

REPORTS

Excavations at Ireland's Land, Northmoor, Oxfordshire

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SUMMARY

Between July 2004 and February 2006 Oxford Archaeology carried out a strip map and sample exercise at Ireland's Land, Northmoor, Oxfordshire. The work was in advance of gravel quarrying and was carried out in stages, dictated by the gravel extraction programme. Archaeological activity was confined to an area north and east of a palaeochannel to the south and west of the site. A Neolithic flint flake was recovered from the upper layers of the palaeochannel and a Bronze Age chert arrowhead was recovered from a Roman ditch. However, any settlement pre-dating the Iron Age lay outside the excavation area.

Evidence for four Iron Age enclosures was revealed in the northern part of the site. Domestic dwellings may have been located within the enclosures; the northernmost enclosure had deposits of bone, pot and slag placed within the ditch termini. This enclosure had been enlarged by the Late Iron Age and was probably used solely for holding animals. A formalised late Iron Age/early Roman field system was also observed with a possible droveway to the west; it is likely that the site was pastoral.

Two isolated mid-late Saxon pits were identified in the NW of the site, and probably had a ritualistic use. The remains of three jars were found in one of the pits. A third pit to the west contained a large amount of cattle head and hoof bones and was dated to the late Saxon/early medieval period. Similarly dated boundary ditches and pits were observed to the east of the site. No evidence for any medieval or post-medieval settlement was revealed. However, the site continued to be used for agricultural purposes with furrows evident within both periods.

Ireland's Land lies within the parishes of Northmoor and Stanton Harcourt, Oxfordshire, between Northmoor village and the hamlet of West End (Fig. 1). It lies in the Upper Thames valley and is situated on the first gravel terrace, c. 1.4 km. west of the river Thames and 1.7 km. east of the Windrush, at an altitude of c. 63 m. OD. The development site is an L-shaped piece of land, c. 5.7 hectares in size, lying immediately west of a lake in the Watkins Farm gravel quarry (NGR: SP 422 040). The site has been ploughed over a number of years, but is now set-aside.

Archaeological and historical background (Figs. 1 and 2)

There are no known archaeological finds from Ireland's Land, but there are significant archaeological remains in the surrounding area. An important archaeological landscape has been revealed in the Lower Windrush valley, with sites dating from the Neolithic to the medieval period. These include the nearby scheduled cropmark site of a Roman rural settlement at Stonehenge Farm. Excavations have largely been undertaken in advance of gravel extraction and have mainly focused on the higher, second gravel terrace, especially

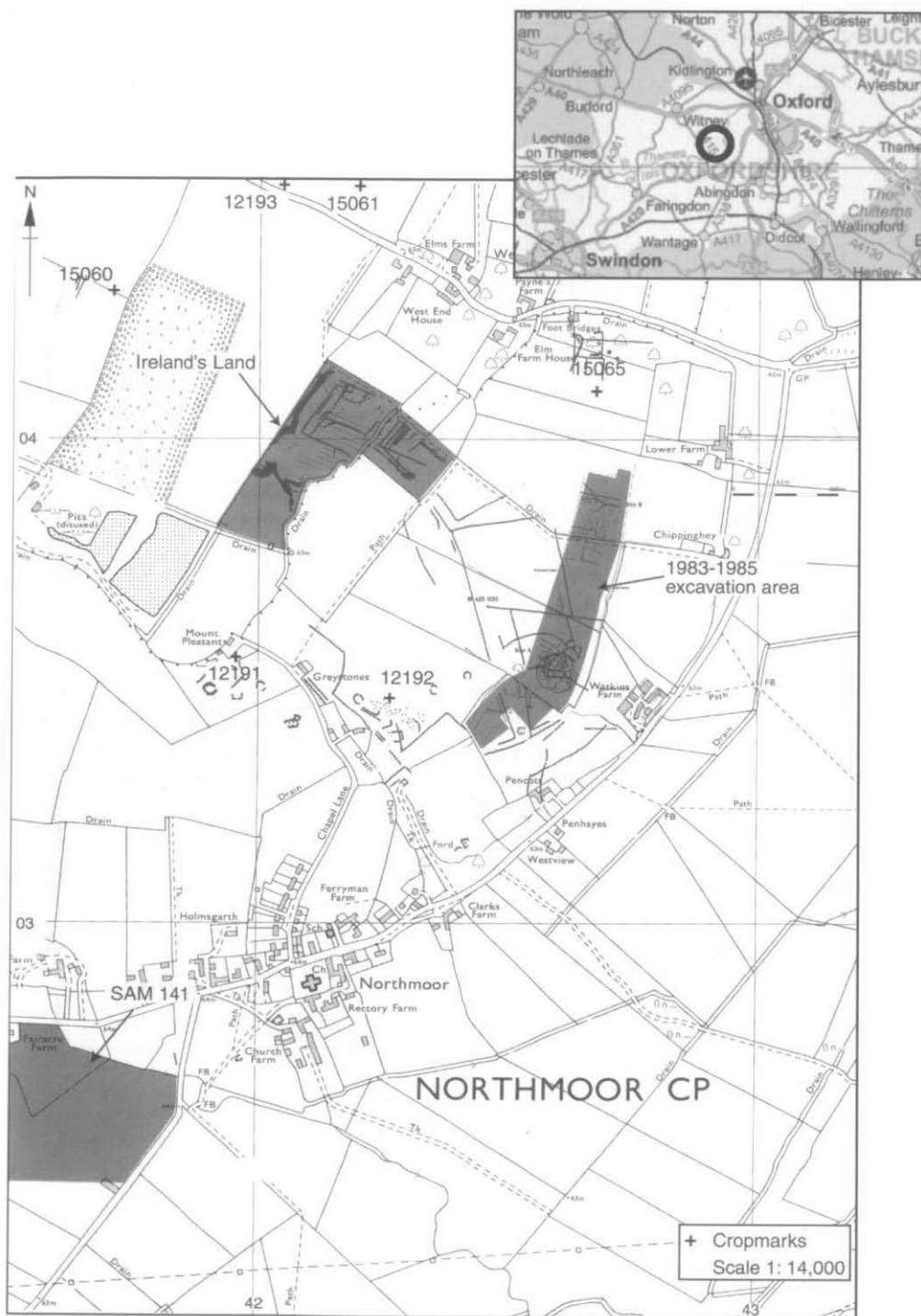


Fig. 1. Site location

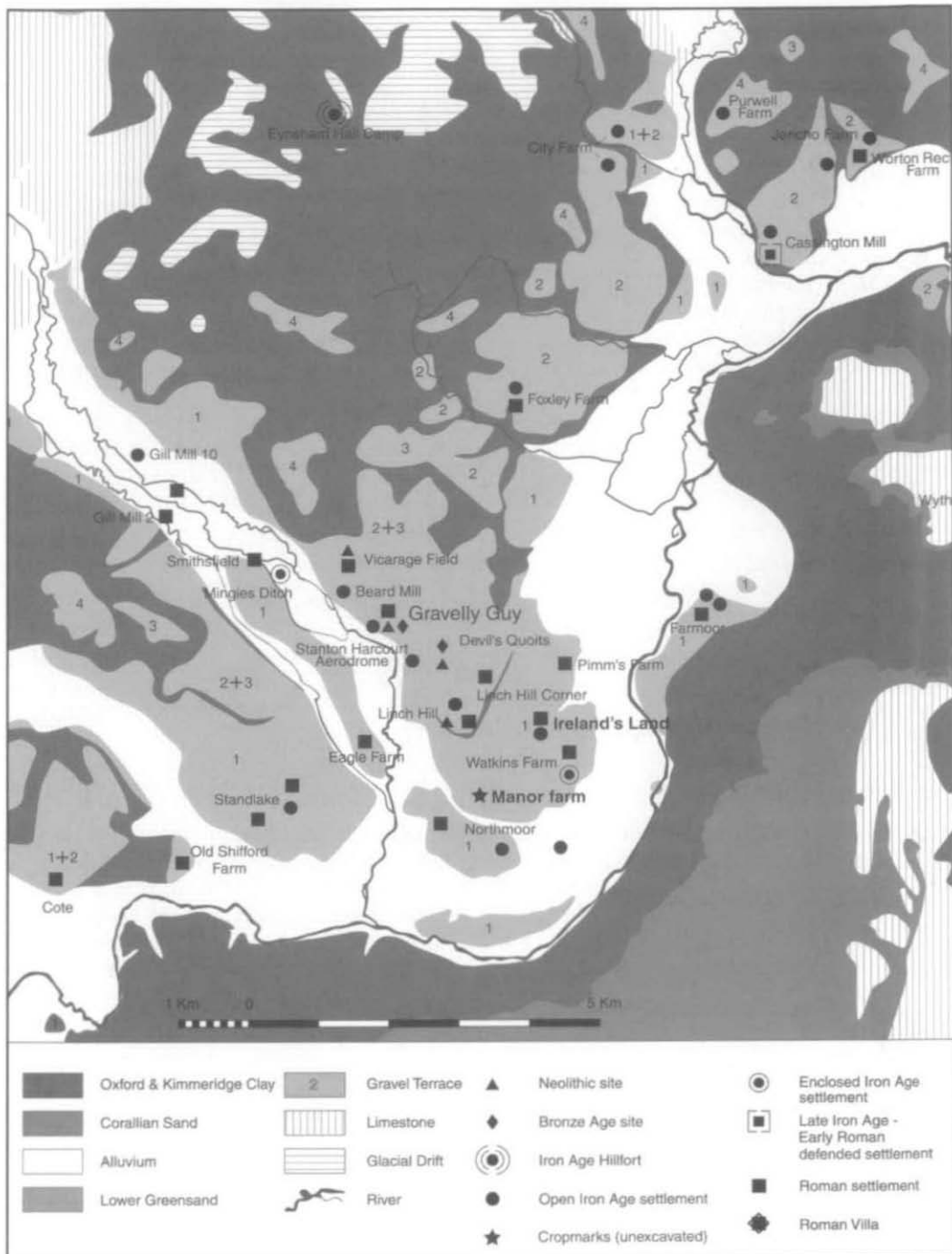


Fig. 2. Geology and site location showing selected other prehistoric and Roman sites

around Stanton Harcourt and Linch Hill. Of particular importance has been the development of a remarkably detailed understanding of Iron Age and early Roman settlement and agriculture and how this changed through time.¹

Although the major sites that have contributed to these studies have lain on the second gravel terrace, there has been an increasing awareness over the last two decades of the presence of sites on lower ground, particularly on the first gravel terrace. Excavations at Mingies Ditch, Hardwick-with-Yelford; Farmoor; Old Shifford Farm, Standlake; and at Watkins Farm itself, have provided important evidence of comparatively short-lived settlements with a pastoral economy, in contrast to their second gravel terrace cousins (Fig. 2).²

Earlier prehistoric sites in this area have so far only been discovered on higher ground, but it is now recognised that the floodplain of the Upper Thames was a comparatively dry environment in the Neolithic and Bronze Age, and a favoured location for short-lived settlements which are hard to detect by standard means of evaluation. This has been demonstrated in the nearby Cassington pit, where excavations by Oxford Archaeology since 1991 have uncovered important habitation and burial sites from these periods.³

Evidence of post-Roman occupation on the first gravel terrace in this area survives as former farms and villages, and the landscape has continued to be used for agricultural purposes. Ridge-and-furrow cultivation has been revealed in several excavations, for example Old Shifford Farm, Standlake and the adjacent Watkins Farm site, and its relationship to earlier boundaries is an issue of some interest.⁴

Excavation Methodology

The site was stripped by mechanical excavators using a large flat bladed, toothless bucket under close archaeological supervision. Machining stopped at the natural gravel, the top of the archaeological horizon. All exposed archaeological features were then planned and in general 10% of all linear features, and 50% of all pits excavated. The revealed ditch termini were excavated and pits with significant deposits were 100% excavated (see pit 653). Recording followed procedures laid down in the *OAU Fieldwork Manual*.⁵

DISCUSSION (Figs. 3 and 4)

Archaeological activity was confined to an area defined by a palaeochannel (Fig. 3), dividing the gravel terrace, to the west and south. There was no archaeological evidence linking the channel with activity on the site but the presence of a Neolithic flint flake indicates that the channel was open up to this time. The site lies on the first gravel terrace and, based on the molluscan evidence from a Roman ditch, it can be assumed that the land would have formed a fertile area suitable for arable or pastoral use. The archaeological evidence predominantly comprised enclosure and boundary ditches, though much of the site had been truncated by

¹ G. Lambrick, 'The development of late prehistoric and Roman farming on the Thames gravels', in M. Fulford and E. Nichols (eds.), *Developing landscapes of lowland Britain. The archaeology of the British gravels: a review* (Soc. Antiq. London Occas. Pap. 14, 1992), 78-105.

² T. G. Allen and M. A. Robinson, *The Prehistoric Landscape and Iron Age Enclosed Settlement at Mingies Ditch, Hardwick-with-Yelford, Oxon.* (Thames Valley Landscapes 1, Oxford Archaeology, 1993); G. Lambrick and M. Robinson, *Iron Age and Roman riverside settlements at Farmoor, Oxfordshire* (CBA Res. Rep. 32, 1979); G. Hey, 'Iron Age and Roman settlement at Old Shifford Farm, Standlake', *Oxoniensia*, lx (1995), 93-175; T. G. Allen, *An Iron Age and Romano-British Enclosed Settlement at Watkins Farm, Northmoor Oxon* (Thames Valley Landscapes 2, Oxford Archaeology, 1990).

³ G. Hey, 'Neolithic settlement at Yarnton, Oxfordshire', in P. Topping (ed.), *Neolithic landscapes* (Oxbow Monograph 86, 1997), 99-111.

⁴ Hey, op. cit. 175; T. G. Allen, 'Northmoor, Watkins Farm', *South Midlands Archaeology*, 15 (1985), 100.

⁵ D. Wilkinson (ed.), *Oxford Archaeological Unit Field Manual* (1992).

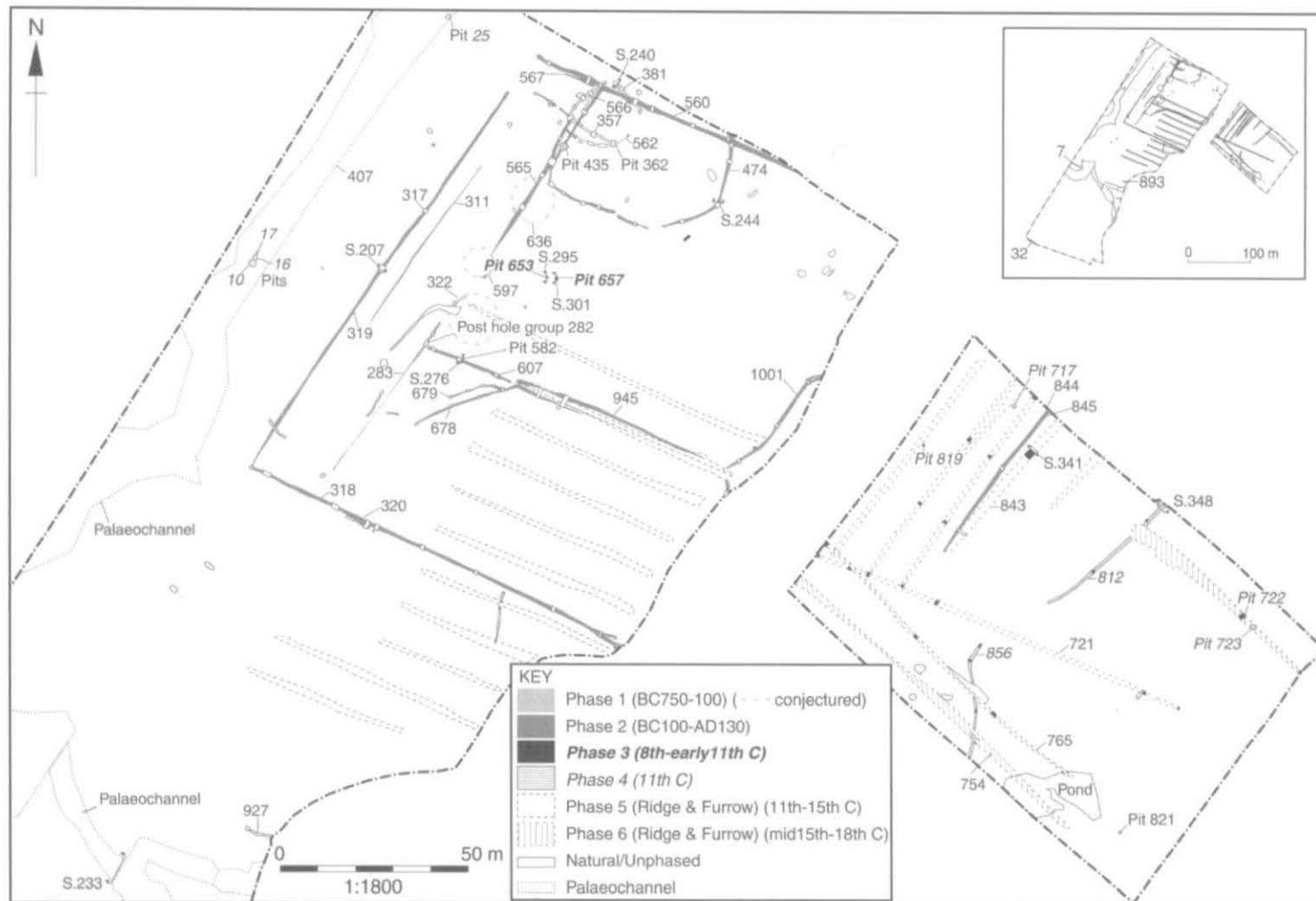


Fig. 3. Site plan showing all features and phasing

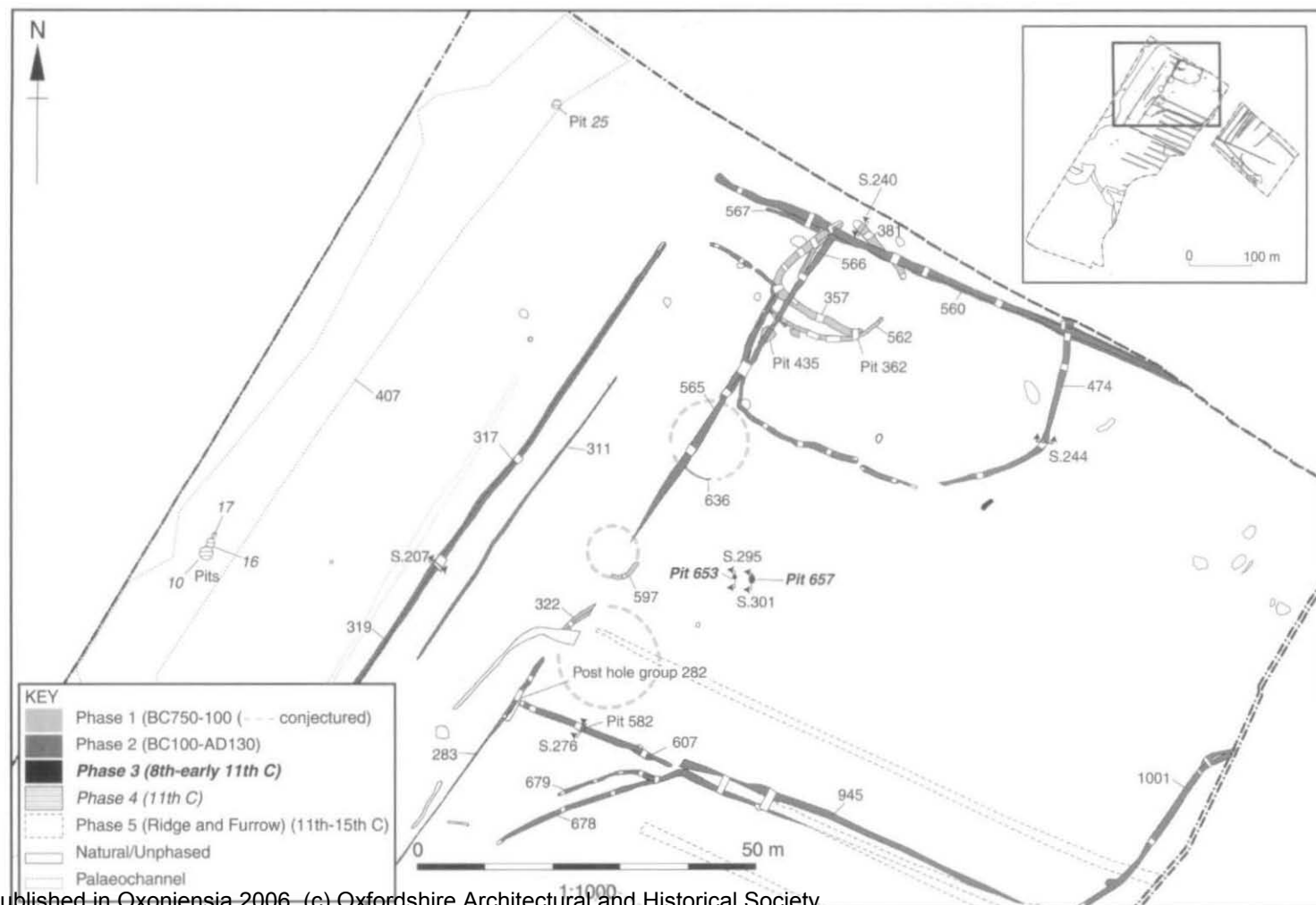


Fig. 4. Detail of the north-western part of site showing Iron Age and early Roman enclosures, and middle-late Saxon pits

ploughing. It is possible that evidence for structures, such as postholes or shallow gullies, had been removed. However, the lack of material remains throughout all phases of the site indicates that any 'unseen' structures were short lived and isolated.

Pre-Iron Age

The presence of a Neolithic flint flake in a palaeochannel, and redeposited undated flint flakes and a Bronze Age arrowhead within later features indicates that there was activity in the area prior to the Iron Age. However, any settlement lay outside the excavation area.

Iron Age (BC 750–100 – Fig. 4)

There was evidence for four enclosures in the northern part of the site. Enclosures 322, 597 and 636 survive as sections of shallow curvilinear gullies, any remaining evidence was probably destroyed by ploughing. An enclosure (381/357) to the north comprised deeper-cut ditches and had two possible entrances, one to the north and a larger gap to the east. Almost all the material remains were recovered from the termini of the ditches forming the northern entrance, including 28 of the 36 sherds of early to middle Iron Age pottery recovered from the site. Animal bone was recovered from both termini, though pottery was only found in the eastern terminus and slag in the western terminus. The pottery assemblage primarily comprised sherds from a single vessel and this may have formed a special deposit within the ditch terminus; the slag and bone may have been similarly significant. The enclosure may have had at least two phases, since a shallow ditch (562) appeared to form an extension to the southern side of the enclosure. It is likely that a domestic structure was located within the enclosure, based on the material remains. Evidence for iron smithing was revealed, though the location of any metal working was unclear. Three probable enclosures also lay to the south, but it is impossible to determine whether they enclosed structures. The limited finds assemblage suggests that any domestic activity was short lived.

There are parallels at Gravelly Guy, Stanton Harcourt where two groups of enclosure ditches were revealed, dating from the mid-late Iron Age.⁶ The enclosures were formed from shallow or deep ditches, ranging from 0.3 m. to 1.8 m. deep. The deeper ditched enclosures also had two asymmetrical entrances, one of which had special deposits placed in a ditch terminus. Other examples of enclosures with asymmetrical entrances are known at Farmoor, Langford Downs and Slade Farm.⁷ The purpose of the enclosures was not clear but they were likely to be for both domestic and animal usage. At Watkins Farm a middle Iron Age settlement was revealed comprising at least four small penannular enclosures; horse breeding appeared to form a significant part of the economy.⁸ Much like Ireland's Land the settlement was short lived, despite leaving considerably more archaeological evidence. It is possible that Ireland's Land had close connections to Watkins Farm in the Middle Iron Age; it may have formed an associated outlying settlement. The pottery evidence suggests that both sites underwent a decline in settlement at the end of the middle Iron Age, possibly dictated by the emergence of a larger settlement elsewhere. However, at Watkins Farm the apparent abandonment or settlement shift was followed by a hiatus in activity until the 1st century AD, whereas evidence of pastoral activity continued into the late Iron Age at Ireland's Land.

⁶ G. Lambrick and T. G. Allen, *Gravelly Guy, Stanton Harcourt: the development of a prehistoric and Romano-British landscape* (Thames Valley Landscapes 21, Oxford Archaeology, 2004).

⁷ Lambrick and Robinson, op. cit. 19; A. Williams, 'Excavations at Langford Downs, Oxon (near Lechlade) in 1943', *Oxoniensia*, xi-xii (1946-47), 43-54; George Lambrick *pers. comm.*

⁸ Allen, op. cit. 73-9.

Late Iron Age / early Roman (BC 100–AD 130 – Figs. 3 and 4)

The northern enclosure (474) was increased in size in the Late Iron Age and was probably used solely for animals. Only 13 sherds of Roman pottery were recovered from the whole site, and the character of the material suggests it was derived from a fairly low status rural site beyond the excavation area. A Bronze Age chert arrowhead was found within the fills of the enclosure ditch. The arrowhead was relatively unabraded and it is possible that this was a curio owned by an Iron Age or Roman farmer. Although there was no other evidence for Bronze Age activity, it is also possible that the arrowhead was deposited within a Bronze Age feature destroyed by the digging of the Roman ditch.

The enlargement of the enclosure was followed by the creation of a formalised field system, respecting the limits of the palaeochannels. A possible droveway to the west indicates that stock probably grazed in at least one of the fields, if not the whole site.

There did appear to be different phases of activity within the late Iron Age / early Roman period, a second enclosure may have lain to the south of enclosure 474 and meandering ditches were also recorded. However, the restricted nature of the finds assemblages from rural sites of this date in the region makes close dating and phasing using finds impossible.⁹ A similar pattern of fields was observed to the south of Watkins Farm in the late 1st century/early 2nd century AD, possibly controlled by a house to the north.¹⁰ It may be that the fields at Ireland's Land were also controlled by this property. However, whilst Romano-British activity ceased at Ireland's Land in the early 2nd century, at Watkins Farm activity continued into the 3rd century AD. What is true of both sites is that activity would not have noticeably differed from that of the middle Iron Age. The abandonment of the site in the 2nd century AD reflects a widespread reorganisation of the landscape of the Upper Thames Valley from the early-mid 2nd century AD. Certain sites were created or redeveloped, such as the villa at Roughground Farm, Lechlade or the nucleated settlements at Gill Mill, whilst occupation appeared to cease at sites such as the enclosure complex at Gravelly Guy.¹¹

It is possible that the Ireland's Land field system was associated with a settlement at Stonehenge Farm, 1.5 km. to the south.¹² Crop marks can be traced to the north of Manor Farm, though there is no evidence linking them with the excavations at Ireland's Land.¹³ It is also possible that the site is associated with crop marks indicating a settlement at Pimm's Farm; the Roman trackway at Watkins Farm heads straight for a trackway junction at Pimm's Farm, c. 1 km. to the north. However, limited fieldwalking has suggested that this dates from the 2nd century AD onwards.¹⁴ Roman sites are common along the Upper Thames Valley, with estimations of one site per kilometre.¹⁵ Similarly arranged field systems can also be seen in crop marks and excavations at Gravelly Guy and Thornhill Farm.¹⁶

⁹ Lambrick and Allen, op. cit. 161.

¹⁰ Allen, op. cit. 79–83.

¹¹ M. Henig and P. Booth, *Roman Oxfordshire* (2000), 106–10.

¹² OA, 'Stonehenge Farm, Northmoor, Oxfordshire, Archaeological Evaluation Report', Unpublished client report, 2004.

¹³ D. Benson and D. Miles, *The Upper Thames Valley: an archaeological survey of the river gravels* (Oxford Archaeological Unit Survey 2, 1974), 49.

¹⁴ Tim Allen *pers. comm.*

¹⁵ D. Miles, 'The Romano-British countryside', in M. Todd (ed.), *Research on Roman Britain 1960–89*, (Britannia Monograph 11, 1989), 115–26.

¹⁶ Lambrick and Allen, op. cit. 161; D. Jennings, J. Muir, S. Palmer and A. Smith, *Thornhill Farm, Fairford, Gloucestershire: an Iron Age and Roman pastoral site in the Upper Thames Valley* (Thames Valley Landscapes 23, Oxford Archaeology, 2004), 31–42.

Mid Saxon to early medieval (8th–11th centuries – Figs. 3 and 4)

Late Saxon pits (653 and 657) were identified in the NW of the site (Fig. 3); they were isolated and most likely deliberately dug so that significant items could be deposited. One of the pits contained large fragments of two middle to late Saxon Oxford ware jars and fragments of another late Saxon vessel. The other pit contained only three sherds of pottery. Any significant deposits of a non ceramic nature, such as leather or wood, may have perished. It is feasible that the pits were initially dug for another purpose such as storage, perhaps within a field, but the absence of any other associated features makes this unlikely. Isolated pits containing fragments of pottery were found during work at Heathrow Terminal 5 and Long Wittenham. A more local comparison can be found at Gravelly Guy, a solitary sunken-featured building was revealed close to the edge of the gravel terrace.¹⁷ The pits and sunken-featured building were not obviously associated with any other evidence of Saxon activity.

A third pit (25) at the western edge of the site contained a large amount of cattle head and hoof bones (Fig. 3). The remains were most likely butchery waste from at least two animals. The pit was dated to the late Saxon or early medieval period by a single sherd of pottery. It is likely that the land had a pastoral use at this time, and it seems logical that if animals died away from the centre of a settlement they would have been butchered where they fell. The edible parts of the animal would have been cut up and taken back to any settlement/farm. The waste, such as head and hoof bones, may have been buried for reasons of hygiene, so as not to infect the rest of the herd.

Later Saxon/early medieval boundary ditches and pits were observed in the eastern part of the site (Fig. 3), and a settlement, perhaps dating from the mid Saxon period, may have lain close by. As yet no evidence for post-Roman settlement has been revealed in the surrounding area.

Medieval and post-medieval (11th–18th centuries – Fig. 3)

No evidence for any medieval or post-medieval settlement was revealed. However, the site continued to be used for agricultural purposes with furrows evident within both periods. What is of particular interest is that the furrows respected the alignment of the earlier Roman fields. This may have been as a result of the later field layout following the line of extant hedgerows at the edges of the Roman fields. There is evidence for continuity of Roman, medieval and post-medieval ditch alignments at Watkins Farm, though unlike Ireland's Land each phase of ditches were slightly offset from each other.¹⁸ It is unlikely that the Roman ditches were part of a later field system with residual Roman finds. The Roman ditches were generally narrower and deeper than the medieval and post-medieval furrows, and in one instance a Roman ditch (945) was clearly seen to be truncated by a furrow. However, considering the paucity of datable finds, the phasing of many features is largely assumptive and all dating should be treated with caution.

¹⁷ OA, 'Heathrow Airport Terminal 5: Project Design Update Note 2 Assessment of the Results of Archaeological Fieldwork 2002–2005 and Proposals For Analysis and Publication', Unpublished client report, 2005; T. G. Allen, 'Excavations at Wittenham Clumps', forthcoming; Lambrick and Allen, *op. cit.* 217.

¹⁸ Allen, *op. cit.* fig. 18, 29.

Conclusions

Until the site was recently quarried it had changed little in function since the middle Iron Age. The site was probably pastoral during the Iron Age and early Roman period with any settlement lying beyond the investigation area. After a period of inactivity between the 2nd century AD and the mid-Saxon period, there was again evidence for pastoral activity. It is entirely feasible that the site was used for pasture in the intervening period, though no archaeological evidence was revealed. In the medieval period the site was used for cultivation. Apart from very localised mid Iron Age dwellings, any settlement has always lain outside the site.

RESULTS (Figs. 3–6)

General

The archaeological features predominantly comprised shallow ditches filled with brown clay silts. Pits and post holes were also evident but the majority of the features had been truncated by ploughing, visible as ridge and furrow. Most of the features contained no dating evidence, but based on an analysis of the dates from the small ceramic assemblage it was possible to identify six phases of activity:

- Phase 1 – Early to middle Iron Age (BC 750–100)
- Phase 2 – Late Iron Age/Early Roman (BC 100–AD 130)
- Phase 3 – Mid to late Saxon (8th – early 11th centuries)
- Phase 4 – Late Saxon / early medieval (11th century)
- Phase 5 – Medieval (11th–15th centuries)
- Phase 6 – Post-medieval (mid 15th–18th centuries)

The phasing of the site is very subjective; generally dates were assigned to features based on only a few sherds of pottery. Most of the features were disparate and stratigraphically isolated and could not be accurately phased. Phases were assigned to undated features based on shared common traits with some of the dated features such as form, fill type, alignment or proximity. Phase 2 is worth particular consideration, only 19 sherds of late Iron age/early Roman pottery were recovered from a late Iron Age/early Roman field system. This may be as a result of the Phase 2 field system lying at the edge of a settlement, where there would be little evidence of material remains. However, it is also possible that the finds were residual and the field system relates to medieval or post-medieval farming.

A palaeochannel (407) was observed running through the southern part of the site and along its western margins. This was 7 m. wide and c. 1.5 m. deep (Figs. 3 and 5 – Section 233). The basal fills were probably dated to the Pleistocene and comprised sandy and silty gravels (399, 400, 404 and 398), which were 1 m. thick. These were overlain by clay silts (402, 403 and 405) below a layer of peat (396, 397 and 401). The deposits were cut by a later channel (406) filled with sandy gravels and silts (390–393) and clay silt (389). Channel 406 was sampled by Christine Buckingham and a Neolithic flint flake was recovered from the base of the clay silt.¹⁹ OA took environmental samples through the deposits which have been retained and may be examined as part of a wider study into palaeochannels.

A probable pond was observed in the SE corner of site; no dating evidence was recovered. Tree holes filled with blue and brown grey clays were observed throughout the site. No finds were recovered from them.

Phase 1 – Early to mid Iron Age (BC 750–100)

In the NW part of the site two ditches (357 and 381) formed a sub-rectangular enclosure, c. 30 m. in diameter (Fig. 4). The northern part of the enclosure was defined by a NW–SE aligned ditch (381) that was c. 24 m. long and 1.5 m. wide. An L-shaped ditch (357) formed the western and southern sides of the enclosure. The ditches were c. 0.5 m. deep and filled with gravel slippage and silty clays (377–380;

¹⁹ Identified by Nick Barton of the University of Oxford and Roger Jacobi of the British Museum.

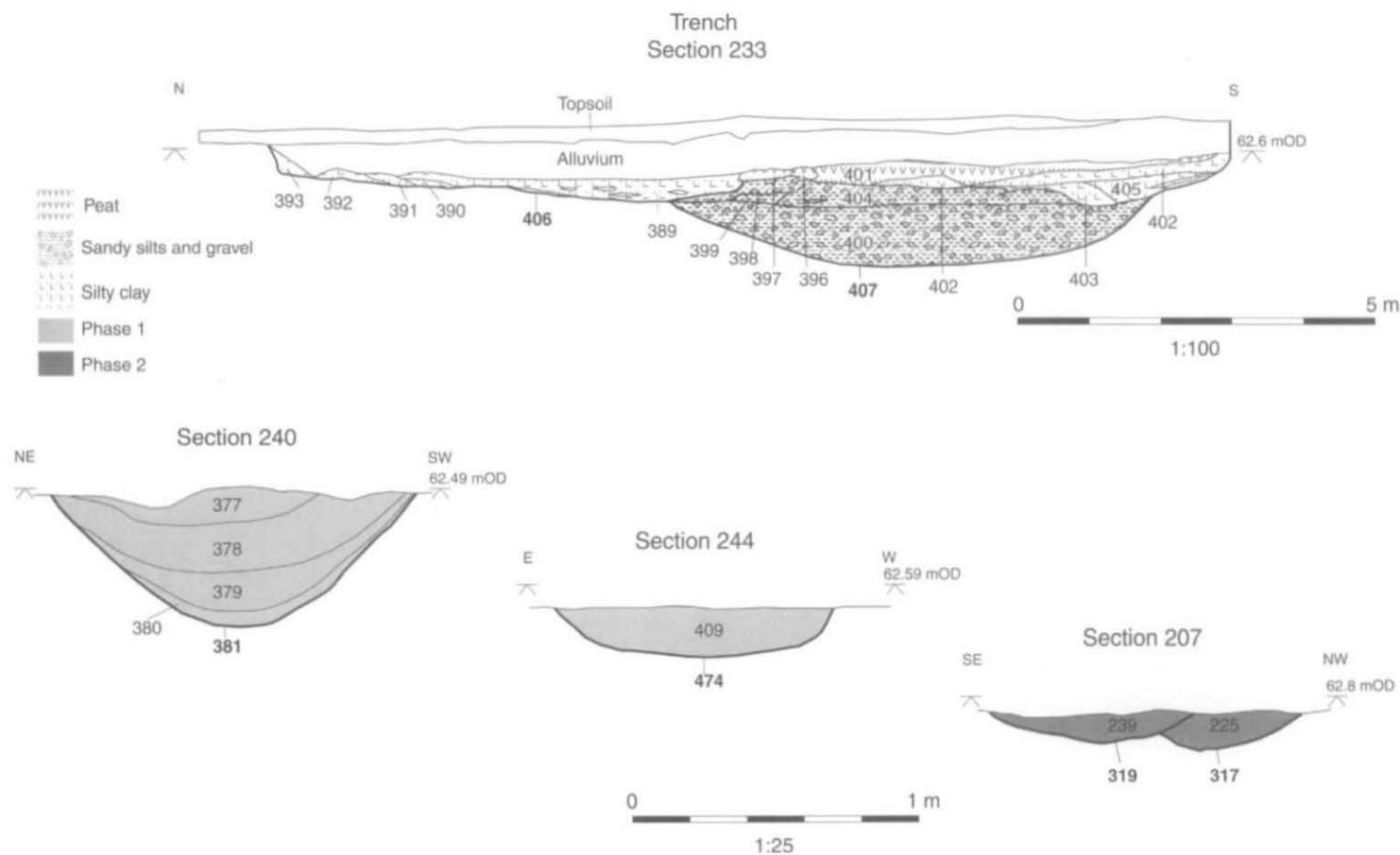


Fig. 5. Sections of the palaeochannel and Iron Age and Roman ditches

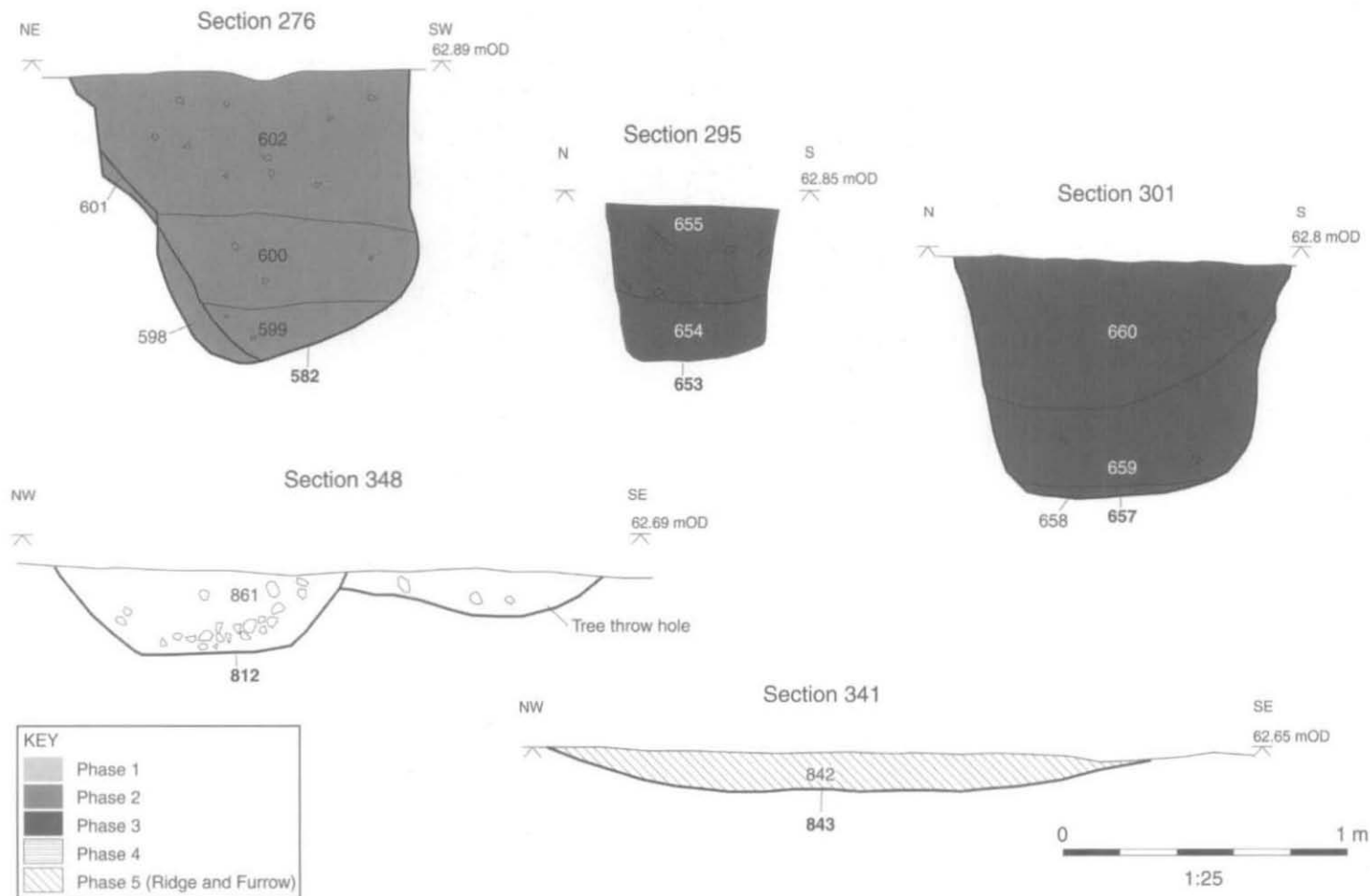


Fig. 5 – Section 240) that contained Iron Age pottery and an undated flint flake. The bulk of the pottery came from the western terminus of ditch 381, although it was primarily from one vessel. A small sample of iron and copper slag was recovered from the northern terminus of ditch 357. The majority of the animal bone assemblage was also recovered from the ditch termini. Bones from cattle, sheep/goats, pigs and horses were present; fired clay was also retrieved. A narrow section of ditch (566) in the western part of the enclosure may have formed an internal division. Partial evidence for three ring gullies, possibly forming similar enclosures between 7 m. and 15 m. wide, was seen to the south (322, 597 and 636). The gullies were very truncated and measured no more than 0.1 m. deep.

The south-eastern terminus of ditch 357 was truncated by a curvilinear ditch (562) that was c. 40 m. long, and measured c. 0.6 m. wide and 0.1 m. deep. It was filled with an orangey clay silt that contained two sherds of Iron Age pottery. It appeared to have been re-cut at least once.

Two pits (362 and 435) were observed to the south of the northern enclosure. Pit 362 was located in the eastern terminus of ditch 357, it was 0.6 m. wide and 0.15 m. deep and filled with ashy deposits. The second pit (435) measured 0.8 m. wide and 0.2 deep, and was filled with a light grey brown silty clay. It contained no dating material but was truncated by a Roman ditch (565).

Phase 2 – Late Iron Age / Early Roman (BC 100–AD 130)

The enclosure ditches at the north of the site were infilled by the late Iron Age and a larger enclosure constructed (Fig. 4). This was 90 m. wide and formed by a continuous curvilinear ditch (474) that turned at right angles to form an entrance to the west. The ditch was 1 m. wide and 0.2 m. deep and filled with a greyish brown sandy clay that contained late Iron Age/early Roman pottery sherds (Fig. 5 – Section 244). A Bronze Age tanged and barbed chert arrowhead was also recovered from fill 409. The northern side of the enclosure appeared to be outside the excavation area.

The western part of the enclosure ditch was cut by a NW-SE aligned boundary ditch (565/283) that was 130 m. long (Fig. 3). A parallel ditch (317) lay 20 m. to the west and the ditches seemed to form a route or droveway to the enclosure to the north. The ditches were on average 0.5 m. wide and 0.2 m. deep and filled with orangey or grey brown silty clays (225, Fig. 5 – Section 207). No dating evidence was recovered from these features. Ditch 317 had been recut at least once (319, fill 239; Fig. 5 – Section 207). A third ditch (311) was located 5 m. to the east of 317/319 and may have defined a narrower/pedestrian routeway to the enclosure. It measured 0.4 m. wide and 0.2 m. deep and was filled with brown silty clay.

The possible droveway marked the western limits of a field system. NE-SW aligned ditches (567 and 318) formed the northern and southern limits and both ditches had been re-cut at least once (560 and 320 respectively). The ditches were up to 1.2 m. wide and 0.3 m. deep, and late Iron Age or early Roman pottery was recovered from both. A similarly aligned ditch (607 and 945) lay 120 m. south of 560/567, and 75 m. north of 318/320. It was of similar dimensions and filled with silty clay. Ditch 678, to the south, had an obscured relationship with ditch 945 but the ditches may have formed an enclosure of more than 85 m. wide. The ditches were of similar dimensions and fill type to ditch 474, ditch 945 contained a sherd of late Iron Age/early Roman pottery. Freshwater and terrestrial molluscan remains were also recovered from ditch 945 and indicated that reeds and rushes grew in the base of the ditch, and that the ditch was probably surrounded by grassland. A second ditch (679) ran into the western edge of the ditch 945, although a re-cut had obscured any relationship. A meandering NE-SW aligned ditch (1001) was revealed at the NE end of ditch 945. It was undated and its meandering form resembled the ditches seen in Phase 4 (see below). However it appeared to respect the limits of ditch 945 and was most likely contemporary with it.

Ditch 845, in the east of the site (Fig. 3) was of similar dimensions and fill type to the ditches to the west and had also been re-cut (844). It is feasible that the ditch formed the eastern limit of the field system. The ditch was 165 m. from the western limit of the field system (ditch 317).

A small assemblage of animal bones from the ditch fills comprised bones from cattle, sheep/goats and horses. A small quantity of iron and copper slag was also recovered. Short sections of similarly filled ditches were also revealed in the south of the site (32, 893, 927 and 7 – Fig. 3 inset), these were undated but may have represented part of the same field system or possibly later furrows.

Ditch 607 was cut by a circular pit (582) 1.3 m. wide and 1 m. deep (Fig. 6 – Section 276). It had vertical sides and a slightly concave base and was filled with gravel slippage and clay silts (598–602). Two pits (220 and 821) measuring 0.3 m. and 0.8 m. wide respectively and up to 0.2 m. deep were also

found. Pit 220 was obscured by ditch 317 and is not shown and pit 821 lay in the south-east corner of the eastern excavation block. They were filled with silty clays and pit 821 produced a sherd of Roman pottery.

Ten postholes were revealed at various locations across the site; they were probably Roman in date based on their proximity to the ditches of the field system. The postholes were on average 0.3 m. wide and 0.1 m. deep and filled with grey brown silt sand. The postholes were generally isolated and no structures could be identified. However, group 282 formed a line of six posts on the internal side of ditch 283 (Fig. 3).

Phase 3 – Mid to late Saxon (8th – early 11th centuries)

Two pits were revealed in the centre of the northern part of the site (Fig. 4). Pit 653 was roughly circular, 0.65 m. wide and 0.55 m. deep (Fig. 6 – Section 295). It had vertical sides and a flat base and was filled with sand and gravel slippage (654), below a dark orange silty clay backfill (655). The upper fill contained large fragments of two middle to late Saxon Oxford ware jars, along with a number of body sherds from another vessel of the same type (Figs. 7.1 and 7.2).

Pit 657 was ovoid and measured 1.2 m. wide and 0.8 m. deep (Fig. 6 – Section 301). It too had vertical sides and a flat base and was filled with blue grey silt (658) below an orangey gravelly clay (659) and a dark silty clay (660). Three sherds of middle to late Saxon pottery were recovered.

Phase 4 – Late Saxon / early medieval (11th century)

A NE-SW aligned ditch (812) was located in the eastern part of the site (Fig. 3). It was 1 m. wide and 0.3 m. deep (Fig. 6 – Section 348) and extended 40 m. into the site from the NE baulk. It was filled with grey/brown silty sands and clays (861) that contained two sherds of pottery dating between AD 975 and 1350. A meandering ditch (856) of similar dimensions and fill types was observed to the south. The ditches possibly represented a field boundary, the 20 m. gap between the ditches may indicate the location of a hedgerow.

Four pits were found on either side of the ditches although only one produced dating evidence. Pit 717 was situated to the NW and was 1.2 m. wide and 0.8 m. deep. It was filled with silty clays from which four sherds of pottery dating between AD 975 and 1350 were recovered. An oval pit (819) was seen to the west and two pits (722 and 723) were seen to the east. They measured 0.6 m. and 0.8 m. wide and up to 0.3 m. deep.

In the west of the site pit 25 (Fig. 4) measured 1.5 m. wide and 0.5 m. deep, it was filled by a silty clay from which a sherd of pottery dating between AD 975 and 1350 was recovered. All but two fragments of the Phase 4 animal bone assemblage was recovered from this pit. The bone comprised the head and hoof elements from cattle, with an MNI of two. Three, possibly contemporary, undated pits lay 80 m. to the south (10, 16 and 17).

Phase 5 – Medieval (11th–15th centuries)

Ridge and furrow was evident in the eastern half of the main block of the site (Fig. 3). Eleven furrows were aligned WNW-ESE and were spaced 11 m. apart. The furrows were c. 1.5 m. wide and 0.25 m. deep with flat bases. They were filled with brown clay silts and two sherds of pottery dating from 1200 to 1600 were recovered. One of the furrows (721) appeared to extend into the field to the east, although it may have been a separate boundary ditch on the same alignment. To the north of 721 were six possible furrows aligned NE-SW. These furrows were not as regularly spaced as the furrows to the west but were similarly sized (see cut 843 and fill 842, Fig. 6 – Section 341).

Phase 6 – Post-medieval (15th–18th centuries)

Furrows aligned NW-SE were revealed in the eastern field (Fig. 3). They were of similar dimensions and contained similar fills to those dated to the medieval period, though they were on a slightly different alignment. Five sherds of pottery dating from 1550–1700 were recovered. The furrows were very similar in nature to the Roman ditches and it is possible that the two parallel furrows seen to the south of the site (765 and 754) formed a trackway, possibly an extension of cropmarks seen to the east (Fig. 1).

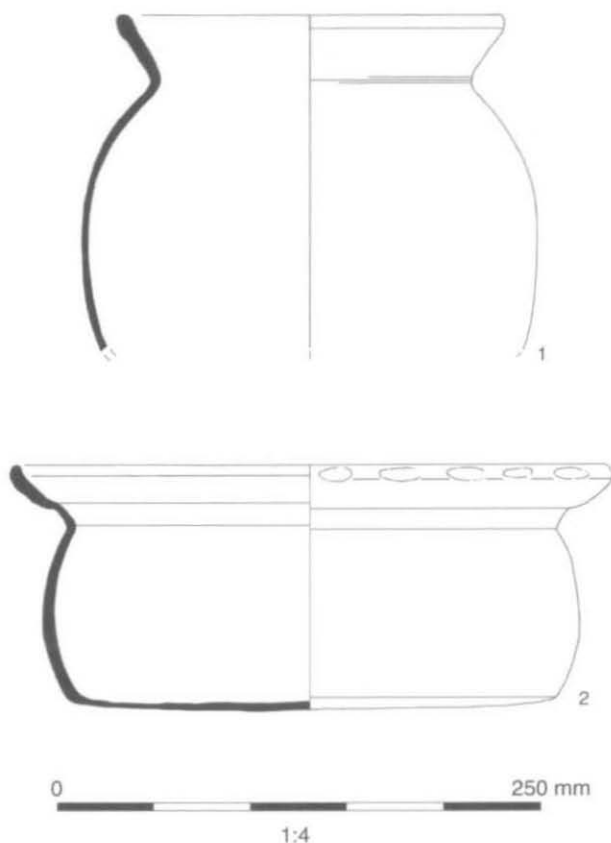


Fig. 7. Middle-late Saxon jars

FINDS

IRON AGE AND ROMANO-BRITISH POTTERY by JANE TIMBY

A small assemblage of 53 sherds of Iron Age and Romano-British pottery, weighing 463 g., was recovered from the site. In addition one context, (367) produced 17 degraded fragments of either pottery or fired clay. The pottery was of variable condition with both larger sherds and smaller fragments. In one context sherds could be refitted; the overall average sherd weight of just 6 g. reflects this.

Of the 15 contexts producing this assemblage of pottery, four appear to be Iron Age in date, one may be late Iron Age or early Roman, nine are Roman and one is undated.

The assemblage was sorted into broad fabric categories and recorded by sherd count and weight for each context. The resulting data have been summarised and can be found in the archive. No attempt has been made to correlate the fabrics with a fabric series at this juncture. The pottery has been analysed in the absence of any site information in terms of relationships of contexts vertically or horizontally.

Iron Age

Approximately two thirds of the assemblage, some 36 sherds, comprises handmade sherds of Iron Age date. Apart from a complete (broken) jar base from (379) there are no featured sherds present.

The Iron Age sherds are split between just two fabrics, one a dense oolitic limestone-tempered ware (fabric L1); the other, a sparser oolitic-limestone tempered ware (fabric L2). The sherds are likely to be broadly contemporary and came from three contexts, the fills of enclosure ditches 381 and 562 (371, 378 and 379).

The absence of featured sherds precludes dating on typological grounds. In terms of fabric, calcareous fabrics feature in early Iron Age assemblages in this area but continue in larger quantities in the middle Iron Age. The trend throughout the region, as demonstrated by the middle Iron Age assemblage from nearby Watkins Farm, is for the proportion of sandy wares to increase with time along with a more divergent range of fabrics.²⁰ The group here, although too small to give a reliable chronology, does appear quite uniform in terms of fabric possibly suggesting an early or middle Iron Age date.

Late Iron Age

One context, (344), produced four small sherds of a ware with a mixed paste containing sparse limestone, mica, quartz sand and clay pellets. The ware is not recognised and is suggested to date to the later Iron Age – early Roman period but could be earlier.

Roman

Some ten contexts produced 15 sherds of pottery of Romano-British date. The fabrics are all relatively local in origin with no regionally traded or imported wares present. The character of the material points to an early Roman date for the assemblage (later 1st–2nd century). Most of the sherds are black or grey sandy wares, some with grog or clay pellets present, typical of the local area and probably early Oxfordshire wares. Two finer oxidised sandy wares (358) and (822) similarly probably belong to the early phases of the Oxfordshire industry.²¹ The only rim sherds present are from jars.

The assemblage is too small for further analysis, but the character of the material might suggest either a fairly low status rural site, or that the excavation is on the periphery of a settlement focus.

Undated

Context (367) produced 17 small clay crumbs which might be degraded pottery or fired clay. Such material is more typical of later prehistoric contexts where pottery tends to be less robust, but essentially this material is undated.

POST- ROMAN POTTERY by PAUL BLINKHORN

The pottery assemblage comprised 70 sherds with a total weight of 2025 g. It comprised a range of wares that suggest that there was more or less unbroken activity at the site from the late middle Saxon to the early medieval period. The assemblage is fairly unremarkable, other than for the presence of two largely complete middle–late Saxon Oxford Shelly ware jars.

Fabrics were recorded utilising the coding system and chronology of the Oxfordshire County type-series, as follows:²²

OXB: *Late Saxon Oxford Ware* ('Oxford Shelly Ware') Late 8th–early 11th century. 44 sherds, 1,754 g.

OXAC: Cotswold-type ware, AD975–1350. 16 sherds, 114 g.

OXCX: Shelly Coarseware, AD1100–1400. 2 sherds, 13 g.

OXAM: Brill/Boarstall ware, AD1200–1600. 3 sherds, 56 g.

OXFH: Border wares, 1550–1700. 1 sherd, 23 g.

OXDR: Red Earthenwares, 1550+. 2 sherds, 62g.

²⁰ Allen, op. cit. 42.

²¹ C. J. Young, *The Roman pottery industry of the Oxford region* (BAR 43, 1977).

²² M. Mellor, 'A summary of the key assemblages. A study of pottery, clay pipes, glass and other finds from fourteen pits, dating from the 16th to the 19th century', in T. G. Hassall, C. E. Halpin and M. Mellor, 'Excavations at St Ebbe's', *Oxoniensia*, xlix (1984), 181–219; M. Mellor, 'Oxford Pottery: A Synthesis of middle and late Saxon, medieval and early post-medieval pottery in the Oxford Region', *Oxoniensia*, lix (1994), 17–217.

Data on the pottery occurrence by number and weight of sherds per context by fabric type are available in the archive. Each date should be regarded as a *terminus post quem*.

The range of fabric types is typical of sites in the region, and in the main the deposits produced a small number of somewhat abraded sherds. The exception to this were contexts 655 and 656, which produced large fragments of two mid-late Saxon Oxford ware jars, along with a number of body sherds from another vessel of the same type (Figs. 7.1 and 7.2). Finds reference 656 (within context 655) produced the bulk of the sherds of the two vessels, which were both hand-built, suggesting that they date to the end of the middle Saxon period (i.e. late 8th–9th century), or the very beginning of the late Saxon period. Joining sherds were noted in context 655, which produced sherds of another OXB vessel, but one which was very obviously wheel thrown, and therefore later in date than those from 656. Mellor stated that wheel-finished vessels of this type date to the very end of the tradition, i.e. the late 10th–early 11th century.²³

The forms of the two reconstructed vessels are typical of the tradition, one being fairly tall and rounded, the other squat with a deeply sagging base. They are both similar to two known vessels, both from Oxford.²⁴

THE LITHICS by REBECCA DEVANEY

Two pieces of worked flint and one piece of worked chert (a barbed and tanged arrowhead) were recovered from the site. The worked flint comprised a flake and a blade and were redeposited within Roman and Saxon features. The flake and blade cannot be accurately dated.



Fig. 8. Barbed and tanged chert arrowhead

²³ Ibid. 37.

²⁴ Ibid., fig. 6, nos 1 and 2.

The barbed and tanged arrowhead was recovered from the fill of a Roman enclosure ditch. It has a broken tip, which could have been broken during use, and uneven barbs (Fig. 8). The side with the larger barb has been neatly retouched on the dorsal surface and more crudely retouched on the ventral surface. The side with the smaller barb just has minimal edge retouch, much of which has been obscured by later damage, which leaves parts of both the original flake dorsal and ventral surfaces intact. The smaller barb does not appear to have been broken and reworked and so it is suggested that a mistake occurred during knapping. Barbed and tanged arrowheads are broadly dated to the early Bronze Age. The raw material has been identified by Professor John Allen at the University of Reading as being a carboniferous chert. It is dark green in colour with obvious shell fragments and pale speckles (silicified carbonates). This material can be found as a band within the Clifton Down and Black Rock Limestones, both of which outcrop in the Mendips (Somerset), for example at Broadfield Down (ST 480 640), south-west of Bristol. This provides a distance of approximately 100 km. between the geological source and the place of discovery. Although chert artefacts are common in south-west and northern England, they are rarely found in Oxfordshire, due to the relative abundance of chalk derived flint. It is not known whether the raw material or the finished tool was transported, but either way, it may suggest that the artefact carried a certain level of significance.

OTHER FINDS by CYNTHIA POOLE AND LEIGH ALLEN

Nine fragments of fired clay and ceramic building material were recovered from an unstratified deposit, a late Saxon or early medieval pit fill (24) and an Iron Age ditch fill (384). Most of the assemblage was moderately to heavily abraded. Two fragments, within a probably Roman ditch fill (239) and a medieval furrow fill (785), were identified as medieval and post-medieval roof tile, the remaining fragments were undiagnostic. A full report can be found in the archive.

Three copper alloy objects and seven iron objects were recovered from the site, all bar one of these objects derive from unstratified contexts. Full details can be found in the archive.

SLAG (Table 1) by LUKE HOWARTH

TABLE 1: INCIDENCE OF SLAG BY CONTEXT

Context No:	Quantity:	Total weight (g.)	Description:	Interpretation:
411	1	15	The fragment has a low density and is clayey in texture. The colour fades between a bright red to a dark grey black. Some vesicles can be seen at the edge of the dark grey half where the texture is slightly glassy.	Partially vitrified clay. Kiln wall?
555	1	5	The fragment is low density, and has an irregular shape. It has a two tone fading from a grey to black. The black section is vitreous in texture. Some vesicles in the darker half, which has a more undulous surface.	Partially vitrified clay, some evidence of flow.
555	4	85	Four fragments (~1-3 cm.) of dense material. It has a dark brown / black colour and a partially vitreous lustre. The fragments are moderately vesicular. The surface of the fragments have a pale green patina and a dark red patina.	Four fragments of black glassy slag. The green and red patina may indicate the presence of Cu and Fe

573	3	12	Two small fragments (≤ 10 mm.), of pale grey fired clay containing fragment of charcoal and quartz. Some evidence for vitrification can be seen, (black glassy texture some vesicles) at the edges of the fragments. One larger fragment (~ 2 cm.) of the same material but showing more vitrified clay. Part of the vitrified surface has patinas of dark red and a pale green.	Fragments of partially vitrified clay, the patina on one of the fragments may indicate the presence of Cu and Fe
578	3	53	Three fragments of dense material. It is faintly vesicular and it is partial vitreous to mat in lustre. Some crystalline face can be seen in surface of the largest fragment. The largest fragment appears to have a free upper surface and a more irregular lower surface and has a red brown patina.	Three fragment of slag.
239	1	1	One fragment of dark brown black colour. A roughly lathe shaped fragment with irregular undulous surface. The surface glints as minerals faces ($\sim 1-2$ mm.) catch the light, the mineral is essential black has a high lustre and elongate shape (Pyroxene or Amphibole?). Faintly magnetic, red brown patina. Partially vesicular	The overall morphology of the fragment make it probably piece of slag. However some aspects of its texture are less clear i.e. the mineral faces at about 1-2mm. in size indicate a slower rate of cooling than is normal for slag. The red patina and faint magnetism point toward FE being present.
513	1	69	This fragment is dark brown black in colour and is slightly vesicular. It has a moderate density and has a slightly vitreous lustre in places. Faintly magnetic. One part of the fragment seems to contain a number of small quartz crystals as well as a black mineral with a high lustre (pyroxene/amphibole?)	This fragment is similar to the previous though the crystal faces are smaller. These two fragments may represent an amalgam of material bound together by slag. (mine/ refining wastes?).
229	1	31	One fragment of dense material. It has a dark brown / black colour and a partially vitreous lustre. It is faintly vesicular. The surface of the fragment has a dark red patina.	Glassy slag with Fe oxide patina.
660	2	4	Two small fragments of greyish colour fading to red. Silty clay texture.	Two fragments of burnt clay.

The assemblage comprised 17 fragments of slag recovered from an undated animal burrow (411), Iron Age ditch fills (555 and 513), Roman ditch fills (573, 578, 239 and 229) and a probable mid-Saxon pit fill (660).

The material can be divided essentially into four groups:

1. Vitrified and burnt clays which probably represent part of a kiln/ furnace wall.
2. Moderately vesicular, glassy slag with copper and iron oxide.
3. Slag with crystalline mineragenic material, which probably represents a combination of slag and other waste materials.
4. A faintly vesicular partially glassy, dense slag with an iron oxide patina, which may represent a less refined iron slag.

The presence of this material, albeit in small quantities, indicates that smithing of iron and possibly copper ores took place relatively near the site in the Iron Age and Roman periods.

ANIMAL BONE by KRISTOPHER POOLE

A total of 326 refitted fragments of animal bone were recovered during the excavations, from features dating from the Iron Age to the post-medieval period. In general the sample sizes were extremely limited; very little can be said of the relative importance of different species to people living around the site, and the animal husbandry regimes practised. In the Iron Age, cattle, sheep/goats, pigs and horses were being exploited. The situation in the Roman period was similar, but no pig remains were found in Roman contexts.

In contrast, however, all of the Phase 4 (Saxon) bones, except for a cattle radius and 3 large mammal long bones, came from a single context (24), from pit 25. The only species identified was cattle, and all elements came from the head and feet (skull fragments, mandibles, loose teeth, phalanges and metapodials), with an MNI of 2. All mandible fragments had signs of butchery; two had been chopped through the diastema just in front of the premolars, and three had chop marks on the lateral side of the mandibular process. Chopping through the diastema would have enabled the removal of meat from the jaw, at the same time providing access to the marrow cavity, whilst chop marks on the lateral ascending ramus probably result from disarticulation of the mandible from the skull.²⁵ No butchery marks were noted on any of the other bones in this context. The remains are not representative of the site as a whole. It is likely that these bones represent butchery waste, with the main meat-bearing parts of the skeleton taken elsewhere, and the head and extremities, having little meat (except for brains), being dumped into the pit. A full report can be found in the archive.

ENVIRONMENTAL EVIDENCE

LAND AND FRESHWATER MOLLUSCA by E.C. STAFFORD

Introduction

One flot, derived from a bulk sample of the fill of a Roman ditch (945) located within the centre of the main block of the site, was assessed to ascertain if the molluscan assemblages retrieved could provide data on the local site environment.

The flot was scanned under a binocular microscope at magnifications of x10 and x20 and the abundance of taxa recorded. The results are presented in Table 2. Nomenclature follows Kerney.²⁶ For the purposes of assessment the species are grouped at a very basic level by ecological preferences following Evans and Robinson.²⁷

²⁵ D.B. Landon, 'Patterning and interpretation of butchery marks', *Historical Archaeology*, 30 (1996), 58-95.

²⁶ M. Kerney, *Atlas of land and freshwater molluscs of Britain and Ireland* (1999).

²⁷ J.G. Evans, *Land Snails in Archaeology*, (1972); M. Robinson, 'The Plants and Invertebrates', in G. Lambrick and M. Robinson, *Iron Age and Roman riverside settlements at Farmoor, Oxfordshire* (Oxford Archaeological Unit Report 2; CBA Research Report 32, 1979); M.A. Robinson, 'The Plants and Invertebrates', in T.G. Allen and M.A. Robinson, *The prehistoric landscape and the Iron Age settlement at Mingies Ditch, Harwich with Yelford, Oxon.* (Oxford University Committee for archaeology, 1993).

TABLE 2: OCCURRENCE OF MOLLUSCS WITHIN DITCH 945

Context				967
Sample				246
Taxa				
<i>Carychium minimum</i>	T	(M) S		++
<i>Lymnaea truncatula</i>	F	SI M		++
<i>Lymnaea</i> sp.	F	SI M C		++
<i>Planorbis planorbis</i>	F	C		++
<i>Anisus leucostoma</i>	F	SI		+++
<i>Succinea/Oxyloma</i> sp.	T	M O		+
<i>Cochlicopa</i> sp.	T	(M)		++
<i>Vertigo antivertigo</i>	T	M		++
<i>Vertigo pygmaea</i>	T	(M)O		++
<i>Pupilla muscorum</i>	T	O		+
<i>Vallonia excentrica</i>	T	O		++
<i>Vallonia pulhcella</i>	T	(M) O		+++
<i>Vallonia</i> sp.	T	(M) O		+++
<i>Punctum pygmaea</i>	T	C		+
<i>Aegopinella nitidula</i>	T	S		++
<i>Trichia hispida</i>	T	C (M) O		+++
<i>Psidium</i> sp.	F	M SI D C FI		+

F=freshwater species, T= terrestrial species, SI= freshwater slum species, D= freshwater ditch species, C=Catholic species, (M) = terrestrial species that can live in wet conditions, M= Obligate marsh species, S=shade-demanding, O=open country preferences. + (1-4), ++ (2-50), +++ (>50)

Results

Molluscan remains were extremely abundant and well preserved. The assemblage was diverse and comprised both freshwater and terrestrial species. The composition of the molluscan faunas suggests three different groups are present, each of which would have occupied specific ecological niches. These are:

- Freshwater species showing a preference or tolerance of poor water conditions such as small bodies of water subject to drying, to stagnation and considerable temperature variation.²⁸ These were probably living in water accumulating in the base of the ditch. A significant component consisted of *Lymnaea truncatula*, an amphibious species, and *Anisus leucostoma* which is regarded as a 'slum' aquatic species of drying ponds, marshes and stagnant ditches.²⁹

²⁸ Evans, op. cit., 200

²⁹ A.E. Boycott, 'The habits of freshwater mollusca in Britain' *Journal of Animal Ecology*, 5 (1936), 129-30, 144.

- Obligate marsh species and terrestrial species that can live in wet conditions. These were probably living in the vegetation, reeds and damp grass on the edges of the ditches above the level of the water. These include *Succinea/Oxyloma* sp., *Vertigo antivertigo*, *Carychium minimum*, *Vallonia pulchella* and *Trichia hispida*.
- Terrestrial dry ground species that probably represent the wider site environment. (*Vallonia excentrica*, *Pupilla muscorum* and *Vertigo pygmaea*) suggesting open grassland. Although *Vertigo pygmaea* sometimes lives in marshes together with *Vertigo antivertigo*.³⁰ There was no real indication of woodland or scrub in the vicinity.

Discussion

Overall this suggests that the feature was probably sufficiently waterlogged to allow standing water, at least temporarily, and sufficiently undisturbed to permit the growth of reeds and rushes. The presence of *Succinea/Oxyloma* species, *Vallonia*, and *Vertigo pygmaea*, indicative of open environments such as damp grassland, probably indicates the absence of dense growth of trees and shrubs along the sides of the ditch.

The land snail evidence, of relatively wet conditions during the Roman period, accords well with other sites in the Upper Thames Valley catchment from which similar molluscan assemblages have been recovered. The evidence indicates a rise in the water table and increased flooding occurring adjacent to the river and low-lying terraces in the late Bronze and throughout the Iron Age and Roman period, associated with an increase in land clearance for agriculture.³¹

OTHER ENVIRONMENTAL by SEREN GRIFFITHS

A single fragment of oyster shell weighing 22 g. was recovered from context 427, the fill of a probable late Iron Age or Roman ditch.

Fifty environmental bulk and incremental samples were taken to assess the environmental potential of the site. None of the samples processed produced meaningful quantities of charred plant material. A full report can be found in the archive.

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³⁰ Evans, op. cit. 143.

³¹ M. A. Robinson and G. H. Lambrick, 'Holocene alluviation and hydrology in the Upper Thames Basin' *Nature*, 308 (1984), 809-814; M. A. Robinson, 'Environment, archaeology and alluvium on the river gravels of the South Midlands', in S. Needham and M. G. Macklin (eds.), *Alluvial Archaeology in Britain* (Oxbow Monograph 27, 1992), 197-208.