

Excavations at Watchfield, Shrivenham, Oxfordshire, 1998

By VAUGHAN BIRBECK

with contributions by PHIL ANDREWS, RACHEL EVERY, ROWENA GALE,
S. HAMILTON-DYER, P. A. HARDING, PAT HINTON, M. LAIDLAW, J. I. MCKINLEY
and LORRAINE MEPHAM

and illustrations by S. E. JAMES

SUMMARY

Wessex Archaeology was commissioned to undertake the archaeological excavation and recording of eleven areas totalling 3.8 ha. at Watchfield, Oxfordshire, in advance of a housing development. The development site was located on the northern side of Watchfield on the fringes of a Corallian limestone ridge. Archaeological excavations during and subsequent to the construction of the Shrivenham Bypass to the north had revealed a small Middle Iron Age enclosed settlement and an Early Saxon cemetery.

Three principal areas of archaeological activity were encountered. These were: the southern edge of an Early/Middle Iron Age enclosure on the crest of the Corallian limestone ridge at the western end of the site; a complex of Late Iron Age/Romano-British enclosure ditches and associated pits at the foot of the Corallian ridge; and a small Romano-British cremation cemetery and further enclosures to the east of Faringdon Road.

INTRODUCTION

Wessex Archaeology was commissioned by Laing Partnership Housing to undertake archaeological excavation and recording in advance of the construction of extended facilities at the Joint Service Command and Staff College (JSCSC) at Watchfield, Oxfordshire. A condition attached to planning consent for the development required the implementation of a programme of archaeological mitigation work designed to ensure the preservation by record of significant archaeological features and deposits.

A geophysical survey¹ had previously identified extensive anomalies of possible archaeological origin over substantial parts of the proposed development area. Subsequent evaluation trial trenching² identified two areas of possible intensive settlement activity of later prehistoric and Romano-British date, together with more extensive activity of a similar date across wider areas of the site.

¹ A.D.H. Bartlett, 'J.S.C.S.C. Watchfield, Shrivenham: Report on Archaeogeophysical Survey' (unpubl. client report, 1997).

² 'An Archaeological Evaluation at Joint Service Command and Staff College Watchfield, Shrivenham, Oxfordshire' (AOC Archaeology, unpubl. client report, 1997).

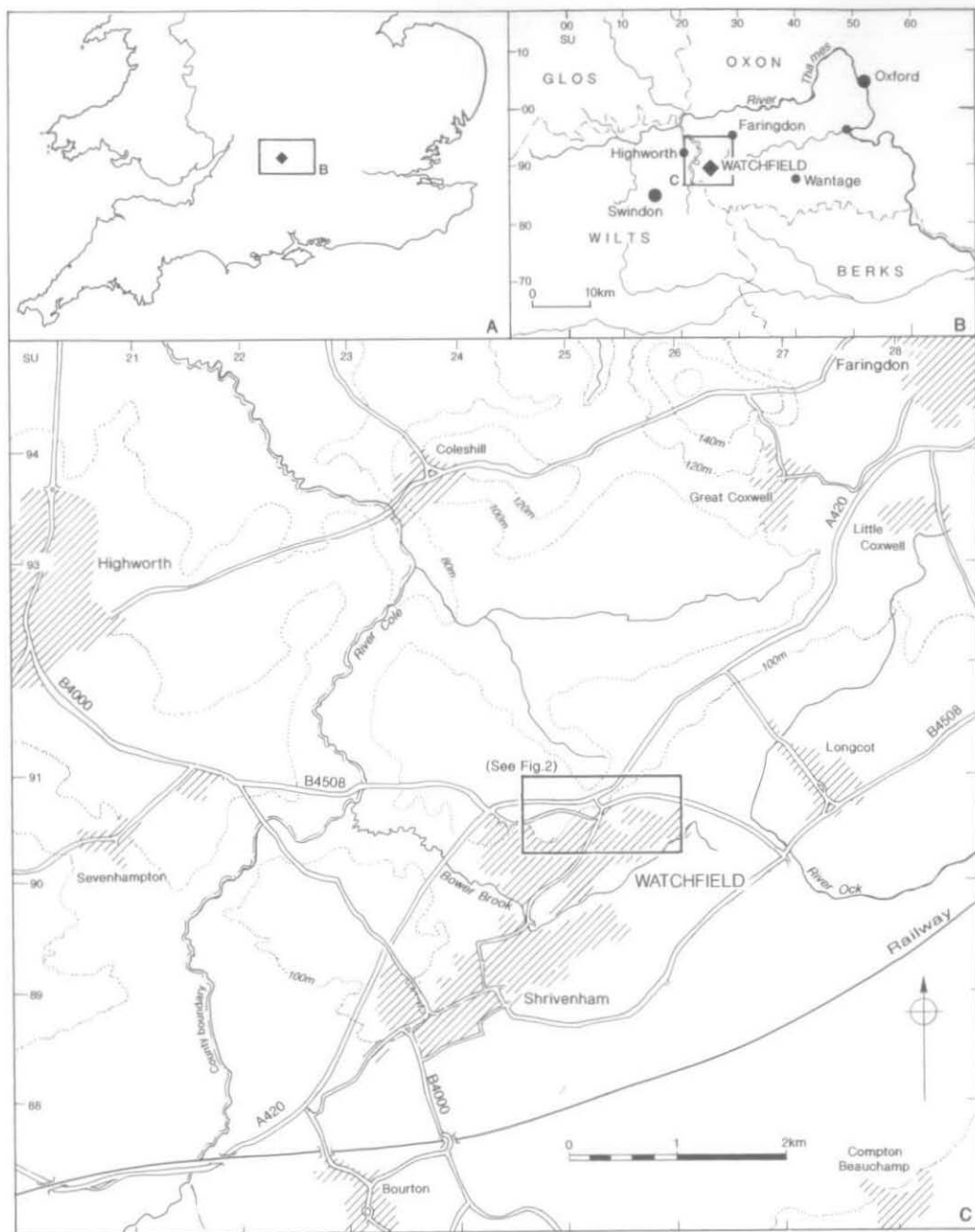


Fig. 1. Site location plan.

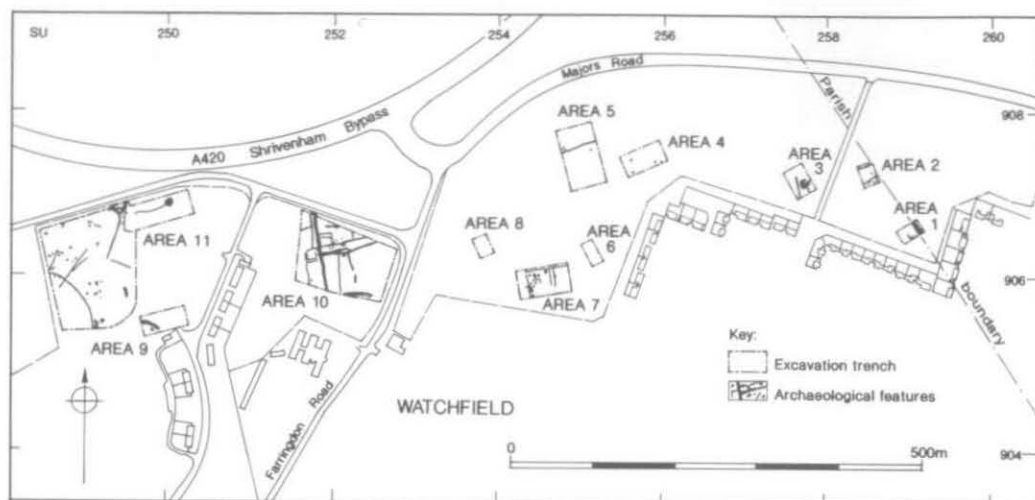


Fig. 2. Area location plan.

A Brief³ issued by the Deputy County Archaeologist required the excavation of 11 areas totalling some 3.8 ha., in order to investigate features or areas of archaeological interest identified during the evaluation. Fieldwork was undertaken over a period of fourteen weeks between 22 June and 25 September 1998.

Geology, Topography and Landuse

Watchfield lies in the Vale of the White Horse on the watershed of the Rivers Ock and Cole, 32 km. SW. of Oxford and 8 km. NE. of Swindon (Fig. 1). The development site was located adjacent to the existing JSCSC facility to the N. of Watchfield, S. of Majors Road (the B4508). The site comprised approximately 19.7 ha. centred on SU 257 907 and was divided into two parts on either side of Faringdon Road, which joins the B4508 and the A420 Shrivvenham Bypass to the N. of the site; excavation areas 1-8 lay to the E. of this and areas 9-11 to the W. (Fig. 2).

The majority of the site, comprising Areas 1-8 and 10, lay in arable fields sloping gently from W. to E. at between 93 m. and 100 m. O.D. The underlying natural substrata comprised interleaving sands, clays and gravels with frequent outcrops of Corallian Limestone bedrock. The western part of the site, comprising Areas 9 and 11, lay at between 100 m. and 106 m. O.D. on the crest and east-facing slope of a ridge of ferruginous sand overlying Corallian Limestone bedrock.

Archaeological Background

The earliest finds from the immediate vicinity of the site comprise an assemblage of worked flint of Late Mesolithic date, recovered from excavations during the construction of the Shrivvenham Bypass in 1983 and subsequently in 1989, immediately to the N. of Area 11⁴ in

³ 'Watchfield, Shrivvenham: Brief for an Archaeological Recording Action' (Oxon County Archaeol. Services, unpubl. brief, 1997).

⁴ C. Scull, 'Excavation and Survey at Watchfield, Oxfordshire, 1983-92', *Archaeol. Jnl.* 149 (1992), 128-281.

an area now protected as a Scheduled Monument. The Vale of the White Horse Survey,⁵ a large-scale fieldwalking survey conducted to the E. of Watchfield, also found evidence of Mesolithic activity, mostly confined to the Corallian formation.

Evidence of Neolithic and Bronze Age activity, represented by residual finds and a small number of features, was also recovered from the 1983 and 1989 excavations.⁶ The same excavations also revealed the remains of a small enclosed settlement of Middle Iron Age date, the southern edge of which lay within the present site, and an Early Saxon cemetery.

In the Late Iron Age, the Vale of the White Horse formed the tribal boundary between the Atrebates to the S. and the Dobunnii to the N.⁷ The Vale of the White Horse Survey produced no evidence of Late Iron Age activity in the vicinity of Watchfield and, with the exception of the hillforts to the N. and S. of the Vale, very little evidence for Iron Age activity within the area of the survey as a whole.⁸

The Vale of the White Horse lies within the Roman road network and is close to several towns, most notably the *civitas* capital at Cirencester (*Corinium Dobunnorum*), and Wanborough (*Durocornovium*) near Swindon. The Upper Thames Valley to the N. and the Berkshire Downs to the S. were areas of extensive Romano-British activity. The fieldwalking survey located possible buildings of various levels of social status in several locations, and suggested that these existed within a cleared, ordered and intensively exploited landscape.⁹ The existence of a substantial Romano-British building to the S. of the site was reported in 1905; however, as the building was 'detected though not uncovered',¹⁰ its function and status remain uncertain, although a villa is suggested.

The Early Saxon inhumation cemetery excavated in 1982 and 1989 immediately to the N. of the site provides clear evidence of a Saxon settlement in the vicinity; however, no settlement remains of this period have yet been discovered in the Watchfield area. The earliest documentary reference to Watchfield (*Wæclesfeld*), in a charter of AD 931, states that it was an estate of 20 hides when it was granted to a thegn named Ælfric by King Æthelstan. The name itself appears to be a combination of the personal name *Wæccin* and the Old English *feld* or open land.¹¹

Extensive ridge and furrow earthworks recorded during earlier archaeological work in and around the site¹² suggest that it lay within the common fields of the village during the medieval and post-medieval periods, the settlement presumably lying in the vicinity of the present village.

Parts of the site were used as a prisoner of war camp during the 1939-45 conflict. Although the extent of this is uncertain, areas of disturbance visible on the geophysical survey and additional areas encountered during the course of the excavations are assumed to be related to the clearance of the camp.

⁵ M. Tingle, *The Vale of the White Horse Survey* (BAR 218, 1991).

⁶ Scull, op. cit. note 4.

⁷ L. Sellwood, 'Tribal Boundaries Viewed from the Perspective of Numismatic Evidence', in B. Cunliffe and D. Miles (eds.), *Aspects of the Iron Age in Central Southern England* (1984), 191-204.

⁸ Tingle, op. cit. note 5.

⁹ Ibid.

¹⁰ H. Peake, *The Archaeology of Berkshire* (1931).

¹¹ M. Gelling, *The Place Names of Berkshire* (EPNS 50, 1974), 382-3; Gelling, in Scull, op. cit. note 4.

¹² Scull, op. cit. note 4; AOC Archaeology, op. cit. note 2.

METHODS

The sizes and locations of the eleven excavation areas were specified in the Brief (Fig. 2) and were marked out prior to topsoil stripping. Topsoil and overburden was removed by machine operating under constant archaeological supervision. All archaeological features were investigated by hand excavation. In general, all pits, postholes and other discrete features were half sectioned. A sample of at least 15% (20% in Areas 3 and 11) of all linear features was excavated by hand. All human and animal burials were fully excavated, as were features containing significant archaeological deposits. A programme of environmental sampling was also undertaken.

The probability of evidence for Late Mesolithic/Early Neolithic activity being present in Area 11 required a different fieldwork strategy to be implemented. Therefore, following the topsoil stripping in Area 11, the exposed surface of the sandy substrata was divided into 20 m. x 20 m. surface artefact collection units and scanned in order to identify concentrations of flintwork. Only one concentration was noted, over the surfaces of a small number of natural features, although lesser quantities were recovered from almost all collection units.

RESULTS

On the basis of spot dating, recorded stratigraphic relationships and, in a few cases, feature type, the archaeological features and deposits can be divided into eight phases of occupation and activity.

The earliest of these comprises a Late Glacial phase represented by a single flint tool recovered from a much later Iron Age pit in Area 11. However, because of the rarity of such finds, and the probability that movement of this piece may have been minimal, it is discussed below in more detail than is usual for residual material. Residual flintwork and two sherds of Bronze Age pottery recovered from later features in several areas represent the second phase, dated to the Mesolithic, Neolithic and Bronze Age periods.

The third phase, dated to the Early and Middle Iron Age, comprises enclosure ditches, several shallow gullies, several pits and postholes and two graves, all in Area 11. The fourth and fifth phases are represented by a number of enclosures, ditches, gullies, pits, burials and possible pyre related features, datable to the Late Iron Age and early Romano-British periods, encountered in six of the excavation areas (Areas 2, 3, 4, 5, 7 and 10). Unstratified finds of late Romano-British date, recovered from modern disturbance and topsoil, and a single prone burial, cut into the upper fills of an early Romano-British enclosure ditch but otherwise undated, represent the sixth, Late Romano-British and/or Saxon, phase.

The final phases of activity were dated to the medieval period (phase 7) and post-medieval and modern periods (phase 8). The phase 7 features comprised a number of pits in Area 11 and a ditch in Area 9. The phase 8 features and deposits include several pits in Area 11, extensive ridge and furrow earthworks, recorded in Areas 4, 5, 6, 7, 9, 10 and 11, large areas of modern disturbance in Areas 3, 4, 5 and 10, extensive land drain systems in Areas 9, 10 and 11, and other clearly modern features. A series of intercutting ditches, possibly parish boundary ditches, in Area 1 are assumed to be of either post-medieval or modern date.

The features, deposits, finds and environmental evidence of archaeological interest are described by period below.

Phase 1: Late Glacial (12,000-8,500BC) by P.A. HARDING

The earliest trace of activity recognised on the site dates to the Late Glacial period and comprised a diagnostic 'bruised edge' flint blade, found in an Iron Age pit (5030, Fig. 3). The blade, which had irregular inverse 'bruising' along one edge and a light orange stain, was in a slightly rolled condition. The distal end of a large broken blade and an elongated flake in a similar condition to the 'bruised' blade, which were recovered from the same area during machine stripping, may also be of Late Glacial date.

Discussion

'Bruised edge' blades have been found with 'long blade industries' (blades >120 mm. long) and have associations with the Final Upper Palaeolithic industries of Northern Europe. They have been dated to c. 10,000 BP and provide evidence of some of the earliest reoccupation of Britain after the Last Glacial.¹³

¹³ J. Lewis, 'A Late Glacial and Early Postglacial Site at Three Ways Wharf, Uxbridge, London: interim report', in R.N.E. Barton, A.J. Roberts and D.A. Roe (eds.), *The Late Glacial in North-West Europe: Human Adaptations and Environmental Change at the end of the Pleistocene* (CBA Res. Rep. 77, 1991), 246-55; R.N.E. Barton, P. Antoine, S. Dumont and S. Hall, 'New OSL Dates from the Late Glacial Archaeological Site of Avington VI, Kennet Valley, Berkshire', *Quaternary News*, 85 (1998), 21-31.

Barton has identified 24 findspots of long blade industries with 'bruised edge' blades in southern Britain, many of which have been found in the River Thames basin.¹⁴ The nearest comparable site is that of Avington VI in the Kennet valley, where an undisturbed flaking floor was revealed.¹⁵ The 'bruised edge' blade from Watchfield lies at the most westerly extent of the distribution, in the headwaters of the River Thames drainage. The condition of the piece suggests that it is not *in situ* but has undergone some post depositional movement. However, the fact that two other pieces may be of the same date suggests that this movement may have been minimal.

Phase 2: Mesolithic – Bronze Age (8500-700BC) by P.A. HARDING and VAUGHAN BIRBECK

The Mesolithic period was represented by a concentration of diagnostic worked flint in Area 11 and by residual finds recovered from later features, particularly on and around the ridge on the W. side of the site (Areas 10 and 11). The principal assemblage of Mesolithic material was recovered from four truncated tree throw hollows, identified by surface artefact collection, within an area approximately 16 m. across (Fig. 3). Eleven one-metre-square test pits, comprising approximately 50% of each tree throw, were excavated in 0.10 m. deep spits to allow the assessment of the vertical flint distribution. The quantity of flint recovered ranged from 3 pieces to 103 pieces per test pit and included a high proportion of burnt material (up to 50% in some test pits). The assemblage was insufficient to allow an accurate assessment of the horizontal flint distribution; however, flint totals, including cores, were greater towards the W. of the sampled area. Flint was distributed vertically throughout the fills of the features, but was particularly plentiful within the zone 100-300 mm. This vertical distribution is sufficient to indicate that the material has undergone a degree of resorting within the sand, which provides particularly unstable conditions for the retention of artefacts *in situ*.¹⁶

There was insufficient unbroken material to justify detailed metrical analysis; however, reconstruction of the basic technology involved is possible. Blade/lets were produced from single or opposed platform cores and cresting was used to prepare the front of the core before the removal of the initial blade. Core edges were strengthened during blade/let production using platform abrasion to remove overhang. Retouched tools included four microliths, of which three were obliquely blunted points and one a geometric isosceles triangle, three end scrapers made on flakes and three miscellaneous retouched flakes. Other blades and by-products of blade manufacture, including a possible angle burin from surface collection in Area 11, were found elsewhere on the site as residual material.

One of the tree-throws associated with the flint concentration contained a layer of oak charcoal. It seems likely that this charcoal represents debris from a hearth, or possibly, since a single species only was identified, from the clearance of local scrub.

Many of the ditch, pit and gully fills on and around the ridge contained redeposited Mesolithic artefacts together with worked flint from a range of later periods. The cores of these later periods contrasted with those from the Mesolithic contexts and comprised small, irregular, unprepared flake cores, many of which may not have produced usable tool blanks. Diagnostic tools of Neolithic and Bronze Age date included a broken leaf arrowhead, a well made triangular flaked knife and a flake from a ground flint axe.

No features or deposits of Neolithic or Bronze Age date were found within the limits of excavation although the diagnostic finds recovered from later features indicate the probable proximity of settlements, or at least activity, dating to these periods. Pit 5077 contained three cylindrical loomweights which may be of Middle-Late Bronze Age date (although the type continued in use into the Early Iron Age), but its position in relation to the enclosures indicates an Iron Age date. Features of Neolithic-Early Bronze Age date were investigated during the construction of the A420 Shrivenham by-pass and subsequent work immediately to the N. of Area 11, suggesting that the focus of Neolithic and/or Bronze activity lies to the N. of the site.¹⁷

¹⁴ R.N.E. Barton, 'Long Blade Technology and the Question of British Late Pleistocene/Early Holocene Lithic Assemblages', in N. Ashton, F. Healy and P. Pettitt (eds.), *Stone Age Archaeology: Essays in Honour of John Wymer* (Oxbow Mono. 102/Lithic Studies Soc. Occas. Paper 6, 1998), 158-64.

¹⁵ R.N.E. Barton and F.R. Froom, 'The Long Blade Assemblage from Avington VI, Berkshire', in S.N. Collcutt (ed.), *The Palaeolithic of Britain and its Nearest Neighbours: Recent Trends* (1986), 80-4.

¹⁶ S.N. Collcutt, 'Site Formation Processes at Hengistbury Sites', in R.N.E. Barton, *Hengistbury Head, Dorset. Vol. 2: The Late Upper Palaeolithic and Early Mesolithic Sites* (OUCA Mono. 1992), 34, 64-77.

¹⁷ Scull, op. cit. note 4.

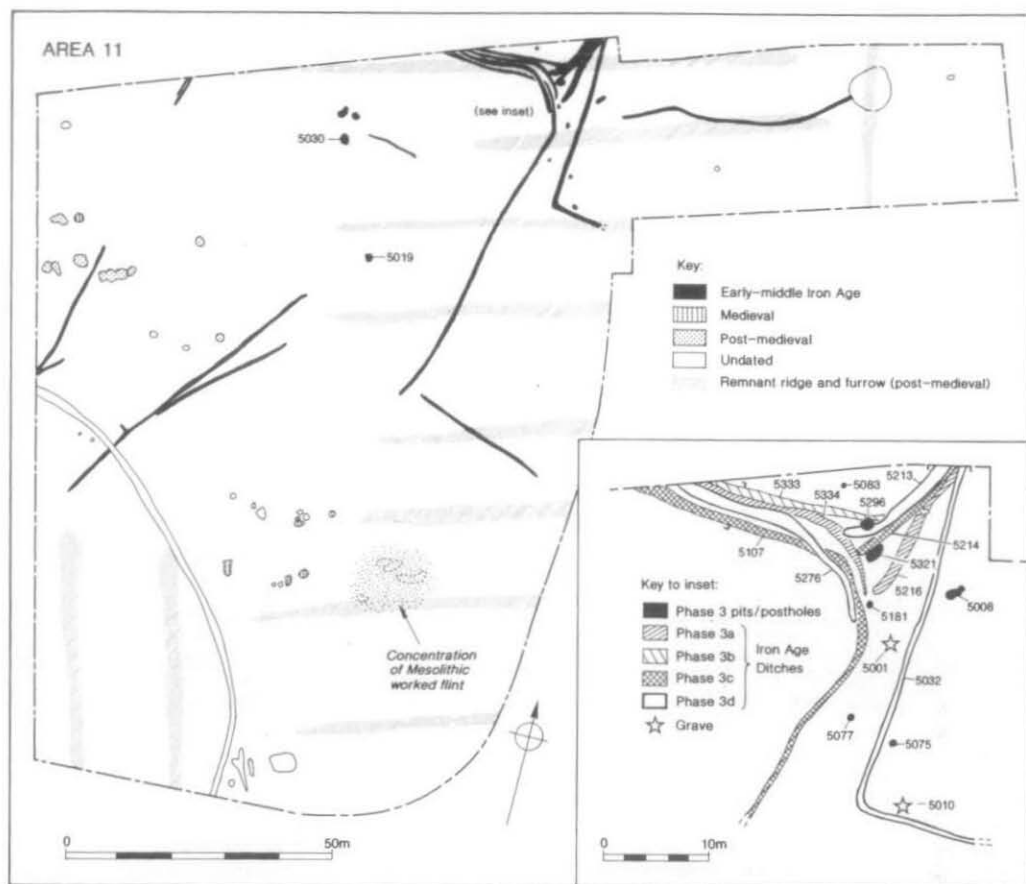


Fig. 3. Area 11: all features plan (phased).

Discussion

Evidence for Mesolithic occupation in the Vale of the White Horse and activity along the course of the River Ock in particular has been confined to isolated surface finds of cores, blades and flakes, with few microliths.¹⁸ Additional surface finds were made during fieldwalking as part of the Vale of the White Horse Survey.¹⁹ This survey suggested that occupation may have been focused along the Corallian ridge and avoided the Chalk. The Mesolithic activity at Watchfield, which lies on the watershed of the Rivers Ock and Cole, confirms the exploitation of the Corallian ridge and locations that offered good access to rivers.

Tingle has postulated from the paucity of Mesolithic activity on the Chalk that flint from a non-Chalk source may have been preferred, although an alternative source could not be positively identified from the survey evidence.²⁰ However, there is nothing to indicate that derived flint was exploited for raw material at Watchfield, and the unweathered cortex suggests that nodules were obtained directly from the Chalk. The composition of the assemblage confirms that flakes were manufactured on site, but no definite evidence of primary core preparation was found; however, the limited size of the assemblage precludes the drawing of

¹⁸ J.J. Wymer (ed.), *Gazetteer of Mesolithic Sites in England and Wales (with a Gazetteer of Upper Palaeolithic sites in England and Wales Edited by C.J. Bonsall)* (Geo. Abstracts/CBA Res. Rep. 20, 1977).

¹⁹ Tingle, *op. cit.* note 5.

²⁰ *Ibid.* 117.

firm conclusions regarding the nature of the industry represented here. The principal assemblage from the tree hollows is likely to be residual or redeposited; any *in situ* evidence of the nature of the Mesolithic activity on the site has been removed by more recent agricultural practices.

The assemblage from Watchfield contained no diagnostic dating material. The microliths are dominated by obliquely blunted points, which form the most common type of microlith on most Mesolithic sites. Tingle concluded that most of the activity in the Vale of the White Horse was likely to be of Late Mesolithic date;²¹ the presence of a geometric microlith suggests that some of the activity at Watchfield may also be of Late Mesolithic date.

Phase 3: Early and Middle Iron Age (700-100 BC) by VAUGHAN BIRBECK

Evidence for settlement and activity during this period is confined to Area 11 (Fig. 3) and is represented by a complex series of intercutting ditches, comprising the S. entrance and associated antennae ditches of an Early-Middle Iron Age enclosure, parts of which (to the N. of the site) had been previously subject to archaeological excavation.²² A number of gullies, graves, pits and postholes were also broadly datable to this period.

Stratigraphic relationships observed within the intercutting enclosure ditches show that following its initial construction (phase 3a), the enclosure entrance underwent at least three alterations in layout (phase 3b-d). Evidence for re-cutting or maintenance of the ditches was noted within all of the sub-phases identified.

The earliest phase (3a) comprised two ditches (5334 and 5216) forming what appears to be the S. corner of a large enclosure, approximately 150 m. by 90 m. The W. ditch (5334) was between 0.50 m. and 0.90 m. wide and only 0.20 m. deep, whilst the E. ditch (5216) was on average 1.10 m. wide and 0.40 m. deep. The terminals of these appear to form an entrance to the enclosure. However, such an entrance would have been only 0.70 m. wide or less, taking into account that this area has been truncated by a plough furrow up to 0.15 m. deep.

The second phase (3b) was represented by a single ditch, 5333, which ran ESE. from the northern limit of excavation for approximately 20 m. before terminating. No corresponding E. ditch was recorded; however, such a ditch may have been completely destroyed within the area of excavation by later ditches. Where its full profile survived, towards its W. end, ditch 5333 was 0.85 m. wide and 0.50 m. deep.

The third phase of enclosure ditches (3c) comprised ditches 5107 and 5214. From the northern limit of excavation the W. ditch (5107) ran roughly parallel to, and approximately 2 m. to the S. of, the phase 3b enclosure ditch (5333) before turning to the SSW. From this point it continued, in a fairly straight line, for a further 60 m. before it eventually terminated. Close to the northern limit of excavation ditch 5107 was approximately 1.40 m. wide and 0.63 m. deep, becoming gradually narrower, shallower and more irregular in form to the S. The E. ditch (5214) was on average 0.80 m. wide and 0.75 m. deep with very steep, straight sides and a concave base. As with phase 3a, the entrance formed by these ditches was also very narrow (1.10 m. or less). The skull of a large polecat was recovered from ditch 5214, along with the remains of domestic species; this skull was unusually dark and hard and may have derived from a pelt, although no skinning marks were observed.

The fourth and final phase (3d) comprised a W. ditch (5276), on average 1 m. wide and 0.22 m. deep, an E. ditch (5213), nearly 2 m. wide and 0.55 m. deep, and a shallow antenna ditch (5032). These formed a SE. facing inner entrance approximately 2.5 m. wide and a SSW. facing outer entrance approximately 5 m. wide. Traces of recutting or maintenance were noted within the two larger ditches, but were not evident in the antennae ditches.

Ditch 5213 contained a dump of animal bones, including a near complete cattle skull, the articulated humerus and ulna of a pig and the remains of an axially split head of a pig. From its structured appearance and very localised grouping, this probably represents a deliberately placed deposit rather than a dump of domestic debris.

A number of shallow gullies to the S. of the enclosure (Fig. 3), none more than 0.20 m. deep and between 0.20 and 0.50 m. wide, were also datable, on the basis of a very small assemblage of pottery, to the Middle Iron Age. All were aligned approximately either NE. to SW. or NW. to SE. This orientation, approximately on the same alignment or perpendicular to the phase 3c and 3d antennae ditches, suggests these features were contemporary with either one or both of these phases and probably represent the truncated remains of a system of fields or paddocks, associated with the enclosed settlement to the N. Two small gullies on the W. side of the area, on a slightly different alignment, suggest at least some realignment during this period.

²¹ Ibid.

²² Scull, *op. cit.* note 4.

A single, irregular gully of indeterminate function, running down the moderate east-facing slope to the E. of the enclosure entrance was also dated to this phase. This was completely truncated at its E. end by a large quarry pit, datable only to between the Late Iron Age and the post-medieval period.

Only two postholes datable to this phase were found, one just inside the enclosure (5083) and one immediately to the S. of the phase 3a entrance (5181). These were not part of any discernible structure.

A group of five pits, two of which contained unusual deposits, were also associated with the enclosure. A small circular pit (5077, 0.57 m. in diameter and 0.42 m. deep) lay approximately 12 m. to the S. of the phase 3a enclosure entrance (see Fig. 3). The basal fill comprised re-deposited natural sands, possibly indicating that the pit was left open for some time and began to silt up. Three complete, though fragmentary, cylindrical loomweights, all in a poorly fired and friable sandy fabric (Fig. 12, 3) appeared to have been deliberately placed on the surface of the basal fill prior to the upper fill being deposited. The loomweights are characteristic of a Middle to Late Bronze Age type which continued in use into the Iron Age; given the lack of other Bronze Age features and its proximity to the enclosure ditches, an Iron Age date is assumed for this pit. Large quantities of charcoal, predominantly oak, were recovered from the upper fill, probably representing kiln or furnace debris.

A large irregular pit (5008, approximately 3 m. long, 1 m. wide and 0.20 m. deep) lay to the E. of the phase 3d antenna ditch. In the base of this a cattle skull and a human skull (5013) had apparently been deliberately placed beside one another, upside down. Other cattle bones, worked flint and Early-Middle Iron Age pottery were also recovered from the fills of this feature. The human skull had been trepanned (see Fig. 16, also see McKinley below), a very rare find from an Iron Age context and possibly the only example of ante-mortem trepanation from an Iron Age context known in Britain.

Three sub-circular pits around the enclosure entrance (5075, 5296 and 5321) all contained pottery broadly datable to the Early-Middle Iron Age period. Pit 5321 pre-dated the phase 3c enclosure ditches and pit 5296 post dated the final phase of the enclosure, indicating at least limited activity after the final abandonment or backfilling of the ditches.



Fig. 4. Cattle skeleton in pit 5019.

Approximately 50 m. to the SW. of the phase 3 enclosures was a sub-circular pit (5019) which contained a complete, articulated cattle skeleton lying on its left side (Fig. 4); the pit was probably dug specifically to deposit the carcass. Although no datable finds were recovered from this feature, it is included in the Early-Middle Iron Age phase because of the proximity of activity of this date. The bones were in poor condition, but it could be seen that the animal was horned and had a withers height of between 1.03 m. and 1.10 m., a small animal by modern standards but consistent with an Iron Age date and comparable to material recovered



Fig. 5. Double inhumation burial in grave 5001.

from the enclosure ditches. Tooth wear indicates that this was a mature, but not aged, animal. No butchery marks or indications of the cause of death were found.

A group of three sub-circular pits was found approximately 40 m. to the W. of the enclosure; all were between 1.70 and 2.0 m. long, 1.0-1.3 m. wide and between 0.30 and 0.50 m. deep. One of these (5030) contained a complete sandstone rotary quern (Fig. 12, 1); a worked bone object of unknown function (Fig. 12, 6) - a sheep metatarsus that had been modified, perhaps during use as a handle or in some process associated with weaving (see Hamilton-Dyer below); and a residual Late Glacial flint tool (see Harding above). All contained moderate assemblages of Early-Middle Iron Age pottery.

Two shallow graves were found close to the enclosure entrance. Although neither contained any datable finds, they are assumed to be of Early-Middle Iron Age date on the basis of their locations in relation to the enclosure ditches.

Approximately in the centre of the phase 3d outer enclosure entrance was a shallow, sub-circular grave (5001). This contained the tightly crouched skeletons of an adult female (5002) and a probable male juvenile (5003) (Fig. 5). Skeleton 5002 was lying on its left side and skeleton 5003 lay on its right side, both with the heads to the N., towards the enclosures. The two skeletons had clearly been placed in the grave at the same time; the left arm of skeleton 5002 lay below 5003 while the right leg of 5002 was between the legs of 5003. Both had suffered considerable damage due to ploughing.

Close to the corner of the phase 3d antenna ditch (5032) was a shallow, sub circular grave (5010). This contained the tightly crouched skeleton of a young adult female lying on its right side with its head to the E. The remains of a neonate were also recovered from in or close to the left hand of the adult.

Dating

The dating of this phase relies entirely on the pottery assemblage. Only a small number of diagnostic forms were recognised, the most common being slack shouldered or bucket shaped jars. The other forms comprise jars with flat-topped rims, shouldered vessels with long flaring rims and small, angular vessels. Decoration was also rather limited, mostly comprising fingertip and nail impressions with some traces of cordons or incised grooves; in particular on jars in limestone tempered fabrics. A range of fabric types were attributed to this period, although the vast majority of the assemblage comprised just two, one shell-tempered and one sandy.

As the majority of this assemblage is likely to have been produced locally (all the necessary materials are easily accessible in the local area), close dating is somewhat problematic. The angular form could be as early as the mid 6th century BC, by comparison with assemblages from sites to the north and east, such as Ashville and Farmoor;²³ however, no expanded rim vessels, which are found in the earliest phases at these sites, were present. A date range of 5th to 3rd or, more probably, 4th to 3rd centuries BC is therefore proposed for this phase (see Laidlaw below). The dating of this phase is in broad agreement with the radiocarbon date of 460-230 BC obtained from charcoal recovered from a small pit within the enclosure during the 1989 excavations.²⁴

Relatively large numbers of sherds in fabrics assigned to later phases, almost all Late Iron Age, were also recovered from the phase 3 ditches, however, these tended to be very small, representing less than 5% of the total assemblage by weight, and were generally recovered from the upper fills. These are almost certainly intrusive, but may represent agricultural activity of Late Iron Age date in this area.

Discussion

The present excavations, along with geophysical surveys and earlier excavations to the N, indicate an enclosed settlement of approximately 2 ha.²⁵ While open settlements are considered more typical of the Early-Middle Iron Age in the Oxfordshire Thames Valley to the north and east,²⁶ enclosed settlements of this period are common in the Cotswolds to the north and west and over much of Southern Britain.²⁷ Two enclosed settlements bearing some similarities to that at Watchfield have been excavated at Groundwell Farm and Groundwell West, Blunsdon St. Andrew, Wiltshire, c. 12 km. to the west.²⁸ Both sites are located in a similar position on the dip slope of the Corallian ridge, close to its interface with the Oxford clays. Like these, the Watchfield enclosure probably represents a single family unit occupying the same site for several generations, a pattern typical of Early-Middle Iron Age occupation on the Cotswold flanks.

The site is located between two of Cunliffe's Early Iron Age ceramic 'style zones': the All Cannings Cross-Meon Hill group and the Long Wittenham-Allen's Pit group, both of 5th- to 3rd-century BC date.²⁹ The phase 3a and 3b pottery assemblages have more in common with the latter, which lies to the north-east of the site, and in particular with the later stages of the style (see Laidlaw below). The phase 3c and 3d assemblages are comparable to the Middle Iron Age traditions of Oxfordshire in Cunliffe's Stanton Harcourt-Cassington style zone, but still in the same range of fabrics as the earlier phases.

²³ C.D. De Roche, 'The Iron Age pottery', in M. Parrington, *The Excavation of an Iron Age Settlement, Bronze Age Ring-ditches and Roman Features at Ashville Trading Estate, Abingdon (Oxfordshire) 1974-76* (OAU Rep. 1/CBA Res. Rep. 28, 1978), 40-74; G. Lambrick, 'The Iron Age Pottery', in G. Lambrick and M. Robinson, *Iron Age and Roman Riverside Settlements at Farmoor, Oxfordshire* (OAU Rep. 2/CBA Res. Rep. 32, 1979), 35-46.

²⁴ Scull, op. cit. note 4.

²⁵ Bartlett, op. cit. note 1; Scull, op. cit. note 4.

²⁶ R. Hingley and D. Miles, 'Aspects of Iron Age Settlement in the Upper Thames Valley', in Cunliffe and Miles, op. cit. note 7, pp. 52-71.

²⁷ B. Cunliffe, *Iron Age Communities in Britain* (1991).

²⁸ C. Gingell, 'Excavation of an Iron Age Enclosure at Groundwell Farm, Blunsdon St. Andrew, 1976-7', *Wilt. Archaeol. Nat. Hist. Mag.* 76 (1981), 33-76; Cotswold Archaeol. Trust, 'Excavation and Fieldwork in Wiltshire - Blunsdon St. Andrew', *Wilt. Archaeol. Nat. Hist. Mag.* 91 (1998), 153.

²⁹ Cunliffe, op. cit. note 27.

Relatively large quantities of animal bone were recovered from both pits and enclosure ditches, perhaps indicating a bias towards a pastoral economy. There is a higher level of cattle than has been found on other sites of the period in the general area, which are typically dominated by sheep. It may be significant that excavations within the enclosure produced a high proportion of sheep/goat bone;³⁰ the apparent dominance of cattle bones from the current excavations may be the product of disposal practices. The unusually high level of pig noted at nearby Groundwell Farm is not repeated here, although other aspects of the animal bone assemblage are similar.³¹

Adverse soil conditions may have affected the survival of charred seeds, so that the settlement's reliance on crop production is uncertain. The results from the phase 3 features do little more than indicate the use of cereals, mainly wheat, and the few remains, particularly those from the ditches, are probably merely chance occurrences. Charcoal from the phase 3 features was also very sparse, however, the use of oak, ash, hazel, maple and blackthorn, probably for fuel, is indicated.

On the basis of such a small sample of the settlement area, the economic base cannot be discerned; however, the large quantities of animal bones may suggest a bias towards pastoral agriculture, although some arable cultivation was presumably practised. The almost complete absence of non-local materials among the phase 3 finds assemblage, together with some indications of craft production suggests that this was probably a largely self-sufficient, single family unit settlement.

The presence of two inhumation graves, an uncommon form of burial in this period,³² both containing double burials, and apparently carefully positioned in relation to the enclosure ditches, is unusual. The position of grave 5001, approximately in the centre of the phase 3d enclosure entrance, containing the skeletons of an adult female and a juvenile male, clearly buried at the same time, suggests some form of ritual activity beyond normal funerary practices. However, the lack of unequivocal dating evidence to link this phase of enclosure with the grave means that this suggestion can only be speculative.

The deposition of a trepanned human skull along with a cattle skull in pit 5008 also suggests ritual activity. Burials of human skulls are well attested on other sites of this period. At the hillfort of Danebury single human skulls were found in eight of the c. 2,000 pits excavated. Two of the pits containing human skulls at Danebury also contained cattle skulls and it was suggested that this may be seen as a propitiatory act, associated with the regeneration of livestock or crops.³³ Roundels of bone removed from skulls appear to have had an amuletic quality in prehistory and a similar 'superstitious esteem' may have been afforded the trepanned skull itself (see McKinley).³⁴

Phase 4: Late Iron Age (100BC-AD43) by VAUGHAN BIRBECK

The Late Iron Age phase is represented by a sub-rectangular ditched enclosure (approximately 50 m. by 33 m.) and six pits in Area 10, probably forming part of a larger settlement. A single ditch of this date and a group of postholes were also located in area 5 and two pits were recorded in Area 4.

Area 10

The Late Iron Age activity in Area 10 (Figs. 6 and 7) represents the earliest phases of an enclosed settlement, which continued in use, with frequent alterations to its layout, into the late 1st or early 2nd century AD.

The SE. side of the Late Iron Age enclosure (Fig. 7) consisted of a series of ditches in the SE. corner of Area 10 (1444), all running approximately E. to W. and completely destroyed at the E. end by modern disturbance. Although the similarity of the fills makes it difficult to construct a firm stratigraphic sequence, it is clear that these represent a single ditch which has been re-cut at least three times. The earliest ditch and subsequent recut were between 1.0 and 1.30 m. wide and on average 0.65 m. deep, the later recut being narrower and shallower with a much less regular profile. Among the assemblage of Late Iron Age-Conquest period pottery recovered from the fills of these ditches was a complete, though fragmentary, Late Iron Age necked jar.

³⁰ Scull, *op. cit.* note 4.

³¹ Gingell, *op. cit.* note 28.

³² R. Whimster, 'Burial Practices in Iron Age Britain', *Brit Archaeol. Rep.* 90(1) (1981), 16-21; Cunliffe, *op. cit.* note 27.

³³ L. Walker, 'The Deposition of Human Remains', in B. Cunliffe, *Danebury: An Iron Age Hillfort in Hampshire*, vol. 2 (CBA. Res. Rep. 52, 1984), 442-63.

³⁴ S. Piggott, 'A Trepanned Skull of the Beaker Period from Dorset and the Practice of Trepanning in Prehistoric Europe', *Proc. Prehist. Soc.* 6 (1940), 112-32.

The SW. side of the enclosure comprised a large, irregular ditch (1442) which varied between 1.0 m. and 3.0 m. in width and between 0.45 m. and 0.95 m. in depth. No sign of recutting or maintenance was identified; however, this may be due to the homogeneity of the fills, which would make any such evidence difficult to detect. A large assemblage of Late Iron Age pottery was recovered from ditch 1442, notably towards the southern limit of excavation, along with fragments of a triangular loomweight. This ditch was completely destroyed at its N. end by Romano-British ditch 1132 which continued along a similar alignment and contained much residual Late Iron Age material suggesting that ditch 1442 previously continued to the N.

The NW. side of the phase 4 enclosure had been almost completely destroyed by later features. A very short length of gully (1303) and the very truncated remains of a ditch (1205) were the only remnants of this side of the enclosure to survive, although the high incidence of residual Late Iron Age pottery recovered from a later ditch on a similar alignment (1133), probably indicates that this follows the same line as the earlier enclosure.

The NE. side of the enclosure comprised two ditches (1170 and 1438), forming two possible entrances between 6 and 10 m. wide. Ditch 1170 was 8.20 m. long, 1.60 m. wide and 0.60 m. deep. Very large quantities of pottery, including the stamped rim of a Dressel 1b type amphora datable to the 1st century BC (Fig. 14, 21), high shouldered jars (Fig. 15, 22) and necked jars (Fig. 15, 24), were recovered from this feature. Ditch 1438, which was approximately 25 m. long, 1.20 m. wide and 0.35 m. deep, lay on a similar alignment to ditch 1170. The exact dating of this feature is somewhat uncertain; a moderate assemblage of Romano-British pottery, datable to AD 50-100, was recovered from the fills along with larger quantities of Late Iron Age pottery. However, it was partly truncated at its N. end by ditch 1443, also datable to the immediate post-conquest period. It is possible that ditch 1438 was originally constructed at the same time as 1170, but may have remained open into the early post-conquest period.

Three large, rather irregular pits (1121, 1202 and 1418) were dated to the Late Iron Age in Area 10. Pit 1121, which continued beyond the northern limit of excavation, was over 5.0 m. long, 4.0 m. wide and up to 0.50 m. deep. Among the finds recovered from this feature was a near complete cordoned bowl (Fig. 15, 27). Pit 1202, which had been truncated from above by several later features, was circular, 1.28 m. in diameter and 1.13 m. deep. Only a small assemblage of Late Iron Age pottery and two small pieces of animal bone were recovered from this feature.

Pit 1418, a large sub-circular pit, 2.70 m. long, 1.70 m. wide and 0.60 m. deep with steep-moderate sides and a concave base, had been partly truncated by an Early Romano-British ditch (1133). Although no datable finds were recovered from this pit, its stratigraphic position means that it must be of very early Romano-British date (AD 50-100) or earlier. Apart from residual flintwork of Mesolithic date, the earliest activity in the immediate vicinity is of Late Iron Age date and this pit is therefore included in this phase, although an early Romano-British date is also possible.

This pit contained a large assemblage of animal bones, most of which were at least partly articulated. These represent at least six stripped cattle carcasses, consisting mainly of thorax with some skull, pelvis and occasional limb bones; a few fragments of sheep, pig and dog bones, which may be incidental, were also recovered. The cattle carcasses were probably the remains of prime beasts slaughtered for meat, and are likely to have been deposited in a single episode.

Areas 4 and 5

Approximately 350 m. to the NE. of the Area 10 enclosure was a second area of Late Iron Age activity, represented by features excavated in Areas 4 and 5 (Fig. 2). A rather irregular ditch ran E. to W. across Area 5. The profile of this ditch changed from a steep sided V shape (1.25 m. wide and 0.50 m. deep) to the W., to a very irregular U shape (0.15 m. wide and 0.30 m. deep) towards the E. Fired clay, animal bone and a large assemblage of 1st-century BC/AD pottery was recovered from this feature. This included a cordoned jar with a perforated base (Fig. 14, 28), two rounded vessels (Fig. 14, 16-17), and a carinated vessel. An iron brooch (Fig. 11, 1), datable to the Late Iron Age – mid 1st century AD was also recovered.

Four postholes were also recorded in Area 5; a group of three to the N. of the W. end of the ditch and a single posthole approximately 7.5 m. S. of the E. end. These were all between 0.40 m. and 0.60 m. in diameter and between 0.10 m. and 0.20 m. deep. Although only three of these produced any datable finds, all are assumed to be of Late Iron Age date. The group of three postholes did not form any discernible structure.

Two shallow pits in Area 4 were also dated to the Late Iron Age. Both were very irregular in plan and did not exceed 0.15 m. in depth. One of these is notable in that it contained the fragmentary remains of two near complete ceramic vessels; a bead rim jar in a limestone tempered fabric and a jar or bowl with a bead rim in a grog tempered fabric. The latter had badly spalled surfaces, possibly caused by poor drying prior to firing or by frost damage.

Four very small, abraded sherds of Late Iron Age pottery were recovered from a shallow, irregular gully in Area 2, however the majority of the features in this area were undated and their function is uncertain.

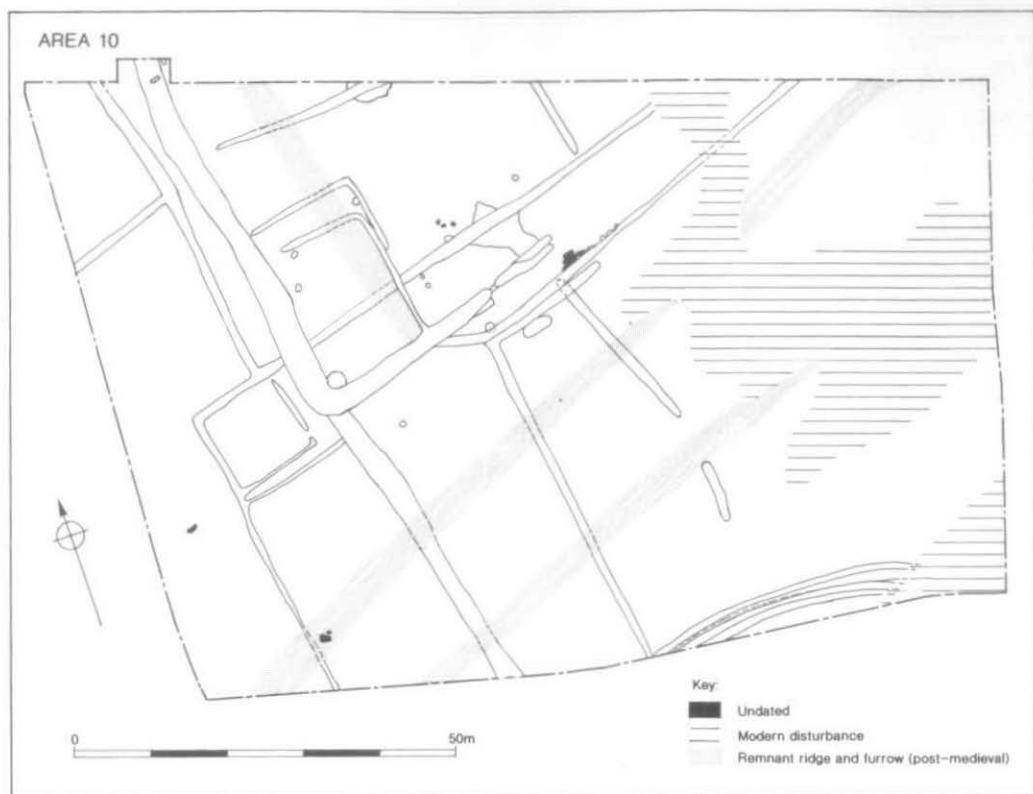


Fig. 6. Area 10: all features plan.

Dating

The dating of this phase is again almost completely based on the pottery assemblage. This is dominated by the introduction of grog tempered pottery and, to a lesser extent, a fine sandy fabric, both absent from the earlier Iron Age assemblage, although some of the earlier fabric types continued in use. A larger range of vessel types is represented in the Late Iron Age assemblage, although in a more restricted range of fabrics. The most common vessel form is the necked jars with beaded, upright or squared rim. Parallels may be found in the assemblage from Old Shifford Farm, Standlake;³⁵ both Old Shifford Farm and Watchfield show significant 'Belgic' influence and probably represent occupation from the 1st century BC into the early 1st century AD. This date is supported by a single iron brooch recovered from the phase 4 ditch in Area 5.

Discussion

The full extent of the Late Iron Age settlement represented by the phase 4 enclosure ditches in Area 10 is uncertain, as this probably extended to the N. and S. Indeed, the complete absence of any identifiable structure or even structural elements, such as postholes, may indicate that the focus of the settlement lay beyond the limits of excavation. However, the relatively large assemblages of pottery and animal bone recovered from the phase 4 features suggest the close proximity of domestic activity.

³⁵ J.R. Timby, 'Pottery' in G. Hey, 'Iron Age and Roman Settlement at Old Shifford Farm, Standlake', *Oxoniensia*, lx (1995), 124-36.

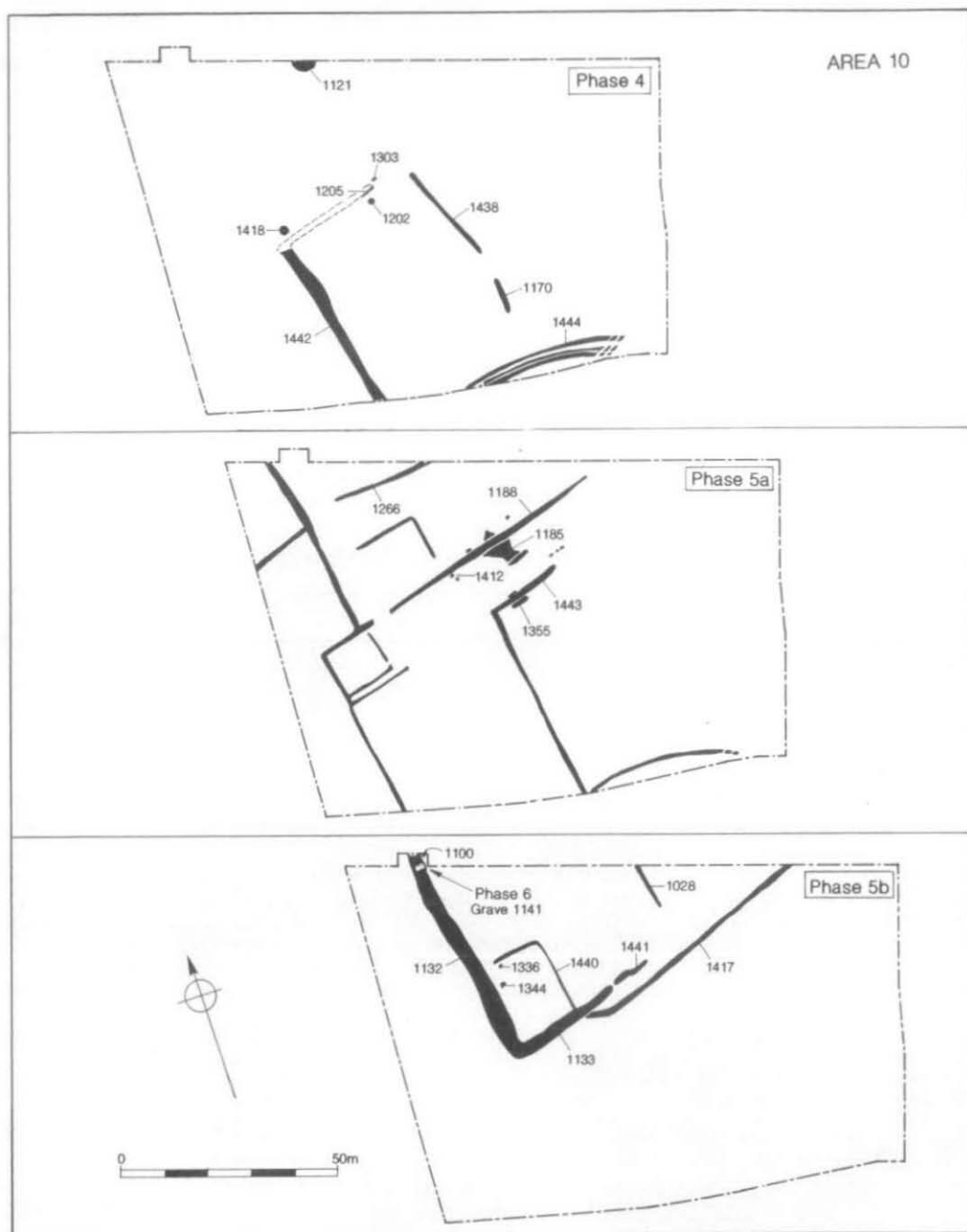


Fig. 7. Area 10: Phase 4, 5a and 5b features.

The rectilinear form of the enclosure is comparable to the Late Iron Age enclosure excavated at Old Shifford Farm, Standlake, on the first gravel terrace on the edge of the Thames floodplain, which was dated to the first half of the 1st century AD (Trench L, phase 2).³⁶ The phase 4 enclosure appears to represent part of a single- or extended-family sized settlement, probably surrounded by ditched paddocks used for a variety of farming operations, a form of settlement common in Southern England in this period.³⁷

The nature of the activity represented by the small number of features in Areas 4 and 5 is unclear. However, the large assemblage of cultural material, recovered from only a very limited number of features, again suggests the near proximity of settlement activity. The two areas of Late Iron Age activity in Areas 10 and 4/5 may therefore represent the remains of two contemporary settlements, or a single dispersed settlement.

The phase 4 animal bone assemblage comprised predominantly cattle bones, along with lesser quantities of sheep/goat and small quantities of pig and horse. Although the soil conditions probably favoured the preservation of the more robust cattle bones over those of smaller species, it seems likely that cattle formed an important part of the pastoral economy.

The six partial cattle skeletons deposited in pit 1418, almost certainly in a single episode, is very unusual and does not appear to be paralleled elsewhere. The carcasses represent the remains of large but still immature cattle - prime meat animals (see Hamilton-Dyer below) - and the slaughter of these probably represented a considerable expense to the settlement. The deposit may represent a special event, such as a large feast, and the degree of articulation probably implies that not all of the meat was utilised.

The settlement and environmental evidence of the Late Iron Age occupation is very similar to that of the early Romano-British phase, suggesting only a very gradual change to more 'Romanised' settlement and agricultural practices. The economy of the phase 4 occupation was probably very similar to, if not the same as, that of phase 5; this is considered further below.

Phase 5: Earlier Romano-British (AD43-250) by VAUGHAN BIRBECK

At least two phases of Romano-British enclosures and associated features were recognised in Area 10, the earliest (5a) dating to the immediate post-conquest period and the later (5b) dating to the end of the 1st century AD or beginning of the 2nd century AD. Evidence for maintenance of the enclosure ditches and changes to the enclosure layout was recorded within both phases. Further enclosures were revealed in Area 7, where they may be associated with funerary practices. Two ditches and a group of pits in Area 3 and a single ditch in Area 2 were also dated to this period. The features in Areas 7, 3 and 2 could only be assigned to the general earlier Romano-British period (phase 5), however.

Area 10-Phase 5a

The earliest Romano-British features recognised in Area 10 (phase 5a; see Fig. 7) comprised a very large, irregular pit (1185), over 9.0 m. long, 7.50 m. wide and up to 0.90 m. deep. This cut through a layer of weathered limestone and a seam of sand to the surface of solid limestone bedrock. The fills comprised approximately 80% limestone fragments in a silty clay matrix; the lack of sand in the fills of this feature may indicate that it was a sand quarry, backfilled with the unwanted limestone rubble spoil. A relatively large assemblage of pottery, including bead rim jars and necked jars, datable to between AD 50 and 100, was recovered, together with residual Late Iron Age pottery. The quarry pit could not have been open for any great length of time as a later ditch (1188) and a small gully both cut its fills; these also contained pottery datable to the same period. A number of small, irregular pits in the same area of the site were also datable to this period.

Shortly after the backfilling of the quarry pit, a number of ditches, typically between 1.0 and 2.0 m. wide and between 0.20 and 0.50 m. deep, were constructed to form a series of enclosures and paddocks (Fig. 7). In the SE. of the area the earlier phase 4 ditch (1444) was re-cut, for the third time, along the same alignment. The other Late Iron Age ditches were all abandoned by this time, although ditch 1438 may have remained open into the earlier part of this period (see above), but had clearly been filled when ditch 1443 was constructed.

The ditches appear to form at least two large enclosures, one extending beyond the limit of excavation to the N. and one extending beyond the southern limit, with shallow ditches or gullies, in general less than 1.0 m. wide and up to 0.30 m. deep, sub-dividing them.

³⁶ Ibid. 93-175.

³⁷ Cunliffe, *op. cit.* note 33.

No structures were identified either within the larger enclosures or the smaller sub-divisions. However, this could be due to the nature of the underlying geology; if timber beam-slot or post-built structures had been constructed on the limestone outcrops in the centre of the area, it is unlikely that these would have penetrated the bedrock to leave any negative features. Furthermore, small, ephemeral features such as postholes would be difficult to detect in the sandy silt deposits to the W. of the area. It was noted during excavation that the density of finds increased towards the N. of the area, which could suggest that the main focus of the settlement, including any structures, lay to the N. of the area of excavation.

On the basis of pottery dating, a small number of pits in the centre of the site were also attributed to this early post-conquest phase. These comprised a large sub-rectangular pit, 1355, approximately 4.0 m. long, 1.5 m. wide and up to 0.82 m. deep with steep, irregular sides and a flat base, and three smaller sub-circular pits, all approximately 0.60 m. in diameter and 0.15 m. deep. Of particular interest was pit 1412, which had been lined with blue-grey marine clay, possibly indicating a storage function. Environmental samples from pit 1355 contained very few grains but a larger number of emmer or spelt glume bases (chaff) and small weed seeds. In contrast, a sample from pit 1412 produced a much greater proportion of wheat and unidentifiable cereal fragments but very little chaff. The chaff and small weed seeds in pit 1355 are probably a by-product of winnowing, whilst the quantity of grain in pit 1412 may suggest the disposal or storage of prepared grain.

Area 10-Phase 5b

Stratigraphic evidence, combined with ceramic dating, suggests that the early post-conquest enclosures and subdivisions were in use for a relatively short period of time. A second phase (phase 5b) of the early Romano-British enclosure (Fig. 7) was constructed in the late 1st or early 2nd century AD. This comprised a substantial ditch (1132), up to 4.0 m. wide and 1.30 m. deep, defining the W. side of the enclosure, and a series of smaller ditches (1133, 1028 and 1441) forming the S. and E. sides. Ditch 1417 also contained pottery datable to this period, but was clearly cut by ditch 1133, indicating at least one alteration of the enclosure lay-out within this phase of activity.

Among the finds recovered from this phase of ditches were two copper alloy brooches (Fig. 10, 1 and 5), both 1st-century AD types. Pottery forms included globular jars and curved rim jars. A small feature of uncertain form, at the northern limit of excavation (1100) contained a complete necked jar. As in the earlier phase of Romano-British activity, the density of finds increased towards the N. of the area, again suggesting that the focus of the settlement lay to the N. of the excavation.

Large dumps of disarticulated animal bone were excavated in the W. terminal of ditch 1441 and the E. terminal of ditch 1133. These comprised mainly cattle, with a group of possibly associated cattle ribs and vertebrae representing at least two animals. These appear to represent domestic waste which built up over a period of time, rather than a single depositional episode.

A large dump of charcoal in the secondary (uppermost) fill of ditch 1132 consisted entirely of maple, including some identified as roundwood approximately 10 mm. in diameter. It is possible that this material derived from fuel debris of an activity for which maple was specifically selected, or from artefactual remains. Equally, it could represent the burnt remains from hedge maintenance or scrub clearance: maple is a common element in the hedgerows of today and would almost certainly have been present in Romano-British hedges and woodland.

A small rectilinear gully (1440), up to 0.80 m. wide and 0.30 m. deep with a steep V-shaped profile, was also dated to this phase on both stratigraphic and ceramic evidence. This formed a small sub-division, approximately 18 m. by 14 m., in the S. corner of the larger enclosure. No structural features were found within either this small 'sub-enclosure' or the larger enclosure. Two neonate burials (1344 and 1336) were found close to the entrance to this 'sub-enclosure'. Although only broadly datable to the Romano-British period, these burials are assumed to represent activity of either phase 5a or 5b. The redeposited partial remains of a third neonate were recovered from the fill of gully 1440, close to its junction with ditch 1133.

Area 7-Phase 5

Further possible enclosure ditches of early Romano-British date were investigated in Area 7 (Fig. 8), approximately 250 m. to the E. of Area 10. A large rectilinear ditch (760) extended S. from the northern limit of excavation for approximately 3.50 m. before turning to the E., continuing beyond the eastern limit of excavation. Geophysical survey suggests that this formed the S. side of a large rectangular enclosure of unknown function, the majority of which lay to the N. of the excavation area, and the N. side of a smaller enclosure, the majority of which lay within the excavation area.³⁸

³⁸ Bartlett, *op. cit.* note 1.

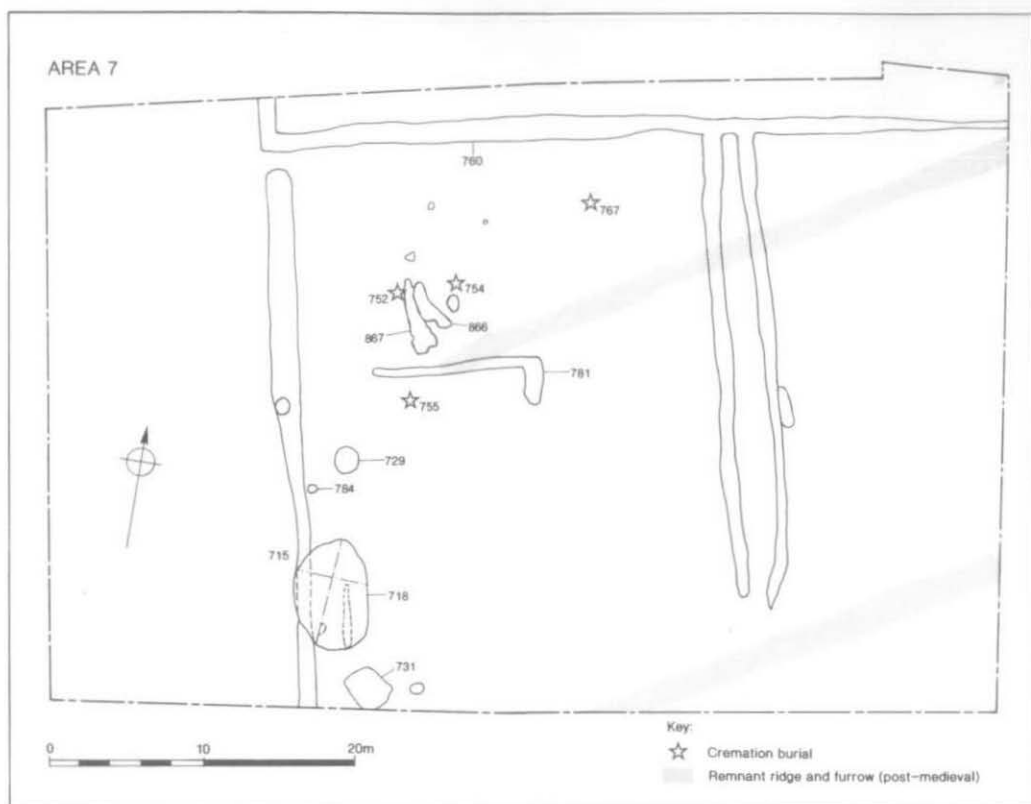


Fig. 8. Area 7: all features plan.

Three N.-S. ditches, all datable to the 2nd century AD, form the E. and W. sides of the smaller enclosure. At the E. side of the area two parallel ditches extended for approximately 30 m., terminating within the excavation area. The easternmost of these cut an earlier, sub-rectangular pit, dated to AD 50-100. A third ditch (715) at the W. of the area ran N. from the southern limit of excavation, terminating close to the return of the northern enclosure ditch.

Ditch 715 cut an earlier pit, tentatively dated to the Iron Age on the basis of a single sherd of pottery. Towards the S. of the area, the W. ditch was cut by a large (7.60 m. x 5.00 m.), shallow (0.10 m. maximum depth), irregular feature (718). This contained a very small quantity (*c.* 1 g.) of cremated human bone along with a relatively large assemblage of pottery, dated to the 2nd century AD. An iron stylus (Fig. 11, 2), a possible lynch pin (Fig. 11, 5) and a copper alloy bow brooch (Fig. 10, 6), the latter datable to between AD 43 and *c.* AD 60-65, were also recovered. The function of this feature is uncertain; however, the presence of cremated human bone and its proximity to the small cremation cemetery (see below) suggests that it is possibly related to some form of mortuary practice. A large, shallow pit (729) and a possible posthole (784) in the same area were also of 2nd-century AD date.

Towards the centre of the enclosure was a small L-shaped gully (781), which was 0.60 m. wide on average, becoming 1.00 m. wide at its corner, with a regular U-shaped profile. A moderate assemblage of Romano-British pottery, datable to the 2nd century AD, animal bone and a copper alloy penannular brooch (Fig. 10, 8), only broadly datable to between the 1st century BC and the 3rd century AD, were recovered from its single fill.

Immediately to the N. of this were two large, intercutting, irregular features (Figs. 8 and 9). The earlier of the two, 867 comprised a very irregular linear feature, approximately 5.0 m. long, on average 0.90 m. wide and 0.22 m. deep. This was cut on its E. side by an irregular scoop (866), approximately 3.45 m. long, up to 1.10 m. wide and with a maximum depth of 0.20 m. Both features contained dark, charcoal rich fills, from which small quantities of cremated human bone, animal bone and pottery datable to the 2nd century AD were recovered. The limestone bedrock into which these features were cut was noticeably reddened, probably due to the effect of intense heat, indicating *in situ* burning.

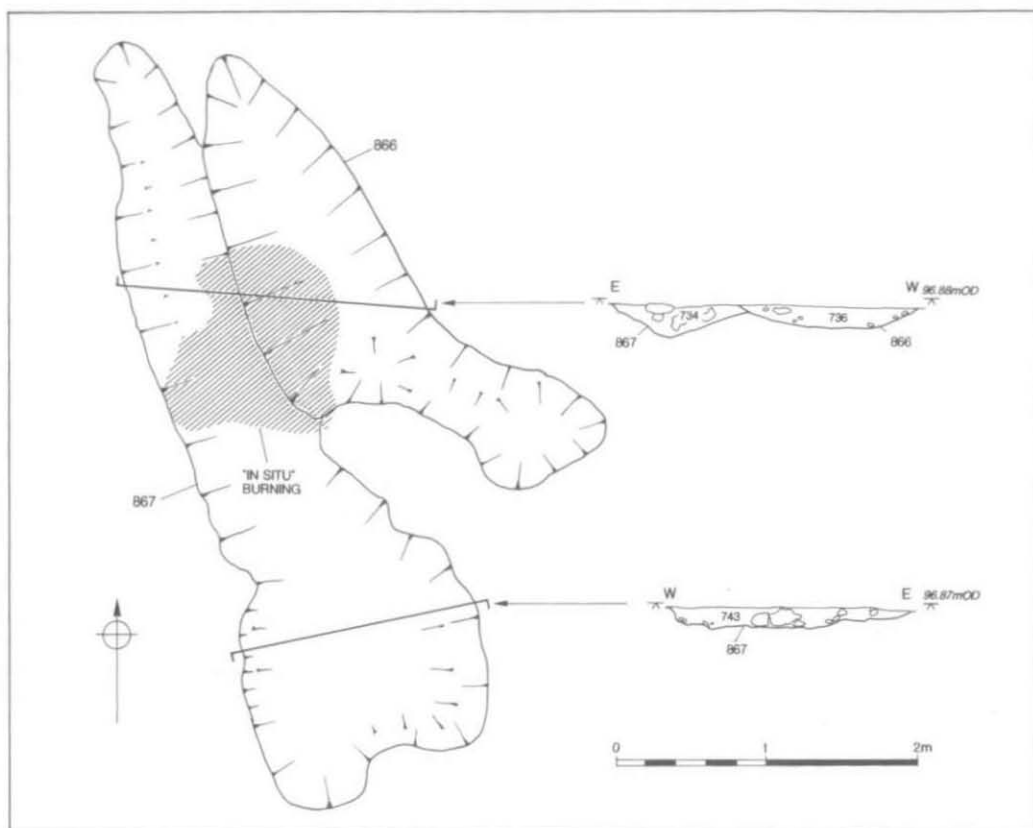


Fig. 9. Area 7: plan and sections of feature 867.

The large quantities of charcoal (mostly oak sapwood, but with some blackthorn and hawthorn), small quantities of cremated bone and the *in situ* burning suggest that these may represent the remains of pyre bases or related features. The area of *in situ* burning probably represents the area occupied by the pyres, and the two features may have functioned as flues, which extended beyond the pyres to ensure a sufficient flow of oxygen to aid efficient cremation.

A small group of four cremation burials (752, 754, 755 and 767), comprising the remains of one infant and three adults, were located in the area around the possible pyre-related features. All were contained in small, irregular features cut into natural clay filled faults in the limestone bedrock and had been badly damaged by ploughing. Three similar small, irregular features in the same area contained small quantities of burnt animal bone (see Hamilton-Dyer below). It is uncertain what the latter features represent, although they may be associated with the mortuary ritual.

Close to the southern limit of excavation, immediately to the E. of the W. ditch, was a large, sub-rectangular pit (731), approximately 2.70 m. long, 2.30 m. wide and 0.60 m. deep with near vertical sides and a flat base. A fairly large assemblage of pottery, datable to the 2nd or 3rd century AD, animal bone, iron nails and possible quernstone fragments were recovered from the fills of this pit. A small, undated hearth was also recorded 1 m. to the E.

Areas 2 and 3-Phase 5

The earliest features recorded in these areas (Fig. 2) comprised a group of large and very irregular intercutting pits in Area 3. The pits were generally sub-circular in plan, up to 3.00 m. in diameter and 0.90 m. deep, with irregular sides and flat bases, cut into the limestone bedrock. The sandy clay fills contained only small quantities of limestone rubble, suggesting that the limestone excavated was removed from the site. The sequence of fills suggests that the pits were backfilled soon after they were excavated. The function of these pits is uncertain, however, the absence of limestone rubble, which would have been produced by their

excavation, in the fills may suggest that they were dug to obtain limestone. A small assemblage of Late Iron Age and early Romano-British pottery, some datable to the period AD 50-100 was recovered from the fills of these pits.

The pit group was cut on its E. side by a large curvilinear ditch, which ran N. from the southern limit of excavation for approximately 15 m. before turning to the E. and continuing beyond the eastern limit of excavation. The small assemblage of finds recovered from this ditch included pottery datable to the late 1st or early 2nd century AD. Geophysical plots suggest that this is the same feature as a large E.-W. ditch encountered in the N. of Area 2, from which no datable finds were recovered.³⁹

A second, fairly broad, straight ditch lay approximately 10 m. to the W. This was traced from the southern limit of excavation to its terminal approximately 23.50 m. to the N. A small assemblage of Romano-British pottery, some more closely datable to the early 2nd century AD, and animal bone was recovered from the fills of this ditch.

Dating

The assemblage of Romano-British pottery from Phase 5 comprises mostly coarsewares with a small percentage of finewares, including continental imports such as samian ware, from the Central and Southern Gaulish production centres, and Rhenish ware, also from Central Gaul. The British finewares probably derived from the Oxfordshire or North Wiltshire kilns.

The ceramic sequence in Area 10 continues from the Late Iron Age and the stratigraphic sequence in this area clearly shows two phases of Romano-British activity (phases 5a and 5b). The phase 5a assemblage is dominated by grog-tempered coarsewares in a range of jar and bowl forms with some Romanised greywares. There is very little fineware present in this phase and only a handful of demonstrable regional imports (Black Burnished ware and whiteware), with only four sherds of samian ware. This phase is therefore unlikely to date beyond the end of the 1st century AD.

The phase 5b assemblage contains more sandy coarsewares at the expense of grog-tempered wares and more Black Burnished and samian wares. This phase extends the date range of occupation in Area 10, probably into the early 2nd century AD.

The assemblage recovered from Area 7 contrasts with that from Area 10 in that it is almost completely Romanised. Only small quantities of grog-tempered ware are present and the assemblage is dominated by sandy coarsewares; a much higher concentration of Black Burnished ware and more samian ware are also present. The Area 7 assemblage probably dates to the 2nd century AD and possibly extends into the 3rd century AD.

Later Romano-British activity on the site is attested by pottery forms of 3rd- or 4th-century AD date and by one 3rd-century AD coin and one 4th-century AD coin. All of this material was recovered from either unstratified contexts or from the surface of earlier features where it is likely to be intrusive.

Discussion

The form and nature of the phase 5 occupation in Area 10 is very similar to the Late Iron Age occupation in the same area. The gradual change to more Romanised forms of pottery with little or no change in agricultural practices is a common pattern on rural settlements in the Oxfordshire region. The lay-out of the enclosures and associated paddocks was altered several times over the 100 - 200 year lifetime of the settlement, although the general morphology appears to have remained constant. This process is paralleled by several sites in the Upper Thames Valley, such as Old Shifford Farm, and elsewhere in southern Britain.⁴⁰

Despite the poor preservation of the environmental evidence, the large assemblage of animal bones and the evidence for crop processing recovered from pit 1355 probably indicate a mixed farming economy. The phase 4 and phase 5 animal bone assemblages suggest that the pastoral regimen was most reliant on cattle with lesser numbers of sheep/goats and only very few pigs, although differential preservation may have caused some under representation of sheep/goat compared with cattle. Evidence for cereal processing, and by implication arable farming, was only clearly present in phase 5, although it is likely that this also played some part in the Late Iron Age economy.

Evidence for craft and industry in the settlement is sparse and probably indicates the small-scale production of a largely self-sufficient community. The presence of possible fuel ash slag from iron smithing in both Late Iron Age and early Romano-British contexts suggests some on-site metalworking, probably on a small-scale and for use solely within the settlement. The fragments of loomweight recovered from the phase 4 enclosure ditch 1442 also indicate at least small scale weaving on the site, again probably for use within the settlement.

³⁹ Ibid.

⁴⁰ Hey, *op. cit.* note 35; Hingley and Miles, *op. cit.* note 26.

As in phase 4 the rectilinear enclosures probably represent a single- or extended-family farmstead with surrounding paddocks on which mixed farming was practiced. The pottery assemblage from Area 10 indicates only a very gradual Romanisation of the settlement. It has been suggested that this may reflect either a distaste for Roman wares or lack of access to them;⁴¹ however, the brooches from Area 10 indicate that Romanised luxury goods were available, although the distribution network for such small items may have differed from that of more bulky ceramics. Only a handful of fineware and clearly Romanised pottery was recovered from Area 10. In contrast, the assemblage from the cremation cemetery and associated features in Area 7, which, if not contemporary with Area 10, probably overlaps chronologically, was completely Romanised.

The burial of infants or neonates on settlement sites is not unusual in the Romano-British period, but the grouping of two inhumations and the presence of redeposited neonate bones within a small subdivision of the main enclosure is interesting. The singular presence of individuals less than nine months old in this restricted area suggests that it may have been deliberately set aside for the purpose.

Between the conquest period and the mid 2nd century, cremation was the dominant burial rite in areas where Roman culture and influence were pre-eminent.⁴² The cremation burials in Area 7 were all unurned; however, they may have been deposited in leather or fabric containers and all had clearly suffered a considerable degree of truncation.

The cemetery may have served the Area 10 settlement, but the clear differences between the pottery assemblages make this unlikely, despite the possible chronological overlap. The styli recovered from Area 7, a rare find on rural settlements of this date, certainly imply the literacy of at least some of the population and may imply a relatively high status. The function, status and date of the substantial Roman building recorded approximately 800 m. to the E. is unknown;⁴³ however, the relatively high status implied suggests that the cemetery may have served this population rather than that of the Area 10 settlement.

The four burials found within the cemetery clearly represent only a tiny percentage of the population. It is notable that the surviving burials were all inserted into clay deposits within faults in the limestone bedrock; other burials here may have been contained within very shallow pits, however, and may therefore have been subsequently destroyed by ploughing. Furthermore, the cemetery lay within a ditched enclosure that continued beyond the southern limit of excavation, and it is therefore possible that further burials and related features may survive to the S.

The presence of possible pyre bases or flues within the cemetery is unusual. However, the very shallow form of these could indicate that all traces of similar features could have been destroyed on other sites where the natural substrata were not so durable as the limestone bedrock here.

Phase 6: Late Romano-British or Saxon (AD 250-1066) by VAUGHAN BIRBECK

An unusual prone burial, cut into the upper fills of the Phase 5 enclosure ditch 1132, but otherwise undated, is the only feature included in this phase. However, activity of later Romano-British date is represented by 3rd- and 4th-century AD finds recovered from unstratified contexts, such as topsoil and modern disturbances.

Grave 1141 (Fig. 7), which was only 1.40 m. long, 0.30 m. wide and 0.50 m. deep, was cut into the upper fills of the large N.-S. enclosure ditch 1132. The skeleton (1124), that of an adult male, was lying in a very contorted, prone position, with the face pushed up against the SW. end of the grave cut. The arms were tight by the sides and the back arched so that the top of the skull was approximately 0.40 m. above the pelvis and the feet approximately 0.15 m. above it, giving the impression that the body had been forced into a grave which was rather too small for it.

The backfill of the grave comprised dark brown loamy sand with a substantial deposit of large limestone fragments overlying the legs and lower torso of the skeleton. As the grave was cut through relatively stone-free ditch fills, it is probable that the limestone fragments came from elsewhere on the site (there were outcrops of weathered limestone bedrock approximately 30 m. to the E.). This suggests that they may have been deliberately deposited on top of the body before the grave was fully backfilled.

Also of interest was a number of cattle vertebrae which were recovered from this grave, possibly indicating that part of an animal or a large joint of meat was deposited with the burial; alternatively, the bones may have derived from an earlier deposit within the ditch.

⁴¹ Timby, *op. cit.* note 35.

⁴² R. Philpott, *Burial Practices in Roman Britain* (BAR 219, 1991), 71-76.

⁴³ Peake, *op. cit.* note 10.

This inhumation is dated to the later Romano-British or Saxon period on the basis of its stratigraphic position, the known later Romano-British activity in the area, and the proximity of the Early Saxon cemetery, approximately 250 m. to the NW.⁴⁴ A single small sherd of Late Iron Age pottery recovered from the grave fill is certainly residual.

Discussion

Prone burials appear sporadically throughout the Roman period, becoming more common in the 4th century. They often show signs of coercion, where the position of the arms and shoulders suggest that the hands may have been tied behind the back, or indications of haste or carelessness. Such burials are often found in ditches and almost invariably lack grave furniture and coffins.⁴⁵ The skeleton in grave 1141 would fit well with such parallels.

Prone burials are not uncommon in the upper Thames area in the late Romano-British period and the practice also occurs in Anglo-Saxon cemeteries.⁴⁶ While it is probable that this burial is of either late Romano-British or Saxon date, the lack of cultural material from the grave precludes closer dating.

It has been postulated that prone burials of this kind may have been deliberately employed for those felt to be unusual, unpopular or who had offended against the norms of society and that the intention may have been to prevent the body rising to haunt the living.⁴⁷ It may be suggested that the deposit of large limestone fragments found above the skeleton could support this theory here.

Phase 7: Medieval (AD1066-1499) by VAUGHAN BIRBECK

Medieval activity was represented by several pits and unstratified finds in Area 11 and an irregular, curvilinear ditch in Area 9 (Fig. 2). This varied between 1.5 and 5 m. in width and between 0.30 and 0.90 m. in depth with irregular sides and base. Only a very small assemblage of medieval and earlier pottery was recovered from the fills of this ditch, and large quantities of charcoal were noted, especially towards the centre of its length within the area. The function of this feature is uncertain.

The pits in Area 11, the majority of which were grouped in the centre of the area (Fig. 3), varied considerably in size and form, from shallow, irregular scoops to large rectangular features up to 0.50 m. deep. The dating of these must be approached with caution, as most of the pits contained very few datable finds, and several pits in the same area which were dated to the post-medieval period also contained medieval pottery.

Discussion

The paucity of the archaeological and artefactual evidence recovered from the medieval features means that, whilst medieval activity and presumably settlement is indicated in the vicinity, the nature of the activity represented by the phase 7 features is uncertain.

Phase 8: Post-medieval and modern (AD 1500-present) by VAUGHAN BIRBECK

A group of post-medieval pits, some more than 1.0 m. deep although in general most were less than half this depth, was excavated in Area 11 (Fig. 3). The majority of these were clustered towards the NW. corner of the area. Only very small assemblages of finds were recovered from these features and their function is uncertain.

Plough furrows, representing the remnants of ridge and furrow earthworks, were revealed in Areas 4, 5, 6, 7, 9, 10 and 11. These varied between 0.05 and 0.20 m. in depth. The large curvilinear ditch in the SW. of Area 11, although undated, is assumed to be of post-medieval date, on the basis that it appears to represent a field boundary which divides two areas of post-medieval ridge and furrow on differing alignments (see Fig. 3).

Large areas of modern disturbance, probably the result of mechanical earthmoving for whatever purpose, were recorded in Areas 3, 4, 5 and 10. Ceramic land drain systems, of 19th- or 20th-century date, were encountered in Areas 9, 10 and 11. A series of undated intercutting ditches, aligned along the present parish boundary, in Area 1 are also assumed to be of either post-medieval or modern date.

⁴⁴ Scull, op. cit. note 4.

⁴⁵ Philpott, op. cit. note 42.

⁴⁶ M. Harman, T.I. Molleson and J.L. Price, 'Burials, Bodies and Beheadings in Romano-British and Anglo-Saxon Cemeteries', *Bull. Brit. Mus. Nat. Hist. (Geol.)* 35(3) (1981), 145-88.

⁴⁷ Philpott, op. cit. note 42.

Undated Features by VAUGHAN BIRBECK

Many features, especially in Areas 1, 2 and 11, contained no datable finds and exhibited no stratigraphic relationships with dated features. Where possible, these have been assigned to phases on the basis of feature type or proximity to dated activity and are dealt with in the appropriate phase descriptions. Many of the pits and a small number of irregular features of uncertain function in Area 11 (Fig. 3) could not be assigned to a definite phase, however, but are probably of medieval, post-medieval or modern date.

A large, irregular quarry pit, cut into a marine clay deposit on the E. side of Area 11, could only be dated to between the Middle Iron Age and the post-medieval periods, on the basis of its relationships with a phase 3 gully and a phase 8 plough furrow.

THE FINDS

COINS by NICHOLAS COOKE

Two Roman coins were recovered, both dating to the late 3rd or 4th centuries AD. The earlier is a Barbarous Radiate of AD 270-90, while the second is a copy of a 'Gloria Exercitus' coin of AD 330-45. Both coins are worn as well as corroded, suggesting that they may have been in circulation for some time prior to deposition. Both are common types on British sites. The Barbarous Radiate was recovered from the upper fill of ditch 1188, and is likely to be intrusive in this post-conquest context.

1. ON (Object Number) 10025, context 1190, ditch 1188, phase 5a.
 Issuer: Unknown C3 emperor (Barbarous Copy of)
 Obverse: Radiate bust r. Text: -Illegible. V. stylised engraving. Worn and corroded.
 Reverse: Standing fig. w/ ?staff. Badly corroded.
 Mint Mark: /
 Diameter: 13 mm.
 Metal/Denomination: ?Antoninianus
 Description: Irregular and damaged flan. Heavily worn and corroded 'Barbarous Radiate'.
 Date: AD 270-290
 References: /
2. ON 10027, context 1000, unstratified.
 Issuer: Unknown C4 Emperor
 Obverse: Illegible. Heavily worn and badly corroded.
 Reverse: 2 soldiers w/ 2 standards (Gloria Exercitus type). Text: Illegible. Worn and corroded.
 Mint Mark: /
 Diameter: 16 mm.
 Metal/Denomination: Cu Alloy *Follis*
 Description: Damaged ovoid flan, worn and corroded. Irregular flan and size suggest contemporary copy.
 Date: AD 330-345
 References: ?copy as LRBC I, 48

METALWORK by RACHEL EVERY

The metalwork comprises 155 iron, 12 copper alloy and two lead objects. The majority of the assemblage derives from stratified contexts. All objects (except lead) have been X-radiographed, and selected objects have been subjected to further conservation treatment (cleaning and/or stabilisation).

Copper Alloy

The copper alloy assemblage includes eight brooches, a seal box lid, and a possible stud or tack. With the exception of the stud/tack, recovered from an Early/Middle Iron Age context in Area 11, all these items are of 1st- or 2nd-century AD date. A post-medieval strapend and a modern buckle are not discussed further here.

Brooches

Three of the brooches are Nauheim-derivative types, all decorated, only one of which was well stratified. A brooch with a flat bow, slightly distorted but with pin and catchplate intact, was recovered from ditch 1417 (Fig. 10, 1). From the topsoil in Area 10 came a simple brooch with a solid catchplate and a narrow flat bow (Fig. 10, 2), and the third example, with a straight, narrow bow and simple catchplate, came from a modern

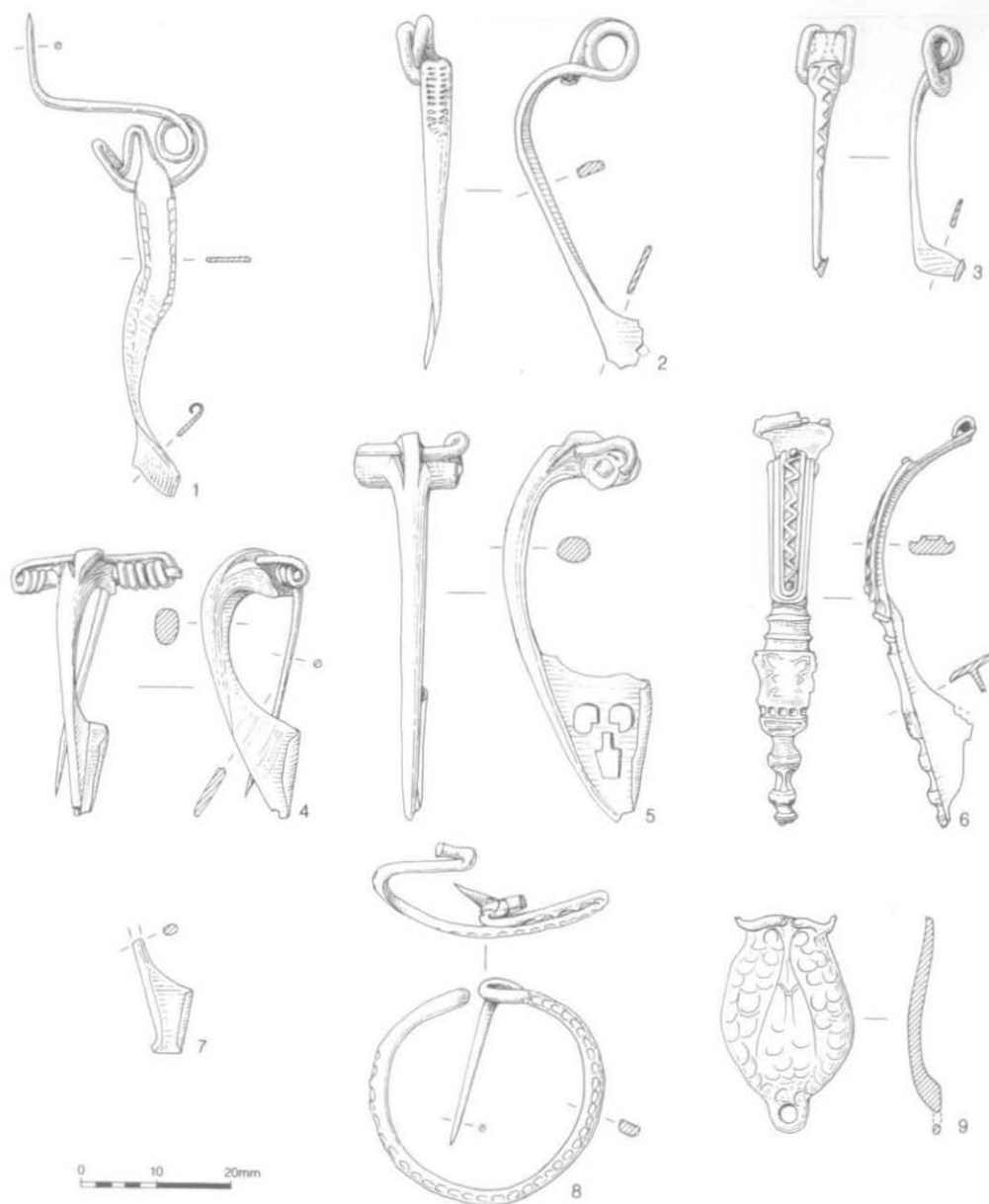


Fig. 10. Objects of copper alloy.

context in Area 7 (Fig. 10, 3). Decorated examples are common in Britain, although rare on the continent. At Camulodunum Nauheim-derivatives are no earlier than Claudian (Hawkes and Hull 1947, type VII); the type persisted until the end of the 1st century AD.⁴⁸

Two of the brooches are Colchester types. A complete example, although lacking the side wings covering the spring, was recovered from ditch 1188; this is a plain brooch with solid catchplate (Fig. 10, 4). An incomplete brooch, with a four-coil spring and pierced catchplate, lacking the pin, was recovered from ditch 1417 (Fig. 10, 5). The type was in use from the beginning of the 1st century AD to c. AD 60 (Hawkes and Hull 1947, type III).⁴⁹

A bow brooch of Hod Hill type was recovered from feature 718 (Fig. 10, 6). The catchplate is broken and the hinge and pin are missing. The narrow bow is decorated with bold cross mouldings with traces of a white metal plating. This is the simplest and commonest of the Hod Hill types, dated in this country AD 43 to c. AD 60-65.⁵⁰

In addition, a catchplate from a brooch of uncertain form came from the topsoil in Area 10 (Fig. 10, 7).

The eighth brooch is a penannular type, and came from gully 781 (Fig. 10, 8). With the terminals flattened and rolled back and a straight pin, this is an example of Fowler's type D brooches, which have a long currency from 1st century BC to the 2nd/3rd centuries AD.⁵¹

Other Objects

A probable seal box lid was an unstratified find in Area 4 (Fig. 10, 9). It is roughly ovoid, looped at one end; the body is decorated by rows of punched dots. At Colchester the dating evidence for this type of seal box is ambiguous although they are likely to be earlier (later 1st century AD?) than the enamelled examples of the 2nd and 3rd centuries AD.⁵²

A possible stud or tack, of uncertain date, was recovered from Iron Age enclosure ditch 5276 (phase 3d).

Iron

Of the 155 iron objects recovered, 23 from post-medieval or unstratified contexts (7 nails, 11 sheet/plate fragments, 3 strip fragments, a cleat, and a fitting) are not considered further here. The remainder of the assemblage consists largely of nails (62) and hobnails or studs (57). Other identifiable objects include a brooch, a stylus, a spatulate implement, and a cleat.

Brooch

A simple bow brooch was recovered from Late Iron Age ditch 520 (Fig. 11, 1). Part of the catchplate is present but the head and pin are missing. This is probably a La Tène III type, a Late Iron Age type which continued in use into the 1st century AD (Hawkes and Hull 1947, types II/III).⁵³

Styli/Spatulae

One definite stylus and two further styli or spatulae were identified; all incomplete. The positively identified stylus came from feature 718 (Fig. 11, 2). This has a shouldered, sub-square eraser, but without the point cannot be differentiated between Manning's types 1 and 2.⁵⁴

The other two objects, from pit 731 and a clearance layer respectively, have large blade-like ends (Fig. 11, 3, 4). These could fall within the group of variants from Manning's basic four-fold stylus classification, with large blade-like erasers, parallels for which are known from London in 1st-/early 2nd-century AD contexts, but are apparently extremely rare outside the capital.⁵⁵ Alternatively, these could be surgical spatulae, although the manufacture of these objects in iron would be unusual.⁵⁶

⁴⁸ C.F.C. Hawkes and M.R. Hull, *Camulodunum - First Report on the excavations at Colchester 1930-1939* (1947).

⁴⁹ Ibid.

⁵⁰ J.W. Brailsford, *Hod Hill, vol. 1. Antiquities from Hod Hill in the Durden Collection, British Museum* (1962), 9 and Fig. 8; N. Crummy, *The Roman Small Finds from Excavations in Colchester 1971-9* (Colchester Archaeol. Rep. 2, 1983), 10.

⁵¹ E. Fowler, 'The Origins and Development of the Penannular Brooch in Europe', *Proc. Prehist. Soc.* 26 (1960), 149-77.

⁵² Crummy, op. cit. note 50, Fig. 106, 2517.

⁵³ Hawkes and Hull, op. cit. note 48.

⁵⁴ W.H. Manning, *Catalogue of the Romano-British Iron Tools, Fittings and Weapons in the British Museum* (1985), Fig. 24.

⁵⁵ Ibid., Fig. 24, types 1a, 2a/3a, 4a.

⁵⁶ Ibid. pl. 34, L2-L5.

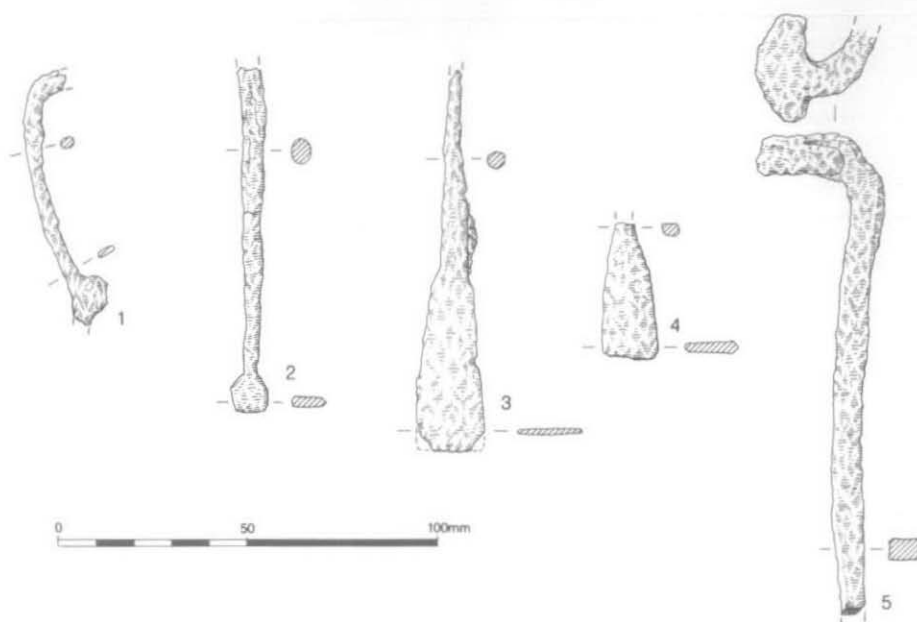


Fig. 11. Objects of iron.

Transport

A possible lynch-pin was recovered from feature 718 (Fig. 11, 5). It has a tapering square-sectioned stem with a spatulate head, which falls into Manning's type 2 Romano-British lynch-pins.⁵⁷

Nails and hobnails

All the nails came from Late Iron Age contexts or later, and comprise examples of Manning's types 1, 3 and possibly 5.⁵⁸ Ten examples of type 1 nails came from neonate grave 1344 (phase 5), and probably functioned as coffin nails; mineralised wood survives on most of these nails. The hobnails (Manning, type 10) and possible tacks/studs (Manning, type 8) came from contexts of similar date range, and include two groups (15 from ditch 717 and 23 from pit 731, both phase 5 features in Area 7).⁵⁹

Structural items

This category comprises a cleat (ditch 717), two possible holdfasts (pit 731, layer 865), and a possible hasp-plate (pit 731), all from early Romano-British (phase 5) contexts. None are closely datable types.

Miscellaneous objects

These comprise a thin circular object with a central perforation, from ditch/gully 863, and a small ring from pit 731.

Lead

The two lead objects recovered comprise an undated weight from the topsoil in Area 11, and a thin, square fragment from Iron Age gully 5188 (phase 3).

⁵⁷ Ibid. pl. 31, H40.

⁵⁸ Ibid. Fig. 32.

⁵⁹ Ibid.

List of illustrated objects

Fig. 10

1. Copper alloy brooch. ON 10015, Area 10, context 1010, ditch 1417, phase 5b
2. Copper alloy brooch. ON 10026, Area 10, context 1000, topsoil.
3. Copper alloy brooch. ON 10007, Area 7, context 704, modern.
4. Copper alloy brooch. ON 10016, Area 10, context 1011, ditch 1188, phase 5a.
5. Copper alloy brooch. ON 10039, Area 10, context 1403, ditch 1417, phase 5b.
6. Copper alloy brooch. ON 10006, Area 7, context 703, feature 718, phase 5.
7. Copper alloy brooch fragment. ON 10017, Area 10, context 1000, topsoil.
8. Copper alloy brooch. ON 10009, Area 7, context 726, gully 781, phase 5.
9. Copper alloy seal box lid. ON 10088, Area 4, context 400, topsoil

Fig. 11

1. Iron brooch. ON 10014, Area 5, context 502, ditch 520, phase 4.
2. Iron stylus. ON 10049, Area 7, context 705, feature 718, phase 5.
3. Iron stylus/spatula. ON 10012, Area 7, context 763, clearance.
4. Iron stylus/spatula. ON 10064, context 728, pit 731, phase 5.
5. Iron ?lynch-pin. ON 10077, Area 7, context 705, feature 718, phase 5.

METALWORKING EVIDENCE by PHIL ANDREWS

Small quantities of debris perhaps derived from metalworking were recovered from a few features of Late Iron Age and early Romano-British date. A high proportion of this consists of fragments of a light-coloured, very vesicular material, possibly fuel ash slag from iron smithing.

FLINT by P.A. HARDING

The flint artefacts have provided evidence of the earliest prehistoric activity on the site. The excavated material has been catalogued and tabulated by area and context type (Table 1). The results show that the density of flint is low across the entire site, with the largest concentration recovered from within an area of sandy geology in Area 11. This flintwork was collected from eleven test pits across probable tree throw hollows and comprised a blade/let industry of Mesolithic date (see above). Most of the remaining flint was recovered from pits and linear features of Iron Age and Romano British date. The technology, condition and associated retouched material, which includes a 'bruised edge' blade (*lame mâchurée*) of Late Glacial date (see above), indicates that this material is multiphase and likely to be residual.⁶⁰ Some pieces are stained while others are patinated or unpatinated according to the local geological conditions. Edges often show damage consistent with having been in plough soil. Flint is not native to the site and was probably introduced from the chalk scarp, 5 km. to the E.

Residual material

The ditch, pit and gully fills contained redeposited Mesolithic artefacts together with pieces from a range of other periods. The cores contrasted with those from the Mesolithic contexts and comprises small, irregular, unprepared flake cores, many of which may not have produced usable tool blanks. Diagnostic tools of Neolithic and Bronze Age date include a broken leaf arrowhead and well made triangular flaked knife from Area 10, and a flake from a ground flint axe from Area 11. The scrapers are mainly undiagnostic end scrapers made on flakes.

⁶⁰ J.P. Fagnart, 'Nouvelles observations sur le gisement paléolithique supérieur de Belloy-sur-Somme (Somme)', *Gallia Préhistoire*, 34 (1992), 57-83.

TABLE 1. FLINT TOTALS

SSD	Context type	blade core	bladelet core	flake core	core frag	blade blade	broken blade	bladelet bladelet	broken bladelet	flake flake	broken flake	crested	core rejuv	microlith	micro- burin	chip	scraper	other tool	burnt worked
Area 2	all contexts									1	1					1			
Area 3	all contexts						1			2	2								
Area 5	all contexts									1									
Area 7	all contexts					4	4		1	6	3								3
Area 9	all contexts									1	2					1			1
	<i>Areas 2-7</i>	0	0	0	0	4	5	0	1	10	9	0	0	0	0	2	0	0	4
Area 10	cleaning									1				1				1	
	topsoil									1	1								
	ditch fills			2	1	1	9		2	17	30					5		1	3
	ditch/gully										1								
	gully fills						1			1	3					1	1		
	pit fills						3		2	5	7	1		1		1	1		
	pit/hearth					1				1									
	test pits					1				1	1					4			
	<i>Area 10 sub-total</i>	0	0	2	1	3	13	0	4	27	43	1	0	2	0	11	2	2	3
Area 11	cleaning									1									
	surface finds	1					1		1					1					
	SAC unit	2	1		3	5	5	5	10	27	44	1		1		17	2	4	10
	test pits	3	2	2	4	19	32	10	37	57	107	8	1	4		77	3	7	115
	ditch fills				4	3	3	2		18	21					4	3		5
	ditch/gully									1	1						1	2	1
	gully fills			1			1				1					1			
	pit fills		1	3	3	3	2		3	12	15		1		1	7		3	4
	pit/quarry															1			
	grave fills								1	2									
	ridge+furrow						2			2	1								
	tree throws					1	1			5	3					1			
	natural features																		
	<i>Area 11 sub-total</i>	6	4	6	14	31	47	17	52	125	194	9	2	6	1	109	8	16	135
	TOTALS	6	4	8	15	38	65	17	57	162	246	10	2	8	1	122	10	18	142

WORKED STONE by RACHEL EVERY

The worked or utilised stone recovered comprises eight objects: two querns, two rubbers, two whetstones and two other objects.

Querns and rubbers

A complete rotary quernstone (Fig. 12, 1), in coarse sandstone, was recovered from pit 5030 in Area 11. This is a well finished example with a concave upper surface. There are two handle sockets, one rectangular slot cut into the top, and a side opening which exits through the base. A further quern fragment, also sandstone, of unknown form, came from ditch 5276 (phase 3d).

Two rubber stones, both in fine-grained sandstones, came respectively from pit 5053 (phase 3) and gully 1254 (phase 5a).

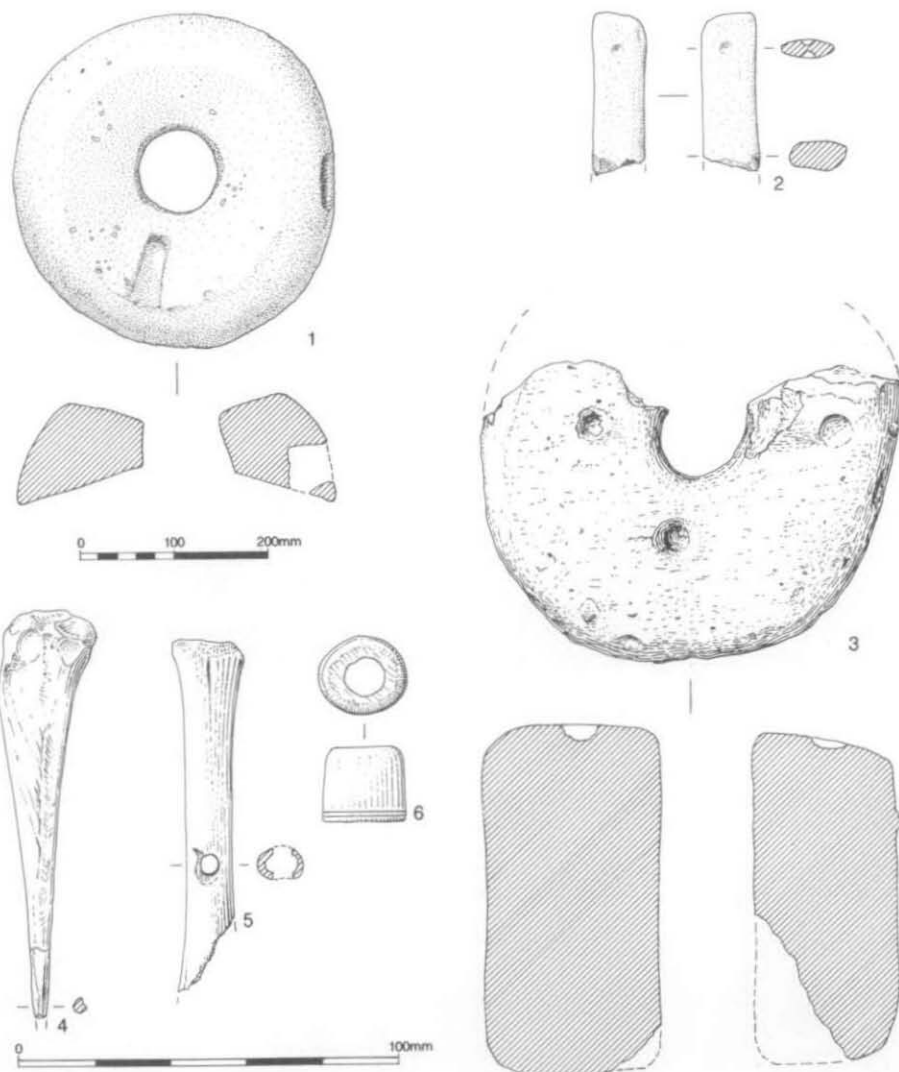


Fig. 12. Objects of stone, fired clay and worked bone.

Whetstones

Two fragments of whetstone, both in fine-grained sandstones were recovered. The first was from possible pyre base 866, the second from the topsoil in Area 10. The latter has drill holes on opposing faces, from an unfinished perforation (Fig. 12, 2).

Other objects

One fragment of limestone from ditch 1132 (phase 5b) has a perforation and could possibly have been utilised as a loom – or thatchweight. A possible stone counter was recovered from ditch 1266 (phase 5a).

List of illustrated objects (Fig. 12)

1. Quernstone. ON 10032, Area 11, context 5031, pit 5030, phase 3.
2. Whetstone. ON 10019, Area 10, context 1000, topsoil.

GLASS by LORRAINE MEPHAM

Three small fragments of vessel glass were recovered from Romano-British (phase 5) contexts in Area 7: one from ditch 717 and one from possible pyre base 866. All three are in a similar strong yellow-brown colour, and could conceivably derive from the same vessel. The form is unknown, but such strongly coloured glass was common in the 1st and early 2nd centuries AD.

POTTERY by M. LAIDLAW

The pottery assemblage from Watchfield consists of 6,701 sherds (59,218 g.) The pottery assemblage is divided into three main chronological periods: Iron Age, Romano-British and later (including medieval and post-medieval); only the Iron Age and Romano-British pottery is discussed in detail here.

Methods

The Iron Age and Romano-British pottery was analysed using the standard Wessex Archaeology pottery recording system, which follows nationally recommended guidelines.⁶¹ On the basis of dominant inclusion types the assemblage was divided into seven broad fabric groups: Group C (calcareous), Group D (leached), Group F (flint tempered), Group G (grog tempered), Group Q (sandy), Group S (shell tempered) and Group E ('established' wares of known type or source). These groups were then subdivided into separate fabric types dependent on the frequency and size of the inclusions. Terms describing the frequency of inclusions in the following fabric descriptions are defined as follows: rare (1-3%), sparse (3-10%), moderate (10-20%), common (20-30%) and abundant (40-50%). Pottery fabric totals are listed in Tables 2 and 5.

Pottery has been quantified by fabric type within each context, recording details such as surface treatments, decoration and evidence of use such as surviving residues or sooting. A type series was created for all diagnostic rim forms, and the correlation of vessel forms to fabric types is presented in Tables 3 and 6. The data gathered were entered on to a Microsoft Access database and full records exist in archive.

*Iron Age pottery*Fabrics

The Iron Age fabrics fall into six groups based on dominant inclusion type, and include 26 separate fabric types, plus one fabric of known type. Two of the fabric groups are calcareous (limestone- and shell-tempered fabrics), and the leached fabrics of Group D were almost certainly also originally calcareous.

Towards the end of this period, the distinction between native Late Iron Age and 'Romanised' wares is not always clear-cut, for example, between Q1 and the Romano-British sandy fabric Q101 (see below), or the grogged fabrics G2 and G101, particularly when diagnostic forms or associated fabrics within features were absent.

⁶¹ E.L. Morris, *The Analysis of Pottery, Wessex Archaeology Guideline 4, Salisbury: PCRG 1997, The Study of Later Prehistoric Pottery: General Policies and Guidelines for Analysis* (Prehist. Pottery Res. Gp. Occas. Papers 1-2, revised, 1994).

Limestone-tempered fabrics

- C1 Soft, moderately fine fabric containing abundant, poorly-sorted, sub-angular limestone <4 mm. (mainly <0.5 mm.).
- C2 Hard, fine fabric containing sparse, well-sorted, well-rounded oolitic limestone <1.5 mm.; sparse, well-sorted, well-rounded limestone <1.5 mm.
- C3 Hard, irregular fabric containing common, well-sorted, well-rounded limestone <3 mm.; moderate, well-sorted, well-rounded oolitic limestone 1.5 mm.; sparse, poorly-sorted shell <1.5 mm.
- C4 Hard, fine fabric containing common, well-sorted, rounded quartz <0.5 mm.; sparse, moderately-sorted, well-rounded limestone 3 mm.; sparse shell <3 mm.
- C5 Hard, fine fabric containing moderate, poorly-sorted, well-rounded limestone <8 mm. (mainly <1 mm.); sparse, well-sorted, rounded quartz <1 mm.
- C6 Hard, fine fabric containing sparse, well-sorted, sub-angular limestone <1.5 mm.; sparse, well-sorted, rounded quartz grains <1 mm.; sparse, well-sorted, angular quartz <2 mm.; rare iron oxide.
- C7 Moderately soft, fine fabric containing sparse, well-sorted, well-rounded limestone <1.5 mm.; sparse, rounded grog <1.5 mm.; rare shell <2 mm.

Leached fabrics

- D2 Hard, fine fabric containing moderate, well-sorted, rounded voids <2 mm. (probably leached limestone).
- D3 Soft, fine fabric containing sparse to moderate, poorly-sorted, sub-rounded voids <4 mm. (probably leached shell).

Flint-tempered fabrics

- F1 Hard, fine fabric containing moderate, well-sorted, angular calcined flint <5 mm.; rare quartz <0.25 mm.
- F2 Hard, fine fabric containing sparse, moderately-sorted, angular flint <3 mm.
- F3 Very hard, fine fabric containing sparse, well-sorted, angular flint 5 mm.; sparse, well-sorted, rounded quartz <0.25 mm.
- F4 Very hard, fine fabric containing common, well-sorted, angular flint <1.5 mm.; sparse, well-sorted, rounded quartz 0.5 mm.; rare, well-sorted, rounded grog/clay pellet <2 mm.
- F5 Hard, fine fabric containing sparse, moderately-sorted, angular flint <4 mm.; sparse, well-sorted, rounded quartz grains <1 mm.; sparse iron oxide.
- F6 Very hard, fine fabric containing sparse, poorly-sorted, angular flint 5 mm.; sparse, moderately-sorted, rounded grog <5 mm.; rare rounded quartz <0.25 mm.
- F7 Very hard, moderately-coarse fabric containing common, moderately-sorted, angular flint <3 mm.

Grog-tempered fabrics

- G1 Moderately hard, fine fabric containing rare, moderately-sorted sub-rounded grog <2 mm.; sparse rounded quartz grains 0.25 mm. (generally dark grey).
- G2 Catch-all fabric for soft, fine fabrics containing moderate, moderately-sorted, sub-rounded grog <4 mm. (variable colour).
- G3 Moderately hard, fine fabric containing sparse, moderately-sorted, rounded grog <4 mm.; sparse rounded quartz grains 0.25 mm.; rare, angular flint 5 mm.; rare mica flecks.

Sandy fabrics

- Q1 Very hard, moderately fine fabric containing moderate, well-sorted quartz <2 mm.; rare well-sorted, rounded glauconite 0.5 mm.
- Q2 Hard, fine fabric containing sparse to moderate, well-sorted, rounded quartz <0.5 mm.; rare possible glauconite.
- Q3 Very hard, fine fabric containing moderate, well-sorted, rounded quartz <0.5 mm.; rare, poorly-sorted grog <5 mm.; rare possible glauconite; rare iron oxide.
- Q4 Very hard, fine fabric containing sparse, moderately-sorted, sub-rounded quartz <0.5 mm.; rare, well-sorted, angular flint <2 mm.

Shell-tempered fabrics

- S1 Hard, moderately irregular fabric containing moderate, poorly-sorted shell <10 mm.; rare, poorly-sorted, rounded quartz <1 mm.
- S2 Hard, fine fabric containing sparse to moderate, fairly well sorted shell 0.5 mm.; rare, rounded quartz <0.25 mm.
- S3 Moderately soft, fine fabric containing common, moderately-sorted shell <3 mm.; rare, sub-rounded limestone <1 mm.

Fabric of known type/source

E251 Dressel 1b amphora

TABLE 2. POTTERY: QUANTIFICATION OF IRON AGE FABRIC TYPES

Fabric type	No.	Wt. (g.)	% of total (by weight)
<i>Limestone tempered</i>			
C1	402	2989	
C2	32	241	
C3	197	1600	
C4	17	107	
C5	5	69	
C6	10	107	
C7	31	324	
sub-total	694	5437	17.1
<i>Leached</i>			
D2	135	668	
D3	44	179	
sub-total	179	847	2.7
<i>Flint tempered</i>			
F1	34	281	
F2	54	500	
F3	52	478	
F4	28	198	
F5	2	3	
F6	8	256	
F7	75	689	
sub-total	253	2405	7.5
<i>Grog tempered</i>			
G1	382	2964	
G2	757	6532	
G3	41	518	
sub-total	1180	10014	31.4
<i>Sandy fabrics</i>			
Q1	200	1317	
Q2	392	3953	
Q3	31	484	
Q4	18	282	
sub-total	641	6036	18.9
<i>Shell tempered</i>			
S1	593	6115	
S2	54	516	
S3	3	30	
sub-total	650	6661	20.9
<i>Amphora</i>			
E251Dr 1b amphora	1	470	1.5
OVERALL TOTAL	3598	31870	

All fabrics apart from the amphora could have been at least relatively locally produced; the site overlies a subsoil of ferruginous sand and clay of the Corallian Beds which in turn overlies Corallian limestone, while to the south is Kimmeridge clay and Gault Clay of the Vale of the White Horse.⁶² Flint is not immediately local to the site, but could have been obtained from the chalk scarp 5 km. to the east.

Some fabrics exhibit a tendency to be better finished than others. These include the calcareous fabrics C2 and C7, the sandy fabric Q2 and the grog-tempered fabric G1, although burnishing as a surface treatment was not recorded until the latter part of the sequence, on Late Iron Age grog-tempered and sandy fabrics. The flint-tempered fabrics are generally well sorted. The coarser element is represented by the shelly fabric S1, on which finger-smearing is occasionally visible, and the limestone-tempered fabrics C1 and C5. There is, however, variation within most fabrics, and a strict division into 'coarsewares' and 'finewares' is impossible given the scarcity of diagnostic vessel forms.

Forms

Rim sherds and other diagnostic sherds (e.g. carinated sherds, handles, etc) were used to create the vessel type series. The Iron Age vessel forms are closely comparable to those recorded at Ashville and the correlation of form codes used for that site is given below.⁶³ The correlation of Iron Age fabrics and forms is given in Table 3.

- Form type 1: Jars of uncertain form with flat topped rims (Fig. 13, 1-3; Ashville form B0)
- Form type 2: Small, angular vessels with flared necks, generally well finished (Fig. 13, 4-7; Ashville C2)
- Form type 3: Larger shouldered vessels with flared necks; may have shoulder decoration (Fig. 13, 8-9; Ashville B1)
- Form type 4: Slack-shouldered or bucket-shaped vessels with upright or plain rounded rims (Fig. 13, 10-11; Ashville B2)
- Form type 5: Rounded jars or bowls, with upright rims, generally well-finished (Fig. 13, 12; Fig. 14, 13-17; Ashville D0)
- Form type 6: Handled jar, form unknown (Fig. 14, 18); one example only
- Form type 7: Lid (Fig. 14, 19); one example only, decorated
- Form type 8: High shouldered jars or bowls with beaded rims (Fig. 15, 22-3; Ashville G)
- Form type 9: Necked jars with high-shouldered profile (Fig. 15, 24-5; Ashville E)
- Form type 10: Cordoned jars or bowls with squat profiles (Fig. 15, 27-8)
- Form type 11: Amphora (Dressel 1b) (Fig. 14, 21)

The single amphora sherd is a rim fragment from a Dressel 1b type, stamped BA.

Decoration and surface treatment

Decoration throughout the assemblage is scarce. Fingertip or fingernail impressions are found on shoulders and rims in fabrics F2, F4, S1 and S2; where these can be linked to vessel form they occur on coarseware jars of type 3 (Fig. 13, 9). One of the angular vessels of type 2 (fabric Q2) is decorated with impressed dots, which have traces of possible white inlay (Fig. 13, 7); white inlaid decoration has also been recorded at Appleford.⁶⁴ One body sherd in fabric F4 has shallow impressed dots (Fig. 14, 20), and the single example of a lid has incised decoration (Fig. 14, 19). Traces of cordons or incised grooves were recorded, particularly on jars in the limestone-tempered fabric C1; vessels in the grog-tempered fabrics G1 and G2 are more elaborately cordoned and/or corrugated (Fig. 15, 27-8), and one of these has a base with a post-firing perforation (Fig. 15, 28).

Ceramic sequence and distribution

Within the overall Iron Age assemblage, a sequence can be discerned which highlights the shifting focus of activity across the site during this period. The earliest pottery within the sequence falls within an Early Iron Age ceramic tradition. This is characterised by a small range of angular and shouldered vessels (form types 1-4) in shelly and sandy fabric types, which occur in Area 11 (phase 3). The majority of the pottery from Area 11 came from the enclosure ditches. The largest concentrations were recovered from ditches 5107 (184

⁶² Scull, *op. cit.* note 4.

⁶³ De Roche, *op. cit.* note 23.

⁶⁴ J. Hinchliffe and R. Thomas, 'Archaeological Investigations at Appleford', *Oxoniensia*, 45 (1980), 9-111.

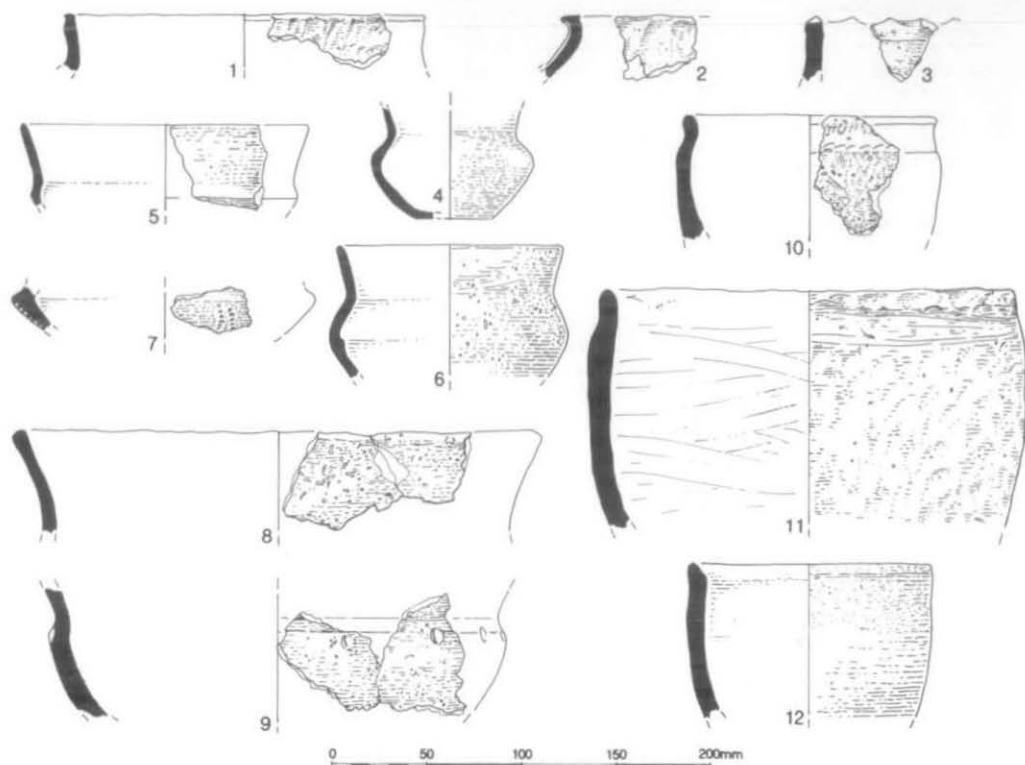


Fig. 13. Pottery.

sherds), 5214 (165 sherds) and 5213 (151 sherds). Moderate quantities were also recovered from ditches 5276 (75 sherds), 5333 (53 sherds), 5216 (40 sherds), 5032 (35 sherds) and 5334 (25 sherds).

The site is located between two of Cunliffe's Early Iron Age 'style zones': the All Cannings Cross-Meon Hill group to the south-west and the Long Wittenham-Allen's Pit group to the north-east, both with a date range of 5th to 3rd centuries BC.⁶⁵ The Watchfield assemblage seems to have more in common with the latter, particularly the later stages of the style in which the bowls become simpler and plainer (only one of the Watchfield angular vessels is decorated) and the coarseware jars become slacker-profiled.

The stratigraphic sequence within Area 11 (phases 3a – 3d; see Table 4), although producing little in the way of diagnostic vessel forms, shows the angular vessels and coarseware jars, present from phase 3a, augmented by more rounded vessels (form 5) from phase 3c. The single decorated lid (Fig. 14, 19) occurred in phase 3c and the single lug handle (Fig. 14, 18) in phase 3d. These new vessel forms are still in the same range of shelly and sandy fabrics, but have more in common with the Middle Iron Age ceramic traditions of Oxfordshire, which are dominated by rounded bowls as shown, for example, in Cunliffe's Stanton Harcourt-Cassington style zone.⁶⁶

The assemblage from Area 11, then, appears to fall at the transition from Early to Middle Iron Age ceramic traditions. Comparable groups are recorded from sites to the north and east at Appleford, Watkins Farm, phases I/II at Farmoor; periods 1/2 at Ashville and, to the west, Groundwell Farm in north Wiltshire.⁶⁷ While

⁶⁵ Cunliffe, *op. cit.* note 27, Figs. 4.4, A6, A10.

⁶⁶ *Ibid.*, fig. A22.

⁶⁷ C.D. De Roche and G. Lambrick, 'The Iron Age Pottery', in Hinchliffe and Thomas, *op. cit.* note 64, pp. 45-59; T.G. Allen, *An Iron Age and Romano-British Enclosed Settlement at Watkins Farm, Northmoor, Oxon.* (Thames Valley Landscapes: The Windrush Valley, 1990); Lambrick, *op. cit.* note 23; De Roche, *op. cit.* note 23; Gingell, *op. cit.* note 28.

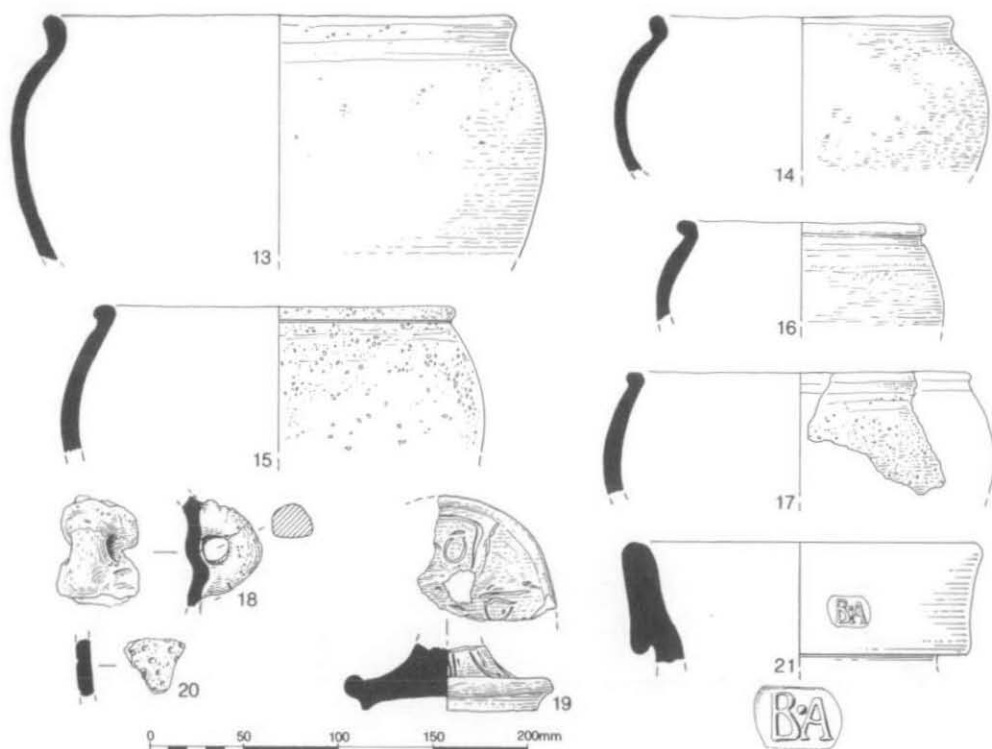


Fig. 14. Pottery.

the angular forms could be dated as early as mid-6th century by comparison with period 1 at Ashville and phase I at Farmoor, there are no examples at Watchfield of the expanded rim vessels which are found in the earliest phases at Ashville and Farmoor, and a more restricted date range of 5th to 3rd or, more probably, 4th to 3rd centuries BC is therefore proposed for the Area 11 assemblage.

The assemblages from Areas 4, 5 and 10 appear to continue the ceramic sequence from Middle to Late Iron Age (see Table 4). Area 10 produced the largest assemblage, but all three areas yielded similar assemblages: mainly rounded vessels (form 5) accompanied by a few coarseware jars (forms 3-4) in a range of calcareous (limestone-tempered), flint-tempered and sandy fabrics. There are no angular vessels. In each area, however, these vessels, which mark the continuation of the Middle Iron Age ceramic tradition, occur together with fabrics and forms which can be regarded as more properly belonging to the Late Iron Age – bead-rimmed vessels (form 8) and necked jars (form 9) in grog-tempered and sandy fabrics, often quite well finished although still handmade, and occasionally cordoned (form 10). A good example is the group from ditch 1170, which also contained the stamped Dressel 1b amphora rim (Fig. 14, 13, 14, 21; Fig. 15, 22, 24). A date range no earlier than the 1st century BC, and probably extending at least into the early part of the 1st century AD, is therefore proposed for these assemblages.

There is, then, a clear distinction (and an apparent chronological hiatus) between the Area 11 assemblage and those from Areas 4, 5 and 10. In terms of fabric, limestone has replaced shell as a temper, and both flint and grog are in use as tempering agents; in terms of vessel form, although the rounded forms and shouldered jars continue, new bead-rimmed, necked and cordoned vessels have been introduced. This can be seen as comparable to developments at Ashville, where the quantities of shell-tempered fabrics decrease from period 1 to 3 and the angular forms of period 2 are replaced by necked jars in period 3, although at the latter site the sequence appears to be continuous.⁶⁸ The colour of sherds at Ashville is variable in periods 1 and 2 but

⁶⁸ De Roche, *op. cit.* note 23.

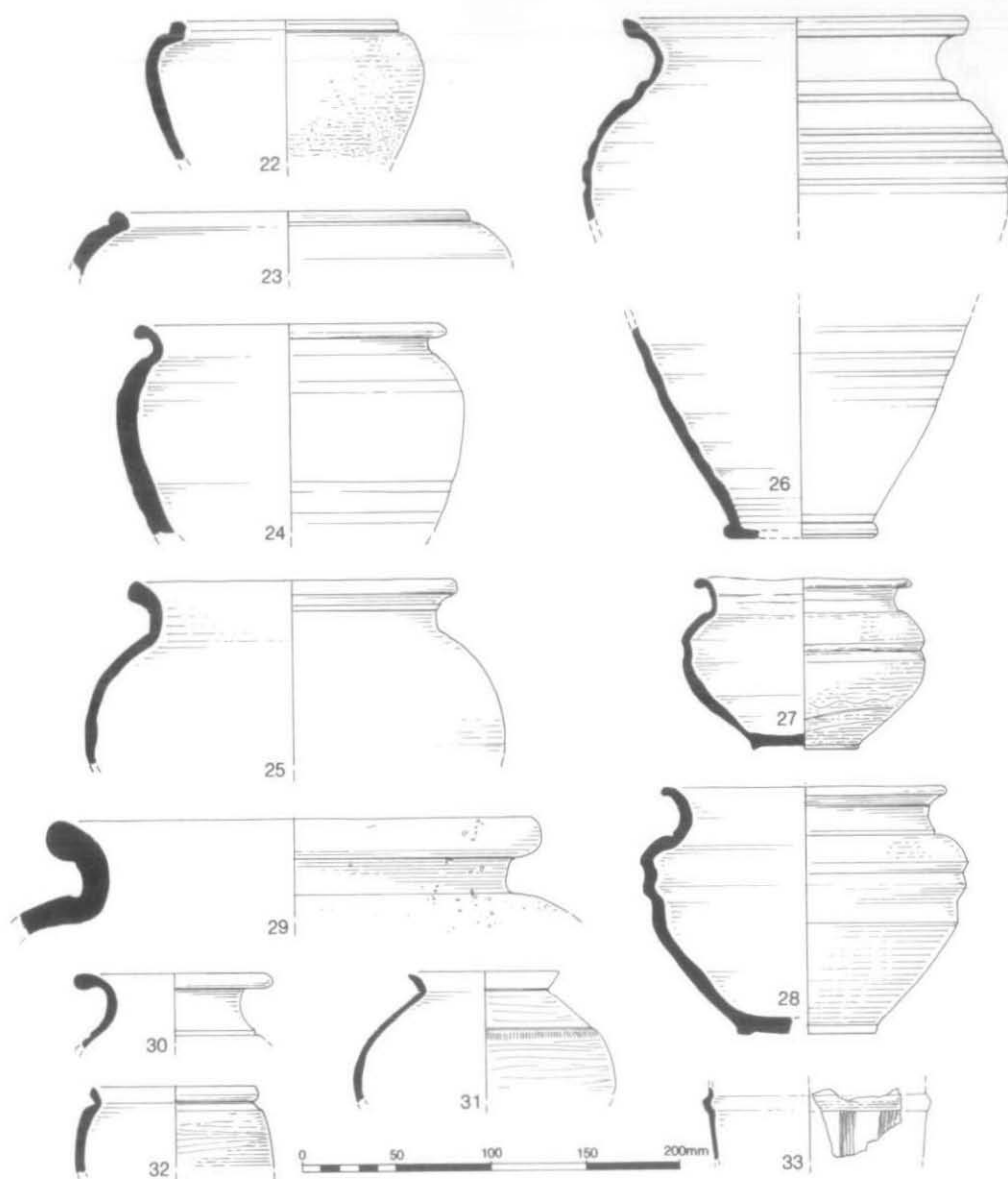


Fig. 15. Pottery.

TABLE 3. POTTERY: IRON AGE VESSEL FORMS

	FABRICS		Shelly		Sandy				Limestone-tempered					Flint-temp.			Grog-temp.		
Forms	S1	S2	Q1	Q2	Q3	Q4	C1	C2	C3	C6	C7	D2	F1	F2	F4	G1	G2	G3	
1: Jar, flat-topped rim	1	1												1					
2: Small angular vessel				3															
3: Larger shouldered vessel	2				1														
4: Slack-shouldered vessel	1			2															
5: Rounded vessel	1	1	1	1						1									
6: Handled jar																			
7: Lid				2													1		
8: High-shouldered, bead-rimmed vessel						1	6	1	1	2		1		2	1	9	5	3	
9: High-shouldered, necked jar	1		4				5	1	1				1			12	16	1	
10: Cordoned vessels											1					1	1		
TOTAL	6	2	5	8	1	1	11	2	2	3	1	1	1	3	1	22	23	4	

TABLE 4. POTTERY: IRON AGE POTTERY (AREAS 10 AND 11) BY PHASE (No./Wt. in grammes)

Fabric	AREA 11					AREA 10
	3a	3b	3c	3d	3 unspc.	4
S1	98 / 993 <i>form 3</i>	44 / 394	171 / 2169 <i>forms 1, 4</i>	170 / 1664 <i>form 5</i>	40 / 182	
S2	4 / 45	1 / 13	8 / 101	19 / 137	3 / 9	
S3				3 / 30		
Q1	2 / 16		46 / 487 <i>form 5(x2)</i>	30 / 175	17 / 70	13 / 86 <i>form 9</i>
Q2	14 / 80 <i>form 7</i>	7 / 51	155 / 2325 <i>forms 2, 5(x2), 7</i>	69 / 801 <i>form 5</i>	25 / 138 <i>form 3</i>	24 / 58
Q3				7 / 72	11 / 77 <i>form 3</i>	1 / 3
Q4						
C1			1 / 15	5 / 104	1 / 3	26 / 644 <i>form 9(x2)</i>
C2			2 / 78		2 / 7	1 / 10
C3	12 / 50	12 / 78	33 / 199	7 / 81		8 / 76 <i>form 9</i>
C4			1 / 10			
C5						1 / 25
C6				1 / 13		
C7						
D1						
D2					12 / 26	
D3		1 / 5	15 / 44		14 / 74	3 / 12
F1					1 / 11	
F2	1 / 10		6 / 24 <i>form 1</i>	4 / 14	1 / 4	6 / 185 <i>form 10</i>
F3	1 / 20	1 / 10	1 / 2		4 / 35	9 / 195
F4			2 / 7	1 / 8		1 / 7
F5						2 / 3
F6						2 / 188 <i>form 10</i>
F7				1 / 22	4 / 138	
G1					14 / 33	54 / 527 <i>forms 8(x2), 9(x2)</i>
G2	7 / 34		8 / 37	6 / 72	3 / 15	147 / 1710 <i>form 9</i>
G3						6 / 67 <i>form 8</i>
TOTAL	139 / 1248	66 / 551	449 / 5498	323 / 3193	152 / 822	365 / 5033

in period 3 appears to be more consistent with the careful preparation of clays and firing conditions. This is paralleled at Watchfield with the introduction of darker, harder fired fabrics, and may reflect a more specialised, and perhaps more centralised mode of pottery production at this period. Certainly the popularity of grog-tempered fabrics prefigures the dominance of the large-scale Savernake/north Wiltshire grog-tempered industry of the 1st century AD and later (see below). The appearance of a tempering agent not immediately available locally (flint) may also be noted in this respect.

Further parallels may be found in the assemblage from Old Shifford Farm, Standlake.⁶⁹ In contrast to sites such as Farmoor and Watkins Farm, which appear to have been abandoned before the end of the 1st century BC, both Watchfield and Old Shifford Farm have produced a significant 'Belgic'-influenced assemblage of grog-tempered wares, attesting to occupation from the 1st century BC into the early part of the 1st century AD.

The largest quantity of Late Iron Age pottery was recovered from ditches within Area 10. A large number of sherds (148) was recovered from ditch group 1132 and included a large number of leached sherds deriving from a single rounded jar (form type 8). Within Area 5, a large quantity of pottery (293 sherds) came from ditch 520, dominated by rounded vessels in limestone-tempered fabric C1 and grog-tempered fabrics (Fig. 14, 16, 17; Fig. 15, 28). Other large to moderate quantities of pottery were recovered from ditches 1133 (68 sherds), 1266 (98 sherds), 1417 (74 sherds) and, within Area 5, 5107 (45 sherds). The most common vessels recovered from these ditches were necked jars (form type 9) and bead-rimmed jars (form type 8). The fabrics are predominantly grog-tempered although the sandy fabric Q1 was most noticeable in ditch 5107. A complete cordoned bowl (Fig. 15, 27) was found in pit 1121.

From Area 4, a complete vessel of form type 5 in fabric C3 (Fig. 14, 15) was recovered from pit 402 along with a similar grog-tempered vessel. These vessels are of note as they are both heavily spalled, the outer surfaces having almost completely flaked away. This could have resulted from misfiring, which has an implication for local production since such vessels are likely to have been deposited close to their place of manufacture; or, perhaps more likely, spalling may have been caused by exposure to frost.

Romano-British pottery

This part of the assemblage is characterised by the introduction of more 'Romanised' coarse- and finewares (wheelthrown, harder fired), although the continuation of the native Iron Age grog-tempered and flint-tempered traditions is apparent. The bulk of this pottery is dated from the mid 1st century to no later than the early/mid 2nd century AD, although a small quantity of later fabrics and forms are also present. Fabric totals are given in Table 5.

Finewares

The finewares from Watchfield are scarce but may be divided into imported and British finewares. Imported wares include one sherd of Dressel 20 amphora (1st – 3rd century AD; ditch 520), a small quantity of samian and one Rhenish ware sherd of Central Gaulish type (later 2nd century AD; ditch 1132).

Although 92 sherds of samian were recorded the majority are very small body sherds. Fabrics from both the Central and Southern Gaulish production centres are present and may be dated broadly to the late 1st century to early 2nd century AD on the basis of the few diagnostic vessel forms present. These include a Dr 33 cup from possible pyre site 867 and a Dr 18/31 platter from cleaning over ditch 864. Over half the samian sherds (47) were recovered from contexts in Area 7.

British finewares are very scarce and consist of one small colour-coated beaker rim from the New Forest production centre (later 3rd/4th century AD), a small quantity of Oxfordshire wares (oxidised, colour-coated and whitewares) with a similar date range, and a moderate quantity of fine oxidised sherds of unknown source (Q106). Many of the latter sherds are small and abraded; some may originate from the Oxfordshire kilns, or they could have been produced locally, another potential source being the colour-coated industry of Wanborough in north Wiltshire, dated to 125–40 AD.⁷⁰

Q106 Moderately soft, fine fabric containing sparse to moderate, well-sorted, rounded quartz <0.5 mm. ('catch-all' fabric for fine oxidised wares).

⁶⁹ Timby, *op. cit.* note 35.

⁷⁰ A.S. Anderson, *The Roman Pottery Industry in North Wiltshire* (Swindon Archaeol. Soc. Rep. 2, 1979).

TABLE 5. QUANTIFICATION OF ROMANO-BRITISH FABRIC TYPES

Fabric type	No.	Wt. (g.) (by weight)	% of total
<i>Finewares</i>			
Amphorae	1	94	
Samian	92	215	
Rhenish ware	1	1	
Mortaria	5	265	
New Forest colour coat	1	5	
Oxfordshire colour coat	2	8	
sub-total	102	588	2.3
<i>Coarsewares</i>			
Flint-tempered			
F100	11	59	
F101	4	22	
sub-total	15	81	0.3
Grog-tempered			
G100	271	5635	
G101	290	2720	
G102	158	3540	
G103	37	309	
sub-total	756	12204	46.8
Sandy			
Black Burnished ware	514	3345	
Q100	42	393	
Q102	333	2047	
Q102	850	5134	
Q103	45	472	
Q104	152	1188	
Q105	28	174	
Q106	81	271	
Q107	17	51	
Q108	19	100	
sub-total	2081	13175	50.6
OVERALL TOTAL	2954	26048	

Coarsewares

Coarsewares were divided into four main fabric groups; wares of known source, grog-tempered, flint-tempered and sandy wares. The wares of known source are represented by the Black Burnished ware industry from the Poole harbour area of Dorset (E100). Within the other three groups the fabrics are subdivided mainly into broad 'catch-all' fabric types with products from more than one production centre. Each fabric type covers a broad range in variation including the size and frequency of inclusions and the firing conditions. The grog-tempered fabrics in particular are likely to represent variants from a known source.

Grog-tempered fabrics

- G100 Very hard, moderately fine fabric, containing moderate to common, poorly-sorted, sub-rounded grog <8 mm. (mainly 0.5 mm.); rare, rounded quartz grains 0.5 mm.; rare iron oxide. (Generally pale grey)
- G101 Soft, fine fabric containing moderate, moderately-sorted, sub-rounded grog <3 mm. (mainly 1 mm.); sparse, rounded quartz 0.5 mm. (Variable colour)
- G102 Soft, moderately fine fabric containing moderate, moderately-sorted sub-rounded grog <4 mm.; sparse, rounded quartz 0.5 mm. (Generally pinky orange)
- G103 Moderately hard, fine fabric containing sparse, moderately-sorted, sub-rounded grog <3 mm.; rare, rounded quartz 0.25 mm. (Distinctive orangey brown internal surface and dark grey external surface).
- G104 Moderately soft, fine fabric containing poorly-sorted, sub-rounded grog <3 mm. (mainly 0.5 mm.); rare rounded quartz <0.25 mm.).

Sandy fabrics

- Q100 Hard, fine fabric containing common, well-sorted, sub-rounded quartz 0.25 mm.; sparse black iron oxide. (Catch-all fine sandy fabric, hard fired and generally pale grey)
- Q101 Hard, moderately coarse fabric containing common, well-sorted, rounded quartz <1 mm. (Pale to dark grey)
- Q102 Hard, fine fabric containing sparse, moderately-sorted, rounded quartz 0.5 mm. (Catch all fabric for fine sandy greywares)
- Q103 Very hard, coarse fabric containing moderate, moderately-sorted, rounded quartz <3 mm. (Catch all fabric for coarse greywares)
- Q104 Very hard, moderately coarse fabric containing common, well-sorted, rounded quartz <0.5 mm. White.
- Q105 Moderately soft, fine fabric containing moderate, well-sorted, rounded quartz 1 mm.; sparse mica flecks. (Distinctive fabric with dark and clear rounded quartz grains mainly on surfaces, orange core)
- Q107 Soft, very fine fabric containing sparse rounded quartz <0.25 mm.; sparse mica flecks. (Catch all fabric for fine greywares)

Flint-tempered fabrics

- F100 Hard, fine fabric containing sparse, well-sorted, angular flint <2 mm.; sparse rounded quartz <0.25 mm.
- F101 Hard, coarse fabric containing sparse, well-sorted, angular flint <8 mm.; moderate, well-sorted, rounded quartz <1 mm.

Fabric of known type

- E100 Black Burnished ware of Poole Harbour origin (BB1). For description see Seager Smith and Davies (1993).

The grog-tempered fabrics discussed here are more 'Romanised' in nature, and are generally harder fired than the Late Iron Age grog-tempered fabrics described above. However, in some cases it was difficult to differentiate small non-diagnostic body sherds without associated material, particularly between the fabrics G2 and G101. Fabrics G100, G101 and G104 probably represent Savernake ware or its variants and are comparable to fabric 1 as identified at the Oare production site.⁷¹ The other fabrics are likely to be locally

⁷¹ V.G. Swan, 'Oare Reconsidered and the Origins of Savernake Ware in Wiltshire', *Britannia*, 6 (1975), 36-51.

produced from other kiln sites in north Wiltshire. The dating of the Savernake wares and other grog-tempered variants is debatable, since the generally accepted post-conquest dating for the industry has recently been challenged, and a pre-conquest origin proposed (Hopkins 1999); even the more 'Romanised' fabric 1 identified at Oare has been found in apparently pre-conquest contexts.⁷²

The seven sandy fabrics consist mainly of catch-all groups ranging from very fine (Q107), fine (Q100 and Q102), moderately coarse (Q101) to coarse (Q103). These 'catch-all' groups are likely to consist of fabrics from different sources, although most are likely to have been at least fairly locally produced. Known sites in north Wiltshire producing similar grey wares from the late 1st century well into the 2nd century AD include Whitehill Farm, Toothill Farm and Purton.⁷³ Similar grey wares were also being produced in the Oxfordshire region, and the white sandy fabric Q104 is similar to the Oxfordshire white wares.⁷⁴

Two flint-tempered fabrics were identified and include one fine and one very coarse variant. As for the grog-tempered fabrics, these represent the continuation of the native Late Iron Age potting tradition.

Forms

New vessel forms are introduced within this period (see Table 6); vessel forms 8-10 continue from the Late Iron Age but now occur in 'Romanised' fabric types (Fig. 15, 23, 26, 29). By far the most common vessel form of this period is the necked jar (type 10) in a range of sizes. These vessels occur predominantly in the greyware fabrics Q101 and Q102, and in the grog-tempered Savernake-type fabrics; the larger, thick-walled storage jar forms are restricted to the grog-tempered fabrics (Fig. 15, 29). Smaller jars or beakers are restricted to finer fabrics (Fig. 15, 31-3). There are also a large number of Black Burnished ware everted rim jars.⁷⁵ A moderate number of bowls or dishes were also recorded in Black Burnished ware. Less common vessel forms present include one platter, one lid-seated jar, one pulley-wheel rim and one flagon.

Ceramic sequence and distribution

The ceramic sequence continues in Area 10 from the Late Iron Age assemblage described above, and the stratigraphic sequence here enables a two-fold chronological division (phases 5a and 5b; see Table 7). The coarsewares in phase 5a are dominated by grog-tempered wares in a range of jar and bowl forms, with a smaller proportion of sandy wares, including Romanised greywares. There is very little samian from this area (four sherds) and indeed very little in the way of demonstrable regional imports, beyond a handful of sherds of Black Burnished ware, and a whiteware beaker (Fig. 15, 31). This sub-phase is therefore unlikely to date much beyond the end of the 1st century AD, although a later date could be argued on the basis that the inhabitants may have had restricted access to, or no interest in Romanised goods – certainly many of the Thames Valley sites to the north-east appear to retain their native character perhaps as late as the early 2nd century AD.⁷⁶

By phase 5b, the transition from a native to a Roman economy is more apparent. The sandy coarsewares have increased at the expense of grog-tempered wares, there is more Black Burnished ware (although still only 24 sherds) and more samian (39 sherds), as well as a single sherd of Rhenish ware. The pottery from this sub-phase extends the date range of occupation in Area 10 into the early 2nd century AD.

The assemblage from Area 7, while probably overlapping chronologically with Area 10, is by contrast almost completely Romanised (see Table 7). The grog-tempered wares are still present, although in small quantities, and the assemblage is dominated by sandy coarsewares, mainly greywares. The proportion of Black Burnished ware is much higher (426 sherds), and there is more samian (46 sherds). Within Area 7, pottery was concentrated in feature 718 and in ditch 717. The ditch group contained a large quantity of Black Burnished ware including everted rim jars (mid 1st/2nd century AD), and flanged bowls (2nd/3rd century AD); one example of a dropped-flange bowl (mid 3rd/4th century AD) is likely to be intrusive in an upper fill. Flanged bowls were also recovered from feature 718, ditch 760 and pit 731 – while these forms could extend

⁷² K. Annable, 'A Romano-British Pottery in Savernake Forest: Kilns 1-2', *Wilt. Archaeol. Nat. Hist. Mag.* 58 (1962), 142-55; Swan, op. cit. note 71; R.W. Hopkins, 'Savernake ware: a Reassessment of the Evidence' (Univ. Bristol unpubl. dissertation, 1999).

⁷³ Anderson, op. cit. note 70.

⁷⁴ C. Young, *Oxfordshire Roman Pottery* (BAR 43, 1977).

⁷⁵ R. Seager Smith and S.M. Davies, 'Roman Pottery', in P.J. Woodward, A.H. Graham and S.M. Davies, *Excavations at Greyhound Yard, Dorchester 1981-4* (Dorset Nat. Hist. Archaeol. Soc. Mono. 12, 1993), 202-89; type 1: mid 1st/2nd century AD.

⁷⁶ Timby, op. cit. note 35, p. 129.

TABLE 6. POTTERY: ROMANO-BRITISH VESSEL FORMS

FABRICS	Flint-temp.		Grog-tempered					Sandy coarsewares							
	F100	F101	G100	G101	G102	G103	BB1	Q100	Q101	Q102	Q103	Q104	Q105	Q106	Q107
Bead rim jar	1		11	8	2										
Necked jar	1	1	2	2	1	2	3	3	7	13	1				
Cordoned vessel			8		2			1							
Everted rim jar	1		3	3	1		24	2	8	19	2	1	1	1	
Small jar/beaker							2			3		3		1	1
Platter				1					1					1?	
Flagon								1							
TOTAL	3	1	24	14	6	2	29	7	16	35	3	4	1	3	1

TABLE 7. POTTERY: ROMANO-BRITISH POTTERY (AREAS 7 AND 10) BY PHASE
(No./Wt. in grammes)

Fabric	AREA 10		AREA 7
	5a	5b	5 unspecified
G1	150 / 922 <i>NJ(x5), BRJ(x4)</i>	125 / 986 <i>NJ(x4), BRJ</i>	
G2	57 / 451 <i>NJ(x3)</i>	191 / 1611 <i>NJ(x2), BRJ</i>	
G3	20 / 301 <i>BRJ</i>	16 / 159 <i>BRJ, NJ</i>	
F100	2 / 6 <i>BRJ</i>	7 / 44 <i>NJ</i>	2 / 9 <i>ERJ</i>
F101	2 / 10 <i>NJ</i>	1 / 5	1 / 7
G100	73 / 1071 <i>ERJ, NJ(x2), BRJ(x6)</i>	114 / 2359 <i>ERJ(x2), NJ(x4), BRJ(x3)</i>	41 / 1182 <i>NJ</i>
G101	72 / 544 <i>BRJ(x3), ERJ</i>	120 / 1047 <i>ERJ(x3), NJ(x2), BRJ(x5)</i>	60 / 830 <i>D/BOWL</i>
G102	29 / 294 <i>BRJ, ERJ</i>	63 / 926 <i>BRJ</i>	39 / 960 <i>NJ</i>
G103	9 / 26	23 / 275 <i>NJ(x2)</i>	5 / 8
Q100	20 / 85 <i>NJ(x2), ERJ</i>	16 / 164 <i>NJ, ERJ, FLAG</i>	
Q101	103 / 657 <i>NJ(x2), ERJ</i>	135 / 855 <i>NJ(x5), ERJ(x2)</i>	40 / 229 <i>FB, ERJ</i>
Q102	58 / 416 <i>J/BEAK(x3), ERJ(x2)</i>	310 / 2525 <i>NJ(x8), ERJ(x3), J/BEAK</i>	373 / 1617 <i>NJ(x4), ERJ(x11), D/BOWL</i>
Q103	2 / 11	35 / 372 <i>NJ, ERJ(x2)</i>	5 / 64
Q104	11 / 116	141 / 1072 <i>ERJ, J/BEAK(x3)</i>	
Q105		28 / 174 <i>ERJ</i>	
Q106	10 / 20	18 / 85 <i>J/BEAK, ERJ</i>	37 / 118 <i>ERJ</i>
Q107		15 / 46 <i>J/BEAK</i>	2 / 5
Q108	6 / 12	12 / 82	
BB1	6 / 102 <i>D/BOWL</i>	24 / 130 <i>NJ(x2)</i>	426 / 2821 <i>DD(x2), ERJ(x11), DFB(x3), FB(x4), NJ, J/BEAK(x2)</i>
Samian	4 / 3	39 / 34	46 / 157
Rhenish ware		1 / 1	
Oxon fineware		2 / 8	4 / 32
New Forest fineware			1 / 5
TOTAL	940 / 7034	1880 / 16087	1092 / 8076

Key: BRJ = bead rim jar/bowl; D/BOWL = dish/bowl; DD = 'dog dish'; DFB = drop-flanged bowl; ERJ = everted rim jar; FB = flanged bowl; FLAG = flagon; J/BEAK = small jar/beaker; NJ = necked jar/bowl

the date range into the 3rd century AD, the absence of Oxfordshire colour coated wares from these contexts would suggest an end date no later than the mid 3rd century AD, and possibly within the 2nd century AD. Sporadic activity on the site in the 3rd or 4th century AD is attested by the dropped flange bowl from ditch 717 and the New Forest colour coated beaker, intrusive in possible pyre base 866.

List of illustrated vessels (Figs. 13-15)

1. Flat topped rim (form type 1), impressed on external surface below rim, fabric F2. PRN 1168, Area 11, context 5318, ditch 5214, phase 3c.
2. Flat topped rim (form type 1), curved neck, fabric S1. PRN 1167, Area 11, context 5318, ditch 5214, phase 3c.
3. Flat topped rim (form type 1), finger impressed on top of rim, fabric S2. PRN 933, Area 11 context 5039, ditch 5213, phase 3d.
4. Small angular vessel (form type 2), fabric Q2. PRN 946, Area 11, context 5048, ditch 5214, phase 3c.
5. Angular vessel (form type 2), fabric Q2. PRN 955, Area 11, context 5055, feature 5056, phase 3.
6. Vessel with plain, rounded rim (form type 2), curved shoulder, fabric S2. PRN 1181, Area 11, context 5342, ditch 5214, phase 3c.
7. Angular vessel (form type 2) with impressed dot decoration, fabric Q2. PRN 1114, Area 11, Area 11, context 5210, ditch 5334, phase 3a.
8. Long necked vessel with rounded rim (form type 3), fabric S1. PRN 1001, context 5068, ditch 5213, phase 3d.
9. Carinated shoulder (form type 3), impressed, fabric S1; possibly same vessel as no. 9. PRN 1000, Area 11, context 5068, ditch 5213, phase 3d.
10. Slack shouldered vessel (form type 4) with short, upright rim, fabric S1. PRN 1037, Area 11, context 5114, ditch 5107, phase 3c.
11. Slack shouldered vessel (form type 4) with short, upright rim, fabric Q2. PRN 1029, Area 11, context 5114, ditch 5107, phase 3c.
12. Rounded vessel (form type 5) with upright, internally bevelled rim, fabric Q2. PRN 1056, Area 11, context 5127, ditch 5276, phase 3d.
13. Rounded vessel (form type 5) with rounded, thickened rim, fabric F6. PRN 411, Area 10, context 1168, ditch 1170, phase 4.
14. Rounded vessel (form type 5) with 'proto-bead' rim, fabric F2. PRN 417, context 1169, ditch 1170, phase 4.
15. Rounded vessel (form type 5), with thickened, flattened rim, fabric C3. PRN 1493, Area 4, context 401, pit 402, phase 4.
16. Rounded vessel (form type 5), with thickened, flattened rim, fabric C1. PRN 1549, Area 5, context 514, ditch 520, phase 4.
17. Rounded vessel (form type 5), with thickened, flattened rim, fabric C1. PRN 1530, Area 5, context 511, ditch 520, phase 4.
18. Lug from handled jar (form type 6), fabric S2. PRN 1035, Area 11, context 5114, ditch 5107, phase 3c.
19. Decorated lid (form type 7), fabric Q2. PRN 1032, Area 11, context 5114, ditch 5107, phase 3c.
20. Body sherd with impressed decoration, fabric F4. PRN 575, Area 10, context 1310, ditch 1439, phase 5a.
21. Stamped amphora rim (Dressel 1b). PRN 413, Area 10, context 1169, ditch 1170, phase 4.
22. High shouldered jar (form type 8), with beaded rim, fabric G1. PRNs 406/416, Area 10, contexts 1168/1169, ditch 1170, phase 4.
23. High shouldered vessel (form type 8), bead rim, fabric G102. PRN 858, Area 10, context 1403, ditch 1417, phase 5b.
24. Necked jar (form type 9), bead rim, fabric C3. PRNs 409/410, Area 10, context 1168, ditch 1170, phase 4.
25. Necked jar (form type 9), curved squared rim, fabric G1. PRN 322, Area 10, context 1126, ditch 1132, phase 5b.
26. Necked, high-shouldered jar, corrugated shoulder and lower body, fabric Q104. PRN 421, context 1171, ditch 1417, phase 5b.
27. Cordoned bowl (form type 10), curved rim, knife trimmed, fabric G1. PRNs 435/436/437, context 1176, pit 1121, phase 5a.
28. Cordoned jar (form type 10), perforated base, fabric G1. PRN 1531, Area 5, context 512, ditch 520, phase 4.
29. Storage jar, fabric G100. PRN 20, Area 10, context 1010, ditch 1417, phase 5b.
30. Narrow necked jar, fabric Q102. PRN 1343, Area 7, context 737, pit 731, phase 5.
31. Jar with short everted rim, globular body, rouletted decoration, fabric Q102. PRN 68, Area 10, context 1021, ditch 1443, phase 5a.
32. Small jar or beaker, short everted rim, fabric E100. PRN 1390, Area 7, context 762, ?pyre base 866, phase 5.
33. Decorated sherds from butt beaker, fabric Q104. PRN 479, Area 10, context 1207, ditch 1266, phase 5a.

FIRED CLAY AND CERAMIC BUILDING MATERIAL by RACHEL EVERY

A total of five fragments of ceramic building material was recovered, all from phase 5 contexts in Area 10 (ditches 1132, 1266 and 1440). All are undiagnostic in terms of form but on fabric grounds have been identified as Romano-British.

The fired clay assemblage (150 fragments; 4,330 g) consists mainly of small featureless fragments, with five portable objects. Parts of three loomweights were recovered from one pit in Area 11 (5077), all in a poorly fired and friable sandy fabric (Fig. 12, 3). All are of similar cylindrical form with a central perforation. The cylindrical weight is a characteristic Middle/Late Bronze Age type, but continued in use into the Iron Age; the pit produced no other datable artefacts.

Fragments of a triangular loomweight, with at least one corner perforation, came from a phase 4 enclosure ditch in Area 10 (1442). This form is characteristic of the period from the Middle to Late Iron Age and into the early Romano-British period.

Part of a thin clay plate (thickness 5 mm.) with an irregularly curved edge, in a coarse, organic-tempered fabric, came from a phase 5a ditch in Area 10 (1266); this is of uncertain function but could be briquetage.

The remaining featureless fragments (1522 g) were recovered from a variety of pits and ditches, mainly in Areas 7 (549 g) and 10 (650 g). These could be structural in origin as several have wattle impressions and surviving surfaces. There are no marked concentrations of this material, and on the basis of other dating evidence it appears to be mainly of early Romano-British date (phase 5); only four fragments came from earlier (phase 4) features (ditches 520, 1438 and 1170).

List of illustrated objects (Fig. 12)

3. Cylindrical loomweight. ON 10041, context 5078, pit 5077.

WORKED BONE by RACHEL EVERY

Three worked bone objects were recovered. A horse metapodial from ditch 5214 had possibly been utilised as a point or awl (Fig. 12, 4). Similar examples have been found at Danebury and are described as class 2 awls, used for piercing holes in leather.⁷⁷

A perforated sheep metacarpal (Fig. 12, 5) was recovered from gully 1440. Similar perforated shafts have been recorded from Danebury and described as class 1 tools (where a transverse perforation is bored through the centre of the shaft) with an unknown function.⁷⁸

A small cylindrical object made from a short length of long bone hollowed out with a double incised line around one end (Fig. 12, 6) was recovered from phase 3 pit 5030. The object is of unknown function.

List of illustrated objects (Fig. 12)

4. Point or awl. ON 10040, Area 11, context 5065, ditch 5214, phase 3c.
5. Perforated sheep metacarpal. ON 10018, Area 10, context 1019, gully 1440, phase 5b.
6. Bone object. ON 10031, Area 11, context 5031, pit 5030, phase 3.

ENVIRONMENTAL EVIDENCE

HUMAN BONE by JACQUELINE I. MCKINLEY

Human bone, cremated and unburnt, was recovered from 19 contexts in three areas of the excavation. Nine Romano-British contexts in Area 7 contained varying quantities of cremated bone; three, possibly four deposits representing the remains of burials, the rest of the bone being redeposited. Three inhumation burials were excavated in Area 10, including two Romano-British and one Romano-British/Saxon; one other deposit may have been the remains of an inhumation burial or have represented redeposited bone. Six contexts in Area 11, including three inhumation burials and three collections of redeposited bone, were all of Iron Age date.

⁷⁷ L. Sellwood, 'Objects of Bone and Antler', in Cunliffe, op. cit. note 33, pp. 371-95, Fig. 7.36; 3.148.

⁷⁸ Ibid. Fig. 7.37; 3.177.

Methods

Analysis of the cremated remains followed the writer's standard procedure to assess the degree of bone fragmentation and potential deliberate bias in the skeletal elements collected for burial.⁷⁹ Age (cremated and unburnt remains) was assessed from the stage of tooth development and ossification/epiphyseal bone fusion,⁸⁰ the length of long bones,⁸¹ and the pattern and extent of degenerative changes in the skeleton.⁸² Sex was ascertained from the sexually dimorphic traits of the skeleton.⁸³ Levels of reliability reflect the quantity and quality of available traits on which to base the assessment; '??' denotes 'possible', '?' denotes 'probable'. The platymetric (degree of anterior-posterior flattening of the proximal femur) and platycnemic (meso-lateral flattening of the tibia) indices were calculated where possible.⁸⁴

Results (see Table 8)

Disturbance and condition

A substantial degree of truncation was noted in all areas of the site and consequently most of the graves – both cremation and inhumation – were very shallow, with more than half being less than 0.10 m. deep. Some bone will almost certainly have been lost from the cremation burials, and the low level of skeletal recovery from two of the inhumation burials (1337 and 5002) is, at least in part, the result of disturbance and removal of bone from the graves.

The cremated bone was generally in good condition, with no obvious weathering and representative quantities of spongy bone, suggesting that the bone had not suffered from adverse burial conditions.⁸⁵ Most of the unburnt bone was in poor condition, being degraded with substantial loss of spongy bone – particularly vertebrae, which were completely absent in many cases. The one coffined burial (neonate 1346) was particularly badly affected, with only the tooth crowns and several fragments of vault surviving. Bone from some of the shallow burials was root marked, as was the skull 5013. The combination of shallow graves and poor bone preservation had resulted in a high level of fragmentation, particularly of the skulls, none of which survived intact or were reconstructable; no complete long bones were recovered.

The proximal end of the redeposited adult femur (5039) from the upper fill of the enclosure ditch in Area 11, shows characteristic evidence of canid gnawing, with canine puncture marks and grooves forming ragged, worn margins.⁸⁶ The apparent singular occurrence of gnawed human bone should be tempered by the fact that the bone was recovered from the fill of a ditch only the southern end of which fell within the area (11) of excavation. The bone did not originate from any of the excavated burials on site, and may have been removed by dogs from a shallow grave, disturbed by human activity and not reburied, or represent deliberately exposed human remains subsequently scavenged by dogs – the Iron Age date of the deposit would render any of the three possible.

The redeposited skull, 5013, has a minimum of two areas of parallel linear marks in the right side of the frontal and parietal vault (Fig. 16). A 25.2 x 43.8 mm. area in the superior-lateral of right frontal, adjacent to the coronal suture, has a series of c. 21 fine linear marks at a superior-medial to inferior-lateral angle. The closely spaced parallel marks are c. 25.2 mm. long, and a few cross over slightly. A second, 68.1 x 48.8 mm. area in the superior-anterior of the right parietal, extends up to the edge of the coronal suture and to within c. 30 mm. of the sagittal. Several close groups of fine, parallel linear marks (c. 100-120) are generally angled superior-medial to inferior-dorsal, with some very slight changes in angle and some overlapping. There is a possible third area of marks in the frontal, slightly superior to that described above, but root-marking to the bone makes it difficult to be conclusive. All the marks have clear, sharp edges which appear to be slightly angled and seem to have been made with a sharp, narrow blade into 'green', or at least not completely 'dry'.

⁷⁹ J.I. McKinley, *The Anglo-Saxon Cemetery at Spong Hill, North Elmham pt. VIII: The Cremations* (East Anglian Archaeol. 69, 1994).

⁸⁰ G.C. van Beek, *Dental Morphology: an illustrated guide* (1983); R.M.H. McMinin and R.T. Hutchings, *A Colour Atlas of Human Anatomy* (1985).

⁸¹ W.M. Bass, *Human Osteology* (Missouri Archaeol. Soc. 1987).

⁸² D.R. Brothwell, *Digging up Bones* (1972); S.T. Brooks, 'Skeletal Age at Death: the reliability of cranial and pubic age indicators', *American Jnl. Phys. Anth.* 13 (1955), 567-97; Bass, op. cit. note 81.

⁸³ Bass, op. cit. note 81.

⁸⁴ Ibid.

⁸⁵ J.I. McKinley, 'Cremated Human Bone from Burial and Pyre-related Contexts', in A.P. Fitzpatrick, *Archaeological Excavations on the Route of the A27 Westhampnett Bypass, West Sussex, 1992, vol. 2: the cemeteries* (Wessex Archaeol. Rep. 12, 1997), 244-52.

⁸⁶ L.R. Binford, *Ancient Men and Modern Myth* (1981), 171-3.

TABLE 8. HUMAN BONE SUMMARY

Context	Area	phase	type	c.bone wt.	% skel. recovery	age	sex	pathology	comment
748	7	5	un.c.burial	572.7g		adult >30 yr.	?female	amtl; abscess; pd; op - L articular process, finger phalanges	
753	7	5	un.c.burial	25.2g		infant c. 3-4 yr.			
756	7	5	un.c.burial	217.7g		adult 18-45 yr	??female	<i>cribra orbitalia</i> ; op - T/L articular process	
757	7	5	?	1g					
768	7	5	? c.burial	77.9g		adult			
778	7	5	redeposited	0.5g					
789	7	5	redeposited	0.1g					
792	7	5	redeposited	0.6g		>infant			
793	7	5	redeposited	2.6g		subadult/ adult			
1098	10	5b	?redeposited/ inh. burial		c. 3%	neonate			
1124	10	6	inh. burial		c. 60%	adult c. 30-45 yr	male	caries; abscesses; pd; hypoplasia; calculus; pnb - maxilla, tibiae & fibulae shafts; <i>cribra orbitalia</i> ; exo - patella, r.radial tuberosity; op - C1, T/L bsm, acetabulae, r.1st metatarsal, 1st proximal foot phalanx; cysts - 1st proximal foot phalanx; pitting - auricular surfaces, r.scapula coronoid process; mv - atlas dual facets, squatting facets	
1337	10	5b	inh.burial		c.40%	neonate			
1346	10	5b	coffined inh. burial		c. 7%	infant 6-9 months			

5002	11	3d	inh. burial	c. 50%	adult? 18-30 yr	female	caries; hypoplasia; calculus; op - C1, auricular surfaces, l. calcaneum & talus; exo - r. patella; mv - squatting facets, retention deciduous canine & non-erupted of permanent canine	in grave with 5003
5003	11	3d	inh. burial	c. 30%	juvenile 7-9 yr.	??male	caries; hypoplasia	in grave with 5002
5009	11	3d	redeposited	< 1%	adult		hypoplasia; calculus; mv - maxillary 2nd incisor shovelled	
5011	11	3d	inh. burial	c. 65%	adult 18-25 yr.	female	hypoplasia; calculus; op - C1; pnb - tibiae & l. fibula shaft; mv - maxillary I2 shovelled, pegged supernumerary tooth	
5011A	11	3d	?inh. burial	c. 3%	neonate			recovered as 'left hand' 5011
5013	11	3d	redeposited	c. 20%	adult >45yr.	male	well-healed trepanation - left parietal	'cut' marks and flattening r. side of skull
5039	11	3d	redeposited	c. 1%	adult	?male		canid gnawing

KEY: c. - cremation/cremated; inh. - inhumation; skel. - skeletal; C - cervical; T - thoracic; L - lumbar; bsm - body surface margins; aml - ante mortem tooth loss; op - osteophytes; exo - exostoses; pd - periodontal disease; pnb - periosteal new bone; mv - morphological variation; r./l. - right/left

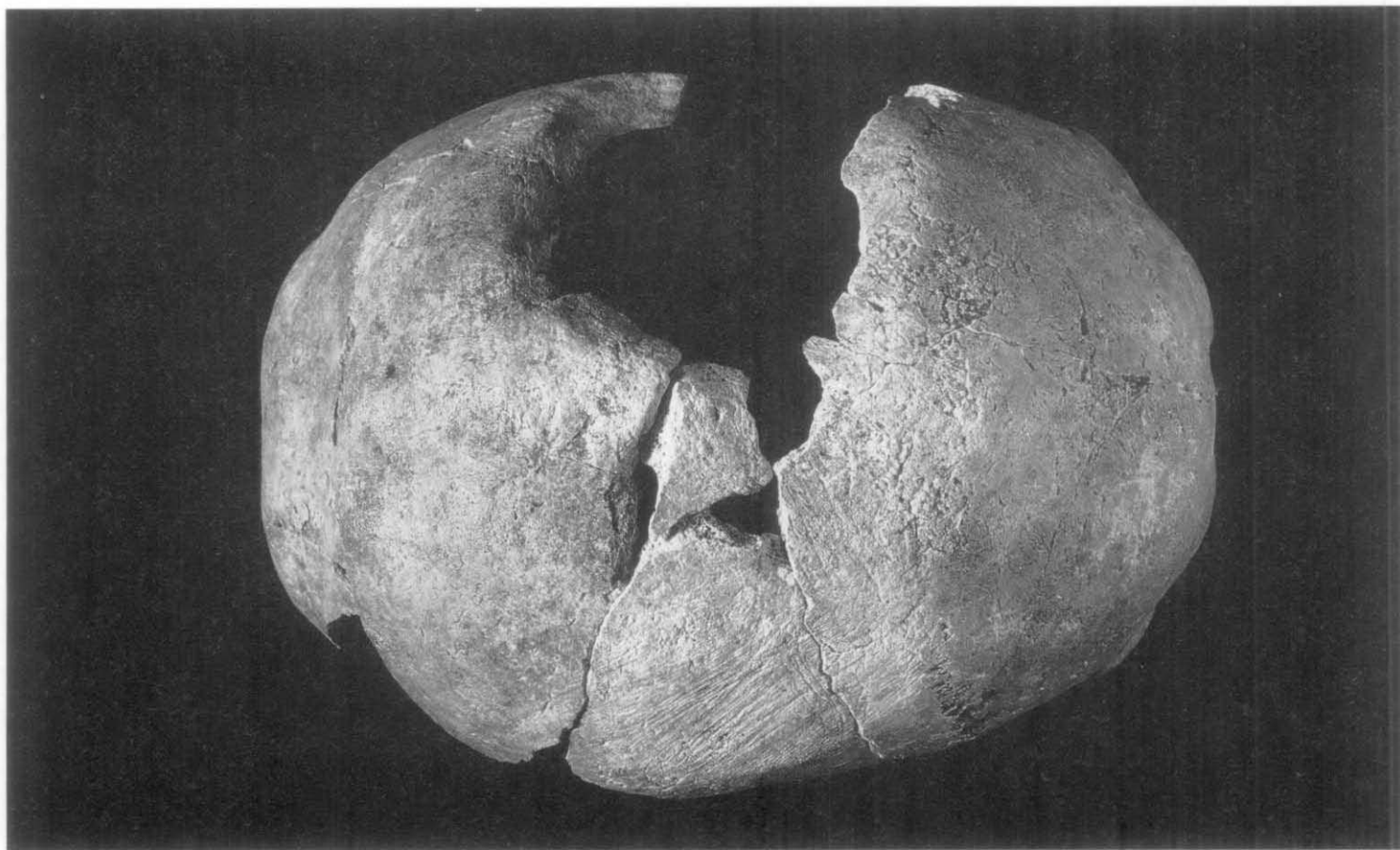


Fig. 16. Human bone: trepanned skull 5013.

bone. There is no sign of healing, but it is impossible to say if the marks were made *peri-* or *post mortem*. The marks are characteristically fine and shallow, affecting only the outer plate of the skull; the position (right side only) and high frequency are not commensurate with those seen in scalping, but they are, at least in form, similar to those associated with defleshing.⁸⁷ The possible reason for the marks is currently unclear (see below).

Indices

The platymeric and platycnemic indices were calculated for two males (1124, 5039) and one female (5002); the platymeric indices ranged from 77.1 (platymeric) to 86 (eurymeric), the platycnemic indices were 68.3 (5002) and 67.8 (1124) both mesocnemic.

Demographic data

The remains of a minimum of 13 individuals were identified, four from amongst the cremated remains and nine from amongst the unburnt bone.

The five individuals identified from Iron Age contexts were all recovered from Area 11. Four individuals were recovered from two graves located c. 15 m. apart. Grave 5001 contained the remains of an adult female (5002) and a (probably) male juvenile (5003), apparently deposited together (Fig. 5). Grave 5010 contained the skeleton of a young adult female with the remains of a neonate 'in' the left hand, which was by the head of the adult; it is possible that the few neonatal bones recovered were fortuitously redeposited in this location during the burial of the adult female, but it is more likely that the newborn infant was buried with its mother, both having died due to complications in or following childbirth. The only adult male bones recovered from the Iron Age contexts were redeposited parts of skull and femur from a pit and ditch fill respectively; located c. 10 m. apart, it is not impossible that these represent remains of the same individual.

There were two groups of Romano-British burials comprising a small cremation cemetery in Area 7 and the remains of three neonates/young infants from Area 10. The cremation burials included one infant and three adults, the latter including two probable females. Two neonatal/young infant burials were located within 2 m. of each other in Area 10, the redeposited remains of a third neonate being recovered from a nearby ditch fill (c. 8 m. SE.). The singular presence of individuals of <9 months in this restricted area suggests it was deliberately set aside for the burial of the very young.

One other burial was excavated in Area 10, that of an adult male (1124), believed to be of Romano-British or Anglo-Saxon date.

The dispersed temporal and spatial nature of the burial deposits, comprising individual graves or small groups, suggests a similar pattern for occupation. The small group of Romano-British cremation burials in Area 7 is likely to have been associated with a single farmstead. The deposition of infants of less than one year old outside the main cemetery area (in Area 10) is a common theme within the Romano-British period, and the absence of any contemporary adult inhumation burials suggests the 'main' cemetery exists somewhere outside the excavated areas. The three excavated Areas from which human remains were recovered were separated and surrounded by large unexcavated tracts in which further burials may have been located. There is also the possibility – in view of the clear occurrence of truncation and the very shallow depth of some of the graves (minimum 0.05 m.) – that some may have been totally eradicated.

Pathology

Parts of four permanent dentitions and two redeposited teeth were present for examination amongst the inhumed bone. There was no *ante mortem* tooth loss. Carious lesions were noted in 18/96 (19%) teeth – 7/65 (11%) in the Iron Age dentitions, 11/31 (35%) in the single Romano-British/Saxon – and apical abscesses in 5/53 socket positions – all in the single Romano-British/Saxon dentition (5/30). The carious lesions were in various locations, mostly apical with five in the buccal fissures of the molars and one in the occlusal surface. All the abscesses in Romano-British/Saxon burial 1124 were associated with carious teeth. Alveolar resorption due to periodontal disease was seen in one dentition (1124). Moderate calculus deposits (calcified plaque) was observed in all four dentitions. The greater degree of dental disease observed in the dentition of burial 1124 may largely be due to the comparatively greater age of this individual, though a change in diet between the Iron Age and later periods may also be reflected, the lower prevalence of disease in the Iron Age dentitions signifying a relatively high-protein diet. *Ante mortem* tooth loss was noted in 3/10 sockets from cremation burial 748, with abscess lesions in 1/10.

⁸⁷ S. Mays and J. Steele, 'A Mutilated Skull from Roman St. Albans, Hertfordshire, England', *Antiquity*, 70 (1996), 155-61; C. Roberts and K. Manchester, *The Archaeology of Disease* (1997), 85; Binford, op.cit. note 86, pp. 129-31.

Dental hypoplasia was noted in the permanent tooth crowns from five dentitions.⁸⁸ Most were mildly affected with one-two faint lines. The maxillary second incisors and molars from 5003 however, each had a strong, deep line in the mid-crown, suggesting some strong traumatic episode – a severe illness or prolonged period with lack of food.

Porotic *cribra orbitalia* was noted in both orbits from burial 1124 (2/7 orbits – inhumations), with cribrotic lesions in 1/3 orbits from the cremation burials.⁸⁹ The condition is believed to be connected with childhood iron deficiency anaemia and may be associated with dietary intake.⁹⁰ In view of the possible dietary implications indicated by the prevalence of dental disease, it may be significant that these lesions were noted only in the later inhumation burial 1124.

The skull, 5013, has a well-healed, slightly elliptical trepanation in the left superior-anterior parietal (Fig. 16). The lesion measures a maximum of 59.1 x 50.0 mm. in the endocranial surface, with c. 10.0–10.1 mm. bevelled edge giving a maximum dimension of 76.6 x 67.5 mm. in the exocranial surface. The exocranial margins are level with the sagittal and coronal sutures but do not cross them; the endocranial margin lies within 6.6 mm. of the sagittal sinus and within 8.3 mm. of the coronal suture. The margins of the lesion are incomplete due to *post mortem* damage, with c. 36.3 mm. missing in the inferior-anterior portion. The bevelled edge of the lesion is most pronounced in the superior-dorsal and dorsal portion, being both wider and at a slightly more acute angle (c. 30° compared with c. 15°). The margins of the lesion do not form an entirely smooth ellipse, having several small indentations. The smooth, compact bone over the diploë indicates full healing of the lesion, with smoothed margins to the endocranial opening. There is no indication of subsequent complications as a result of surgery, e.g. infection.

The method by which the trepanation was undertaken is masked by the healing of the wound,⁹¹ but the form of the lesion, with bevelled edges, indicates that one of two methods – grooving or scraping – must have been used.⁹² Both methods have been noted amongst the c. 31 British trepanations recorded to date.⁹³ The reasons for undertaking such surgery are not always clear, they may include trauma, migraine, epilepsy, mental illness and magico-ritual purposes; the latter have often been associated with *post mortem* trepanation.⁹⁴ In this instance only the skull vault survives, providing little evidence for the general health of the individual, but there are no other lesions in the skull to indicate a motive for the operation. What was noted, however, was a 53.8 x c. 39.5 mm. area of flattened bone in the superior-anterior of the right parietal, which has 'smoothed' away much of the external cortical bone, exposing small patches of the diploë (Fig. 16). This 'smoothing' was clearly undertaken prior to the linear (?cut) marking of the skull described above, and was apparently not associated with the latter. Is it possible that this represents the beginning of a second attempt at trepanation? If so, it illustrates the use of the scraping rather than the grooving method.

Piggott noted that of the c. 200 European trepanations recorded at the time, the most common site for the lesion was in the left parietal.⁹⁵ Only one other trepanation of Iron Age date as been recorded from Britain, at Hunsbury in Northamptonshire; the opening was made by drilling holes into the calvarium and most probably undertaken *post mortem* as opposed to constituting a surgical intervention.⁹⁶ The lesion in skull 5013 comprises one of the largest trepanations recorded in Britain.

Periosteal new bone was noted in bone from two inhumation burials, 1124 and 5011. In the former, lesions in the maxilla were linked to the spread of infection from a 'burst' dental abscess. In both burials, other lesions

⁸⁸ S.W. Hillson, 'Diet and Dental Disease', *World Archaeol.* 11 (2) (1979), 147–62.

⁸⁹ B. Robledo, G.J. Trancho and D. Brothwell, 'Cribra Orbitalia: Health Indicators in the late Roman Population of Cannington, Somerset', *Jnl. Palaeopathology*, 7 (3) (1995), 185–93.

⁹⁰ *Ibid.*

⁹¹ J. Wakely and C. Duhig, 'A Comparative Microscopical Study of three European Trephined Skulls', *Jnl. Palaeopathology*, 3 (2) (1989), 75–87.

⁹² Piggott, op. cit. note 34; S. Parker, C. Roberts and K. Manchester, 'A Review of British Trepanations with Reports on two New Cases', *OSSA*, 12 (1986), 141–58; Roberts and Manchester, op. cit. note 87, pp. 91–4.

⁹³ Parker et al., op. cit. note 93; J.I. McKinley, 'A Probable Trepanation from an Early Anglo-Saxon cemetery at Oxborough, Norfolk', *Internat. Jnl. Osteoarchaeol.* 2 (1992), 333–5; McKinley, 'A Skull Wound and Possible Trepanation from a Roman Cemetery at Baldock, Hertfordshire', *ibid.* 337–40; K. Penn, *An Anglo-Saxon Cemetery at Oxborough, West Norfolk: Excavations in 1990* (East Anglian Archaeol. Occas. Paper 5, 1998).

⁹⁴ Piggott, op. cit. note 34; Roberts and Manchester, op. cit. note 87, pp. 91–4.

⁹⁵ Piggott, op. cit. note 34.

⁹⁶ Parker et al., op. cit. note 92.

were observed in the medial surface of the tibiae and fibula shafts, generally affecting the medial surface. The characteristic form and distribution of the lesions is most likely to reflect minor trauma to the shins, where the bone has little protective soft tissue coverage.⁹⁷

The poor skeletal recovery of articular surfaces and vertebrae severely limited the observation of joint disease. Destructive lesions (including pitting) and new bone formation (osteophytes) associated with joints are often difficult to classify, but some may represent the early stages of osteoarthritis.⁹⁸ None of the observed lesions were extensive or severe.

The causative factors of exostoses (bony growths at tendon and ligament insertions) may include advancing age, traumatic stress, or various diseases and it is not always possible to be conclusive with respect to the aetiology of particular lesions.⁹⁹

Morphological variations or non-metric traits represent variations in the skeletal morphology, some of which have been attributed to developmental abnormalities, for instance, 'squatting facets' are most often attributed to being a response to prolonged periods spent in a squatting posture.¹⁰⁰ Squatting facets were noted in all surviving distal tibiae (two individuals). The retention of deciduous and impaction of permanent teeth, as in 5002, is relatively common.¹⁰¹ A 'pegged', possibly supernumerary, tooth was recovered from burial 5011, though the possible position could not be recorded (damaged). Rarer than tooth absence, extra teeth tend to be underdeveloped and frequently do not erupt.¹⁰² 'Pegging' (where the tooth has a small conical crown) is a common variation in the maxillary second incisor.¹⁰³ Exaggerated marginal ridges producing a shovel-form crown is a common variation in the maxillary first incisor.¹⁰⁴

Abnormal wear to the occlusal surfaces of the right anterior teeth from 5002 (mandibular canine and first premolar, maxillary first incisor) indicate that the individual was using her teeth in some form of cultural activity (e.g. textile production), and that in doing so was displacing her mandible to one side to occlude unmatched maxillary and mandibular teeth.

Pyre technology and rituals

The vast majority of the cremated bone was the buff/white colour indicative of a high degree of oxidation.¹⁰⁵ Odd bone fragments from 748 and 756 were slightly blue and/or grey, but such minimal variation is of little significance and the cremation process generally appears to have been very efficient.¹⁰⁶

In view of the clear truncation of deposits, no comment can be made with respect to the quantities of bone recovered from the burials since unknown amounts of bone may have been lost. Bone fragments from each skeletal area (skull, axial, upper and lower limb) were present in each of the burials, parts of the axial skeleton being particularly well represented in burial 756 (26% identifiable bone).

Although the majority of bone fragments from the burials (with the exception of the infant) were recovered from the 10 mm. sieved fraction (>60%), the maximum fragment sizes were relatively small (maximum 56 mm.). Many factors may affect bone fragment size and in this instance post-depositional disturbance and truncation (with the associated pressure) were probably important influences.¹⁰⁷ There is no evidence to suggest deliberate fragmentation of bone prior to burial/deposition.

Little pyre debris was noted in the backfill of the graves – only slight charcoal flecking in burial 753 – which is surprising given the proposed close proximity of the pyre sites. It is, however, possible that pyre debris was incorporated in the upper fill of the graves and subsequently removed in truncation. The apparent concentration of bone in the upper fill within burial 768 may represent the result of (recorded) animal disturbance rather than the original order of deposition.

⁹⁷ Roberts and Manchester, *op. cit.* note 87, p. 130.

⁹⁸ J. Rogers and T. Waldron, *A Field Guide to Joint Disease in Archaeology* (1995).

⁹⁹ *Ibid.* 24-5.

¹⁰⁰ Brothwell, *op. cit.* note 82, p. 92; T.I. Molleson, 'The Human Remains', in D.E. Farwell and T.I. Molleson, *Poundbury vol. 2: The Cemeteries* (Dorset Nat. Hist. Archaeol. Soc. Mono 11, 1993), 142-214.

¹⁰¹ S.W. Hillson, *Teeth* (Cam. Manuals in Archaeol. 1990), 320.

¹⁰² *Ibid.* 270.

¹⁰³ Beek, *op. cit.* note 80; Hillson, *op. cit.* note 101, p. 259.

¹⁰⁴ Hillson, *op. cit.* note 101, p. 259.

¹⁰⁵ J.L. Holden, P.P. Phakley and J.G. Clement, 'Scanning Electron Microscope Observations of Incinerated Human Femoral Bone: a case study', *Forensic Sci. Internat.* 74 (1995), 17-28; Holden, Phakley and Clement, 'Scanning Electron Microscope Observations of Heat-treated Human Bone', *ibid.* 29-45.

¹⁰⁶ McKinley, *op. cit.* note 85, pp. 77-81, 83-4.

¹⁰⁷ J.I. McKinley, 'Bone Fragment Size in British Cremation Burials and its Implications for Pyre Technology and Ritual', *Jnl. Archaeol. Sci.* 21 (1994), 339-42.

The nature of the remaining features from which cremated bone was recovered is debatable. The quantities of bone are all very small (<3 g., mostly <1 g.) and all may have been accidentally redeposited, particularly in view of the known truncation. Those containing charcoal – 866 and 867 – may represent the remains of two pyre bases or under-pyre draught pits, into which the small quantities of cremated bone fell during cremation and are residual within the pyre debris. The very small quantity recovered from feature 718 may comprise redeposited pyre debris, accidentally or deliberately incorporated within the feature.¹⁰⁸

Discussion

This small assemblage represents a disparate mix of deposits which appear to illustrate changes in mortuary practices and treatment of human remains over time. The Iron Age deposits include dual burials – not uncommon in this period (e.g. Cockey Down, Wiltshire)¹⁰⁹ – and both potentially 'accidental' and deliberately redeposited human remains. If the skull 5013, found lying upside-down adjacent to fragments of a cattle skull in a large pit, was a deliberate deposit, was this particular skull chosen because of the trepanation? The roundels of bone removed from – often *post mortem* – trepanned skulls appear to have had an amuletic quality in prehistory and a similar 'superstitious esteem' may have been afforded the trepanned skull.¹¹⁰ The Romano-British cremation burials and small collection of young infant burials reflect temporal changes in mortuary practice and attitude following common themes within the period.

ANIMAL BONE by S. HAMILTON-DYER

The excavations produced significant amounts of animal bone from Areas 5, 7, 10 and 11. Little or no bone was recovered from the other areas. Most of the bones recovered were from Iron Age and Romano-British contexts and these were analysed in detail. A full record of the animal bones can be found in the assessment report.¹¹¹ A total of 2,782 individual bones was recorded for this report.

Methodology

All fragments were identified to species and element where possible, with the following exceptions. Ribs and vertebrae other than axis, atlas, and sacrum were identified only to the level of cattle/horse-sized and sheep/pig-sized. Unidentified shaft and other fragments were similarly divided.

Measurements follow von den Driesch and are in millimetres unless otherwise stated.¹¹² Withers height estimations of the domestic ungulates are based on factors recommended by von den Driesch and Boessneck.¹¹³

Archive material includes metrical and other data not in the text and is kept on paper and magnetic media.

Results

Preservation

The bone material proved to be very fragile and the surface of the bones was often damaged and peripheral parts missing. Large bones were frequently recovered in many pieces. Skulls were particularly badly affected, and most were excavated as a mass of small fragments. Gnawing was present at a low or moderate level overall, with more gnawing damage in phase 3. However, considerable variation was found in phase 4 where gnawing was very high in one ditch and low elsewhere. Burnt bones were occasionally found, particularly from the phase 5 features of Area 7.

¹⁰⁸ J.I. McKinley, 'Bronze Age 'Barrows' and the Funerary Rites and Rituals of Cremation', *Proc. Prehist. Soc.* 63 (1997), 129–45.

¹⁰⁹ J. Lovell, with S. Hamilton-Dyer, E. Loader and J.I. McKinley, 'Further Investigations of an Iron Age and Romano-British Farmstead on Cockey Down, near Salisbury', *Wilts Archaeol. Nat. Hist. Mag.* 92 (1999), 33–8.

¹¹⁰ Piggott, *op. cit.* note 34, p. 122.

¹¹¹ J.S.C.S.C. Watchfield, Shrivenham, Oxon.: Archaeological Recording Action – Post-Excavation Assessment' (Wessex Archaeol. 1998, unpubl. client rep.).

¹¹² A. von den Driesch, *A Guide to the Measurement of Animal Bones from Archaeological Sites* (Peabody Mus. Bull. 1, Harvard, 1976).

¹¹³ A. von den Driesch and J. Boessneck, 'Kritische Anmerkungen zur Widerristhöhenberechnung aus Längenmaßen vor- und frühgeschichtlicher Tierknochen', (*Säugetierkundliche Mitteilungen*, 22, München 1974), 325–48.

TABLE 9. ANIMAL BONE ASSEMBLAGE BY PHASE

Phase	Horse	Cattle	Sheep/ goat	Pig	Red deer	Cattle- sized	Sheep- sized	Mam	Dog	Fox	Polecat	Hare	Fowl/ bird	Amph	Small mam	Total
3	1	106	26	11	2	46	44	59	0	0	0	0	0	0	0	295
3a	2	1	6	4	0	8	0	9	0	0	0	0	0	0	0	30
3b	2	6	1	0	0	7	6	3	0	0	0	0	0	0	0	25
3c	16	30	19	6	0	35	8	3	0	0	1	0	0	0	0	118
3d	11	64	24	12	0	25		6	1	0	0	0	0	0	0	143
Total	32	207	76	33	2	121	58	80	1	0	1	0	0	0	0	611
<i>Percent</i>	<i>5.2</i>	<i>33.9</i>	<i>12.4</i>	<i>5.4</i>	<i>0.3</i>	<i>19.8</i>	<i>9.5</i>	<i>13.1</i>	<i>0.2</i>	<i>0</i>	<i>0.2</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	
Cattle:sheep:pig		65.5	24.1	10.4												
Phase 3 excluding skeleton in pit 5019																
Total	32	122	76	33	2	121	56	80	1	0	1	0	0	0	0	524
<i>Percent</i>	<i>6.2</i>	<i>23.5</i>	<i>14.6</i>	<i>6.3</i>	<i>0.4</i>	<i>23.3</i>	<i>10.8</i>	<i>15.4</i>	<i>0.2</i>	<i>0</i>	<i>0.2</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	
Cattle:sheep:pig		52.8	32.9	14.3												
4	12	163	48	7	0	502	50	59	8	0	0	0	0	24	68	941
<i>Percent</i>	<i>1.3</i>	<i>17.3</i>	<i>5.1</i>	<i>0.7</i>	<i>0</i>	<i>53.3</i>	<i>5.3</i>	<i>6.3</i>	<i>0.9</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>2.6</i>	<i>7.2</i>	
Cattle:sheep:pig		74.8	22.0	3.2												
Phase 4 excluding pit 1418																
Total	12	128	47	6	0	142	46	59	6	0	0	0	0	24	68	538
<i>Percent</i>	<i>2.2</i>	<i>23.8</i>	<i>8.7</i>	<i>1.1</i>	<i>0</i>	<i>26.4</i>	<i>8.6</i>	<i>11.0</i>	<i>1.1</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>4.5</i>	<i>12.6</i>	
Cattle:sheep:pig		70.7	26.0	3.3												
5	1	21	38	3	0	40	63	145	2	1	0	1	1	3	2	321
5a	9	53	53	9	0	75	29	55	5	0	0	0	7	0	0	295
5b	16	173	79	17	0	221	34	73	1	0	0	0	0	0	0	614
Total	26	247	170	29	0	336	126	273	8	1	0	1	8	3	2	1230
<i>Percent</i>	<i>2.1</i>	<i>20.1</i>	<i>13.8</i>	<i>2.4</i>	<i>0</i>	<i>27.3</i>	<i>10.2</i>	<i>22.2</i>	<i>0.7</i>	<i>0.1</i>	<i>0</i>	<i>0.1</i>	<i>0.7</i>	<i>0.2</i>	<i>0.2</i>	
Cattle:sheep:pig		55.4	38.1	6.5												
Grand Total	70	617	294	69	2	959	234	412	17	1	1	1	8	27	70	2782
Total																
<i>Percent</i>	<i>2.5</i>	<i>22.2</i>	<i>10.6</i>	<i>2.5</i>	<i>0.1</i>	<i>34.5</i>	<i>8.4</i>	<i>14.8</i>	<i>0.6</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0.3</i>	<i>1</i>	<i>2.5</i>	
Excl skeletons	70	497	293	68	2	599	230	412	15	1	1	1	8	27	70	2294
<i>Percent</i>	<i>3.1</i>	<i>21.7</i>	<i>12.8</i>	<i>3.0</i>	<i>0.1</i>	<i>26.1</i>	<i>10.0</i>	<i>18.0</i>	<i>0.7</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0.3</i>	<i>1.2</i>	<i>3.1</i>	
Cattle:sheep:pig		57.9	34.1	7.9												

Key Mam: mammal Amph: Amphibian

Species Representation

The majority of the bones identified to taxon were of the main domestic animals, cattle, sheep/goat, horse and pig (Table 9). Overall, the assemblage is dominated by the bones of cattle with the bones of sheep/goat the next most frequent. Of the 294 ovicaprid bones only 18 could be positively identified as sheep and none could be identified as goat (using Boessneck 1969 and Payne 1985).¹¹⁴ Goat is almost always at a very low level in collections in southern England and it is assumed that all or most of the remains here are of sheep. Horse and pig bones are almost equally represented. Remains of other taxa were extremely rare with bones of dog, red deer, fox, polecat, hare and fowl represented in small numbers. A partial raven skeleton and the remains of some small mammals and amphibia were also seen. The smaller bones were recovered from sieved samples.

The cattle remains include a complete skeleton from Phase 3 Pit 5019 and a group of partial skeletons from phase 4 Pit 1418.

In the general assemblage taphonomic factors are likely to have favoured larger and more dense bones over the smaller and more fragile. However, even allowing for a greater loss of sheep material, cattle would have supplied the most meat in all phases, having a much larger carcass. Pig would have been a minor contributor.

Phase summaries and description of major groups of material

Phase 3, Early-Middle Iron Age, Area 11

A total of 611 bones was recovered from the numerous ditch, gully and pit contexts assigned to this phase. Cattle, sheep, pig and horse were identified. This phase also offered the only evidence of deer, two small pieces of antler tip, one sawn, from pit 5030.

Phase 3, pit 5009

A cattle skull, probably deliberately placed upside down with a human skull, was recovered from this pit.

Phase 3, pit 5019 (Fig. 4)

This pit contained, and was probably dug for, a single cattle carcass. Excavation plans reveal that the body had been placed on the left side, facing N. A total of 85 bones of the skeleton could be identified, with many recovered in a fragmentary state. Some bones were not recovered; these may have been originally present but removed during the evaluation. The W. edge of the pit is poorly defined and the majority of the missing bones would have been in this area. The carcass appears to have been in a relaxed position with the forelegs slightly flexed, except for the remains of the hind legs which are straightened out towards the forelegs. Part of the left forefoot, the left hindfoot and part of the tibia were missing.

The animal was horned and, on reconstruction, some bones could be measured and estimates of withers height calculated which ranges from 1.03 m. to 1.1 m. This was a small animal by recent standards and is consistent with the stature of animals with an Iron Age date. In the jaws the permanent molars were all erupted and the first and second molars in heavy wear. Although this indicates a mature animal it was not an aged one and there is no pathology, butchery or other indication of cause of death.

Phase 3a

This phase contributed 30 bones of horse, cattle, sheep and pig together with unidentified fragments. Two bones had been gnawed and a cattle-sized rib had been cut.

Phase 3b

The 25 bones from this phase comprised horse, cattle and sheep. Two gnawed bones indicate the presence of dog on site.

Phase 3c

The 118 bones from this phase were relatively well preserved. Almost all of the material is from the domestic species with a relatively high number of horse bones. A few gnawed bones again indicate dog. The skull of a mustelid was recovered from ditch 5214. This was well preserved, unusually dark and hard and can be positively identified as a large polecat. Other bones in this context were not of this appearance but it is unlikely

¹¹⁴ J. Boessneck, 'Osteological Differences between Sheep (*Ovis aries* Linné) and Goat (*Capra hircus* Linné)', in D. Brothwell and E.S. Higgs (eds.), *Science in Archaeology* (1969), 331-58; S. Payne, 'Morphological Distinctions between the Mandibular Teeth of young Sheep, *Ovis*, and Goats, *Capra*', *Jnl. Archaeol. Sci.* 12 (1985), 139-47.

that this skull is of an animal which died in the context. It may have been derived from the backfill or perhaps from a pelt, although no skinning marks were observed. Polecat was also identified at Gussage All Saints in Dorset and several were recovered from a Romano-British well at Oakridge, Basingstoke.¹¹⁵ Like all mustelids they can be utilised for the pelt, but may also be considered vermin.

Phase 3d

This phase contributed 143 bones, and included cattle. The cattle bones are of at least five animals. Bones of other taxa include horse and pig. Some of the bones were dog gnawed and two have butchery marks. Three of the cattle bones were complete and fused. Withers heights were estimated from these and range from 1.11 m. to 1.14 m. This group appears to represent limited, episodic, dumping rather than a gradual build-up, but several of the bones were exposed long enough before disposal for dogs to gain access.

Phase 4, Late Iron Age, Areas 10 and 5

A total of 941 bones was recovered from ditch contexts in Area 10 and pits in both areas; Area 5 contributed just 10 bones in total. In Area 10, pit 1418 contained several partial cattle skeletons. Almost all of the small mammal and amphibian bones in the assemblage were recovered from a complete pot in ditch 1444. These were of a toad and a minimum of four woodmice and four short-tailed voles. Deliberate burial seems unlikely and it is probable that the animals used the pot as shelter.

Area 10, pit 1418

This contained a complex sequence of deposition of partial skeletons of cattle together with a few fragments of pig, sheep and dog. The remains were rather fragmentary and frequently difficult to assign to individual bones in the case of the ribs and vertebrae.

Although only one bone bore butchery marks the contents of this pit appear to be a dump of at least six stripped cattle carcasses, consisting mainly of the thorax with some skull, pelvis and an occasional limb bone. Other cattle bones in the pit appear to be unrelated and there are some oddments of sheep, pig and dog. The remains are fragile and easily abraded and may have masked gnawing and butchery marks. Most of the vertebrae, and the few other bones, are unfused but of a good size. The remains are probably of prime beasts slaughtered for meat. The partial carcasses are likely to have been from a single deposition, the other remains being cast into the pit at the same time or were part of the infill.

Area 10, enclosure ditch 1170

This contributed 110 bones of cattle, sheep, horse, pig and dog. Most (50) of the identified bones are of cattle. Four bones were sufficiently complete for estimation of withers heights which again cluster just over the 1 m. height. It is interesting to note, in the context of the deposit in pit 1418, that there were very few fragments of cattle-sized vertebrae and ribs. The horse bones include a first and second phalanx fused together and a complete metatarsus fused with the navicular cuboid, probably all from one aged animal with an estimated withers height of 1.130 m. The three dog bones include a fragmentary skull. Other evidence of dog is in the form of a relatively high number of gnawed bones, at almost 23% (25 gnawed fragments) this is much higher than the overall proportion of just under 6%.

Phase 5, early-middle Romano-British

Features in Area 7 and ditches and pits in area 10 contributed a relatively large collection of 1,230 bones. In addition to the expected domestic ungulates there were bones of dog, fox, hare, short-tailed vole, fowl, raven, and amphibian.

Area 7

There is a higher proportion of charred and calcined fragments from this phase, and most of these were from Area 7. The majority of these burnt fragments are small scraps of bone from sieving, particularly from three small, irregular features to the N. of the possible pyre bases. Unusually for this site there were more bones of sheep/goat than of cattle. The size of fragments in general tended to be smaller from Area 7. This area had a mixture of feature types with fewer large ditch and pit contexts than elsewhere. Small bones retrieved from the sieved samples included short-tailed vole and amphibian. Just one horse bone, a peripheral metapodial, was recovered. There were also three pig bones and two of dogs. Three other species are represented by single bones; fox, hare and domestic fowl.

¹¹⁵ R.A. Harcourt, 'The Animal Bones', in G.J. Wainwright, 'Gussage All Saints: An Iron Age Settlement in Dorset', *DOE Archaeol. Rep.* 10 (1979), 150-60; J.M. Maltby, 'The Animal Bones from a Romano-British Well at Oakridge II, Basingstoke', *Proc. Hants Fld. Club and Archaeol. Soc.* 49 (1993), 47-76.

Area 10, enclosure ditch 1441

The W. terminal contained a dump of animal bones, mainly of cattle. This includes a group of possibly associated cattle ribs and vertebrae of at least two animals. Some of the ribs showed healed breaks.

Area 10, enclosure ditch 1132 and 1133

The bones from these two ditches are very similar; although dominated by the bones of cattle and containing only the bones of the domestic species they are less biased in favour of cattle than elsewhere.

Area 10, ditch 1266

The 63 bones from this feature are mostly of the expected domestic ungulates, but in addition the partial skeleton of a bird was found. This is comparable with an immature raven, both leg and wing bones were recovered but no skull or any parts of the axial skeleton. A small fragment of bird limb shaft in another fill could not be identified.

DiscussionCattle

The anatomical distribution is biased in favour of loose teeth (22.5%). In poorly preserved or fragmented material these are more likely to survive where the jaw itself may have completely disintegrated. Most of the other elements are relatively evenly distributed, with slight under representation of small or fragile bones. Whole carcasses were utilised at the settlement, although it is clear that deposition of body parts in individual features varies widely. Carcass processing resulting in uneven distribution is quite common on urban Romano-British sites, but this typically involves separation of heads and feet from meat bones and dumps of filleting waste.¹¹⁶ A parallel for a dump of cattle thorax from a Late Iron Age site, like that in pit 1418, is not currently known to the author.

Some of the grouped material may have been ritual in nature; the deposition of the cattle and human skull in pit 5009 was clearly deliberate and unrelated to domestic disposal. Complete or partial carcasses, unusual associations, and deliberately placed animal skulls are not uncommon at Iron Age sites and obviously had some ritual significance.¹¹⁷

Ageing evidence was limited, but of the 10 mandibles with teeth six were of mature and probably aged animals, and four were of immature (but full grown) animals with the third molar not yet in wear. Epiphyseal fusion data is also limited and likely to be more adversely affected by taphonomic processes, but it is interesting to note that most of the material from pit 1418 and from the large ditch groups is of large but still immature beasts, of prime meat age. The discrepancy between the mandibles and fusion may be due to fragmentation of the jaws; several of the loose teeth were of deciduous premolars and the molars were in a variety of wear stages and certainly not all from old animals. Very few bones of calves were found and no mandibles, but the preservation conditions are likely to have counted against the remains of very young animals.¹¹⁸ This grouping of ages is statistically rather small for interpretation but is often found at rural sites and probably reflects a cull of old cows and plough oxen and surplus young males, together with occasional natural mortalities. The dump of prime meat animals in pit 1418, almost certainly in a single episode, may well imply a special event, though not necessarily a ritual burial. The expense to the settlement of the cull of six or more prime animals all at once must have been considerable.

Sheep/goat

The bones of sheep were more unevenly distributed across the skeleton than those of cattle. The smaller bones suffer more severely from the affects of aggressive soil conditions and retrieval bias, however, the retrieval of teeth on site suggests a survival rather than a retrieval bias. As with the cattle loose teeth were the most frequent element at 27.2% of the remains.

¹¹⁶ J.M. Maltby, 'Animal Bones and the Romano-British Economy', in J. Clutton-Brock and C. Grigson (eds.), *Animals in Archaeology* (BAR, Int. Ser. 227, 1984), 125-38.

¹¹⁷ A. Grant, 'Animal Husbandry', in Cunliffe, op. cit. note 33, pp. 496-548; A. Grant, 'Survival or Sacrifice? A critical appraisal of animal burials in Britain in the Iron Age', in Clutton-Brock and Grigson, op. cit. note 116, pp. 221-8; M. Green, *Animals in Celtic Life and Myth* (1992); S. Hamilton-Dyer, 'The Animal Bones from Coxwell Road, Faringdon' (in prep.); S. Hamilton-Dyer and J.M. Maltby, 'The Animal Bones from a Sample of Iron Age Contexts', in J.C. Barrett, P.W.M. Freeman and A. Woodward, *Cadbury Castle, Somerset: The later Prehistoric and Romano-British Archaeology* (Univ. of Glasgow, in press).

¹¹⁸ J.M. Maltby, 'The Variability of Faunal Samples and their Effects on Ageing Data', in B. Wilson, C. Grigson and S. Payne (eds.), *Ageing and Sexing Animal Bones from Archaeological Sites* (BAR 109, 1982), 223-50.

The adverse taphonomic effects on the data for sheep can be seen in the number of measurable distal tibiae. This is usually the most frequently available measurement.¹¹⁹ In this current collection just three tibiae were measurable, and six bones in total. All that can be said is that these fall well within the range for other Iron Age material from southern England. A single, complete but broken, metatarsus from pit 5030 gives an estimated withers height of 0.554 m. This bone had been modified, perhaps during use, the shaft being worn smooth and considerably narrowed. A similar but better preserved item was recovered from a Romano-British context at the nearby site at Coxwell Road, Faringdon.¹²⁰ This was clearly worn and grooved in use at both ends of the shaft, perhaps as a handle or in some process associated with weaving.

Epiphyseal fusion data is even less useful than that for cattle, but the number of sheep/goat mandibles is relatively high and 24 mandibles with teeth were recorded using Grant's system and accorded stages following Maltby.¹²¹ Thirteen were at stage 6 or over and no mandibles were from lambs (Maltby stages 1-2). This may be in part due to taphonomy as the mandibles of young animals are likely to be more fragile.¹²² There is a small secondary peak around stage 3-4. This peak equates approximately to animals of six to twelve months, the larger peak is of animals at least three years old with many over four. The sample is rather small for distinguishing phase differences but there is a suggestion of older animals in the later material. Very few mandibles are at stages 4 and 5 (numerical values 15-30), approximately two years old and of prime meat age. This is similar to the results from several Iron Age sites.¹²³

Horse, pig and dog

Horse and pig were at a similarly low level in comparison with cattle and sheep. Many of the horse bones were, or would have been, complete and all bones with articulations were fused. Of the 14 measured three offered withers height estimates of 1.130 m., 1.172 m. and 1.293 m. and these pony-sized values are typical of Iron Age material.

No height estimates could be made for the few bones of dog but the bones are of 'medium' sized animals. No complete burials or special associations were recovered as have been found at other sites.

Both horse and dog are likely to have been more prominent at the settlement than the number of remains might suggest. Both animals are uncommonly used for meat and may be allowed to live a relatively long time in comparison with cattle, sheep and, especially, with pig which breeds quickly and is kept to maturity only for breeding stock. The presence of dog is seen indirectly by the incidence of gnawing on the bones, also indicating that these bones had been available to dogs and were not immediately buried. Some bones will have been taken away and some destroyed completely, adding to the adverse taphonomic effects on the assemblage.

Other Taxa

Bones of other animals are very few and the occupants of the settlement clearly derived very little meat from wild species. Red deer is represented only by two small pieces of antler, which may have been collected after shedding.

Single bones represent fox, polecat and hare. All of these may have been utilised or regarded in a special way but they may equally represent incidental remains, none had butchery marks or were placed in a special way.

Birds are represented by a few bones only. Most are from the partial raven skeleton in ditch 1266. The largest member of the crow family, it was once common in Britain and it would have taken advantage of any dead lambs and other carrion. It also had ritual significance for the Celts and is often found as complete or partial carcasses.¹²⁴

The single bone of domestic fowl was recovered from a Late Iron Age context. This is consistent with other assemblages as this bird seems to have been introduced just prior to the Roman period.¹²⁵

The small mammals and amphibians are likely to be incidental.

¹¹⁹ J.M. Maltby, 'Iron Age, Romano-British and Anglo-Saxon Animal Husbandry - a review of the faunal evidence', in M. Jones and G. Dimbleby (eds.), *The Environment of Man: the Iron Age to the Anglo-Saxon Period* (BAR 87, 1981), 155-204.

¹²⁰ Hamilton-Dyer, op. cit. note 116.

¹²¹ A. Grant, 'The Use of Tooth Wear as a Guide to the Age of Domestic Ungulates', in Wilson, Grigson and Payne, op. cit. note 118, pp. 251-4; Maltby, *ibid.*

¹²² Maltby, op. cit. note 118.

¹²³ Maltby, op. cit. note 119.

¹²⁴ Green, op. cit. note 117.

¹²⁵ J.M. Maltby, 'The Exploitation of Animals in the Iron Age: the archaeozoological evidence', in T.C. Champion and J.R. Collis (eds.), *The Iron Age in Britain and Ireland: Recent Trends* (1996).

Regional comparisons

The Vale of the White Horse forms the boundary between the Dobunnii and the Atrebates and the Uffington White Horse and earthworks are just 6 km. to the south. However, little evidence of Iron Age activity had previously been recorded.¹²⁶

For the animal bones the nearest published assemblage is from Groundwell Farm, Blunsdon St. Andrew.¹²⁷ This was a large assemblage of over 10,000 fragments from a similarly low-lying settlement. The animal assemblage was also rather fragmented, eroded and loose teeth were common. The species identified are not dissimilar, with a concentration on the domestic species. Deer, hare and fox were present, the birds again include raven but also buzzard, crane and goose. Measurements are comparable and there is a bias towards old sheep. There is, however, a significant difference in the domestic species ratios. The level of pig was very high, almost as many bones as sheep. Cattle was at a low level, no more than 17% of the cattle/sheep/pig total. Cattle-sized fragments were also much less frequent than those of sheep/pig, implying that the cattle bones were genuinely fewer and not more fragmented and, therefore, less identifiable. The feature type may have some bearing, as unlike most Iron Age material the bones were mainly found in the wall trenches of round houses.

To the north-east at Faringdon another settlement is currently under investigation.¹²⁸ This assemblage is a little larger than Watchfield, quite well preserved and mainly from pits and ditches. The bones appear to be more similar to the 'classic' Iron Age picture with more sheep than cattle and pig in third place.

Nearer Oxford are two sites with large Iron Age assemblages, Ashville and Mingies Ditch.¹²⁹ Extensive analysis has revealed a broadly similar picture with a concentration on domestic ungulates, particularly sheep, but also that specific ratios, anatomical distribution and other aspects of the faunal assemblage are greatly dependent on feature type and other taphonomic factors.

Conclusions

This sample, though not well preserved, has produced some interesting results. A number of unusual deposits are present including some evidence of carcass processing not paralleled elsewhere. There is a higher level of cattle than expected from Wessex Iron Age sites, which are usually dominated by sheep. The valley situation may be relevant, perhaps providing better pasture for cattle, but the poor preservation must also be taken into account. The unusually high level of pig noted at nearby Groundwell Farm is not repeated here, although other aspects of the assemblage are similar. There are very few assemblages from this important tribal boundary and the collection makes a valuable contribution to the data from this area.

CHARRED PLANT REMAINS by PAT HINTON

Methods

Samples were processed at Wessex Archaeology by standard methods with flots saved on 0.5 mm. mesh. The flots and items extracted from the residues were examined by stereo microscope at 7-40x magnification, the dried flots having been re-sieved to simplify sorting. In two cases, the smaller fractions were sub-sampled and totals of small cereal and chaff fragments estimated. Although the samples with larger amounts included many fragments of upper parts of glumes and parts of the rachis, only glume bases are recorded in Table 10. All were fully searched for seeds and identifications confirmed when possible by comparison with modern reference specimens. Some seeds remain unidentified. Results are listed under probable habitats with nomenclature according to Stace 1997.¹³⁰

¹²⁶ Tingle, *op. cit.* note 5.

¹²⁷ J.P. Coy, 'The Animal Bones', in Gingell, *op. cit.* note 28, pp. 68-72, 76.

¹²⁸ Hamilton-Dyer, *op. cit.* note 117.

¹²⁹ B. Wilson, J. Hamilton, D. Bramwell and P. Armitage, 'The Animal Bones', in Parrington, *op. cit.* note 23, pp. 110-39; B. Wilson, 'Reports on the Bones and Oyster Shell', in T.G. Allen and M.A. Robinson, *The Prehistoric Landscape and Iron Age Enclosed Settlement at Mingies Ditch, Hardwick with Yelford, Oxon.* (OUCS, 1993).

¹³⁰ C. Stace, *New Flora of the British Isles* (2nd edn. 1997).

Results

Early-Middle Iron Age (Area 11)

The two ditch samples from this area contained only few cereals and weed seeds. Slightly more were recovered from the pits but most were poorly preserved, the condition of the cereal fragments suggesting heavy charring and/or later damage. Wheat appears to be the major cereal but it can only be tentatively assigned to species, although some grains approach the typical forms of *Triticum spelta* or *T. dicoccum* (spelt or emmer). Chaff fragments are few and confirm the presence of these glume wheats. *Hordeum vulgare* (hulled 6-row barley) grains were less frequent and *Avena* sp. (oats) occurred only once, in a single pit sample. Wild plant seeds, also few in number, are typical field or grassland species.

Late Iron Age – early Romano-British (Area 10)

The ditch samples included little evidence of cereal grains, but slightly more chaff. The pit samples gave contrasting results; the sample from pit 1365 (context 1356) contained very few grains but a larger number of emmer or spelt glume bases, whereas the sample from pit 1412 (context 1410) produced a much greater proportion of wheat and unidentifiable cereal fragments, but very little chaff. The poor condition of most of the grains in this sample prevented closer identification. The number of unspecified wheats was estimated from damaged and incomplete grains in a mass of unidentifiable fragments. Only small numbers of weed seeds occurred in all four samples.

Romano-British (Area 7)

The largest amount of charred remains came from feature 718. The contents of the samples from two opposing quadrants differ only slightly, in numbers of cereals, chaff and weed seeds. The cereals are poorly preserved but wheat appears predominant and although there are a few slightly more compact forms with a steeper radicle depression, suggestive of *Triticum aestivum* (bread wheat), it is likely that most is spelt. There is a large amount of chaff but most of the glume bases, which would assist identification, are fragmentary. The size of the better preserved bases however, and the occasional evidence of strong veins, again indicate spelt. Wild plant seeds also are more plentiful in these samples. Seeds of leguminous species (vetches, vetchlings, clovers etc.), here and in other samples, include those of small tares and also other slightly larger seeds (c. 2.5 mm. diameter) which are notoriously difficult to identify, even in good condition. It is possible that these are *Vicia sativa* (common vetch) but their size would indicate the weed form ssp. *segetalis*. However, part of one cotyledon (seedling leaf) suggesting a seed of more than 5 mm. in sample 20007 from feature 718, strongly indicates *Vicia faba* (broad or field bean). Samples from an adjacent pit and a possible pyre base revealed smaller numbers but more or less similar proportions of cereals, chaff and wild plant seeds.

Discussion

The results from the earlier Iron Age samples from Area 11 do little more than indicate cereals in use and the few remains here, particularly those from the ditches, are probably merely chance occurrences. The larger numbers in the early Romano-British pit samples (Area 10), however, are more suggestive of deliberate deposition, and the chaff and small weed seeds in pit 1365 correspond to a by-product of winnowing. The quantity of grain in pit 1412, most of which is very damaged, may perhaps represent the disposal of burned prepared grain, but its very degraded condition suggests that less robust items such as chaff or small weed seeds may well have been destroyed.

The charred plant fragments from the Romano-British pyre-related features in Area 7 presumably were additions to the fuel. Their derivation is likely to be cereal processing but the state of preservation makes interpretation of the proportionate amounts of chaff to grain remnants difficult since much is probably lost.

The remains from all periods provide a glimpse of the agricultural background to the site's occupation. Wheat appears to be the major cereal throughout, with spelt the most likely species, especially in the later periods. Hulled barley occurred only in small numbers and oats are even less common, probably being only part of the weed flora. The status of cultivated beans is uncertain (if a fragment of possible broad bean can be taken as evidence of presence). Pulses often are found only in small numbers, possibly because heat and therefore risk of charring, is not part of their preparation before use.

The amount of chaff from the later periods shows that cereal processing was carried out in the vicinity. The glume bases and fragments indicate spikelets, but other rachis parts suggest that possibly whole spikes, or ears, of wheat were treated. Whether the cereals (and possibly beans) were grown in the near neighbourhood or brought in from elsewhere for processing is unclear. The wild plant seeds which might assist are in most cases of typical arable weeds that might grow in any open or disturbed neutral to basic soil, and could well be of local origin; some may have been derived from grassland but could equally well have grown in cultivated soil.

TABLE 10. CHARRED PLANT REMAINS

Feature	Early - Middle Iron Age, Phases 3A & 3D								Late Iron Age to Early Roman				Romano-British			
	Ditch 5334	Ditch 5276	Pit 5030	Pit 5053	Ditch 1417	Ditch 1133	Pit 1365	Pit 1412	Feature 718	Pit 731	Pyre base 732	866	Feature 20007	Pit 20014	Pyre base 20001	866
Context	5210	5225	5034	5080	1316	1068	1356	1410	757		732	793				
Sample no.	20085	20092	20059	20074	20063	20069	20055	20061	20007	20014	20001	20021				
Sample volume (litres)	10	10	10	10	10	10	5	10	10	10	10	10				
Cultivated Plants																
<i>Triticum</i> cf <i>spelta</i> - grains		1	2	1				7	3	9	3					
" - glume bases	1			3		2	28		23	22	10	8				
<i>Triticum spelta/dicoccum</i> - grains			1													
" - glume bases			4	2	4	7	161	4	c.300	103	57	28				
<i>Triticum spelta/aestivum</i> - grains									4	2						
<i>Triticum</i> sp. - grains	3		6	2	1		3	c.180	c.50	33	13	2				
<i>Hordeum vulgare</i> - grains	>2	1	2	3	1			8	2	9	5	1				
" - rachis frags									1	3						
<i>Avena</i> sp. - grains			1			1		4	2	6	2	1				
" - awn fragments							2		3	22	3	1				
Cerealia indet. - grains		1	1			2	1	c.50	c.20	5						
- fragments	<0.5ml.	<0.25ml.	<0.5ml.	0.25ml.	<0.5ml.	<0.25ml.	0.25ml.	10ml	>3ml.	1.5ml.	>0.5ml	0.5ml				
cf <i>Vicia faba</i>									1							
Arable and Grassland plants																
<i>Ranunculus sardous/parviflorus</i>						1										
<i>Chenopodium album</i> L.							1					2				
<i>Chenopodium</i> sp.												1				
<i>Atriplex prostrata/patula</i>												19				
<i>Stellaria media/neglecta</i>					1	1			1			1				
Caryophyllaceae indet.								1								
cf <i>Polygonum aviculare</i> L.				1			3					2				
<i>Fallopia convolvulus</i> (L.) A. Löve								1		1	1	1				

<i>Rumex cf acetosa</i>	common sorrel	1				4	2		
<i>Rumex</i> sp.	dock	1				4	3	1	2
<i>Viola</i> sp.	violet/ or pansy					2			
<i>Vicia hirsuta</i>	hairy tare						1		
<i>Vicia tetrasperma</i> (L.) Schreber	smooth tare			2	1				1
<i>Vicia hirsuta/tetrasperma</i>	tares	1	1	1	1	4	1	15	1
<i>cf Lathyrus nissolia</i>	grass vetchling				1		2		
<i>Vicia/Lathyrus</i> sp.	vetch or vetchling		2		2	1	1	3	2
<i>Medicago lupulina</i> L.	black medick								3
<i>Trifolium</i> sp.	clover				1		2		
<i>Medicago/Trifolium</i> sp.	medick/clover							1	2
<i>Odontites/Euphrasia</i> sp.	bartsia or eyebright						2	1	
<i>Sherardia arvensis</i> L.	field madder						3	4	?1
<i>Galium aparine</i> L.	cleavers	2	2	1	1		5	2	2
<i>cf Pulicaria dysenterica</i>	common fleabane							1	
<i>Anthemis cotula</i> L.	stinking mayweed								1
<i>Tripleurospermum inodorum</i> (L.) Schultz-Bip	scentless mayweed						3		1
Asteraceae indet.	daisy family						1		
<i>Carex</i> sp.	sedge				2		1	2	1
<i>cf Festuca/Lolium</i> sp.	fescue or rye grass						3	7	6
<i>cf Poa annua</i> L.	annual grass								14
<i>cf Alopecurus/Phleum</i> sp.	foxtail or cat's tail grass						2		2
<i>Bromus</i> sp.	brome grass	1	1	1	2	2	5	3	1
<i>Danthonia decumbens</i> (L.) DC	heath grass	1							
Poaceae indet.	indeterminate small grasses	1	2	1	4	3	4	2	3
Wood or Wood margin plants									
<i>Corylus avellana</i> L. - shell fragment	hazel							1	
<i>Prunus spinosa</i> L. - fruit stone	sloe						1		1+?1

CHARCOAL by ROWENA GALE

Charcoal was common throughout the site, but was never present in large quantities. Nine samples were selected for study. Selection was based on contexts most likely to produce environmental data and economic information on the use of woodland resources, and with reference to funerary customs. The samples included charcoal from a possible Mesolithic tree-throw, Iron Age pits and ditches, and features associated with a Romano-British cremation cemetery.

Material and Methods

Bulk soil samples were processed by flotation and sieving using standard methods. The flots and residues were scanned and charcoal fragments separated from the charred seeds. The charcoal was mostly rather sparse and some was poorly preserved. Charcoal fragments measuring >2 mm. in radial cross-section were prepared for examination using standard methods. Fragments were fractured to expose fresh transverse surfaces and sorted into groups based on the anatomical features observed using a x20 hand lens. Representative fragments from each sample were selected for detailed study at high magnification. These were fractured to expose the tangential and radial planes, supported in washed sand, and examined using a Nikon Labophot microscope at magnifications of up to x400. The anatomical structure was matched to prepared reference slides.

When possible the maturity (i.e. heartwood/sapwood) of the wood was assessed. It should be noted that measurements of stem diameters are from charred material; when living these stems may have been up to 40% wider.

Results

The charcoal structure was matched to the taxa or groups of taxa given below and a summary of the results is shown in Table 11. The anatomical structure of some related taxa can not be distinguished with any certainty, for example, members of the Pomoideae (*Crataegus*, *Malus*, *Pyrus* and *Sorbus*) and Salicaceae (*Salix* and *Populus*). These are indicated in the text by group names. Classification follows that of Flora Europaea.¹³¹

Aceraceae. *Acer* sp., maple

Corylaceae. *Corylus* sp., hazel

Fagaceae. *Quercus* sp., oak

Oleaceae. *Fraxinus* sp., ash

Rosaceae.

Subfamily Pomoideae, which includes *Crataegus* sp., hawthorn; *Malus* sp., apple; *Pyrus* sp., pear; *Sorbus* spp., rowan, service tree and whitebeam. These taxa are anatomically indistinguishable.

Subfamily Prunoideae, *P. spinosa*, blackthorn.

Salicaceae. *Salix* sp., willow and *Populus* sp., poplar. These taxa are anatomically similar.

Mesolithic

One of four tree-throws associated with the flint scatter in Area 11 contained a layer of oak (*Quercus*) charcoal and other burnt material including flints. The charcoal consisted of sapwood and although relatively abundant, it was too fragmented to assess the age or dimensions of the wood, although it was clearly not from narrow roundwood (i.e. <20 mm. in diameter). On excavation the feature was interpreted as either the remains of burnt roots from a tree or deposited hearth material. The absence of other taxa tends to suggest that waste wood/ brash (but not the roots) from a single tree was destroyed by burning. In oak, the structure of root-wood is diffuse porous, whereas trunk- and stem-wood is characteristically ring porous. The charcoal was ring porous. Alternatively, it could also be argued that the deposit derived from the remains of a hearth that was subsequently colonised by trees, which eventually blew down exposing the charcoal and flints.

Iron Age, Phases 3A-3D

Charcoal was relatively sparse in the secondary fill (5210) of the Early/Middle Iron Age (phase 3A) enclosure ditch 5334 in Area 11. The sample from the ditch included oak (*Quercus*) sapwood and possibly narrow roundwood (the fragments were too comminuted to be sure). Ash (*Fraxinus*) and the hawthorn group (Pomoideae) were also represented.

¹³¹ T.G. Tutin, V.H. Heywood et al., *Flora Europaea*, 1-5 (1964-80).

Samples from two pits in Area 11 were also examined. The upper fill of pit 5077 included loom weights and large quantities of charcoal. The charcoal-rich deposit (context 5078) consisted of fragments measuring up to 10 mm. in length, mostly oak (*Quercus*) sapwood and heartwood but also small amounts of ash (*Fraxinus*), maple (*Acer*) and blackthorn (*P. spinosa*). The high proportion of oak, a fuel traditionally associated with furnaces, kilns etc., suggests an origin from specific processes rather than more general domestic fires.¹³² The second pit 5030, dated to the Early-Middle Iron Age, was shallow and sub-rectangular in shape. The basal fill contained animal bones, worked flint, burnt stone, pottery, a rotary quernstone and a small amount of charcoal. The charcoal here included oak (*Quercus*) sapwood and heartwood, hazel (*Corylus*), the hawthorn group (*Pomoideae*) and blackthorn (*P. spinosa*).

TABLE 11. CHARCOAL

Feat	Cont	Sample	Acer	Corylus	Fraxinus	Pomoideae	Prunus	Quercus	Salicaceae
MESOLITHIC – Tree throw, Area 11									
5398	5399	20088	–	–	–	–	–	131s	–
EARLY-MIDDLE IRON AGE – Phase 3A – ditch, Area 11									
5334	5210	20085	–	–	3	6	–	7rs	–
IRON AGE PHASE 3 – pits, Area 11									
5030	5034	20059	–	4	–	2	4	4sh	–
5077	5078	20075	1	–	2	–	3	52sh	–
LATE IRON AGE – EARLY ROMAN – ditches, Area 10									
1133	1068	20069	–	–	–	–	–	6s	–
1132	1436	20077	91r	–	–	–	–	–	–
ROMANO-BRITISH – possible pyre base, Area 7									
866	762	20010	–	–	–	1	1	3	–
866	793	20021	–	–	1	–	–	3s	2
Pit, Area 7									
731	732	20001	–	–	–	4	–	7sh	–

Key: r = roundwood (diameter <20 mm.); s = sapwood; h = heartwood

The number of fragments identified is indicated.

Late Iron Age – early Roman

Area 10 consisted of a series of inter-cutting enclosure ditches and pits. The secondary fill of ditch 1133, in the centre of the area, contained of a few small fragments of oak (*Quercus*) charcoal. A charcoal deposit was also located in the upper fill of ditch 1132 and consisted entirely of maple (*Acer*). Some pieces of roundwood here measured approximately 10 mm. in diameter, but the remainder were too fragmented to assess ages or dimensions. The origin of this considerable deposit of a single taxon is intriguing. Could the charcoal have derived from fuel debris from an activity for which maple was specially chosen, or from artefactual remains, or could it represent the burnt remains from hedge maintenance or scrub clearance?

Romano-British

Area 7 appears to have been used for cremation pyres during the early 2nd century AD. Two possible pyre bases or pyre related features consisted of shallow scoops cut into the limestone bedrock (866 and 867). These had probably been used on several occasions and human bone and charcoal were found in each feature. Charcoal from possible pyre base 866 included oak (*Quercus*) sapwood, blackthorn (*P. spinosa*), and the

¹³² H.L. Edlin, *Woodland Crafts in Britain* (1949); L. Armstrong, *Woodcolliers and Charcoal Burning* (1978).

hawthorn group (Pomoideae). A flat piece of bark measuring 10 mm. wide x 3 mm. thick, although unidentified, almost certainly originated from a wide piece of roundwood. A single fragment of coal was also present. Although insufficient to indicate whether specific woods were used in the make-up of the pyre, the charcoal does show that the fuel contained fairly wide roundwood, a mixture of wood species, and that coal was also used. The basal fill (793), only present at the SE. end, of feature 866 contained a few scraps of charcoal from oak (*Quercus*) sapwood, ash (*Fraxinus*), and willow/ poplar (*Salix/Populus*). The presence of the charcoal at the base of this feature (underneath later fills) suggests an origin either from an earlier cremation at the pyre site or from some other activity. The charcoal from this context differed slightly in content to that from the main fills (see above), and could imply a different origin.

The upper fill of pit 731 contained potsherds, bone and charcoal. The charcoal from the upper fill of this pit was sparse and included oak (*Quercus*) sapwood and heartwood, and member/s of the hawthorn group (Pomoideae); also a fragment of coal. Although it is impossible to form any conclusions concerning the origin of the charcoal from such a tiny sample, it may be significant that this sample is comparable to that from the pyre (see above).

Discussion

Charcoal was examined from features from Areas 7, 10 and 11. The first two areas lay on what is now arable land sloping from W. to E. on soils consisting of alternating bands of sand and clay with outcrops of Corallian limestone. Slightly further W. Area 11 occurred on the crest and east-facing slope of a ridge of ferruginous sand overlying Corallian limestone bedrock. Artefactual evidence and earthworks attested to the occupation of the site (if only sporadically) from the Late Glacial period. Charcoal residues were frequently present in ditches, pits and in features associated with cremations and graves. Samples were selected for identification from features with the potential to provide significant data (i.e. those associated with a particular artefactual use, e.g. pyre fuel, or of environmental importance).

Mesolithic occupation was indicated by burnt flints and charcoal exposed in the throw-holes of fallen trees. A large quantity of charcoal was excavated from one of these and identified as oak (*Quercus*) sapwood. As the wood structure indicated that the source of the material was from branches of the tree rather than the roots it seems likely that this charcoal represents debris from a hearth, or possibly, since a single species only was identified, from the clearance of local scrub.

Charcoal, probably from fuel debris, from pits 5030 and 5077 (Area 11), and ditches 1132 and 1133 (Area 10), pertained to various phases of the Iron Age and early Romano-British period. These samples identified the use of maple (*Acer*), hazel (*Corylus*), ash (*Fraxinus*), the hawthorn group (Pomoideae), blackthorn (*P. spinosa*), and oak (*Quercus*) (see Table 1). The predominance of oak (*Quercus*) (sapwood and heartwood) in pit 5077 suggests that this derived from a specific process, such as kilns or furnaces, rather than more general domestic fires. The charcoal deposit in ditch 1132 was unusual in that all the charcoal derived from a single taxon (maple, *Acer*). The source of this material is not clear. It seems likely that it accrued from fuel debris, although origins including burnt artefactual material or refuse from burning scrub clearance/hedge trimmings cannot be ruled out. Maple is a common element in the hedgerows of today and would almost certainly have been present in Iron Age hedge-banks defining boundary ditches and the like.

Samples illustrating the use of fuel in burial customs comprised the possible Romano-British pyre base 866 and associated features. Samples of charcoal from the pyre base were also small and poorly preserved. It was clear, however, that the pyre fuel had included at least three different types of wood (oak (*Quercus*), the hawthorn group (Pomoideae), and blackthorn (*P. spinosa*)), including some wide roundwood, and coal; charred grain was also recorded (see seed report, this volume). The similarity of this material to that from pit 731 suggests a common origin, although the pit also included charred cereal chaff, peas and beans (see Hinton, above). Charred cereal grain and chaff, and peas/ beans were also present. The presence of plant macrofossils could infer a mix of pyre fuel and general rubbish in these contexts.

The charcoal evidence in particular from Watchfield provides some basis for an assessment of the local environment during the occupation of the site. Of particular interest are the three samples which contained large amounts of charcoal that was either totally or predominantly from a single taxon (oak (*Quercus*), maple (*Acer*), and oak (*Quercus*), respectively), indicating preferential selection of wood, probably for fuel. A comparatively narrow range of taxa was identified overall and included maple (*Acer*), hazel (*Corylus*), ash (*Fraxinus*), the hawthorn group (Pomoideae), blackthorn (*P. spinosa*), oak (*Quercus*), and willow/poplar (*Salix/Populus*). Oak occurred in every sample except that from the early Roman ditch 1132, and was frequently present in larger volume than other taxa, which tended to be sporadic and sparsely represented.

The prevalence of oak in the fuel residues suggests that oak was the dominant woodland component. Other woodland trees identified included ash (*Fraxinus*), hazel (*Corylus*), maple (*Acer*), and members of the Pomoideae (e.g. hawthorn (*Crataegus*), whitebeam (*Sorbus aria*), rowan (*S. aucuparia*), and wild service (*S. torminalis*)). Blackthorn (*P. spinosa*) is spiny and shrubby, and quickly colonises open areas or rough ground, often forming dense thickets. Blackthorn and hawthorn have traditionally been used for stock-proof hedges,

and may have been used in conjunction with enclosure ditches at Watchfield.¹³³ Wetland taxa included either willow (*Salix*) or poplar (*Populus*). The taxa identified typically grow on both acidic (sandy) and calcareous (limestone) soils although some, e.g. oak, tend to favour slightly acid conditions, particularly on clay. A number of other woody species in addition to those named above probably grew locally, but were not sought out for use as fuel.

The Mesolithic landscape would certainly have been more wooded than in later periods and land use at this time would probably have been confined to naturally occurring woodland glades, although it has been suggested that in some regions of Oxfordshire woodlands were thinned during the late Mesolithic to improve grazing.¹³⁴ In later periods woodland clearance was extensive, especially in the Iron Age and Romano-British periods when the expansion of arable farming was widespread in the south Midlands.¹³⁵ Fuel (and other wood/ timber requirements) would have been supplied from enclosed and managed woodlands, wood pasture, or by lop and top from hedgerows and pollards. Recent field walking in the vicinity of Watchfield, which was sited close to the Late Iron Age tribal boundaries of the Atrebatas and the Dobunni has suggested that occupation in this region was sparse during the Late Iron Age.¹³⁶ If the settlements here were indeed small and sporadic, farming would have been less intensive and demands for woodland resources correspondingly low. Evidence for coppiced woodlands at Watchfield is inconclusive, since the charcoal was mostly too fragmented to assess the maturity and likely dimensions of the wood. Wood and its by-products, however, have always been important economic commodities and in some areas of Britain, e.g. the Somerset Levels,¹³⁷ records indicate that woodland was managed and coppiced as early as the Neolithic period. It seems likely that some ratio of managed woodland would have existed at Watchfield during the Late Iron Age and early Romano-British periods, although with a relatively low population to support, some patches of unmanaged woodland may have persisted, especially in areas difficult to cultivate.

The charred plants remains provide some evidence of cereal use, principally wheat, during all the principal phases of occupation at Watchfield. However, the evidence is too insubstantial to allow a more in depth assessment of the economic base of the site at any period. Nevertheless, the substantial animal bone assemblage suggests a pastoral bias in the agricultural regime at Watchfield, with cattle atypically predominant. It remains unclear, however, whether arable agriculture was practiced or cereals merely consumed on the site.

CONCLUSIONS

The excavation has produced evidence that the area around the site has been exploited at least sporadically from the Late Glacial period to the present. Although finds of Late Glacial, Mesolithic, Neolithic and Bronze Age date indicate occupation of the higher ground around Area 11, no features of these dates, with the exception of a few natural features, were found. The earliest settlement features were of Early-Middle Iron Age date and represent a small, enclosed settlement to the N. of Area 11, and possibly an associated field system.

The Early-Middle Iron Age settlement appears to have been abandoned in the 2nd century BC. There then appears to be a hiatus in the archaeological record until the 1st century BC, when the Late Iron Age settlement was established. The focus of activity on the site shifts at this time, from the higher ground around Area 11 to the lower ground to the E. around Areas 10, 4 and 5. The occupation here may represent more than one settlement focus. The Late Iron Age occupation continued in Area 10 into the early Romano-British period, although the settlement represented by the features in Area 10 appears to have been abandoned in the early part of the 2nd century AD. However, Romano-British occupation

¹³³ J.H. Harvey, *Medieval Gardens* (1990).

¹³⁴ M. Robinson and B. Wilson, 'A Survey of Environmental Archaeology in the South Midlands', in K.C.M. Keeley (ed.), *Environmental Archaeology: a regional review*, ii (1987), 16-100.

¹³⁵ Ibid.

¹³⁶ Tingle, op. cit. note 5.

¹³⁷ J.M. Coles and B.J. Orme, *Prehistory of the Somerset Levels* (Somerset Levels Project, 1982).

of the area clearly continued in the vicinity of the site, possibly centred on the substantial building recorded to the SE.

Throughout the Iron Age and early Romano-British periods the main basis of the economy appears to have been pastoral farming, with a strong bias towards cattle. It is possible that the valley situation of the site may be relevant, perhaps providing better pasture for cattle. Evidence for crop processing is slight, although small-scale crop production was presumably practiced, probably on the more fertile and easily tilled lighter sandy soils of the higher ground. Although environmental evidence is generally lacking, there are indications that during the Iron Age and earlier Romano-British periods the local area also comprised pasture with at least some woodland, predominantly oak.

The impact of the Roman conquest on the area appears to have been very gradual, with no appreciable Romanisation until the 2nd century. It is perhaps significant that the Area 10 settlement fell out of use at this time, although activity continued in the general area.

Saxon, medieval and post-medieval occupation in the area is represented by the Saxon cemetery to the N. of Area 11, the medieval and post-medieval features in areas 9 and 11, and by the extensive ridge and furrow system found over much of the site.

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The finds and archive will be deposited with the Oxfordshire Museums Service in 2002 (Acc. No. 1998.113).