



ARCHAEOLOGICAL WATCHING BRIEF

AND EXCAVATION AT

WOOTTON FIELDS CENTRE FOR LEARNING,

NORTHAMPTON

JUNE-AUGUST 2003

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NORTHAMPTONSHIRE ARCHAEOLOGY

NORTHAMPTONSHIRE COUNTY COUNCIL

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QUALITY CONTROL

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Approved by	Andy Chapman		

PROJECT DETAILS					
Project title	Wootton Fields Cent	re for Learning			
Short description	See abstract				
Project type	Watching brief and c	ontingency excavation			
Previous work (reference to organisation or SMR numbers etc)	Geophysical survey and trial trench evaluation by Northamptonshire Archaeology				
Future work (yes, no, unknown)	No				
Monument type and period	Roman settlement				
Significant finds (artefact type and period)	Roman pottery and R coin hoard (c 1900 cc	oman building materials & late Roman bins)			
PROJECT LOCATION					
County	Northamptonshire				
Site address	Wootton Centre for Learning, Wooldale Road, Northampton				
(including postcode)	NN4 6JH				
Easting	4771				
Northing	2561				
Height OD	Height OD 76-89m OD				
PROJECT CREATORS					
Organisation	Northamptonshire An	rchaeology			
Project brief originator	NCC Historic Enviro	onment Team			
Project Design originator	Northamptonshire An	rchaeology			
Director/Supervisor	Tim Upson-Smith				
Project Manager	Tony Walsh				
Sponsor or funding body	Northamptonshire Co	ounty Council			
PROJECT DATE					
Start date	June 2003				
End date	August 2003	1			
ARCHIVES	Location Content (eg pottery, animal bone (Accession no.) etc)				
Physical		Pottery (2 boxes), animal bone (2 boxes), other finds (1 box), coins (1 box) building materials (2 boxes)			
Paper		272 context sheets, 11 plan sheets, 54 sections, b/w and colour photos			
Digital					

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ARCHAEOLOGICAL WATCHING BRIEF AND EXCAVATION

AT WOOTTON FIELDS CENTRE FOR LEARNING, NORTHAMPTON

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Abstract

An archaeological watching brief and excavation was carried out by Northamptonshire Archaeology between June and August 2003 ahead of the construction at Wootton Centre for Learning, Northampton. The watching brief and excavation revealed parts of a series of ditches forming linear boundaries with associated enclosures. These are dated by the recovered pottery to 3rd to 4th centuries AD. There was also a corn drier/malt oven of the same date. A coin hoard dating to the mid-4th century had been placed within two pottery vessels and was buried in one of the ditches, and nearby there was an undated inhumation burial. The site lies on the eastern slope of a small valley. Wootton Fields Roman villa lies on the opposite slope of the valley and the features at the Learning Centre site may have been part of the larger villa estate.

1 INTRODUCTION

Northamptonshire Archaeology was commissioned by Northamptonshire County Council and Kajima Construction to carry out a watching brief and contingency excavation on land southeast of Wooldale Road, adjacent to Wootton Fields, Northampton (NGR SP 771 561 Fig 1). The fieldwork was carried out between June and August 2003 ahead of the construction of a new Primary and Secondary School, Public Library and associated community facilities.

Previously, the nature of the archaeology within the development area had been tested by earthwork survey, geophysical survey (Hindmarch 2001) and trial trenching (Carlyle 2002), carried out by Northamptonshire Archaeology in 2002. This work had found evidence for Roman settlement in the form of ditch systems and pits, dating to the second and third centuries AD, in the south-western corner of the development area. Consequently, Northamptonshire County Councils Historic Environment Team (NCCHET) had recommended that further investigation should be carried out ahead of development. This was to comprise a watching brief on the area subject to previous evaluation, which was due to be stripped and then recovered to form a sports field. An adjacent area to the south, not previously evaluated and due to be excavated to form balancing ponds, was to be subject to a watching brief with a contingency for the rescue excavation of any archaeological deposits exposed.

2 ARCHAEOLOGICAL BACKGROUND

2.1 Previous archaeological work

There are numerous Iron Age and Roman sites within the area. Roman pottery and other finds had first been recovered in the area during a watching brief in 1966 along the course of a major gas pipeline (RCHME 1985, fiche 424, Wootton Site 6). Later trenching alongside the pipeline also recovered Roman pottery and some ceramic building materials. To the north of the pipeline and 300m north-west of the Learning Centre site, a small villa was exposed during groundworks for new housing in 1999 (Chapman 2000) (Fig 2). The villa was recorded and is now preserved within the new housing. The initial investigation, and further work in 2002, has shown the villa to have its origins in a late Iron Age settlement. Occupation ran continuously from at least the first century BC to the late fourth century AD (Chapman and Thorne 2004). In the third and fourth centuries, a large quantity of iron smelting tap slag was deposited in a series of shallow pits. These lay close to a pond, and a small coin hoard, dating to the later fourth century, was found in a pit on the margin of the pond. A small quantity of early Saxon pottery and an Anglo-Saxon inhumation burial, radiocarbon dated to the first half of the seventh century was also recovered.

Archaeological investigations to the south by Birmingham Archaeology at Grange Park, between Wootton Brook and the M1 motorway, uncovered several areas of Iron Age and Romano-British settlement remains. Surface scatters of Saxon pottery were also recorded, although no structural remains of this period were located.

A Roman settlement lies at the head of the next tributary stream to the east, 3km from the site and south of the village of Quinton. This was partly excavated in the 1970s and produced evidence for two main periods of occupation; from the mid first to late second centuries AD and from the late third century continuing into the fifth century (Friendship-Taylor 1974 and 1979).

In addition, it must be mentioned that the well-known site of Piddington Roman villa (Friendship-Taylor 1989) lies on similar terrain only 4km to the south-east.

2.2 Topography and geology

The development area lies to the east of the village of Wootton, c 5km south of Northampton (Fig 1). It lies on a north-west facing slope, which falls from c 89m to c 76m aOD, on land that was given over to rough pasture prior to development. A stream, which is a tributary of Wootton Brook, forms a boundary to the west and Wooton Fields Roman villa lies on the opposite side of the valley facing the Learning Centre site (Fig 2).

The underlying geology of the eastern, higher part of the site is described by the British Geological Survey as Boulder Clay. To the west there are a series of impermeable and permeable deposits, including Northampton Sand and Ironstone, Upper Estuarine Limestone, and deposits of the Lower Estuarine Series (Geological Survey of Great Britain (England & Wales), Solid and Drift, Sheet 202, 1969).

3 OBJECTIVES AND METHODOLOGY

3.1 Objectives

The objectives of the watching brief were to:

Identify and record any archaeological remains revealed by the groundworks, and establish its date, character and depth of burial.

To investigate further the Romano-British settlement remains, with a high priority given to investigating the agricultural base of the settlement remains and evidence for the local past environment.

3.2 Methodology

The work was carried out in accordance with the *Code of Conduct, Standards, Guidelines and Practices of the Institute of Field Archaeologists* (1999) and the Procedural document issued by NCCHET (1995). The site comprised two areas for which there were different archaeological methodologies.

The watching brief area

The area to the north was subject to a watching brief as the site was to be stripped before reinstatement as a sports field (Fig 3).

The area of soil strip measured c 150m east-west by 50m north-south. Only the topsoil/ploughsoil was removed, using a 360° tracked excavator with a toothless bucket, under the observation of an archaeologist. The archaeological features in this area were exposed and recorded, but not excavated. Pottery exposed on the surface was collected to provide dating evidence.

The contingency excavation area

The area to the south was to be dug out to form balancing ponds, and here the requirement was for contingency rescue excavation of any exposed archaeological deposits. The soil strip was carried out under archaeological supervision with a contingency for excavation. The western and central part of the area, measuring c133m west-east by 75m north-south, was stripped in June 2003, using a 360° excavator with a toothless bucket under the supervision of an archaeologist. The eastern end of the area, measuring c66m west-east, was stripped in August 2003. An intermittent metal detector survey was carried out during the topsoil strip. The exposed features were planned and sample sections were excavated at intervals to define the form of the features and to recover dating evidence.

4 THE EXCAVATED EVIDENCE

4.1 Summary of chronology

Table 1: Summary of site chronology

Phase	Period	Description/structures
1	Neolithic/Bronze Age	Residual worked flint no features
2	Bronze Age/Iron Age	Residual saddle quern and rubbing stone
3	Roman settlement (3 ^{rd-} 4 th century)	Ditch systems, pits, ponds and a corn drier/malt oven
4	Late Roman activity (4 th century)	Coin hoard and possibly the inhumation burial?
5	Medieval & post-medieval	Residual topsoil finds no features

4.2 The watching brief area

Phase 3: Roman settlement (3rd to 4th century)

A series of linear ditches were all aligned south-east to north-west, and ran down the slope of the valley side (Fig 3). Above the ditch systems there was a large oval area, 32m long by 15m wide, with a fill of dark soils (014), which may have been a silted and filled in pond. A linear ditch ran directly down slope from the pond, and it was linked with a second small possible pond, 12m long by 8m wide. A broader ditch system ran down slope from this pond, so it would appear that the major ditches may both have provided drainage from the probable ponds.

The two main ditches ran parallel and 18m apart, with a sinuous ditch running between them. Within this area there were a number of narrow gullies, scattered small pits (010, 011 and 012), 1.2m to 2.0m in diameter, and a larger, sub rectangular pit (013), measuring c 3m by 2m. There was also a T-shaped corn drier/malt oven [015]. This comprised a flue, 2.8m long by 0.5-0.8m wide, broadening towards the transverse chamber, which was 2.8m long by 0.2-0.3m wide. The flue and chamber were lined with rough limestone blocks, but no further information is available as the structure was cleaned and planned but not excavated (Fig 4).

To the north there was a possible small ditched enclosure, measuring c 25m by c 12m. Within the enclosure there were two pits (005) and (008), both sub circular and between 1.5m and 1.8m in diameter. Further indistinct linear features were noted but the full extent of these could not be traced.

Pottery recovered from the surface fills of the ditches, pits and ponds is dated to the third to fourth centuries AD.

4.3 The contingency excavation area

Phases 1& 2: Neolithic to Iron Age

A small quantity of residual worked flint was recovered from the topsoil and subsoil, but no contemporary features were found. A saddle quern and a rubbing stone were found during the topsoil strip on the site. They may be of Bronze Age/Iron Age date on stylistic grounds, but as no other early activity was present they might have been used within the Roman settlement perhaps for some purpose other than grinding grain.

Phase 3: Roman settlement (3rd to 4th century AD)

The ditch systems in the southern area of the site are dated by the pottery recovered to the second to third centuries AD.

To the south an east-west ditch [145] ran down the slope, and it appears to have formed a major boundary system to which all the other ditch systems related. It was a V-shaped ditch, 1.0m wide by 0.4m deep, and had been recut twice (Fig 5, section 11). It ran across the site for 130m and its eastern end it turned northward, although a further ditch appeared to continue eastward on the same line. However, neither of these ditches was seen to continue further east into the area that was stripped of soil cover separately at a later date. A narrow L-shaped gully to the east [229] was on the same alignment and cut the more substantial eastern ditch systems.

Along the eastern half of the main boundary, further ditches systems ran to the south of and parallel to the main boundary for 60m, but returned to the join the main ditch to both the west and east. The area enclosed is too narrow to have formed an enclosure, and the entire system may be best seen as modifications to the boundary system, perhaps including some ditches that functioned purely for drainage. At the time of excavation, the ground conditions were quite wet across the southern half of the site. This wet zone coincided with the interface between the permeable ironstone and the impermeable lias clay beneath.

A further east-west ditch [111] ran north of and parallel to the main ditch system for 50m, and this system had been recut at least once (Fig 5, Section 3). This ditch was joined to the main boundary by two sinuous north-south ditches 24m long (Fig 5, Section 2, 109). These ditches may have formed an enclosure, measuring at least 50m long by 25m wide, set against the linear boundary system. The ditch fills were typically a sandy loam with little variation. A single sub rectangular pit [160] lay within this enclosure.

The eastern end of the area contained two linear ditch systems that ran on different alignments to all of the ditch systems to the west. Ditch [225] was aligned north-east to south-west. To the south gullies ran closely alongside it for 40m. This was crossed by a ditch aligned north-west to south-east [269]. This ditch ran across the site for 94m, but it was not observed within the watching brief area to the north, where it may have been lost to ground level truncation.

Ditch [225] was cut by a narrow L-shaped gully [229], 0.3m wide x 0.15m deep, which may have been a continuation of the ditch system alignment across the western end of the site. A sub rectangular pit [249] to the south of the gully [229] had an organic upper fill (250), but no identifiable plant remains were recovered.

Phase 4: Late Roman activity (4th century AD)

The coin hoard

A coin hoard was recovered from the fill of a small pit [215], which was cut into the upper fill of ditch [225] (Plate 1). The hoard had been placed within a small pottery jar with an inverted bowl forming a lid (Fig 7, 1 & 2). This had presumably been placed upright in the ground, but it was found partly inverted with the jar and bowl damaged on one side and with the mass of coins having spilled sideways. It may have been damaged and dragged sideways by later ploughing, and a few coins were found immediately to the north beyond the main mass. Due to the wet ground conditions in this area, the copper alloy coins were all corroded and the bulk of them had fused together into a solid mass (Plate 2). Based on the average weight of the loose coins and the estimated weight of the fused coin mass, it would appear that the hoard contains around 1900 coins. From the few loose coins available, it appears that the hoard had been deposited at the end of the 330s AD.

A small hoard of 39 copper alloy coins of a slightly later date, the 370s AD, was recovered from a pit beside a pond near the Wootton Fields Roman villa (Chapman and Thorne 2004).

The inhumation burial

An isolated inhumation burial (212) lay 3m south of the coin hoard (Fig 3). The grave cut was indistinct, measuring c 2.1m by 0.6m, and the burial was an extended supine inhumation, aligned south-north (Fig 6). No artefacts were recovered and the condition of the skeleton was poor, with some of the bone only existing as stain. The stature of the individual as measured in the ground, c 1.75m tall, indicates that this was probably an adult male. A single tooth was recovered, however, as this is apparently a deciduous tooth, which would have been lost by the age of 12 years, it is evidently not from this individual.

Phase 5: Medieval and post-medieval

An area of disturbed soils [128] within the contingency excavation area was a result of the presence of a former rabbit warren (Fig 3).

A small quantity of medieval and post-medieval finds were recovered from the topsoil by metal detecting during the topsoil stripping. Of these, perhaps the most interesting is a pilgrims flask (lead ampula for carrying holy water).

5 THE FINDS

5.1 The worked flint by Andy Chapman

Four pieces of struck flint was recovered, three from the topsoil and one from context 128. They are all in a good quality, translucent brown to dark grey vitreous flint, typical of material from the environs of the Nene valley. There are two flakes, a larger blade-like flake, 63mm long, and a small bladelet (context 128). None of the pieces has been retouched. The good quality of the flint and presence of a bladelet and a large blade-like flake from a large prepared core suggest the material is most likely to be of earlier Neolithic date, but the absence of any specific tool types leaves this uncertain.

5.2 The querns by Andy Chapman

Two pieces of worked stone were recovered from the topsoil: a complete saddle quern and a small rubbing stone presumably for use on a saddle quern. Both are in Millstone Grit. The saddle quern was in use from the Neolithic through to the middle Iron Age when they were superseded by rotary querns. They would therefore not be expected to be associated with Roman settlement, unless the saddle quern was being used for grinding other materials required for some industrial process, rather than for milling grain.

5.3 The Roman Pottery by Tora Hylton

The evaluation and watching brief produced an assemblage of Roman pottery comprising 705 sherds weighing in excess of 13 kilos (13,670kg). The condition of the pottery is good, although a small number of sherds display signs of abrasion, particularly those sherds, which were recovered during the watching-brief from the exposed feature fills. All the pottery is recorded on a computer-base system; the analysis includes sherd count and weight by fabric type and form (Table 2).

Early Roman pottery (1st to 2nd centuries AD)

There is no diagnostically early material. Twelve mainly undiagnostic and very abraded sherds of Samian span the first and second centuries AD. The only diagnostic sherd is a rim from a Type 31R (Webster 1996, fig 22) which dates from the mid-second century.

Later Roman pottery $(2^{nd} to 4^{th} centuries AD)$

The majority of the diagnostic pottery falls between the second and fourth centuries, with certain fabric types and forms being more specifically mid-late third to fourth century. The assemblage comprises a wide range of domestic forms for use in the kitchen, on the table and for storage. The major fabric type in this period is greyware, making up nearly 50% of the total assemblage. Diagnostic forms represented include dishes/bowls with flanged rims, shallow dishes with plain upright rims (dog dish) and necked and neckless jars. Forms of decoration include, combing, burnishing and rouletting. Shell-gritted wares make up 18.4% of the total and include necked and neckless jars, bowls with flanged rims and a large storage jar. There is a small quantity of Soft Pink Grog fabric. Although there are no diagnostic sherds their size suggests that they are most probably from large storage jars.

FABRIC TYPE	Number	Weight (g)	Percentage
Greyware	336	7255	49.6
Grog-tempered ware	20	321	2.2
Mortaria	24	773	5.3
Nene Valley CC	73	1390	9.5
Colchester CC	1	2	0.0
Oxidised ware	14	190	1.3
Oxford CC	28	576	3.9
Samian	12	131	1.0
Shell-gritted ware	138	2686	18.4
Soft-pink-grog	54	1094	7.5
White ware	6	190	1.3
Total	706	14608	100

Table 2: Pottery by type, number, weight and percentage

Fine tablewares are represented by a range of colour-coated wares manufactured in the Lower Nene Valley and Oxfordshire. Examples of the former date from the mid third to fourth century and are represented by beakers, dishes, bowls and a jar. There are a small number of finely manufactured beakers, including a pentice-moulded beaker with rouletted motif (Howe et al 1980, fig 5, 56), an indented beaker and a fragment of a folded scale beaker (ibid, fig 4, 42, 38 & 39). Other forms worthy of note include dog dishes and flanged bowls (ibid, fig 7, 87 & 79). One of these has a painted motif on the rim, an imitation copy of samian form Dr 36 (ibid, fig 7, 81), which dates to the late third/mid fourth century, and jars decorated with barbotine and rouletted motifs. Mortaria manufactured in the Nene Valley is represented by a reeded rim sherd with black grits (ibid, fig 8, 102).

Oxfordshire ware colour-coat dates from the second half of the third century, it is represented mainly by sherds of red colour-coated wares, together with fragments of mortaria. Colour-coated wares generally replicate Samian forms, and include imitation Drag 31 (Young Type C45, fig 58), a wide rimmed shallow bowl imitating Drag 36 (Youngs Type C47, fig 58) and a flanged bowl imitating Drag 38 (Youngs Type C51, fig 59). A necked jar, Young Type C75 (1977, fig 62) dates from c 325-400 AD. Mortaria forms are represented by Youngs Type C97.1, (1977, fig 67) which replicates Drag 45 and dates from 240-400 AD, and Youngs Type C100 (1977, fig 67, C100.10) which dates from 300-400 AD. All examples have translucent, rounded white/pink quartz trituration grits.

General Comments

Although three distinct site areas were investigated, it was not possible to define any chronological differences between the assemblages recovered from them. There is no diagnostically early material, and most of the assemblage is of second to fourth century date.

5.4 The Roman coins by Ian Meadows

A total of 19 copper alloy coins were recovered as individual finds together with the estimated 1900 coins directly from the hoard. With one exception (small find 1), the individual coin finds were recovered from within the plough soil by metal detector survey. Seven of these coins came as loose finds close to the hoard, and had probably been disturbed from the hoard by ploughing.

The general scatter of coins across the settlement area contains coins from the last quarter of the third century, although a mid-fourth century coin came from the pond in the watching brief area (Table 3).

Find No	Coin Type
1	AE3 copy of URBS ROMA Type
2	AE3 Valentinian I SECURITAS REIPUBLICAE . Prob Lyon mint (364-75)
4	AE4 Barbarous radiate flan (post 275)
5	AE3 SECURITAS REIPUBLICAE Lyon mint Officina II (364-75)
7	A corroded Follis prob 295-313AD 27mm diameter. The Obverse and Reverse were
	both poorly preserved preventing better identification. Whilst possible that this coin had
	been converted to a stud the evidence of a pin shank might equally be migrated copper
	ions as no sign of a perforation was apparent of the other side.
8	Antoninianus of Gallienus (253-68) Both obverse and reverse legends were illegible.
9	Antoninianus of (probably) Tetricus I (270-73)
11	Barbarous radiate post 275

Table 3: Coins by small find number and type

The coin hoard

The seven coins recovered by metal detecting in the immediate vicinity of the hoard comprised four examples of the Urbs Roma issue; two Constantinopolis issues, three Gloria Ex 2 standard type and two more of the single standard type. Where dateable, these belong to the period 330-345 AD.

Find No	Coin Type
16	House of Constantine illegible AE3
17	Two AE3 coins joined by corrosion products. One is an URBS ROMA issue the other a
	Trier issue GLORIA EXERCITUS. A third coin was a AE4 CONSTANTINOPOLIS
	issue with a Trier mint mark TRP. All three coins belong to the period 330-35 AD.
23	Three coins:
	Constantinopolis issue 330-35 AD. The mint mark was off the flan.
	Contstantius I GLORIA EXERCITUS 2 soldiers 2 standards issue, unfortunately the
	mint mark was off the flan.
	The third coin was a House of Contstantine AE3 but the reverse was completely illegible
	and the obverse barely legible beyond the bust.
24	An AE4 heavily corroded illegible flan

Table 4: Loose coins probably from the coin hoard

During excavation and the preparation of the hoard for X-ray a number of coins became detatched from the main mass. It was possible to identify 15 individual coins, of four types. The types are Constantinopolis (3), Urbs Roma (5), Gloria Ex 2 standards (4) and Gloria ex 1 standard (3). This combination would suggest a date in the 330's AD as the Gloria Ex 1 standard type is only issued 335-341. The 2 standard type is earlier 330's and the other two issues have a longer life generally extending up to 337. This suggests that the coins of the hoard belong to the second half of the 330s. Without further cleaning and without being able to identify individual emperors or mint marks greater precision would be impossible. From the weight of the fused coin mass it is estimated that the hoard contains c 1900 coins.

The pottery vessels containing the coin hoard by R.M.Friendship-Taylor

The jar (Fig 7, 2) is relatively small and is typically later Roman in date. It has been manufactured from finely granulated shell-tempered fabric and is fired to a brown/black colour, it is typical of 'Harrold type' wares manufactured in Bedfordshire (Brown, 1994). A similar rim form has been noted on an example from Harrold (ibid 1994, fig 29, 177) and it appears not to be really late in the sequence of the later fourth century rim forms.

The dish/bowl (Fig 7, 1) is also in a finely crushed shell-tempered fabric, it is fired to light fawn colour and is typical of the Harrold-type wares. It has a small incipient bead around the top of the rim (Brown, 1994 Fig 32, 211). This feature is not consistent with fourth-century vessel forms, suggesting it was produced during the late third or, at the latest, the early fourth century AD.

5.5 Other Roman finds by Tora Hylton

There are two other finds which may be dated to the Roman period, they include a bronze lockpin (Fig 7, 3, Small find 3) and an unidentifiable sheet fragment (not illustrated, SF15), both were recovered from topsoil. The exact purpose of the class of object identified as a lock-pin is uncertain they are commonly found on sites of Roman-British date. A large number were recovered at Vindolanda (Birley 1997, 30, figs 11 and 12), while others have been recorded at Fishbourne (Cunliffe 1971, fig 46, 118), Wood Corner, Milton Keynes (Zeepvat , 1987, fig 43, 88), Bancroft Villa, Milton Keynes (Hylton 1994, fig 150, 141).

5.6 Other Roman finds by Tora Hylton

A total of 179 fragments of ceramic tile weighing in excess of 16 kilos (16.064kg) were recovered during the excavations and watching brief. The greatest concentration of tile was located within a series of ditches lying to the south-west of the excavation area, while smaller quantities were recovered from the surface of features to the north uncovered during the watching brief. Much of the assemblage is fragmentary and displays signs of abrasion, suggesting that it had been lying around for sometime prior to deposition. The tile has been recorded on a database system (Access) which will be retained as part of the archive.

The bulk of the material comprises identifiable fragments (76%), which can be divided into two broad functional groups: roofing tile and hypocaust tile. The remaining 24% comprises small fragments which are difficult to identify with any certainty. Examination of the fabrics (by eye) indicates that three main fabric types are represented, although there may be slight variations within each type. The fabric types represented parallel those observed at the nearby Wootton Villa (Chapman 2000 and Chapman and Thorne 2004) which is sited some 300 metres to the west, therefore the same type series has been used.

1) Shell-tempered fabrics containing abundant crushed fossil shell and fired to a pale buff to dark orange colour/brown colour; this type is predominant. A similar fabric has been recorded at Quinton (Friendship-Taylor 1979, 121ff). Friendship-Taylor suggest that it displays similarities to the material produced at the Harrold Kilns in Bedfordshire (Brown 1974, 9).

- 2) Sandy fabrics with varying quantities of fine-medium sand, which are generally orange in colour. A small amount has a distinct grey core.
- 3) Grog-tempered, soft with sparse inclusions, fired to a buff/pink colour with dark-light grey core. This fabric displays similarities to soft-pink-grog type fabrics and resembles Milton Keynes Fabric type five (Zeepvat, 1987, 120) and Quintons Fabric type d (Friendship-Taylor 1979, 123).

Roof tile

Roof tile makes up 54% of the total by weight. It is represented by fragments of tegulae (62) and imbreces (20), all three fabric types are represented, but Fabrics 2 and 3 predominate. A large proportion of tegulae fragments (77% by number) were recovered from a single small ditch (fills 101, 114), while the remainder were scattered through out the site.

There is a distinct variation in the shape and thickness of the flanges present, illustrating slight variations in manufacturing technique, knife-trimming, hand soothed etc. Six different shapes were observed, more or less paralleling some of those illustrated by Brodribb (1987). The range includes flanges with flat tops, sloped-tops, rounded and even one that tapers from the base to a rounded point, terminating inline with the outside edge of the tegula.

Evidence for the fastening of tegula to keep them in place is provided by one perforated fragment (Fabric 2). The hole is positioned 20mm from the top edge, and has been drilled from both sides after firing. Similar examples have been recorded at Bancroft Villa (Zeepvat 1987, 120) and Piddington, Northamptonshire (Brodribb 1987, 10).

Four fragments retain worn patches of maroon and dark red paint, on one example the paint only survives close to the flange, where it would have been protected from weathering by the imbrex. In general, the remains of paint occur on buff-coloured grog-tempered fabrics (Fabric 3) which are pale in colour. Excavations at Verulamium produced a number of pale yellow tiles which had been deliberately painted red. Numerous sites in the Midlands have produced evidence for the use of coloured paints on roof tiles, including Bancroft Villa, Milton Keynes (Zeepvat 1987, 119) and Croughton Villa (unpublished), for further examples see Brodribb (1987, 137).

Although the assemblage is fragmentary, there are vestiges of grooved indentations on three tegulae fragments. One fragment is furnished with two parallel grooves running obliquely across the tile, it is possible that this is part of a makers mark, which are commonly recorded on fragments of tegula (Brodribb 1987).

There are a small number of fragments from imbreces (20) weighing just over 0.7kg, the survival rate of this type of tile appears to be low, perhaps due to its shape and the thinness of its walls. All three fabric-types are represented and one fragment is furnished with a combed wavy line pattern running along the length of the tile.

Hypocaust tile

Hypocaust tile is represented by seven fragments of box flue, identified by the presence of keying lines on the exterior surface. Fabrics 1 and 2 are represented and all examples are furnished with horizontal combing executed with a 4-5 pronged tool. Other pieces worthy of note include two brick fragments, one a large square brick, measuring up to c.205mm with a depth of 45mm and weighing 2.375kg. The large size suggests that this piece is part of a "bessales", a tile used to create pilae (pillars or piers) to support the floor suspended above the hypocaust (Brodribb 1987, 34).

CONTEXT	TILE TYPE: NUMBER/WEIGHT										
	TEGULA		IMBREX		BOX FLUE		STRUCTURAL		IND	INDETER.	
	No	Wgt	No	Wgt	No	Wgt	No	Wgt	No	Wgt	
1			2	62					13	320	
2	1	46	1	92	1	147			2	185	
5					2	132					
6									1	32	
100									1	54	
101	28	3705	3	269	1	46			32	678	
102					1	264					
103					1	77					
104	1	127	2	180			1	2375	1	60	
105	1	410									
107	6	1028									
108	1	287									
114	20	1602					1	332	20	673	
116	1	69	1	57					7	574	
128			11	108					1	55	
168	2	650							5	542	
178	1	207			1	264			2	176	
192									1	33	
200									1	48	
TOTAL	62	8131	20	768	7	930	2	2707	88	3928	

Table 5: Tile by context, type, number and weight (g)

5.7 Medieval and post-medieval finds

A small number of medieval and post-medieval objects were recovered from the topsoil. Those worthy of note include a lead ampulla (pilgrim's bottle) (SF14), a leg from a copper alloy cooking-pot or cauldron (SF25), a book clasp (SF 6) and a trading token (SF13).

The ampulla is damaged (squashed flat) but almost complete. It is undecorated and retains two lugs, one either side of the vessel at the junction of the neck and the base. Ampullae are miniature flasks designed to contain holy water, they would have been stitched to clothing, or suspended from the neck (Spencer 1968, 139). They were in use from the twelfth century through to the fifteenth century.

The leg from a cooking-pot has a triangular cross-section and the inside face is flat, it expands slightly towards the basal end. A similar style of leg has been recorded from Southampton (Harvey 1975, fig 243, 1786) and dates to the sixteenth century.

The book clasp dates from the 15th-17th century. The trading token is a Hans Schvltes Nuremburg stock jetton, which dates from the sixteenth-sevententh centuries (Barnard 1916, plate 33, 82).

6 FAUNAL AND ENVIRONMENTAL EVIDENCE

6.1 Animal Bone by Karen Deighton

Animal bone with a total weight of 9.02kg was recovered by hand from 73 contexts. Identifiable, measurable and ageable bone was noted and quantified by context and by phase. Results are presented in Table 6. Identifiable bone included limb bones, loose teeth, mandibles, occipital condyles, atlas and axis. Ageable bones included bones where fusion was discernible, neonatal/juvenile bone and teeth. Measurable bones were those exhibiting criteria after Von den Driesch (1976). Bone fragments from sieved samples were included.

Preservation was moderate. Fragmentation varied from high to moderate across the site and surface abrasion was heavy with bone from five contexts exhibiting flaking. Fragmentation was largely the result of old breaks. Evidence for butchery was low with only three examples (chopping and knife marks) and canid gnawing was minimal. Both were possibly obscured by surface abrasion. No burned and calcined fragments were noted. The amount of bone recovered from the sieved samples was minimal.

Table 6: Animal species:	Taxonomic distribution
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Equus	Bos	Ovicaprid	Sus	Avis	Total
(horse)	(cattle)	(sheep/goat)	(pig)	(bird)	
9	76	24	2	1	112

No wild species were present, and the assemblage is dominated by cattle, with considerably lower numbers of sheep/goat. Other species were present in "trace" quantities. No neonatal elements were observed. The bird element present appeared to be goose. The range of species seems to be typical for the Roman period (Robinson and Wilson 1983) as does the dominance of cattle and indeed the lower numbers of other species. The assemblage would appear to be domestic in origin; the result of butchery waste or kitchen refuse.

6.2 Human burial (212) by Hari Anne Jacklin

The remains are in such a poor state of preservation that very little analysis has been possible. All the bones are of an extremely fragmentary nature with many absent. Estimations of sex, age, stature, analysis of post-cranial morphology, pathological conditions and dental pathology have been impossible due to the lack of data able to be retrieved from such a poor specimen.

The only piece of evidence relating to the age of the individual is a solitary tooth. The tooth is a deciduous molar (dm1– unsided) which erupts at approximately 18 months (=/- 6 months) and is replaced by permanent teeth between the age of 10 and 12 years (White1991, 342-343).

6.3 Environmental evidence by Karen Deighton

Eleven samples were collected by hand. Nine of these were processed using a siraf tank fitted with a 500-micron mesh and flot sieve. The resulting flots were dried and examined with a microscope (10x magnification). Results are presented in Table 7. Preservation was reasonable although some cereal grains were fragmentary and abraded.

Sample	Context	Туре	Vol	Cereal	Chaff	Charcoal	Wild/weed
			(1)				
1	144	Gully	12	V frequent	Frequent	Moderate	Occasional
2	211	Ditch	20	Occasional	Moderate		Occasional
3	114	Boundary	20	Moderate	Occasional	Frequent	Occasional
		ditch					
4	116	Ditch	20	Moderate	+	Frequent	+
5	161	Pit	20	Occasional	Frequent	Occasional	Moderate
6	176	Ditch	10	Moderate	+		Occasional
7			10	Frequent	Frequent		Occasional
8	188	Ditch	20	Occasional	+		Occasional

Table 7: Charred plant material by context

Key +=present Occasional=2-10 Moderate=10-30 requent=30+

Sample 10 contained modern elder seeds only. Samples 11 and 12 were waterlogged but produced no identifiable plant remains. The cereal species present included spelt (Triticum spelta), hulled barley (Hordeum vulgare) (2row and 6row), 2 possible oat (Avena sativa) and 2 possible rye (Secale cereale)(sample6). Cereals are represented by both grains and chaff. The frequent presence of chaff in certain contexts suggests that on-site processing was taking place.

The weed species present were cleavers (Galium aparine), fat hen (Chenopodium album) and dock (Rumex sp). All are common crop weeds, which would have been introduced to site with the harvested crops. Oat could also be present as a wild contaminant.

Snails were seen in all samples, but are restricted to Ceciliodes asicula, an intrusive species.

7 CONCLUSION

By Andy Chapman

A complex system of linear ditches was recorded at the Learning Centre site. These clearly represent quite intensive usage of this area during the third and fourth centuries AD. Unfortunately, these are isolated islands of archaeology and the full extent of the ditch systems is unknown, which makes it difficult to discuss the form and function of this system.

The major ditches do appear to be extensive linear boundaries that presumably defined large blocks of land, perhaps delineating an extensive field system. However, the presence of numerous subsidiary ditches and the presence of quantities of pottery and some building materials, suggests that there was associated domestic activity, although no exact focus for this has been established. The density of pottery recovered was greater towards the western and central part of the contingency excavation area, suggesting that the focus of settlement did lie on the valley slopes. In the adjacent northern area the presence of a corn drier/malt oven is also a clear indication that agricultural crop and cereal processing was taking place here, and this is also indicated by the environmental evidence. The animal bone shows a dominance of cattle, with some sheep and only traces of the other major domestic species, but the assemblage is quite small.

Only a handful of sherds were recovered from the ditches at the eastern end of the site. This, and the presence of the coin hoard and the inhumation burial, may indicate that these eastern ditch systems lay towards the margin of the settlement area, perhaps forming the up-slope limit of the field system surrounding the settlement area.

A crucial question is the relationship of this activity to Wootton Field Roman villa, which lies on the opposite slope 300m to the north-west. At the villa site there was a possible pit alignment, perhaps late Bronze Age/early Iron Age in date,and a single pit contained middle Iron Age pottery. There was extensive evidence for continuity of settlement from the first century BC to the later fourth century AD. A late Iron Age/early Roman settlement appeared to have been reformed as a small, low-status villa by the late second century AD. This clearly remained in use until the late fourth century, shortly after the deposition of a small hoard of coins in the 370s.

The Centre for Learning site has produced no evidence for settlement in the Iron Age and only a very sparse quantity of residual early Roman pottery. It therefore appears that while the western valley slopes had been a focus for early settlement, the eastern slopes were devoid of activity until the creation of the ditch systems in the third century. The formation of these ditch systems therefore occurs following the establishment of the villa on the opposite slopes, and it does seem most likely that they formed part of the villa estate established at this time. The presence of the corn drier/malt oven suggests that this area may have formed part of the villa farm. The villa precinct itself had become a centre for industrial production by the fourth century, with iron smelting and perhaps copper working being undertaken.

The excavation has therefore added to the understanding of the context of the Roman villa. However, the limited potential for investigation beyond and around these areas, which are now lost to housing, means that a full understanding of the villa estate and its arrangement cannot now be obtained.

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16 March 2004



Fig 1















Plate 1: The coin hoard as excavated



Plate 2: Views of the coin hoard following lifting and partial cleaning

Northamptonshire County Council Planning, Transportation & Environment

Consultancy

Advice on planning matters including scheduled monument consents and Section 106 Agreements

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