

ARCHAEOLOGICAL RECORDING
ON LAND OFF
EVESHAM ROAD, UPPER MOOR,
PERSHORE, WORCESTERSHIRE:
ARCHIVE REPORT

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Archaeological recording on land off Evesham Road, Upper Moor, Pershore, Worcestershire: archive report

Tom Vaughan

With contributions by Ian Baxter, Laura Griffin, Peter Guest, Katie Head, Robin Jackson, Mercian Archaeology and Steve Willis

Summary

A programme of evaluation and subsequent excavation and salvage recording in advance of development of land at Upper Moor, Worcestershire has provided important evidence of a late Roman settlement within an existing later prehistoric and Roman landscape.

The earliest activity was the establishment of a track and field system in the early Roman period. At this time it appears that settlement areas lay to both the west and east of the site, dating evidence suggesting occupation of these during the 1st through to the early 3rd centuries. Although evidence for these settlement areas is restricted to surface finds and those deposited in the surrounding field systems, both appear to have fallen into decline or even have been abandoned towards the end of the 3rd century or early in the 4th century. At this time a new settlement focus was established in the area of the present site. This was probably constructed within an existing agricultural enclosure and comprised a single round house, with defined zones of activity adjacent. The main enclosure was subdivided with a small burial area to the south-east, while cess waste was deposited within the ditch to the north-west. Burnt, possibly human, bone fragments were also recovered from the south-west corner of the main enclosure. Substantial quantities of occupation waste were recovered from the ditch defining this enclosure, and especially from its southern boundary. These indicated a domestic function for the enclosure and associated roundhouse. Several further enclosures were attached to the main settlement area, of probable agricultural function. Dating indicated that occupation of this area extended into the late 4th to early 5th century AD, an unusually late date for Roman activity within the county.

The two inhumation burials, aligned north-south, were tentatively identified as a middle aged female, and a younger adult male. Although heavily truncated by ploughing, she was found to have been wearing hobnail boots and a necklace of glass beads, while he had iron pins or brooches at either shoulder, possibly fastenings for a cloak or shroud.

A large number of metal artefacts and coins were also recorded, particularly from within the main enclosure ditch. This high quantity of artefacts was unusual for a rural site in this region, possibly indicating the site to have been of local importance, although it may simply be a reflection of the fact that few similar sites have been so comprehensively metal-detected previously.

The environmental remains indicated a primarily pastoral economy with the animal bone assemblage indicating that cattle ranching was important, with dogs used for herding. Horses were also a notable presence, while venison and chicken were also eaten in addition to cattle, sheep and pig. There was also some evidence for the working of red deer antler, which indicates the proximity of extensive woodland. Low levels of crop waste suggested that cereals were imported from outside the settlement, although querns provided evidence of for small-scale domestic processing. The molluscan assemblage highlighted a landscape of open grassland, much of it short-turfed, probably grazed, while the presence of hosts of liver fluke parasites provided further evidence for livestock.

Section 1: Introduction

1. Background

Archaeological recording was undertaken on land off Evesham Road, Upper Moor, Pershore (NGR: SO 9762 4785; Fig 1), on behalf of RPS Consultants, for their client Simms and Wood Ltd. The project was completed in advance of construction of a vegetable washing and packing plant with associated water storage ponds, access and landscaping.

The work was undertaken in order to fulfil a planning condition relating to an application made to Wychavon District Council (reference W/00/1276). This required the completion of an agreed programme of archaeological work on the site, which was considered to be of archaeological interest (WSM 27212).

2. Project parameters

The project conforms to the *Standard and guidance for archaeological excavation* (IFA 1999a) and *Standard and guidance for an archaeological watching brief* (IFA 1999b).

The project also conforms to a Brief prepared by Worcestershire Archaeological Service (AS 2002a) for which two separate project proposals (including detailed specification) were produced and approved (AS 2002b; AS 2002c).

3. Location, topography and geology

The site comprises a rectangular plot, 150m by 283m, aligned north-south, encompassing an area of *c* 4.25ha (Fig 1). Prior to the development it was under arable cultivation. It was bounded by hedges and ditches to the north, east and west, and a fence to the south.

It is located within the parish of Hill and Moor, north of the recently constructed A44, Wyre Piddle bypass (SO 9762 4785), 1km east of Wyre Piddle village and 3.5km north-east of Pershore. The River Avon lies 1km to the south-west. Topographically the site encompasses the northern edge of the level river floodplain, and the adjacent slope, at a height of *c* 26 - 35m AOD.

The soils of the area are variously defined. The predominant soil subgroup is Bishampton (572), stagnogleyic argillic brown earths, comprising slightly mottled, non-calcareous loams or loams over clays, with a slowly permeable subsoil and slight seasonal waterlogging (Soil Survey of England and Wales 1984). However, the soil associations differ between the flood plain and the adjacent slope. Within the former the Wick 1 soil association (541r) predominates. This comprises deep well-drained coarse loamy and sandy soils, locally over gravel, some affected by groundwater, over solid geology of glaciofluvial or river terrace drift. On the slope above, the Evesham 2 association (411b) predominates, of slowly permeable calcareous clayey soils, some slowly permeable seasonally waterlogged non-calcareous clayey and fine loamy or fine silty over clayey soils, above Jurassic and Cretaceous clay (Soil Survey of England and Wales 1983).

4. Archaeological and historical background

The archaeological and historical background has been presented in RPS Consultants evaluation report (2002) and is supported by the results from projects undertaken locally at Throckmorton and along the Wyre Piddle Bypass. These can be summarised as follows.

Two Palaeolithic-Mesolithic hand axes have been recovered within the vicinity. A suggested Neolithic multi-period crop-mark complex lies south of Wyre Piddle and small quantities of

probably Neolithic stone tools and flakes were recovered during work on the Wyre Piddle bypass. Three Bronze Age crouched beaker burials have been excavated to the south of the railway at Lower Moor. To the west of the study area, Bronze Age pottery and flints were recovered in association with boundary features of late Bronze Age or Iron Age date. Multi-phase Iron Age enclosure ditches with associated settlement activity were also identified during the bypass investigations.

A Roman settlement is believed to be situated north of the bypass and west of the current site, while stray Roman finds indicate that peripheral activity continued to the south. Roads of Roman date are conjectured to lie under the present main road through Wyre Piddle village, to the south, and along the Throckmorton ridge to the north. There have been no finds of Anglo-Saxon date within the vicinity of the site, although the shrunken medieval settlement at Hill may have pre-Norman origins. Extensive remains of ridge and furrow have been identified surrounding Hill House c 0.5km to the north-east of the present site. Wyre Piddle is first documented in the Domesday Survey of 1086, the name being potentially related to the Wyre Forest, which may have extended this far south. The character of the landscape changed in the post-medieval period with the introduction of enclosure of the medieval strip-fields in the 18th-19th centuries, and the construction of the railwayline to the south in the mid 19th century (RPS Consultants 2000, 8-11; Griffin, Griffin and Jackson forthcoming).

Recent works at Throckmorton Airfield, to the north, have revealed substantial structural, artefactual and ecofactual evidence of occupation and activity from the later prehistoric onwards (WSM 30519, 30861 & 30862; Griffin, Griffin and Jackson 2005). Middle Iron Age remains comprised enclosures with roundhouses for domestic occupation and larger circular structures for agricultural activity. Undated features disturbed by the Middle Iron Age activity indicate that earlier activity may have predated this phase. Frequent recutting of the ditches indicates the long-lived nature of the settlement, while sheep husbandry appears to have been the main element of the economy, accompanied by small-scale cereal processing. Subsequently the focus of activity shifted to the east, where both Late Iron Age and Romano-British settlement and field systems have been identified. Extant features included deep, well-defined ditches and metalled surfaces. Cattle appear to have replaced sheep as the predominant domesticate in this period. A peak of activity was reached in the later 2nd to 3rd century and abandonment occurred in the early-mid 4th century. Dark-earth formed over the site from the mid 4th century, only disturbed by ridge and furrow agriculture much later, in the medieval period.

5. Project background

5.1 Evaluation

The site was evaluated in late 2001 and early 2002 by RPS Consultants with geophysical survey, metal detecting, fieldwalking and trial trenches which were undertaken sequentially so as to inform each subsequent phase (WSM 31639).

The evaluation Brief (AS 2001) indicated the aims of the investigations as follows:

- to further characterise and obtain dating evidence for known archaeological features in the area of Trench 7 of the Wyre Piddle Bypass evaluation (Napthan *et al* 1997); and
- to establish whether artefact concentrations to the immediate west of the development area related to prehistoric and Romano-British settlement or industrial activity within the site.

The evaluation identified two predominant periods of activity, Roman and medieval (RPS Consultants 2002). The former comprised linear ditches and enclosures with residual evidence of stone structures. The latter comprised the remains of largely ploughed out agricultural ridge and furrow.

5.2 **Excavation and watching brief**

5.2.1 **Aims and objectives**

Following completion of the evaluation and on the basis of its results, a further brief was issued (AS 2002a) requiring the undertaking of an excavation, watching brief and subsequent report. The brief indicated that significant deposits might be defined as those likely to be of Romano-British date (AS 2002a).

The resultant archaeological recording was undertaken by the Archaeological Service and was co-ordinated by RPS Consultants. This variously targeted selected areas of disturbance within the development (Fig 2) and had the following aims (AS 2002b; AS 2002c):

- To establish the extent and character of Romano-British activity. In particular the concentration and character of the artefactual assemblage from the evaluation, allied to increasing evidence for the character of surviving deposits relating to Romano-British rural occupation areas in this region, indicated that occupation would be present within the site. The targeted excavation area focused upon the area of highest potential for occupation (Area 3). This was anticipated to include boundary features and associated concentrations of domestic refuse with some lesser internal divisions and possibly also ephemeral structural remains (AS 2002b).
- The associated watching brief of Areas 1, 2, 4-6 (subject to a separate proposal: AS 2002c) examined the character of similar boundary features in areas where low levels (or isolated concentrations) of artefactual and ecofactual material were present. These were anticipated to relate to field systems surrounding occupation area.
- To establish the distribution of artefactual and ecofactual material within Romano-British boundary features and thereby characterise areas of occupation and other activity.
- To establish the date range for occupation and activity within the targeted excavation area (Area 3). The evaluation indicated that site activity dated from the mid-late 1st century AD onwards. Particular interest lay in the presence of late 4th to early 5th century material, indicative of late Roman or potentially post-Roman occupation. Evidence of activity of this date is rarely encountered in Worcestershire or the region as a whole and was thus of considerable potential importance.
- To recover a sufficient artefactual and ecofactual assemblage to allow examination of social and economic activity at the site and place it within its local and regional context. In particular comparison with the results of recent programmes of investigation in the immediate vicinity (along the Wyre Piddle Bypass and at Throckmorton) would support understanding of local rural settlement patterns and economy.

5.2.2 **Fieldwork**

The excavation phase (Area 3) was undertaken between 19th November 2002 and 17th January 2003. The watching brief (Areas 1, 2, 4, 5 and 6) was undertaken between 18th November 2002 and 11th April 2003.

5.2.3 **Post-excavation analysis**

All fieldwork records were checked and cross-referenced. Analysis was effected through a combination of structural, artefactual and ecofactual evidence, allied to the information derived from other sources.

An assessment report and post-excavation proposal were undertaken on completion of the site works (Vaughan and Jackson 2003) leading to the analysis reported within this document.

5.2.4 **The methods in retrospect**

The methods adopted allow a high degree of confidence that the aims of the project have been achieved. However it should be noted that the Areas were not investigated equally. Area 3 was the subject of a full-scale archaeological excavation, whereas Areas 1, 2, 4, 5 and 6 were only monitored during the on-going groundworks. This must be taken into consideration when considering the evidence from each area. For example, Areas 1 and 5 were entirely negative, however, soil stripping in these areas was rarely undertaken below the level of the modern topsoil, such that the surface of the natural matrix was seldom observed.

5.3 **The archive**

The archive consists of:

35	Fieldwork progress records AS2
7	Photographic record sheets AS3
10	Colour transparency film
10	Black and white photographic films
5	Drawing number catalogue AS4
5	Context number catalogue AS5
2	Sample catalogue AS18
8	Levels sheets AS19
212	Abbreviated context records AS40
5	Trench record sheets AS41
1	Small Finds record sheet
114	Scale drawings
17	Boxes of finds
1	Computer disk

The project archive is intended to be placed at:

Worcestershire County Museum
Hartlebury Castle
Hartlebury
Near Kidderminster
Worcestershire DY11 7XZ
Tel Hartlebury (01299) 250416

Section 2: The excavation and watching brief

6. Introduction

Four defined periods of activity were identified. Very limited prehistoric and medieval activity was recorded, but the most significant were an earlier Roman field system and a later Roman farmstead.

The results of the analysis are presented below with more detailed information and tables contained within the appendices. The areas and features recorded are shown in Figs 2 - 15.

6.1 Prehistoric activity

Prehistoric activity comprised a small quantity of residual material. Two struck flints were recovered from Area 3. One was retrieved from the subsoil [301]. The second lay within the homogeneous fill [311] of a possible pond [415] on the south side of the site, determined to be of late 3rd/early 5th century. Neither flint was chronologically diagnostic and in the absence of any concentrations of material or deposits these are considered to reflect nothing more than stray losses relating to unspecified early prehistoric activity in the general area.

6.2 Earlier Roman activity (mid 1st to early 3rd century)

A sequence of intercutting linear features were identified along the eastern side of the site within the access road easement strip (Areas 2 and 6), the drainage trench adjacent (Area 4) and the car park strip to the north (Area 6), which contained occasional finds, of predominantly 2nd/3rd century date (Figs 3-8).

The earliest feature [248/251/262/603/610] was a wide shallow ditch observed over a distance of 72m. This was aligned north-south and curved to the north-east at its north end, but was unclear at the south end. This had been cut by a larger ditch [225/239/258] also aligned north-south, but with right angles to the north and south where it curved sharply to the west. A 2.10m wide gap between wide rounded termini was noted to the north-east corner. It is conjectured to be the east side of a c 54m wide rectilinear field enclosure.

An irregular north-south ditch lay to the east [202/207/214/234] and was observed for over 104m. It had no direct relationship with the above features, but was cut by a wide east-west linear [246] toward the south end of the area. This linear was in turn cut by a further ditch of which 93m was recorded [212/219/230/254]. This also cut the above features, and mirrored the alignment of [248/251/262/605/608], curving off to the north-east. Toward the south end a 1.60m wide access gap was noted. It was not clear for its entire length, notably toward the middle of the area where the latest feature [243] cut across. This latter gully was aligned east-west and had a sub-round terminus to the east. A wide east-west ditch [271] lay to the north end of Area 2.

A further wide shallow linear [605/608], lay north of and parallel with [248/251/262/603/610], although it had no stratigraphic relationship with it.

To the west, a series of north-east/south-west and east/west linears were identified. The two narrow gullies on north-east/south-west alignments [514] and [516] lay to the south and may relate to [202/207/214/234] and [212/219/230/254] respectively. Five parallel east-west linears were noted to the north. Two of these ([506] and [512]) were narrow gullies; the others ([503], [508] and [510]) were wider ditches. The only visible stratigraphic relationship was the truncation of [508] by [510] adjacent. Although intrinsically undated, they have been dated by association with the aforementioned linears.

Also west of the ditches, a group of probable pits was identified. Of these, [518], [520] and [522] were simple features with a single fill while [525] was more substantial with near vertical sides and a flat base, lined with un-worn sandstone slabs (Fig 5; Appendix 6: Plate 11). The upper fill contained frequent charcoal. A possible ditch, [526], aligned north-north-east/south-south-west, lay to the west, apparently defining the western extent of the pit area. Although dated only broadly to the Roman period, these features have been dated by association with the linears above.

These features taken together appear to represent recut enclosure ditches forming part of a field system and associated activity, possibly including a droveway connecting with the Roman road to the south. They are the earliest evidence of agricultural landscape division, which shifted slightly as the boundaries silted up and were re-dug as required. It is worth noting that they lie parallel and adjacent to the present field ditch and hedge, indicating the possible continuity of this boundary for the last eighteen hundred years.

6.3 **Later Roman activity (late 3rd to late 4th/early 5th century)**

A series of enclosures were identified within the main area (Area 3) to the north and west of the field systems described above in Areas 2, 4 and 6 (Figs 9-15 and; Appendix 6: Plates 1 and 2). The enclosures were rectilinear in form, and aligned north-south by east-west in sympathy with the main boundaries discussed above as well as the Roman Road through Wyre Piddle village, to the south. Although a number of them portrayed evidence of recutting, the stratigraphic evidence indicates little distinct phasing. The presence of residual material of Early Roman date in many features suggests that at least some elements of the enclosure ditches represent parts of the earlier field system, which were re-used and subdivided during this phase of settlement activity.

It was possible to identify zoning both across the site and also within the enclosures themselves.

The main enclosure, 20m by 25m, had a single entrance to the east (Fig 9). It had been recut with a shallow gully across the 2.70m gap between the termini - presumably to improve drainage or to prevent animal access. A possible truncated eaves-drip gully lay toward the north-west corner of the enclosure, defining the location of a structure, potentially up to 5.50m in diameter. A linear spur off the main enclosure ditch lay to the west, while to the north of the eaves-drip, cess deposits were identified. Within the south-east corner of the enclosure two inhumation burials were identified (Fig 10; Appendix 6: Plate 7). Both were aligned north-south, adjacent to the main ditch. A small pit comprising burnt stones and extensive charcoal was located to the west. A spur from the main ditch to the south further defined this burial area.

Four other enclosures were recorded to the west and south of the main one. That to the west, 20m by 22.50m, was open to the north, and contained two staggered east-west aligned spurs off the main ditch - one to the east and one to the west. They are postulated to be corrals for stock-control. Another enclosure was identified further west, which continued beyond the boundaries of the excavation area. Two lay to the south. That to the south-east continued beyond the south extent of the excavation area and contained no defined features. That to the south-west similarly extended beyond the western and southern limits of the excavation area, but it mirrored that to the north, having an east-west spur off the eastern boundary. It also contained a large amorphous and irregular feature obscuring the spur. This is conjectured to be the result of trampling boggy ground by stock, probably as it was a waterlogged area of the farmstead, possibly even a pond used for watering the animals. A high density of animal bone within the ditch which fed into this feature may be the result of deliberate dumping of charnal waste at this point, or of a gradual build up of material washing from elsewhere in the settlement.

The focus of the site within the eastern (main) enclosure is confirmed by the presence of large quantities of domestic debris deposited within it. These comprised pottery, animal bone,

tile and other finds, which were distributed throughout but were most heavily deposited in the southern boundary. The other enclosures contained lower quantities of material suggesting that they may have had non-domestic functions. Of these, the south-east enclosure produced the highest quantity of material. Along with the pattern of disposal within the main enclosure this suggests that the focus for deposition of waste lay towards the south of the occupation area. The south-west and west enclosures contained notably smaller quantities of material.

Amongst the finds assemblage, of particular note was the recovery of 17 metal objects during the metal detecting survey the majority of which came from the main enclosure. Excluding the four recorded metal finds associated with the burials (also within the eastern enclosure) this amounted to almost 60% of the total (being 33, 2 of which were unstratified within the subsoil). 18 of the recorded finds were coins, the rest comprised an inlaid copper ring, plus indeterminate lead and iron fragments (Sections 2.13.2-6 below). The copper alloy coins date predominantly from the mid 4th century (Section 2.11 below). This density of coins is previously unheard of from a rural county site, either indicating that the site was of local import, possibly as a market centre, or simply highlighting the need for full metal detecting surveys, which have generally been lacking during excavations.

A large number of roughly squared grey limestone slabs were recovered from the subsoil and within the ditch fills. No direct structural evidence was identified on the site (a single posthole truncated by a later ditch is thought to have been used as a surveying point while planning the eastern enclosure!). These blocks are conjectured to be post pads or dwarf walls upon which wattle and daub or cobb/mass wall structures would have been constructed. A quantity of burnt stones was also noted within the ditches. These included both burnt limestone fragments and cracked pebbles. The former are interpreted as hearthstones, the latter as potboilers for heating water.

A single feature was identified which predated the enclosures. This pit [340] contained extensive industrial debris and was identified on the western side of the site, cut by ditch [325]. There was no evidence of in-situ burning, but rather that it was used as a rubbish pit for disposal of kiln waste.

A single pit [405] was determined to post-date the enclosures. It lay in the south-east corner of the site and cut north-south ditch [401], and contained mixed silted material in addition to domestic and hearth waste. It truncated another pit [407] to the north, whose relationship with the main ditch [401] was indeterminate.

After the Roman period the site fell out of use and was gradually sealed by colluvial material derived from the slope to the north.

6.4 Medieval activity

In the medieval period the area was cultivated, as part of the communal strip-field system surrounding the village of Wyre Piddle. This led to the development of parallel linear earthworks, ridge and furrow, whereby the repeated ploughing up one side of each narrow strip and down the other caused the soil to alternately bank into ridges or be scoured out creating troughs or furrows. The effect of this agricultural method was two-fold: within the furrows the plough bit successively deeper, disturbing the colluvial subsoils and the surface of the natural material below, thereby disturbing previously sealed deposits; whereas under the ridges the soil built-up, which helped to preserve the earlier deposits.

The geophysical survey undertaken as part of the evaluation (RPS CONSULTANTS 2002) identified ridge and furrow aligned north-south. This was confirmed during stripping of Areas 1, 3 and 6. However, once hand-excavation had commenced, it became apparent that a series of east-west linear features also existed in Areas 2 and 3, which similarly post-dated the Roman activity. These included shallow ill-defined linears in addition to a more substantial and well-defined east-west ditch along the north side of the excavation area. This latter feature was determined to be a medieval headland or field boundary ditch, dividing the

sloping land to the north from the level floodplain to the south. The shallow linears were considered to be traces of earlier furrows, probably the result of an east-west ploughing regime, which was abandoned in favour of the more evident north-south alignment, which would have provided better drainage. These furrows were not allocated context numbers, unless their character was unclear at the time of excavation.

6.5 **Post-medieval and modern landuse**

Prior to the current development the site was still in use as an agricultural field, under an intensive ploughing regime since at least the Second World War.

7. **Artefactual evidence**

7.1 **The Roman pottery (Laura Griffin)**

7.1.1 **Introduction**

All hand retrieved finds were examined. They were identified, quantified and dated to period. A *terminus post quem* was produced for each stratified context, which was used for determining the broad date of structural phases. All information was recorded on a Microsoft Access 97 database. Artefacts from environmental samples were examined, but none were worthy of comment and were not quantified with the exception of the small finds recovered from the grave fill samples. Pottery fabrics were referenced to the fabric reference series maintained by the Service (Hurst and Rees 1992).

The pottery forms an unusual assemblage compared to those from neighbouring Roman sites such as the Wyre Piddle Bypass site of Furzen Farm (Griffin forthcoming) and Throckmorton Airfield (Griffin 2005), mainly due to the late date range of the majority of sherds recovered. In addition, the level of preservation of the assemblage is far better than seen from either of the above sites.

7.1.2 **Overview**

The Roman pottery assemblage comprised 1188 sherds, weighing 19.84kg (97% of all pottery recovered). The dating of the pottery highlighted two distinct phases of occupation on the site; Areas 2 and 4 being of early-mid Roman date (1st to early 3rd century) and the Area 3 being of the late Roman period (late 3rd to late 4th/early 5th century). Due to this difference in dating, the pottery fabrics and forms identified varied widely between these two areas and for this reason have been analysed as two distinct assemblages. The subsequent discussion attempts to look at the site as a whole with specific aspects relating to differences in dating between the two areas highlighted.

7.1.3 **Areas 2 and 4**

A total of 353 sherds (30% of the Roman pottery assemblage) were retrieved from these areas of the site, with the forms and fabrics present indicating occupation between the mid 1st and early 3rd century (see Appendix 2: Table 2). In general this assemblage was of standard composition for a rural site of this date in Worcestershire. Sherds from all deposits of the site, including unstratified layers, displayed moderate abrasion suggesting that there was relatively little disturbance or redeposition of material.

Severn Valley wares (fabrics 12, 12.1 and 12.2)

The assemblage was dominated by locally produced coarsewares; primarily Severn Valley wares (fabrics 12, 12.1 and 12.2). Of these, the oxidised fabrics (12 and 12.2) formed the

larger proportion of the group. The range of forms was narrow, consisting of commonly identified vessel types such as storage jars, tankards, a flange rimmed bowl, a carinated beaker and a flagon. Only a single undiagnostic sherd of reduced Severn Valley ware (fabric 12.1) was identified.

Malvernian wares (fabrics 3, 3.1 and 19)

Other local wares identified within the assemblage were those of Malvernian origin (fabrics 3, 3.1 and 19). However, these were relatively low in frequency in comparison to Severn Valley wares and comprised only a small number of diagnostic sherds consisting of a tubby cooking pot and a more unusual slab vessel form. It is not known what these slab vessels were used for although they generally display evidence of sooting or burning on the underside. Tubby cooking pot forms are probably residual by the 3rd century, whilst dating evidence for the slab-built vessels points towards the beginning of production from this date onwards (Bryant and Evans 2004).

Coarse sandy greyware (fabric 15)

Despite only amounting to 24 sherds, this fabric formed the third largest ware group from this earlier phase of occupation. Vessels of this fabric are commonly found in small amounts on Roman sites in Worcestershire and are likely to have been produced at more than one source with forms and decorative techniques indicating affinities with both Gloucestershire and Warwickshire products (Bryant and Evans 2004). In general, vessels of this fabric date to the 1st and early 2nd centuries.

Variant micaceous ware (fabric 21.3)

Sherds of variant micaceous ware (fabric 21.3) were first identified on the New Police Station (Griffin 2002) and Magistrate's Court (Jeremy Evans pers comm) sites at Castle Street, Worcester. A single waster sherd was also identified within the assemblage from the latter (Jeremy Evans pers comm), although a specific source of production has not been ascertained. Identifiable forms from both of these sites were consistently of an early Roman date, with rusticated jar and carinated bowl forms of 1st-2nd century predominating. This dating has been further reinforced by forms identified within the assemblages from Wyre Piddle Bypass, Throckmorton Airfield and Wellington Quarry, Herefordshire (Griffin forthcoming, 2005 and 2004).

Black-burnished ware I (fabric 22)

Non-local wares consisted primarily of Black-burnished ware 1 vessels (fabric 22), the majority of sherds (78 in total) coming from a single vessel. All diagnostic sherds were from typologically earlier everted rim jar forms (Wessex Archaeology types 1 and 2; Seager-Smith and Davies 1993) dating to the 2nd century.

Samian ware (fabric 43)

Samian ware was also present in these earlier contexts. These are reported on in a separate section below (2.8).

7.1.4 **Area 3**

A total of 835 sherds (70% of the Roman pottery assemblage) were retrieved from this area of the site, with the forms and fabrics present indicating occupation between the late 3rd century and late 4th/early 5th centuries (see Appendix 2: Table 3). The assemblage composed a relatively narrow range of fabrics, all of which are commonly identified on sites of the late Roman period. As with the pottery from Areas 2 and 4, sherds displayed moderate abrasion with little evidence of softening, although the slips seen on colour-coated wares appeared to have been more badly effected with only fragmentary survival in many cases.

Severn Valley wares (fabrics 12, 12.1 and 12.2)

Severn Valley wares once more dominated, accounting for 57% of this later assemblage. Reduced sherds numbered 16 fragments, all of which were heavily abraded and assumed to

be residual. Again, the range of forms was narrow consisting primarily of wide-mouthed jars and wide-mouthed jar/bowls characteristic of later assemblages, with remaining vessel types including tankards, bowls and narrow mouthed storage jars present only in small numbers.

Variant handmade Malvernian ware (fabric 3.1)

Two sherds of a single slab-built vessel were retrieved from Area 3.

Fine sandy greyware (fabric 14)

A total of 22 sherds were identified as being of fine sandy greyware. The source of this fabric is not clear and evidence that exists appears to suggest a number of production areas, possibly in Gloucestershire and Warwickshire.

Although sherds of this ware are commonly associated with 1st and 2nd century assemblages, they are also a fairly standard component of later groups as well with significant proportions noted on other sites of later Roman date such as The Butts, Worcester (Jane Evans pers comm) and Throckmorton (Griffin 2005). In addition, the kiln site of Wappenbury, Warwickshire is known to have been producing wares of a grey sandy fabric during the 4th century (Stanley and Stanley 1964) and it is highly possible that the greywares from the present site were actually produced in those kilns.

Forms present within the later assemblage consisted primarily of everted rim jars with sherds from six separate vessels identified. In addition, a miniature drop flange rimmed bowl appearing to imitate the common Black-burnished ware I form (Seager Smith and Davies 1993, WA type 25) was also present and could be dated to from the late 3rd century onwards.

Coarse sandy greyware (fabric 15)

Nine sherds of this fabric were identified within the later assemblage, eight of which came from a single jar (context 347). All sherds were highly abraded and are thought to be residual.

Grog tempered wares (fabric 16 and 16.2)

A total of six undiagnostic sherds of grog-tempered ware were identified, five of the handmade version (fabric 16.2). At present, a source for these fabrics is not known, although it is thought to have been produced within the Worcestershire region. Likewise, a date range for production is unknown, although on present evidence it would appear to date from the late 1st-3rd century (Bryant and Evans 2004). All sherds were residual within late Roman contexts.

Wheelmade Malvernian ware (fabric 19)

Just ten sherds of this fabric were identified within this later assemblage, although a number of them were sizable. Diagnostic sherds came from three everted rim jars, which appeared to imitate the latest form of Black-burnished ware I jars (Seager Smith and Davies, WA type 3) and could be dated accordingly to between the 3rd and 4th centuries.

Variant micaceous ware (fabric 21.3)

Eight sherds of this fabric were found in contexts from Area 3. All were residual.

Black-burnished ware I (fabric 22)

Just 15 sherds of Black-burnished ware I were retrieved from the later phase of the site. This low number is of particular note due to vessels of this ware commonly being the dominant non-local wares on sites in this region. The most feasible explanation for this low count is that the later Roman occupation on this site post-dates imports of this ware which disappear from this area between AD 370 and AD 390 (Jeremy Evans pers comm). Furthermore, identifiable forms within this small assemblage did not appear to date later than the later 3rd century.

South Midlands shell-tempered ware (fabric 23)

Sherds of South Midlands shell-tempered ware formed a significant proportion of the later assemblage from this site, second only to Severn Valley wares. In total, 82 sherds were present with a total of four bowls and 17 jars represented. The vast majority of sherds

displayed heavy blackening and/or sooting, attesting to their use as cooking vessels. Vessels of this fabric commonly date to between the late 4th-early 5th century in this region and therefore presence of these sherds in such quantity would appear to be indicative of significant late activity on the site from around AD 390 onwards.

Further sherds of this ware have been identified, albeit in much smaller quantities on other rural sites in South Worcestershire including Throckmorton (Griffin 2005) and Childswickham (Timby 2004). More recently from a late Roman assemblage from 1, The Butts in Worcester itself (Jane Evans 2003).

Shell and ironstone tempered ware (fabric 24)

Two rim sherds from everted rim jar forms were identified as being of this fabric type (contexts 319 and 401). Only a small amount of this ware has been found within the region including from the Old Bowling Green site in Droitwich (Rees 1992) and Deansway in Worcester (Bryant and Evans 2004). This low occurrence would suggest that the fabric was not produced locally. No close date range has so far been identified for this fabric type.

Oxfordshire wares (fabrics 29, 30, 33.1, 33.3, 39 and 40)

A further significant proportion of the assemblage was made up of Oxfordshire wares with a large number of diagnostic sherds present. These were identified and dated using parallels from Young's established type series (1977). However, based on evidence from other sites in the region and the significant lack of Black-burnished wares within the assemblage, it would appear that this dating can be further narrowed to AD 390 onwards (Jeremy Evans pers comm).

Red/brown colour-coated wares (fabric 29) amounted to 56 sherds, with 13 bowls and one wide-mouthed jar noted within the group. Identifiable forms consisted of three C40 bowl/dishes, one with rouletted decoration, one C18 wide-mouthed jar, one C47 bowl, three C51 flange rimmed bowls, one C51.4 imitation Dragendorff 38 bowl, two C55 bowls and one C91 drop flange rimmed bowl. A single fragment of the white slipped fabric (fabric 30) was also retrieved.

A total of 24 sherds were identified as being Oxfordshire mortaria, 12 of white firing fabric (fabric 33 and 33.1) and 12 of oxidised fabric with red/brown slip (fabric 33.3). There were four identifiable forms amongst the white firing version, all of M22. Three different forms were present within the colour-coated group consisting of one C97, one C100 and one C100.4.

Remaining Oxfordshire fabric amounted to one sherd of burnt white ware (fabric 39) and two sherds of parchment ware (fabric 40) dating between AD 240-400. Both of the latter were from wall-sided bowls of P24 form and displayed red painted decoration characteristic of this pottery type.

Worcestershire imitation black burnished ware (fabric 149)

A total of 73 sherds were identified as being of a distinctive black-surfaced pottery fabric not previously identified within assemblages from Worcestershire or the surrounding region. The fabric was easily recognisable, being mainly of a brownish orange colour (although a small number of reduced examples were also noted) with black surfaces, which were finished with a scratchy burnish. A detailed fabric description is provided below.

A narrow range of forms was identified amongst the group consisting entirely of bowls or dishes imitating those of Black-burnished ware I. These consisted of sherds from one flange-rimmed bowl, one drop-flange rimmed bowl, two handled fish dishes, one groove rimmed dish and eight plain-rimmed dishes. All sherds were from contexts with *terminus post quem* dates of 4th century onwards and the majority from those of late 4th century date. Therefore the forms represented within this group are of significantly later date than the black-burnished ware counterparts, which they imitate.

The absence of this fabric from nearby sites known to continue into the later Roman period and those further afield in Warwickshire (Jeremy Evans pers comm) and Gloucestershire (Jane Timby pers comm), may indicate an extremely limited distribution of a locally

produced fabric type. Furthermore, it would also appear that the vessels were being produced to fulfil a very specific function of replacing a narrow repertoire of Black-burnished ware I bowl and dish forms following the decline of this industry around the mid 4th century.

Fabric 149: Worcestershire imitation Black-burnished ware

Manufacture:	Handmade
Colour:	Core: grey or reddish brown Margins: grey or reddish brown Surfaces: black
Feel:	Soapy
Fracture:	Irregular
Hardness:	Soft
Surface treatment:	Roughly burnished to give 'scratchy' appearance
Inclusions:	White mica - abundant, ill-sorted, <0.1mm, flat Quartz sand - moderate, ill-sorted, >1.0mm, rounded - sub-rounded, multicoloured Soft, red inclusions - sparse, ill-sorted, generally 1.0mm or less, sub-rounded Limestone - sparse, ill-sorted, <0.25mm, sub-rounded and irregular, white

7.1.5 **Catalogue of the illustrated pottery (Figs 16 and 17)**

- 1 Narrow-mouthed jar with rivet hole in oxidised Severn Valley ware (fabric 12), cf Webster 1976, no 1 (mid 1st-4th century), context 272
- 2 Narrow-mouthed jar in oxidised Severn Valley ware (fabric 12), cf Webster 1976, no 7 (2nd-3rd century), context 328
- 3 Narrow-mouthed jar in oxidised Severn Valley ware (fabric 12), cf Webster 1976, no 8 (3rd century), context 327
- 4 Pulley-rimmed jar in oxidised Severn Valley ware (fabric 12), cf Webster 1976, no 9 (3rd-4th century), context 318
- 5 Necked jar/bowl in oxidised Severn Valley ware (fabric 12), cf Webster 1976, no 19 (mid/late 1st-2nd century), context 301
- 6 Necked jar/bowl in oxidised Severn Valley ware (fabric 12), cf Webster 1976, no 21 (mid-late 2nd century), context 357
- 7 Wide-mouthed jar in oxidised Severn Valley ware (fabric 12), cf Lee, Lindquist and Evans 1994, type O.96 (late 2nd-late 3rd century), context 357
- 8 Wide-mouthed jar/bowl in oxidised Severn Valley ware (fabric 12), cf Webster 1976, no 37 (late 3rd-4th century), context 366
- 9 Wide-mouthed jar/bowl in oxidised Severn Valley ware (fabric 12), cf Webster 1976, no 37 (late 3rd-4th century), context 367
- 10 Flagon in oxidised Severn Valley ware (fabric 12), cf Lee, Lindquist and Evans 1994, type O.16 (2nd century), context 227
- 11 Tankard in oxidised Severn Valley ware (fabric 12), cf Webster 1976, no 38 (1st century), context 272
- 12 Flange rimmed bowl in oxidised Severn Valley ware (fabric 12), cf Webster 1976, no 50 (late 2nd-late 3rd century), context 301
- 13 Flanged bowl with grooved rim in oxidised Severn Valley ware (fabric 12), cf Webster 1976, no 57 (3rd century), context 367
- 14 Flat-rimmed bowl with groove in oxidised Severn Valley ware (fabric 12), similar to Black-burnished ware I form, cf Seager Smith and Davies 1993, *WA* type 24 (mid 2nd-3rd century), context 301
- 15 Flat-rimmed bowl with groove in oxidised Severn Valley ware (fabric 12), imitation of Black-burnished I ware form, cf Seager Smith and Davies 1993, *WA* type 24 (mid 2nd-3rd century), context 311
- 16 Pulley-rimmed jar in reduced Severn Valley ware (fabric 12.1), cf Webster 1976, no 9 (3rd-4th century), context 353

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- 17 Miniature drop-flange rimmed bowl in fine sandy greyware (fabric 14), imitation of Black-burnished ware I form, cf Seager Smith and Davies 1993, *WA* type 25 (late 3rd-4th century), context 358
 - 18 Segmental bowl in variant micaceous ware (fabric 21.3), imitation of Severn Valley ware form, cf Webster 1976, no 65 (mid 2nd-early 3rd century), context 318
 - 19 Plain-rimmed dish in Worcestershire imitation Black-burnished ware (fabric 149), imitation of Black-burnished ware I form, cf Seager Smith and Davies 1993, *WA* type 20 (late 4th century), context 402
 - 20 Plain-rimmed dish in Worcestershire imitation Black-burnished ware (fabric 149), imitation of Black-burnished ware I form, cf Seager Smith and Davies 1993, *WA* type 20 (late 4th century), context 314
 - 21 Drop-flange rimmed bowl in Worcestershire imitation Black-burnished ware (fabric 149), imitation of Black-burnished ware I form, cf Seager Smith and Davies 1993, *WA* type 25 (late 4th century), context 337
 - 22 Handled 'fish' dish in Worcestershire imitation Black-burnished ware (fabric 149), imitation of Black-burnished ware I form, cf Seager Smith and Davies 1993, *WA* type 21 (late 4th century), context 313
 - 23 Everted rim jar in Black-burnished ware I (fabric 22), cf Seager Smith and Davies 1993, *WA* type 1 (1st-2nd century), context 272
 - 24 Bead rimmed jar in Black-burnished ware I (fabric 22), cf Seager Smith and Davies 1993, *WA* type 7 (2nd century), context 367
 - 25 Jar with undercut rim in South Midlands shell-tempered ware (fabric 23), cf Tyers 1996 (after Sanders), form 3 (late 4th-early 5th century), context 315
 - 26 Jar with undercut rim in South Midlands shell-tempered ware (fabric 23), cf Tyers 1996 (after Sanders), form 3 (late 4th-early 5th century), context 343
 - 27 Jar with undercut rim in South Midlands shell-tempered ware (fabric 23), cf Tyers 1996 (after Sanders), form 3 (late 4th-early 5th century), context 349
 - 28 Bowl with square-cut flange in South Midlands shell-tempered ware (fabric 23), cf Tyers 1996 (after Sanders), form 6 (late 4th-early 5th century), context 322
 - 29 Flanged bowl copying Samian form Dr.38 in Oxfordshire red/brown colour-coated ware (fabric 29), cf Young 1977, type C51 (AD240-400+), context 366
 - 30 Flanged bowl copying Samian form Dr.38 in Oxfordshire red/brown colour-coated ware (fabric 29), cf Young 1977, type C51.4 (AD240-400+), context 313
 - 31 Wide-mouthed jar in Oxfordshire red/brown colour-coated ware (fabric 29), cf Young 1977, type C18 (AD270-400+), context 319
 - 32 Mortarium in Oxfordshire white ware (fabric 33.1), cf Young 1977, type M22 (AD240-400+), context 301
 - 33 Mortarium in Oxfordshire white ware (fabric 33.1), cf Young 1977, type M22 (AD240-400+), context 318
 - 34 Mortarium in Oxfordshire white ware (fabric 33.1), cf Young 1977, type M22 (AD240-400+), context 349
 - 35 Mortarium in Oxfordshire red/brown colour-coated ware (fabric 33.3), cf Young 1977, type C100 (AD300-400+), context 319
 - 36 Mortarium in Oxfordshire red/brown colour-coated ware (fabric 33.3), cf Young 1977, type C100.2 (AD300-400+), context 314
 - 37 Mortarium in Oxfordshire red/brown colour-coated ware (fabric 33.3), cf Young 1977, type C100.4 (AD300-400+), context 327
 - 38 Wall-sided bowl in Oxfordshire parchment ware (fabric 40), cf Young 1977, type P24 (AD240-400+), context 380
 - 39 Wall-sided bowl in Oxfordshire parchment ware (fabric 40), cf Young 1977, type P24 (AD240-400+), context 349
 - 40 Bowl in Samian ware (fabric 43), cf Dragendorff type 44 (2nd-mid 3rd century), context 349

7.1.6 Functional composition of the assemblage

All Roman pottery from the site, with the exception of Samian ware, was classified into form types on the basis of shape, size, rim type and decoration. Where possible, forms were

categorised and dated using the appropriate published typology for that specific fabric type. A Rim Equivalent EVE total of 14.16 was calculated from measurement of rim sherds present within the assemblage. Seven main categories were identified and classified according to the accepted definitions (Millet 1979; Jeremy Evans 1993). These were bowl, dish, jar, jar/bowl, mortarium, tankard, carinated beaker and flagon. The jar/bowl category consisted of a discreet group of wide-mouthed vessels as categorised within the Severn Valley ware typology published by Webster (1976, 28). A selection of forms is illustrated in Figs 16 and 17.

Range of forms

The relative proportions of vessels of each form as established by EVE rim equivalent (RE) can be seen in Table 4 (Appendix 2). From these figures, it can be clearly seen that the jar was the dominant vessel type present, accounting for 40.3% of diagnostic forms identified, followed by the bowl and dish groups at 23.4%. Although these percentages generally conform to the pattern usually noted for rural assemblages, the jar figure is not as high as would usually be expected, commonly constituting over 50% and bowls under 30% of forms identified (Jeremy Evans pers comm). A possible explanation for this slightly lower proportion may be the very late Roman date of much of the assemblage and the postulated demise of the local Severn Valley ware industry prior to the late 4th century.

Likewise, the drinking vessel figures only came to 5.5% of the group which, although an average proportion for many rural sites in other regions, is significantly lower than those observed at other local sites within the Severn Valley area, such as Throckmorton, where the presence of the tankard form commonly increases this figure significantly (Evans 2001, 30). Once more, it is highly possible that these low figures have resulted from the late date of much of the assemblage, indicating that Severn Valley ware tankards were probably no longer produced by the late 4th century. Further evidence for this has been noted from other sites of this date such as the kiln site at Meole Brace, Shropshire (C Jane Evans 1999, 12), the Tern-Severn production site, Wroxeter (Houghton 1964), Alcester (Jeremy Evans pers comm) and 1, The Butts, Worcester (Jane Evans pers comm). At Alcester in particular, the evidence appears to point towards a cessation of supply around AD 390 (Jeremy Evans pers comm).

Vessel form in relation to fabric

Analysis of diagnostic sherds within the assemblage revealed only a narrow range of forms, even in locally produced fabrics. The relationship between fabric and form by EVE RE measurement is presented in Table 5 (Appendix 2).

7.1.7 Discussion

The discussion below is a summary of the late Roman pottery assemblage in relation to major features and contexts identified on the site. The importance of individual sherds or vessels has been commented upon as necessary.

Main/eastern enclosure

The Roman pottery from this enclosure formed the largest single group from the site, totalling 269 sherds. The group displayed a high level of residuality, although a significant proportion consisted of wares and forms, which could be dated to the late 4th/early 5th century. Many sherds displayed evidence of burning, mainly in the form of blackening or sooting. This was particularly noticeable amongst the residual material and appears to have occurred post-depositionally.

Severn Valley wares formed 45% of the group with both oxidised and reduced fabrics (fabrics 12 and 12.1). A total of 19 vessels could be recognised from diagnostic sherds, seven of which were wide-mouthed jars (Webster 1976, types 31, 32 and 37) dating to the 4th century. In addition, a single tankard could also be dated to the late Roman period (Webster 1976, no 44). All remaining forms of Severn Valley ware were identified as residual and consisted of eight narrow necked storage jars (Webster 1976, types 1, 2, 6, 9 and 14; Lee, Lindquist and Evans 1994, types 0.96 and 0.163), two wide-mouthed jars (Webster 1976, type 36) and a flange-rimmed bowl (Webster 1976, type 57).

Other locally produced wares within this group included 11 sherds of fine sandy greyware (fabric 14). Identifiable forms included a near complete miniature drop flange-rimmed bowl imitating the common Black-burnished ware I form and a narrow necked jar (both from context 358). In addition, a complete base that appeared to have been deliberately chipped from a vessel was also retrieved and is thought to have been re-used as a lid (context 367). Another base was also found within this context, this time from a grog tempered ware vessel (fabric 16). This example was also blackened, once more indicating use as a lid and also had distinctive wire marks on the underside where it had been removed from the potter's wheel.

A further four fragments of grog-tempered ware were identified, all highly abraded and residual (contexts 332 and 356). Other residual sherds included three of variant micaceous ware (fabric 21.3; contexts 358 and 377) and one of sandy oxidised ware (fabric 13, context 371). All were highly abraded with the latter displaying evidence of having been burnt. Seven sherds of wheelmade Malvernian ware (fabric 19) were also present, including three substantial pieces from an everted rim jar (context 332). All were burnt and/or blackened, most likely as a result of use. All sherds of this fabric are thought to date to between the 3rd and 4th centuries.

A small assemblage of 10 sherds of Black-burnished ware I was retrieved. All were abraded with the majority displaying evidence of use in the form of soot deposits and burning. Four identifiable forms were present, all were residual and consisted of an everted rim jar (WA type 2; context 356) and a bead rim jar (WA type 7; context 367) of 2nd century date and two drop-flange rimmed bowls (WA type 25; contexts 353 and 358) dating from the late 3rd century onwards. Although this latter form was still produced in the 4th century, vessels of this ware are considered to have disappeared from this area between AD 370 and AD 390 (Jeremy Evans pers comm) and are therefore still residual within this phase.

The latest pottery from these contexts amounted to 91 sherds and consisted of 21 pieces of Worcestershire imitation black-burnished ware (fabric 149), 44 of South Midlands shell-tempered ware (fabric 23) and 29 of Oxfordshire wares (fabric 29, 30, 33, 33.1, 33.3 and 40). The South Midlands shell-tempered ware assemblage included diagnostic sherds from six jars (contexts 315, 319, 332, 349 and 367) and two bowl forms (contexts 319 and 371), the latter of which appeared to be a copy of a Black-burnished ware I plain-rimmed bowl form (context 371). Many of these sherds were sooted and/or burnt, probably as a result of use as cooking vessels. In addition, due to post-depositional conditions on the site, the fabric of a number of pieces was softened with a proportion of the shell inclusions leached out. Likewise, a number of sherds amongst the Worcestershire imitation black-burnished wares (fabric 149) were also slightly abraded. Identifiable forms within this group consisted of four plain-rimmed dishes (contexts 314, 332, 349 and 353).

The dominant Oxfordshire ware was the red/brown colour coated fabric (fabric 29) of which there were 16 sherds. All sherds displayed a high level of surface degradation with only fragmentary slip surviving which has been attributed to post-depositional ground conditions. Identifiable forms were all dated to AD 240-400+ and consisted of sherds from four bowls (Young 1977, types C40, C47, C51 and C55; contexts 314 and 332) and one wide-mouthed jar (*ibid*, type C18; context 319). In addition a single, undiagnostic fragment of white colour coated ware (fabric 30; context 356) and a sherd from a parchment ware wall-sided bowl (fabric 40; *ibid*, type P24; context 349) were also identified.

Eleven sherds of Oxfordshire mortaria were also present within this group, five of the white firing fabric (fabric 33.1) and six of oxidised fabric with a red/brown colour-coat (fabric 33.3). Two forms could be identified in both fabrics (*ibid*) with those of white fabric both being M22 types (contexts 349 and 367) and those of oxidised fabric being a C100 and a C100.2 (contexts 319 and 314).

Remaining sherds from this group consisted of three of Samian ware (fabric 43; contexts 349 and 377), three from an unprovenanced white ware jar (fabric 41, context 367), one from a

possible shell and ironstone tempered ware jar (fabric 24, context 319) and one sherd of unidentified fabric (fabric 98; context 332).

Features within main enclosure

Features within the main enclosure were allocated a *terminus post quem* of 3rd-4th century on the basis of the pottery and other finds retrieved from them. The pottery amounted to 43 sherds and displayed a high degree of residuality with the latest material being of Oxfordshire production. No South Midlands shell-tempered ware was retrieved from any of these contexts, perhaps indicating a slightly earlier end date than seen within the main enclosure ditch itself.

Once more, Severn Valley ware dominated with 19 sherds of the oxidised (fabric 12) and one fragment of the reduced (fabric 12.1) fabric present. Two forms were identified, both narrow mouthed jars (Webster 1976, no 16, context 310; Deansway archive no 44.1.22, context 330). In addition, a complete base, which appeared to have been deliberately chipped from a vessel, was also present having possibly been re-used either as a lid or gaming counter (context 389). All sherds were highly abraded and the dating of the identifiable forms indicated them to be residual. It is highly likely that all Severn Valley ware from this part of the site was residual, however, the large number of undiagnostic sherds datable only to the general production period makes this difficult to ascertain. Other residual sherds within this group consisted of a small sherd of Black-burnished ware I (fabric 22, context 380), which was heavily burnt, and a fragment of Samian ware (fabric 43, context 380).

Sherds of 3rd-4th century date consisted of five of Oxfordshire production (fabrics 29 and 40) and two of Worcestershire imitation black-burnished ware (fabric 149). The Oxfordshire wares consisted of four red/brown colour coated sherds (fabric 29), including one bowl (Young 1977, type C40; context 310). This sherd was a complete profile decorated with a distinctive band of rouletting and appeared to be from the same vessel as another sherd within context 314. The sherd of parchment ware (fabric 40, context 380) was from a wall-sided bowl form (*ibid*, type P24) and had fragmentary red painted decoration surviving.

The sherds of imitation black-burnished ware (fabric 149) included a small fragment from a drop flange rimmed bowl. Additional sherds from this group consisted of one of heavily burnt whiteware (fabric 41, context 380) and two pieces of unidentified fabric (fabric 98; contexts 304 and 310).

South-east enclosure

Pottery from the south-east enclosure formed a relatively large assemblage of 101 sherds. The largest proportion of the group consisted of 36 sherds of Worcestershire imitation black-burnished ware (fabric 149) which included 28 sherds from two plain rimmed dishes (context 402) and eight from a drop-flange rimmed bowl, the base of which appears to have been coil formed and then wiped over in a 'criss-cross' manner by the potter's fingers to prevent cracking along the coil joins upon firing (context 337).

Other late Roman material from this enclosure included 12 sherds of South Midlands shell-tempered ware (fabric 23; context 402), eight from a jar and four from a bowl. In addition, three sherds of Oxfordshire red/brown colour coated ware (fabric 29; contexts 402 and 406) and one sherd from a red/brown slipped mortaria (fabric 33.3; context 402) were also identified. One sherd of the colour-coated ware was from a flange-rimmed bowl (Young 1977, type C93) and the mortaria was of C97 form (*ibid*). Two small fragments of fine sandy greyware were also recovered and are thought to be of similar date (fabric 14; contexts 337 and 402).

Residual pottery consisted primarily of oxidised Severn Valley ware (fabric 12; 32 sherds) including two wide-mouthed jars (contexts 357 and 402) and a wide-mouthed jar/bowl (context 406). In addition, three sherds of the reduced fabric (fabric 12.1; context 336) and one of the oxidised organically tempered fabric (fabric 12.2; context 406) were identified. Other sherds from contexts within this group consisted of a single sherd of unprovenanced white ware (fabric 41; context 357) and four of unidentified fabric type (fabric 98; contexts 357 and 402).

West enclosure

A small group of pottery totalling 13 sherds was retrieved from two contexts (320 and 396) within this enclosure. Seven sherds were of late Roman date (late 4th-early 5th century) and consisted of five from a South Midlands shell-tempered ware jar (fabric 23; context 320), one from a fine sandy grey ware jar (fabric 14; context 320) and one from a Worcestershire imitation black-burnished ware plain-rimmed dish (fabric 149; contexts 396).

Remaining sherds were residual and as a result, highly abraded. These consisted of four sherds from various oxidised Severn Valley ware vessels (fabric 12; context 320) and two from a reduced Severn Valley ware jar (fabric 12.1; context 320)

South-west enclosure and associated features

A total of 43 sherds of Roman pottery were retrieved from this enclosure and associated features (contexts 336, 337, 339 and 357). Context 337 formed a shared boundary with the south-east enclosure and finds from this context are discussed with the assemblage from the latter (see above).

The assemblage was dominated by oxidised Severn Valley wares amounting to 19 sherds, the majority of which were highly abraded undiagnostic sherds of general mid 1st-4th century date (fabric 12). Two identifiable forms were present within the assemblage, consisting of two jars (Webster 1976, type 21 and Lee, Lindquist and Evans 1994, type O.96; context 357) of late 3rd-4th century date. In addition to the oxidised sherds, three fragments of reduced Severn Valley ware were also identified and were almost certainly residual being highly abraded and burnt (context 336). Other locally produced wares consisted of two sherds of heavily tempered Malvernian fabric, thought to be from a slab-built form of 3rd-4th century date (fabric 3.1; context 336) and a small fragment of fine sandy greyware (fabric 14).

In addition, nine sherds of the newly identified Worcestershire imitation black-burnished ware fabric (fabric 149; context 336 and 337) were also present within this group, including eight from a drop-flange rimmed bowl (context 337, discussed above). Further sherds of late Roman date consisted of three small fragments of South Midlands shell tempered ware (fabric 23; context 339).

Remaining sherds within this group included one small, abraded sherd of unprovenanced white ware (fabric 41; context 357) and two of unidentified fabric types (fabric 98; contexts 339 and 357). Both of these unidentified fabrics were distinctive in appearance, one being very fine and highly micaceous (context 339) and the other containing burnt organic inclusions (context 357).

7.1.8 Pottery supply to the site

Characterisation of the assemblage from the Upper Moor site has been aided by a recent increase in comparable data resulting from the excavation of two similar rural sites in South Worcestershire along the Wyre Piddle Bypass and at Throckmorton (Griffin forthcoming and 2005). It has also been possible to make further observations based on findings from other rural settlements of Roman date within both Worcestershire and surrounding counties (Buteux 1996; Hurst 1994, 1995a and 1995b; Ratkai 1995; Timby 2004). However, comparisons specifically for the late Roman assemblage are few and far between with only a small number of late settlements having been excavated in the region.

Such comparison has indicated that the relative proportions of fabrics within this assemblage are of a standard pattern for a rural site of the region, with an overwhelming dominance of locally produced Severn Valley wares within contexts predating the later 4th century date and a marked increase in non-local wares such as South Midlands shell-tempered and Oxfordshire products after this date.

The contexts from Areas 2 and 4 were dated to between the mid 1st and early 3rd centuries on the basis of the pottery and other finds. The sherds retrieved from these contexts formed an assemblage typical of a rural site of this date within the region with Severn Valley wares,

particularly those of oxidised fabric, forming the greater part of the group at 59.5%. Likewise, these wares also formed the larger part of the assemblage for the later Roman contexts within Area 3 (58.3%), although diagnostic sherds indicated the majority of this material to be residual by the later 4th century.

Sherds of both handmade and wheelmade Malvernian wares (fabrics 3, 3.1 and 19) are known to have been produced on the same sites as Severn Valley ware (C Jane Evans *et al* 2000). However, in contrast the proportions of these wares were far smaller, at just 3.7% of the assemblage from Areas 2 and 4 and 1.5% of that from Area 3. This figure is particularly low in comparison to assemblages from surrounding sites with a frequency of 10.3% noted at Wyre Piddle Bypass (Griffin forthcoming a), 10.8% at Norton-juxta-Kempsey (Hurst 1995, 21) and 8.5% at Throckmorton (Griffin 2005). Just one assemblage from Hoarstone Farm, Kidderminster (Hurst 1994) could be identified as having a comparable proportion of these wares at 4%. In contrast to nearby Throckmorton, the figures from the present site displayed a dominance of the later wheelmade and slab-built vessel sherds over the earlier handmade vessels. These figures would appear to be a reflection of the higher level of later Roman settlement on the site.

This low occurrence of Malvernian pottery is of particular note considering the very local production. One explanation put forward by Willis (2000) is that social restriction or cultural preference and identity may have hindered the popularity of Malvernian vessels perhaps to 'differentiate the site... from other regions of *Dubonnic* territory'. Another possibility is competition from the Black-burnished ware I industry which was producing pots for the same function as those of Malvernian ware. This latter explanation would appear to be supported by the very high proportion of Black-burnished ware vessels within the Area 2 assemblage at 25.6%. Indeed, on other comparable sites from the region, those with higher proportions of Malvernian wares generally display far lower levels of Black-burnished ware I and vice versa (Buteux 1996; Hurst 1994; Griffin 2005). However, this high occurrence is misleading, being largely due to a significant number of sherds coming from just one vessel. Therefore it would appear that the total assemblage proportion for this ware is more representative at 8.8%, which lies within the more usual limits for a rural site of this region.

However, a noticeable drop in the proportion of Black-burnished ware can be noted within contexts of later date within Area 3 where sherds only form 1.5% of the assemblage. This change is also reflected in the forms present with the majority of everted rim jars being of typologically earlier types dating to the 2nd century (WA types 1 and 2). In the case of the late Roman assemblage, it can be clearly seen that Black-burnished ware jars were replaced by those of South Midlands shell-tempered ware as the dominant cooking ware which continued to be used after the assumed end date of Black-burnished ware imports into the region of between AD 370 and 390 (Jeremy Evans pers comm). Following the end of the 4th century, the dish and bowl forms of this ware continued to be utilised in the form of a local imitation fabric.

Pottery of the later Roman period came exclusively from contexts within Area 3 and consisted primarily of the aforementioned South Midlands shell-tempered ware (6.9%), Worcestershire imitation black-burnished ware (6.1%) and also Oxfordshire wares (7.1%). Another small but significant presence amongst the assemblage of this date was fine sandy greyware (2.3%). Greywares are most commonly associated with earlier Roman assemblages in this region, however, it has become apparent that vessels of reduced fabric started to resurface during the late Roman period. This pattern has been observed across the region with Wappenbury greywares routinely identified on sites in Warwickshire and Gloucestershire fabric TF5 found within late deposits at Gloucester (Jeremy Evans pers comm).

The occurrence of shell-tempered ware is relatively rare on sites in Worcestershire with the presence or absence of such sherds often used as an indication of post mid 4th century occupation (Evans 1992, 32). Only a handful of excavated sites within the county are known to have continued past the mid 4th century on the basis of this ware being present and then

only a small number of sherds have been retrieved. For example, shell-tempered ware from Throckmorton (Griffin 2005) consisted of just 19 sherds (12 from a single vessel) and formed just 2.4% of the assemblage. Similarly small assemblages of this fabric have also been noted at Strensham (Ratkai 1995) and the nearby Wyre Piddle Bypass site (Griffin forthcoming). In contrast to the present site, the low occurrence of this ware on these other sites would suggest that these settlements were in decline by the late 4th century, a theory further supported by the small quantities of other typically late wares such as Oxfordshire products.

The Oxfordshire wares from this site, including the mortaria were all of late production, dating from *c* AD 240 onwards, the established date from which the industry is thought to have expanded (Young 1977) with many sherds datable from AD 300 onwards. In contrast to the nearby sites of Throckmorton (Griffin 2005) and Wyre Piddle Bypass (Griffin forthcoming), no mortaria of earlier production or other source such as Hartshill-Mancetter were identified within either the earlier or later assemblages. It would therefore appear that such vessels were not being used on the site prior to the 3rd century, although this may also be due to the on-site sampling strategy rather than complete absence of earlier mortaria sherds. The absence of Hartshill-Mancetter sherds is of particular interest as this would appear to be based on preference rather than supply issues with small quantities of this fabric found within the assemblages from neighbouring sites (Griffin forthcoming and 2005).

Perhaps the most interesting aspect of this assemblage was the occurrence of a new and apparently locally produced fabric type appearing to closely imitate Black-burnished ware I both in appearance and form types. Sherds of this fabric have not been identified on either of the nearby sites of Throckmorton or Wyre Piddle, despite the occurrence of both South Midlands shell-tempered and Oxfordshire wares within these assemblages, suggesting it to be of later rather than mid 4th century date. Only a single sherd from another site has been tentatively identified as being of this fabric. This came from 1, The Butts, Worcester (Evans 2003, 3), a site which despite being urban contained comparable proportions of shell-tempered, Oxfordshire and sandy grey wares to those seen amongst the assemblage from the present site and also appeared to have been occupied well into the late 4th century.

The levels of fineware pottery on this site were relatively high for a rural settlement (6.2%), as a result of the influx of Oxfordshire vessels during the latest period of habitation. This peak in finewares during the later period appears to be indicative of very late settlement on Roman sites across the country (Jeremy Evans pers comm). In contrast to the later Roman assemblage, finewares from the earlier features consisted of just eleven sherds of Samian ware, all of Central Gaulish Lezoux fabric the most common source of Samian found on rural sites of 2nd century date in Britain.

Similarly low levels of Samian of 2nd and early 3rd century date have been noted at various sites within the locality such as Furzen Farm, Wyre Piddle (Griffin forthcoming), Throckmorton (Griffin 2005), Strensham (Ratkai 1995) and Shire Farm, Hawford (Buteux 1995). However, it does not appear that supply into the region was restricting the amount of Samian seen on these sites but more likely status, with the nearby villa at Childswickham having far higher levels of the wares as well as other imported finewares (Timby 2004).

It can therefore be seen that pottery utilised on the present site conformed to fairly standard pattern of consumption throughout the period of settlement. The earlier assemblage from Area 2 displayed a reliance on a relatively narrow range of suppliers based primarily on local production sources, whilst the late Roman assemblage contained significant proportions of wares commonly associated with sites of late 4th century date. Supply to this area does not appear to have been restricted and therefore the presence or absence of any major ware types throughout the period would appear to have resulted from preference rather than scarcity. Supply of wares during the later period appeared typical with a reliance on road links for transportation from more distant production centres. It could also be suggested that the settlement does not continue much beyond AD 420 when coinage is thought to have died out signalling the end of the market system (Fulford 1979, 128-9).

7.2 The Samian Pottery (Steven Willis)

7.2.1 Introduction

Eleven sherds of Samian pottery (*terra sigillata*) were recovered. Nine vessels are represented amongst this group of sherds, which weigh collectively around 120g. Samian can provide comparatively precise dating information and contribute to establishing site chronology, and it has been possible to establish comparatively tight date-ranges for each of the items represented here. The sherds are generally small and not in a good state of preservation.

7.2.2 The Catalogue

The Catalogue lists all the Samian sherds from the intervention and adheres to a consistent format. Sherds are listed in context number order, and within contexts by date. Each vessel represented is listed as a separate entry. The following data are given: the number of sherds and their type (ie whether a sherd is from the rim, base (footring) or body of a vessel), the source of the item (Central Gaulish is abbreviated to CG), the vessel form (where identifiable), the weight of the sherds in grams, the percentage of any extant rim (ie the RE figure, where 1.00 would represent a complete circumference) or base (ie the BE figure) and the rim and base diameters, and an estimate of the date of the sherd in terms of calendar years, this being the date range of deposits with which like pieces are normally associated. No sherds with decoration represented occur.

Context 217 Area 2

Body sherd, CG Lezoux, probably Drag. 18/31, 1g, c AD 120-150. The interior of the sherd has flaked off.

Two conjoining body sherds, CG Lezoux, form not identifiable, 1g, c AD 120-200. The sherds are essentially flakes with the interior of the sherd having flaked off. The break is fresh.

Context 222 Area 2

Body sherd, CG Lezoux, Curle 15, 4g, c AD 120-150.

Context 233 Area 2

One rim sherd and a conjoining body sherd, CG Lezoux, Drag. 31, 12g, RE: c 0.03, Diam. c 90mm, c AD 150-200. The sherds are somewhat abraded; the break is a fresh one.

Context 238 Area 2

Body sherd, CG Lezoux, probably Drag. 36, 9g, c AD 120-150. This sherd is somewhat abraded with a considerable proportion of the original gloss surface now missing.

Context 257 Area 2

Base sherd, CG Lezoux, Drag. 18/31, 21g, BE: 0.07, Diam. c 90mm, c AD 120-140.

Context 349 Area 3

Base sherd, CG Lezoux, Drag. 18/31, 21g, BE: 0.16, Diam. c 64mm, c AD 120-140.

Context 377 Area 3 (The two items of Samian from this context are in a poor state of preservation due to weathering).

Body sherd, probably CG Lezoux, from a bowl or dish, 2g, c AD 120-200. The interior surface is excoriated and the exterior surface is has also virtually lost its red gloss surface.

Base sherd, CG Lezoux, probably Drag. 37 rather than Drag. 30 (the only alternative possibility), 46g, BE: 0.32, Diam. 90mm, c AD 140-200. This item has been trimmed round for secondary use at the junction of the vessel floor and the footring; evidently this was to create, through inversion of the base, a shallow dish type form. The original surfaces of the sherd are largely missing.

7.2.3 Discussion

All nine vessels occur, evidently, in Lezoux ware from Central Gaul and date to the 2nd century AD. The Samian from rural sites in Britain tends to be dominated by examples from this source of 2nd century date and so the composition of this group is not surprising in these general terms. The absence of South Gaulish ware of the 1st century AD is noteworthy but may simply be a function of the modest size of the group. All of the sherds came from ditch fill contexts.

Looking at the date of the nine Lezoux vessels in detail reveals a trend of some interest: five vessels date to the period *c* AD 120-150 and are hence Hadrianic or Hadrianic early Antonine, while only two vessels are Antonine (lying within the range *c* AD 140-200); the remaining two vessels cannot be dated more closely than *c* AD 120-200. This balance towards the earlier 2nd century is remarkable in so far as normally amongst site finds there are more Samian vessels dating to the later 2nd century rather than to the period before *c* AD 150 (cf Willis forthcoming). Again the potential significance of this aspect must be weighed in light of the modest size of the sample, nonetheless it is not what would be expected and indicates the possibility of a flourish of Samian consumption at the site in the early to mid-2nd century. It is possible that some of these vessels will have remained in use into the later 2nd century, and indeed into the 3rd century, as it seems that Samian ware was often curated to a greater degree than coarse ware.

Considering form, six of the vessels represented are dishes (examples of Drag 18/31, Drag 31, Drag 36 and Curle 15), including all the five vessels dating to before *c* AD 150. Dishes are normally prominent amongst Samian groups of the 2nd century so this group is consistent with a general pattern in Britain. There is one decorated form represented, being a large bowl, which is almost certainly a Drag 37 (rather than a Drag 30). There is one vessel that is either a small bowl or a dish, but whatever this will be a plain form, and one item from an unidentified form. Hence, of the eight Samian vessels identifiable to form, one is a decorated form and seven are plain forms. By far the majority of decorated Samian vessels are large bowls and these items were evidently more expensive and more prized than were plain Samian forms and are less common (cf Willis 1997; Willis forthcoming). The ratio of decorated bowls to plain forms here is 1:7. This ratio is consistent with the trend seen in the 2nd century at other rural sites (cf Willis forthcoming). The re-use of the base of the decorated bowl from context 377 is preceded elsewhere, but is a reminder that pottery vessels will have had distinct 'biographies'.

7.3 **Post-Roman pottery (Laura Griffin)**

7.3.1 **Post-medieval pottery**

A total of 23 sherds weighing 624g were retrieved from the site and could be dated to between the 16th-18th centuries. All were unstratified or from topsoil/ploughsoil contexts (301 and 601) and highly abraded as a result. None were diagnostic and therefore could only be dated to the general production span for each fabric type. All sherds were of fabric types commonly identified within post-medieval assemblages from Worcestershire.

The earliest datable pieces were two miscellaneous body sherds of late oxidised glazed Malvernian ware (fabric 69; context 301), which could be dated between the 16th and early 17th centuries.

Remaining sherds all dated between the late 17th and 18th centuries and consisted of 20 sherds of black glazed post-medieval red sandy ware (fabric 78; contexts 301, 601 and unstratified). Sherds of this fabric are one of the most common identified fabrics from sites of this date having come from a variety of domestic vessel forms such as pancheons, bowls and jars.

The remaining material of post-medieval date was a kiln-furniture separation-ring made of porcelain (fabric 83; context 301), which could be dated from the 18th century onwards.

7.3.2 **Modern pottery**

A total of 16 sherds weighing 120g could be identified as dating from the 19th century onwards. All were from Area 3 and found within the topsoil (context 301). Two fabric types were present, the first being modern stone china (fabric 85) and the other miscellaneous late stoneware (fabric 81.4). No diagnostic sherds were present within the group.

7.4 Ceramic building material (Laura Griffin)

7.4.1 Roman tile

Introduction

The site produced a relatively small assemblage of Roman tile totalling 73 fragments, weighing 4.82kg. No examples were complete. In general, preservation was similar to that of the pottery with moderate levels of abrasion noted on the majority of the assemblage. All tile of Roman date was from contexts within Areas 3 and 4, indicating them to be of late 3rd century date onwards.

Tile from each context was grouped according to fabric and recorded uniformly by the following categories: class of tile, presence or absence of flange, presence of upper and/or lower cutaways, presence of signature marks. A summary of the tile types identified within the assemblage is presented below.

Fabrics

Five fabric types were recognised using a binocular microscope (x20), these are listed and described below.

Fabric 1: Fine mixed clays, with frequent red iron ore/oxide inclusions

Colour: Orange with bands of white

Soft with a powdery feel and fine fracture

Quartz: abundant, ill-sorted, <0.1-1.0mm, sub-angular, glassy and translucent

Red iron ore/oxides: abundant, ill-sorted, 0.6->1.0mm, sub-rounded, reddish brown

Black inclusions: sparse, well-sorted, <0.6-1.0mm, rounded - sub-rounded, black

Fabric 2: Sandy fabric with occasional limestone inclusions

Colour: Oxidised throughout

Soft with a rough feel and fine fracture

Quartz: abundant, ill-sorted, <1.0mm, angular – sub-angular, glassy, dark and multicoloured

Red iron ore/oxides: sparse, ill-sorted, 0.6->1.0mm, sub-rounded, reddish brown

Limestone: sparse, well-sorted, 0.6-1.0mm, sub-angular, white

Fabric 3: Sandy orange fabric with abundant quartz and quartzite inclusions

Colour: Reddish brown throughout

Hard with a harsh feel and hackly fracture

Quartz: abundant, ill-sorted, <3.0mm, angular, multicoloured

Quartzite: abundant, ill-sorted, 0.6-<3.0mm, angular, white and opaque.

Red iron ore oxides: sparse, ill-sorted, 0.6-1.0mm, sub-rounded – rounded, reddish brown

Black shiny inclusions: sparse, ill-sorted, <1.0mm, sub-angular - angular

Fabric 4: Fine orange fabric with frequent red iron ore/oxide inclusions

Colour: Oxidised throughout

Soft with a powdery feel and fine fracture

Quartz: abundant, ill-sorted, <0.1-1.0mm, sub-angular, glassy and translucent

Red iron ore/oxides: abundant, ill-sorted, 0.6->1.0mm, sub-rounded, reddish brown

Black inclusions: sparse, well-sorted, <0.6-1.0mm, rounded - sub-rounded, black

Fabric 5: Pale orange fabric with distinctive black inclusions

Colour: Light orange with grey banding

Soft with a rough feel and fine fracture

Quartz: moderate, ill-sorted, 0.6-1.0mm, sub-rounded, glassy and translucent grey and white

Black inclusions: moderate, ill-sorted, <1.0mm, rounded, black

Limestone: sparse, well-sorted, <0.6mm, rounded, white

Fabrics 1 and 4 appeared to be closely allied, both being very fine in nature and containing the same range of inclusions. The only major difference of note between the two was that fabric 1 was of mixed white and red clays, whilst fabric 4 was uniformly red throughout.

Tegulae

A total of eight fragments could be identified as *tegula* by the presence of a flange (contexts 319, 357, 358, 367 and 402). In addition, a significant number of the undiagnostic fragments are likely to also be from *tegulae*. One fragment (context 319) also displayed a knife-trimmed lower cutaway.

Two fabrics were identified within this group with one tile being of mixed fabric 1 (context 319) and the remainder of fabric 4. None of the tiles displayed the finger groove commonly

seen at the base of the flange on this type of tile. The form of all tiles of this type was very similar, further suggesting that products of both fabrics 1 and 4 were produced on the same site.

Imbrices

A total of two *imbrex* fragments were identified within the assemblage, both from the same tile, which was identified as being of fabric 2 (context 327).

Box-flue

A single tile was identified as being a piece of possible box-flue (fabric 2; context 402). The piece is 17cm thick with one sanded surface and the other displaying crude incised lattice. Although box-flue tile is conventionally keyed by use of a comb, it is difficult to imagine what other purpose this unusual tile would have been used for. Furthermore, a small number of comparable examples were identified within the large tile assemblage from Wellington Quarry, Herefordshire (Griffin 2004). Here, a small group of tiles of a specific fabric type were also keyed with roughly scored lines rather than keying proper (ibid, 102).

Markings

No signature or tally marks were noted amongst the group.

7.4.2 **Catalogue of the illustrated tile** (Fig 18.1 and 18.2)

Flanged tegula (fabric T?), context 272

Box-flue tile with primitive scored keying (fabric T2), context 402

7.4.3 **Brick**

A total of 25 fragments of brick weighing 860g were retrieved from topsoil layers of the site (context 301 and unstratified). No examples were complete or had any measurable dimensions. All appeared to be of late 18th century date onwards on the basis of fabric.

7.5 **Coinage (Peter Guest)**

The site produced 18 late Roman copper alloy coins in total. It was possible to identify 11 of these, all of which were struck during the middle decades of the 4th century. The latest coins are three copies of the 'falling horseman' type, which date to the years AD 354 to 364 (Appendix 2: Table 6; Appendix 6: Plates 5 and 6).

7.6 **Flint (Robin Jackson)**

Two residual struck flints were recovered from Area 3. The first of these, a heavily patinated and rather squat flake was recovered from a medieval furrow (301). The other, the distal end of a large flake was recovered from the upper fill within a large depression of Roman date (311). The latter was of a fine quality brownish coloured flint with a very heavily abraded cortex and some use damage on both surviving edges. Neither flint was chronologically diagnostic and both are liable to represent stray losses.

7.7 **Other finds (Laura Griffin)**

7.7.1 **Shale bracelet** (Fig 18.4)

A small fragment of a shale bracelet was retrieved from a late Roman context (371). The piece was in good condition and could be identified as being oval sectioned with two internal facets, a groove and central ridge. A similar parallel was found within the small assemblage of shale bracelets from Bays Meadow Villa, Droitwich (Cool 2002, 135; no 24).

7.7.2 **Glass beads**

A total of eight small segmented opaque beads, four of green and four of dark brown/black glass were retrieved from the thorax of the probable female burial (384; Section 9). Beads of this form were produced from a hollow glass rod, which was then broken into as many segments as required (Guido 1978, 91). These particular examples may have been formed by the winding of this rod around a wire, which was then withdrawn to leave a series of tapering beads. These could then be broken into individual pieces or left adjoined to one another as can be seen from three black and two green examples which are still fused to each other. Beads of this form grew in popularity during the late Roman and post-Roman periods (ibid).

7.7.3 **Copper Alloy finger ring** (Fig 18.3; Plate 4)

A copper alloy finger ring was retrieved from context 328 which had a *terminus post quem* of late 4th century. It was identified as being of a simple Henig type IV form with an oval box-bezel and fairly slender hoop (Johns 1996, 47). Despite being in relatively poor condition, the bezel still had fragments of blue enamel or glass adhering to it (Angela Bolton pers comm; Appendix 6: Plate 4).

7.7.4 **Copper Alloy**

A total of three other copper alloy objects (contexts 359, 367 and unstratified) and two fragments (context 403) were retrieved from the site. Those from Roman contexts consisted of a small strip with an impressed circle (context 367), which appeared to be intrusive and of post-medieval date (Angela Bolton pers comm) and a small unidentifiable fragment. The remaining pieces were modern, with the only identifiable piece being part of a doorknob (unstratified).

7.7.5 **Lead**

Five lead objects were identified within the assemblage and included two amorphous lumps, which were thought to have been probable pot repairs (contexts 315 and 359). The remaining pieces consisted of a fitting of Roman date (context 402), two cast feet of unknown function from a Roman context (context 321) and an unstratified fragment from a post-medieval toy (Angela Bolton pers comm).

7.7.6 **Iron**

A total of 21 pieces of iron weighing 468g were retrieved from the site. The majority were in poor condition, exhibiting high levels of corrosion and in many cases, spalling also. All stratified objects were sent to Wiltshire County Council Conservation Centre for x-ray.

The group included 23 hobnails of Roman date (contexts 301, 304 and 383). Of these, 20 came from burial context 383. Hobnails are commonly identified with burial and cremation contexts of Roman date with complete examples of shoes indicating that a large number of nails were frequently used in each individual sole (Crummy 1983, 53; Waterer 1976, 182).

Seven larger nails were also retrieved (contexts 301, 311, 315, 386 and 402) and once more those within stratified contexts were of Roman date. The remaining objects were unidentifiable and all from the topsoil, with the exception of a single small fragment from Roman context 337.

7.7.7 **Slag**

Just three pieces of slag were retrieved from the site (contexts 205, 322 and 380). One piece could be identified as fuel ash slag of Roman date (context 322), the remaining two were undiagnostic.

7.7.8 **Fired clay**

A total of 39 fragments of fired clay weighing 343g were retrieved from the site, all from contexts of Roman date. All were highly abraded and fragmentary, consisting primarily of amorphous lumps of unknown function. However, some pieces did have finger marks on the surface and a significant number also displayed areas of reduction and/or blackening indicating they are fragments of a possible oven.

Such a structure has recently been identified at nearby Childswickham (Patrick and Hurst 2004). Here, lumps of clay had been used to form the sides of the structure, which was finished to a smooth external surface but with the interior having pronounced deep finger marks. Many of these fragments displayed burning or blackening from use. Similar fragments to those from the Onion Processing Plant have been found at nearby Throckmorton and have been also been interpreted as fragments of a possible oven (Griffin 2005).

Other fragments within this assemblage are likely to have been pieces of daub from the possible buildings identified on the site.

7.7.9 **Ceramic objects**

The most notable ceramic object within the assemblage consisted of four sizable fragments from a flat circular ceramic 'plate', 24mm thick of a locally produced shelly fabric (context 367). Objects of this type commonly date to the late Roman period with this example being recovered from a context with a *terminus post quem* of late 4th-early 5th century. Two fragments of a similar object were also identified in Malvernian fabric (fabric 3.1; unstratified). This example differed slightly in form being squarer and having a slight infolded rim. This object has also been referred to within the pottery report above.

No complete examples of objects of this form have been found and the function is unknown although various suggestions have included baking plates and the base for a beehive (Lentowicz 1992, 68).

7.7.10 **Vessel glass**

Four fragments of undiagnostic vessel glass were retrieved from topsoil context 301. All were late post-medieval/modern in date and came from two different bottles.

7.7.11 **Clay pipe**

A tiny fragment of clay pipe stem of post-medieval date was retrieved from the topsoil in Area 3 (context 301).

7.8 **The stone (Robin Jackson and Derek Hurst)**

A small assemblage of stone was recovered comprising 55 fragments, although many large limestone (lias) blocks were noted on site but not retained. All of the material is liable to have been imported onto the site.

The majority of the recovered material comprised either building material (tiles and possible paving slabs) or fragments of burnt stone, however, six quern fragments (two of which

conjoined) were also identified. All the quern fragments and most of the building material derived from the Area 3, the focus of the later Roman occupation.

Of the quern fragments, four (from contexts 353, 356, 359 and 369) were fragments of rotary querns of Upper Old Red Sandstone, a stone typically used in the Roman period in this area in the production of querns (Roe 1999). Of these the most complete was from a lower stone 70mm thick and measuring in excess of 460mm in diameter. The remaining two fragments in the assemblage (from 320) conjoined and appeared to be part of a broken saddle quern manufactured from a micaceous sandstone likely to be Pennant sandstone from the Forest of Dean. Although the use of Pennant sandstone for a quern is unusual, thus casting some doubt on dating, saddle querns are typically found in prehistoric contexts suggesting that this may be residual. Support for this suggestion derives from the presence of several narrow grooves along one edge of the broken stone indicating that it was indeed a reused item, having been used as a sharpening stone.

Blue Lias limestone slab fragments were the most commonly retained material present (1 from context 242; 4 from 301; 2 from 311; 1 from 312; 1 from 331; 5 from 318; 4 from 320; 2 from 336). These may have been used for paving as has been suggested elsewhere (Hurst and Roe 2004). One example (from 320) had a skim of mortar adhering to it perhaps indicating bedding of slabs onto a mortar surface. Other possible uses in the light of the thin character of many fragments include as roofing tiles or in hearth or oven construction as suggested by heavy scorching of a couple of fragments. Several larger blocks of Blue Lias were also present, including four recovered from the ploughsoil (context 301), three of which appeared to be roughly squared blocks of building stone, the largest measuring 300x200x60mm. Lastly, one further block (from context 336) had been heavily scorched possibly indicating that this material was also used in hearth construction.

Amongst the building material were three further slabs of the Pennant sandstone. Although rather thick (18-25mm), these were probably all used as roofing tiles, one having a nail hole through it (from context 367), the other two (from context 320) having neatly knapped edges. Use of Pennant sandstone for roofing tiles has been widely noted in the Roman period in this region as at Frocester villa (Price 2000, 131-8).

Fire cracked pebbles and burnt stone fragments (mainly oolitic limestone) were recovered from a range of contexts (u/s, 301, 304, 311, 336 and 406). These are liable to have been burnt in hearths or in the case of fire cracked pebbles to represent potboilers.

The presence of quantities of stone building material on the site is of some note since there is little evidence in Worcestershire for stone structures on Roman rural settlements of low rank such as this appears to have been. One possibility is that the small quantities present reflect a limited use of stone in conjunction with other building materials. For instance they may have been used around hearths or smoke vents in thatched roofs, in entrances of buildings or as foundations for structures of predominantly timber or mass wall construction. An alternative is that most of the material derives from more substantial buildings relating to a higher status settlement area to the west where large quantities of Romano-British finds have been recorded as surface finds (Darch and Jackson 2003).

7.9 **Oyster shell (Laura Griffin)**

Oyster shell was recovered from several Roman contexts and is considered to represent food waste of this period. The shell was associated with what appears to have been the principal area of occupation, namely the eastern/main enclosure (contexts 356, 358 and 377) and a small internal boundary gully within (context 310).

8. **Environmental evidence (Katie Head)**

8.1 **Fieldwork and sampling policy**

The environmental sampling policy was as defined in the County Archaeological Service Recording System (1995 as amended). During the assessment stage (Vaughan and Jackson 2003), samples of 10-40 litres were selected from 43 contexts.

8.2 **Processing and analysis**

Selected samples were originally processed at the assessment stage (contexts 314, 327, 332, 349, 358 and 367; (Vaughan and Jackson 2003), as a result of which additional samples (contexts 339, 351, 352 and 414) were selected for post-excavation analysis. They were processed by flotation followed by wet-sieving using a Siraf tank. The flot was collected on a 300µm sieve and the residue retained on a 1mm mesh. This allows for the recovery of items such as small animal bones, molluscs and seeds (Appendix 3: Table 1). The original mollusc identifications were undertaken by Andrew Mann, with further identifications by the author.

The residues were fully sorted by eye and the abundance of each category of environmental remains estimated. The flots were scanned using a low power EMT stereo light microscope and plant remains identified using modern reference collections maintained by the Service, and seed identification manual (Beijerinck 1947). Nomenclature for the plant remains follows the Flora of the British Isles, 3rd edition (Clapham, Tutin and Moore 1989). Identification and ecological information for the mollusca was based upon Kerney and Cameron (1979).

8.3 **Wet-sieved samples - Late Roman activity**

Contexts 339, 351, 352 and 414 from one of the boundary ditches (context 338) in the south-west enclosure were identified during the assessment stage, as potentially containing waterlogged remains (Vaughan and Jackson 2003; Appendix 3: Tables 2 and 3). All examined contexts included occasional large mammal bones, with context 339 containing abundant bone (discussed below), while occasional small mammal bone was found in all contexts except 351. Context 352 also included occasional burnt bone, most probably human. Insect remains were occasionally recorded in all these contexts except 339. Charcoal was recorded in low to moderate numbers in all contexts, as were charred plant remains and waterlogged seeds.

Context 339 was dominated by waterlogged remains of fat hen (*Chenopodium album*). Other waterlogged seeds were in much lower numbers and included thistle (*Carduus/Cirsium* sp) and chickweed (*Stellaria media*). All these species are weeds commonly found growing on both wasteland and cultivated ground. Charred cereal remains were fewer in number, being dominated by unidentifiable cereal fragments (Cereal sp indet grain). There was, however, evidence of barley (*Hordeum vulgare*) and emmer/spelt wheat (*Triticum dicoccum/ spelta* grain). Due to the very sparse cereal evidence it is most probable that foodstuffs were imported from elsewhere. The weeds may have either been growing around the site in waste areas or they were brought in with the cereals.

Context 339 was also notable for the abundant animal bone, which was identified as primarily cattle but also sheep. The cattle remains included femur and fragments of radius/ulna, which were both characterised by apparent butchery marks. Other cattle remains included mandible fragments, molars, axis, cervical vertebrae, and general large bone fragments. The presence of large quantities of cattle bone and evidence of butchery marks, tends to suggest that the inhabitants were practicing butchery within the settlement (see also Section 10 below).

Context 351 only had sparse plant remains, consisting of charred spelt wheat (*Triticum spelta* grain) and wheat grain (*Triticum* sp), while waterlogged seeds comprised only occasional fat hen (*Chenopodium album*) and raspberry/bramble (*Rubus idaeus/caesius/fruticosus*). The presence of raspberry/bramble is difficult to interpret, as it cannot be identified to any specific species. The plant may either have been brought in as a foodstuff or was growing in grass or scrub areas around the site.

Context 352 was similar in species type to context 339, with the dominant plant being waterlogged remains of fat hen (*Chenopodium album*). Again, there were also a number of unidentifiable cereal fragments (Cereal sp indet grain), and wheat grain (*Triticum* sp), as well as a few examples of barley (*Hordeum vulgare*), emmer/spelt wheat (*Triticum dicoccum/spelta* grain), and small grass seeds (Gramineae sp indet grain).

Waterlogged remains in context 414 were also dominated by fat hen (*Chenopodium album*), as well as a single example of knotgrass (cf *Polygonum aviculare* agg). Charred grains were minimal, including chaff remains of spelt wheat (*Triticum spelta* glume base), as well as emmer/spelt wheat (*Triticum dicoccum/spelta* grain) and cereal fragments (Cereal sp indet grain).

These four contexts indicate that crops such as emmer or more probably spelt wheat (due to the chaff fragments) as well as barley, were brought onto the site rather than cultivated around the settlement. Due to the scarcity of evidence it is difficult to determine whether domestic crop processing was occurring. However, some small-scale processing is likely as the emmer/spelt crop would normally have been stored in spikelet form, and therefore would need further processing even where brought in from elsewhere. However, overall the lack of cereal remains indicates that the inhabitants practised a primarily pastoral economy.

8.4 Molluscan samples - Late Roman activity

A number of the samples from contexts within the main and south-west enclosures (314, 327, 332, 349, 358, 367, 351 and 414), contained molluscan remains (Appendix 3: Table 4).

Many of these contexts had similar species compositions, being dominated by the Helicidae family, primarily *Trichia hispida*, but also *Helicella itala*, and *Trichia striolata*. *Helicella itala* is a grassland species, while *Trichia striolata* inhabits shadier areas and may have been living on the field edges amongst hedgerows. *Trichia hispida* however, is a catholic species and therefore limited with regards to interpretation, favouring a broad range of habitats. Another member of this family occasionally present was *Cepaea* spp, again a species not particularly diagnostic, inhabiting a wide variety of environments from woodland and hedges to scrub and grassland. The second dominant family recorded in a number of contexts were the Valloniidae, primarily *Vallonia excentrica*, but also *Vallonia costata*, and *Vallonia pulchella*, all favouring exposed short-turfed grassland. Other species commonly found on short-turfed grassland and recorded in many contexts were *Pupilla muscorum* and *Vertigo pygmaea*, as well as occasional examples of *Abida secale*, *Cochlicopa lubrica*, and *Milax* sp. Although the latter two species inhabit a broad range of environments, they are often found amongst grassland. In addition to grassland mollusca, species indicative of standing water environments were also recorded in all contexts (314, 327, 332, 349, 358, 367) of the main enclosure. These primarily comprised the dwarf pond snail, *Lymnaea trunculata*, an intermediate host to the liver fluke (*Fasciola hepatica*). The liver fluke is a parasite of sheep and cattle, suggesting that livestock were present on the site. Other pond and marshland species occasionally recorded were the parasite host, *Bithynia tentaculata* (context 327), the ramshorn snail *Planorbium corneum* (context 332), the wet meadow species *Succinea/Oxyloma* sp (context 327), the marshland slug *Deroceras* sp (formerly *Agriolimax* sp), and the shade-loving species *Oxychilus* sp/ *Oxychilus cellarius* (context 327, 358). This assemblage most probably inhabited standing water within enclosure ditches.

Both the main and southwest enclosures appear to have been situated within a landscape of grassland, some of which would have been short-turfed, possibly a result of grazing by

livestock. The interpretation of a pastoral economy is supported by the presence of the mollusca, *Lymnaea trunculata* and *Bithynia tentaculata*. These two species, together with other marshland specimens, most probably inhabited standing water within the enclosure ditches at the site.

8.5 Environmental discussion

Both the plant macrofossil and molluscan remains indicate that the Roman settlement had a pastoral economy. The lack of cereal remains seems to suggest that foodstuffs were imported from outside the settlement. The molluscan assemblage highlights a landscape of open grassland, much of it short-turfed, suggestive of grazing by animals. The presence of cattle and sheep are also indicated by the mollusca *Lymnaea trunculata* and *Bithynia tentaculata*, intermediate hosts to the liver fluke parasite.

Preservation of plant macrofossil remains is variable at Romano-British sites in the area. Nearby at Wyre Piddle, agriculture was also based upon a pastoral economy, with little evidence of crop processing, and charred cereal remains poorly preserved, (Griffin, Griffin and Jackson forthcoming). Conversely, at the agricultural settlement at Norton Lenchwick in the same region as Upper Moor, there were abundant charred cereal remains associated with a corn drier and quern stones (Jackson *et al* 1996). The site's pottery assemblage also highlighted trading links between rural settlements in the area. Further afield at the Romano-British farmstead at Glebe Farm, Bubbenhall in Warwickshire (Monckton 1999), charred crop remains were also found in abundance, primarily comprising spelt wheat and barley, comparable to the sparse remains recorded at Upper Moor and other sites in the Midlands. Again, like Norton Lenchwick, the Warwickshire site also included chaff remains, the waste used for fuel following dehusking within the enclosure (Monckton 1999). Unlike Upper Moor, both Norton Lenchwick and Bubbenhall showed evidence of arable cultivation in the vicinity.

Thus the inhabitants of the late Roman settlement appear to have practised a pastoral economy, demonstrated by the presence of many species of open grassland mollusca, as well as the scarcity of cereal remains. Survival of the mollusca was good, which was in contrast (even in the waterlogged contexts) to the low number of plant macrofossils recorded.

9. Burial evidence (Mercian Archaeology)

9.1 Introduction

Two human skeletons (384) and (387) were excavated, each from an individual inhumation grave, which had been heavily truncated by ploughing during the medieval period and possibly later (Appendix 6: Plate 7). Fragments of burnt bone, of possible human origin, were also recovered from the tertiary fill (352) at the south-west corner of the main enclosure ditch (Section 10 below).

The osteological analysis aims to provide a detailed inventory of the skeletal and dental material recovered, the condition of the bone present, completeness of the skeletons and to provide, where possible, the age, sex and stature of the individuals recovered. Any evidence of pathological changes is also noted. Appendix 4: Table 1 summarises the findings of the osteological analysis.

9.2 **Methods and Process**

The skeletal material was analysed according to the standards laid out by the guidelines recommended by the British Association of Biological Anthropologists and Osteologists in conjunction with English Heritage (2002).

- Recording of the material was carried out using the recognised descriptions contained in Standards for Data Collection from Human Skeletal Remains by Buikstra and Ubelaker (1994).
- The material was analysed macroscopically and where necessary with the aid of a magnifying glass for identification purposes. Where relevant, digital photographs have been used for illustration.
- The material was analysed without prior knowledge of associated artefacts so that the assessment remained as objective as possible.

9.3 **Condition of the Bone Present**

The condition of the bone was assessed macroscopically and recorded according to the categories and descriptions referred to by Behrensmeier (1978).

The surface of the bone of both skeletons was on the whole intact, although some surface damage had occurred through root action and post-depositional processes. Weathering had not penetrated into the inner cavities. However, all the material was heavily fragmented. Almost all the breaks to the bone were old and weathered.

Though heavily fragmented, both skeletons (384) and (387) were found to be in good condition, both being graded as 1-3 (ibid.).

9.4 **Completeness of Skeletons**

This is a guide to the overall completeness of the individual's skeletal remains and is calculated according to the percentage of the bones present in relation to the total number of bones in a complete human skeleton. This is gauged through an assessment of the amount of material representing different areas of the body. A complete skeleton comprises of:

- Skull = 20%
- Torso = 40%
- Arms = 20%
- Legs = 20%

Both skeletons were observed to be significantly depleted in material content. The more complete example (skeleton 384) was estimated to consist of approximately 40% of its original skeletal content and falls into the 25-50% category (Buikstra and Ubelaker 1994). Less than 25% of the other (skeleton 387) was preserved.

9.5 **Inventory of Skeletal Material**

An inventory of the skeletal material was recorded in both tabular form and as a pictorial schematic (Sheets B and C; contained in the archive). Each bone has been recorded as being absent or present. The long bones are recorded according to the presence or absence of the proximal, middle and distal sections and also the proximal and distal joint surfaces. The percentage of completeness of the bones of the axial skeleton (with the exception of the spine) is recorded in categories of > 75%, 75-50%, 50-25% and <25%. This detailed recording is necessary to understand the nature of the preservation of the skeletal material and any constraints that the condition of material may put on the ensuing analysis. From the

perspective of future research, a detailed inventory also allows an accurate calculation of prevalence rates of pathological conditions such as fractures and joint diseases and should prove more fruitful for future reassessment should the skeletal material be re-interred.

The inventories indicate the lack of complete long bones and joint surfaces preserved in both skeletons (384) and (387). Little survives of the cranial bones or the pelvis of either skeleton. Skeleton (384) was observed to have six lumbar vertebrae, a non-pathological congenital anomaly.

9.6 Age Assessment

There are a number of techniques available for assessing the age of both adult and juvenile remains. Observing the stage of development of skeletal growth, dental eruption and tooth formation can accurately assess juveniles. The assessment of adult remains is based on the changes observed in particular joints in the body, namely the auricular surface, pubic symphysis and costal rib ends. These changes are consistent with the ageing of the skeleton but fall into broad age ranges. These categories are Young Adult (20-34 years), Middle Adult (35-49 years) and Old Adult (50+ years) (Buikstra and Ubelaker 1994). Cranial suture closure and dental attrition are not considered reliable techniques for age estimation. This is due to the high level of individual variation found from the results of analyses using these techniques.

The remains of skeleton (384) were observed to be fully developed, the epiphyses of the surviving long bones being fused to the diaphyses with no evidence of fusion lines. This indicated that these remains were those of an adult. It was observed that a fragment of an auricular surface belonging to the individual had survived and that this may provide evidence of a more precise age at death.

Whilst the remains of skeleton (387) were poorly preserved, several teeth, including the mandibular molars, were recovered. This enabled a minimum age of the individual to be established. Again, all those long bones that did survive had fully fused epiphyses, indicating that the individual was an adult.

Analysis of the surviving fragment of auricular surface revealed features that suggested this individual was an adult of at least 45 years of age (Lovejoy *et al* 1985). This individual could be categorised as being middle-aged, or an older adult (Buikstra and Ubelaker 1994). The lack of surviving pubic symphyses or costal rib ends meant that the age at death could not be narrowed down any further.

The surviving dentition of (387) comprised of fully formed adult teeth. This included the 3rd mandibular molar, which was observed to have slight wear to its cusps. This individual, then, had fully erupted 3rd molars. This is thought to occur generally at the age of 21 years (Ubelaker 1989). This individual then is at least 21 years old. Due to the nature of the evidence and lack of preservation of other diagnostic elements of the skeleton, it was not possible to ascribe a particular category of adulthood to this individual.

9.7 Sex Determination

Techniques employed to determine of the biological sex of adult skeletal remains are well established and are largely based upon an assessment of the morphological features exhibited by the skull and the pelvis. These features reflect the sexual dimorphism displayed between males and females and develop as the individual matures. These features are, therefore, not observably marked during adolescence and there are no reliable techniques for determining the sex of juvenile remains, except for DNA analysis. Sex determination is relatively accurate, some researchers reporting a success rate of 95% of known in tests on known sex samples (Phenice 1969). Techniques generally used include descriptive methods, metric analysis and discriminant functions depending on the completeness of the skeletal material.

Small fragments of the os coxae (pelvic bones) were recovered from skeleton (384) that allowed tentative suggestions to be made about the sex of the individual from descriptive methods. Elements of the pubis and ilium were present, enabling assessment of the ventral arc, greater sciatic notch and preauricular sulcus of one side of the pelvis.

There were no morphological features surviving that may have indicated the sex of skeleton (387). Fortunately, however, due to the recovery of the glenoid portion of the scapula, metric assessment of sex for skeleton (387) could be carried out. This involved measuring the length and breadth of the glenoid cavity and comparing the results to those parameters recommended by Bass (1995), which have been demonstrated to be indicative of sex.

The elements of the pelvis recovered from skeleton (384) suggested that this individual was a possible female (Phenice 1969). Whilst the elements recovered were certainly indicative of belonging to a female, very few elements survived overall. The individual was, therefore, ascribed to the category of probable female (Buikstra and Ubelaker 1994).

The poor preservation of skeleton (387) prevented the sex of the individual from being determined from the analysis of morphological features, although it was noted that the elements that were present were large and robust. Metric assessment of the glenoid cavity suggested that the individual was well within the parameters of being a male individual. Since a number of teeth were recovered from this individual, it may be possible that sex could be confirmed through aDNA analysis in the future. This individual was ascribed to the category of probable male (Buikstra and Ubelaker 1994).

9.8 **Non-Metric Traits**

Non-metric traits are morphological features that occur both in bone and dentition. These features have no functional purpose and occur in some individuals and not in others. The origins of non-metric traits have now been shown to be highly complex, each having its own aetiology and each being influenced to differing extents by genetics, the environment, age and sex of the individual and by physical activity. Generally, the analysis of these traits requires a large sample size. Non-metric traits have been recorded for these skeletons in order to allow future comparisons with findings from other late Roman assemblages in the Worcestershire area.

The level of preservation of both skeletons prevented observation of many of the non-metric traits. Observations were noted on Sheet I (contained in the archive).

All non-metric traits were unobservable for skeleton (384). Only the lack of presence of double superior atlas facets could be confirmed for skeleton (387).

9.9 **Stature and Metric Analysis**

Stature of adult individuals can be reconstructed from measurements of long bones of the skeleton. Since the long bones of adolescents have not yet fully developed it is not possible to provide an estimate of stature for juveniles. Stature is the result of many factors including genetics and environmental influences, such as malnutrition and poor health. Height can be used as an indicator of health status and there is a wide range of literature on the relationships between height, health and social status.

Neither skeleton (384) nor (387) had any complete long bones. Therefore, no measurement of long bones was possible and estimation of stature could not be provided for either skeleton (384) or (387).

Skeletal Pathology

Palaeopathology is the study of diseases of past peoples and can be used to infer the health status of groups of individuals within a population as well as indicate the overall success of the adaptation of a population to its surrounding environment. Pathologies are categorised according to their aetiologies; eg congenital, metabolic, infectious, traumatic, neoplastic, etc. Any pathological modifications to the bone are described. The size and location of any lesion is also noted. Distribution of lesions about the skeleton should be noted to allow diagnosis. A differential diagnosis for any pathological lesions should be provided.

Pathological changes to 3 zygapophyseal (posterior) joints of the lumbar vertebrae were observed in skeleton (384). These joints were enlarged and irregular, with gross changes to the joint surface being visible (Appendix 6: Plate 8). Micro- and macroporosity, osteophytic lipping and eburnation were present on three joint surfaces. One of these joints is known to have been between the left side of L5 and L6. Unfortunately, the location of the other two joints cannot be determined due to the fragmentary condition of the bone. Two Schmorl's nodes were also observed on the superior surfaces of T5 and L1.

These pathological changes can be diagnosed as being the result of degenerative joint disease or osteoarthritis. This can be of a primary type, associated with age, or secondary to a traumatic event. The primary or idiopathic type is more common in adult women and is consistent with the findings of the age and sex of this individual; it develops spontaneously in middle age and develops slowly as the individual grows older (Salter 1999). The Schmorl's nodes observed are also the result of degenerative joint disease and occur when the intervertebral disc degenerates and part of it protrudes into the vertebral body. These changes are known clinically to be common in the lower lumbar region of the spine.

Dental Pathology

Dental pathologies recorded can provide a wide range of information. For example, calculus, caries, abscesses and periodontal disease may be indicative of poor oral hygiene, infection or high sugar intake. Enamel hypoplasia is the product of defective enamel growth and is linked to poor nutrition and health status during childhood. Congenital abnormalities can also be noted such as those that are genetic in origin or those that are the result of pathologies such as syphilis.

Ten mandibular teeth, 8 right side and 2 left were preserved from skeleton (387) and part of the jaw bone itself was observable. No abscesses were present. Periodontal disease was unobservable due to the condition of the surviving jaw fragment. Mandibular molars 30 (1st) and 31 (2nd) and some of the anterior dentition was observed to be quite worn. Small amounts of calculus were present on all but one of the teeth. The calculus was noticeably heavier on the anterior dentition. Three of the anterior teeth displayed minor hypoplastic defects. The 1st mandibular molar exhibited one small cavity located on an interproximal surface.

Thus skeleton (387) showed no obvious signs of infection or inflammation in the jaw. Lack of any major caries and the presence of only small amounts of calculus demonstrates that oral hygiene is likely to have been reasonably good. The lack of major enamel hypoplastic defects may indicate that the individual did not suffer any sustained periods of childhood stress from malnutrition or disease.

Skeleton (384) had no dentition surviving, thus no inferences could be made about the dental health of this individual.

Discussion

The results of the osteoarchaeological analysis confirm that skeleton (384), found with glass beads (Section 7.7.2), is likely to be female. Skeleton (387) represents the remains of a

probable male. The osteological evidence indicates that both skeletons are certainly adults. Both individuals were notably robust, skeleton (387) having especially marked muscle attachments. This indicates that these were physically active individuals in life. It may be that the osteoarthritic changes seen in the lower spine of skeleton (384) were exacerbated by physical activity or trauma. However, these may, on the other hand, have been purely associated with age.

These findings should be taken into consideration with other archaeological evidence in interpreting the nature of the site. This may give us an insight into late Roman burial practices in rural areas. The location and nature of these burials raises several questions. For example:

- What is the relationship between the male and female?
- Why are there only two burials recovered from this area? Is this a product of post-depositional preservation or intentional burial practice?
- Are there other comparable groups of burials in the area?
- Are there any archaeological features consistently associated with such burials? Does the environmental evidence suggest that this enclosure was different from other nearby enclosures containing no burials?
- What is the relationship of these people to the surrounding area? Is there any evidence of habitation nearby?
- How do these burial practices compare with contemporary urban burial practices?
- Do these burial practices differ from earlier or later periods? Do they share anything in common?
- What is the cultural significance of the N-S alignment of these burials in this context?

Whilst many of these questions may remain unresolved, the inclusion of osteological data (such as the age and sex of the individuals as well as evidence of adaptation to the surrounding environment) in archaeological investigations can contribute significantly to our understanding of burial practices of the late Roman period in rural Worcestershire.

10. **Animal bone (Ian Baxter)**

10.1 **Introduction**

A total of 160 'countable' bones (see below) were hand-collected from the site (Appendix 5: Table 1). The majority of these came from the late Romano-British enclosure ditches and their associated features in Area 3. A much smaller assemblage was recovered from the earlier Romano-British linear ditches in Area 2. In general the animal bones were fairly well preserved although some had been gnawed by dogs. Recent breaks were frequent.

10.2 **Methods**

The mammal bones were recorded on an Access database following a modified version of the method described in Davis (1992) and used by Albarella and Davis (1994). In brief, all teeth (lower and upper) and a restricted suite of parts of the postcranial skeleton was recorded and used in counts. These are: horncores with a complete transverse section, skull (zygomaticus), atlas, axis, scapula (glenoid articulation), distal humerus, distal radius, proximal ulna, radial carpal, carpal 2+3, distal metacarpal, pelvis (ischial part of acetabulum), distal femur, distal

tibia, calcaneum (sustenaculum), astragalus (lateral side), centrotarsale, distal metatarsal, proximal parts of the 1st, 2nd and 3rd phalanges. At least 50% of a given part had to be present for it to be counted.

The presence of large (cattle/horse size) and medium (sheep/pig size) vertebrae and ribs was recorded for each context, although these were not counted. “Non-countable” elements of particular interest were recorded but not included in the counts.

The separation of sheep and goat was attempted on the following elements: horncores, dP₃, dP₄, distal humerus, distal metapodials (both fused and unfused), distal tibia, astragalus, and calcaneum using the criteria described in Boessneck (1969), Kratochvil (1969), Payne (1969 and 1985) and Schmid (1972). The shape of the enamel folds (Davis 1980; Eisenmann 1981) was used for identifying equid teeth to species. Equid postcrania were checked against criteria summarized in Baxter (1998).

Wear stages were recorded on the Access database for all P₄s and dP₄s as well as for the lower molars of cattle, sheep/goat and pig, both isolated and in mandibles. Tooth wear stages follow Grant (1982).

Measurements are retained on the Access database. These in general follow von den Driesch (1976). All pig measurements follow Payne and Bull (1988). Humerus HTC and BT and tibia Bd measurements were taken for all species as suggested by Payne and Bull (1988) for pigs.

10.3 **Area 2 results: Early Romano-British (2nd century) ditches**

Only 7 countable bone fragments were recovered from the earlier Romano-British linear ditches in Area 2 comprising 6 cattle and 1 pig fragment.

10.4 **Area 3 results: Late Romano-British (late 3rd to late 4th/early 5th century) enclosures and associated features**

Seventy-one percent of the animal bones recovered in Area 3 came from the ditches of the eastern/main enclosure. More than half (61%) of the assemblage belongs to cattle and horse fragments are more numerous than those of sheep/goat the next most frequent taxon. Pig remains are twice more frequent than those of other species, which include red deer (*Cervus elaphus*), represented by bones and antler fragments, dog and domestic fowl. Cattle fragments are absent from the small assemblage recovered from possible eaves-drip gully (cut 372; fill 381) within the Eastern Enclosure where the bones of the smaller domestic species comprise the majority. This spatial distribution is to be expected with the bones of the larger species gravitating to ditches outside occupation areas (Wilson 1996). Red deer antler, with several fragments exhibiting signs of working (see below) is relatively common within the infills of the eastern, western and south-western enclosure ditches.

10.4.1 **Cattle**

The few horncores recovered came from shorthorned cattle. Several complete metapodials found derive from beasts ranging between 113cm to 128cm high at the shoulder (n = 6) with a mean of 119cm (based on the multiplication factors of Matolesi 1970). Of nine mandibles where of the wear stage can be estimated over half (56%) are adult. Immature, sub-adult and elderly animals are also represented. A perinatal tibia metaphysis was found in one context (322). Most of the bones with epiphyseal ends preserved are fused with a much smaller number of skeletally immature individuals also present. A large metacarpal found in ditch (cut 360; fill 361) outside the Western Enclosure has the distal epiphysis expanded, possibly indicating a draught animal (Bartosiewicz *et al* 1997).

10.4.2 **Sheep/Goat**

Ovicaprid remains were fairly infrequent with the majority recovered from the ditches of the Eastern Enclosure. These largely consist of mandibles deriving from animals aged around

two years old slaughtered for prime mutton (Appendix 5: Table 2). Where it is possible to identify the species (21%) only sheep are present.

10.4.3 **Pig**

Pig fragments are half as frequent as those of sheep/goats and derive from young animals as is to be expected for a species raised exclusively for its meat.

10.4.4 **Other domestic species**

The other domestic species present at Evesham Road are horse, dog and chicken. Horse bones and teeth are particularly frequent in the ditches of the eastern and western enclosures. Their ages, based on tooth wear and the crown height of the grinding teeth (Barone 1980; Levine 1982) range from less than 3 years to 13 years. Only one bone suitable for calculating withers height is sufficiently complete, a metacarpal from western enclosure ditch 325 (context 366). This belonged to a pony sized animal of around 12 hands (Vitt 1952). Less complete fragments from larger animals were also seen.

Bones and teeth of domestic dogs were found at low frequency throughout Area 3 except in the south-east enclosure ditches and the features exterior to the western enclosure. Both small and medium sized animals are represented including a 4th metacarpal from a ditch (318) belonging to a dog approximately 36cm high at the shoulder (Clark 1995) and two bones from a somewhat taller animal found in an eaves-drip gully (cut 372; fill 381).

A single chicken distal tibiotarsus was found in the eastern enclosure ditch (context 318).

10.4.5 **Wild species**

Red deer (*Cervus elaphus*) antler fragments are quite frequent in the ditch fills of the eastern, western and south-western enclosures with several showing signs of working (see below). Bones are also present in the eastern enclosure (contexts 349, 358 and 371) comprising a distal metacarpal, complete metatarsal and distal radius. These finds demonstrate that venison was an item of diet. The metatarsal came from a large stag 128cm high at the shoulder based on the multiplication factors of Godynicki (1965).

Worked antler fragments include sawn beams and tines from the eastern enclosure (contexts 304, 358 and 371).

Particularly interesting is a worked off-cut from the south-western enclosure (context 339) measuring 64x22x4-9mm sawn from the beam which has been smoothed on one side and partly smoothed on the other (outer) surface (Appendix 6: Plates 9 and 10). A cast base was found in western enclosure (context 344).

One of the worked pieces from the eastern enclosure (context 304) was of similar form to that above having also been sawn from the beam but of larger dimensions measuring 120x26x4-20mm. This example has been completely smoothed and the tip rounded. There is also a 'U'-shaped notch 35mm from the tip where it seems the end was originally intended to be sawn off (Laura Griffin pers comm).

10.5 **Discussion**

Cattle ranching would seem to have been the main stock activity at the Evesham Road settlement. This is comparable with several well-documented sites in Cambridgeshire (Baxter 2003). The main focus of occupation appears to have been within the Eastern Enclosure and there is evidence for the consumption of venison and chicken in addition to the meat of the major domestic food species cattle, sheep and pig. The other enclosures were probably used for stock, primarily cattle and horses. Dogs of various sizes seem to have been used in the herding of stock. There is evidence for the working of red deer antler, most of it probably seasonally collected after casting, which suggests proximity to extensive woodland.

Discussion and synthesis

There was a good correlation between the results of the open area excavation and the geophysical survey, even though the site lay in an area of heavy clay, sealed below substantial colluvium, both of which often mask remote survey. Features identified during the evaluation also correlated well those identified in the excavation, however, only very small quantities of pottery were recovered during fieldwalking and neither these nor the evaluation results accurately reflected the levels of domestic activity present at the site.

The recovery of two worked flints from later features indicates that activity took place in the vicinity during the earlier prehistoric period but no further comment can be made about its specific date or nature.

The finds from the two areas of Romano-British activity are distinct. The field system recorded to the south-east side of the site appears to have been laid out and utilised from at least the mid 1st to the early 3rd century. Quantities of pottery recovered suggested that an area of previously unknown Roman settlement may have existed to the east at this time, while another settlement focus is known to have lain to the west (Darch and Jackson 2003). The field system once established was maintained and intermittently renewed over a long period of time, as evidenced by the repeated recutting of the ditches on slightly differing alignments. A new settlement enclosure to the north-west was then established in the late 3rd century and maintained until the late 4th/early 5th century, as indicated by the pottery and coins. It is suggested that this later occupation site was laid out within one of the enclosures of the existing field system. This later settlement is likely to have been a simple farmstead, probably just for one family unit.

The density and distribution of finds provides a graphic illustration of the focus of the later occupation site within the eastern enclosure. Thus 57% of the metalwork (excluding obvious iron nails and unidentified concretions) (8/14), 68% of the coins (13/19); and 71% of the animal bone was recovered from boundary ditches of this enclosure. Although the site was truncated and no horizons or surfaces remained, it was possible to identify distinct zones of spatial differentiation within the main enclosure. Domestic occupation is indicated by an eavesdrip gully for a probable roundhouse toward the north-west corner; rich cess deposits suggest that the latrines lay over the main boundary ditch to the north; and a sacred space existed in the form of a small burial plot to the south-east corner. Considerable volumes of domestic waste were dumped into the ditches around the whole of the enclosure and to a lesser extent within the adjacent enclosures. However, deposition clearly favoured the south side of the main enclosure, while of the attached enclosures that to the south-east yielded the most artefacts further indicating a preference for refuse disposal in this part of the site.

The two inhumation burials were laid north-south, close to a small pit containing evidence of burning, adjacent to the entrance into the enclosure. The identification of a small burial site is of local importance as at present there is very little evidence for funerary practice on other Roman rural sites in the Midlands. Fragments of burnt, probable human bone recovered from the ditch fill at the south-west corner of the main enclosure indicate that the rite of cremation was also practiced. Unfortunately the residual nature of the evidence for the latter means that little can be said about it, or any discussion made in comparison with the former. However, it seems likely that these cremated remains were associated with the earlier phases of settlement in the vicinity.

The roughly squared stone blocks noted within the subsoil and ditch fills are of some interest. They have clearly been brought deliberately onto the site and in the absence of scorching or burning seem unlikely to have been associated with hearths or ovens. One possibility is that they reflect the disturbed and dumped remains of dwarf-wall foundations or post-pads for timber buildings or even mass wall constructions. Unfortunately, no such stone was revealed within its primary context, so nothing further can be said of the potential structures, which may have existed within or adjacent to the site.

The material from the main enclosure indicates occupation reached a peak in the mid/late 4th century. The high number of coins recovered is unusual for a rural site; they suggest that the site was of local import, possibly as a local trading centre. However, they may simply highlight the fact that full metal-detector surveys are seldom undertaken in such areas.

The relative proportions of Roman pottery fabrics within the assemblage are of a standard pattern for a rural site of the region, with an overwhelming dominance of locally produced Severn Valley wares within contexts predating the later 4th century date and a marked increase in non-local wares such as South Midlands shell-tempered and Oxfordshire products after this date. The distinctive black pottery, not previously found in the region, is thought to have been produced locally with very limited distribution in response to the decline of the Black-burnished ware industry around the mid 4th century. The relative proportions of pottery vessels of each form also generally conforms to the pattern noted for a rural site, although there were fewer drinking vessels and jars than is usual. This is possibly a function of the continuation of the site after the postulated demise of the local Severn Valley ware industry prior to the late 4th century.

The environmental and animal bone evidence indicates a settlement that practised a pastoral economy raising cattle and horses in particular. The site was situated within a landscape of grassland, some of which would have been short-turfed, probably the result of livestock grazing. From the low level of cereal crop waste it is conjectured that other foodstuffs were largely imported from elsewhere. A particularly high quantity of animal bone, with butchery marks, within the ditch which fed into east side of the amorphous 'pond' feature within the south-west enclosure may indicate the deliberate dumping of charnal waste at this point, although it may also represent simply a build of material washed down from elsewhere within the settlement. Venison and chicken were consumed, in addition to the meat of the major domestic food species: cattle, sheep and pig. Dogs of various sizes seem to have been used in the herding of stock. There is also evidence for the working of red deer antler, most of it probably seasonally collected after casting, which suggests local proximity to extensive woodland.

Finally there were two regimes of ridge and furrow evident on the site: the more ephemeral and probably earlier was aligned east-west; the more substantial and better preserved was orientated north-south. Although medieval finds were not recovered from the furrows (with the exception of occasional generic medieval/post-medieval tile), it appears that the strip-field system was in use in this period, and was realigned at some point after it was first established, most probably to make use of the north-south slope to assist drainage and irrigation. The more substantial east-west linear to the north end of Area 3 may be a headland, or division between two strip fields - one on the floodplain, the other on the adjacent slope.

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13. **Personnel**

The fieldwork and report preparation was led by Tom Vaughan.

The project manager responsible for the quality of the project and editing of the report was Robin Jackson.

Fieldwork was undertaken by James Goad, Marc Steinmetzer, Richard Lee, Andrew Mann and Adam Mindykowski who achieved excellent results despite some particularly adverse weather.

Metal detecting was undertaken by Dean Crawford in addition to the field team.

Finds analysis was co-ordinated and undertaken by Laura Griffin, environmental analysis by Katie Head, Andrew Mann and Liz Pearson, osteological analysis by Gaynor Western (of Mercian Archaeology) and illustration by Carolyn Hunt and Steve Rigby. Peter Guest contributed the coinage identifications, Ian Baxter the animal bone report and Steve Willis the Samian analysis.

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15. **Abbreviations**

SMR Sites and Monuments Record.

WSM Numbers prefixed with 'WSM' are the primary reference numbers used by the Worcestershire County Sites and Monuments Record.

Appendix 1: Context descriptions

CUT	FILL	TPQ	DESCRIPTION
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(NB tpqs in italics are by association with feature/s adjacent)

AREA 1

(parallel north-south aligned furrows, not assigned numbers, no features)

100			mid greyish brown sandy loam, top/plough soil
101			mid yellowish orange sandy clay with pebbles, natural matrix

AREA 2

(parallel plough furrows aligned east-west, not assigned numbers)

200			mid greyish brown sandy loam, top/plough soil
245			mid/light yellow sandy clay, subsoil
201			mid yellowish orange sandy clay, natural matrix

LINEAR DITCHES – FIELD BOUNDARIES?

248			linear ditch, aligned north-south, truncated by 225 & 219, same as 251 & 262
	249	n/d	lower fill, mid/dark grey sandy clay
	250	n/d	upper fill, light/mid grey sandy clay
251			linear ditch, aligned north-south, truncated by 239, same as 248 & 262
	252	2nd	lower fill, mid/dark grey sandy clay
	253	n/d	upper fill, light/mid grey sandy clay
262			linear ditch, aligned north-south, truncated by 258, same 248 & 251
	263	n/d	lower fill, mid/dark grey sandy clay
	264	n/d	middle fill, light/mid grey sandy clay
	265	n/d	upper fill, mid grey sandy clay
225			linear ditch, aligned north-south, cuts 248, truncated by 214 & 219, same as 239 & 258
	226	n/d	lower fill, light grey/brown sandy clay
	227	2nd	secondary fill, mid/light grey sandy clay
	228	n/d	tertiary fill, mid grey sandy clay
	229	RBR	upper fill, light grey yellow sandy clay
239			linear ditch, aligned north-south, cuts 251, truncated 230 & 234, same as 225 & 258
	240	n/d	lower fill, mid grey sandy clay
	241	n/d	middle fill, light grey sandy clay
	242	2nd	upper fill, light grey yellow sandy clay
258			linear ditch, aligned north-south, cuts 262, truncated by 254, same as 225 & 239
	259	n/d	lower fill, mid grey sandy clay
	260	n/d	middle fill, light grey sandy clay
	261	RBR	upper fill, mid grey sandy clay
266			spread of material assoc. with 258 & 262, truncated by 254
202			linear ditch, aligned north-south, same as 209, 215 & 236
	203	n/d	lower fill, light/mid grey sandy clay
	204	n/d	secondary fill, light/mid grey brown sandy clay
	205	RBR	tertiary fill, mid/dark grey sandy clay
	206	n/d	upper fill, dark grey sandy clay
207			linear ditch, aligned north-south, same as 202, 214 & 234, truncated by 246
	208	n/d	lower fill, light grey yellow sandy clay
	209	n/d	secondary fill, light/mid grey sandy clay
	210	2/3rd	tertiary fill, light/mid grey brown sandy clay
	211	n/d	upper fill, mid/dark grey sandy clay
214			linear ditch, aligned north-south, cuts 225, same as 202, 207 & 234
	215	n/d	lower fill, light/mid grey sandy clay
	216	n/d	secondary fill, mid grey sandy clay
	217	3rd	tertiary fill, light/mid grey brown sandy clay, inc later tile – intrusive?
	218	2/3rd	upper fill, mid/dark grey sandy clay
234			linear ditch, aligned north-south, cuts 239, same as 202, 207 & 214

235	n/d	lower fill, dark grey black sandy clay
236	n/d	secondary fill, light/mid grey sandy clay
237	2 nd +	tertiary fill, light/mid grey brown sandy clay
238	2/3rd	upper fill, mid/dark grey sandy clay
246		linear ditch, aligned east-west, cuts 207, truncated by 212
247	n/d	single fill, mid grey brown sandy clay
212		linear ditch, aligned north-south, cuts 246
213		single fill, mid/light grey sandy clay
219		linear ditch, aligned north-south, truncates 225
220	n/d	lower fill, light grey sandy clay
221	n/d	secondary fill, mid/light grey sandy clay
222	2 nd	tertiary fill, dark grey sandy clay
223	2 nd	quaternary fill, mid/light grey sandy clay
224	n/d	upper fill, mid grey sandy clay
230		linear ditch, aligned north-south, cut by 243, truncates 239, same as 254
231	n/d	lower fill, light grey yellow sandy clay
232	n/d	secondary fill, mid/light grey yellow sandy clay
233	3/4th	upper fill, mid grey brown sandy clay
254		linear ditch, aligned north-south, cuts 258 & 262, same 230
255	n/d	lower fill, light grey yellow sandy clay
256	n/d	secondary fill, mid/light grey yellow sandy clay
257	2 nd +	upper fill, mid grey brown sandy clay
243		curvilinear ditch spur, aligned east-west, cuts 230 & 251
244	n/d	single fill, mid/light brown yellow sandy clay
271		curvilinear ditch, aligned east-west
272	2 nd	lower fill, mid/light grey sandy clay
273	n/d	upper fill, mid/dark grey sandy clay

AREA 3 (parallel north-south aligned furrows, not assigned numbers)

300		mid greyish brown sandy loam, top/plough soil
301	mod	mid yellowish orange sandy loam, subsoil
302		mid yellowish orange sandy clay with pebbles, natural matrix

MAIN/EASTERN ENCLOSURE

313		main south and south-east ditch, varying profile – steep, slightly concave or straight sides curving to a flattish or concave base; sub-rounded terminus to north-east truncated by gully 378; truncates posthole 333, ditch 335; ?contemporary with ditch 410/401 and gully 303 (as 375)
314	L4th	south segment single fill, dark grey brown silty loam
332	L4/E5th	south middle segment single fill, dark grey brown silty loam
353	L4/E5th	south box section single fill, mid greyish brown - dark grey slightly sandy silty clay
356	L4/E5th	south-east segment upper fill, mid grey sandy clay
359	L4/E5th	south-east segment lower fill, mid orangey brown slightly silty clay
358	L3/E4th	south-west segment single fill, dark greyish yellow sandy clay
371	L4/E5th	terminus single fill, mid-dark grey clayey silt
375	<i>pre 4th</i>	south-west ditch segment (as 313); steep stepped side, curving to concave base, truncated by 318 & 325, cuts 305
329	n/d	single fill, mid-light grey sandy clay
378	<i>post-</i>	north-south gully across entrance, varying profile: steep concave sides curving to concave base; steep straight sides to
	L4/E5th	flat base; truncating 313 and 369
379	n/d	single fill, light brown grey clayey sandy silt
369		main north and north-east ditch, varying profile: shallow concave sides curving to concave base; stepped sides to flat base; steep concave sides to irregular concave base; contemporary with 372 (as 316)
349	L4/E5th	north segments upper fill, dark greyish brown clayey silt, cess rich?
374	4th	north segments lower fill, orangey flecked fawn yellow silty clay with grey patches, cess rich?
367	L4/E5th	north-east segment single/lower fill, mid-dark greyish yellow silty clay
370	4th	north-west segment single fill dark grey brown sandy silty clay
377	3/4th	east segment single fill, light brown-dark grey clayey silt
316		north-west ditch segment; shallow concave sides curving to a shallow concave base; truncates 305; (as 369)

317	L4/E5th	single fill, light-mid brown grey silty clay
305		north segment west ditch, truncated by 307, 316 & 375
306	3/4th	north segment single fill, mid-light brown silty clay
315	L4/E5th	mid segment single fill, mid-light brown grey silty clay (as 323)
318		?recut of west ditch and west gully spur; steep concave or straight sides to flattish base; spur edges very ill-defined and irregular (overcut); sub-square terminus to west; truncates ditches 305 and 375; truncated by ditch 325
319	L4/E5th	north segment upper fill, dark grey silty clay
323	4th	north segment lower fill, mid-light brown grey silty clay (as 315)
320	L4/E5th	single fill of west spur, very dark brown grey silty sandy clay
321	4th	south segment lower fill, light grey yellow sandy clay
322	L4/E5th	south segment upper fill, mid-dark grey sandy clay

FEATURES WITHIN MAIN ENCLOSURE

303		north-south gully defining cemetery area, truncates 334, sub-rounded terminus to north, straight sides curving to concave base, ?contemporary with 313
304	3/4th	south segment single fill, dark grey slightly sandy silty clay
310	3/4th	terminus single fill, dark grey slightly sandy silty clay
334	<i>pre</i> 3/4th	posthole, sub-square, steep side and shallow concave base, truncated by 303 and 313
333	n/d	single fill, greyish brown silty loam, no visible post-pipe
382	<i>?3/4th</i>	sub-rectangular grave cut, aligned NNE/SSW, concave sides curving to flattish base
383	n/d	grave fill, mid orangey grey slightly silty clay
384		skeleton, juvenile or female
385	<i>?3/4th</i>	sub-rectangular grave cut, aligned NNE/SSW, ?sub-concave sides curving to flattish base, truncated by east-west furrow
386	n/d	grave fill, mid greyish brown silty clay
387		skeleton, juvenile
394	<i>?3/4th</i>	circular burning pit associated with burials, truncated by furrow
395	n/d	single fill, mid-light brown silty clay with extensive charcoal and burnt pebbles
372		north-south gully, irregular concave /straight sides to flattish base, contemporary with 316/369, rounded terminus to south
373	n/d	north segment single fill, mid grey sandy and silty clay
380	3/4th	south terminus single fill, mid grey sandy clay
381	RBR	mid segment single fill, mid grey sandy clay
388		evesdrip gully, sub-L-shaped, rounded terminus to north, truncated to east, steep straightish sides to flattish base (north), shallow concave sides and concave base to east
389	3/4th	north terminus single fill, mid grey sandy clay
390	RBR	mid segment single fill, mid grey sandy clay
391	n/d	east terminus single fill, mid grey sandy clay

NORTH OF MAIN ENCLOSURE

307	med.	linear aligned east-west, ill-defined sides, steep concave to concave base, possible headland or furrow? as 330?
308	/p-med	mid-light brown silty clay

SOUTH-EAST ENCLOSURE

335		west ditch aligned north-south, truncated by 338 & 313/375, varying profile: steep straight sides curving to irregular concave base/concave sides to concave base
336	4th	lower fill, south segment, dark greyish yellow clayey sand
337	4th	upper fill, south segment, mid brownish grey clayey sand
357	L3/4th	single fill, north segment, dark greyish yellow sandy clay
401	<i>pre</i> L3/4th	south segment of east ditch, aligned north-south, varying profile: straight-concave sides to narrow/wide flattish base, truncated by 405, relation with 407?
402	L4/E5th	upper fill, light-dark grey silty sand (<i>NB: finds residual?</i>)
409	n/d	lower fill, light brown-grey-orange silty sand
403	n/d	lower fill, light grey silty sand
404	n/d	upper fill, light-mid grey silty sand
410	<i>?L4/E5th</i>	north segment of east ditch, contemporary with 313? shallow concave sides and concave base
411	n/d	single fill, mid orangey brown slightly sandy silty clay, as 359?

405			oval pit, straight sides to flattish base, truncates 401 & 407
	406	L3/4th	single fill, mid grey silty sand
407		<i>pre L3/4th</i>	oval pit, straight side curving to ?concave base, truncated by 405
	408	n/d	single fill, light grey silty sand
WEST ENCLOSURE AND ASSOCIATED FEATURES			
325			south ditch, aligned east-west, concave sides & base, truncates 318, 360, 362 & 375
	326	n/d	lower fill, east segment, mid-light grey sandy clay
	327	L4th	second fill, east segment, mid-dark grey sandy clay
	328	L4th	upper fill, east segment, mid-light grey sandy clay
	342	L4/E5th	lower fill, mid segment, mid-light grey sandy clay
	343	L4/E5th	mid fill, mid segment, light grey yellow sandy clay
	344	L4/E5th	upper fill, mid segment, mid-dark grey sandy clay
	365	L3/L4th	lower fill, west segment, light grey sandy clay
	366	L3/L4th	upper fill, west segment, mid grey sandy clay
347			west ditch, aligned north-south, edges ill-defined, near vertical & sloping sides, contemporary with 330, 345 & 362? 360?
	348	4th	north segment single fill, dark brown clayey silt
	400	3/4th	mid segment single fill, mid grey sandy clay
362		<i>4th</i>	west ditch south segment, aligned north-south, contemporary with 347, truncates 360, truncated by 325
	363	n/d	lower fill, mid-light grey yellow sandy clay
	364	n/d	upper fill, mid-dark grey sandy clay
318			east gully spur, aligned east-west, sub-square terminus to west; sides ill defined and irregular (overcut); truncates ditches 305 and 375; truncated by ditch 325
	320	L4/5th	terminus single fill, dark brown grey silty sandy clay
345			north-west gully spur, aligned east-west, edges ill-defined, shallow concave curving to irregular concave base; sub-oval terminus to east; contemporary with 330 & 347?
	346	n/d	west segment single fill, light brown grey silty clay
	396	3/4th	terminus single fill, mid grey silty clay; burnt patches (<i>NB: finds abraded</i>)
340			circular pit, steep sides & flattish base, truncated by 325
	341	RBR	mid dark brown grey sandy clay
EX. WEST ENCLOSURE AND ASSOCIATED FEATURES			
360			curvilinear ditch, aligned north-south & east-west, gradual sides, flat base, truncated by 325 & 362
	361	RBR	single fill, mid-light grey yellow sandy clay
330			north ditch, aligned east-west, ill-defined edges, ?shallow concave profile, possible natural, headland or furrow? contemporary with 307, 345 & 347?
	331	L4/E5th	single fill, fawn brown sandy clay
	324	RBR	animal burial overlying 330/331
397		<i><4th</i>	curvilinear north ditch, aligned east-west, truncated by 347
	398	n/d	single fill, west segment, mid grey silty clay
	399	n/d	single fill, east segment, mid grey silty clay
SOUTH-WEST ENCLOSURE AND ASSOCIATED FEATURES			
335			east ditch, aligned north-south, truncated by 338 & 313/375, varying profile: steep straight sides curving to irregular concave base/concave sides to concave base
	336	4th	lower fill, south segment, dark greyish yellow clayey sand
	337	4th	upper fill, south segment, mid brownish grey clayey sand
	357	L3/4th	single fill, north segment, dark greyish yellow sandy clay
338			west gully spur, aligned east-west; steep straight sides to flat base to west; concave curving to concave base to east; underlies 415; truncates 335
	339	L4/E5th	east segment single fill, mid brown/light grey clayey sand
	412	n/d	mid segment upper fill of 338 OR lower fill of 415, mid grey sandy clay
	413	n/d	mid segment lower fill, light grey yellow silty sand
	414	n/d	west segment/terminus fill, mid grey sandy clay
415			?water feature, aligned <i>c</i> east-west, irregular, overlies gully 338
	311	L4/5th	single/upper fill, mid-light sandy clay
	350	n/d	east segment lower fill, light brown orange clayey sand
	351	n/d	east segment secondary fill, mid-dark grey brown clayey sand

352	n/d	east segment upper fill, mid brown grey sandy clay
412	n/d	mid segment upper fill of 338 or lower fill of 415, mid grey sandy clay

AREA 4

500		mid greyish brown sandy loam, top/plough soil
501		mid yellowish orange sandy clay, subsoil/relict plough soil
502		mid reddish orange clayey sand with pebbles, natural matrix

DITCHES – FIELD BOUNDARIES?

503		linear, aligned ?east-west, shallow concave break of slope at <30° to horizontal, then stepped & 60° to horizontal curving to irregular concave base
504	n/d	lower fill, mid greyish brown very sandy silt (inc 1 pot/briquetage sherd)
505	n/d	upper fill, dark greyish brown very sandy silt
506		linear, aligned ?east-west, sharp break of slope, slightly concave sides at <80° to horizontal curving to sharp concave base
507	n/d	single fill, dark greyish brown very sandy silt
508		linear, aligned ?east-west, gradual break of slope, concave sides at 45° to horizontal curving to concave base, cut by 510
509	n/d	single fill, mid greyish brown very sandy silt
510		linear, aligned ?east-west, gradual break of slope, sides irregular – south stepped at 45° then 60° to horizontal; north straight, curving to shallow concave base, truncates 508
511	3rd	single fill, mid greyish brown very sandy silt (inc 1 pot sherd)
512		linear, aligned ?east-west, straight sides at 60° to horizontal curving to sharp concave base
513	n/d	single fill, mid greyish brown very sandy silt
514		?ditch/pit, aligned WSW/ENE, gradual break of slope, diffuse steep concave sides at >70° to horizontal curving to sharp concave base
515	n/d	single fill, mid brownish orange very sandy silt
516		linear, aligned SW/NE, gradual break of slope, diffuse sides: south concave at 70°, north at 45° to horizontal, curving to concave base.
517	n/d	single fill, mid greyish orange very sandy silt
518		?pit, gradual break of slope and concave base
519	n/d	single fill, mid brown/grey sandy clay
520		?pit, gradual break of slope and flat base
521	n/d	single fill, mid-light grey orange silty sand
522		?pit, sharp break of slope and concave base
523	n/d	single fill, mid-light grey orange silty sand
525		?ditch/pit, aligned north-south, sharp break of slope, sides near vertical to flat base
524	RBR	lower fill, mid grey very sandy silt with orange mottling; layer of yellow sandstone slabs at base
528	RBR	upper fill, dark grey black sandy clay, frequent charcoal
526		?ditch, aligned NNE/SSW, sides concave at c 70° to horizontal curving to flattish base
527	n/d	single fill, mid grey very sandy silt with orange mottling

AREA 5

(no features identified – little natural observed)

700		mid greyish brown sandy loam, top/plough soil
701		mid yellowish orange sandy clay, subsoil
702		mixed blue and orange clay, natural matrix

AREA 6

(parallel north-south aligned furrows, not assigned numbers)

600		mid grey silty sand, topsoil
601	18th	mid yellowish brown/light brownish grey sandy clay subsoil
602		light orangey brown sandy clay/green grey clay, natural matrix

DITCHES – FIELD BOUNDARIES?

603		linear ditch, aligned NNE/SSW, sharp break of slope, concave sides at 30° to horizontal, curving to flat base, same as 610
604	3/4th	single fill, mid grey silty sand
605		linear ditch, aligned NNE/SSW, sharp break of slope, concave sides at 30° to horizontal, curving to flattish base, same as 608
606	2/3 rd	single fill, mid grey silty sand
608		linear ditch, aligned NNE/SSW, sharp break of slope, concave sides at 30° to horizontal, curving to flat base with deeper section to south, same as 605
607		single fill, mid grey silty sand
610		linear ditch, aligned NNE/SSW, sharp break of slope, concave sides at 30° to horizontal, curving to flat base, diffuse edge to south, same as 603
609		single fill, mid grey silty sand

Appendix 2: Artefactual Tables

Table 1: Quantification of the Roman pottery assemblage by fabric type

Fabric no	Fabric name	Total sherds	% sherds	Weight (g)	% weight
3	Handmade Malvernian ware	3	0.3	42	0.2
3.1	Variant handmade Malvernian ware	12	1.0	189	1.0
12	Oxidised Severn Valley ware	672	56.5	11864	59.8
12.1	Reduced Severn Valley ware	17	1.4	170	0.9
12.2	Oxidised organically tempered Severn Valley ware	10	0.8	134	0.7
14	Fine sandy greyware	22	1.9	569	2.9
15	Coarse sandy greyware	33	2.8	342	1.7
16	Grog tempered ware	1	0.1	91	0.5
16.2	Handmade grog tempered ware	5	0.4	180	0.9
19	Wheelthrown Malvernian ware	13	1.1	350	1.8
21.3	Variant micaceous ware	13	1.1	255	1.3
22	Black-burnished ware I	105	8.8	1124	5.7
23	South Midlands shell-tempered ware	82	6.9	1083	5.5
24	Shell and ironstone tempered ware	2	0.2	37	0.2
29	Oxfordshire red/brown colour-coated ware	56	4.7	687	3.5
30	Oxfordshire white colour-coated ware	1	0.1	1	0.01
33.1	Oxfordshire white mortaria	12	1.0	552	2.8
33.3	Oxfordshire red mortaria with red/brown slip	12	1.0	341	1.7
39	Oxfordshire burnt white ware	1	0.1	25	0.1
40	Oxfordshire parchment ware	2	0.2	135	0.7
41	Unprovenanced white ware	5	0.4	82	0.4
43	Samian ware	11	1.0	118	0.6
149	Worcestershire imitation black-burnished ware	73	6.1	1112	5.6
98	Miscellaneous Roman wares	21	1.8	309	1.6

Table 2: Summary of Roman pottery fabrics from Areas 2 and 4

Fabric no	Fabric name	No of sherds	Weight (g)
3	Handmade Malvernian ware	3	42
3.1	Variant handmade Malvernian ware	8	79
12	Oxidised Severn Valley ware	201	2874
12.1	Reduced Severn Valley ware	1	16
12.2	Oxidised organically tempered Severn Valley ware	9	98
15	Coarse sandy greyware	24	121
19	Wheelmade Malvernian ware	2	36
21.3	Variant micaceous ware	5	18
22	Black burnished ware I	90	889
43	Samian ware	8	47
98	Miscellaneous Roman wares	2	1

Table 3: Summary of Roman pottery fabrics from Area 3

Fabric no	Fabric name	No of sherds	Weight (g)
3.1	Variant handmade Malvernian ware	2	30
12	Oxidised Severn Valley ware	463	8908
12.1	Reduced Severn Valley ware	16	154
12.2	Oxidised organically tempered Severn Valley ware	1	36
14	Fine sandy greyware	22	569
15	Coarse sandy greyware	9	221
16	Grog tempered ware	1	91
16.2	Handmade grog tempered ware	5	180
19	Wheelmade Malvernian ware	10	306
21.3	Early micaceous ware	8	237
22	Black burnished ware, type I	15	235
23	South Midlands shell-tempered ware	82	1083
24	Shell and ironstone tempered ware	2	37
29	Oxfordshire red/brown colour-coated ware	56	687
30	Oxfordshire white colour-coated ware	1	1
33.1	Oxfordshire white mortaria	12	552
33.3	Oxfordshire red mortaria with red/brown slip	12	341
39	Oxfordshire burnt white ware	1	25
40	Oxfordshire parchment ware	2	135
41	Unprovenanced white ware	5	83
43	Samian ware	4	71
149	Worcestershire imitation black-burnished ware	73	1112
98	Miscellaneous Roman wares	17	288

Table 4: Relative proportions of vessel types within the assemblage by Rim Equivalent EVE

Form	RE total	% of group
Dish	0.72	5.1
Bowl	2.59	18.3
Jar	5.70	40.3
Jar/bowl	1.43	10.1
Mortarium	0.94	6.6
Tankard	0.58	4.1
Carinated beaker	0.20	1.4
Flagon	2.00	14.1
	14.16	100

Table 5: Quantification by vessel form and fabric (EVE by RE measurement)

Form	12	12.1	12.2	14	21.3	22	23	29	33.1	33.3	40	149	98
Dish						0.06						0.66	
Bowl	0.64			0.35	0.14	0.19	0.21	0.62			0.29		0.15
Jar/bowl	1.43												
Jar	2.59	0.21	0.07	0.26		0.68	1.83	0.06					
Beaker	0.20												
Flagon	2.00												
Tankard	0.58												
Mortarium									0.61	0.33			
% of group	52.5	1.5	0.5	4.3	1.0	6.6	14.4	4.8	4.3	2.3	2.0	4.7	1.1

Table 6: Coinage description and identification

SF	Context	Denom.	Date	Obverse	Reverse	Mint mark	Ref.
3	349	AE3	347-348	Constans	VICTORIAE DD AVGG QNN	//[.....]	
4	332	AE3 copy	354-364	as House of Constantine	as Falling Horseman	//[.....]	
5	332	AE3	347-348	Constans	VICTORIAE DD AVGG QNN	D//TRP (Trier)	HK: 148
6	336	AE2	4thC	illegible	illegible	//[.....]	
8	344	AE3	4thC	illegible	illegible	//[.....]	
9	344	AE2	350-353	Magnentius / Decentius	VICTORIAE DD NN AVG ET CAE	//[.....]	
11	349	AE3	4thC	illegible	illegible	//[.....]	
13	367	AE2 copy	350-364	as Magnentius?	as Victoriae dd nn aug et cae	//[.....]	
14	367	AE2	348-350	Constantius II	FEL TEMP REPARATIO (galley)	//[.....]	
15	368	AE3	4thC	illegible	illegible	//[.....]	
16	332	AE3	4thC	illegible	illegible	//[.....]	
17	322	AE2	4thC	illegible	illegible	//[.....]	
18	344	AE2	348-350	as House of Constantine	FEL TEMP REPARATIO (galley)	//[.....]	
19	373	AE2	4thC	illegible	illegible	//[.....]	
24	312	AE2	348-350	Constans	FEL TEMP REPARATIO (hut)	//[.....]	
27	321	AE3 copy	330-348	as House of Constantine	as Gloria Exercitus (1 or 2 stds)	//[.....]	
28	321	AE4 copy	354-364	as House of Constantine	as Falling Horseman	//[.....]	
29	321	AE3 copy	354-364	CONIN ...	as Falling Horseman	//[.....]	

Appendix 3: Environmental tables

Table 1: Environmental sample list for the assessment and post-excavation stages

Context	Sample	Context type	Description	Period	Phase	Sample vol	Vol processed	Res assessed	Flot assessed
314	4	ditch		ROM	L4C	40	10	Y	Y
327	5	ditch		ROM	L4C	40	10	Y	Y
332	7	ditch		ROM		40	10	Y	Y
339	40	fill of 338	segment			40	40	Y	Y
349	17	ditch		ROM	L4-E5C	40	10	Y	Y
351	12	fill of 338				10	10	Y	Y
352	11	tertiary fill of 338				40	30	Y	Y
358	13	ditch		ROM	L3-4C	40	10	Y	Y
367	14	ditch		ROM	L4-E5C	40	10	Y	Y
371	16	ditch		ROM	L4-E5C	40	10	Y	No flot
379	27	ditch		ROM		40	10	Y	No flot
383	24	grave		ROM		10	10	Y	No flot
383/384	22	grave		ROM		10	10	Y	No flot
386	26	grave		ROM		10	10	Y	No flot
386/387	25	grave		ROM		10	10	Y	Y
395	29	layer	burnt	ROM		10	10	Y	Y
414	41	fill of 338	segment 3 terminus			40	40	Y	Y

Table 2: Environmental summary (Key: occ = occasional; mod = moderate; abt = abundant)

Context	Sample	large mammal	small mammal	mollusc	insect	charcoal	charred plant	waterlogged plant	other	Comment
314	4	occ		occ	n/a	n/a				
327	5	occ		occ	n/a	n/a				
332	7	occ		occ	n/a	n/a	occ			
339	40	abt	occ			occ	occ	occ	occ	unidentified veg; abt minerals
349	17	occ		occ	n/a	n/a	occ			
351	12	occ		occ	occ	occ	occ	occ	occ	unidentified veg; abt minerals
352	11	occ	occ		occ	mod	occ	occ	occ	unidentified veg; occ burnt human bone; abt minerals
358	13	occ/mod		occ	n/a	n/a	occ	occ		
367	14	occ	occ	occ	n/a	n/a				
371	16	occ		occ	n/a	n/a				
379	27				n/a	n/a				no remains; no flot
383	24				n/a	n/a			mod	human bone
383/384	22				n/a	n/a			occ	human bone
386	26				n/a	n/a			abt	human bone burnt? No flot
386/387	25				n/a	n/a		occ	abt	human bone
395	29				n/a	n/a		occ		seeds - modern?
414	41	occ	occ	occ	occ	occ	occ	occ	occ	unidentified veg, roots, wood; abt minerals

Table 3: Plant species for selected samples

Latin name	Family	Common name	Habitat	339	351	352	332	349	358	386	395	414
Charred plant remains												
<i>Triticum spelta</i> grain	Gramineae	spelt wheat	F		1							
<i>Triticum spelta</i> glume base	Gramineae	spelt wheat	F									2
<i>Triticum dicoccum/spelta</i> grain	Gramineae	emmer/spelt wheat	F	4		1		+				2
<i>Triticum</i> sp grain	Gramineae	wheat	F		1	7	+					
<i>Hordeum vulgare</i> grain	Gramineae	barley	F	5		1			+			
Cereal sp indet grain (fragments)	Gramineae	cereal	F	11		6	+					3
Gramineae sp indet grain	Gramineae	grass	AF	1								
Gramineae sp indet grain (small)	Gramineae	grass	AF			2						
unidentified seed	unidentified			2	1	1	+					
Waterlogged plant remains												
<i>Stellaria media</i>	Caryophyllaceae	chickweed	AB	3						+		
<i>Chenopodium/Atriplex</i> sp	Chenopodiaceae	Goosefoot/orache	ABCD								+	
<i>Chenopodium album</i>	Chenopodiaceae	fat hen	AB	46	1	17			+			14
<i>Atriplex</i> sp	Chenopodiaceae	Orache	AB							+		
<i>Umbelliferae</i> sp indet	Umbelliferae		ABCDE								+	
<i>Rubus idaeus/caesius/fruticosus</i>	Rosaceae	raspberry/bramble etc	CD		1							
cf <i>Polygonum aviculare</i> agg	Polygonaceae	knotgrass	AB								+	1
<i>Carduus/Cirsium</i> sp	Compositae	thistle	ABCD	5								
unidentified seed	unidentified			1								
unidentified root fragments	unidentified			1	1	1						1

Habitat key: A = cultivated ground; B = disturbed ground; C = woodlands, hedgerows, scrub, etc; D = grasslands, meadows, heathland; E = aquatic/wet habitats; F = cultivar
 + = uncounted presence

Table 4: Molluscan results for selected samples

Context number	314	327	332	349	358	367	351	414
LYMNAEIDAE								
<i>Lymnaea</i> sp			1					
<i>Lymnaea trunculata</i>	1	4		1	1	9		
VERTIGINIDAE								
<i>Vertigo pygmaea</i>		2		4	2	3		
PUPILLIDAE								
<i>Pupilla muscorum</i>	2			5	2			
VALLONIIDAE								
<i>Vallonia excentrica</i>	3	9	1	7	2	5	1	1
<i>Vallonia costata</i>	2		2					
<i>Vallonia pulchella</i>		2		4	4	4		
<i>Vallonia</i> sp		5	2	2	3			
ZONITIDAE								
<i>Oxychilus</i> sp		1						
<i>Oxychilus cellarius</i>					2			
HELICIDAE								
<i>Cepaea</i> spp				1		1		
<i>Helicella itala</i>	1	13		3	2	4		
<i>Trichia hispida</i>	10	8	4	5	10	3	1	1
<i>Trichia striolata</i>	3				4	1		
<i>Trichia</i> sp			2					
LIMACIDAE								
<i>Deroceras</i> sp (formerly <i>Agriolimax</i>)	1							
MILACIDAE								
<i>Milax</i> sp	2	1				1		
COCHLICOPIDAE								
<i>Cochlicopa lubrica</i>	1							
CHONDRINIDAE								
<i>Abida secale</i>	1							
BITHYNIIDAE								
<i>Bithynia tentaculata</i>		2						
SUCCINEIDAE								
<i>Succinea/Oxyloma</i> sp		1						
PLANORBIDAE								
<i>Planorbarius corneus</i>			1					
TOTAL	27	48	12	32	32	31	2	2

Appendix 4: Osteological tables

Table 1: Summary of the findings of the osteological analysis of skeletons (384) and (387)

	Skeleton (384)	Skeleton (387)
Condition	Good 1-3 but heavily fragmented	Good 1-3 but heavily fragmented
Completeness	40% (25-50%)	<25%
Age	45+ (middle/old adult)	21+ adult
Sex	Female?	Male?
Stature	Unobservable	Unobservable
Skeletal Pathology	Osteoarthritis in the posterior joints of the lumbar vertebrae	None observed
Dental Pathology	Unobservable	Small amount of calculus, one small cary, no major hypoplastic defects.

Appendix 5: Animal bone tables

Table 1: Evesham Road, Upper Moor. Number of Identified Specimens (NISP)

Taxon	Period							Total
	Early Romano-British (C2nd AD)	Late Romano-British (C3rd-C5 th AD)						
	Linear Ditches	Eastern (Main) Enclosure	Features within Eastern Enclosure	South-East Enclosure	West Enclosure & associated features	Exterior to West Enclosure	South-West Enclosure & associated features	
Cattle (<i>Bos f. domestic</i>)	6	66	-	1	17	2	3	95
Sheep/Goat (<i>Ovis/Capra f. domestic</i>)	-	14	1	-	-	2	-	17
Sheep (<i>Ovis f. domestic</i>)	-	(3)	-	-	-	-	-	(3)
Red Deer (<i>Cervus elaphus</i>)	-	3	-	-	+	-	+	3
Pig (<i>Sus scrofa</i>)	1	7	2	-	-	-	-	10
Horse (<i>Equus caballus</i>)	-	15	1	2	7	-	1	26
Dog (<i>Canis familiaris</i>)	-	3	1	-	3	-	1	8
Fowl (<i>Gallus f. domestic</i>)	-	1	-	-	-	-	-	1
Total	7	109	5	3	27	4	5	160

“Sheep/Goat” also includes the specimens identified to species. Numbers in parentheses are not included in the total of the period. “+” means that the taxon is present but no specimens could be “counted” (see text).

Table 2: Evesham Road, Upper Moor. Mandibular wear stages (following Crabtree 1989 and O'Connor 1988)

Taxon	Mandibular wear stages												
	A		B		C		D		E		F		Total
	n	%	n	%	n	%	n	%	n	%	n	%	n
Sheep/Goat	0	0	0	0	4	44	4	44	1	11	0	0	9

Taxon	Mandibular wear stages										Total
	Juvenile		Immature		Sub-adult		Adult		Elderly		
	n	%	n	%	n	%	n	%	n	%	
Cattle	0	0	1	11	2	22	5	56	1	11	9

Only mandibles with two or more teeth (with recordable wear stages) in the dP₄/P₄ – M₃ row are considered

Appendix 6: Plates



Plate 1: Aerial photograph of Area 3 in progress



Plate 2: Area 3, as stripped, view north



Plate 3: Area 3, flooded during excavation, view south-east



Plate 4: Copper alloy finger ring, late 4th century, Henig type IV (context 328)



Plate 5: Coin 4, AE3 copy, House of Constantine, AD 354-364 (obv. and rev.; context 332)



Plate 6: Coin 13, AE2 copy, Magnentius? AD 350-364 (obv. and rev.; context 367)



Plate 7: Adult female inhumation burial 384, Area 3



Plate 8: Pathological changes to zygapophyseal (posterior) joints of the lumbar vertebrae of skeleton (384)



Plate 9: Worked antler fragment, obverse (context 339)



Plate 10: Worked antler fragment, reverse (context 339)



Plate 11: Stone-floored pit 525, Area 4