker fill, which appears to have been relatively wet due to its position near the base of the pit, and produced quantities of bullrush remains. Basal fill 0082 also contained common spike-rush remains, suggesting that it was also wet when it was open. Whilst both the bullrush and spike-rush remains may simply be redeposited, it is notable that these contexts are both lower fills where water would collect and allow such species to grow.



Plate 1. Pit 0078 and west edge of ditch 0059, section 54, facing south





Plate 2. Ditch 0059, cutting through pit 0078, section 54, facing south-west



Plate 3. Pit 0030 from Hollow Road, Fornham St Martin, FSM 021





Plate 4. Pit 2924 from Smoke House, Mildenhall, MNL 598

### **Layer 0091**

Instances of a patchy mid-dark grey chalky-clayey-silt were recorded sporadically across the site and have been interpreted as the remnants of a possible occupation layer 0091. It did not survive consistently enough across the site to be investigated with a defined excavation strategy. However where present, it was cut by features 0050, 0078, 0079, 0083 and 0086. It was recorded as layers 0053, 0054 and 0081, and also as fill 0077 in natural hollow 0076 and as fill 0087 in natural hollow 0086. One of the better defined patches of this material was also excavated around the area of pit 0078 and ditches 0083 and 0086 immediately south of section 54. Here it was recorded as layer 0088, and was somewhat mixed. In general these contexts produced Roman material, consisting of fifty-one pottery sherds, weighing 1201g. Overall the pottery was dated to the late 2nd to late 3rd/4th century, but it included an abraded sherd and two

sherds of intrusive pottery (27g). Roman CBM (464g), mortar fragments, quernstones, oyster shell and animal bone were also present. The pottery and CBM were very occasionally abraded. An environmental sample was taken from fill 0076, produced largely similar material to those samples from pit 0078, including wheat, barleys, wild plants, weeds and charcoal. The levels were lower than those found in pit 0078, although this may just be reflective of the smaller size of the sample.

Overall, layer group 0091 consisted of a build-up of organic refuse, and other traces of occupation material. However, it had been heavily truncated and disturbed by post-medieval and modern activity, notably because of service trenches, but also from the laying of the playground surface and potentially from ploughing. It was at most 0.1m deep within hollow 0086, but where it existed elsewhere it was usually less than 0.03m deep and was extremely patchy, surviving only as a mixed interface with the natural chalk. It was always recorded as a mid-very dark grey sandy-silty-clay mix with chalk inclusions. In two areas layer 0091 was excavated and recorded as features 0076 and 0086. However, these cuts were probably accumulations of 0091 within natural depressions. In plan 0076 formed an irregular oval measuring 3.2m (NE-SW) x 1.36m (NW-SE) x 0.08m deep and its form in section was very shallow with gently sloping sides and contained what was recorded as fill 0077. Context 0086 was excavated as a possible short linear feature emerging from the edge of pit 0078. However when it was excavated it had very gently sloping sides and a slightly concave base, and at most it was only 0.1m deep x >1.6m (WNW-ESE) x 1.2m (NNE-SSW). Its relationship with pit 0078 and ditch 0089 was not established. This feature contained Roman pottery, as well as animal bone and oyster shell.





Plate 5. Layer 0091 in Hollow 0076, section 53, facing north-west, 1m scale



Plate 6. Layer 0091 in Hollow 0086, section 57, facing north-north-east, 1m scale

**Pit 0079**

Pit 0079 was a small feature found near the north-east corner of the site, which measured 2.4m (NW-SE) x 1.53m wide (NE-SW) x 0.27m deep. It was a slightly elongated oval in plan and was relatively shallow with concave sides and a flat base. It contained several pieces of Roman pottery, animal bone, oyster shell and a nail, as well as a piece of post-medieval tile, which is probably intrusive. The fill, 0080, was a dark grey silty-clay fill similar to those in pit 0078.

**Gully 0083**

One short linear feature measuring 1.9m (WNW-ESE) x 0.5m (NNE-SSW) x 0.16m deep was thought to be late Roman or post-Roman and. This was cut 0083, which truncated the uppermost fills of pit 0078 in section 54. It had a gently sloping profile and base, but was clearly cut into the chalk natural. Fill 0084 was a dark greyish-brown chalky-silt with Roman pottery, animal bone and oyster shell.

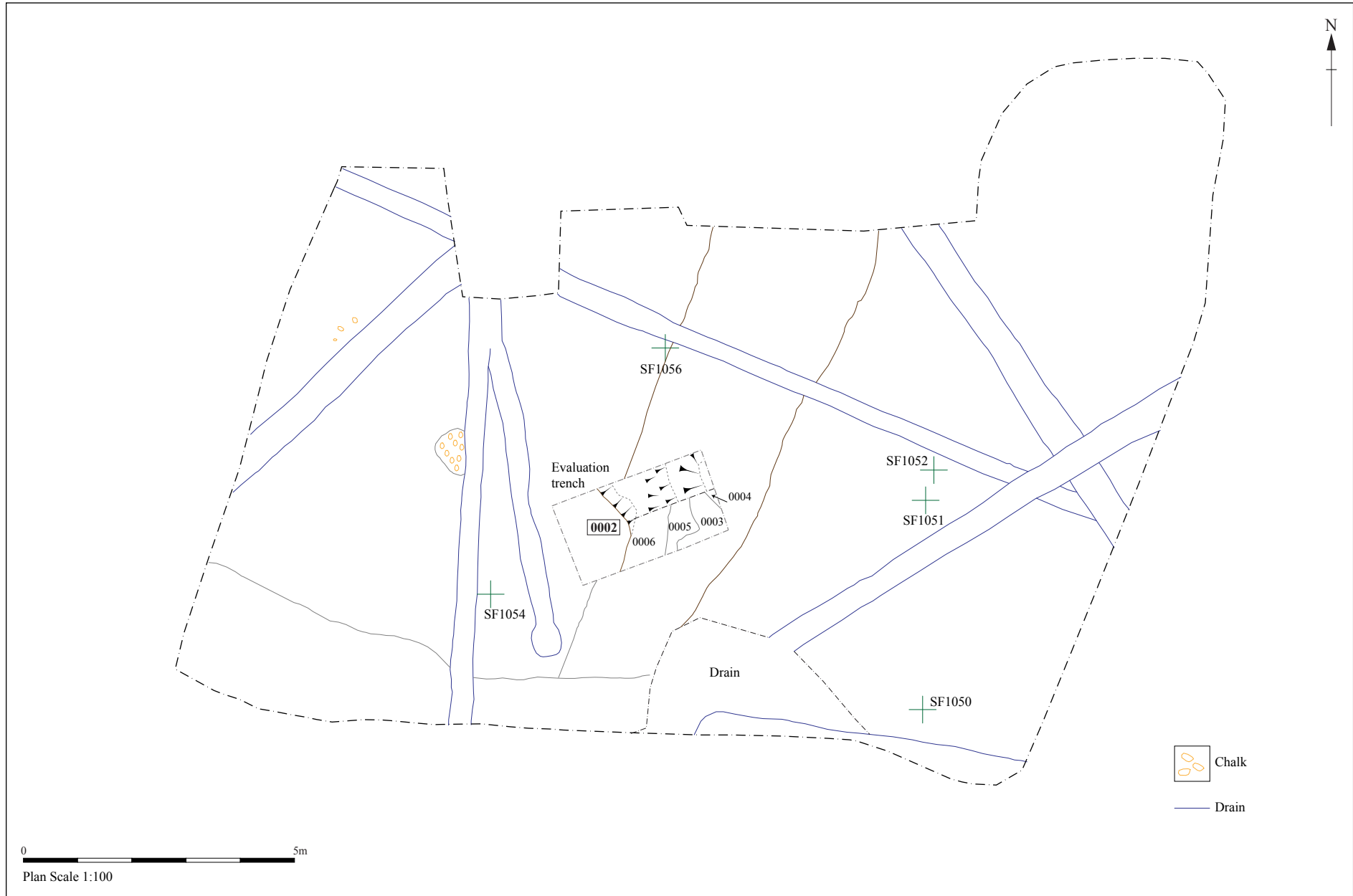


Figure 5. Surface plan (new classroom) prior to hand cleaning, showing levels of disturbance and small find distribution



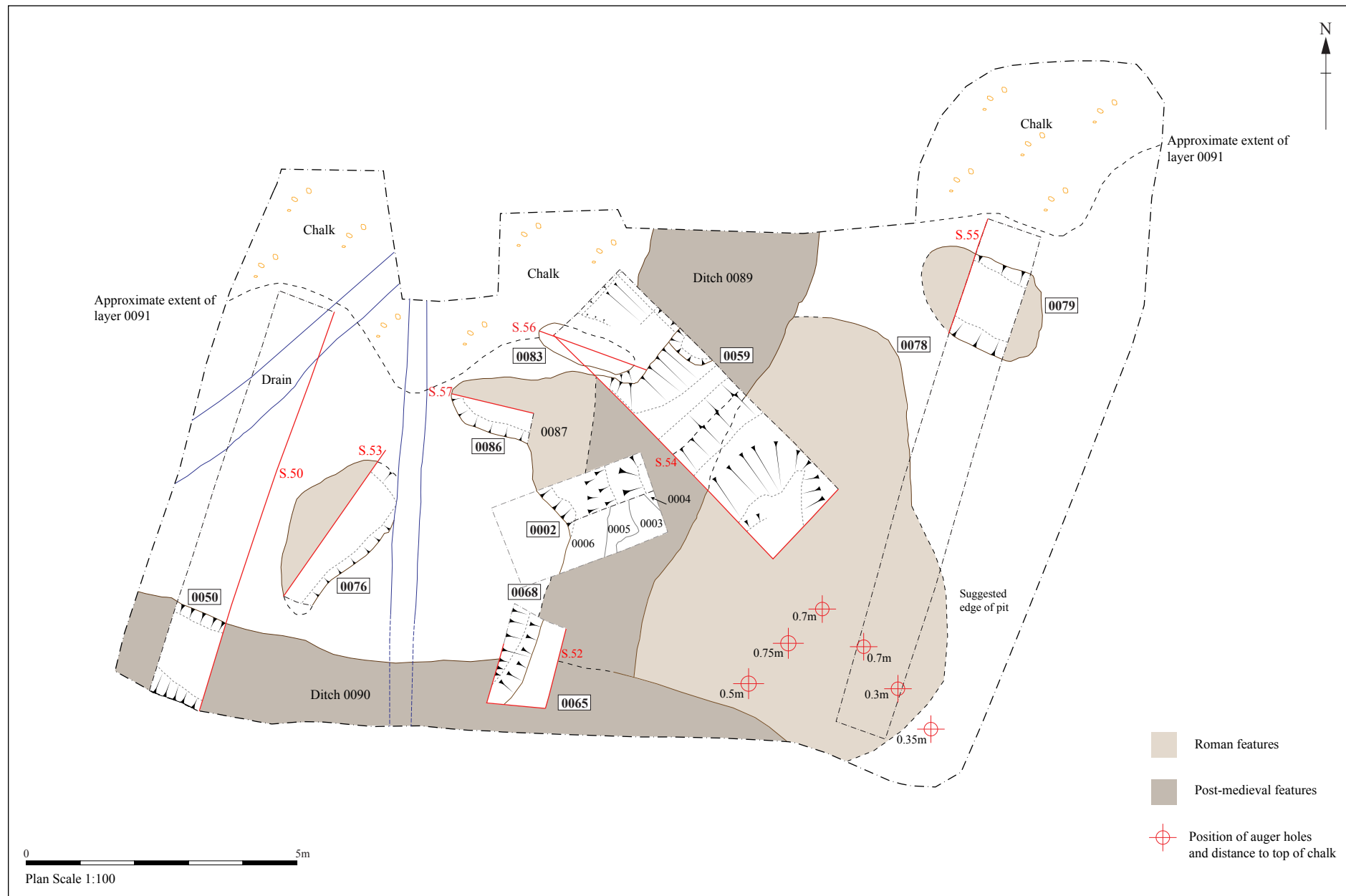


Figure 6. Excavated plan (new classroom)

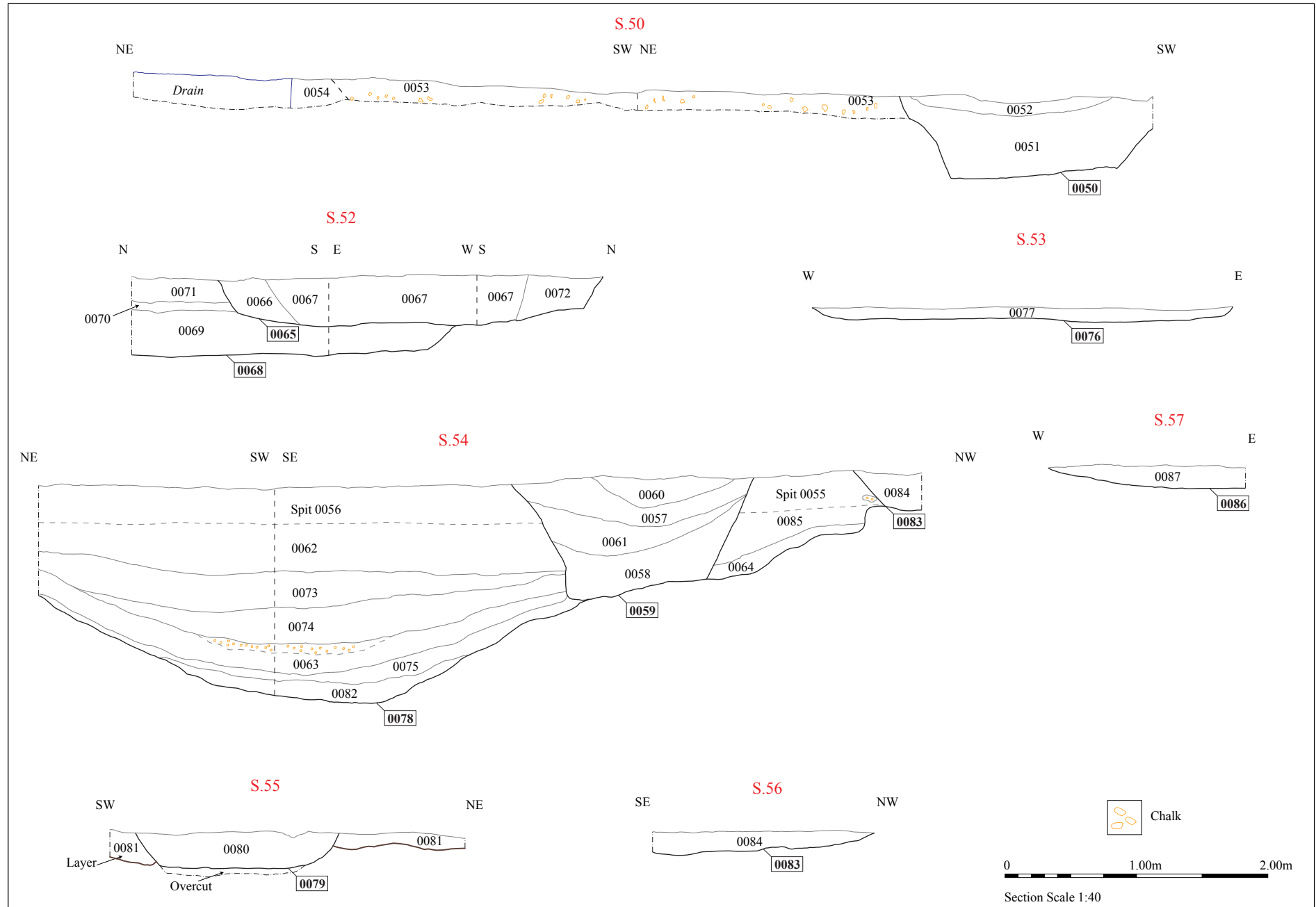


Figure 7. Sections for excavated area



## Post-medieval

### **Ditches 0089 and 0090**

Two ditches are recorded as probably being post-medieval, although they may be very late Roman. They are classified as being post-medieval for several reasons which are reviewed more fully in the discussion. In summary they are thought to be post-medieval because they cut the late Roman features of this site and are closely aligned with ditches on MNL 193 and MNL 612, which are post-medieval, or possibly medieval. The first of these is ditch group 0089, which was aligned NNE-SSW and comprised cuts 0059 (1.83m wide x 0.96m deep) and 0068 (>0.94m wide x 0.6m deep) (Fig. 6). The profile of the two cuts had 45-60° sides, sharply breaking to the base. The number of fills along the length of the ditch varied, although they generally consisted of pale grey chalky-silt and dark grey clayey-silt with finds of Roman pot and CBM, animal bone, oyster shell and a nail. Where recorded as cut 0059, the number and form of the fills suggested that the ditch had been re-cut, which may have been as a result of being dug through the soft, unstable upper fills of pit 0078. Ditch 0089 was cut by ditch 0090. This was also excavated in two places, as cut 0050 (>1.94m wide x 0.64m deep) and cut 0065 (>0.84m wide, >0.36m deep). The profiles were similar to those of ditch 0089, as were the fills. The finds recovered from these contexts included Roman pottery and CBM, animal bone, oyster shells and a nail.

## **4.2 Monitoring**

The monitored area was the site of a new MUGA pitch. This required the stripping of most of the topsoil and buried soil (recorded as 0035 in the evaluation) from the site. Near the east and west ends of the area the works started to reveal the chalk geology, although in general the depth of the groundworks did not meet that of the evaluation trench and as such the archaeology was not fully exposed. The limited areas of uncovered chalk revealed the possible outlines of at least three pits that were c.1.5-1.7m long x 1.3-1.4m wide (Fig. 8). It is likely that these features were Roman, judging by the density of other Roman features in the area uncovered in the evaluation, although this is not definite.

Although the finds are discussed comprehensively in the following section, the presence of thirty-two Roman coins on the site is of interest and indicates an upsurge of activity

across the area. Whilst the number is too small to be statistically significant, there is a notable increase from 1st-2nd century coins (one), to those of the second half of the 3rd century (five), and 4th century/late Roman coins (twenty-five). One further coin is only identified as Roman and the only other coin is a silver penny of Charles I dated as 1625-1649. Only four of these coins (one Roman, and three 4th century/late Roman) were recovered from the area of the excavation, with the rest having been found within the area of the MUGA pitch, with a concentration focussed in the south-east corner. The low number found around the excavation is not thought to be significant as this area had been much more heavily disturbed and truncated. The remainder of the small finds from the classroom area are either undated or post-medieval/modern items, and are detailed in section 5.8 (with the locations of all the small finds plotted on Figs. 5 and 8).

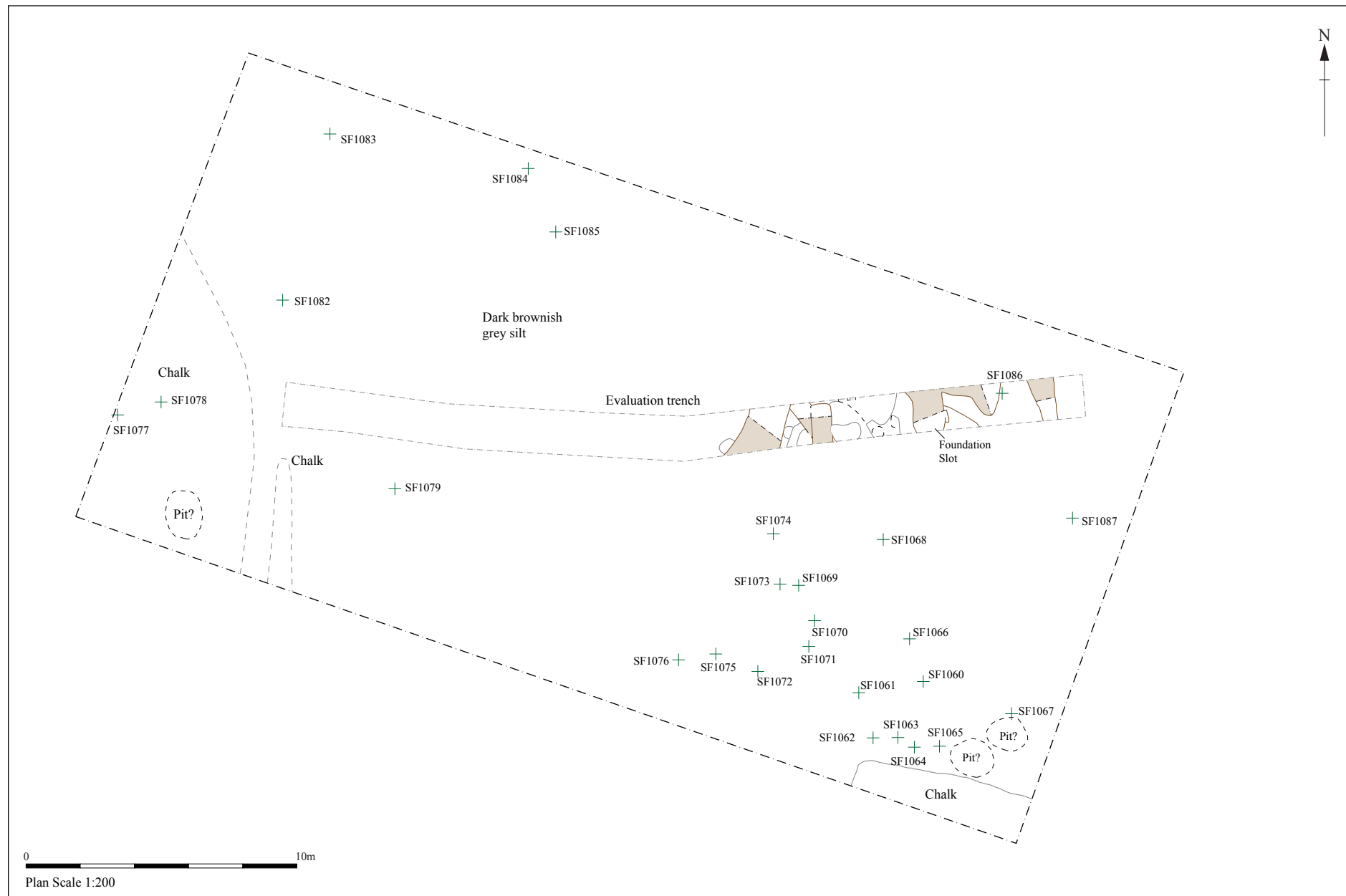


Figure 8. Plan of the monitored area (MUGA pitch), with evaluation results

## 5. The finds and environmental evidence

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Stephen Benfield

### 5.1 Introduction

The quantities of finds types collected during the evaluation (Fawcett 2010) and excavation (Benfield 2011) are listed in Table 1. A full quantification of all of the bulk finds by context is included as Appendix 4. A number of finds were allocated individual small find numbers. These are discussed separately below and are listed in Appendix 7.

Find type	No.	Wt/g
Pottery	479	7527
CBM	125	9858
Fired clay	50	328
Quernstone	59	428
Lead	1	31
Mortar	4	96
Stone	5	17
Burnt flint / heated stone	2	33
Fe nails	8	77
Charcoal	6	1
Tar?	1	8
Animal bone	1013	7454
Shell	170	2909

Table 1. Bulk finds quantities.

### 5.2 Pottery

#### Roman pottery

##### Introduction

The Roman pottery recovered totals 479 sherds, which have a combined weight of 7527g. The average sherd weight is 15.7 g and the Eve total is 6.57. The pottery was recovered from contexts in a number of cut features and from layers.

All of the sherds were divided between fabric categories using the Suffolk pottery fabric type series and were quantified by number, weight and by Eve (estimated vessel equivalence) for each fabric type. Vessel forms were recorded using the Suffolk (Pakenham) pottery type series (unpublished), supplemented by the Colchester, Camulodunum (Cam) type series (Hawkes & Hull 1947, Hull 1963). Horningsea form types were recorded where possible by reference to Evans 1991. Imported wares,

consisting of samian and *amphorae*, are referred to by common names following Webster (1996) and Tyers (1996) respectively. The Roman pottery is shown by fabric type in Table 2 and a full catalogue is provided in Appendix 5.

Fabric name	Fabric	No	% No.	Wt/g	% Wt	Eve
<i>Imported finewares</i>						
Central Gaulish samian (Lezoux)	SACG	7	1.5	35	0.5	0.15
East Gaulish samian	SAEG	2	0.4	29	0.4	0.07
<i>Sub-total</i>		9	1.9	64	0.9	0.22
<i>Imported coarsewares</i>						
Amphora	AA	5	1.0	522	6.9	0.20
<i>Local and regional coarsewares</i>						
Black burnished ware Type 1	BB1	2	0.4	21	0.3	0.13
Black-surfaced wares	BSW	19	3.9	254	3.4	0.63
Grey micaceous wares (black-surfaced)	GMB	11	2.3	106	1.4	
Grey micaceous wares	GMG	12	2.5	127	1.7	0.16
Horningsea	HOG	131	27.3	2551	33.8	1.92
Horningsea black surfaced	HOGB	13	2.7	178	2.4	0.24
Miscellaneous buff wares	BUF	2	0.4	23	0.3	
Miscellaneous sandy grey wares	GX	205	42.8	2119	28.2	2.47
Miscellaneous red coarse wares	RX	4	0.8	36	0.5	
Miscellaneous white wares	WX	2	0.4	11	0.1	
Miscellaneous white ware mortaria	WXM	2	0.4	96	1.3	
Verulamium region white ware	VRW	1	0.2	7	0.1	
White-slipped oxidised wares	WSO	13	2.7	73	1.0	
<i>Sub-total</i>		417	86.8	5602	74.5	5.55
<i>Late specialist wares</i>						
Hadham oxidised ware	HAX	7	1.5	31	0.4	0.06
Late shell-tempered ware	LSH	15	3.1	764	10.1	0.25
Nene valley colour-coated ware	NVC	16	3.3	287	3.8	0.17
Nene valley colour-coated mortaria	NVCM	9	1.9	211	2.8	0.12
Oxford white ware mortaria	OXWM	1	0.2	46	0.6	
<b>Sub-total</b>		<b>48</b>	<b>10</b>	<b>1339</b>	<b>17.7</b>	<b>0.6</b>
<b>Total</b>		<b>479</b>	<b>99.7</b>	<b>7527</b>	<b>100</b>	<b>6.57</b>

Table 2. Quantity of Roman pottery by fabric types

## The pottery assemblage

### *Imported finewares (samian)*

The samian consists of sherds from Central Gaul (Lezoux) and East Gaul. Samian from Central Gaul can be broadly dated to the 2nd century while that from East Gaul can be broadly date to the mid 2nd-mid 3rd century. The Central Gaulish samian includes sherds from plain vessels (0056, 0057, 0073), including the cup form Dr 33 (0073) and single sherds from two decorated bowls of form Dr 37. One sherd has part of a figure type of an eagle (0055) of which the left wing is present. The other sherd has small parts of three figure types in separate beaded panels and part of what is probably a circular medallion (0073). The East Gaulish samian consists of two sherds (0019 & 0088), one of which (0088) is the base from a bowl of form Dr 31 which can be dated to the mid-late 2nd to mid 3rd century.

### ***Imported coarsewares (amphorae)***

There are sherds from a minimum of two *amphorae*, but probably at least three are represented. Sherds in a coarse Spanish fabric type (0056, 0075) are almost certainly from one or more *amphorae* of form Dressel 20, the usual content of which is known to have been olive oil. The form is current in Britain from the mid 1st-early 3rd century. There is also a rim sherd (0063) and body sherds (0062, 0074) which are in a fine cream fabric. The rim sherd is from a Gaulish *amphora* of form Gauloise 4 (Peacock & Williams 1986 Type 27) sometimes referred to as Pelichet 47. This form is current in Britain from the mid-late 1st century to the 3rd century AD (Peacock & Williams 143) and is known to have been used to transport wine. The two other sherds are likely to be from another *amphora*. This is possibly also of Gaulish type, although the sherds are quite thick so that they may be from a different amphora type.

### ***Local and regional coarsewares***

The largest quantities of pottery in this group of fabric types are coarse greywares (Fabric GX) and Horningsea wares (Fabrics HOG & HOGB). Coarse greywares make up 43% of the Roman assemblage by number and 27% by weight. Horningsea products account for 32% of the Roman assemblage by number and 39% by weight.

A few numbered vessel types could be identified among the coarse greywares (Fabric GX). Potentially the earliest is from a probable dish with an inturned rim of form 6.21 (0063) which can be dated to the mid 1st-2nd century. A sherd from a panel dot beaker (0063) can also be dated to the late 1st-2nd century. However, most of the more closely datable sherds are of mid 2nd-3rd/4th or 3rd-4th century date. The most common recorded vessel types are bowls and dishes (which broadly copy Black-burnished ware forms) and jars. The bowls are of bead-rim type form 6.18 (0056, 0062, 0063, 0067) dated mid 2nd-mid 3rd century. The dishes are of form 6.19 (0055, 0081) and can be dated to the mid 2nd-3rd/4th century. Although eight jar rim sherds were recorded only a few were able to be identified to a form type. These are a slack shouldered jar from 4.5 dated mid 2nd-4th century (0074), a rim from a narrow mouth jar (0062), a rim and shoulder sherds from two rusticated jars (0062) and a narrow-mouth jar with a frilled rim of form 2.3 (0058). The two rusticated jars have thin angled lines of rustication around the shoulder and are of a type sometimes referred to as 'Icenian'. At Brancaster,

Norfolk, jars of this type are dated to the 3rd-early 4th century (Andrews 1985, 96 & figs 56-57 100.11-18). There is also a body sherd with a vertical burnished line (0073) which is probably from a beaker/jar copying a Black-burnished form, which can be dated to the mid 2nd-3rd century.

Products from the Horningsea pottery industry are present in two different fabrics, Horningsea grey wares (Fabric type HOG) and Horningsea black surfaced wares (Fabric type HOGB). Almost all of this pottery is in Fabric type HOG, which accounts for over 90% the Horningsea wares both by sherd number and weight. It should be noted that some sherds which might be from Horningsea vessels, but which were not able to be positively identified as such have been classified, according to fabric variation, as Fabric GX, Fabric BSW or Fabric WSO. The most common vessel forms in Fabric type HOG, judging by the rim sherds recorded, appear to be medium sized jars (Evans types 9-11 & 24-29), although some combed sherds are most probably from large storage jars and a rim sherd (0075) is also probably from a large storage jar (Evans types 1-9). The vessel forms recorded in Fabric type HOGB are also jars. Although none of the rim sherds could be positively identified to a particular numbered form type the vessel rims recorded suggest that they may correspond to Evans types 18-23, 26 & 42.

Other coarseware fabric types make up much smaller proportions of the pottery recovered. The vessels types represented in these fabrics are jars or jars/deep bowls, open bowls and dishes, although only a few numbered vessel form types could be recognised. In Black surface wares (Fabric BSW) the slack shouldered jar from 4.5 (mid 2nd-3/4th century) was recorded, also the flanged bowl 6.17 (late 3rd-4th century) and the bead-rim dish 6.18 (mid 2nd-mid 3rd century). Of note is a rim from a small jar or deep bowl which has a pale fabric covered with a black slip coating or wash which be seen clearly where it has run down the interior of the pot (0056). This vessel may be a Black surface Horningsea product (Fabric HOGB). Although the quantity of Black burnished ware category 1 (Fabric BB1) is small at just two sherds, these could be identified as from a bowl with incipient flange (6.17.1) of form Cam 304 (late 2nd-late 3rd/early 4th century) and a dish approximating to form 6.19 but with a double groove below the rim (0062). These double groove dishes and bowls appear to be very rare among BB1 vessels but are previously recorded at Colchester and it can be noted that they also appears on a few similar dishes in Black burnished ware category 2 (Fabric

BB2) at Colchester (Symonds & Wade 1999, 353 Fabric GA Type 25 & fig 6.34 nos 28-31; also 363 Fabric GB Type 25 fig 6.41 nos 42-44).

There are also a small number of coarseware sherds in buff (Fabric BUF) or white fabrics (Fabric WX) and from vessels with white or cream washed or slipped surfaces over red fabrics (Fabric WSO). These are probably mostly from closed vessels such as jars, deep bowls, flagons or beakers, but no numbered vessel form types could be identified.

### ***Late specialist wares***

The most common of the late specialist finewares are sherds of colour-coated ware from the Nene Valley potteries (Fabric NVC & NVCM), Late shell-tempered wares (Fabric LSH) and Hadham oxidised wares (Fabric HAX). There is also a sherd from an Oxford white ware *mortarium* (OXWM). All of these fabric types can be broadly dated to the period of the late 3rd-4th century.

The Nene Valley colour-coated wares can generally be dated to the late 3rd-4th century, although it should be noted that they might begin to appear slightly earlier - that is from about the mid 3rd century. Sherds of Nene Valley colour-coated ware were recovered from contexts 0051, 0053, 0055, 0056, 0057, 0058, 0062, 0069, 0080 & 0081. Many of these sherds are in a 'dirty' white or pale fabric with a matt, or slightly iridescent coloured slip which has degraded patchily exposing areas of the fabric at the surface and which are probably typical of the 4th century. Forms recorded are a 6.17 flanged bowl (dated late 3rd-4th century) and a sherd from the lower part of a lidded bowl 6.2, sometimes referred to as a 'Castor box' (0080). These were recovered from contexts 0051, 0055, 0056, 0058 & 0088. There are also nine joining sherds from a Nene Valley *mortarium* form context 0029. This type is of the 'reed rimmed' variety and is very similar to Perrin's M40/41 types (1999, 131), dated from the late 3rd to 4th century AD.

The recognisable vessel forms in shell-tempered wares are mostly large storage jars (0052, 0056, 0081 & 0088). One of the sherds (0088) is a rim from a large storage jar which has a thick, flat rim top. Only one other vessel type was recognised. This is a jar or deep bowl with a broad out-turned rim (0062). Although shell-tempered wares were



produced throughout the Roman period in the south midlands, they only became a major producer of regional significance in the late Roman period and can be dated to the late 3rd-4th century or 4th century (Tyres 1996). While the repertoire of these late production sites consists mainly of jars, bowls and dishes, the sherds here appear mostly to be from a small number of large storage jars. Shell-tempered storage jars of this type, commonly with rolled-over rims and decorated shoulders are known to have been produced in Kent from the late 1st-2nd century and small numbers are known from sites on the east coast including Colchester (Tyres 1996 193-94; Symonds & Wade 1999 Fabric HD Types 45 & 46). However there is little doubt that most or all of the shell-tempered recovered wares here are of late Roman date.

Sherds of Oxidised Hadham ware were excavated from 0051, 0055 & 0088. Two small sherds in this fabric were also recovered from processing bulk samples, one each from 0073 (3g) and 0074 (4g), and they are the latest dated sherds from these two contexts.

## **Discussion**

The date range of the pottery forms recovered spans the late 1st/early 2nd century-4th century. Apart from the ditch 0065, which produced a single sherd of 2nd-3rd century date, all of the other contexts contain pottery sherds which can be broadly dated to the mid 2nd-4th century or can be more closely dated to the late 3rd-4th century. Contexts in which the latest excavated sherds are dated mid 2nd-4th century are the fill of the ditch 0059 (0060), one fill (0075) within the pit 0078 and the gully 0083 (0087).

However, the ditch 0059 contains late Roman (late 3rd-4th century) pottery in the lower fills and late Roman pottery is also associated with other contexts in the pit 0078 (0073, 0074). The impression from the pottery is that most of the contexts are late Roman and the early Roman pottery appears to be scattered residual sherds in later dated contexts.

By far the largest quantity of pottery from any single feature comes from the pit 0078 which produced sixty-three percent of the whole Roman assemblage by number (278 sherds) and seventy-one percent by weight (4974g). Significant quantities (between thirty and forty sherds) were also recovered from the ditches 0050 & 0059 and the layer 0055. The quantity of Roman pottery from the ditch 0050 (0051) in relation to a single post-medieval sherd recovered from the same features suggests that the post-medieval sherd might be intrusive to this context.

A significant proportion of the Roman pottery consists of coarsewares from the Horningsea industry which is the closest of the major kiln groups to the site, located about fourteen miles to the south-west. These kilns were producing pottery from the late 1st century until at least the early 4th century (Evans 1991, 37-38) and appear to be supplying jars and most, if not all the large storage jars used on the site in the mid Roman period as sherds from vessels in other storage jar fabrics (Fabric STOR) were not recorded.

The mid Roman (2nd-3rd century) finewares recovered are all imported samian from Central and East Gaul and include mould decorated pieces from bowls as well as plain ware pieces from a cup and a bowl. The absence of any other regional finewares of 2nd- early 3rd century date from sources such as Colchester is notable, although this may not be particularly significant as pottery which can be generally dated to the 2nd-3rd century is present among the imported fine wares (samian) and the coarsewares. However, this may be an indication of a relatively low level of pottery on the site prior to the 3rd century. Of interest is a rim from a Gaulish *amphora* and *amphora* body sherds which are possibly from another. This suggests that wine from Gaul was being imported onto the site and may be considered as a more prestigious import than the more commonly found Spanish *amphorae* containing oil, which are relatively common on Roman sites. Also, a rim sherd from a Black burnished ware dish with a double groove which appears to be a rare type but has been recorded previously among assemblages at Colchester.

The most significant sources of the late Roman pottery are the Hadham potteries, the Nene Valley, providing fine colour-coated wares and the south midlands which is probably the source of the late shell-tempered wares, including large storage jars. While the late Roman pottery fabrics and types recovered are current until the end of the Roman period it is noted that pottery which is typical of very late Roman contexts, notably Oxford red colour-coated wares, was not present among the assemblage.

Assemblages of Roman pottery have been recovered from previous excavations at the Primary School (Goffin & Tester, 2009, Tester, 2010) and adjacent to it (Tester, 2001). The assemblage here is larger than these two and possibly as a consequence of this includes a number of specialist wares not previously recorded – decorated samian,

*amphorae* and a *mortarium*. However, in general the overall composition of the assemblage, both in terms of the relative importance of the various identified pottery sources and overall dating appears similar to those recovered previously.

## Post-Roman pottery

Stephen Benfield with identifications by Richenda Goffin

### Introduction

Only a small quantity of post-Roman pottery was recovered from two contexts. This consists of four sherds weighing a total of 30g. The pottery is listed by fabric in Table 3 and by context in Appendix 5.

Fabric name	Fabric	No	Wt/g	Date range
Dutch-type Redwares	DUTR	1	3	15th-17th century
Late post-medieval earthenwares	LPME	2	14	18th-20th century
Post-medieval slip ware	PMSW	1	13	17th-19th century
<b>Total</b>		<b>4</b>	<b>30</b>	

Table 3. Quantity of post-medieval pottery by fabric types

### Discussion

Overall, the dating of the post-medieval pottery spans the period of the 15th to 18th-20th century. The pottery consists of a single sherd from the ditch 0050 (0051) which is dated 15th-17th century and three sherds from the layer 0081 which span the period of the 17th century to 18th-20th century. The single small sherd (weight 3g) from 0051 may be intrusive to that context as a significant quantity of Roman pottery was also recovered from it.

## 5.3 Ceramic building material (CBM)

### Introduction

In total there are one hundred and twenty-five pieces and small fragments of CBM which together weigh 9859g. These are listed by type and fabric in Table 5. All of the CBM is listed by context in Appendix 6. The types of tile recorded are Roman *tegula* (TEG), Roman *imbrex* (IMB), Roman flue tile (FT), Roman brick or tile (RBT) other brick

(BR). These were divided between different broad fabric types based on a visual inspection. The fabrics are listed with count and weight in Table 4.

Fabric	Description	No	Wt/g
Fs	Fine sand	33	2253
Fsc	Fine sand with calcite inclusions	19	950
Fscp	Fine sand with sparse pale clay pellets	5	108
Fsfe	Fine sand with sparse ferrous fragments	1	107
Fsfe/pc	Fine sand with sparse ferrous fragments and sparse pale clay pellets	1	13
Ms	Medium sand	39	3936
Msc	Medium sand with calcite inclusions	18	1091
Mscp	Medium sand with pale clay pellets	1	367
Msfe	Medium sand and sparse ferrous fragments	5	895
Msfe/cp	Medium sand, sparse ferrous fragments and sparse pale clay pellets	1	22
Cs	Coarse sand	2	116
<b>Total</b>		<b>125</b>	<b>9858</b>

Table 4. CBM fabric descriptions

Fabric	TEG		IMB		FT		RB		RBT		BR	
	No	Wt/g	No	Wt/g	No	Wt/g	No	Wt/g	No	Wt/g	No	Wt/g
Cs											2	116
Fs	4	452	6	547	2	282	1	122	20	850		
Fsc	4	246	13	665					2	39		
Fscp			1	81								
Fscp									4	27		
Fsfe									1	107		
Fsfe/pc	1	13										
Ms	2	154	4	1212	3	147	2	844	24	1140		
Msc	9	665	9	426								
Mscp	1	367										
Msfe			1	44								
Msfe	1	162							3	689		
Msfe/pc			1	22								
<b>Total</b>	<b>22</b>	<b>2059</b>	<b>35</b>	<b>2997</b>	<b>5</b>	<b>429</b>	<b>3</b>	<b>966</b>	<b>54</b>	<b>2852</b>	<b>2</b>	<b>116</b>

Table 5. Count & weight by CBM fabric and form

Key: RBT=Roman brick & tile TEG=Tegula IMB=Imbrex FT=Flue tile RB=Roman brick BR=post-Roman brick

## Fabrics

The Roman CBM fabrics can broadly be divided into two groups, fine sand and medium sand. Although some pieces have some sparse fragments of pale clay or iron rich, ferrous inclusions, it is not clear to what extent these are significant. This is because they are sparse within the fabrics and may reflect a general presence of this material at a low level within the clay used. The two different quantities of sand (fine & medium) in the fabric are more distinct and may reflect different sources locally or regionally. It can be noted that the flue tile pieces occur in both sand fabrics and based on this do not

appear to represent a specialist production source separate from the other brick and tile.

In the tile from the evaluation it was noted that the *tegulae* fabrics appeared to be coarser than their *imbrex* counterparts, being either medium sanded (ms) with either clay pellets (mscp), iron ores (msfe) or calcite (msc).

## Discussion

The CBM recovered is almost entirely Roman, with just two pieces of post-medieval brick (0081) (116 g). One piece of tile (0080) might be thin Roman tile or possibly peg-tile (12g).

The Roman tile consist of pieces from roof tiles (*tegula* and *imbrex*), hypocaust box flue tiles with combed keying, Roman brick and miscellaneous pieces of flat brick or tile which are from roof tile or Roman bricks. Flat pieces with a thickness in excess of 30 mm are almost certainly from Roman bricks. All of the brick and tile is red in colour, although a few pieces are dark grey probably resulting from heating or scorching (0055, 0062, 0073 & 0081) and a few pieces from one context appear burnt (0063). Mortar is present on some original surfaces on some pieces, but does not extend across breaks so there is no indication that any of the Roman CBM had been reused in a mortared construction. Roof tile (*tegulae* and *imbrices*,) are the two dominant forms (Table 5). Three quarters of an *imbrex* was recovered from fill 0010. This tile had a width of 224mm and a maximum thickness of 15mm. The indications from the Roman CBM are that it probably derives from a building(s) with tile roofs and a hypocaust system located nearby.

Most of the Roman CBM pieces cannot be closely dated, with a few exceptions. The combed flue tile pieces can be dated to the period of the late 1st/2nd-4th century as they were not commonly in use earlier. A single lower cut-away on one *tegula* (0062), which cuts through the top of the flange is Warry Type C5. (2006, fig 1.3). In general this lower cut-away form appears typical of the mid-late Roman period (Warry dates this type to the period of the mid 2nd-3rd century), although this is only a dating guide, as similar lower cut-away types have been recorded from early Roman (1st century)

deposits elsewhere (Crummy 1984 fiche fig 203). The same is true for the two pre-firing nail fixing holes recorded (0062). These holes are much more commonly recorded on Roman *tegula* from deposits dating to the mid-late Roman period, but are recorded from earlier dated assemblages (Warry 2006, 103-104).

## 5.4 Fired clay

In total there are fifty pieces of fired clay with a total weight of 328g. All of this comes from the pit 0074 (0062, 0073, 0074) which also contained pottery dated to the late Roman period.

Most of the pieces are relatively small; however, there are two larger pieces (total weight 164g) from context 0074 which join together. The two pieces form part of a larger curved section with two surviving surfaces joining at right angles to each other along a slightly rounded edge (Pls. 7 and 8). All other surfaces are broken away. The curvature of the pieces suggests a radius of approximately 180mm. The surface which is on the interior of the curve survives to a maximum depth of 50mm and is covered in small gouges. It is not clear if these were made by fingers or by a small implement such as the end of a small trowel or knife-like object. They appear to result from pushing at the wet clay surface, during application, possibly to encourage it to stick. The other surface, on the top of the radius and which survives to a maximum depth of 15 mm, is undulating but relatively smooth. The fabric of the pieces appears silty with a mix of fine sand and rare small stones. It is relatively hard from exposure to significant heat, but the surfaces are not burnt or sooted. This heating has resulted in a pale, reddish-cream surface colour and the exposed internal areas are variously fired to a dull red, pale brown and pale grey. The nature of the pieces suggests they were possibly part of the rim or the edge to the mouth of a clay built oven.

The other pieces of fired clay recovered are essentially small lump-like fragments, some of which have a similar fabric and may be associated with the oven or structure from which the two larger pieces come. However, some have a rather more coarse fabric and may be from a different structure or a different section of the probable oven.



Plates 7 - 8. Fired clay oven fragments

### 5.5 Quernstone

Pieces of imported lava quernstone were recovered from two contexts. A total of fifty pieces and fragments, together weighing of 346g, were recovered from the pit 0078 (0063). Some of the pieces may retain part of an original surface, but this is not definite as the stone is degraded and none of the surfaces exhibit any dressing or tooling

marks. The thickest surviving piece retains a maximum depth of 35mm. A further nine fragments, weighing a total of 82g, were recovered from the layer 0081.

Two small pieces of Hertfordshire puddingstone, weighing 61g, from the lower fill of ditch 0050 (0051) are probably also from a rotary quern. One has a slightly battered, flat, or slightly convex face which may have been part of a grinding surface, or more probably part of the worked outer surfaces of a quern. Rotary querns in this type of stone can be dated to the late Iron Age-early Roman period of the 1st century AD (Major, 2004) although a few are known from late Roman contexts in Essex (Shaffrey, 2007).

A moderately large piece of faintly pinkish-grey gritstone, weighing 596g, from the layer 0055 might also be from a quern. While there is no trace of any working on this piece, gritstone was used for saddle querns in the prehistoric period and for rotary quernstones from the Roman period. In the absence of any traces of working it may be that this is a stray erratic rock, but it might well be a broken piece from a larger quernstone.

## 5.6 Iron nails

Seven iron nails and two probable nail fragments were recovered from five contexts and these are listed in Table 6.

Ctxt	Description	Length (mm)	Wt (g)
0058	rect shaft, bent 90 deg at tip, tip missing, bent at head, head missing	72	17
0062	rect shaft, bent at head, head missing	80	13
0063	poss comp, rect shaft, part of head missing	75	8
0063	frag, shaft	40	6
0063	lower part of shaft (point) recovered from bulk Sample 7		0.25
0067	prob nail head, circular, dia 20 mm	-	3
0080	poss comp, rect shaft, part of head missing, flat blunt tip	117	25
0081	comp, round head 12 mm dia, rect shaft tapering to point	40	3
0081	comp, round head 12 mm dia, rect shaft tapering to point	37	3

Table 6. Catalogue of iron nails by context

There are single or small numbers of nails from the pit 0078 (0062 & 0063), ditch 0059 (0058), ditch 0065 (0067) and ditch 0079 (0080). These are associated with finds of mid-late or late Roman date. Two nails were also recovered from the layer 0081 which contained pottery dated to the post-medieval period.



## 5.7 Miscellaneous other finds

### Lead

A single piece of lead has been recovered from the unstratified context 0001. It appears to be a piece of scrap and is therefore undatable (J. Carr pers. comm.).

### Mortar

A small, abraded and heat-affected piece of lime mortar came from the fill of 0006. The mortar is in a poor state of preservation. No ceramic fragments are present within its fabric as would be associated with *opus signinum* mortar. The fill also contained 2nd century pottery. Also, a few pieces of pale mortar with crushed red tile/brick fragments were recovered from two contexts which also contained late Roman finds. There are two small pieces (7g) from 0055 and one larger piece (81g) from 0063.

### Stone

Two small pieces of flint (3g), an unaltered natural piece and a broken piece from a larger stone, were recovered from 0051 and another small natural piece (8g) from 0053. Also, very small pieces (1g) of limestone (chalk) were recovered from 0053 (5g) and 0063 (1g).

### Burnt/heated stone

A small piece of burnt flint (32g) and a small flint stone (1g) which may have been discoloured red by heating were recovered from the pit 0078 (0063).

### Charcoal

Six small fragments of charcoal, together weighing 1g, were recovered from 0064.

### Unidentified

A small piece of hard, black vitreous looking material (8g) was recovered from 0051. This has the appearance of tar or asphalt and is possibly part of a modern surface,

## 5.8 Small finds

Stephen Benfield, with identifications of coins and metal objects by Andrew Brown (SCCAS PAS) and comments by Judith Plouviez and Helen Geake (PAS)

### Introduction

In total there are fifty-two small finds from the evaluation (SF1001-1004) and excavation (SF1050-1095). These are listed and described in Appendix 7. They will be discussed by period and major category.

### Roman

#### Coins

Thirty-eight Roman coins were recovered in total. Provisional identifications and dating are shown in Appendix 7 and a breakdown by date is given in Table 7.

Coin period/date	Total
Undated Roman	1
Early Roman	
1st-2nd century?	1
Late Roman	
Radiate (AD 260-296)	6
House of Constantine (AD 317-364)	24
House of Valentinian (AD 364-378)	2
Late Roman (unspecified)	4
<b>Total</b>	<b>38</b>

Table 7. Summary of Roman coins by date

The Roman coins are overwhelmingly late Roman copper alloy issues of radiates and nummi dating to the period of the mid-late 3rd to 4th century, with one probable early Roman coin dating to the period of the mid 1st-2nd century. The great majority of the late Roman coins are 4th century 'House of Constantine' (AD317-364) with a much smaller number of mid-late 3rd century radiates.

Almost all of the coins from the site were metal detected from soil layers or from spoil and have been individually plotted. Three coins (SF1057, 1058 & 1059), all of late Roman date, are noted as recovered from spoil. Only two coins were recovered from features. One is an extremely small, late Roman coin (SF1006) from the ditch 0021 (0019), the other is a coin of Theodora (House of Constantine) dated c AD 337-350 (SF1081) which comes from, the top fill of the pit 0078 (0056).

### Other Roman small finds

The majority of the other small finds were recovered from four fills of the Roman pit 0078. Although much of the pottery from this pit could only be dated to the mid 2nd-4th century, the most closely dated sherds are of late 3rd-4th century date with a few residual fragments closely dated to the 2nd-3rd century. Among the small finds a coin of Theodora (SF1081), dated c AD 337-350, was recovered from the upper fill (see above).

Other small finds from this feature are not closely dated. There is a near complete Roman copper alloy *ligula* (SF1089) (an elongated scoop with a small, round, flat head) from fill 0075 (Pl. 9). Part of a small chalk spindlewhorl (SF1098) was recovered from fill 0082 (Pl. 10), and one half (distal end) of a sheep metatarsal shaft (SF1099) from fill 0063. The bone object, as well as the spindlewhorl, is possibly connected with weaving. The bone has polish along and around the surviving length of the broken length of shaft and a number of fine cuts. Similar polish and damage to the bone surface can be seen on a number of sheep metapodials, thought to represent weaving implements, recovered from a pit of Iron Age date at Fairfield Park, Bedfordshire (Allen & Webley, 2007). There are also three pieces of pale blue-green coloured Roman vessel glass (SF 1094) (0075) and some crumbs of copper alloy (SF1090) (0063). A small iron point (SF1097) was recovered from a bulk sample (Sample 6) taken from fill (0074). This may be the end of a nail, however, the shaft might be swelling (or possibly terminating) 20mm back from the point and it might be from an object such as a goad or stylus. A rounded stone (SF1095) is probably a natural small flint cobble.

### Post-medieval and later

A number of the small finds can be dated as post-medieval or modern. These were also metal detected or recovered from soil or spoil and were individually recorded or plotted (Figs. 5 and 8).

A single post-Roman coin (SF 1092) is a silver penny of Charles I dated as 1625-1649. Other objects are a lead seal for cloth (SF1004) dated to the 16th-17th century, a copper alloy belt mount (SF 1069) of early post-medieval date and a decorative copper alloy handle (SF1083) which can be dated as modern. There are also a ring or washer

of copper alloy (SF1068) and a single piece of copper alloy wire (SF1066) of post-medieval or modern date.



Plate 9. Roman *ligula* (SF 1089)



Plate 10. Chalk spindlewhorl (SF 1098)

### Undatable or of uncertain date

A small, slightly irregular turquoise glass bead (SF 1050) might be part of the assemblage of Roman finds from the site but is more probably of modern date. The bead has been examined by Judith Plouviez and Helen Geake who comment that while possibly ancient (i.e. Roman or possibly Saxon) the colour and relatively shiny surface suggest that it might well be modern.

The undated objects include a small piece of lead from a sheet or thin bar (SF1065) and an elongated stone object (SF1080) recovered from layer 0054. The stone object (SF1080) is broken at one end and appears to have been battered at the other suggesting use as a pestle. A small flat area on one side may indicate that it has also been used as a hone. There is also a dirt lump which contains some iron (SF1061) and a fragment from an iron strip (SF 1096) which appears possibly to be of post-medieval or modern date.

## 5.9 Faunal remains

Julie Curl

### Introduction

A total of 7454g of faunal remains was produced from the evaluation and excavations. Only a small quantity (50 pieces, weighing 552g) was recovered during the evaluation and this mostly consists of small and fragmentary pieces which could not be closely identified; although some fragments of pelvis (0019) are likely to be horse (Fawcett 2010). The faunal remains from the excavation, consisting of 963 pieces weighing 6,902g, appear to be derived from the waste from domestic mammals and birds, with most of the waste coming from butchering and food disposal. Some background environmental evidence, including three species of rodent, was produced from sieved samples. All of the bone is listed in Appendix 8 (8A-8C).

### Methodology

The bone in this assemblage consisted of hand-collected and sieved sample material. All of the bone was identified to species wherever possible using a variety of comparative reference material. Where a complete identification to species was not possible, bone was assigned to a group, such as 'small mammal' or 'bird' whenever possible. The bones were recorded using a modified version of guidelines described in Davis (1992). Measurements (listed in the appendix) were taken where appropriate, generally following Von Den Dreisch (1976). Humerus BT and HTC and metapodial 'a' and 'b' are recorded as suggested by Davis (1992). Tooth wear was recorded following Hillson (1986).

Any butchering was recorded, noting the type of butchering, such as cut, chopped or sawn and location of butchering. A note was also made of any burnt bone. Pathologies were also recorded with the type of injury or disease, the element affected and the location on the bone. Other modifications were also recorded, such as any possible working, working waste or animal gnawing.

Weights and total number of pieces counts were also taken for each context, along with the number of pieces for each individual species present (NISP) and these appear in the appendix. All information was recorded directly into an Excel database for analysis.

A catalogue is provided in the appendix giving a summary of all of the faunal remains by context with all other quantifications along with measurements and a tooth record. The full faunal data record is available in the digital archive and has additional counts for species groups and elements present.

## The faunal assemblage

### *Quantification, provenance and preservation*

The remains were recovered from pits, ditch and gully fills and layers, with almost 70% of the material (by weight and count) produced from pit fills of a Roman date. Small amounts of bone were recovered from a late Roman to post-Roman pit fill and a Roman layer. A significant quantity of bone was also recovered from a post-medieval ditch 0050 (0051). Tables 8 and 9 show the quantification of the faunal assemblage by, period, feature, the number of fragments and weight.

Type	Period			Feature type Total
	Roman	Late Roman/ post-Roman	Post-medieval	
Ditch	37		97	134
Gully	3			3
Layer	55			55
Pit	671	100		771
<b>Total by date</b>	<b>766</b>	<b>100</b>	<b>97</b>	<b>963</b>

Table 8. Quantification of the faunal assemblage by number of fragments, feature and period.

Overall, the remains in the hand collected material are in good condition, although some fragmentation has occurred from butchering and wear. The bone from sieved samples was well preserved and included very small rodent bones and teeth, although generally the mammal bone was highly fragmented. Butchering was noted throughout the assemblage, with evidence of chops and cuts surviving well.

Type	Period			Feature type Total
	Roman	Late Roman/ post-Roman	Post-medieval	
Ditch fill	676g		333	1009g
Gully fill	65g			65g
layer	1003g			1003g
Pit	4704g	113g		4704g
<b>Total by date</b>	<b>6448g</b>	<b>113g</b>	<b>333g</b>	<b>6902g</b>

Table 9. Quantification of the faunal assemblage by weight, feature and period

Three gnawed bones were seen during the analysis, from a Roman pit fill, suggesting waste given to domestic or working dogs and disposed of with other waste. A few pieces of burnt bone were seen in a Roman pit fill and a layer of Roman date. Small amounts of burnt bone, some lightly charred and a few fragments which were fully oxidised and white, were seen; most were from pit fills and a single fragment from a layer. Most burnt bone was from Roman deposits, with a small amount from the late Roman to post-Roman pit fill. The burnt waste is likely to be domestic or cooking fire debris discarded with other rubbish.

### ***Species range, modifications and discussion***

A total of twelve species was identified; eight were mammals (including three species of rodents), three species of bird and one of herpetofauna. Quantification of the species by NISP is presented in Table 10.



Species	Feature type				Species Total
	Ditch	Gully fill	Layer	Pit fill	
Mammals:					
Cattle	7	1	11	53	72
Sheep/goat	11		4	12	27
Pig/boar			1	1	2
Equid	1			3	4
Mammal	101	2	38	673	814
Cat	2				2
Birds:					
Bird – No species ID				1	1
Duck				2	2
Fowl			1		1
Heron				1	1
Herpetofauna:					
Common Frog	6			2	8
Rodents:					
Woodmouse	6			11	17
Bank Vole				8	8
Water Vole				4	4
<b>Feature Total</b>	<b>134</b>	<b>3</b>	<b>55</b>	<b>456</b>	<b>963</b>

Table 10. Quantification (NISP) of species by feature type.

A greater proportion of the identifiable remains were cattle. The majority of contexts produced adult remains and one yielded juvenile bone. Most zones of the animal were seen, suggesting on-site processing and a range of meats. Butchering was seen throughout from processing and dismemberment and preparation of meat. Also, a very large cattle metacarpal was found in a post-medieval ditch (0051) which would suggest a bull or very large breed. The presence of a large bovid in this assemblage might suggest a large mature male which may have been for breeding purposes.

The remains of the sheep/goat were the second most commonly recorded species. While recorded as 'sheep/goat', no elements were seen that could be positively identified as goat and it is likely that most of the remains in this assemblage are of sheep. The ovicaprid remains were mostly adult. One juvenile was found which would be indicative of local breeding. The sheep/goat elements are largely the main meat-bearing bones; no foot bones were seen, which may be a recovery bias or it may suggest the skins were processed elsewhere. One distal metatarsal from a sheep had been butchered and trimmed around the mid-shaft and there were fine cuts along the shaft, along with a high degree of polishing, which would suggest some working,

perhaps for use as a handle or other tool (SF1099). One mature individual from a post-medieval ditch 0050 (0051) may have been kept for breeding and fleeces as well as for a supply of dung and milk.

Two butchered meat-bearing bones from pig/boar were found, one adult, one juvenile. Equid remains were seen in two fills, with a fragment of mandible and teeth in the 3rd to 4th century pit fill (0062) and an isolated tooth in a Roman ditch fill. Two pieces of a young cat tibia were produced from the lower fill of the post-medieval ditch 0050 (0051).

Bird bone consists of three species, including a juvenile fowl humerus, belonging to either domestic fowl or pheasant, which was recovered from late 3rd-4th century layer (0055). Two bones of duck (probably mallard) were seen in the late Roman to post-Roman pit fill (0082). An incomplete ulna of a heron was produced from the Late 3rd to 4th century pit fill (0063). The presence of juvenile fowl would perhaps suggest a breeding group of chickens on site. Duck and heron would either suggest hunting of local wetland birds or perhaps chance finds around site; both species are known to frequent ditches and even small ponds, with herons feeding on a range of fish, herpetofauna and even rodents up to the size of water vole.

Bones from three species of rodent were yielded from five samples. Elements of woodmouse (*Apodemus sylvaticus*) were seen in four fills. Three are from pits features. These are two Roman pits, (0056), (Sample 2) and (0074) (Sample 6) and bones were seen in the late Roman to post-Roman pit fill (0082) (Sample 3). Six bones were also recovered from the fill of a post-medieval ditch (0051) (Sample 9). Eight bones of a bank vole (*Clethrionomys glareolus*) were produced from the Roman pit fill (0062) (Sample 4) and four bones identified as juvenile water vole (*Arvicola terrestris*) were found in the Roman pit fill (0056) (Sample 2). Woodmice are common around human habitation and particularly where there is food or shelter in a harsher winter. Bank vole is a common species, again, found around human habitation and known to forage for food around buildings. Both bank vole and woodmice may be the natural deaths of resident animals or may have been uneaten victims of predators which were cleared away with other rubbish.

The water vole is a shy species, preferring to stay close to ponds and streams, but known from flooded ditches and not known to feed on anything other than waterside

plants, so the presence in a pit fill is interesting. The water vole is a juvenile and they often move from the breeding populations when they have had a successful year and there are high numbers and this may be a victim of the pitfall trap on its travels or it may have succumb to predators.

Herpetofauna bones were produced from three sieved samples, all identified as from common frogs (*Rana temporaria*). These frog remains were seen in two Roman pit fills, (0062) (Sample 4) and (0073) (Sample 5) and in the lower fill of the post-medieval ditch 0050 (0051) (Sample 9). The bones in pit fills might indicate pits left open for a period of time, which acted as pitfall traps for wandering frogs. The presence of frog bones in a lower ditch fill might suggest an individual that died while hibernating as they are known to bury themselves in the bottoms of damp ditches for the winter.

### **Conclusions**

The vast majority of the assemblage is from Roman contexts. The assemblage appears to be derived from domestic mammal and bird waste, with the bulk of the remains produced from butchering and food disposal. Some hunting is indicated by the heron, although it might seem that hunting was not essential to the diet and economy of the site and that requirements were met with the domestic stock.

The samples have helped to provide additional environmental evidence. The water vole and frog bones, along with those of duck and heron suggest bodies of water close by, with all of these species are known from ponds or lakes, but are able to survive with well flooded ditches if necessary.

The assemblage is broadly similar to other remains from the area, although there is some variation in the numbers of the three main domestic food species, although numbers at MNL570 were affected by the recovery of articulated remains, increasing species NISP, and none were seen in this assemblage (Curl 2008). The probable worked bone in this assemblage would suggest some form of industrial or craft activity.

The results from this area can add to those currently being assimilated from other adjacent sites at Beck Row (Curl, 2008 and forthcoming) and the remains compared

amongst these sites to determine the use of the area as well as use of the stock in Roman Mildenhall.

The ages of the sheep in this assemblage (mostly adult), would suggest animals primarily kept for wool, dung, breeding and milk as well as their eventual use for meat and other by-products. This is particularly so for a mature ovicaprid individual associated with a post-medieval ditch context. The presence in of a probable bull in the same post-medieval context might suggest remains of breeding stock, its heavy butchering possibly indicating an older animal culled for meat.

## 5.10 Shells

Oyster shells were recovered from many of the features. A small number of mussel shells were recovered from two features. The total quantities of these shell types are shown by features (cut number) and layer in Table 11. In total there are one hundred and twenty-three oyster shells with a total weight of 2776g. Almost all of these are complete, or near complete shells of good size, having an average weight of 22.5g. The mussel shells, of which there is a total of forty-seven weighing 125 g, are also complete, or near complete shells.

Feature (cut No) or layer.	Oyster No	Oyster Wt (g)	Mussel shell (No)	Mussel shell wt (g)
0006	2	54		
0022	1	10		
0050	12	92	46	121
0053	5	100		
0055	9	130		
0059	3	30		
0068	2	14		
0078	76	2113	1	4
0079	7	125		
0081	2	11		
0083	3	63		
0086	1	34		

Table 11. Quantities of marine shells by context

Almost all of the marine shell is from features or layers associated with pottery of late Roman date. The largest quantity of oyster shell associated with any one feature comes from the pit 0078 which contained 45% by number of the total number of shells. They were also recovered from the ditches 0050, 0059, 0068, 0079, gullies 0083 & 0086 and

layers 0053 & 0055. Two shells come from the layer 0081 which is associated with post-medieval pottery, but could be residual. Almost all of the mussel shell comes from one feature, the ditch 0050, which while containing a significant quantity of Roman pottery also produced one sherd of post-medieval date. One mussel shell was also recovered from the pit 0078.

Both of the shell types are of edible species and were clearly imported onto the site for consumption; the empty shells being discarded as rubbish. The oyster shells suggest they represent selected oysters of good size. The condition of the marine shells suggests that they were discarded soon after consumption.

Two examples (18g) of common garden snail (*Helix aspersa*) were also recovered. The first is a very small broken fragment present in slot fill 0011, and the second, which is whole, has been retrieved from ditch fill 0019.

## 5.11 Charred plant macrofossils and other remains

Val Fryer

### Introduction

This area of West Row appears to have been intensively used throughout the Roman period, possibly as a result of its proximity to other contemporary high status sites along the Mildenhall fen-edge. During excavation, nine samples for the retrieval of the plant macrofossil assemblages were taken as follows:

Sample No.	Context	Context type
Sample 1	0077	Occupation debris within Roman hollow 0076
Samples 2 – 8		Fills within Roman quarry pit 0078
Sample 9	0051	Fill with post-Roman ditch 0050

Table 12. Sample recovery by context

Initial evaluation of the assemblages (Fosberry, 2012) showed that plant macrofossils were present throughout, with cereals and chaff being particularly abundant. However, although full quantification of the assemblages was suggested, this has not been undertaken for the following reasons:

Three assemblages (Samples 1, 2 and 9) contain assemblages which are only marginally viable for quantification, i.e. contain <100 identifiable specimens in total.

The remaining six assemblages are all from secondary contexts, i.e. dump deposits within the quarry pit. Although informative, such assemblages cannot be directly linked to specific features or activities and are, therefore, of limited use to the overall interpretation of the site.

Therefore, this report is based on an overall assessment of the assemblages, with conclusions being made where, and if, possible.

The samples were bulk-floated by the Suffolk County Council Archaeological Service using standard methods, and the flots were collected in a 300 micron mesh sieve. The dried flots were sorted under a binocular microscope at magnifications up to x 16, and the plant macrofossils and other remains noted are listed in Appendix 9 (9A & 9B). Identifications were made by comparison with modern reference specimens and nomenclature within the table follows Stace (1997). Most plant remains are charred, but occasional mineral replaced seeds are also recorded, with these being denoted within the table by a lower case 'm' suffix. Modern roots, seeds and arthropod remains are also present. The density of material within each assemblage is recorded in the table as follows: x = 1 – 10 specimens, xx = 11 – 50 specimens, xxx = 51 – 100 specimens and xxxx = 100+ specimens. Other abbreviations used in the table are explained at the end of the text section.

## Sample composition

Cereal grains/chaff are present throughout, with weed seeds occurring less frequently. Preservation is variable. Some grains and seeds are very well preserved, but the majority are severely puffed and distorted (probably as a result of combustion at very high temperatures), and many of the chaff elements are also very fragmentary. The mineral replacement of some seeds may suggest that phosphate rich materials like dung or sewage were also present within the quarry pit fills (cf. the lenses of green material noted during excavation).

Oat (*Avena* sp.), barley (*Hordeum* sp.) and wheat (*Triticum* sp.) grains were recorded along with a moderate to high density of grains and grain fragments which are too poorly preserved for close identification. Wheat is predominant throughout, with elongated 'drop' form grains typical of spelt (*T. spelta*) occurring most frequently. However, a small number of more rounded hexaploid type forms were also recorded. A single germinated wheat grain with an attached sprout is present within the assemblage from Sample 4 (pit fill 0062). Double-keeled spelt glume bases are common or abundant within all but Sample 9. Spelt spikelet forks are present within Samples 3 (pit fill 0082), 6 (pit fill 0074) and 7 (pit fill 0063) and Sample 3 also contains an entire spelt spikelet, with the grains still tightly enclosed within the glumes. Barley grains, including asymmetrical lateral grains of six-row barley (*H. vulgare*), are present within all but Sample 7. Oats are scarce, although oat awn fragments are noted within four assemblages. As floret bases are not present, it is not possible to ascertain whether wild or cultivated varieties of oat are recorded. However, it would appear most likely that both the barley and the oats are present as contaminants of the main wheat crop.

Other cereal remains include detached sprouts and silica skeletons of both indeterminate awn fragments and spelt glume beaks. Although a single germinated grain was recorded (see above), other cereals displaying characteristics of germination (namely concave sides and hollowed apical ends) were not immediately apparent, despite the fact that detached sprouts were recorded within seven of the assemblages studied. One possible explanation for this is the very poor condition of many of the grains, which will have masked these characteristics, although it should also be noted that the detached sprouts may have been imported to the site along with other waste for use as kindling or fuel, and need not necessarily be indicative of on-site activities. The silica skeletons almost certainly formed during the well-aerated, high temperature combustion of cereal processing waste, which resulted in complete carbon loss, leaving only a silica 'shell'.

Weed seeds are present within all but Sample 9, although rarely as more than one specimen per assemblage. Common segetal taxa include orache (*Atriplex* sp.), brome (*Bromus* sp.), cornflower (*Centaurea* sp.), black bindweed (*Fallopia convolvulus*), corn gromwell (*Lithospermum arvense*), campion (*Silene* sp.) and scentless mayweed (*Tripleurospermum inodorum*). Grass (Poaceae) fruits and seeds of grassland herbs are also recorded, with taxa noted including medick/clover/trefoil (*Medicago/Trifolium/Lotus*

sp.), ribwort plantain (*Plantago lanceolata*), buttercup (*Ranunculus* sp.), dock (*Rumex* sp.) and vetch/vetchling (*Vicia/Lathyrus* sp.). Seeds of opium poppy (*Papaver somniferum*), a plant probably introduced by the Romans, are recorded within the assemblages from Samples 5 (pit fill 0073) and 6. Wetland plant macrofossils, including sedge (*Carex* sp.) and spike-rush (*Eleocharis* sp.) nutlets and a seed of lesser spearwort (*Ranunculus flammula*), are present at a low density within all samples from the quarry pit and also from hollow 0076. A single, large fragment of hazel (*Corylus avellana*) nutshell is recorded within the assemblage from Sample 3. Comminuted charcoal/charred wood fragments are present throughout. Other plant macrofossils occur less frequently, but do include indeterminate culm nodes and inflorescence fragments. Small pieces of mineral replaced wood are recorded within the assemblages from Samples 7 and 8 (pit fill 0075).

The fragments of black porous and tarry material, the siliceous globules and the vitreous concretions are all probable residues of the combustion of organic remains (including cereal grains, chaff and straw/grass) at very high temperatures. Other remains are scarce, but do include small pieces of bone, fragments of eggshell and fish bones.

Although specific sieving for molluscan remains was not undertaken, shells (including a small number of burnt/scorched specimens) are present at varying densities within all nine assemblages. Several specimens, which retain good coloration and delicate surface structures, may be relatively modern in date (i.e. introduced by bioturbation or other subsequent disturbance of the deposits), but those shells which are bleached and/or abraded are possibly contemporary with the contexts from which the samples were taken. All four of Evans (1972) ecological groups of terrestrial taxa are represented, with open country and catholic species occurring most frequently. A limited range of freshwater obligate species is also represented, most notably taxa particular to small bodies of water prone to seasonal drying.

## Discussion

For the purposes of this discussion the samples are dealt with by date and context type.



## **Roman quarry pit 0078**

Seven of the assemblages are from sequential fills within quarry pit 0078, a large feature recorded at the south-eastern corner of the excavation area. Although the overall similarity of the assemblages suggests that they are all derived from the same or similar sources, a sequence of activities is indicated, with the residue from each being placed within a feature which was both available and, presumably, nearby. How long it took to infill the pit is not known, but if the mollusc shells are an accurate indicator of the Roman environment, a period of several months or years may be inferred, as fill three (Sample 7) appears to have accumulated whilst the pit was wet or water filled. All seven assemblages are primarily composed of cereal processing waste, although in the absence of any corroborative archaeological evidence, it is impossible to state whether this material is derived from a primary context, i.e. indicative of actual on-site cereal processing, or a secondary context, i.e. processing waste imported from elsewhere and used as tinder or fuel. The latter practise is certainly known from a number of other contemporary sites within East Anglia and the east midlands, where waste was imported to fuel both ovens and kilns used for a range of domestic and light industrial purposes. Given this possibility, it may be worth noting that within pit 0078, fills 0073 and 0074 did include fragments of fired clay, which have tentatively been identified as parts of an oven or kiln.

Whether the current material is derived from a primary or secondary source, it is clear that the production and processing of grain were of considerable importance to the local economy. The processing of glumed wheat, which is the primary grain represented within the West Row assemblages, was a lengthy process involving several separate and distinct stages. Firstly, the wheat would be threshed to remove the spikelets from the ear. These spikelets could then be stored whole to prevent rotting (cf. deposits at Stanion Villa, Northamptonshire (Fryer, forthcoming) or Verulamium (Fryer 2006)), with further processing of smaller batches of cereal occurring as and when necessary, possibly even on a daily or weekly basis, depending on the local demand for grain. This further processing could include additional threshing, winnowing, parching and sieving, with each stage producing waste in the form of culm fragments, weed seeds and chaff. The fully processed grain would then either be used (after a final hand sort to remove any larger contaminants like, for example the brome fruits of corn gromwell seeds) or sold on. Although the composition of the current assemblages suggests that they are mostly derived from sieving (i.e. containing small seeds, rachis internodes and chaff

elements (Stevens, 2003)), waste products from other stages of processing may also be present along with evidence for other activities or occurrences, which may have taken place in the near vicinity. For example, the deliberate germination of cereals prior to malting could explain why detached sprouts are recorded within all seven assemblages. Whether malting was occurring on or near the site is not known, but it is probably of note that, when compared to samples from a nearby Roman maltings at Beck Row (Fryer 2004), the overall density of material within the West Row assemblages is very low. However, it is entirely possible that the current remains are derived from small batches of malt, which were imported from Beck Row, to be used for the day-to-day preparation of small quantities of ale. Cereals could also accidentally germinate during storage, particularly if the stores were damp or poorly sited. If early germination were detected, immediate processing would take place to save as much of the crop as possible, with the resulting 'dross' being burnt. This may explain why the assemblages are relatively cereal rich, although it should be stated that moderate to high densities of grain can also occur within parching contexts, as this was a process which, if poorly supervised, could result in catastrophic fires and a considerable loss of product.

### **Roman hollow 0076**

Sample 1 is from a thin layer of occupation debris contained within hollow 0076. Although situated several metres away from the quarry pit, the recovered assemblage is essentially the same as the material within the pit fills, containing both processing waste and cereals. This is probably not that surprising, as such detritus could easily be dispersed either manually or by the wind, and indeed, the density of material within the hollow is so low that accidental accumulation is, perhaps, most likely. However, it is possibly of note that the preservation of the few grains recorded within this assemblage is particularly bad, with puffing and distortion being so acute that combustion on repeated occasions may be represented. Such an assemblage could be indicative of either hearth waste, where cereals were accidentally burnt during culinary preparation, or drying/parching waste (see above).

### **Post-Roman ditch 0050**

Although moderately large in volume (0.2 litres), this assemblage is almost entirely composed of mollusc shells. Plant macrofossils are exceedingly scarce, and it is, perhaps, most likely that the few which are recorded are derived from earlier material,

which was disturbed during the cutting of the ditch. The mollusc assemblage appears to indicate that the ditch was open (i.e. minimal shade) and probably situated within an area of short-turfed grassland. It was also at least seasonally waterfilled, although probably prone to drying during the summer months.

## **Conclusions**

In summary, accurate interpretation of the material from West Row is difficult for a number of reasons, including the small number of samples available for study, a lack of corroborative evidence for any contemporary activities and the apparently complex taphonomy of the assemblages. It would appear most likely that the majority of the plant macrofossils are primarily derived from early stage processing waste, although detritus from other activities is almost certainly also present. However, it is unclear whether any of this waste was generated by on site activities, whether it was imported as fuel or whether both processes are represented.

That cereal production and processing were of importance to the local economy during the Roman period is not in doubt, with major centres of activity based along the Mildenhall fen-edge at, for example, Beck Row (Bales 2004). The composition of the weed assemblages from the current samples suggests that although some grassland areas were almost certainly being cultivated for the first time, probably largely as a result of the introduction of heavier and more efficient ploughs, there was little or no expansion into the more marginal wetland areas. This hypothesis is supported by the composition of the mollusc assemblages, which indicate that open grassland conditions were locally prevalent, although some features were susceptible to seasonal inundations.

## 5.12 Discussion and significance of the finds

The closely datable finds recovered are of Roman and post-medieval date. It can be noted that previously prehistoric and medieval finds have also been recovered from excavations at the school (Goffin & Tester 2009, Brown 2010, Pendleton 2010) but no finds from the present excavation can be dated as prehistoric or medieval.

With the exception of one layer, which produced pottery of post-medieval date, all of the excavated contexts appear to be Roman. There is little indication from the finds of Roman occupation prior to the period of the late 1st or early 2nd century, although one puddingstone fragment which is almost certainly from a quern and probably dates to the mid-late 1st century was recovered. Pottery which can be dated to the 2nd-3rd century is relatively common, although mostly as residual sherds in later dated contexts. However, most of the contexts contain late Roman (mid/late 3rd-4th century) pottery, or can be shown to be of late Roman date. It can be noted that the latest closely dated Roman pottery types (notably Oxford red colour-coated ware) were not present among the sherds recovered. A single sherd of post-medieval pottery from the ditch 0050; may be intrusive as the remainder of the pottery from that feature is Roman.

The majority of the Roman coins, thirty-eight in total, are of later 3rd to mid 4th century date with and one dating to the mid-late 4th century. Only two these, one dated late Roman and another of early-mid 4th century date, were excavated from one of the features. There is also one coin which is probably of 1st-2nd century date.

Overall the more closely dated finds suggest a site starting in the early-mid Roman period, with some access to more refined Roman imports of wine and decorated samian wares, extending into the mid/late 3rd to 4th century when it appears that most of the fills of the excavated contexts were being deposited.

Overall, much of the Roman finds assemblage - pottery, faunal and plant macrofossil remains - represents, reflects or is associated with the processing, storage, preparation of food stuffs and probably the cooking and serving of food and drink. The animal remains are primarily from domestic butchery waste, primarily cattle with lesser numbers of sheep which were probably primarily kept for wool production. Duck bones may suggest some hunting, but this appears as a very minor part of the activities or economy and together with remains of heron, vole and frog indicate open water nearby.

Sea food, consisting of oysters and mussels must have been imported onto the site during the late Roman period as once consumed they had been deposited into the contexts whole with little or no sign of abrasion or further damage. The plant macrofossils represent primarily carbonised foodstuffs, almost entirely cereals, with waste from cereal processing. Bread making and baking are indicated by fragments from regional and continental imported quernstones and also possibly by two fired clay pieces which are probably from the mouth of an oven.

The Roman brick and tile recovered appears to derive from a building (or buildings) with tile roofs and hypocaust areas which had either been demolished or refurbished by the late Roman period. Fragments of mortar mixed with crushed tile suggest foundations, walls or floor surfaces which were of reasonable quality. However, there is no plaster and the quantity of mortar recovered is very small. This suggests that the tile could have been brought to the site for reuse in non-mortared structures or foundations, although much appears to have eventually been dumped as broken pieces into open features.

The large quantities of finds which are associated with the late Roman fills in the pit 0078 appear to provide a broad view of aspects of the site during this period. Although much of the pottery from it is dated to the mid 2nd-4th century the most closely dated pottery is late 3rd-4th century. There are also one or two residual sherds can be closely dated to the 2nd-3rd century. The pottery vessels represented appear to be dominated by coarseware jars or storage jars from the Horningsea potteries and sources in the south midlands. There is also a quantity of Roman CBM including roof tile and combed flue tile pieces. Among several small finds is coin of Theodora, dated to c AD 337-350 from the upper fill (SF1081). There is also a near complete copper-alloy *ligula* (Pl. 9). Weaving is evidenced by a spindlewhorl (Pl. 10) and a broken, polished sheep metatarsal is possibly also a weaving implement. Deposits of crop waste most probably represent episodes of crop processing, but are possibly also from fuel waste which might possibly have been imported onto the site. Two pieces of fired clay which are most probably from an oven may be associated with this burnt waste (Pls. 7 and 8). There are also pieces of imported lava quernstone. Bones of woodmouse, which are common pests of human food and shelter, were also recovered from the fill. Other animal bones include the remains of all three main domesticates, cattle, sheep and pig.

The post-medieval finds are a small, disparate collection ranging in date from the 15th-17th century to 18th-20th century. Of note is a silver penny of Charles I (dated 1625-1649) but the quantity of pottery and other finds of post-medieval date is very small suggesting that much results from a mixture of incidental activity and agricultural activity relating to a nearby settlement. The remains of a mature sheep indicate an animal primarily kept for wool and bones from a bull suggest breeding of stock.

## 6. Discussion

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Well preserved archaeological levels across both areas of the site revealed several cut features, a buried dark earth and substantial quantities of finds below 0.2m of modern layers or 0.3m of topsoil and subsoil. Occupation of the sites appears to have been mainly during the Roman period (largely within the 3rd and 4th centuries) with limited medieval/post-medieval features also recorded. Post-medieval finds were recovered from the site in limited numbers.

### 6.1 Roman

Roman occupation on the site was present between the late 1st to late 4th centuries, becoming increasingly intensive in the 3rd and 4th centuries. There is also a possible reduction of activity during the 2nd-3rd century. This is shown by the quantity and range of finds, as well as the concentrations of features established in the evaluation and the excavation. The features may be consistent with what would be expected with an agricultural farmstead functioning as an outlying but occupied unit falling within the influence of the MNL 064 villa site to the north, as suggested in the evaluation report (Craven, 2010). However the presence of fairly substantial quantities of tile from this site as well as further CBM and decorated plaster from nearby sites, suggests a domestic building of some importance within its own right must have been positioned in close proximity. The presence of the foundation slot within the excavation would tend to corroborate this.

It is clear from the crop processing waste, quernstone fragments, butchered bone, marine shells, broken pottery and more general waste, that the site was close to an area of food processing and consumption. This is given further credit by the discovery of pieces of a possible clay structure within the fills of pit 0078, which could relate to corn-drying, bread ovens and brewing. It also appears that certain groups of the local population were using and consuming items of considerable value, which was demonstrated by the presence of imported foodstuffs and drink, notably wine, and some of the finer pottery.

The area must have seen a significant level of human activity, as is proven by the quantities of finds recovered from pit 0078 and layer 0091. This layer would have built

up through the gradual deposition of relatively large quantities of pottery, CBM, animal bone and other organic material. The number and the date of coins present supports the dating evidence provided by the pottery that the site was probably continuously in use in the later Roman period. The coins were mainly located in the sports pitch area, although four were also found in the new classroom development. Most of the coins were late Roman (3rd-4th century) and their presence is not atypical on a relatively active late Roman site, whilst 1st and 2nd century coins are generally much more rarely recovered, due to their higher value and lower production quantities (Brown, pers. comm.).

The function of late Roman feature 0078 is probably for chalk extraction, with similar large and enigmatic features found elsewhere on Roman sites in Suffolk. Examples include pit 2924 at MNL 598 (Pl. 4, The Smoke House, Mildenhall, Craven, in prep.) which also produced high levels of mid 2nd to late 4th century pottery, as well as pit 0030 at FSM 021 (Pl. 3, Hollow Road Farm, Fornham St Martin, Beverton, in prep.), which produced lower levels of mainly 2nd to 3rd century Roman pottery. The use of the features for chalk extraction would explain the need to dig a relatively large feature in this otherwise hard material. Chalk would have been in use at the time in order to extract lime either for agriculture or to produce mortar and plaster. It is notable that at both MNL 598 and FSM 021 the pits specifically appear to have targeted chalk patches in the geology, amidst wider areas of sandy soils. A secondary use for pit 0078 may have been for refuse. It is unlikely that this was the primary use for the feature, as waste material was clearly also being deposited outside of cut features. The number of distinct contexts might suggest that the pit was probably open for a prolonged period (or at least not backfilled in one event), as does the presence of bullrush and spike-rush remains in two of the lower fills. However the presence of possibly associated fired clay in fills 0062, 0073 and 0074 may indicate that these contexts were backfilled contemporaneously with one another or over a short period. The pit's infilling appears to have occurred within the late 3rd – 4th centuries and the lower levels of earlier pottery are probably indicative of redeposited material. The distinctive range of small finds from the various fills (spindlewhorl, scoop/pin, nail/stylus/goad, glass, coins and copper fragments), demonstrates the varied range of activities that were occurring nearby and suggest that people were not only engaging in farming and other light industrial processes, but also living close to the site.



The other notable Roman deposit on the site consists of the sporadic and limited remains of layer 0091. This highly organic material contained a range of finds that are almost entirely later Roman and they echo, in lower quantities, the material from pit 0078, although the quantities are not clearly comparable due to the limited survival of layer 0091. An environmental sample of the material from hollow 0076/fill 0077 produced evidence of crop processing like those from pit 0078. With this in mind it is highly likely that the layer and pit fills formed at the same time and at least partially as a result of similar processes. The overall extent of the layer were not established due to its limited survival, although a similar layer was present in the playing field monitoring which produced the coins in the area. A layer recorded in the excavation of MNL 612 as 0072 may well also be a continuation of layer 0091 or something similar.

It is interesting to note that whilst there was CBM present in the evaluation and contexts within the excavation, there was a lack of any clear structures or buildings. Whilst the main villa site appears to be to the north, foundation slot 0009 in the evaluation works suggested the presence of some sort of building in the immediate area. As considered in the finds discussion, the CBM may relate to a building off-site (but close by) that was later demolished, with perhaps some re-use for various purposes on this site. This may be reflected by the lack of structural features found in these works, although this is more likely the result of the monitoring area not fully exposing the cut features in the area where slot 0009 was found.

Feature 0079 may well be very late Roman as it cut layer 0081 (part of group 0091), which in itself was forming until the late Roman period. It also contained post-medieval CBM although this is likely to be intrusive, particularly as there was also intrusive CBM within surrounding layer 0081 and as it is clear that there had been some disturbance of the archaeological levels. The feature perhaps forms the bottom of a pit, or the remnants of a very shallow ditch cut, the base of which was undulating in the chalk.

A further late Roman feature recorded as 0083 cannot be discussed meaningfully as it only survived partially. However, it is likely to be late Roman as it cuts pit 0078 but it produced Roman pottery and contained a similar fill to those present in the other Roman contexts.

## 6.2 Post-Roman features

After the Roman period the site appears to fall largely into disuse until ditches 0089 and 0090 were cut across it. Although they only produced Roman finds, they are likely to be significantly later. This is evident as ditch 0089 cuts late Roman feature 0078 and in turn, ditch 0089 is then cut by ditch 0090. Also, the sample taken from ditch 0090 produced a notably different assemblage to those from pit 0078 and hollow 0076, consisting of snail shells and relatively little crop processing waste. This suggests it was perhaps a field boundary that partially filled with some redeposited crop waste (probably from Roman layer group 0091), and not a feature that was open within the intensively occupied Roman landscape. Another reason to doubt the Roman provenance of the two ditches is their shape in section. Although this is a generalisation, Roman ditches are often distinctly V-shaped in section, whilst both 0089 and 0090 had flat, wide bases. Therefore the ditches are, at their earliest, very late Roman.

It is more likely however that the two ditches are either medieval or post-medieval. This is thought to be the case because the ditches are parallel and at 90° respectively, to those on MNL 612, (which are here reinterpreted as medieval or post-medieval), suggesting that they are part of a larger field system. The ditches on MNL 612 were thought to be Roman due to some of the finds, although several of their fills also contained medieval pottery. It is also notable that they line up with the road to the north; an alignment that is likely to be of medieval origin, being associated with the medieval village core and one of the crossroads in the settlement. However, both the Roman and medieval finds were heavily abraded, which may indicate that the features were even post-medieval, at which time the map evidence indicates that the road layouts remained unchanged. Work on the MNL 193 to the south also uncovered a post-medieval ditch on a similar alignment to ditch 0089 (Gill, 2001). Therefore, whilst this is a theory that would benefit from further archaeological intervention in the area, it is proposed that ditches 0089 and 0090, as well as those from MNL 612, are post-medieval. These would have been dug through the Roman dark earth and thus incorporated finds from this layer. This would tend to indicate that the site probably existed as an area of field systems during this phase.

## 7. Conclusions

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The excavation and monitoring works have further expanded the understanding of the Roman occupation of the area, as well as revealing a post-medieval phase. The remains are well-preserved, although modern activity has truncated and disturbed some of the material.

The Roman occupation of the site is characterised as an area where the remains of food preparation were deposited, suggesting that the practices of crop-processing, butchery and possibly brewing were occurring close by. This was probably from the late 1st to late 4th century, with an increase in the 3rd and 4th centuries and a possible drop between the mid 2nd to 3rd century. There is also potential evidence for breeding of animals, namely cattle and ovicaprid stock in the areas as well as chalk lime extraction, which may have been for construction of local buildings, or agriculture.

In terms of the site's role within the wider area, it is clear that a relatively varied selection of foodstuffs (some of which were relatively high status) and other goods were being brought to and/or produced here. Such an area may have been a subsidiary unit (an occupied farm and production area) to the main villa, functioning as a locus where these goods would then be processed and later distributed for use by the local leaders. However, the presence of a foundation slot in the evaluation and CBM and plaster from the various archaeological works in the area would indicate an on-site building of some importance that was not uncovered. Some of the other items found on the site such as imported foodstuffs and pottery, would also tend to indicate waste from items that were beyond the means of the general populace. On an even larger scale, it is also possible that the goods from such farm/production areas, (which seem to exist throughout many parts of Mildenhall and Lakenheath throughout the Roman period), may have functioned as villa estates to supply on a scale beyond that of the local elite, perhaps to the military (Tester, pers. comm.).

The area's function during the post-medieval period seems to have been in keeping with much of the fenland zones, operating as a series of field systems. These required an extensive drainage network in order to be suitable for agricultural use and often took the form of rectangular strip fields aligned with existing roads, as appears to be the case on this site.

## 8. Archive deposition

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Paper and photographic archive: SCCAS Bury St Edmunds R:\Environmental Protection\Conservation\Archaeology\Archive\Mildenhall\MNL 637 West Row Primary school extension\Excavation

Finds and environmental archive: SCCAS Bury St Edmunds. Store Location: I/93/4

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The project was directed and managed by Andrew Tester, who also provided advice during the production of the report.

The post-excavation was managed by Richenda Goffin. Finds processing was carried out by Jonathan Van Jennians, and the production of site plans and sections by Ellie Hillen and Gemma Adams. The finds report was written by Stephen Benfield, with contributions from Richenda Goffin, Andrew Brown, Jude Plouviez, Helen Geake, Julie Curl, Val Fryer and Rachel Fosberry.

The report was checked by Andrew Tester and Richenda Goffin.

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## **Brief and Specification for Excavation**

### **WEST ROW PRIMARY SCHOOL, BEECHES ROAD, MILDENHALL, SUFFOLK**

***Although this document is fundamental to the work of the specialist archaeological contractor the developer should be aware that certain of its requirements are likely to impinge upon the working practices of a general building contractor and may have financial implications***

#### **1. The nature of the development and archaeological requirements**

- 1.1 Planning permission has been sought from Suffolk County Council for the construction of a new 130 sqm extension at West Row Primary School, Beeches Road, West Row, Mildenhall (TL 6726 7641). **Please contact the applicant for an accurate plan of the site.**
- 1.2 The Planning Authority has been advised that any consent should be conditional upon an agreed programme of work taking place before development begins in accordance with PPS 5 *Planning for the Historic Environment* (Policy HE12.3) to record and advance understanding of the significance of the heritage asset before it is damaged or destroyed.
- 1.3 A trenched archaeological evaluation of the site has been undertaken in 2010 by SCCAS Contracting Team (SCCAS Evaluation Report 2010/157; HER no. MNL 637). The evaluation defined occupation features dating to the Roman period below a buried topsoil. These are indicative of further Roman occupation deposits within this area. There is high potential for heritage assets of archaeological interest to be defined at this location.
- 1.4 The Conservation Team of the Archaeological Service of Suffolk County Council (SCCAS/CT) has been requested to provide a specification for the archaeological recording of archaeological deposits that will be affected by development – archaeological mitigation in the form of preservation by record (i.e. excavation). An outline specification, which defines certain minimum criteria, is set out below.
- 1.5 Failure to comply with the agreed methodology may lead to enforcement action by the LPA, if planning permission is approved with a condition relating to archaeological investigation.

#### **2. Brief for Archaeological Investigation**

- 2.1 Full archaeological excavation is to be carried out prior to construction of the new extension.
- 2.2 This project will be carried through in a manner broadly consistent with English Heritage's *Management of Archaeological Projects*, 1991 (MAP2). Excavation is to be followed by the preparation of a full archive, and an assessment of potential for analysis

and publication. Analysis and final report preparation will follow assessment and will be the subject of a further updated project design.

- 2.3 In accordance with the standards and guidance produced by the Institute for Archaeologists this brief should not be considered sufficient to enable the total execution of the project. A Written Scheme of Investigation (WSI) based upon this brief and the accompanying outline specification of minimum requirements, is an essential requirement. This must be submitted by the developers, or their agent, to SCCAS/CT (9-10 The Churchyard, Shire Hall, Bury St Edmunds IP33 2AR; telephone/fax: 01284 352443) for approval by the Planning Authority (assuming this work is undertaken as a condition of the planning permission). The work must not commence until this office has approved both the archaeological contractor as suitable to undertake the work, and the WSI as satisfactory.
- 2.4 The WSI will *provide the basis for measurable standards* and will be used to establish whether the requirements of the planning condition will be adequately met; an important aspect of the WSI will be an assessment of the project in relation to the Regional Research Framework (*E Anglian Archaeology* Occasional Papers 3, 1997, 'Research and Archaeology: A Framework for the Eastern Counties, 1. resource assessment', and 8, 2000, 'Research and Archaeology: A Framework for the Eastern Counties, 2. research agenda and strategy').
- 2.7 Before any archaeological site work can commence it is the responsibility of the developer to provide the archaeological contractor with either the contaminated land report for the site or a written statement that there is no contamination. The developer should be aware that investigative sampling to test for contamination is likely to have an impact on any archaeological deposit which exists; proposals for sampling should be discussed with SCCAS/CT before execution.
- 2.8 The responsibility for identifying any restraints on archaeological field-work (e.g. Scheduled Monument status, Listed Building status, public utilities or other services, tree preservation orders, SSSIs, wildlife sites &c.) rests with the commissioning body and its archaeological contractor. The existence and content of the archaeological brief does not over-ride such restraints or imply that the target area is freely available.
- 2.9 All arrangements for the excavation of the site, the timing of the work, access to the site, the definition of the precise area of landholding and area for proposed development are to be defined and negotiated with the commissioning body.
- 2.10 The developer or his archaeologist will give SCCAS/CT ten working days notice of the commencement of ground works on the site, in order that the work of the archaeological contractor may be monitored. The method and form of development will also be monitored to ensure that it conforms to previously agreed locations and techniques upon which this brief is based.

### **3. Specification for the Archaeological Excavation**

The excavation methodology is to be agreed in detail before the project commences. Certain minimum criteria will be required:

- 3.1 Topsoil and subsoil deposits (see 3.4) must be removed to the top of the first archaeological level by an appropriate machine with a back-acting arm fitted with a toothless bucket. All machine excavation is to be under the direct control and supervision of an archaeologist.
- 3.2 If the machine stripping is to be undertaken by the main contractor, all machinery must keep off the stripped areas until they have been fully excavated and recorded, in accordance with this specification. Full construction work must not begin until excavation has been completed and formally confirmed in writing to the LPA by SCCAS/CT.



- 3.3 The top of the first archaeological deposit may be cleared by machine, but must then be cleaned off by hand. There is a presumption that excavation of all archaeological deposits will be done by hand unless it can be shown there will not be a loss of evidence by using a machine. The decision as to the proper method of further excavation will be made by the senior project archaeologist with regard to the nature of the deposit.
- 3.4 Provision should be made for hand excavation of any stratified layers (e.g. dark earth) in 2.50m or 1.00m squares, to be agreed on the basis of the complexity/extent of such layers with SCCAS/CT. This should be accompanied by an appropriate finds recovery strategy which must include metal detector survey and on-site sieving to recover smaller artefacts/ecofacts.
- 3.5 All features which are, or could be interpreted as, structural must be fully excavated. Post-holes and pits must be examined in section and then fully excavated. Fabricated surfaces within the excavation area (e.g. yards and floors) must be fully exposed and cleaned. Any variation from this process can only be made by agreement with SCCAS/CT, and must be confirmed in writing.
- 3.6 All other features must be sufficiently examined to establish, where possible, their date and function. For guidance:
- a) A minimum of 50% of the fills of the general features is to be excavated (in some instances 100% may be requested).
  - b) 10% of the fills of substantial linear features (ditches, etc) are to be excavated (min.). The samples must be representative of the available length of the feature and must take into account any variations in the shape or fill of the feature and any concentrations of artefacts. For linear features, 1.00m wide slots (min.) should be excavated across their width.
- 3.7 Any variation from this process can only be made by agreement [if necessary on site] with a member of SCCAS/CT, and must be confirmed in writing.
- 3.8 Collect and prepare environmental bulk samples (for flotation and analysis by an environmental specialist). The fills of all archaeological features should be bulk sampled for palaeoenvironmental remains and assessed by an appropriate specialist. The WSI must provide details of a comprehensive sampling strategy for retrieving and processing biological remains (for palaeoenvironmental and palaeoeconomic investigations and also for absolute dating), and samples of sediments and/or soils (for micromorphological and other pedological/sedimentological analyses. All samples should be retained until their potential has been assessed. Advice on the appropriateness of the proposed strategies will be sought from Dr Helen Chappell, English Heritage Regional Adviser in Archaeological Science (East of England). A guide to sampling archaeological deposits (Murphy, P.L. and Wiltshire, P.E.J., 1994, *A guide to sampling archaeological deposits for environmental analysis*) is available for viewing from SCCAS.
- 3.9 A finds recovery policy is to be agreed before the project commences. It should be addressed by the WSI. Sieving of occupation levels and building fills will be expected.
- 3.10 Use of a metal detector will form an essential part of finds recovery. Metal detector searches must take place at all stages of the excavation by an experienced metal detector user.
- 3.11 All finds will be collected and processed. No discard policy will be considered until the whole body of finds has been evaluated.
- 3.12 All ceramic, bone and stone artefacts to be cleaned and processed concurrently with the excavation to allow immediate evaluation and input into decision making.

- 3.13 Metal artefacts must be stored and managed on site in accordance with *UK Institute of Conservators Guidelines* and evaluated for significant dating and cultural implications before despatch to a conservation laboratory within four weeks of excavation.
- 3.14 Human remains are to be treated at all stages with care and respect, and are to be dealt with in accordance with the law. They must be recorded *in situ* and subsequently lifted, packed and marked to standards compatible with those described in the Institute of Field Archaeologists' *Technical Paper 13: Excavation and post-excavation treatment of Cremated and Inhumed Human Remains*, by McKinley & Roberts. Proposals for the final disposition of remains following study and analysis will be required in the WSI.
- 3.15 Plans of the archaeological features on the site should normally be drawn at 1:20 or 1:50, depending on the complexity of the data to be recorded. Sections should be drawn at 1:10 or 1:20 again depending on the complexity to be recorded. All levels should relate to Ordnance Datum. Any variations from this must be agreed with SCCAS/CT.
- 3.16 A photographic record of the work is to be made, consisting of both monochrome photographs and colour transparencies/high resolution digital images, and documented in a photographic archive.
- 3.17 Excavation record keeping is to be consistent with the requirements the County Historic Environment Record and compatible with its archive. Methods must be agreed with SCCAS/CT.

#### **4. General Management**

- 4.1 A timetable for all stages of the project must be agreed before the first stage of work commences.
- 4.2 Monitoring of the archaeological work will be undertaken by SCCAS/CT. A decision on the monitoring required will be made by SCCAS/CT on submission of the accepted WSI.
- 4.3 The composition of the project staff must be detailed and agreed (this is to include any subcontractors). For the site director and other staff likely to have a major responsibility for the post-excavation processing of this evaluation there must also be a statement of their responsibilities or a CV for post-excavation work on other archaeological sites and publication record. Ceramic specialists, in particular, must have relevant experience from this region, including knowledge of local ceramic sequences.
- 4.4 Provision should be included in the WSI for outreach activities, for example (and where appropriate), in the form of open days/guided tours for the general public, local schools, local councillors, local archaeological and historical societies and for local public lectures and/or activities within local schools. Provision should be included for local press releases (newspapers/radio/TV). Where appropriate, information boards should be also provided during the fieldwork stage of investigation. Archaeological Contractors should ascertain whether their clients will seek to impose restrictions on public access to the site and for what reasons and these should be detailed in the WSI.
- 4.5 It is the archaeological contractor's responsibility to ensure that adequate resources are available to fulfill the Specification.
- 4.6 A detailed risk assessment and management strategy must be presented for this particular site.
- 4.7 The WSI must include proposed security measures to protect the site and both excavated and unexcavated finds from vandalism and theft, and to secure deep any holes.

- 4.8 Provision for the reinstatement of the ground and filling of dangerous holes must be detailed in the WSI. However, trenches should not be backfilled without the approval of SCCAS/CT.
- 4.9 No initial survey to detect public utility or other services has taken place. The responsibility for this rests with the archaeological contractor.
- 4.10 Detailed standards, information and advice to supplement this specification are to be found in *Standards for Field Archaeology in the East of England*, East Anglian Archaeology Occasional Papers 14, 2003. The Institute for Archaeologists' *Standard and Guidance for Archaeological Excavation* (revised 2001) should be used for additional guidance in the execution of the project and in drawing up the report.

## 5. Archive Requirements

- 5.1 Within four weeks of the end of field-work a written timetable for post-excavation work must be produced, which must be approved by SCCAS/CT. Following this a written statement of progress on post-excavation work whether archive, assessment, analysis or final report writing will be required at three monthly intervals.
- 5.2 The project manager must consult the County Historic Environment Record Officer (Dr Colin Pendleton) to obtain a Historic Environment Record number for the work. This number will be unique for the site and must be clearly marked on any documentation relating to the work.
- 5.3 An archive of all records and finds is to be prepared consistent with the principle of English Heritage's *Management of Archaeological Projects*, 1991 (*MAP2*), particularly Appendix 3. However, the detail of the archive is to be fuller than that implied in *MAP2* Appendix 3.2.1. The archive is to be sufficiently detailed to allow comprehension and further interpretation of the site should the project not proceed to detailed analysis and final report preparation. It must be adequate to perform the function of a final archive for lodgement in the County Store or other museum in Suffolk.
- 5.4 A complete copy of the site record archive must be deposited with the County Historic Environment Record within 12 months of the completion of fieldwork. It will then become publicly accessible.
- 5.5 The data recording methods and conventions used must be consistent with, and approved by, the County Historic Environment Record. All record drawings of excavated evidence are to be presented in drawn up form, with overall site plans. All records must be on an archivally stable and suitable base.
- 5.6 Finds must be appropriately conserved and stored in accordance with UK Institute Conservators Guidelines.
- 5.7 The site archive quoted at *MAP2* Appendix 3, must satisfy the standard set by the "Guideline for the preparation of site archives and assessments of all finds other than fired clay vessels" of the Roman Finds Group and the Finds Research Group AD700-1700 (1993).
- 5.8 Pottery should be recorded and archived to a standard comparable with 6.3 above, i.e. *The Study of Later Prehistoric Pottery: General Policies and Guidelines for Analysis and Publication*, Prehistoric Ceramics Research Group Occ Paper 1 (1991, rev 1997), the *Guidelines for the archiving of Roman Pottery*, Study Group Roman Pottery (ed M G Darling 1994) and the *Guidelines of the Medieval Pottery Group* (in draft).
- 5.9 All coins must be identified and listed as a minimum archive requirement.
- 5.10 Every effort must be made to get the agreement of the landowner/developer to the deposition of the full site archive, and transfer of title, with the intended archive

depository before the fieldwork commences. If this is not achievable for all or parts of the finds archive then provision must be made for additional recording (e.g. photography, illustration, scientific analysis) as appropriate.

- 5.11 The project manager should consult the intended archive depository before the archive is prepared regarding the specific requirements for the archive deposition and curation, and regarding any specific cost implications of deposition.
- 5.12 If the County Store is the intended location of the archive, the project manager should consult the SCCAS Archive Guidelines 2010 and also the County Historic Environment Record Officer regarding the requirements for the deposition of the archive (conservation, ordering, organisation, labelling, marking and storage) of excavated material and the archive. A clear statement of the form, intended content, and standards of the archive is to be submitted for approval as an essential requirement of the WSI.
- 5.13 If the County Store is not the intended depository, the project manager should ensure that a duplicate copy of the written archive is deposited with the County HER.
- 5.14 The WSI should state proposals for the deposition of the digital archive relating to this project with the Archaeology Data Service (ADS), and allowance should be made for costs incurred to ensure proper deposition (<http://ads.ahds.ac.uk/project/policy.html>).
- 5.15 Where positive conclusions are drawn from a project, a summary report in the established format, suitable for inclusion in the annual 'Archaeology in Suffolk' section of the Proceedings of the Suffolk Institute for Archaeology journal, must be prepared and included in the project report, or submitted to SCCAS/CT by the end of the calendar year in which the evaluation work takes place, whichever is the sooner.
- 5.65 Where appropriate, a digital vector trench plan should be included with the report, which must be compatible with MapInfo GIS software, for integration in the County Historic Environment Record. AutoCAD files should be also exported and saved into a format that can be imported into MapInfo (for example, as a Drawing Interchange File or .dxf) or already transferred to .TAB files.
- 5.17 At the start of work (immediately before fieldwork commences) an OASIS online record <http://ads.ahds.ac.uk/project/oasis/> must be initiated and key fields completed on Details, Location and Creators forms.
- 5.18 All parts of the OASIS online form must be completed for submission to the County Historic Environment Record, and a copy should be included with the draft assessment report for approval. This should include an uploaded .pdf version of the entire report (a paper copy should also be included with the archive).

## **6. Report Requirements**

- 6.1 An assessment report on the fieldwork and archive must be provided consistent with the principle of *MAP2*, particularly Appendix 4. The report must be integrated with the archive.
- 6.2 The objective account of the archaeological evidence must be clearly distinguished from its archaeological interpretation.
- 6.3 An important element of the report will be a description of the methodology.
- 6.4 Reports on specific areas of specialist study must include sufficient detail to permit assessment of potential for analysis, including tabulation of data by context, and must include non-technical summaries.

- 6.5 Provision should be made to assess the potential of scientific dating techniques for establishing the date range of significant artefact or ecofact assemblages, features or structures.
- 6.6 The results should be related to the relevant known archaeological information held in the County Historic Environment Record, and to the results of the evaluation.
- 6.7 The report will give an opinion as to the potential and necessity for further analysis of the excavation data beyond the archive stage, and the suggested requirement for publication; it will refer to the Regional Research Framework. Further analysis will not be embarked upon until the primary fieldwork results are assessed and the need for further work is established. Analysis and publication can be neither developed in detail nor costed in detail until this brief and specification is satisfied. However, the developer should be aware that there is a responsibility to provide a publication of the results of the programme of work.
- 6.8 A draft hard copy of the assessment report (clearly marked Draft) must be presented to SCCAS/CT for comment within six months of the completion of fieldwork unless other arrangements are negotiated with the project sponsor and SCCAS/CT.
- 6.9 The involvement of SCCAS/CT should be acknowledged in any report or publication generated by this project.

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Date: 25 November 2010

Reference: /WestRowSchool\_Mildenhall2010

**This brief and specification remains valid for 12 months from the above date. If work is not carried out in full within that time this document will lapse; the authority should be notified and a revised brief and specification may be issued.**

**If the work defined by this brief forms a part of a programme of archaeological work required by a Planning Condition, the results must be considered by the Conservation Team of the Archaeological Service of Suffolk County Council, who have the responsibility for advising the appropriate Planning Authority.**



## Appendix 2. Context list

Context number	Feature/cut number	Type	Category	Section number	Description	Interpretation
0050	0050	Ditch	Cut	50	May be linear but unclear. SE-NW. Steep straight sides with quite sharp break. Wide flat base.	Cut of probable ditch
0051	0050	Ditch	Fill	50	Mid-dark grey chalky silt, firm. Common small to medium fragments of chalk. 1.9m wide x 0.45m deep. Sharp horizon clarity.	Lower fill of ditch [0050]
0052	0050	Ditch	Fill	50	Light-mid grey chalky-silt. Friable compaction. Frequent frags of small and medium chalk. 1.5m wide x 0.1m deep. Clear horizon clarity.	Upper fill of ditch [0050]
0053			Layer	50	Shallow layer. Overlies layer 0054, though these may be the same material. Mottled mid-dark and very dark grey sandy-silt. Frequent chalk nodules. Firm compaction. Clear-diffuse horizon clarity.	May be the same as layer 0054- 0054 is probably just a different mottled area. Part of occupation layers running across site.
0054			Layer	50	Shallow layer seen only in small part of section 50. Very dark grey sandy-silt with occasional chalk nodules. No finds. Firm compaction. Clear-diffuse horizon clarity.	May be the same as mottled layer 0053. Part of occupation layers running across site.
0055		Spit	Layer	50	0.3m deep spit for finds located from indistinct area of fill in section 54. Essentially the same as 0056 but on the NW side of ditch 0059. Mid-dark grey chalky sand-silt layer above recognizable features. Made up of material from feature 0083/fill 0084 and feature 0078/fill 0085.	

Context number	Feature/cut number	Type	Category	Section number	Description	Interpretation
0056	0078	Spit	Layer	54	Dark grey silty-clay. Firm compaction. 0.3m spit which is actually the same as 0062. Moderate small lumps of chalk. 0.25m deep. Located to SE of ditch 0059 in section 54.	Arbitray fill given to first 0.3m spit. The same as fill 0062.
0057	0059	Ditch	Fill	54	Mid grey chalky-sandy-silt. Below 0060 and above 0061.	
0058	0059	Ditch	Fill	54	Under 0057. Dark grey silty-clay. Same as 0056 but with chalk flecks.	
0059	0059	Ditch	Cut	51	Linear aligned SSW-NNE. SE side - 45-50° straight edge, that then abruptly curves to vertical slope, before abruptly curving to base. NW side - 60-65° slightly concave slope, before sharply breaking to base. Base - irregular, sloping to SE.	Large ditch with multiple fills, cutting through large pit 0078 and containing redeposited material.
0060	0059	Ditch	Fill	54	White chalk and mid grey sandy-silt patches. Firm compaction. Made up of more chalk than sandy-silt.	Top fill of 0059, above 0057.
0061	0059	Ditch	Fill	54		Fill of 0059, below 0057 and above 0056/58.
0062	0078	Pit	Fill	54	Dark grey silty clay, firm. Moderate small lumps of chalk. 0.38m deep. Clear horizon clarity.	The same material as in spit 0056, but here given a proper fill number.
0063	0078	Pit	Fill	54	Pale grey chalky silty clay, firm. Abundant chalk. 0.24m deep. Clear horizon clarity.	Fill of pit, with chalky lens at the top, just before interface with 0074.



Context number	Feature/cut number	Type	Category	Section number	Description	Interpretation
0064	0078	Pit	Fill	54	Grey chalky-silt. Seen in section to north-west of ditch 0059. Is the equivalent of 0075.	Basal rubbish fill within pit 0078. Possibly the same as fill 0075, which is to the south-west side of ditch 0059 in section.
0065	0065	Ditch	Cut	52	Linear, SE-NW Long gradual sides and gradual breaks >0.84m wide, >0.36m deep	Cut of ditch
0066	0065	Ditch	Fill	52	Pale whitish-grey gravelly-silt. Firm compaction. Abundant fragments of small and medium sized chalk. 0.29m deep. Clear horizon clarity, but diffuse in places.	Fill of ditch.
0067	0065	Ditch	Fill	52	Mid pale grey chalky silt, firm. Common flecks of chalk. >0.34m wide x 0.36m deep. Diffuse horizon clarity.	Fill of ditch
0068	0068	Ditch	Cut	52	Linear, aligned NE-SW. Convex side, quite sharp break break of slope. Flat base.	Cut of ditch. Cut by ditch 0065.
0069	0068	Ditch	Fill	52	Dark brownish grey chalky silt. Firm compaction. Common flecks of chalk and rare large lumps of chalk. 0.32m deep. Clear horizon clarity.	Fill of ditch
0070	0068	Ditch	Fill	52	Pale greyish white silty chalk. Firm compaction. Abundant chalk nodules. 0.06m deep. Clear horizons	Fill of ditch
0071	0068	Ditch	Fill	52	Mid whitish grey chalky silt. Firm compaction. Frequent small and medium fragments of chalk. 0.16m deep. Clear horizon clarity.	Fill of ditch

Context number	Feature/cut number	Type	Category	Section number	Description	Interpretation
0072	0065	Ditch	Fill	52	Very dark brownish-grey clayey-silt with occasional small chalk nodules. Firm compaction.	Probable fill of ditch, although did not match with opposite section. As such this may have been a separate feature, but it was not clear in plan and produced no finds.
0073	0078	Pit	Fill	54	Mid/dark grey silty clay with green flecks. Occasional small chalk flecks and lumps. Firm compaction. 0.28m deep Clear horizon clarity.	Fill of pit
0074	0078	Pit	Fill	54	Very dark grey silty clay, high charcoal content. Firm compaction. Occasional chalk flecks. 0.28m deep.	Fill of pit. More structured deposit of dark soil with ash, etc.
0075	0078	Pit	Fill	54	Mid/dark grey silty clay. Firm compaction. Moderate chalk flecks and small lumps. Moderate charcoal content. 0.18m deep. Clear horizon clarity.	Fill of pit
0076	0076	Pit	Cut	53	Irregular oval, aligned E-W. Concave sides, flat base. 3.2m long x 1.36m wide x 0.08m deep.	Shallow pit with flat base, containing fill 0077.
0077	0076	Pit	Fill	53	Dark grey silty clay. Friable compaction. Frequent chalk flecks. 3.2m long x 1.36m wide x 0.08m deep.	Dark fill of pit 0076

Context number	Feature/cut number	Type	Category	Section number	Description	Interpretation
0078	0078	Pit	Cut	54	Large, irregularly shaped pit. Cut by 0059 and 0083. Aligned roughly NW-SE. Only one slot excavated, which showed it to be c.1.65m deep. NW side = approx 20°, uneven, occasionally semi-stepped. Base = slightly concave/sloped facing NW. 7.5m NW-SE x 5.5m NE-SW. Contains fills 0082, 0075, 0063, 0074, 0073, 0062, 0064 and probably also 0085. See also spits 0055 and 0056.	Large Roman pit. Depth into chalk suggests it was for quarrying chalk for lime. However, then may have functioned as a watering hole and definitely seems to have been used for refuse.
0079	0079	Ditch	Cut	55	Probably linear, NW-SE. Shallow, slightly concave sides (unclear). Wide flat slightly concave base. 1.53m wide x 0.27m deep.	Cut of possible ditch
0080	0079	Ditch	Fill	55	Very dark greyish-brown slightly sandy, chalky-silt, firm. Common flecks and small fragments of chalk.	Fill of possible ditch
0081	0081		Layer	55	Very dark greyish-brown firm chalky-silt.	
0082	0078	Pit	Fill	54	Pale grey chalky-silt. Loose compaction. Moderate-large chalk and frequent small chalk nodules. 0.16m deep. Horizon clarity clear.	Basal fill of pit
0083	0083	Gully	Cut	56	Linear, aligned SE-NW. Unclear profile due to modern disturbance. 0.16m deep. Possibly related to 0078.	Cut of possible gully. May be connected with pit 0078.
0084	0083	Gully	Fill	56	Dark greyish-brown chalky-silt. Firm compaction. Common small and medium frags of chalk. Clear horizon clarity.	Fill of gully

Context number	Feature/cut number	Type	Category	Section number	Description	Interpretation
0085	0078	Pit	Fill	54	Fill number issued to top fill/fills of pit 0078 to NW of ditch 0059 where they could not be initially clearly separated. Many of the finds from this also kept under spit 0055. Dark brownish-grey chalky-sandy-silt. Firm compaction. Not sampled.	Probably is the equivalent of spit 0056/fill 0062 to SE of ditch 0059..
0086	0086	Gully	Cut	57	Linear, NE-SW aligned, but then runs into a bulbous/circular shape. Slightly concave gradual base. 0.15m deep.	Cut of gully, but extremely shallow. May actually be a natural undulation containing dark earth.
0087	0086	Gully	Fill	57	Mid-dark greyish brown chalky silt. Firm compaction. Frequent flecks and small fragments of chalk and rare sherds of angular flint. Diffuse horizon clarity.	Fill of gully.
0088		Cleaning	Layer		Surface cleaning of area immediately above 0078, 0083, and 0086, south of section 54. Produced a number of finds.	Mixture of finds from 'dark earth' layer, pit 0078 and other features.
0089		Ditch		52 54	Ditch group number for cuts 0059 and 0068. NNE-SSW aligned feature.	Cuts through large pit 0078 and is cut by ditch 0090/cut 0065. Similar alignment to ditches in MNL 612 which may be medieval. Although contains Roman material.
0090		Ditch		50 52	Ditch group number for cuts 0050 and 0065. WNW-ESE aligned feature.	Cuts ditch 0089/cut 0068. Similar alignment to ditches in MNL 612 which may be medieval. Although contains Roman material.

## Appendix 3. OASIS form

**OASIS ID: suffolkc1-105425**

### Project details

Project name	MNL 637 West Row Primary School Excavation, Mildenhall
Short description of the project	Archaeological excavation and monitoring were carried out on the playground and sports field at West Row Primary School, Mildenhall, Suffolk. The work revealed well preserved and intensive use of the site throughout the Roman period, indicated by a large quarry pit and a poorly surviving soil layer, both of which contained large quantities of pottery and animal bone, as well as CBM, fired clay, quernstone, iron nails, marine shells, and other material. There were also several smaller late Roman pits/small linear features. Roman coins were found scattered over both areas of the fieldwork. The finds, as well as the environmental samples indicated that it is likely that many agricultural and food processing tasks were occurring nearby, possibly to supply the local villa, although it is thought that a domestic structure of some importance is also likely to have been located close to or on the site. Other features included two ditches which were probably post-medieval and are likely to have been part of the fenland agricultural drainage works in the area.
Project dates	Start: 05-01-2011 End: 24-01-2011
Previous/future work	Yes / Not known
Any associated project reference codes	MNL 637 - HER event no.
Any associated project reference codes	MNL 637 - Sitecode
Any associated project reference codes	suffolkc1-80501 - OASIS form ID
Any associated project reference codes	2011/083 - Contracting Unit No.
Type of project	Recording project
Current Land use	Other 14 - Recreational usage
Monument type	PIT Roman
Monument type	DITCH Post Medieval
Monument type	LINEAR FEATURE Roman
Monument type	LAYER Roman
Significant Finds	POT Roman
Significant Finds	ANIMAL REMAINS Roman
Significant Finds	CERAMIC BUILDING MATERIAL Roman

Significant Finds	QUERN Roman
Significant Finds	MOLLUSCA REMAINS Roman
Significant Finds	NAILS Roman
Significant Finds	COINS Roman
Significant Finds	POT Post Medieval
Significant Finds	LIGULA Roman
Significant Finds	SPINDLE WHORL Roman
Significant Finds	WEAVING IMPLEMENTS Roman
Significant Finds	GLASS Roman
Significant Finds	GOAD OR STYLUS POINT Roman
Investigation type	'Full excavation','Watching Brief'
Prompt	Direction from Local Planning Authority - PPS

### Project location

Country	England
Site location	SUFFOLK FOREST HEATH MILDENHALL MNL 637 West Row Primary School Excavation, Beeches Road, Mildenhall
Postcode	IP28 8NY
Study area	336.00 Square metres
Site coordinates	TL 6726 7641 52.3597598471 0.456565674062 52 21 35 N 000 27 23 E Point

### Project creators

Name of Organisation	Suffolk County Council Archaeological Service
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Jess Tipper
Project director/manager	Andrew Tester
Project supervisor	Rob Brooks
Type of sponsor/funding body	County Council
Name of sponsor/funding body	Suffolk County Council Corporate Property

### Project archives

Physical Archive recipient	Suffolk County Council Archaeological Service
Physical Archive ID	I/93/4
Physical	'Animal Bones','Ceramics','Environmental','Glass','Industrial','Metal','Worked bone','other'

## Contents

Digital Archive recipient	Suffolk County Council Archaeological Service
Digital Archive ID	MNL 637
Digital Contents	'Animal Bones','Ceramics','Environmental','Glass','Industrial','Metal','Stratigraphic','Survey','Worked bone','other'
Digital Media available	'Database','GIS','Images raster / digital photography','Spreadsheets','Survey','Text'
Paper Archive recipient	Suffolk County Council Archaeological Service
Paper Archive ID	MNL 637
Paper Contents	'Animal Bones','Ceramics','Environmental','Glass','Industrial','Metal','Worked bone','other'
Paper Media available	'Context sheet','Correspondence','Plan','Report','Section','Survey','Unpublished Text'

## Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	West Row Primary School new classroom and MUGA pitch, Beeches Road, Mildenhall, MNL 637, Archaeological Excavation Report
Author(s)/Editor(s)	Brooks, R.
Other bibliographic details	SCCAS Report No. 2011/083
Date	2012
Issuer or publisher	SCCAS
Place of issue or publication	Bury St Edmunds
Description	A4, comb bound, white cover, in colour, with 9 appendices (also available as a pdf)
Entered by	Rob Brooks (rob.brooks@suffolk.gov.uk)
Entered on	13 April 2012

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Cite only: <http://www.oasis.ac.uk/form/print.cfm?ID=123158> for this page





## Appendix 4. Bulk finds catalogue

Ctxt	Pot No	Pot Wt(g)	Pot period	CBM No	CBM Wt(g)	CBM date	An-bone No	An-bone Wt(g)	F-clay No	F-clay Wt (g)	Oy No	Oy Wt(g)	Nail No	Nail Wt(g)	Miscellaneous finds	Spot date
0001	9	134		5	617										Lead 1@ 31g	Rom
0006	11	71					13	252							?Mortar 1 @ 8g; shell 2@54g	?L1-L2C
0010				24	2019		1	2								Rom
0011	1	1		20	1247		2	2							Shell 1@1g	Rom
0014							2	1								
0019	7	168		5	486		21	270							Shell 1@7g	M-L2C
0022	1	13					5	10							Shell 1@10g	Rom
0024				1	3		1	4								Rom
0029	10	222		6	112		1	1								L3-4C
0030				5	507											Rom
0032							4	10								
0051	35	382	Rom-(p-med?)	2	135	Rom	21	308			12	92			mussel shell 46@121g; hard black ?tar piece 1@8 g (mod?), flint stones, 1 broken frag 2@3g (nat?); puddingstone quern 2@61g (small animal bone100@23g, land snails 6@44g from Sample 9)	(L3-4C) p-med
0053	8	81	Rom	1	27	Rom	7	28			5	100			chalk frag 1@5g, flint stone 1@8g (nat)	L3-4C
0055	41	401	Rom	7	847	Rom	35	435			9	130			pale mortar with crushed tile frags 2@7g, gritstone piece/stone 1@596g ?quern frag	L3-4C
0056	25	492	Rom	4	146	Rom	14	160			1	6				L3-4C
0057	8	87	Rom	1	44	Rom	5	41			2	23				L3-4C
0058	29	295	Rom	5	93	Rom	14	497			1	7	1	17		L3-4C
0060	1	31	Rom													M2-4C
0061	1	33	Rom													Rom
0062	72	1075	Rom	17	2613	Rom	81	1261	25	80.00	9	260	1	13	fired clay is grey brown hard friable small	3-4C

Ctxt	Pot No	Pot Wt(g)	Pot period	CBM No	CBM Wt(g)	CBM date	An-bone No	An-bone Wt(g)	F-clay No	F-clay Wt (g)	Oy No	Oy Wt(g)	Nail No	Nail Wt(g)	Miscellaneous finds	Spot date
0063	75	1238		7	86	Rom	42	688			10	291	2	14	lava quern 50 (+frags) @346g max thick 35 mm; mussel shell 1@4g, burnt flint 1@32g, flint stone, red/discooured 1@ 1g (nat?); chalk frag 1@1g (nat), pale mortar with some crushed tile 1@81g	L3/4C
0064	3	39	Rom				4	13			2	82			charcoal frags 6@1 g	Rom
0067	1	6	Rom										1	3	burnt flint 1@2g	M2-M3C
0069	3	26	Rom				8	17			2	14				L3-4C
0070				1	70	Rom										
0073	39	471	Rom	7	454	Rom	28	492	1	8.00	9	304			fired clay, small lump with surface, fe obj 1@36g; 1 sherd of HAX (3g) L3-4C recovered from samples	L3-4C
0074	36	389	Rom				14	264	24	240.00	9	287			fired clay includes 2 large joining pieces; 1 sherd of HAX (4g) L3-4C recovered from sample; one fe nail frag (0.25g) recovered from sample	L3-4C
0075	10	546	Rom								22	577			Roman glass 3@6g (SF1094)	M2-4C
0076	3	25	Rom	1	79	Rom	10	125								Rom
0080	8	109	Rom				10	121			7	125	1	25		L3-4C
0081	15	313	P-Med	4	236	p-med					2	11	2	6	lava quern 9 (+ frags) @82g	15-17C
0083	5	102	Rom				2	19			3	63				3-4C
0087	9	85	Rom				1	54			1	34				M2-4C
0088	18	724	Rom	1	122	Rom	1	103			14	306			fe obj 1@109g, fe obj 1@4g	L3-4C

## Appendix 5. Pottery catalogue

Ctxt	Period	Fabric	Sherd	Form	No	Wt(g)	Eve	Comments	Spot date
0001	ROM	BSW		4/6 style	1	10		Jar 0.10	Rom
0001	ROM	GMB			1	5			Rom
0001	ROM	GMG			3	58		One sherd rouletted	Rom
0001	ROM	GX		6.18 syle	1	17		Dish in Cam 37 style 0.04	E/M2-E3C
0001	ROM	GX		4	1	12		Jar 0.04	Rom
0001	ROM	HAX		4/4.5 style	1	19		Jar 0.06	L3-4C
0001	ROM	RX			1	13			Rom
0006	ROM	GMG		3.7/8 style	1	4		H poppyhead style? 0.11	L1-M/L2C
0006	ROM	GMG			1	6			Rom
0006	ROM	GX			8	54			L1-M/L2C
0006	ROM	RX			1	6			Rom
0011	ROM	BUF			1	2			Rom
0019	ROM	GX			1	115		Base 0.17	Rom
0019	ROM	GX			1	1			Rom
0019	ROM	HOG		2.1	2	17		Narrow neck 0.16	M2C+
0019	ROM	SAEG		6	1	5		Bowl form, voids not eleongate 0.07	M2-M3C
0019	ROM	VRW			1	7		Not a classic version	L1-M/L2C
0022	ROM	GMB			1	13			Rom
0029	ROM	GMG		4	1	10		Jar 0.05	Rom
0029	ROM	NVCM		7.3	9	211		Perrin M40/41 0.12	M/L3-4C
0051	MED	DUTR			1	3		sandy red sherd with splash glaze	15-17C
0051	ROM	GMB			1	7			Rom
0051	ROM	GX			1	9			Rom
0051	ROM	HAX			1	3			L3-4C
0051	ROM	HOG			11	92		misc	M2-4C
0051	ROM	HOG			1	7		buff surface, poss HOG	M2-4C

Ctxt	Period	Fabric	Sherd	Form	No	Wt(g)	Eve	Comments	Spot date
0051	ROM	HOG			9	69		pale fabric (E Fabric 3)	M2-4C
0051	ROM	HOGB			4	32			M2-4C
0051	ROM	HOGB	r	4 jar	1	16	5	hooked rim E42?	M2-4C
0051	ROM	HOGB	r	4 jar	1	25	5	jar E26?	M2-4C
0051	ROM	LSH			2	8			4C
0051	ROM	LSH	ba	4 jar	1	100	0	base sherd from LSJ	4C
0051	ROM	NVC	ba	6 bowl	1	11		bowl base, white/pale fabric	L3-4C
0053	ROM	GX			1	4		burnished surface	Rom
0053	ROM	HOG			3	22		grey	M2-4C
0053	ROM	HOG		4 jar	2	47		combed LSJ	M2-4C
0053	ROM	HOGB	ba		1	5			M2-4C
0053	ROM	NVC			1	3			L3-4C
0055	ROM	BSW			4	38		misc	Rom
0055	ROM	GX	r		1	14	12		Rom
0055	ROM	GX	r		1	10	3		Rom
0055	ROM	GX			13	66		misc, poss some HOG	Rom
0055	ROM	GX	r	6.19	1	14	4	dish with groove below rim	M2-4C
0055	ROM	HAX			1	1			4C
0055	ROM	HOG			2	16		cream surface, one dec with coomb wavy line	M2-4C
0055	ROM	HOG		4 jar	1	18		LSJ	M2-4C
0055	ROM	HOG			9	116		misc	M2-4C
0055	ROM	HOG	ba		1	23			M2-4C
0055	ROM	HOG?	r		1	11	6	unusual shape, grey with traces of white coat	M2-4C
0055	ROM	HOG?	ba?		1	53		presumed large pot, prob tile	Rom
0055	ROM	NVC			1	4		pale fabric	L3-4C
0055	ROM	SACG		Dr 37	1	3		left wing of eagle	2C
0055	ROM	WSO			3	14		buff surface/slip with red fabric	Rom
0056	ROM	AA		D 20	1	16		late fabric?	M1-E3C
0056	ROM	BSW	r		1	5	5	small jar/bowl, pale fabric, black slip drip showing on interior, poss HOGB	Rom
0056	ROM	BSW			1	14			Rom
0056	ROM	GX			8	71		misc	Rom

Ctxt	Period	Fabric	Sherd	Form	No	Wt(g)	Eve	Comments	Spot date
0056	ROM	GX	r	4 jar	1	16	7		Rom
0056	ROM	GX	r	6.18	1	10	4	bowl rim	M2-M3C
0056	ROM	GX	ba		1	22		chamfer, BB type	M2-4C
0056	ROM	HOG?			1	52		presumed large pot, prob tile	Rom
0056	ROM	HOX			2	4			L3-4C
0056	ROM	LSH		4 jar	3	208		sherds from LSJ	L3-4C
0056	ROM	NVC			1	4		pale fabric	L3-4C
0056	ROM	OXWM			1	46			L3-4C
0056	ROM	RX			1	3		sherd flake	Rom
0056	ROM	SACG			1	2			2C
0056	ROM	WSO	ba		1	19		cordons around lower body	Rom
0057	ROM	GMG			3	16		misc	Rom
0057	ROM	GX			1	6			Rom
0057	ROM	HOG			1	5		prob HOG	M2-4C
0057	ROM	NVC		6 bowl	1	55			L3-4C
0057	ROM	SACG			1	4			2C
0057	ROM	WSO			1	1			Rom
0058	ROM	BUF			1	16			Rom
0058	ROM	GX	r	2.3	1	16	6	frill on lower part of rim	Rom
0058	ROM	GX	r		1	14	15		Rom
0058	ROM	GX	r		1	10	11		Rom
0058	ROM	GX	ba		1	13			Rom
0058	ROM	GX			12	100		misc	Rom
0058	ROM	HOG		4.5	1	34	15		M2-4C
0058	ROM	HOG	ba		1	8		cream surface	M2-4C
0058	ROM	HOG			2	14		cream surface, one dec with wavy line	M2-4C
0058	ROM	HOG			1	2			M2-4C
0058	ROM	HOGB	r		1	19	10		M2-4C
0058	ROM	HOX			1	3			4C
0058	ROM	LSH	r		1	14	3		L3-4C
0058	ROM	NVC	r	6.17	1	10	6	flanged bowl	L3-4C

Ctxt	Period	Fabric	Sherd	Form	No	Wt(g)	Eve	Comments	Spot date
0058	ROM	NVC			1	11			L3-4C
0058	ROM	WSO			2	11			Rom
0060	ROM	HOG			1	31		prob HOG	M2-4C
0061	ROM	GX			1	33			Rom
0062	ROM	AA			1	63		fine cream fabric (different fabric to AA 0063) see 0074	1-2/3C?
0062	ROM	BB1	r	6.19	1	9	6	bowl with 2 grooves below rim	M3-4C?
0062	ROM	GMB			2	12			Rom
0062	ROM	GMG			1	9			Rom
0062	ROM	GX	r	6.18	1	10	7	triangular rim	M2-M3C
0062	ROM	GX	r	4 jar	1	14	12	jar	Rom
0062	ROM	GX	r		1	6	13	narrow mouth jar	Rom
0062	ROM	GX	ba		1	19			Rom
0062	ROM	GX	r		2	77	20	SV, join, jar with rusticated shoulder, Brancaster (EAA 23) Type 100	3-4C
0062	ROM	GX			3	58		SV, second jar with rusticated shoulder	3-4C
0062	ROM	GX			34	247		misc	Rom
0062	ROM	HOG	r		1	10	14	burnt/misfired?	M2-4C
0062	ROM	HOG	r		1	57	15	E9-11, bead rim jar, similar, prob sep pot	M2-4C
0062	ROM	HOG	r	4 jar	1	12	15	narrow mouth jar	M2-4C
0062	ROM	HOG			6	99		misc	M2-4C
0062	ROM	HOG			3	81		combed	M2-4C
0062	ROM	HOG	r	4 jar	1	89	21	E9-11, bead rim jar, similar, prob sep pot	M2-4C
0062	ROM	HOG	r	4 jar	1	38	6	E9-11, bead rim jar, similar, prob sep pot	M2-4C
0062	ROM	HOGB	r	4 jar	1	16	4	E18-23? everted rim, rim only	M2-4C
0062	ROM	LSH	r		1	14	5	jar/bowl with broad out-turned rim	L3-4C
0062	ROM	LSH			2	14			L3-4C
0062	ROM	NVC			3	47			L3-4C
0062	ROM	NVC?			2	60		SV, abraded, traces of slip on interior	L3-4C
0062	ROM	RX			1	14		sherd flake, fine orange-red fabric	Rom
0063	ROM	AA	r		1	172	20	Gaulish amphora (Gauloise 4) rim in fine cream fabric (diff fabric to 0062)	L1-3C
0063	ROM	BSW	r	4 jar	1	14	13	poss slack shouldered jar 4.5	M2-4C?
0063	ROM	BSW			1	5			Rom

Ctxt	Period	Fabric	Sherd	Form	No	Wt(g)	Eve	Comments	Spot date
0063	ROM	BSW	r		1	11	5	small jar/beaker, slightly beaded everted rim	Rom
0063	ROM	BSW	r	6.18?	1	13	6	black burnished surface, poss 6.19	M2-M3/4C
0063	ROM	GMB			1	15			Rom
0063	ROM	GX	r	4 jar	1	12	9	hooked rim jar	Rom
0063	ROM	GX			25	186		misc	Rom
0063	ROM	GX	ba		1	44			Rom
0063	ROM	GX	ba		1	50			Rom
0063	ROM	GX	ba		1	14			Rom
0063	ROM	GX		6.21	2	29		SV, join, dish with in-turned rim	M1-2C
0063	ROM	GX	r		1	9	6		2-4C
0063	ROM	GX	r		1	7	6		Rom
0063	ROM	GX	r		1	7	10	rim edge	Rom
0063	ROM	GX	r		1	6	7	everted rim	Rom
0063	ROM	GX	ba		1	7			Rom
0063	ROM	GX			1	9		panel dot beaker sherd	L1?-2C
0063	ROM	GX	r	6.18	1	6	4	triangular rim	M2-M3C
0063	ROM	GX	r	4 jar	1	17	12	slightly beaded hooked rim jar	Rom
0063	ROM	HOG	r	4 jar	1	59	13	E9-11, everted rim jar, rim only	M2-4C
0063	ROM	HOG			18	324		misc	M2-4C
0063	ROM	HOG	r	4 jar	1	42	6	E24-29 bead rim jar, rim only	M2-4C
0063	ROM	HOG	r	4 jar	1	41	21	E24-29? bead rim jar, rim only	M2-4C
0063	ROM	HOG			1	5		pale with cream surface	M2-4C
0063	ROM	HOG			1	3		HOG? cream surface	M2-4C
0063	ROM	HOG			1	37		burnt residue on interior	M2-4C
0063	ROM	HOG	r		1	12	9	undercut bead rim jar	M2-4C
0063	ROM	HOG	ba	4 jar	1	33			M2-4C
0063	ROM	HOG	r		1	11	30	narrow mouth jar	M2-4C
0063	ROM	HOGB	r		1	16		E18-23? rim only	M2-4C
0063	ROM	HOGB			1	17			M2-4C
0063	ROM	LSH			1	5			L3-4C
0064	ROM	GMB			1	14		burnt residue on internal surface	Rom

Ctxt	Period	Fabric	Sherd	Form	No	Wt(g)	Eve	Comments	Spot date
0064	ROM	GMG			1	16			Rom
0064	ROM	GX			1	9			Rom
0067	ROM	GX	r	6.18	1	6		bowl with triangular rim	M2-M3C
0069	ROM	HOG			1	16		combed surface	M2-4C
0069	ROM	LSH			1	9			L3-4C
0069	ROM	NVC			1	1			L3-4C
0073	ROM	BSW	r	6.18	1	14	8	bead rim, burnished black surface	L2-3C
0073	ROM	BSW			1	9			Rom
0073	ROM	GMB			1	11		burnt residue on exterior	Rom
0073	ROM	GMG			1	8			Rom
0073	ROM	GX			1	11		vertical burnish line on mid body ?BB type jar/beaker	M2-3C?
0073	ROM	GX	r		1	7	7		Rom
0073	ROM	GX	ba		1	15			Rom
0073	ROM	GX			15	106		misc	Rom
0073	ROM	HOG	r	4 jar	1	9	3	E 9-11? bead rim jar	M2-4C
0073	ROM	HOG	r	4 jar	1	8	4	E9-11?, everted rim jar, rim only	M2-4C
0073	ROM	HOG	r		1	8	2	frag, everted bead rim, E9-11, everted rim jar?	M2-4C
0073	ROM	HOG		4 jar	1	57		LSJ burnt residue on interior, comb surface	M2-4C
0073	ROM	HOG			7	150		misc	M2-4C
0073	ROM	HOGB			2	32			M2-4C
0073	ROM	SACG		Dr 37	1	10		flaked surface, parts of 3 fig types in bead panels, part of circ medallion, rub?	2C
0073	ROM	SACG			1	1		flake	2C
0073	ROM	SACG	r	Dr 33	1	11	15	cup	2C
0073	ROM	WSO			1	4		red fabric	Rom
0074	ROM	AA			1	20		cream fabric, prob same as 0062	M1-2/3C
0074	ROM	BSW	r		1	4	6	rim frag, burnished	Rom
0074	ROM	BUF			1	5			Rom
0074	ROM	GMB			1	10			Rom
0074	ROM	GX	ba		1	40		HOG?	Rom
0074	ROM	GX	r	4.5	1	27	15	slack shouldered jar 4.5	M2-4C
0074	ROM	GX			16	80			Rom



Ctxt	Period	Fabric	Sherd	Form	No	Wt(g)	Eve	Comments	Spot date
0074	ROM	HOG			10	185		misc, inc combed sherds	M2-4C
0074	ROM	HOG	r	4 jar	1	7	6	E9-11?, everted rim jar, rim only	M2-4C
0074	ROM	WSO?			3	11		pale red fabric, cream traces? on surface	Rom
0075	ROM	AA	h	D 20	1	251			M1-E3C
0075	ROM	GX	r		6	48	6	misc	Rom
0075	ROM	GX	r	4 jar	1	17	7		Rom
0075	ROM	HOG	r	4 jar	1	100		E1-9 storage jar, flattened hooked rim	M2-4C
0075	ROM	HOG	ba		1	130			M2-4C
0076	ROM	GMB			1	12			Rom
0076	ROM	GX			2	13			Rom
0080	ROM	GX	r		1	5	5	rim frag	Rom
0080	ROM	GX	ba		1	7			Rom
0080	ROM	HOG	r	4 jar	1	5	6		M2-4C
0080	ROM	HOG			2	35			M3-4C
0080	ROM	NVC	r	6.2	1	42	11	lower part of castor box	L3-4C
0080	ROM	NVC			1	7			L3-4C
0080	ROM	WX			1	8		white fine slightly sandy fabric	Rom
0081	PMED	LPME			2	14		flowerpot	p-med/mod
0081	PMED	PMSW			1	13		possibly a Dutch import	p-med
0081	ROM	BSW	ba		1	26			Rom
0081	ROM	GX	r	6.19	1	7	5	groove under rim	M2-3/4C
0081	ROM	GX			3	40			Rom
0081	ROM	GX	ba		1	48			Rom
0081	ROM	HOG			3	65		comb surface	M2-4C
0081	ROM	LSH	r		1	32	7	LSJ	L3-4C
0081	ROM	NVC	ba		1	32			L3-4C
0081	ROM	WXM	r	7.3	1	36		flat reeded rim, yellow-cream sandy fabric	M3-4C
0083	ROM	BB1	r	6.17	1	12	7	incipient or flange rim bowl	3-4C
0083	ROM	BSW			1	19			Rom
0083	ROM	GX	ba		1	12		chamfered base edge prob BB type form	2-4C
0083	ROM	GX	r	4 jar	1	22	11	necked jar with small bead rim	Rom

Ctxt	Period	Fabric	Sherd	Form	No	Wt(g)	Eve	Comments	Spot date
0083	ROM	GX	ba	6 bowl	1	37		BB type bowl	M2-4C
0087	ROM	GMB			1	7			Rom
0087	ROM	GX			2	14			Rom
0087	ROM	HOG			4	57		misc	M2-4C
0087	ROM	SACG			1	4			2C
0087	ROM	WX			1	3		white fine slightly sandy fabric	Rom
0088	ROM	BSW			2	23			Rom
0088	ROM	BSW	r	6.17	1	49	10	flanged bowl	L3-4C
0088	ROM	GX	r		1	14	15	everted bead rim	Rom
0088	ROM	GX			2	19			Rom
0088	ROM	GX	ba		1	30			Rom
0088	ROM	HAX			1	2			L3-4C
0088	ROM	HOG			3	116		misc	M2-4C
0088	ROM	HOG		6.17	1	13		prob HOG, Evans type E52	L3-4C
0088	ROM	LSH			1	7			L3-4C
0088	ROM	LSH	r	4 jar	1	353	10	LSJ with flat top rim	L3-4C
0088	ROM	SAEG	ba	Dr 31?	1	25		poss Colchester?, low kick to base poss early 31	M2-?3C
0088	ROM	WSO			1	9		fine red fabric	Rom
0088	ROM	WSO			1	4		pale red fabric, cream traces? on surface	Rom
0088	ROM	WXM			1	60		prob part of large mortarium rather than Fabric AA, some grits on interior	Rom

## Appendix 6. Ceramic building material (CBM) catalogue

Key RBT=Roman brick & tile TEG=Tegula IMB=Imbrex FT=Flue tile RB=Roman brick BR=post-Roman brick

Ctxt	Fabric	Form	Period	No	Wt/g	Thick mm	Abr	Mortar	Notes
0001	Fsc	RBT	Rom	1	36		*		Voids indicate calcite
0001	Ms	RBT	Rom	1	53		*		Oxidised surface grey core
0001	Ms	FT	Rom	1	59		*		Oxidised surface grey core
0001	Msfe	RBT	Rom	1	305		*		Fabric contains sparse clay pellets and voids
0001	Msfe	TEG	Rom	1	162		*		Teg flange depth 32mm, width 20mm. Sparse clay pellets
0010	Fsc	IMB	Rom	6	155		*		Oxidised, sparse clay pellets
0010	Fsc	TEG	Rom	4	246		*		Teg flange depth 19mm, surfaces friable
0010	Ms	RBT	Rom	4	151		*		Oxidised, poss imbrex frags, sparse black iron ore
0010	Ms	IMB	Rom	2	1012		*		Oxidised, pieces join
0010	Msc	IMB	Rom	5	223		*		Oxidised/grey surface, very thin light grey core
0010	Msc	IMB	Rom	3	139		*		Bright orange, sparse clay pellets
0011	Fsc	IMB	Rom	5	425		*		Oxidised, sparse clay pellets, voids. See also 0010
0011	Ms	RBT	Rom	1	135		*		Oxidised, mortar traces
0011	Ms	RBT	Rom	5	21		*		Oxidised
0011	Msc	TEG	Rom	9	665		*		Dark oxidised surface, thick dark grey core, Teg flange depth 32mm, width 19mm. See also 0010
0019	Ms	RBT	Rom	2	11		*		Oxidised, one contain calcite
0019	Ms	TEG	Rom	1	43		*		Oxidised no measurements possible on account of abrasion. Red iron ore is common
0019	Msc	IMB	Rom	1	64		*		Oxidised, thin grey core
0019	Mscp	TEG	Rom	1	367		**		Oxidised, no measurements possible on account of abrasion
0024	Fsc	RBT	Rom	1	3		*		Oxidised, pink core. Looks like an imbrex fragment
0029	Fsc	IMB	Rom	2	85		*		Oxidised with light grey core, sparse red iron ore
0029	Fscp	RBT	Rom	4	27		**		Oxidised

Ctxt	Fabric	Form	Period	No	Wt/g	Thick mm	Abr	Mortar	Notes
0030	Ms	RBT	Rom	5	507		*		Oxidised with thick grey core, sparse clay pellets, all pieces join
0051	Fs	IMB	Rom	1	92	17			
0051	Ms	FT	Rom	1	43	17			combed face
0053	Fs	RBT	Rom	1	27	14			frag
0055	Fs	IMB	Rom	1	14	12		top & break	curved frag, mortar on break
0055	Fs	FT	Rom	1	212	20			side with part of round cut-out
0055	Fs	TEG	Rom	1	81	15			flage, FH 40 mm
0055	Ms	FT	Rom	1	45	16			corner, frag of comb?
0055	Ms	TEG	Rom	1	111	20	*		prob teg, flange scar on edge
0055	Msfe	RBT	Rom	1	273	27			scorched brown grey, some red/brown fe inclusions
0055	Msfe	RBT	Rom	1	111	37			orange
0056	Fs	IMB	Rom	1	22	17			frag
0056	Fs	RBT	Rom	2	49				frags
0056	Ms	FT	Rom	1	75	15			edge piece with scar, cream surface
0057	Msfe	IMB	Rom	1	44	13			edge
0058	Fs	RBT	Rom	3	19				frags
0058	Ms	FT	Rom	2	74				corner piece, poss heat affected
0062	Fs	IMB	Rom	2	190	14			
0062	Fs	RBT	Rom	2	450	16			small pre-fired tapering peg hole in each close to edge (<5mm)
0062	Fs	RBT	Rom	1	174	30			
0062	Fs	RBT	Rom	4	84				frags, one silty and pale brown
0062	Fs	TEG	Rom	1	241	20		top of flange	LCA Warry C5 L 47 mm, FH 47mm
0062	Fscp	IMB	Rom	1	81	13	*		
0062	Ms	IMB	Rom	2	200	20			
0062	Ms	RB	Rom	2	844	32			join, corner, MSL 105 mm, scorched, esp upper surface
0062	Ms	RBT	Rom	1	59	15			
0062	Ms	RFT	Rom	1	290	20			combed flue tile, scorched across break
0063	Fs	RBT	Rom	1	15				frag

Ctxt	Fabric	Form	Period	No	Wt/g	Thick mm	Abr	Mortar	Notes
0063	Fs	RBT?	Rom	5	20				heavily burnt frags
0063	Fs	TEG	Rom	1	51	17			FH 40 mm
0070	Fs	FT	Rom	1	70	20			combed face
0073	Fs	IMB	Rom	1	229	13		traces on original; surfaces	
0073	Ms	RBT	Rom	3	165	25			scorched, flaking due to heating
0073	Ms	RBT	Rom	2	38				frags
0073	Msfe/pc	IMB	Rom	1	22	12			
0076	Fs	TEG	Rom	1	79				top of flange
0080	Fs	RBT?	Rom?	1	12	12			thin tile, poss Rom but also poss peg tile
0081	Cs	BR	p-med	2	116	50			med/p-med brick corner
0081	Fsfe/pc	BR	p-med	1	13				frag, med/p-med brick corner
0081	Fsfe	RBT	Rom	1	107	25			scorched?
0088	Fs	RB	Rom	1	122	22			corner



## Appendix 7. Small finds catalogue

SF	Ctxt	Period	Material	Obj Name	No	Wt/g	Description/Comments
1001		Rom	Copper alloy	coin	1		This is a <i>nummus</i> of the House of Constantine c 321 to 324 AD. Obverse is worn and displays a diademed bust right. Reverse is considerably more worn a globe on alter is depicted, as well as the lettering <i>beata tranquillitas</i> (blessed tranquillity).
1002		Rom	Copper alloy	coin	1		A very small <i>nummus</i> fragment, c 300 to 402 AD. Reverse illegible. Only a diademed bust right can be seen on the obverse.
1003		Rom	Copper alloy	coin	1		Worn <i>nummus</i> c 330 to 340 AD. Obverse, helmeted bust of Constantinopolis left. Reverse, Victory on prow
1004		Post-med	Lead	Seal	1		Lead seal for cloth (Length 22mm, width 17mm). This two part cloth seal is compressed and worn and is made up of one large and one small disc. The numerals VII can be seen horizontally displayed and to their left vertically X X. These numbers indicate the amount of cloth that the seal was attached to, in terms of weight or length and so on. The seal is dated from the 16th to 17th century.
1005		Rom	Copper alloy	coin	1		Worn <i>radiata</i> fragment of Tetricus I or II, c 271 to 274 AD.
1006		Rom	Copper alloy	coin	1		Extremely small, very worn coin c260-402 AD
1007		Rom	Copper alloy	coin	1		Worn contemporary copy of a Constantius/Constans <i>nummus</i> 347/348 AD. Obverse, bust facing right. Reverse has the lettering VICTORIARE DD AVGG Q NN as well two Victories holding wreaths.
1050		ROM?/MOD	Glass	bead	1	2	rounded drum shape, central hole, pale blue (turquoise) glass with pale fault/fractue marks throughout
1051		ROM?	Copper alloy	coin	1	1	coin, irregular thin frag, possibly Roman
1052		ROM	Copper alloy	coin	1	1	Nummus, House of Constantine, c.330-335 AD. Obv.: [CONSTAN-TINVS], Laureate and draped bust right. Rev.: GLOR-IAEXERC-ITVS, Two soldiers standing either side of two standards. Uncertain mint.
1053		ROM	Copper alloy	coin	1	2	Nummus, House of Constantine, c.330-340 AD. Obv.: VRBS ROMA, Helmeted bust left. Rev.: She-wolf suckling twins, two stars above. Arles mint? ([/][CON?])
1054		ROM	Copper alloy	coin	1	33	Nummus, Constans, c.348-350 AD. Obv.: DN CONSTA-NS P F AVG, Diademed and draped bust left holding globe. Rev.: FEL TEMP REPARATIO, Soldier with spear leading captive from hut. Mint: Trier (-/TRS). As LRBC II no. 28
1055		ROM	Copper alloy	coin	1	1	nummus, House of Valentinian, c.364-378 AD. Obv.: [S P F [AVG], Diademed and draped bust

SF	Ctxt	Period	Material	Obj Name	No	Wt/g	Description/Comments
							right. Rev.: [SECVRITAS]-REI [PVBLICAE], Victory advancing left holding wreath and palm. Mint: Uncertain (-/[?])
1056	ROM		Copper alloy	coin	1	1	Nummus, House of Constantine, c.335-341 AD. Obv.: [ONST], Laureate bust right. Rev.: [GLORIA EXERCITVS], Two soldiers one standard? Uncertain mint.
1057	ROM		Copper alloy	coin	1	2	Radiate, Gallienus, sole reign, c.260-268 AD. Obv.: [ENVS AVG, Radiate and draped bust right. Rev.: Uncertain legend, female figure standing left.
1058	ROM		Copper alloy	coin	1	1	Nummus, Constantine II, c.330-335 AD. Obv.: CONSTNATINVS IVN NOB C, Laureate and cuirassed bust right. Rev.: GLOR-IAEXERC-ITVS, Two soldiers standing either side of two standards. Mint: Trier? (-/[crescent with dotP]) (recovered from spoil heap)
1059	ROM		Copper alloy	coin	1	1	Radiate, barbarous copy, probably of a coin of Gallienus, c.275-285 AD. Obv.: [NVS], Radiate and draped bust right. Rev.: PAX [AVG], Pax standing left. (recovered from spoil heap)
1060	ROM		Copper alloy	coin	1	2	Nummus, House of Constantine, c.330-340 AD. Obv.: [CONSTANTINOPOLIS], Encrusted; Rev: Victory left on prow holding shield and sceptre. Uncertain mint.
1061			Iron		1	77	amorphous lump with some fe, hard in places - but poss a stone contained in lump
1062	ROM		Copper alloy	coin	1	3	Radiate, uncertain Emperor, c.260-275 AD. Obv.: IMP C, Radiate and draped bust right. Rev.: Encrusted.
1063	ROM		Copper alloy	coin	1	2	Nummus, Helena, PAX PVBLICA, c AD 337-340
1064	ROM		Copper alloy	coin	1	1	Radiate, Tetricus II, c. 271-274 AD. Obv.: C PIV, Radiate and draped bust right. Rev.: Illegible legend, uncertain figure standing left.
1065			Lead	obj	1	10	small off-cut from a thin bar or sheet
1066	PMED/MOD		Copper alloy	wire	1	1	small piece of Cu alloy wire
1067	ROM		Copper alloy	coin	1	1	Nummus, Constans (contemporary copy?), c.335-341 AD. Obv.: DN FL CONSTAN[S AVG], Diademed and draped bust right. Rev.: GLOR-IA EXERC-ITVS, Two soldiers standing either side of one standard. Mint: Uncertain (-/[.ε?])
1068	PMED/MOD		Copper alloy	ring	1	3	small circular ring, possibly a washer, 21 mm dia
1069	PMED		Copper alloy	belt mount	1	2	small belt mount with four rounded projections, two lugs on reverse, early post-medieval
1070	ROM		Copper alloy	coin	1	1	Nummus, House of Constantine, contemporary copy, c.355-361 AD. Obv.: Laureate bust right; Rev.: [TIO, Soldier spearing a fallen horseman. Uncertain mint.
1071	ROM		Copper alloy	coin	1	1	Nummus, Theodora, c.337-350 AD. Obv.: [AX THEO-DORAE A[VG], Laureate bust right. Rev.: [PIETAS-R]OM[ANA], Pietas standing left suckling child. Uncertain mint.
1072	ROM		Copper alloy	coin	1	1	Nummus, House of Constantine (contemporary copy?), c.335-341 AD. Obv.: [... NVS IVN?] NOB C, Laureate and draped bust right. Rev.: GLORI-AEXER-CITVS, Two soldiers standing either side of one standard. Uncertain mint.
1073	ROM		Copper alloy	coin	1	1	Nummus, probably House of Constantine, c.330-364 AD. Obv.: [STANT], Laureate(?) and draped bust right. Encrusted reverse type.
1074	ROM		Copper alloy	coin	1	1	Radiate or nummus, c.260-402 AD. Encrusted surfaces.



SF	Ctxt	Period	Material	Obj Name	No	Wt/g	Description/Comments
1075		ROM	Copper alloy	coin	1	1	Roman radiate or nummus of uncertain type, c.260-402, probably a contemporary copy. Both types are uncertain
1076		ROM	Copper alloy	coin	1	2	Nummus, House of Constantine, c.330-340 AD. Obv.: [CONSTANTINOPOLIS], Helmeted bust left. Rev.: Victory left on prow holding shield and sceptre. Mint: Arles (-//[ONST]
1077		ROM	Copper alloy	coin	1	1	Nummus, Constantine II, c. 335-337 AD. Obv.: CONS[IN NOB C, Laureate and draped bust right. Rev.: GLOR-IAEXERC-ITVS, Two soldiers standing either side of one standard. Mint: Lyon (-//BranchSLG). As LRBC I no. 232.
1078		ROM	Copper alloy	coin	1	3	Radiate, barbarous copy of a coin of Claudius II, c.275-285 AD. Obv.: [AVDIO, Radiate and draped bust right. Rev.: An altar.
1079		ROM	Copper alloy	coin	1	1	Nummus, House of Valentinian, c.364-378 AD. Obv.: Diademed and draped bust right. Rev.: [GLORIA ROMANORVM], Emperor advancing right holding standard and dragging captive. Uncertain mint.
1080	0054		Stone	pestle/hone	1	104	quartzite, used as hone as worn along one edge, poss also pestle, one end broken away (See also SF1091)
1081	0056	ROM	Copper alloy	coin	1	1	Nummus, Theodora, c.337-350 AD. Obv.: FL[AE AVG, Laureate and draped bust right. Rev.: PIETAS ROMANA, Pietas standing left suckling child. Uncertain mint (Trier?)
1082		ROM	Copper alloy	coin	1	1	Nummus, House of Constantine, c.335-341 AD. Obv.: [NOB CAES, Laureate and draped bust right. Rev.: GLOR-IAEXERC-ITVS, Two soldiers standing either side of one standard. Uncertain mint.
1083		MOD	Copper alloy	handle	1	9	decorative handle, two ?foliate decorated oval loops either side of central bow and with small loop below central bow
1084		ROM	Copper alloy	coin	1	1	Nummus, Valens, c.364-367 AD. Obv.: D N VALEN-S P F AVG, Diademed and draped bust right. Rev.: SECVRITAS-REI PVBLICAE. Mint: Arles (OF I//CONS[ ])
1085		ROM	Copper alloy	coin	1	1	Incomplete small coin, Roman, probably c AD 260-402.
1086		ROM	Copper alloy	coin	1	3	Nummus, House of Constantine, c.321-324 AD. Obv.: Illegible. Rev.: IOVI CONS-ERVATORI, Jupiter standing left leaning on eagle tipped sceptre and holding Victory on globe, to left an eagle, to right a captive. Mint: either Heraclea or Nicomedia (- XIII[SM[N/HA?].
1087		ROM	Copper alloy	coin	1	1	Nummus, House of Constantine, c.347-348 AD. Obv.: CON[ ], Laureate and draped bust right. Rev.: [VICTORIAE DD AVGGQ NN], Two Victories standing facing one another holding wreaths. Uncertain mint.
1089	0075	ROM	Copper alloy	<i>ligula</i>	1	2	Long (pointed) cu alloy shaft (125mm long) with small (broken) flat , disc head which is aligned with the shaft; form of toilet implement commonly referred to as a <i>ligula</i>
1090	0063		Copper alloy	frags	3	1	3 very small pieces + frags + powder
1091		ROM	Copper alloy	coin	1	1	Nummus, Constantine II, c.330-335 AD. Obv.: CONSTANTINVS IVN[ ], Laureate and draped bust right. Rev.: [GLOR]-IAEXERC-[ITVS], Two soldiers standing either side of two(?) standards. (note: was 1080 on site bag renumbered 1091)
1092		MED	Silver	coin	1	1	Charles I, silver penny, AD 1625-1649

SF	Ctxt	Period	Material	Obj Name	No	Wt/g	Description/Comments
1093		ROM	Copper alloy	coin	1	8	probably Roman as or dupondius, c.43-250 AD.
1094	0075	ROM	Glass		3	6	3 pieces of blue-green glass, slightly curved, vessel glass, same vessel , Roman
1095			Stone		1	272	prob natural rounded stone
1096			Iron	strip	1	8.9	strip frag, 30 mm long, 24 mm wide, 2mm thick, broken at both ends
1097	0074		Iron	point	1	0.75	prob nail shaft frag (point/end) but may be goad or stylus end (recovered from bulk sample 6)
1098	0082		Stone	Spindle whorl	1	2.5	half of a small chalk spindle whorl, dia 20 mm, flat 7mm thick (recovered from bulk sample 3)
1099	0063		Bone		1	13	Half of sheep metatarsal, broken shaft, polish on (along and around) shaft and some small cuts

## Appendix 8. Faunal remains catalogues

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### Appendix 8A. Faunal remains by context

#### Key:

NISP = Number of Individual Species elements Present

Age – a = adult, j = juvenile (older than 1 month), mature = 6-8 years or older

Butchering = c = cut, ch = chopped

Element range: f = foot bones, ll = lower limb, ul = upper limb, pel = pelvis, scap = scapula, t = teeth, r = rib, v = vertebrae,

Mand = mandible, hc = horncore, ferc = fercula

Working = probable working waste or worked bone

Gnaw = gnawed bone. c = canid, r = rodent, f = feline

Burnt = burnt bone. B = black, g = grey, w = white

Context	Sample	Feature No	Ctxt Qty	Wt (g)	Species	NISP	Adult	Juvenile	MNI	Element range	Butchering	Working	Gnaw	R/C/F	burnt	Burnt Colour	Comments
0051		0050	21	308	Cattle	4	a		2	f, ll, pel,	c, ch						massive metacarpal
0051		0050			Equid	1	a			t							
0051		0050			Sheep/goat	6	a		1	ul, ll	c, ch						
0051		0050			Mammal	10											
0051	9	0050	76	25	SM - Cat	2		j		ll							
0051	9	0050			SM - Mouse	6	a		1	t, ul, ll, pel							
0051	9	0050			Herp - Frog	6	a	j	2	ll, scap							
0051	9	0050			Mammal	62				small frags							

Context	Sample	Feature No	Ctxt Qty	Wt (g)	Species	NISP	Adult	Juvenile	MNI	Element range	Butchering	Working	Gnaw	R/C/F	burnt	Burnt Colour	Comments
0053		0053	7	28	Mammal	7											
0055		0053	35	435	Cattle	7	a		1	ul, f, scap, r	c, ch						
0055		0053			Sheep/goat	3		j	1	ul	c, ch				1	g	
0055		0053			Bird - Fowl	1		j		ul							Domestic fowl/pheasant humerus
0055		0053			Mammal	24											
0056		0078	14	160	Cattle	2	a		1	f, ul	ch, c						
0056		0078			Sheep/goat	1	a			ul	ch						
0056		0078			Pig/boar	1		j		ul	ch						
0056		0078			Mammal	10											
0056	2	0078	146	34	Sheep/goat	2	a		1	t, ll							
0056	2	0078			SM - W.Vole	4		j	1	ul, scap, v							Water Vole
0056	2	0078			SM - Mouse	5	a		1	t, ll, scap							Woodmouse
0056	2	0078			Mammal	135				small frags					7	b, w	
0057		0059	5	41	Cattle	1	a			t							
0057		0059			Mammal	4											
0058		0059	14	497	Cattle	2	a		1	ul, t	c						
0058		0059			Sheep/goat	2	a		1	v, ul							
0058		0059			Mammal	10											
0062		0078	81	1261	Cattle	10	a		1	f, ll, ul, pel, t	c, ch						
0062		0078			Sheep/goat	2	a		1	ll, t	ch, c						

Context	Sample	Feature No	Ctxt Qty	Wt (g)	Species	NISP	Adult	Juvenile	MNI	Element range	Butchering	Working	Gnaw	R/C/F	burnt	Burnt Colour	Comments
0062		0078			Equid	3	a		1	mand, t,							
0062		0078			Mammal	66				frags	c, ch				1	b	
0062	4	0078	91	45	Sheep/goat	1				t							Upper molar
0062	4	0078			Mammal	81				small frags					4	b, w	many small fragments
0062	4	0078			SM - Vole	8				t, ul, ll							Bank Vole
0062	4	0078			Herp - Frog	1				ll							Common Frog radio/ulna
0063		0078	42	688	Cattle	10	a		1	pel, t, ul, hc	c, ch		1	c			
0063		0078			Sheep/goat	2	a		1	ul, ll	c, ch	1					distal half of mt with cuts and polishing
0063		0078			Bird	1				shaft							
0063		0078			Mammal	29											
0063	7	0078	20	41	Cattle	1				ul	ch						humerus shaft frag
0063	7	0078			Bird - Heron	1				ul							ulna - heron
0063	7	0078			Mammal	18				small frags							
0064		0078	4	13	Mammal	4											
0069		0078	8	17	Mammal	8											
0073		0078	28	492	Cattle	4	a		1	mand, ll, f	c, ch						
0073		0078			Sheep/goat	2	mature		1	mand, f	c, ch						mature, well worn M3
0073		0078			Mammal	22									1	g	
0073	5	0078	77	26	Cattle	1				r	c, ch						
0073	5	0078			Mammal	74				small frags							
0073	5	0078			Herp - Frog	1				ll							
0074		0078	14	264	Cattle	2	a		1	ul, f	ch						
0074		0078			Mammal	12											
0074	6	0078	30	13	SM - Mouse	1				ll							
0074	6	0078			Mammal	29				small frags							
0075		0078	24	1225	Cattle	12	a		1	f, scap, ul, ll, t	c, ch		1	c			
0075		0078			Mammal	14											
0075	8	0078	16	166	Cattle	3	j		1	pel, v, f	ch						

Context	Sample	Feature No	Ctxt Qty	Wt (g)	Species	NISP	Adult	Juvenile	MNI	Element range	Butchering	Working	Gnaw	R/C/F	burnt	Burnt Colour	Comments
0075	8	0078			Sheep/goat	1	a			ll	ch						mt
0075	8	0078			Mammal	12											
0076		0076	10	125	Cattle	1	a			mand	ch						
0076		0076			Mammal	9											
0077	1	0076	73	48	Cattle	2	a		1	t, r							
0077	1	0076			Mammal	70											
0080		0079	10	121	Sheep/goat	3				ul	c, ch						
0080		0079			Mammal	7											
0081		0081	13	540	Cattle	4	a		1	r, ll, t	ch						
0081		0081			Pig/boar	1	a			ul	ch						
0081		0081			Sheep/goat	1				ll	ch						
0081		0081			Mammal	7											
0082	3	0078	100	113	Cattle	4	a		1	ll, t	c, ch						cub, mt frags
0082	3	0078			Sheep/goat	1				t							
0082	3	0078			Bird - Duck	2	a		1	ferc, ul							
0082	3	0078			SM - Mouse	5	a		1	mand, pel, ul							Woodmouse
0082	3	0078			Mammal	88				small frags					5	g, b	
0083		0083	2	19	Mammal	2											
0087		0086	1	54	Cattle	1	a			f							
0088		0078	1	103	Cattle	1	a			ll	ch, c						

**Appendix 8B.** Measurements (measured to 0.1mm) following Von Den Driesch, 1976 (Listed in alphabetical species order and then period).

Context	Period	Type	Species	Element	Fusion	Gl	Bd	Dd	BT	HTC	BatF	Bfd	A	B	SD	Bp	BWmin	Bwmax
0081	Roman	Layer	Cattle	MT	f						46.9	48.2	22.4	24	25.2			
0087	Roman	Gully	Cattle	talus	f	64.6	39.4									40		
0074	Roman	Pit	Cattle	talus	f	57.9	37									36.8		
0074	Roman	Pit	Cattle	tibia	flv		51.7	37.2							30.9			
0058	Roman	Ditch	Cattle	radius	f	292	64.2	33.8							33.2	72.1		
0063	Roman	Pit	Cattle	horn	n/a	89											36.5	47.1
0051	Roman	Ditch	Cattle	MC	f						55.2	71.3	33.2	32.9				
0051	Roman	Ditch	Cattle	talus	f	58.6												
0062	Roman	pit	Cattle	talus	f	73										4.7		
0062	Roman	Pit	Cattle	calc	f	120.2												
0055	Roman	Layer	Fowl	humerus	uf	53.4	10.1								3.9			
0056	Roman	Pit	Sheep	tibia	f		24.8	19.6							13			
0055	Roman	Layer	Sheep	radius	uf		26.3	15.8										
0063	Roman	Pit	Sheep	femur	uf	122	22.8	28							13.8	33		
0063	Roman	Pit	Sheep	MT	f						22.1	22.9	10.8	10.2	10.1			

**Appendix 8C** Tooth record following Hillson, 1986.

Ctxt	Type	Period	Taxa	Tooth No	Eruption	TWS	Comments
0073	Pit fill	Roman	Sheep	P4	e	l	
				M1	e		Missing, broken
				M2	e	m	
				M3	e	h-j	





## Appendix 9. Plant macrofossils

### Appendix 9A

Key to Table: x = 1 – 10 specimens xx = 11 – 50 specimens xxx = 51 – 100 specimens xxxx = 100+ specimens cf = compare fg = fragment m = mineral replaced b = burnt Q.Pit = Quarry pit

Sample No.		3	8	7	6	5	4	2	1	9
<b>Context No.</b>		<b>0082</b>	<b>0075</b>	<b>0063</b>	<b>0074</b>	<b>0073</b>	<b>0062</b>	<b>0056</b>	<b>0077</b>	<b>0051</b>
<b>Feature No.</b>		<b>0078</b>	<b>0078</b>	<b>0078</b>	<b>0078</b>	<b>0078</b>	<b>0078</b>	<b>0078</b>	<b>0076</b>	<b>0050</b>
<b>Feature type</b>		<b>Q.Pit</b>	<b>Q.Pit</b>	<b>Q.Pit</b>	<b>Q.Pit</b>	<b>Q.Pit</b>	<b>Q.Pit</b>	<b>Q. Pit</b>	<b>Hollow</b>	<b>Ditch</b>
<b>Date</b>		<b>Roman</b>	<b>Roman</b>	<b>Roman</b>	<b>Roman</b>	<b>Roman</b>	<b>Roman</b>	<b>Roman</b>	<b>?Roman</b>	<b>P.Roman</b>
<b>Fill sequence</b>		<b>Base</b>	<b>2nd</b>	<b>3rd</b>	<b>4th</b>	<b>5th</b>	<b>6th</b>	<b>Top</b>		
<b>Cereals</b>	<b>Common name</b>									
<i>Avena</i> sp. (grains)	Oat			xcf		x	x			
(awn frags.)				x	x	xx	x			
<i>Hordeum</i> sp. (grains)	Barley		x		x	xcf	xx	x	x	x
(rachis nodes)		x	x	x	x	x	x			
<i>H. vulgare</i> L. (asymmetrical lateral grain)	Six-row barley	x			xcf	x	x	xcf		
<i>Hordeum/Secale cereale</i> type (rachis nodes)	Barley/rye type						x			
<i>Triticum</i> sp. (grains)	Wheat	xx	x	xx	xx	xx	xxxx	xx	xxx	x
(glume bases)		xxx	xxx	xxx	xx	xxx	xx	xx	xx	
(spikelet bases)		xx	xx	xx	x	xx	xx	x	xx	
(rachis internodes)		xxx	xx	xx	x	xx	x	x	x	
(germinated grain)							x			

Sample No.		3	8	7	6	5	4	2	1	9
<b>Context No.</b>		0082	0075	0063	0074	0073	0062	0056	0077	0051
<b>Feature No.</b>		0078	0078	0078	0078	0078	0078	0078	0076	0050
<b>Feature type</b>		Q.Pit	Q.Pit	Q.Pit	Q.Pit	Q.Pit	Q.Pit	Q. Pit	Hollow	Ditch
<b>Date</b>		Roman	Roman	Roman	Roman	Roman	Roman	Roman	?Roman	P.Roman
<b>Fill sequence</b>		Base	2nd	3rd	4th	5th	6th	Top		
<i>T. spelta</i> L. (glume bases)	Spelt wheat	xxxx	xxxx	xxxx	xxxx	xxxx	xxx	xx	xxx	x
(spikelet forks)		x		x	x					
(spikelet)		x								
Cereal indet. (grains)		x xfg	x	xx	xx xxxfg	xxx	xxx xxfg	xx xfg	xx xxxxfg	x
(detached sprouts)		xx	x	x	xx	xx	x	x		
(silica skeletons)		x	x		x	xxxx	x			
(awn frags.)		x								
(basal rachis nodes)				x	x					
<b>Herbs</b>										
Apiaceae indet.						x				
<i>Atriplex</i> sp.	Orache	x	x			xcf	x			
<i>Bromus</i> sp.	Brome		x	x	x	xxx	xxxx	x	x	
Caryophyllaceae indet.		x xm		xm						
<i>Centaurea</i> sp.	Cornflower			x	x	x				
<i>Chenopodium album</i> L.	Fat hen					x				
Chenopodiaceae indet.			x xm							
<i>Cirsium</i> sp.	Thistle					x				
Fabaceae indet.	Small legumes	x	x	x	x	x			xcoty	
<i>Fallopia convolvulus</i> (L.)A.Love	Black bindweed	x			x	x xtf		x	x	
<i>Galium aparine</i> L.	Goosegrass			x		x				
Lamiaceae indet.		xm								
<i>Lapsana communis</i> L.	Nipplewort			x	x					
<i>Linum catharticum</i> L.	Fairy flax					x				
<i>Lithospermum arvense</i> L.	Corn gromwell	x	xx xm	xx	xx	x	x		xx xfg	



<b>Sample No.</b>		<b>3</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>9</b>
<b>Context No.</b>		<b>0082</b>	<b>0075</b>	<b>0063</b>	<b>0074</b>	<b>0073</b>	<b>0062</b>	<b>0056</b>	<b>0077</b>	<b>0051</b>
<b>Feature No.</b>		<b>0078</b>	<b>0078</b>	<b>0078</b>	<b>0078</b>	<b>0078</b>	<b>0078</b>	<b>0078</b>	<b>0076</b>	<b>0050</b>
<b>Feature type</b>		<b>Q.Pit</b>	<b>Q.Pit</b>	<b>Q.Pit</b>	<b>Q.Pit</b>	<b>Q.Pit</b>	<b>Q.Pit</b>	<b>Q. Pit</b>	<b>Hollow</b>	<b>Ditch</b>
<b>Date</b>		<b>Roman</b>	<b>Roman</b>	<b>Roman</b>	<b>Roman</b>	<b>Roman</b>	<b>Roman</b>	<b>Roman</b>	<b>?Roman</b>	<b>P.Roman</b>
<b>Fill sequence</b>		<b>Base</b>	<b>2nd</b>	<b>3rd</b>	<b>4th</b>	<b>5th</b>	<b>6th</b>	<b>Top</b>		
Charcoal <2mm		xxxx	xxxx	xxxx	xxxx	xxx	xxx	xxx	xxx	x
Charcoal >2mm		xxx	xx	xx	xx	x	x	x	xx	x
Charcoal >5mm		x	x	x					x	
Charred root/stem				x	x		x		x	
Mineral replaced wood frags.			x	x						
Indet.culm nodes			x	x	x	x				
Indet,inflorescence frags.		x			xx					
Indet.seeds		x xm	x xm	xm	x	x	x		x	

## Appendix 9B

Sample No.	3	8	7	6	5	4	2	1	9
Context No.	0082	0075	0063	0074	0073	0062	0056	0077	0051
Feature No.	0078	0078	0078	0078	0078	0078	0078	0076	0050
Feature type	Q.Pit	Q.Pit	Q.Pit	Q.Pit	Q.Pit	Q.Pit	Q. Pit	Hollow	Ditch
Date	Roman	Roman	Roman	Roman	Roman	Roman	Roman	?Roman	P.Roman
<b>Other remains</b>									
Black porous 'cokey' material		x	xx	xx	xxx	xx	xxx	xxx	x
Black tarry material			x	x	x	x			x
Bone			x						x
Burnt/fired clay		x	x						
Burnt organic concretions								x	
Eggshell				xb	x				
Fish bone	x	x							
Siliceous globules		x		x	x				
Small coal frags.						x	xx		x
Small mammal/amphibian bones	x	x	x	x		x	x		x
Vitreous material	x		x						
<b>Molluscs</b>									
<b>Woodland/shade loving species</b>									
<i>Aegopinella</i> sp.			x				x	x	
<i>Carychium</i> sp.		x	x			x	xxx	xx	x
<i>Discus rotundatus</i>	x	x	xx						x
<i>Oxychilus</i> sp.	x						x		x
<i>Punctum pygmaeum</i>							x		
<i>Trichia striolata</i>							x		
<i>Vitrea</i> sp.									x
Zonitidae indet.	x	x	x						
<b>Open country species</b>									
<i>Pupilla muscorum</i>	x		x		x	xx	xxxx	xxxx	xx
<i>Vallonia</i> sp.	x	x	x	x	x	xxx	xxxx	xxxx	xxx xb

Sample No.	3	8	7	6	5	4	2	1	9
<b>Context No.</b>	0082	0075	0063	0074	0073	0062	0056	0077	0051
<b>Feature No.</b>	0078	0078	0078	0078	0078	0078	0078	0076	0050
<b>Feature type</b>	Q.Pit	Q.Pit	Q.Pit	Q.Pit	Q.Pit	Q.Pit	Q. Pit	Hollow	Ditch
<b>Date</b>	Roman	Roman	Roman	Roman	Roman	Roman	Roman	?Roman	P.Roman
<i>V. costata</i>	x	x	xx	x	xx	xx	xxx	xx	xx xb
<i>V. excentrica</i>							xcf	xcf	
<i>Vertigo pygmaea</i>						x	x	x	x
<b>Catholic species</b>									
<i>Cepaea</i> sp.			x				x		x
<i>Cochlicopa</i> sp.			xx	x	x	xx	xxxx	xxxx	xxx
<i>Nesovitrea hammonis</i>		x			x	x	xx	x	x xb
<i>Trichia hispida</i> group	x	x	xxx	x	xx	xxxx	xxxx	xxxx	xxxx xb
<b>Marsh/freshwater slum species</b>									
<i>Lymnaea</i> sp.	x	x	x						
<i>L. truncatula</i>							x		x
<i>Succinea</i> sp.	x	x	x				x		x
<i>Vertigo angustior</i>						x	x		
<b>Freshwater obligate species</b>									
<i>Anisus leucostoma</i>			x				x		xx
<i>Aplexa hypnorum</i>									xx
<i>Bithynia</i> sp.			x						
(operculum)			x						
<i>Hippeutis</i> sp.			x						
<i>Pisidium</i> sp.									x
<i>Planorbis</i> sp.			x				x		xx
<i>Valvata cristata</i>	x		x						
<b>Sample volume (litres)</b>	40	20	40	40	40	40	40	20	40
<b>Volume of flot (litres)</b>	0.3	0.3	0.1	0.9	0.3	0.1	<0.1	<0.1	0.2
<b>% flot sorted</b>	50%	50%	50%	<12.5%	50%	50%	100%	100%	50%



# Archaeological services Field Projects Team

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- Site investigation
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- Historic Building Recording
- Environmental processing
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- Graphics design and illustration

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