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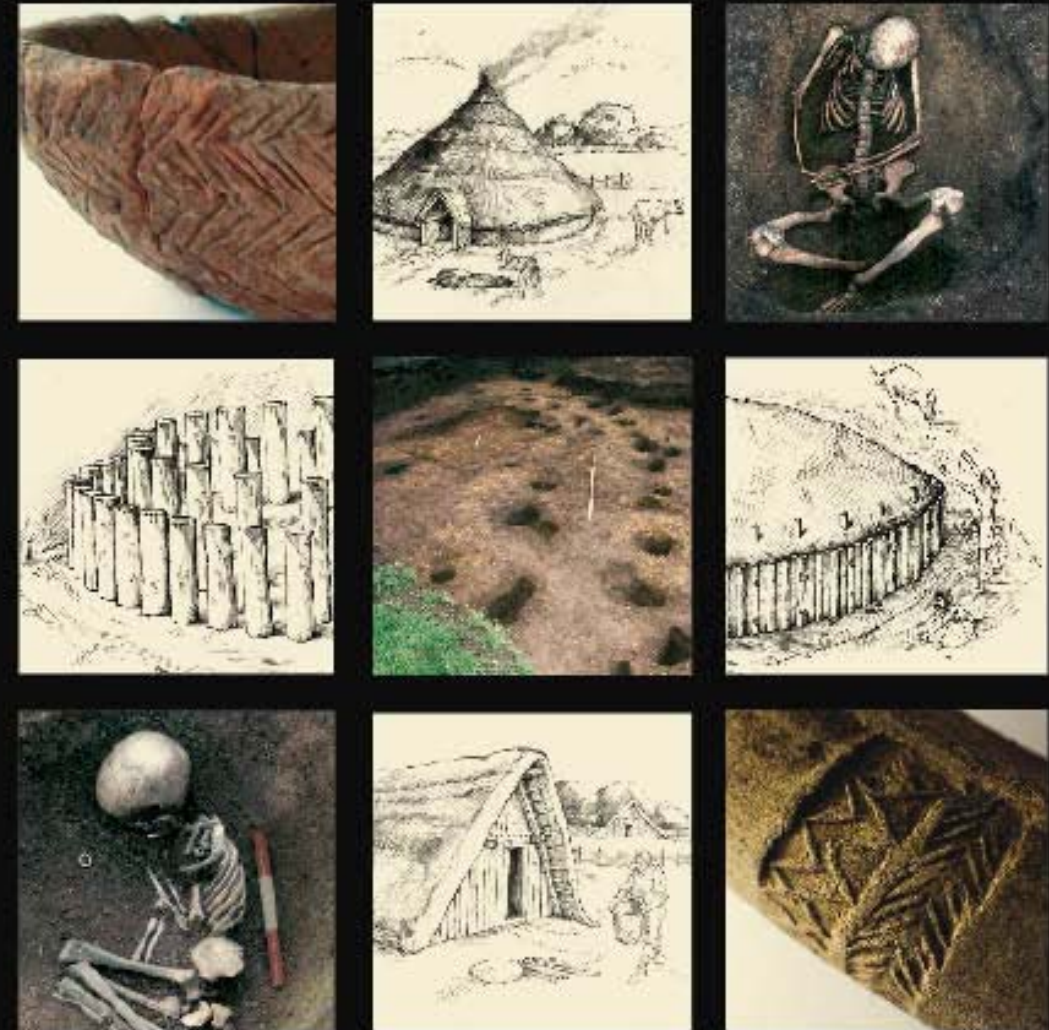
This report presents the results of discoveries made over more than 50 years at the Spring Gardens Municipal Cemetery, Abingdon, by amateur and professional archaeologists alike, and is a testament to the enduring strength of interest in the past shown by the staff of the cemetery. Humans first visited this place more than 8000 years ago, and there is evidence of use from every period since, a microcosm of the history of Abingdon. Of particular significance are a Beaker burial with a copper awl, one of the earliest metal finds from Britain, and part of a timber post-circle dating to a round 1500 BC in the Middle Bronze Age, one of the latest such monuments in prehistoric Britain, and part of a local group of later Bronze Age circles. There is also a rare example of a small Iron Age cemetery within a building. These and other discoveries chart the changing fortunes of this location, and its long history as a burial ground over more than 4000 years to the present day.
Reconstructions by Mark Gridley.



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SAVED FROM THE GRAVE

Neolithic to Saxon discoveries at
Spring Road Municipal Cemetery
Full Research Volume



SAVED FROM THE GRAVE

By T. G. Allen & Z. Kamash



By T. G. Allen & Z. Kamash

Excavations at Spring Road Municipal Cemetery, Abingdon, Oxfordshire, 1990-2000

Web text

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SUMMARY

Excavations and salvage recording carried out within the Spring Gardens municipal cemetery over the last fifty years have revealed evidence of archaeological activity from the Mesolithic to the Saxon period. Situated on a gravel rise alongside the Larkhill Stream, occasional struck flints indicate that the site was visited by Mesolithic hunter-gatherers, and a few sherds of early Neolithic pottery show that the first farmers also visited. The location apparently became more important in the middle and late Neolithic periods, as shown by a Peterborough Ware vessel and a Grooved Ware pit, and by an early Beaker burial accompanied by a copper awl. Sherds of early Bronze Age pottery suggest that the site continued to be significant to the local community during this period, and in the middle Bronze Age an arc of substantial postholes probably indicates the construction of a timber circle, one of very few of this date in southern Britain. This was accompanied by various pits or postholes, and a scattering of similar features was also present in the late Bronze Age.

The early to middle Iron Age saw the erection of a substantial timber roundhouse, at whose centre was a pit, and within whose circumference a group of three middle Iron Age crouched burials was found, formally deposited in purpose-dug graves. Other undated crouched burials were present across the site, possibly indicating a dispersed cemetery. There was otherwise little evidence of middle or late Iron Age activity, but in the Roman period ditched or fenced enclosures were laid out and the site was used for domestic occupation in the 2nd and 3rd centuries AD. The site was reoccupied in the 6th century AD, when a variety of Saxon features including sunken-featured buildings and ditches were dug, but it is unclear whether the occupation continued into the 7th century AD. In the 13th century the east side of the site was used for gravel extraction, possibly relating to the construction of a chapel and cemetery at the adjacent road junction, but thereafter the area became part of the arable fields of Abingdon. At the turn of the 19th-20th centuries the area again became a gravel pit, and this extended into the north-east corner of the site. The quarry was short-lived, and the site reverted to open ground used for pasture until taken over for burials in 1940.

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The excavations were carried out by a mixture of professional and amateur archaeologists, all of whom we would like to thank. Martin Hicks supervised the 1990 evaluation, ably assisted by Jeff Parsons, and the 1994 excavations by the Abingdon society were run by Alison Gledhill and Roger Ainslie. The 2000 excavations were directed by Tim Allen, and managed on-site by Jon Hiller. The support of all the volunteers who took part is gratefully acknowledged.

We would also like to thank Alison Roberts, Arthur MacGregor and Julie Clements at the Ashmolean Museum, Lauren Gilmour at the Oxfordshire County Museums Store at Standlake and Cherry Grey at Abingdon Museum for their assistance in locating and loaning finds from the earlier excavations for analysis during post-excavation. We would also like to acknowledge the part played by David Brown and Tania Dickinson (formerly of the Ashmolean Museum and the Institute of Archaeology at Oxford respectively) in attempting to trace the Saxon pottery given by Bill Skellington.

The authors would like to thank all the contributors to the report, including the illustrators. Unless otherwise indicated the summaries of the full CD-Rom text were written by Chris Hayden.

Chapter 1: Introduction

by Tim Allen, Jon Hiller and Zena Kamash

LOCATION, GEOLOGY AND TOPOGRAPHY

by Tim Allen

Spring Road municipal cemetery is situated in Abingdon, Oxfordshire (SU 4875 9755), north-west of the town centre on Summertown-Radley 2nd gravel terrace deposits (BGS 253, Drift) (Fig. 1). The gravel terrace deposits on which Abingdon lies are divided by a series of streams flowing south into the rivers Ock and Thames; in this case the site is bounded on the west and north by the valley of the Larkhill Stream, while to the south the terrace dips gradually to Kimmeridge Clay deposits and to 1st terrace floodplain gravels beyond that adjacent to the river Ock some 400 m away. Only on the east is the gravel terrace uninterrupted, and the site thus occupies a slight eminence (Dunham 1971).

To the north the site is bounded by houses built between the 1st and 2nd World Wars, and on the east by housing added after the 2nd World War. On the west of the site are the levelled playing fields of Larkmead School. To the south is the previous municipal cemetery situated between Cemetery Road and Spring Gardens. The site has been used for burials since 1940 and is landscaped and divided into numbered blocks (Fig. 2). The areas still unused for burials at the time of the excavations comprised blocks 8, 9 and 5.

CIRCUMSTANCES OF THE PROJECT

by Tim Allen

The Spring Road municipal cemetery (Fig. 1) is owned by Abingdon Town Council, who purchased the land before the Second World War and converted previously agricultural land into a cemetery in 1940. The depth and close spacing of the graves meant that as more graves were dug, most archaeological features within the boundary of the cemetery were gradually destroyed. As the site lay outside the PPG16 planning framework, and in the light of significant finds made during grave-digging, Tim Allen of OAU approached English Heritage and the town council in 1990 for funds to record the

remaining undisturbed areas of the site ahead of the gradual expansion of the cemetery population over the next 10 to 20 years. English Heritage provided funds for an evaluation (Fig. 2; OAU 1990), but the larger sums needed for area excavation were not available.

After a second unsuccessful approach to English Heritage in 1994 Tim Allen persuaded the Abingdon Area Archaeological and Historical Society (hereafter AAAHS) to dig within the site. Several small trenches were dug and published (Fig. 2; Ainslie 1999), but the society did not wish to commit itself to a long-running campaign of excavations.

By 2000 modern burial had filled the south, west and most of the northern end of the cemetery, and was encroaching up the north-east side. An area of c 3500 m² remained unused for burial. A third approach to English Heritage that year was successful, and in the summer of 2000 the Oxford Archaeological Unit (OAU) was commissioned by English Heritage (with the co-operation of Abingdon Town Council) to undertake archaeological excavations. The aims and objectives of the work were set out in the research design for the fieldwork (OAU 2000). The excavations were preceded by a geophysical survey of the unused part of the cemetery and part of the sports field belonging to Larkmead School immediately adjacent (Figs 41-42). Excavation took place within Areas 8 and 9 at the east side of the cemetery and in Area 5 in the north-west corner (Fig. 2)

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND OF THE AREA

by Tim Allen

Prehistoric

The town lies in an area rich in archaeological remains of all periods (Fig. 1), and has seen human occupation and settlement for at least five and a half thousand years. North-east of the town at Daisy Banks, Radley, lay a causewayed enclosure with an associated earthen long mound (Case and Whittle 1982; Bradley 1984), and south-west of the river Ock was another complex of monuments: a cursus, a long mortuary enclosure and a long barrow (Benson and Miles, 1974, 61-2, map 33; Ainslie and Wallis, 1987; Gledhill and Wallis, 1989; Barclay et al 2003). Another earthen long barrow has been identified from

aerial photographs near Tesco's west of Abingdon only 1 km south-west of Spring Road, and has recently been evaluated (OAU 1997).

Evidence of late Neolithic activity was found east of the causewayed enclosure at Daisy Banks (Barclay and Halpin 1999). A pit containing Grooved Ware was excavated during the construction of the A34 just west of the Tesco's long barrow (Parrington 1978, fig. 25), and a Class II henge was found south of the Ock close to the Thames at Corporation Farm (Henderson in Barclay et al. 2003).

The Neolithic monument complexes later became foci for Beaker and Bronze Age barrow cemeteries, and the linear barrow cemetery at Barrow Hills east of Daisy Banks, Radley is the best known locally (Barclay and Halpin 1999). Groups of round barrows are present, however, all around Abingdon, one group close to the Class II henge at Corporation Farm (Benson and Miles 1974, Map 33) and another to the north-west, one of which was excavated at Saxton Road (Leeds and Harden 1936). Further round barrows are located just north of the Ock, grouped around the earthen long barrow south of Tesco's, and Beakers have also been found outside the barrows in a recent evaluation of this site (OAU 1997). Closer to Spring Road, two ring-ditches were excavated at Ashville Trading Estate (Parrington 1978, 24-28) and further ring-ditches show as cropmarks c 400 m north-east of Spring Road at Barrow Field (Benson and Miles 1974, 57-8, map 30). Beaker pottery has also been recovered from the town centre (Wilson and Wallis 1991, 4; Allen 1990, 73).

Evidence of the later Bronze Age is focussed in two areas, one west and one east of Abingdon. On the west the evidence comprises a middle Bronze Age enclosure at Corporation Farm (Shand et al. 2002), a waterhole south of Tesco (OAU 1997) and cremations at Ashville (Parrington 1978). On the east there are cremations at Radley Barrow Hills (Barclay and Halpin 1999, 167) and a field system at Eight Acre Field, Radley (Mudd 1995). There is also late Bronze Age activity at this latter site, and there are two Late Bronze Age inhumations in earlier burial monuments at Barrow Hills.

An extensive early and middle Iron Age settlement lay just west of the Larkhill Stream only a few hundred metres from Spring Road, and has been excavated at Ashville Trading Estate and Wyndyke Furlong (Parrington 1978; Muir and Roberts 1999). Traces of another middle Iron Age settlement have been found at Tithe Farm south of the river Ock (Ainslie 1992b). A large early and middle Iron Age settlement lay beneath the present town centre (Miles 1975; Jones 1983; Allen 1990) and another early Iron Age site south of Audlett Drive (Keevill 1992; OAU 1998). East of the town further

settlement evidence has been recovered, notably at Thrupp (Wallis 1981; Everett and Eeles 1999) and at Barton Court Farm (Miles 1986).

Late Iron Age and Roman

By the late Iron Age, a native '*oppidum*' was established at Abingdon, defended with two or three ditches and an internal bank, which continued as a market-centre in the early Roman period (Allen 1991; Allen 1993; Allen 1995; Allen 1997). In the 2nd century it developed into a small town with substantial buildings (Thomas unpubl; Allen 1990; Wilson and Wallis 1991, Moore pers. comm.), spreading beyond the defences (Thomas unpubl; Allen 1994; Allen 1996) and with cemeteries or burials immediately adjacent on the north-west, north and east sides (Atkinson and McKenzie 1946; Atkinson 1947; Ainslie 1995; Wilson 1979; OAU 1998). The later Roman levels have been more severely truncated by medieval and more recent housing development within the town, but the quantity of pottery and coins show that it continued to flourish until the very end of the 4th century.

Villas such as that at Barton Court Farm (Miles 1986) were the centres of rural estates, and while no estate centre has been confirmed west of the town, ditches, wells and other features have been identified at Ashville Trading Estate and Wyndyke Furlong just west of the Spring Road site (Parrington 1978; Muir and Roberts 1999). A small late Roman cemetery is recorded close to Marcham Road (Parrington 1978, 23-5) to the south-west, and the site of a building, interpreted as a temple, lies at Tithe Farm south of the river Ock (Brown 1968, 137; Benson and Miles 1974, 57-8 map 30). A Roman building has also been recorded to the west of Saxton Road cemetery (Benson and Miles 1974)

Anglo-Saxon, medieval and post-medieval

Within the town two Grubenhäuser or sunken-featured buildings of 5th-century date have been found during excavations in The Vineyard, and Saxon loomweights from the High Street and from Boxhill Walk north of the town centre (Allen 1990; Rodwell 1975; A. Dodd pers. comm.).

West of Abingdon and south of the river Ock at Saxton Road a large Saxon cemetery containing over 200 mixed inhumations and cremations was excavated in 1934 (Leeds and Harden 1936; Myres 1968; Myres 1977). The cemetery begins in the 5th century, evidence of early penetration by the Anglo-Saxons up the Thames similar to

that at Dorchester close by (Chadwick Hawkes 1986, 69-71). This may have been the burial-place of a Saxon community at Corporation Farm, Drayton (Benson and Miles 1974, 61-3 map 33), but probably also contains burials from the settlement in the town centre. Finds from Wyndyke Furlong west of the Larkhill stream suggest some Saxon activity, although no settlement was located (Muir and Roberts 1999, fig. 3.7). South of the town there was a significant Saxon complex at Drayton and Sutton Courtenay (Hamerow *et al.* in prep.), but west of this very little material has come to light through recent evaluation (Hearne 2000), suggesting that Saxon settlement was focused close to the Thames itself.

Just east of the town centre at Audlett Drive a settlement of sunken huts and posthole buildings was found (Keevill 1992). Further north-east at Radley, Barrow Hills a large settlement consisting of sunken huts and posthole timber buildings has been excavated (Chambers and Halpin 1986; Chambers and McAdam in prep.), and a smaller settlement of the same type was excavated at Barton Court Farm (Miles 1986), probably an outlier of the Barrow Hills settlement.

The early medieval abbey was founded in *c* 675 on the site of an earlier pagan settlement (Rodwell 1975, 33). The church of St Helens is supposed to have originated as a sister foundation that did not last, but the church survived as a minster serving a very large area (Blair 1994, 64-8). The abbey was sacked by the Danes and was refounded in the 10th century. The abbey came to dominate the town's affairs, and in the medieval period a large number of chapels were founded including two at opposite ends of Ock Bridge. Another chapel may have been located at the junction of Spring Road and Faringdon Road, where a small medieval cemetery is known (Harman and Wilson 1981; Chambers and Fuller 1986). Rocque's map of Berkshire shows that there was previously a triangle of land at the road junction here, and this may have been the site of a wayside chapel, or perhaps a gallows (Plate 9).

Munby has mapped the relationship of the town and its parishes to the medieval three-field system: the Spring Road site lies between 'Hitching Field' and a north-south strip known as Lower Furlong immediately west of Upper Lark Hill (Munby in Lambrick and Slade 1991, fig. 4). In the post-medieval period this area continued to be agricultural, as maps of the 18th and 19th centuries show. The 2nd edition Ordnance Survey 6" map of 1900 (and that of 1904) shows that a small gravel pit was in operation west of the Spring Road junction with Faringdon Road, and the southern end of this appears to have extended into the cemetery site. The area between Spring Road and the

Larkhill Stream was incorporated into the suburban development of Abingdon in the 20th century, and the plot of land now occupied by the cemetery is visible on the Ordnance Survey 6" map of 1938, although the site was not used as a municipal cemetery until 1940.

THE PREVIOUS ARCHAEOLOGY OF THE SPRING ROAD CEMETERY

by Tim Allen

No records were kept of the any finds from the earliest graves in the south-west part of the cemetery (most of plots 1 and 2). The first recorded discoveries were of two extended inhumations in one grave, heads to the north, reported by a Dr O'Connell to the Ashmolean Museum in the 1950s (Case 1957, 104). These came from the north end of cemetery plot 2. In 1962 Bill Skellington became Cemetery Superintendent. He was a keen amateur archaeologist, and recognised and recorded finds of a variety of periods. These included struck flints and sherds of Beaker pottery (Gray 1972, 238) donated to the Ashmolean Museum (Acc. No. 1971.21-3), and Saxon pottery given to the Institute of Archaeology at Oxford (some illustrated in Berisford 1973, fig. 39.6-8), now lost. Skeletons found by Bill Skellington during grave-digging were re-interred in the modern graves; the bones of the skeletons found in the 1950s were for many years kept at the Superintendent's office, but were re-interred at the site before Bill Skellington retired.

Much other material was also kept at the Superintendent's office, and his successor John Bell, who had been trained to recognise and record finds by Mr Skellington, continued to curate this collection and added to it discoveries of his own. Some of this material is now held by the County Museums Service (Accession No. 1994.29), including a largely complete late Bronze Age fine-ware bowl (Fig. 31.1) and early Iron Age pottery. Many finds have been precisely located as a result of this careful recording (see Figs 2 and 3).

Abingdon Town Council lacked the resources to fund effective archaeological mitigation prior to the expansion of the cemetery, but in 1990 English Heritage commissioned OAU to carry out a field evaluation comprising six trenches (Fig. 2, A-F). The evaluation showed that Iron Age and Roman features including gullies and postholes were present in the surviving eastern part of the cemetery, although no burials were discovered. Saxon occupation was inferred from lines of postholes, from a feature

provisionally interpreted as a sunken-featured building, and from an occupation layer apparently sealing Roman ditches, from which a sherd of Saxon pottery was recovered (OAU 1990). Owing to the substantial build up of soil in this part of the site, thought originally to represent a wide medieval headland, the remains appeared to be very well-preserved.

In the face of continuing burial, and without funding for further professional archaeological excavation, OAU encouraged the Abingdon Area Archaeological and Historical Society to excavate the site. The society excavated four test pits in 1994-5, mostly near to the site of the trenches previously excavated by OAU (Fig. 2). Gullies and postholes were found together with pottery of Iron Age, Roman and Saxon date (Ainslie 1999). In 1999 grave diggers found a crouched inhumation in cemetery plot 5 in the north-west part of the site (Fig. 2). OAU made a brief record of the burial, but there were no directly associated finds and no bone was retained for dating.

RESEARCH AIMS OF THE EXCAVATIONS

Fourteen Research Aims were set out in the original Project Design.

- Aim 1 To establish the extent and character of any archaeological features outside the cemetery to the west by aerial photograph search and geophysical survey techniques.
- Aim 2 To determine the extent and character of activity relating to the Peterborough Ware finds from the site and to compare them with the finds from local funerary monuments and the Abingdon causeway enclosure.
- Aim 3 To recover any further evidence of Beaker-period pottery, and establish whether it relates to a funerary site or settlement. If funerary, how does this site relate to the larger monument complexes east and south-west of Abingdon? Was this site part of a larger ceremonial focus including Abingdon itself?
- Aim 4 To elucidate the nature of middle and late Bronze Age activity at the site, and how the site developed through the later Bronze Age and early Iron Age.
- Aim 5 To establish a date and context for the unaccompanied inhumations and identify any patterns to the interments, in particular whether they formed part of a cemetery.
- Aim 6 To date and characterise the early Iron Age activity and compare it with the adjacent settlements at Wyndyke Furlong at Abingdon Vineyard. To establish the type of land-use and identify any factors that may have led to the abandonment of the settlement before the middle Iron Age.
- Aim 7 To interpret the Roman ditches and other features, and identify any continuity from the prehistoric period for land division and land use. To identify links with any adjacent settlement and whether this site was peripheral to settlement or part of a farm network west of the Roman town. Did the town itself use the area?

- Aim 8 To investigate the relationship between the late Roman land-use and the succeeding Saxon use of the site through continuity of boundaries and alignments, soil characteristics and other environmental data.
- Aim 9 To establish how the Saxon settlement was organised, date its origin and period of use. Could the settlement be linked with the spread of the Saxon settlement from the town in the 6th century? To identify the character and range of functions of the Saxon settlement.
- Aim 10 To identify the relationship of the Saxon site to other Saxon settlements in and around Abingdon including the middle Saxon Minster. Identify through the decorated pottery and other finds any ties between these settlements, and between this site and the cemetery at Saxton Road.
- Aim 11 To recover any late Saxon and medieval artefacts to aid the dating and interpretation of the ploughsoils overlying the archaeological horizon(s).
- Aim 12 To establish whether this site could provide a date for the establishment of the medieval field system of Abingdon, and analyse the finds of this period, to assess the character of the medieval occupation.
- Aim 13 To compare the state of preservation of the buried archaeology between the east and west sides of the site, and assess the effect of the medieval headland upon the distribution and character of surviving features across the site
- Aim 14 By comparing the full range of evidence from this site with that from only negative features at different levels of truncation, to assess the implications of the loss of the contemporary ground surface, and how this had affected the interpretation of truncated sites such as Barrow Hills, Radley.

METHODOLOGY

Aerial Photographs and Historic Maps

by Jon Hiller

Prior to the excavations an aerial photograph search of the study area was undertaken at the National Monuments Record Centre in Swindon. The area of Spring Road and the adjacent area of Larkmead School had been covered previously in *The Upper Thames Valley: an archaeological survey of the river gravels* (Benson and Miles 1974, map 30), so the search for new cropmarks was confined to photographs released after that date. Photographs of the site taken in 1951, 1964 and 1989 were also compared to chart the changing land use of the site and its surroundings during the later 20th century (see Plate 1).

Historic maps were examined to aid the interpretation of the land use of the site in the post-medieval period, and to clarify the date and function of recent features found in the excavations. As well as Ordnance Survey maps, these included Rocque's Survey of Berkshire of 1761, an Abingdon Corporation Map of 1838 and the Tithe map of the parish of St Helens of 1844 (see Plates 9 and 10).

Excavation methodology

by Jon Hiller

Before excavation began a geophysical survey was made of the unused part of the cemetery site and an area of allotments and part of the playing fields of Larkmead School to the west. The survey was undertaken by Bartlett-Clark Consultancy. An area of just over 1.5 hectares was surveyed using a magnetometer, supplemented by tests for magnetic susceptibility. The survey covered the full length of the cemetery along its west side, an area 50-60 m wide and 190 m in length. The aim of the survey was to establish the character, extent and density of major archaeological features. The results are presented in Chapter 6 below (Figs 41 and 42).

The 1990 evaluation had indicated that archaeology was present in Areas 8 and 9, but had not found any features in Area 5. The geophysical survey did not significantly change that picture, and the excavation area (some 3000 m²) therefore included as much as possible of cemetery blocks (Areas) 8 and 9 at the east side of the cemetery, but only the eastern part of Area 5, the remainder being used for the excavation compound (Fig. 2). A small children's cemetery had been established in the south-west corner of Area 9, and trees between Areas 8 and 9 further limited the area available for excavation. Due to the limitations of space to store spoil, Area 9 was excavated first, and Areas 8 and 5 only after Area 9 had been backfilled.

Excavation began in July 2000 (OAU 2000). All soil was stripped by a 360° mechanical excavator equipped with a toothless ditching bucket under close archaeological supervision. Topsoil and ploughsoil were removed by 5-ton dumper trucks and stored separately. The spoil heaps were monitored carefully for ceramic and metal finds. Spoil was also sorted by hand to retrieve finds during the hand-excavation of the substantial soil build-up in the centre of the site.

The excavation was carried out over a period of ten weeks (including machine stripping and back-filling) by a team of up to seven technicians and a Project Officer, with a surveyor in attendance as required. Volunteers also assisted with the excavation. All features and structures were recorded in accordance with standard OAU fieldwork practice (OAU 1992), and in accordance with Section 3 of the project design. Upon completion of the excavation, ploughsoil and topsoil were reinstated and the ground was re-seeded with grass in order to restore the site for use as a burial ground.

Post-excavation Methodology

by Zena Kamash

Following the completion of the excavation the context data, plans and sections were cross-checked, the photographic index checked and correlated, and the matrix checked and refined.

All context data from the three phases of excavation was entered into an Access database in order to facilitate spatial analysis. The context numbers from the 1990 OAU evaluation and the 1994 Abingdon Area Archaeological and Historical Society excavations, which had been numbered starting from 1 for each trench, were converted to unique numbers for use within a database format. The numbers were amended as follows:

1994 Abingdon Society Trenches:

Trench 1	1 = 101, 10 = 110 etc.
Trench 2	1 = 201, 10 = 210 etc.
Trench 3	41 = 301, 42 = 302, 43 = 303, 44 = 304, 45 = 305, 46 = 306

1990 Evaluation Trenches:

Trench A	A1 = 401, A10 = 410
Trench B	B1 = 501, B10 = 510
Trench C	C1 = 601, C10 = 610
Trench D	D1 = 701, D10 = 710
Trench E	E1 = 801, E10 = 810
Trench F	F1 = 901, F10 = 910

Context numbers for the 2000 OAU excavations were allocated as follows:

1000 - 1999 = Area 9
2000 - 2999 = Area 8
3000 - 3499 = Area 5

In addition, finds from the modern graves, which had been numbered *area/row/grave number* eg 4/A/4 in accordance with the Town Council's cemetery plot allocations, were

also renumbered for use within Access. The modern graves were allocated numbers 3500 to 3600. The original grave number was also entered as a text field in the database in order to prevent confusion at a later date and also to leave room for future modern grave finds to be included in the database, if the need should arise.

Finds were also recorded onto an Access database to allow linking using Geographical Information System Autodesk World (hereafter GIS) via the context database to the plans, which had been digitised in AutoCAD during the post-excavation assessment. GIS was also used to facilitate attribute analysis of the excavated features.

CHARACTER OF THE ARCHAEOLOGY AND ITS EFFECT UPON THE PRESENTATION OF RESULTS

by Zena Kamash

Postholes

Although it had been hoped that buried surfaces would be encountered, enabling stratigraphic linking of features and deposits across the excavated areas, only very limited survival of such soils was found. The archaeology mainly consisted of discrete features cut into the underlying gravel or the early Holocene soil that overlay it. Postholes were numerous, but finds from these were few. Archaeological activity covered a wide range of periods from Mesolithic to post-medieval, but there did not appear to be clear distinctions between the predominant soil types or colours on site according to age or period, nor did these become evident in post-excavation analysis. Attribute analysis of the postholes in terms of dimensions was only slightly more revealing, though in combination with spatial analysis some patterns and groups were highlighted by the GIS queries. As there were a large number of postholes on the west side of both Areas 8 and 9, it has been possible to construct a number of possible alignments and structures, some of which incorporate the same postholes within them. This means that different interpretations, some implying different dates, can be ascribed to particular postholes or groups of postholes.

In addition, postholes may contain residual finds. This report has therefore taken the view that where plausible spatial associations can be made between groups of postholes, the postholes are described in relation to these, rather than to the date of the pottery contained within them, as long as the finds are not later than the grouping being

considered. The postholes and their finds are tabulated in Appendix 1 according to the structural groups to which they have been assigned, so that the reader may judge the evidence from which these interpretations are drawn. In each group the postholes are listed in ascending number order. As there are few clear-cut groups, however, this report retains some of the alternative interpretations for the reader to consider for him/herself, and postholes may appear on more than one of the phase or structure plans. Where a posthole could form part of more than one group, the descriptive text makes clear in which group the posthole details are tabulated.

Where postholes could not be attributed to structures, those that contain pottery are attributed to the period to which the pottery belongs. Many of the postholes were neither dated nor attributed to structural groups; details of these are tabulated by Area in the archive.

Ditches

Numerous interventions were cut across the Roman ditches that crossed the site. These features were not large, and the character of their fills was not complex. In order to avoid tedious repetition in the descriptive text, the details of these interventions have been tabulated in Appendix 2. The archaeological description is presented chronologically.

LOCATION OF THE ARCHIVE

The finds from the 1990, the 1994 and the 2000 excavations, together with the paper archive and a copy of the digital data, have been deposited with the Oxfordshire County Museums Service at Standlake, Oxon. Some of the finds made by Bill Skellington and others were donated to the Ashmolean Museum in the 1960s, and remain within their collection. A copy of the digital data has also been deposited with the Ashmolean Museum.

Chapter 2: Archaeological Description

by Zena Kamash and Tim Allen

GEOLOGICAL AND NATURAL FEATURES

The underlying geology consisted of gravel of the Summertown-Radley 2nd gravel terrace deposits (context numbers 125=240=311=504=604=1016=2007=3002) overlain by an orange or reddish-brown silty holocene subsoil (context numbers 707=806=906=1080=2011). This soil only survived in patches over the gravel; it was most evident on the east side of Area 9 towards the north end, where it survived in a natural 'hollow' that ran up to the baulk, and may have continued into the southern edge of Area 8. This layer was a loose to friable light reddish brown sandy silt deposit up to 0.20 m thick.

Solution hollows

Seven features in Area 9 were identified on site as solution hollows in the gravel: 1566, 1568, 1584, 1604, 1606, 1614, 1622 (Canti 2001, 45). All were sealed by ploughsoil deposit 1001. All seven features were irregular in plan with steeply sloping sides and slightly rounded bases; they ranged in width from 0.70 m to 1.10 m and were up to 0.45 m deep. In addition, all except 1614 were filled by a loose or friable mid reddish-brown sandy clay. Feature 1614 was filled by a firm mid blackish-brown sandy clay, which suggests that the deposit may have been more organic in origin and may instead have been a tree-throw hole. A single, small sherd of early/middle Iron Age pottery was found at the top of 1565 (fill of 1566) and is believed to be intrusive.

Similar features were identified in Area 8: these were 2639, 2641 and 2643. All these features were steep-sided linear hollows *c* 0.32 m wide and *c* 0.30 m deep, and were filled with a friable orangey/reddish-brown silty clay similar to subsoil 2648. No finds were retrieved from these contexts.

Tree-throw holes

A total of 16 tree-throw holes were excavated. Six were found in Area 9, three in Area 8 and five in Area 5. All of them cut natural gravel or subsoil, and were sealed by ploughsoil 1001=2004=3002); tree-throw hole 1106 was cut by Roman gully 1102 (part

of group 1206). Their numbers are given in the archive. The tree-throw holes varied in size from as little as 0.22 m x 0.20 m to as much as 3.0 m x 1.52 m, and in depth from 0.10 m to 0.36 m. They were ovoid in plan, with irregular bases and steeply sloping sides, and were filled by friable to loose dark orangey or reddish-brown silty sand, sometimes with occasional gravel inclusions.

The only exception was tree-throw hole 3050 (see Fig. 22), which contained two fills. Primary fill 3049 was 0.22 m deep and similar to the fill of the other tree-throw holes, but produced a substantial sherd of late Bronze Age/early Iron Age pottery. Secondary fill 3048 was 0.1 m deep, a friable dark brown silty clay from which a very small sherd of post-medieval pottery was retrieved. The post-medieval sherd may date the tree-throw hole, the larger prehistoric sherd being residual. Tree-throw holes 3050 and 3041 both lie approximately 10 m from a gully running west-south-west across Area 5, which corresponds to a boundary shown on the 2nd edition Ordnance Survey map of 1904 (see Plate 11). It is therefore possible that the tree-throw holes belonged to a line of trees planted parallel to the boundary in the late 19th century. The distance of these trees from the boundary is, however, unusual for a field boundary, and otherwise the historic maps show this area as open fields in the post-medieval period (Plate 10). It is equally plausible that the tree-throw hole was prehistoric in date, and that the secondary fill and the small post-medieval sherd were intrusive, perhaps from ploughing.

Other features

Feature 736 found during the 1990 evaluation was a large subrectangular feature (3.5 m x 0.4 m x 0.3 m) that in evaluation was thought might be a Saxon sunken-featured building. On further investigation it proved to be a large natural hollow containing orange- and reddish-brown silty clay, from which no finds were retrieved. Other natural features included two animal burrows (518, 1151) and a small area of root disturbance (1295), all in Area 9.

NEOLITHIC AND BEAKER FEATURES

by Zena Kamash

Grooved Ware pit in Area 8 (Figs 4 and 5)

A single pit containing Grooved Ware (2622) was found in the south-western corner of Area 8. The pit was circular in plan, 1.45 m in diameter and 0.55 m deep, with steeply sloping sides and a slightly concave base. It was cut into natural gravel 2007 and its uppermost fill was sealed by ploughsoil 2004. The pit contained four fills, the earliest of which (2621) was a very gravelly, friable reddish-brown silty sand deposit, 0.14 m thick. This primary fill was thicker on the southern side of the pit; only a few finds were retrieved from it, and it is interpreted as the result of natural erosion of the pit sides.

The two major fills of this pit were 2620 (0.2 m thick) overlain by 2619 (up to 0.25 m thick). Fill 2620 was a friable very dark grey sandy silt deposit with occasional gravel and flecks of charcoal; fill 2619 was very similar but was less dark in colour. The dark colour of these deposits as well as the high density and the character of the finds retrieved from them indicates that 2620 and 2619 were deliberately deposited (see Chapter 3: Barclay, Lamdin-Whymark and Charles, and Chapter 7).

Overlying 2619 was deposit 2623, a friable reddish-brown sandy silt deposit, 0.05 m thick, which contained very few finds. This may have resulted from natural erosion of the surrounding subsoil into the pit top as the fills below settled, rather than a deliberate filling.

The Beaker burial (Fig. 6)

A single burial in Area 5 is of this period (Fig. 22). Grave 3037 was subrectangular with gently sloping sides and a flat base, and measured 1.6 m x 0.96 m x 0.14 m deep. The shallow depth of the grave may in part be due to the compact nature of the periglacial clay within the gravel (3002) through which the grave was cut. Although the grave is very shallow the skeleton was intact. The grave contained the skeleton of a young adult female between 20 and 24 years old (3036) oriented south-east (head) - north-west (feet), which was crouched with the legs flexed and the head resting to the right (see Chapter 3: Boyle and Hacking). A copper awl (SF 4) was positioned alongside the upper legs (see Chapter 3: Northover); no other grave goods were identified. A radiocarbon date of 2460-2200 cal BC (95% confidence) was obtained from samples of human bone from the skeleton (see Chapter 5). The grave was filled by a mid reddish-brown clayey silt with 30% gravel inclusions (3035), probably redeposited natural gravel and subsoil derived from the original digging of the grave. The grave was sealed by ploughsoil 3001.

A second grave-like, subrectangular feature (3005) was excavated in Area 5; the feature was at least 1.8 m long, 0.9 m wide and 0.3 m deep with a flat base, gently

sloping sides and sharp break of top slope. The fill (3006) was a heavily compacted mid orangey-brown clayey silt with lenses of gravel, from which neither bones nor any finds were retrieved. No recut was visible, so it is unlikely that a burial had been exhumed or disturbed and it is also unlikely to be an abandoned modern grave as its fill was overlain by ploughsoil and topsoil. It is possible that this was an unused precursor to grave 3037, or possibly the terminus of a ditch running west beyond the limit of excavation. This feature has not been phased.

A possible Beaker pit or posthole (2644)

Feature 2644, on the western side of Area 8, was large and circular, measuring 0.47 m in diameter and 0.33 m deep. It had near vertical sides and a flat base. It had a single friable mid yellowish-brown clayey silt fill (2645) that produced a single sherd of Beaker pottery (Fig. 29.8). The very weathered condition of the sherd may however suggest that the pottery is residual and the posthole or pit of more recent date.

Other possible features (Fig. 4)

Posthole 2122, in the central western area of Area 8, may also be of Neolithic date. The posthole was circular, 0.35 m in diameter and 0.13 m deep, with gently sloping sides and a concave base. It was filled with a friable dark reddish-brown clayey silt (2123) that contained 18 pieces of struck flint of a broadly Neolithic date (see Chapter 3: Lamdin-Whymark). The density and number of flints suggest that the material is not residual. The feature was planned, however, as cutting an irregularly-shaped soil-mark (unexcavated); it is possible that this 'soil-mark' was, in fact, a tree-throw hole from which the struck flints were derived.

The lithic analysis also highlighted another possible location of Neolithic activity: modern grave 3506 (4 D 26). This grave produced 27 pieces of struck flint again of a broadly Neolithic date. No record has been found concerning the archaeology in this grave. A well-preserved Peterborough Ware dish (Chapter 3: Barclay and Fig. 28) was also recovered during modern grave-digging on the site, and most likely came from a Neolithic feature, but unfortunately its provenance is not recorded.

BRONZE AGE FEATURES (Fig. 4)

by Zena Kamash

Timber circles 2568 and 2726 (Fig. 7)

At the north end of Area 8 a double arc of postholes was exposed cut into the natural gravel and early Holocene subsoil (see Plate 2). The posthole arc was sealed by a layer of friable dark brownish-red silty loam and gravel (2648) that was cut both by Saxon features and by posthole 2016 (filled by 2017) which contained five sherds of middle Iron Age pottery weighing 154 g. This sealing layer, which survived up to 0.10 m deep, was originally thought to represent undisturbed subsoil, and was in part numbered as such, so that its presence and extent was not always recorded accurately. It was described as containing a significant proportion of gravel, so could possibly have been a ploughsoil.

Outer arc 2568

A combination of the spatial arrangement of the postholes, their common characteristics (as revealed by attribute analysis) and the presence of layer 2648 overlying many of them, has resulted in 17 postholes being attributed to the outer arc of the circle. These postholes, collectively numbered group 2568, are listed (from west to east) with their dimensions and fills in Appendix 1.

With the exception of 2360 the postholes were large: 0.36 m to 0.52 m in diameter and 0.45 m to 0.66 m deep. Posthole 2360 was only 0.20 m in diameter and 0.41 m deep, but was cut by a more substantial posthole 2357, so may have predated the main structure. Postholes 2632 and 2634 were heavily truncated by the Victorian rubbish pit adjacent, but the levels of their bases show that they were of similar depth to the others, and the surviving diameter of 2632 was similar (0.42 m) to that of the others in the arc. The postholes were either circular or oval in plan, and generally had a flattish base. Where they were oval, the long axis of the oval was generally radial to the arc.

Five postholes contained evidence of a probable post-pipe and surrounding fill or fills. The primary fills of these postholes was redeposited natural gravel and subsoil (2365 was 80% gravel and filled the entire depth of the posthole). The post-pipes were all filled with friable mid to dark brownish-red clay silt; posthole 2363 had a tertiary fill of friable dark greyish-brown clay silt. These features were all half-sectioned, and as recorded in section, the post-pipes did not give an accurate indication of the original size of the post; post-pipe 2630, for instance, appearing to taper from 0.31 m to 0.10 m. Where post-pipes were observed, these were invariably on the inner side of the arc, and

the sections suggest that some of the post-pipes were only clipped by the half-sections. The second halves of the postholes were not removed in plan, and in retrospect, the half-sections should have been cut radially to the arc, rather than tangentially to it, as most were.

Six of the postholes (four of them truncated) had only one fill: friable mid brownish-red silty sand with high percentages of gravel, probably redeposited natural gravel and subsoil. The remaining seven postholes had a substantial primary fill of redeposited natural overlain by a thin layer of friable dark greyish-brown clay silt. It is possible that in some cases the post-position in these postholes was not cut across by the half-section. Posthole 2090, however, had three fills, the middle fill being a friable mid greyish-brown clay-silt, 0.2 m thick.

One of the oval postholes, 2357, had a sloping outer side and a vertical inner side, and may therefore have been dug to assist in sliding in the post at an angle before standing it upright. As only a minority of the postholes were oval, this was not however a preferred construction technique. Alternatively the oval shape may have been formed when rocking the posts to remove them. The sides of 2094, 2090 and 2024 are all irregular and widen on one side or both towards the base (Fig. 7), possibly as a result of rocking, and the first two of these postholes also have lower and upper fills indicative of infill. There are, however, also irregular sides in some of the postholes where post-pipes are evident.

The postholes were closely and fairly evenly spaced, the gaps between them never less than 0.2 m and never more than 0.4 m. The gap between any two posts above ground is unlikely to have been more than 0.5 m, and most could have been arranged within the postholes to give an even spacing with gaps of 0.3-0.4 m. The curve formed by the postholes was somewhere between 60 and 80 degrees of arc.

Inner arc 2726

Seven postholes (listed in Appendix 1) potentially make an inner arc spaced at *c* 1 m intervals (*c* 2 m between 2328 and 2473). All of these postholes were circular except 2096, and varied in diameter from 0.23 m to 0.43 m and in depth from 0.08 m to 0.34 m. Most had steep sides, a concave base and a single fill of mid to dark greyish or reddish-brown sandy or clayey silt. Only posthole 2325 had a postpipe (2326), a friable mid brownish-red sandy silt 0.15 m wide and 0.3 m deep, surrounded by a friable mid yellowish-red sandy silt deposit (2327). Posthole 2096 (0.8 m x 0.4 m x 0.3 m) was

subrectangular with an irregular base, and may have been a double posthole. It contained two fills, a friable greyish-red sandy silt 2097 overlain by a thin (0.04 m) layer of friable dark greyish-brown clayey silt 2322 on top (compare group 2568 above). Posthole 2325 was cut by posthole 2014, a circular posthole 0.53 m in diameter and 0.32 m deep, which was filled by 2127, a mid reddish-brown clayey silt and then by 2015, a friable dark brownish black silt deposit 0.26 m thick. This posthole is not thought to form part of the inner arc.

Whether this group of postholes did form an arc is not certain, as these postholes are not as regular as those from group 2568, and none of them was sealed by layer 2648. Furthermore, two postholes (2473 and 2032) might be associated with the Saxon sunken-featured building 2008 (see below: Saxon Features). These two postholes were not different from the rest, but fill 2474 (posthole 2473) is very similar to the fills of the other internal Saxon postholes. Nevertheless, the little dating evidence is consistent with that from the outer arc (see below).

Dating

Three of the postholes contained Neolithic pottery. In the outer arc a single, abraded sherd of early to middle Neolithic pottery came from 2091 (secondary fill of 2090) and a single sherd of Peterborough Ware (Fig. 29.2) from 2093 (secondary fill of 2092). A single sherd of Grooved Ware pottery (Fig. 29.3) was found in 2368 (primary fill of 2367). Radiocarbon dating of an animal bone from posthole fill 2329 (primary fill of 2328: inner arc) and another from fill 2375 (postpipe of 2373: outer arc) produced dates of 1690 - 1510 cal. BC (OxA-12376; 3294±30 BP) and 1520 - 1310 cal. BC (OxA-12377; 3156±40 BP) respectively. The animal bones were sizeable and although one had been gnawed, were of unabraded appearance. Although the dates are not statistically consistent (see Chapter 5: Marshall), they may well bracket the period of use of the monument, as the earlier date came from a bone within the packing of a posthole, while the later date came from a bone within the fill of a postpipe, and so presumably dated from after the abandonment of the monument. A single, very small sherd of Iron Age pottery was also found in the postpipe (fill 2630) of posthole 2629. It is conceivable that the bones, like the Neolithic pottery, were residual, but on balance the Iron Age potsherd is believed to be intrusive.

Pit 1201 (Fig. 4)

Pit 1201 was situated in the centre of Area 9 where it was truncated by Roman ditch 1183 (group 1629). It was oval, 0.6 m long by 0.55 m wide, and was 0.12 m deep with gently sloping sides and a concave base. The pit contained the surviving base and lower sides of a large vessel (1180) that sat upright within, and almost filled, the pit (see Chapter 3: Barclay, and Plate 6). Around and inside the pot the feature was filled by friable dark reddish-brown sandy silt. It appears likely that the pit was dug deliberately for the deposition of this vessel. Although part-vessels are sometimes buried in small pits in the Bronze Age, the most likely explanation for the state of the vessel is truncation by later ploughing.

Ditch groups 1199 and 1206

In the south of Area 9 two gullies (1199 and 1206) ran parallel to each other on an east-west alignment (see Fig. 14 and Roman features, below for description). Gullies 1199 and 1206 contained few finds, and all of these were prehistoric. Four sherds of mid to late Bronze Age pottery were retrieved from 1170. This deposit also produced eight flint flakes, one of which was re-touched. In addition, a burin and a side-and-end scraper were retrieved from 1193 and a single flint flake from 1166. Fill 1204 contained a large sherd of Deverel-Rimbury bucket urn. These features may be Bronze Age gullies, but in the light of the other prehistoric activity in the vicinity these finds may well be residual, and on the basis of their spatial relationship to the Roman ditches, and their alignment at right angles to it, it is alternatively possible that these features are Roman.

Pit 1008

On the east edge of Area 9 pit 1008 contained only three small sherds of early Iron Age pottery with incised decoration. This feature was 2 m by at least 1.3 m and 0.45 m deep, with a primary silt fill containing charcoal overlain by a red-brown sandy silt with a fair quantity of gravel. This pit lay amongst a series of medieval pits interpreted as gravel quarries, and although more regular than many of the surrounding features, is believed most likely also to be medieval.

Postholes

Posthole 2133 in Area 8 was filled by a friable mid greyish-brown clayey silt, from which a small sherd of early to middle Bronze Age pottery was retrieved. Six postholes in Areas 8 and 9 contained middle to late Bronze Age pottery, and one in Area 9, a small

sherd of late Bronze Age pottery (see Appendix 1 for details). Posthole 2180 was also in the central western region of Area 8 to the south-west of 2133. Posthole 2180 measured 0.39 m in diameter and 0.28 m deep. It was subcircular with steep sides and a concave base and was filled by loose dark greyish-brown sandy silt (2179). Fill 2179 contained two weathered sherds also of middle to late Bronze Age date.

The four postholes in the centre of Area 9, numbers 1320, 1442, 1298 and 1224 (see Table A3), were in close proximity to each other, but formed no discernible pattern. Their proximity to one another may suggest an area of Bronze Age activity, even if the pottery sherds are residual within these features. All the postholes were circular to subcircular with near vertical sides and slightly concave bases. Postholes 1320 and 1298 were of similar dimensions, 1224 was larger and 1442 considerably smaller. Postholes 1320, 1298 and 1442 were filled with friable mid reddish-brown sandy silt; the first two produced a single sherd of middle to late Bronze Age pottery; 1442 late Bronze Age pottery. Posthole 1224 was filled by loose mid greyish-brown sandy silt (1223) that contained a single small sherd of middle to late Bronze Age pottery.

Posthole 1554, in the central western area of Area 9 was filled by a loose brownish-grey sandy clay deposit, and contained a sherd of middle to late Bronze Age pottery. Posthole 1618 lay further east and was truncated by Roman ditch group 1626. This posthole was large, and the friable mid brown sandy silt fill (1617) contained a large sherd of middle to late Bronze Age pottery.

Bronze Age finds from modern graves

Seven modern graves contained Bronze Age pottery. Grave 3502 (4 A 3) contained five large middle to late Bronze Age sherds. Grave 3514 (7 C 17) contained six large mid to late Bronze Age sherds. Grave 3522 (11 C 14) contained one relatively large sherd of late Bronze Age pottery. Grave 3508 (4 H 14) contained two late Bronze Age sherds and one middle to late Bronze Age sherd. Grave 3501 (3 E 32) contained one middle to late Bronze Age sherd. Grave 3521 contained one late Bronze Age sherd. In addition, a near complete late Bronze Age bowl (Fig. 31, 1) was retrieved from 3516 (10 A 4). No records were made of the archaeology within these graves, but the preservation of the bowl, and the large size of the other sherds, suggests that these graves had disturbed Bronze Age features.

IRON AGE FEATURES

by Zena Kamash

Iron Age roundhouse (Figs 8 and 9)

Porch and inner and outer rings 2719 (Fig. 9, Model 1)

On the western side of the central Roman ditch complex in Area 8, an Iron Age roundhouse was tentatively identified comprising 22 postholes (Figs 8 and 9), which are listed with their dimensions, fills and any finds in Appendix 1. The postholes were arranged symmetrically about a north-south axis, with the entrance to the roundhouse on the south. Four postholes were spaced at 2 m intervals at the back (north side); three were of very similar dimensions, posthole 2339 was larger (0.6 m in diameter and 0.32 m deep). The postholes were circular with steep sides and concave bases, and were filled by loose to friable mid greyish-brown silty sand. One flint flake was retrieved from 2336 as well as an unidentifiable animal bone.

Two groups of four postholes flanked the eastern and western sides. Both groups were mirror images comprising three closely spaced postholes and one posthole *c* 1.6 m to the south. The postholes on the eastern side were smaller in diameter than those on the west. Five of the postholes were shallow; the deepest was 0.27 m. All the postholes contained a single fill; on the eastern side this was a friable dark reddish brown sandy silt and on the western side a loose dark greyish brown sandy silt. Fill 2226 produced a single sherd of probably mid to late Bronze Age pottery with an unusual rim and an unidentified piece of animal bone.

Finally, two groups of two postholes lay east and west of the entrance. The postholes to the east were flat-based and circular, 0.32 m in diameter, and were very shallow. They were filled by loose mid brownish-grey sandy silt. Fill 2139 contained five small sherds of early to middle Iron Age pottery. Both of the postholes on the west were circular with concave bases and steep sides. Posthole 2100 was larger than posthole 2104; both were filled by a loose mid greyish-brown sandy silt. Fill 2098 produced one sherd of early Iron Age pottery and a burnt piece of unidentifiable animal bone. It has also been suggested that these western postholes may instead have belonged to Roman fence-line groups, 2104 to group 2715 and 2100 to group 2716.

The entrance of the roundhouse was marked by two large, circular postholes (2075 and 2058) with concave bases and steep sides. Posthole 2058 contained two reddish-

brown sandy silt fills, the primary fill 2057 darker than the secondary fill 2056. Extending southwards from these entrance posts is a possible porch structure. On the west are postholes 2076 and 2049. Posthole 2076 was oval and irregular in profile, however, and its orange-brown fill (like that of the Holocene soil overlying the gravel) may instead suggest that this was a solution hollow. Posthole 2049 was circular and was filled by friable dark reddish brown sandy silt (2048). On the east were postholes 2050 and 2072, both of which were circular with concave bases and c 0.4 m in diameter; posthole 2050 was deeper than posthole 2072. They were both filled by a friable greyish brown clayey silt (2051 and 2073). These postholes both contained early Iron Age pottery: four sherds weighing 29 g in fill 2051 (2050) and one sherd weighing 24 g in 2073 (2072), although it has also been suggested that they belonged to Roman fence-line group 2717.

Central feature group 2723 (Fig. 9, Model 2)

At the approximate centre of roundhouse 2719 was group 2723 which consisted of two postholes and a possibly natural feature 2174. Feature 2174 was circular with a convex base and steep sides. It measured 0.5 m in diameter and 0.24 m (maximum) deep and was filled by friable orange-brown clayey silt (2173). The fill was similar in nature to those filling the solution hollows. Postholes 2112 and 2122 were both cut through 2174. Posthole 2112 was oval with a concave base and steep sides, and was filled by friable mid brownish-grey clayey silt, from which an unidentifiable animal bone was retrieved. Posthole or scoop 2122 was shallow and circular with a flat base, and was filled by friable dark reddish brown clayey silt and contained 18 flints in very fresh condition, probably struck from the same nodule and most likely Neolithic in date (see Chapter 3: Lamdin-Whymark). The probably Neolithic date of this feature makes it unlikely that this group of features was associated with the roundhouse.

Internal partitions 2720 and 2721 (Fig. 9, Model 1)

On either side of group 2723 were two groups of postholes (2720 and 2721) that formed right-angled partitions in the centre of the roundhouse. Group 2720, to the west, comprised six postholes and one unexcavated circular soilmark. Four of the postholes formed a north-south line and three formed a line that ran west from 2129. The postholes, except 2160, were circular with concave bases and steep sides; they varied in diameter from 0.22 m to 0.30 m and in depth from 0.1 m to 0.18 m. Posthole 2160 was

larger and had a flat base. All the postholes contained a single fill of friable or loose mid brownish-grey sandy silt. Fill 2129 contained one sherd of early to middle Iron Age pottery. Fill 2133 contained one residual sherd of early to middle Bronze Age pottery.

Group 2721, to the east, comprised six postholes, four forming a north-south line and two running east from 2120. All the postholes were circular with concave bases and vertical sides. They varied in diameter from 0.21 m to 0.29 m and in depth from 0.07 m to 0.17 m. All were filled by friable dark reddish-brown clayey silt from which no finds were retrieved. Posthole 2219 may instead form part of Roman fence-line 2717.

Inner ring 2724 (Fig. 9, Model 3)

Ten postholes, group 2724, formed a potential inner ring of the roundhouse (compare Figs 8 and 9). Although six were circular with steep sides and flat bottom, one (2211) was circular with gently sloping sides and a concave base, two were oval and posthole 2207 was irregular in shape. The postholes varied in diameter from 0.16 m to 0.4 m and in depth from 0.06 m to 0.36 m. All the postholes contained a single fill, but this ranged from loose dark brown sandy silt (2350 and 2080) to friable dark orange-brown clayey silt (2208 and 2212). Posthole 2306 is most likely to have been early Iron Age or earlier in date. The posthole was cut by early Iron Age pit 2299 and the fill (2183) contained seven sherds of early Iron Age pottery (weighing 134 g).

The pattern formed by this inner ring was not as regular as that of group 2719. In addition, the shape and size of the postholes varied considerably and with no clear pattern. Five of the postholes may instead have belonged to Roman fence-lines: 2135, 2211, 2081 in group 2715 and 2203 in group 2717. Posthole 2616 was cut by ditch intervention 2618 (group 2709) must have predated this late 2nd-century/early 3rd-century AD ditch.

Outer ring 2725 (Fig. 9, Model 2)

Ten postholes, group 2725, formed a potential outer ring to roundhouse 2719 (Figs 8 and 9), although two (2229 and 2109) may instead have belonged to Roman fence-lines (groups 2713 and 2716 respectively). These ten postholes showed great variety in their shapes, and also varied greatly in diameter (from 0.25 m to 0.49 m) and in depth (from 0.04 m to 0.36 m). The fills of the postholes varied less and were mostly loose dark greyish brown sandy silt. Posthole 2107 contained two fills (2106 and 2105), the secondary fill 2105 being darker than 2106. Fill 2105 also contained two sherds of early

Iron Age pottery weighing 96 g. Fill 2179 (2180) contained two sherds of middle to late Bronze Age pottery weighing 16 g.

Two pairs of postholes mirror one another: 2085 and 2087 on the south-west and 2560 and 2564 on the south-east. These pairs of postholes may have formed an outer support for the structure. All four postholes were circular with very steep sides and concave bases. In addition, the postholes of each pair were very similar in size, though the western pair were smaller. All the postholes contained a single fill; the western posthole pair contained loose dark greyish brown sandy silt, while the eastern posthole pair contained friable dark reddish brown clayey silt.

Alternative roundhouse model 2722 (Fig. 9, Model 3)

Ten postholes, group 2722, may form another ring centred slightly further west (Figs 8 and 9). This ring of postholes could have been another phase of roundhouse 2719. On this model postholes 2061 and 2066 (possibly as a replacement for 2068) would form the entrance posts. These postholes are the most substantial in the group. In addition, both have a single friable dark brown sandy silt fill. Fill 2065 produced a crude Neolithic Levallois core, but no other finds. Fills 2059 and 2060, on the other hand, produced a total of 14 early Iron Age and early to middle Iron Age pottery sherds weighing 91 g in total as well as five pieces of animal bone, including two sheep mandibles and a sheep maxilla. The remaining postholes (including 2351 and 2454) are all circular with concave bases; there is some variety in the gradient of the sides. The postholes vary in diameter from 0.19 m to 0.42 m and in depth from 0.09 m to 0.24 m. They are all filled with a single fill of loose or friable dark brown sandy silt.

Alternative interpretations have been suggested that involve some of these postholes. Posthole 2061 could have been part of a Roman fence-line 2717, and similarly postholes 2351 and 2454 could alternatively be interpreted as part of a Roman fence-line group 2713. Posthole 2454 also has a curious relationship with grave 2243 (see below).

Human burials

Three burials were found in Area 8 within the confines of roundhouse 2719: 2126, 2200 and 2241. Radiocarbon dating of samples of bone from these skeletons suggests a 4th-3rd-century cal BC date for these burials (see Chapter 5: Marshall *et al.*).

Grave 2126 (Fig. 10)

This was a subcircular feature cut into natural gravel 2007 with a rounded base and steeply sloping sides at the south-eastern (head) end, becoming more gentle towards the north-western (foot) end. The grave measured 0.68 m x 0.55 m (maximum) x 0.27 m deep, and contained the skeleton of a four to five year old child (2125), complete except for the upper right arm (see Chapter 3: Boyle and Hacking). Some bones of a three month-old infant were also found. The body was crouched with the legs bent back under the patella, with the head to the right and was oriented south-east (head) - north-west (feet). A bone ring (Fig.10, SF 5) was found near the skull and was the only grave good recovered (see Chapter 3: T Allen). Six sherds of residual early Iron Age pottery as well as burnt limestone were also found in fill 2124: a friable mid to dark brown sandy silt deposit with 20% gravel inclusions. The fill was sealed by ploughsoil 2004.

Grave 2241 (Fig. 11)

This was also a subrectangular grave cut into natural gravel 2007; it measured 1.09 m x 0.51 m x 0.20 m and had a flat base with a steeply sloping edge to the south-eastern (foot) end becoming more gentle towards the north-western (head) end (Fig. 11). At the north-eastern (head) end, circular feature 2454 (0.21 m diameter x 0.13 m deep) had been cut. This had gently sloping sides, a concave base and was filled with friable dark brown sandy silt (2453). The interpretation of this feature and its relationship with the grave cut both present problems due to the lack of a skull. The grave contained a young adult male (2243) 19 to 21 years old whose skull, mandible and some neck vertebrae were missing, except one fragment of occipital from grave fill 2242 (see Chapter 3: Boyle and Hacking). The body was interred in a prone position (possibly pushed forwards into the pit) with the lower legs flexed beneath the upper legs, which were brought up towards the chest. The grave pit appeared to be too small for the burial it held and 2454 may have been dug to accommodate the head (see Chapter 7: Discussion); alternatively 2454 may have been a later posthole that disturbed and removed the head. The grave was filled by 2242, a friable brownish-grey clayey-silt that contained burnt limestone and was overlain by ploughsoil 2004. No grave goods were found with the burial, but 2242 contained seven sherds of residual early Iron Age pottery.

Grave 2200 (Fig. 12)

This grave was subrectangular and was cut into natural gravel (2007). It measured 1.10 m x 0.70 m x 0.48 m, with a slightly irregular base and steeply sloping northern and

southern sides; the eastern edge had a more gentle slope and the western edge was undercut, possibly to accommodate the right humerus and radius of the skeleton (Fig. 12). The grave contained a nearly complete skeleton of a young adult male (2199) between 20 and 24 years old (see Chapter 3: Boyle and Hacking). The body was oriented north-south within the grave and was supine with the back of the body laid against the northern edge of the grave and the knees raised in a half-sitting position. The grave contained two other fills: 2198 and 2197. Secondary fill 2198 was a loose gravel (80%) and reddish-brown sandy silt 0.26 m thick, interpreted as redeposited from the excavation of the grave. No finds were retrieved from this deposit. Tertiary fill 2197, however, was a friable mid to dark brown sandy-silt with much less gravel, was 0.34 m thick, and covered the upper torso of the burial. A fragmentary spindle whorl was retrieved from this deposit (Fig. 12), but it is unclear whether this was directly associated with the burial. Twenty one sherds of residual early Iron Age pottery weighing 94 g were also recovered from 2197. This fill was overlain by ploughsoil 2004.

Other possible burials

A further burial of possible Iron Age date was disturbed by the gravediggers in modern grave 3503 (4 A 4). This burial was described as a crouched burial laid on its left side and facing west; the skeleton had no head. Two sherds of early Iron Age pottery were recovered from the fill, as well as one sherd of 2nd-century pottery. It is likely that this last sherd was residual in later layers, for example a ploughsoil or the topsoil.

In 1999 grave diggers found a crouched inhumation in the north-western area of the cemetery. OAU made a brief record of the burial, but there were no directly associated finds and no bone was retained for dating. It is possible that this burial was also Iron Age in date.

Pits 2299, 2055, 1207 and 605

Pit 2299 was located in the south-western area of Area 8 within the confines of roundhouse 2719 (Figs 4 and 8). It was a large circular pit 1.64 m in diameter and 0.36 m deep (Fig. 13). The shallow depth suggests quite heavy truncation at some later date. The pit had gently sloping sides and a flat base. The pit contained two fills: 2251 and 2184. Primary fill 2251 was a friable dark reddish brown silty clay 0.12 m thick, which contained 52 sherds of early Iron Age pottery weighing a total of 1348 g. Secondary fill 2184 was similar, but included less gravel and peagrit, was 0.24 m thick, and produced

36 sherds of pottery dating from the late Bronze Age to the middle Iron Age and weighing in total 300 g. The pit cut the natural gravel and was sealed by 2004.

Pit 2055 (0.78 m in diameter x 0.54 m deep) had three fills. This small pit, in the centre of Area 8, was circular with near-vertical sides and a concave base. The primary fill (2054) was a gravelly deposit 0.14 m thick on the south-eastern side of the pit that contained no finds and probably represents slumping. The secondary fill (2053) was a friable mid brown sandy silt 0.24 m thick that contained two relatively large sherds of Iron Age pottery. The tertiary fill (2052), which was a friable mid-brown clayey silt with charcoal inclusions, and was 0.28 m thick, contained early to middle Iron Age pottery.

In the central western area of Area 9 was another small pit 1207, 0.6 m in diameter and 0.36 m deep. The pit was subcircular with steep sides and a flat base. It contained two fills. Primary fill 1208 was a loose mid reddish-brown silty clay 0.26 m deep, from which a single sherd of earlier prehistoric pottery was retrieved as well as animal bone. The secondary fill (1138), which was a loose mid greyish-brown silty clay 0.1 m thick, contained burnt limestone and 37 sherds of early Iron Age pottery weighing 432 g in total.

Pit 605 was oval with irregular sides and slightly uneven base. It measured 1.70 m x 1.10 m x 0.96 m. The pit contained nine fills: 614-606 (from primary to latest). Fill 614 was a light brown sandy silt deposit (0.2 m thick), overlain by 613, a 0.1 m thick layer of pea grit and gravel. Fill 612 was dark grey silty loam 0.2 m thick, overlain by 611, a 0.5 m thick layer of pea grit and gravel. Fill 610 was also dark grey silty loam (0.14 m thick) overlain by a layer of pea grit and gravel (609, 0.08 m thick). Fill 608 was dark grey sandy loam (0.26 m thick) overlain by pea grit and gravel (607, 0.11 m thick). Finally, 606 was a dark grey sandy loam deposit, 0.16 m thick. Fills 608 and 610 contained 25 sherds of Iron Age pottery: 6 early Iron Age and 19 early to middle Iron Age. Fill 610 also produced a sherd of 2nd-century AD pottery, which is thought to be intrusive.

Curvilinear gully 2712 (Fig.4)

In the north-western corner of Area 8, a segmented curvilinear gully was excavated. The gully consisted of three segments 2.1 m, 0.57 m and 2.5 m long, was *c* 0.35 m wide and *c* 0.10 m deep. It had gently sloping sides and a concave base, except at terminus 2402, where the sides were almost vertical and the base flat. The gully cut unphased posthole 2404. The gully was filled by a single fill of loose dark brownish-grey sandy-silt (2401 = 2407 = 2409 = 2415 = 2397). Three fills contained Iron Age pottery: 2401 produced a

single sherd of early Iron Age pottery, 2409 contained six sherds (26 g) of early to middle Iron Age pottery and 2397 produced a single sherd of early Iron Age pottery.

Early Iron Age postholes in Areas 8 and 9

Twelve postholes containing early Iron Age pottery were identified in Areas 8 and 9 (see Table A11). These postholes are dated on the pottery contained within them, but it is possible that the pottery is residual and that the postholes belong to later phases, particularly posthole 2588, which may have belonged to SFB 2687 (see Saxon Features below). Only four of these postholes were located in Area 9. This suggests that, even if the pottery is residual, early Iron Age activity was concentrated in the region of Area 8, rather than further to the south.

The postholes in Area 8 appear to form no coherent pattern and also vary considerably in size. Posthole 2308 was in the north-eastern region of Area 8, 1.2 m to the west of curvilinear gully 2712. This posthole contained a single loose dark greyish-brown sandy silt fill (2307). No finds were retrieved from this fill, but two relatively large sherds of early Iron Age pottery were retrieved from deposit 2309, which filled a hollow adjacent to the posthole and appeared to have formed when the posthole held a post. Deposit 2309 was a loose dark brownish grey sandy silt that covered an area of *c* 0.4 m x 0.4 m and was between 0.02 m and 0.1 m deep. As well as the pottery, 2309 also contained large pieces of fired clay and burnt stone. To the south-east of this posthole was posthole 2280, an oval posthole with near vertical sides and a flat base. The fill of this posthole (2279) was a loose dark brownish-grey sandy clay deposit from which a single small sherd of early Iron Age pottery was retrieved.

Postholes 2434 and 2438 were located in the central northern area of Area 8. Both postholes were circular with vertical sides and flat bases. Both postholes were filled by a single fill of friable dark brown silty sand (2433 and 2437 respectively), from which small amounts of early Iron Age pottery were retrieved. Further to the south, in the centre of Area 8, was posthole 2528: a circular posthole with steep sides and a concave base. This posthole was filled by loose dark greyish-brown sandy silt deposit (2527) that contained a single small sherd of early Iron Age pottery. Posthole 2355 was located to the south of grave 2200. It was a circular posthole with steep sides and a flat base that was filled with a loose dark brown sandy silt (2356) containing two small sherds of early Iron Age pottery. Posthole 2064, which was 1.5 m south-west of pit 2299, was circular with gently sloping sides and a concave base. It contained a single fill (2063 = 2062) of

friable mid to dark brown sandy silt from which a small sherd of early Iron Age pottery was retrieved.

The three postholes in Area 9 also formed no discernible pattern. Two of these, features 1430 and 1417, may instead have been small pits: 1430, in the north-western corner of Area 9, was 0.7 m in diameter and 0.22 m deep, and was filled with friable dark brown sandy silt (1429) that contained 13 small sherds of early Iron Age pottery and small pieces of burnt limestone. Feature 1417, much further to the south, measured 0.6 m in diameter and was 0.1 m deep. The fill (1416), a friable mid brown sandy silt deposit, contained three relatively large sherds of early Iron Age pottery. There were however postholes of this size on the site; see for instance 1083 below. Posthole 243, excavated by the Abingdon Society in 1994, was a smaller feature that produced two sherds of early Iron Age pottery from its fill (230).

Early to middle Iron Age postholes in Areas 8 and 9 (Fig. 4)

Four postholes in Areas 8 and 9 contained early to middle Iron Age pottery: 2288, 2600 (see below on middle Iron Age postholes), 1458 and 1083 (Appendix: Table A13).

Posthole 2288 was located inside curvilinear gully 2712. This posthole had a single fill (2287) of loose mid brownish-grey sandy silt, from which two small sherds of early to middle Iron Age pottery were retrieved. The date of the pottery corresponds with that found in gully 2712 and it is possible that this posthole formed part of a building associated with the gully.

Eight other postholes were also excavated within the confines of this gully: 2404, 2412, 2284, 2290, 2400, 2282, 2294 and 2286, but no dateable artefacts were retrieved from the fills of these features. Posthole 2286 was truncated by posthole 2288 and posthole 2404 was cut by gully intervention 2402, suggesting that some of these postholes were not associated with the gully and potential roundhouse and were earlier. These postholes were circular with steep sides and flat bases, and all contained a single fill of loose mid brownish-grey sandy silt (2403, 2411, 2283, 2289, 2399, 2281, 2293 and 2285 respectively). They varied in size, however, quite considerably from 0.22 m in diameter to 0.51 m in diameter and in depth from 0.11 m to 0.29 m.

Posthole 1458 in the north of Area 9 had no associations with other postholes. This posthole was 0.18 m in diameter and only 0.08 m deep. It was circular with near vertical sides and a flat base. The posthole contained a single fill (1457) of friable mid brown

sandy silt from which four small sherds of early to middle Iron Age pottery were retrieved.

Posthole 1083 was truncated by ditch intervention 1077, part of group 1627 = 2709 (Fig. 17, H). The posthole was 0.70 m in diameter and 0.4 m deep; its size suggests that it was not part of posthole alignment 1631. This feature was circular with vertical sides and a flat base. The primary fill (1082) was friable light brown sandy silt, 0.4 m thick, that contained no finds. The postpipe (1081) was 0.32 m in diameter and filled with friable mid brown sandy silt. This deposit contained 12 large sherds of early to middle Iron Age pottery.

Middle Iron Age postholes in Areas 8 and 9 (Fig. 4)

Five postholes contained middle Iron Age pottery in Areas 8 and 9: 2016 (see Saxon Features: SFB 2008), 2500, 2598, 1213 and 242.

Two postholes in the south of Area 8 (2600 and 2598) may be associated with a row of three postholes running at right angles to them (north-west - south-east): 2689, 2591 and 2593. Although posthole 2598 seems to form part of this group, its association with SFB 2687 would preclude this (see Saxon features, below). The postholes varied in diameter from 0.42 m to 0.53 m and in depth from 0.23 m to 0.36 m. These postholes were circular with relatively gently sloping sides and flat bases. All five postholes were filled by a friable mid to dark brown sandy silt deposit (2599, 2596 = 2597, 2592, 2590 = 2589 and 2688). Fill 2591 contained a single, residual sherd of mid to late Bronze Age pottery. Fill 2599 contained four sherds of early Iron Age pottery and fill 2597 contained one sherd of early Iron Age pottery and two early to middle Iron Age sherds. These lines do not correspond to either of the later, Roman alignments (see Fig. 14), and may have formed a wind-break or other temporary structure.

Posthole 2500, at the north end of Area 8, was circular with vertical sides and a flat base. It measured 0.3 m in diameter and 0.31 m deep. It was filled by a single fill of friable dark greyish-brown sandy silt that contained two small sherds of early to middle Iron Age pottery. Posthole 2140, in the south-western part of Area 8, was circular with gently sloping sides and a flat base. It was 0.32 m in diameter, but only 0.09 m deep. It contained a single fill of loose mid brown grey sandy silt (2139), from which five small sherds of early to middle Iron Age pottery were retrieved.

Posthole 1213 was located in the central western part of Area 9. It was a circular posthole with near vertical sides and a flat base. It measured 0.56 m in diameter and 0.30

m deep. The primary fill (1214) was a friable to loose yellowish-brown silty sand deposit, 0.20 m thick, that contained no finds. The secondary fill (1215) was friable dark reddish-brown sandy silt that contained stone as well as a single sherd of early to middle Iron Age pottery. Posthole 242 to the south contained two sherds of early to middle Iron Age pottery.

Iron Age finds from modern graves (Fig. 3)

Several modern graves on the site produced Iron Age pottery. One grave (3525 = 10 A 9) produced a relatively large assemblage of Iron Age pottery: 11 sherds of early Iron Age pottery and 16 sherds of early to mid Iron Age pottery. It seems likely that grave-digging here disturbed an *in situ* deposit derived from Iron Age activity. Two other graves produced three sherds of pottery each: 3507 (4 G 19) and 3518 (10 A 10). It is probable that these sherds were residual and do not represent *in situ* deposits.

Two modern graves produced very mixed pottery assemblages with large amounts of Iron Age pottery: 3521 (10 F 4) and 3516 (10 A 4). Grave 3521 produced 24 sherds of early Iron Age pottery, but also 12 sherds of early to middle Saxon pottery. Grave 3516 produced 16 sherds of early Iron Age pottery, but also 8 sherds of early to middle Saxon wares. Grave 3515 (10 A 3) contained five sherds of transitional late Bronze Age/early Iron Age pottery. Without further information on the stratigraphy of these graves, the deposits within them cannot be dated securely. It can, however, be seen that substantial archaeological deposits had been disturbed. It is also noteworthy that Area 11 of the graveyard produced a larger proportion of Iron Age pottery, in particular early Iron Age pottery, than pottery of any other date: over 75% was Iron Age, of which 84% was dated to the early Iron Age. It is possible that this area was the location of dense Iron Age activity, though one must be aware that there may have been a recovery bias.

ROMAN FEATURES (Fig. 14)

by Zena Kamash

Central ditch complex in the 2nd century AD

Two phases of Roman boundary ditch ran across the middle of Areas 8 and 9, meeting just before the north edge of the excavated area. The earlier phase, dated by pottery to the 2nd century, ran NNW - SSE across Area 8 and much of Area 9, but changed

direction to run N-S further south. Gullies ran both parallel to the ditch and at right angles on the east side in Area 8, and at right angles on the west side in Area 9, possibly demarcating small enclosures. The axial NNW - SSE alignment was formed by a pair of parallel linear features: ditch group 2710 in Area 8 continuing as group 1626 in Area 9, and gully group 2711 in Area 8 very likely continuing as 1628 in Area 9, although an unexcavated baulk some 4 m wide lay between them.

Ditch 2710 = 1626

Ditch 2710 = 1626 had gently sloping sides and a concave base, and ran almost the full length of Areas 8 and 9 (more than 50 m). The ditch probably terminated at the north end within the intersection with later ditch 2421 (part of 2709) as it did not continue to the north of 2421. It is plausible that it ended in line with the adjacent parallel gully 2711. To the south the ditch continued beyond the edge of excavated Area 9.

The ditch varied between 0.8 and 1.8 m wide and survived from 0.19 m to 0.55 m deep. Close to the northern end (intervention 2423=809), where the ditch was shallowest, there was only a single fill (2424=808), variously described as friable dark reddish-brown or mid greyish-brown clayey-silt. Further south, the ditch gradually became deeper, ditch intervention 2566 being 0.31 m deep and containing residual Iron Age pottery. Ditch intervention 2692 was 0.34 m deep and two fills were distinguished: 2691 (primary) and 2690 (secondary), the only difference being the proportion of eroded gravel in the friable dark brown sandy-silt fill. Here too the fill contained residual middle Iron Age pottery, and the ditch was truncated by a Saxon sunken-featured building 2687 (Fig. 14).

In Area 9 the ditch was called 1626. In the 1990 evaluation Trench D a recut (705) was recorded, but this recut was not observed either to the north or south in the 2000 excavation. The primary fill (709) was again a dark brown sandy silt deposit, overlain by a thin layer of re-deposited subsoil (708). Further south 1626 became shallower (between 0.35 m and 0.4 m), but still had two fills. The primary deposits in the ditch interventions varied considerably: the primary fill (1173) of intervention 1172 was a thin deposit of friable reddish-brown sandy silt (Fig. 17, A), whereas the primary fills of 1112 and 1153 (1111 and 1428 respectively) were both very compact mid to dark grey brown deposits c 0.10 m thick. Fill 1428 contained 12 sherds of 2nd-century Roman pottery, and the overlying fill (1174) 6 sherds of 2nd-century pottery.

The secondary silts varied both in colour, from dark reddish brown to mid grey-brown, and in consistency, from friable to loose. Secondary fill 1154 contained 101 sherds of 2nd-century pottery, and also 6 sherds of 3rd- to 4th-century pottery and a coin (SF 3) of 4th-century date. The coin was brass-coloured and very fresh, and is believed to be intrusive; the few late Roman potsherds are also likely to be intrusive. The secondary fill 1110 of 1112 was a tenacious reddish-grey-brown silty loam deposit, 0.40 m thick. It is likely that this deposit too was disturbed, possibly by 1990 evaluation Trench D, since in addition to Roman 2nd-century pottery it contained later material such as a piece of clay pipe and a sherd of early medieval pottery.

In the more southerly part of ditch group 1626 (1185 = 1079 = 1065 = 520), the ditch became more shallow again - to between 0.20 and 0.28 m deep - and contained only one fill, a friable mid to dark reddish-brown sandy silt (1186 = 1078 = 1064 = 510). Fill 1186 (Fig. 17, B) contained three sherds of 2nd-century pottery. It is possible that 1065 was a deeper recut of a very shallow feature 1067, but no relationship was established.

Gully 1628 = 2711

Running parallel to ditch groups 1626 and 2710 were gully groups 1628 and 2711 (Fig. 14). Gully 1628 = 2711 was considerably shallower than the parallel ditch 1626=2710 to the west (Fig. 17, A), varying from 0.04 m to 0.20 m in depth. Like ditch 1626 = 2710, the gully varied in width along its length from as little as 0.2 m to a maximum of 0.85 m. The gully was traced for 59 m in length; the northern terminus lay almost at the north end of Area 8, and on the south this gully was not observed in 1990 evaluation Trench B, though this may have been the result of machining too deep, as the gully certainly ran up to the north edge of the trench. At the north the terminus, 2468, was 0.14 m deep with a shallow concave profile and a single loose dark greyish-brown sandy-silt 2467, from which no finds were retrieved. Elsewhere along the gully the single fill was similar to 2467 throughout.

Three interventions revealed postholes, all of which appeared to predate the ditch (see Fig. 16). Small circular posthole 1190 (0.17 m diameter), which had a concave base, lay in the centre of gully intervention 1188 and was not seen until the base of the gully was reached. It was filled with a loose grey sand and gravel deposit 0.10 m deep. Posthole 1177, which was large, oval (0.70 m x 0.40 m) and 0.50 m deep with vertical sides and a concave base, was cut by gully intervention 1175. This posthole contained

two fills: a primary loose gravel fill (1178) overlain by a loose orange-brown silty-sand (1179). It is possible that the single sherd of mid to late Bronze Age pot from the overlying gully fill 1176 derived from this posthole. To the west of intervention 1157 was a shallow subcircular feature 1155, which was recorded as root disturbance. This feature, however, contained a large sherd of mid to late Bronze Age pottery as well as three sherds of 2nd-century pottery. It had a regular, concave base, and was filled with a loose mid grey brown sandy silt deposit (1156); this may have been a shallow scoop or heavily truncated posthole.

Gullies 1199 and 1206 (Fig. 14)

In the south of Area 9 two gullies (1199 and 1206) ran at right angles to ditch 1626 and parallel to each other. The northern gully 1199 consisted of two segments with a 1.2 m gap between them, the western segment (1198, 1194 and 1171) being 8.3 m long and the eastern segment (1169 and 1167) 3.3 m long. Both segments of the gully were from 0.55 m to 0.7 m wide. The eastern segment had a uniform depth of 0.1 to 0.12 m; the western segment, however, varied from 0.07 m to 0.22 m deep. At the west end, where the gully was shallowest, the gully may have been truncated rather than ending in a genuine terminal. Both gully segments had gently sloping sides and a flat base, and were filled by friable mid reddish-brown sandy silt (1197, 1194, 1171, 1169 and 1167). Four sherds of mid to late Bronze Age pottery were retrieved from 1170. This deposit also produced eight flint flakes, one of which was retouched. In addition, a burin and a side and end scraper were retrieved from 1193 and a single flint flake from 1166.

Two postholes, 1192 and 1196, were associated with the western gully segment. Neither contained any finds. Posthole 1192 was circular, 0.5 m in diameter and only 0.1 m deep, with gently sloping sides and a flat base. It was filled by friable mid reddish-brown sandy silt. This posthole cut the fill of the gully, whereas the fill of posthole 1196, a friable mid brown sandy silt, was cut by the gully. Posthole 1196 was also circular, 0.35 m in diameter and 0.12 m deep, with gently sloping sides and a concave base.

A further two postholes, 1165 and 1162, were excavated at the eastern terminus of the eastern segment. Posthole 1165 was subcircular, 0.4 m x 0.7 m across and 0.4 m deep, with steep sides and a flat base. The primary fill (1164) consisted of redeposited natural gravel, and was overlain by a friable reddish-brown sandy silt (1167), neither containing artefacts. Posthole 1162 was circular, 0.3 m in diameter and 0.12 m deep, with gently sloping sides and a concave base. It was filled by friable mid brown sandy

silt, which also contained no finds. Neither posthole had a direct stratigraphic relationship with the gully.

Gully 1206, to the south of and parallel to gully 1199, was 16.8 m long. Although the western terminus was not located in the 2000 excavations, the gully is unlikely to have been much longer as no trace of it was found in plan or in section in the 1994 Abingdon Society trench to the west. The gully was from 0.70 m to 0.85 m wide and from 0.10 m to 0.14 m deep, with gently sloping sides and a flat base. It was filled by friable mid reddish-brown sandy silt (1202, 1204, 1103 and 1068); fill 1204 contained a large sherd of Deverel-Rimbury bucket urn. This part of the gully cut an earlier gully 1210 on a north-east - south-western alignment, that is not on one of the Roman alignments. It is possible that this pottery derived from this gully or some activity associated with it. Gully 1210 was 0.4 m wide and 0.12 m deep, with gently sloping sides and a flat base, and ran for 2.5 m. It was filled by a friable reddish-brown sandy silt deposit (1209), but there were no finds. A posthole (1212), which appeared to be cut into the base of the gully, was circular, 0.20 m in diameter and 0.22 m deep, with near vertical sides and a flat base. Its fill (1211) was very similar to that of the gully.

Gullies 1199 and 1206 contained few finds, and all of these were prehistoric in date. In the light of the prehistoric activity in the vicinity these finds may well be residual, and on the basis of their spatial relationship to the Roman ditches, and their alignment at right angles to it, it is possible that these features are Roman.

Gullies 615 and 619

Further west in evaluation trench C (see Fig. 2) two parallel gullies (615 and 619) ran on the same alignment as the central Roman ditches, and were probably contemporary with them. Gully 615 comprised two segments 0.6 m wide and 0.17 m deep, the southern segment at least 8.3 m long and no more than 12.5 m long, the northern segment at least 1.7 m long but continuing beyond the excavation area. This gully was filled by a dark reddish-brown sandy clay loam 648, from which no finds were retrieved. Slightly to the west ran 619, which ran for 3.25 m and under the baulk. It was 0.35 m wide and much shallower than 615, but was filled with very similar soil (618).

Gully 1414

One interpretation of ditch 1626 and gullies 1206/1199 and 615/619 is that they defined three sides of a rectilinear enclosure. Gully 1414, which ran WSW-ENE, and was 4.4 m

long, 0.7 m wide and 0.2 m deep, may have formed part of the fourth side. This gully, which cut natural gravel 1016, had a concave base and gently sloping sides. The primary fill of the gully was 1514, redeposited natural gravel. The secondary fill 1415, however, was a loose mid greyish-brown sandy silt deposit 0.12m thick that contained 2nd-century pottery.

Gully 1005

On the eastern side of Area 9, another possible linear feature (1005) was excavated that ran on the ENE - WSW alignment. Gully 1005 had gently sloping sides and a flat base. It was 1.10 m wide and 0.15 m deep. As exposed, it ran for 3.3 m, but continued under the eastern baulk. The gully was filled by friable dark greyish-brown sandy silt (1004). This deposit, however, contained two sherds of 19th-century pottery and it is therefore possible that this ditch is a much later feature, although the finds could have come from the quarrying at the east edge of the site.

2nd-century gully enclosure system in Area 8 (Figs 14-15)

East of the central ditches in Area 8 further gullies either parallel to or roughly at right angles were found. These were: 2584 (2582 = 2580 = 2578) and 2583 (2554 = 2550) on a NNW-SSE alignment and 2585 (2574 = 2570) and 2586 (2576 = 2572 = 2552) running at right angles to them. Gully 2584, the most northerly of the gullies, had gently sloping sides, a rounded base and rounded termini, was 7.25 m long, between 0.4 m and 0.5 m wide and between 0.12 m and 0.22 m deep. The gully was filled by a friable reddish-brown sandy silt deposit (2581 = 2579 = 2577) that contained no finds. This gully cut tree-throw hole 2606 (see Natural and Geological Features).

Gully 2583, 0.2 m to the south of gully 2584, had gently sloping sides, a flat base and a rounded terminus, was 8.95 m long, *c.* 0.30 m wide and only 0.07 m deep. This gully was also filled by mid reddish-brown sandy silt (2553 = 2549) and produced no finds. This gully was cut by gully 2586 to the west: another gully with gently sloping sides and flat base. Gully 2586 was 7 m long, between 0.35 m and 0.65 m wide and between 0.05 m and 0.10 m deep. It was filled by friable mid greyish brown sandy silt (2575 = 2571 = 2551) and some Roman ceramic building material was retrieved from fill 2571. Running parallel to gully 2586 to the north was a gully of similar length, width, profile and fill, but slightly shallower (2585); no finds were retrieved from the fills (2573 = 2569).

Extending westwards from this gully for some 6 m was a line of three postholes (group 2714): 2493, 2491 and 2489, separated by 2.4 m, 1.3 m and 2.3 m (east to west). These postholes appear to form an extension to the boundary marked by the gully. The postholes were circular with gently sloping sides and a concave base. They were of similar diameter (0.25 m to 0.31 m) and depth (0.15 m to 0.19 m), and were all filled by a friable to loose mid to dark reddish brown sandy silt (numbered respectively 2492, 2490 and 2488) that contained no finds. Despite the shortage of dateable finds from these gullies, their alignment makes it likely that they formed part of an enclosure system with central ditch 2710 = 1626 and gully 2711 = 1628.

2nd-century fence-lines in Areas 8 and 9 (Fig. 14)

Several lines of postholes were identified following the same alignments as the 2nd-century ditch and gully complexes. These are tentatively interpreted as fences associated with the ditched enclosures, on the basis of their alignments. Other evidence for their date is scarce, but as well as Iron Age and Roman pottery, a few of the postholes defining two of the later (late 2nd-early 3rd century AD) fences contained Anglo-Saxon pottery, and it is possible that some, at least, of the fences, belong to that period.

Posthole group 2713 (Fig. 14)

Posthole group 2713 ran along the northern extent of Area 8 on a WSW-ENE alignment for a total length of *c* 30 m. The posthole alignment consists of ten postholes: 2229, 2454, 2351, 2386, 2296, 2436, 2444, 2448, 2448, 2510 and 2514. These postholes are spaced at intervals of between 2 m and 3 m. It is also likely that 'soilmark' 2234 is another posthole in the line to the south and west of 2229, but was not identified as such on site because it was heavily truncated by a plough furrow (2233). The postholes were circular to subcircular with steeply sloping sides and flat to concave bases. They varied in diameter from 0.21 m to 0.36 m and in depth from 0.10 m to 0.32 m. Posthole 2229 was exceptionally shallow (only 0.06 m deep) because it too had been heavily truncated by ploughing and was cut through by plough furrow 2231. Each posthole contained a single fill (2228, 2453, 2352, 2385, 2295, 2435, 2443, 2447, 2509 and 2513 respectively). The fills were friable to loose dark greyish-brown sandy silt (occasionally a silty sand) deposits. None of the fills contained any dateable finds, but the group is dated on the basis of its alignment. It should be noted, however, that postholes 2351 and 2454 may form part of Iron Age roundhouse group 2722 and posthole 2229 part of Iron

Age outer roundhouse ring group 2725 (see Iron Age features above). This posthole alignment appears to form the northern boundary of the excavated 2nd-century field system.

Posthole group 2715 (Fig. 14)

Posthole group 2715 is located on the west side of Area 8 and consists of four postholes forming a NNW-SSE alignment 5.5 m long: 2135, 2209, 2211, 2081 and 2104. The postholes were circular to subcircular and had steep sides and flat or slightly concave bases. They varied in diameter from 0.28 m to 0.40 m and in depth from 0.11 m to 0.24 m. Each posthole contained a single fill (2136, 2212, 2080 and 2103 respectively) of loose to friable mid to dark brown sandy silt. Posthole 2209 is also not at the regular spacing of the other postholes, which have *c* 1 m between them, and may be later. Alternatively these postholes may have been part of the Iron Age roundhouse complex: 2104 in Iron Age group 2719 and 2135, 2209, 2211 and 2081 in Iron Age group 2724 (see above, Iron Age Features).

Posthole group 746 (Fig. 14)

Posthole group 746, excavated in the 1990 evaluation, ran at right angles to ditch group 1626 in evaluation trench D on the north edge of Area 9. This group consisted of ten postholes: 729, 727, 725, 723, 721, 719, 717, 715, 712 and 711. These postholes cut the subsoil (707), and formed a closely spaced line *c* 6 m in length. The postholes were all circular with a flat base and near vertical sides. They varied in diameter from 0.27 m to 0.43 m and in depth from 0.15 m to 0.33 m. One posthole, 723, was noticeably smaller than the others (0.22 m in diameter and 0.12 m deep). It occurred in a small cluster of postholes (725, 723 and 721), where it cut posthole 725. It is possible that this area of ground was unstable and, therefore, the post had to be replaced several times. All the postholes were filled with dark reddish brown clayey silt; no finds were retrieved. There was also a possible eleventh posthole at the western end of the line (731). This feature was 0.33 m in diameter, but very shallow (0.07 m deep).

Posthole groups 649 and 1630 (Fig. 14)

Posthole group 649, also excavated in the 1990 evaluation, ran parallel to gully 615, in the western part of Area 9. This group comprised 11 postholes (646, 644, 640, 638, 634, 632, 628, 626, 622, 620 and 616), which cut natural gravel 604, and formed a 9 m long

line of postholes, spaced *c* 0.5 m apart. Running on the same alignment and closely associated with group 649 was group 1630 that consisted of three postholes (1427, 1411 and 1409). It is highly likely that these groups form part of the same posthole alignment. The postholes in both groups were circular, vertical-sided and flat-bottomed. They varied in diameter from 0.30 m to 0.48 m and in depth from 0.15 m to 0.33 m, with the exception of postholes 620, 622 and 1409. These three postholes were much smaller: 0.2 m in diameter and only 0.08 m deep. These postholes, which formed a cluster, must have been dug in an unstable or particularly hard area of ground that meant they had to be replaced quite regularly. All the postholes contained a single fill of very dark reddish-brown sandy clay from which no finds were retrieved.

Posthole 634 was cut into the fill (637) of gully 636. Gully 636 ran on a north-west - south-east alignment, that is, a different alignment to the other linear features on the site. The gully was 1.3 m long (running into the baulk), 0.38 m wide and 0.17 m deep. There was no dating evidence from the gully, but it probably indicates an earlier, prehistoric boundary. It may also be related to gully 1210 in the southern part of Area 9, which ran on a north-east - south-west alignment, that is, at right angles to gully 636 (see above).

Posthole group 1637 (Fig. 14)

Three postholes, 1620, 1616 and 1482, make up group 1637, which runs parallel to ditch 1626 in Area 8. The postholes are spaced at intervals of *c* 3 m and cover a distance of *c* 7 m. These postholes are circular with near vertical sides and flat or slightly concave bases. They varied in diameter from 0.2 m to 0.4 m and in depth from 0.1 m to 0.12 m. Each posthole contained a single fill (1619, 1615 and 1481 respectively) of friable mid brown sandy silt from which no finds were retrieved. Posthole 1482, the northernmost of the three, was partially truncated by ditch intervention 1153 (part of group 1637), and it is therefore likely that this group of postholes represented an earlier enclosure boundary prior to the digging of the ditch.

Central ditch complex in the late 2nd to early 3rd century

Ditches 2709 and 1627 (Fig. 14)

In the late 2nd-century/early 3rd-century, a new boundary comprising ditches 2709 and 1627 was dug on a NNE - SSW alignment. These ditches contained pottery of 2nd-

century or 3rd-century date (plus some residual early Iron Age material), and 2709 was stratigraphically later than 1626 = 2710. Fill 2417 (fill of 2418) contained pottery of later 2nd-century date; fills 1096 and 1076 (fills of 1097 and 1077 respectively) contained pottery of 2nd-century date (65 sherds from 1096 and 164 sherds from 1076) and fill 1098 (fill of 1099) contained pottery both of 2nd and 3rd-century date (35 and 39 sherds respectively). Ditches 2709 and 1627 are not in line, so presumably both terminated under the baulk between Areas 8 and 9.

Ditch 2709 was approximately 1.25 m wide and up to 0.43 m deep; ditch 1627 was 0.85 m wide and up to 0.25 m deep; the latter became narrower and shallower as it approached its southern terminus. The profile of both ditches was U-shaped with gently sloping sides, slightly steeper to the east with a slightly rounded base, and both ditches were filled consistently by a friable mid to dark reddish brown silty sand. The southern terminus of 1627 (1077) was rounded. The fill of the terminus (1076) contained a very large assemblage of 2nd-century pottery (177 sherds weighing 1899 g), including an Oxfordshire *mortarium* rim and other largely reconstructible pots. This is interpreted as domestic debris dumped from very close by.

Gully 251 (Fig. 14)

To the south, two lengths (250 and 122) of gully 251 were excavated by the Abingdon Society in adjacent trenches 1 and 2. Both lengths were 0.3 m wide and contained a greyish-brown silt, numbered 228 and 105 north and south respectively. Fill 228 was darker than 105, and contained small sherds of Bronze and Iron Age pottery. The southern part of length 250 appeared to have a recut (247). A double posthole 248/249 may have been associated with this part of the gully, but the relationship is unclear and no finds were retrieved from its fills (229 and 234 respectively). Two postholes (124 and 123) were also found in length 122, but no relationship was established between the features, and neither of the fills in the postholes (106 and 107 respectively) produced any finds.

Ditch 1629 (Fig. 14)

Further to the east and at right angles to ditch 1627 = 2709 was a short ditch segment 1629 (interventions: 1101 = 1183). Ditch 1629 was aligned WNW - ESE, was 9 m long, c 0.75 m wide and 0.20 m deep and was filled by a friable mid to dark reddish-brown sandy silt similar to the fills of ditches 2709 and 1627. Both the western and eastern

termini (1101 and 1183 respectively) had gently sloping sides and flat bases; the fills of both produced 2nd-century pottery, 55 sherds from 1100 (1101) and 16 sherds from 1184 (1183). The alignment of this ditch, the date of its pottery and the similarity of fill suggest that this ditch formed part of an enclosure system with 2709 = 1627. Ditch 1629 cut an amorphous natural feature 1487 at its western end (see Natural and Geological Features, above).

Late 2nd- to 3rd-century fence-lines in Areas 8 and 9

The trend for posthole alignments, probably fence-lines, continued into the late 2nd/3rd century following the new alignment marked by central ditch 2709 = 1627. Again, however, the dating of these fence lines is problematical, and some may have been Anglo-Saxon.

Posthole groups 2716 and 2717 (Figs 14-15)

Posthole groups 2716 and 2717 run in parallel to ditch 2709 and to each other in Area 8. They are both *c* 11 m in length. Posthole group 2716, the westernmost of the two, consists of eight postholes, spaced at 1 m intervals: 2205, 2114, 2158, 2071, 2102, 2100, 2109 and 2047. The postholes were generally circular with steep sides and flat or concave bases. The postholes varied in diameter from 0.24 m to 0.45 m in depth from 0.15 m to 0.40 m. The postholes in the middle were larger than those towards either end of the line. Each posthole was filled by a friable mid to dark greyish brown clayey silt deposit (2206, 2115, 2157, 2070=2069, 2101, 2099=2098, 2108 and 2046 respectively). It should be noted, however, that several postholes in both these groups may belong to Iron Age roundhouse groups: 2100, 2050 and 2072 in group 2719; 2061 in group 2722; 2109 in group 2725; 2203 in group 2724; and 2219 in group 2721 (see above: Iron Age Features).

Posthole group 2717, to the east of 2716, comprises six postholes: 2203, 2219, 2172, 2061, 2050 and 2072. These postholes were also circular with steep sides and concave bases. The dimensions of the postholes varied from 0.23 m to 0.50 m (diameter) and 0.14 m to 0.34 m (depth). The smallest postholes were 2203 and 2219 at the northern end of the line. These postholes were also filled by friable mid greyish brown clayey silt and contained possibly residual Iron Age pottery.

Posthole group 1631 (Figs 14 and 16 (Figs 14-15))

In Area 9, posthole group 1631 ran parallel to and was truncated by ditch group 1627. The location of this alignment (to the west of 1627) suggests that this may have been a continuation of 2717 to the north, in which case 2717 must also slightly predate ditch group 2709, as was the case with posthole group 1637 (see above). This group consists of six circular postholes with steep sides and flat bases: 1405, 1403, 1401, 1337, 1294 and 1432. The total length of the alignment was 7.8 m and the postholes were spaced either 1.6 m apart or in pairs 0.6 m apart. The postholes varied in diameter from 0.24 m to 0.36 m and in depth from 0.12 m to 0.24 m. Each posthole contained a single fill of loose dark brown sandy silt (1406, 1404, 1402, 1338, 1293 and 1431 respectively). Posthole fill 1431 contained two sherds of residual early Iron Age pottery.

Posthole groups 1632, 1635 and 1636 (Fig. 14)

This complex of posthole alignments running on or at right angles to the late 2nd-/early 3rd-century alignments appears to form a series of smaller field boundaries or land allotments. Posthole group 1632 ran parallel to, but further south than ditch 1627. It comprises nine postholes (1287, 1469, 1227, 1225, 1438, 1440, 1300, 1562 and 1546) and spans a total length of 11.5 m. There is a large gap of 2.5 m between 1440 and 1300 and it is possible that this is in fact two groups. The postholes north of this gap are paired (1287 and 1469; 1227 and 1225; 1438 and 1440) and each pair is spaced approximately 1 m from another pair. These postholes varied in diameter from 0.35 m to 0.45 m and in depth from 0.18 m to 0.30 m. The postholes to the south of the gap are spaced *c* 1 m apart. Although there is also a large gap between 1562 and 1546, it is likely that a fourth unexcavated posthole would also have formed part of this alignment. These postholes were slightly smaller, varying in diameter from 0.26 m to 0.35 m and in depth from 0.13 m to 0.25 m.

The postholes of the whole group were subcircular to circular with steep sides and flat or slightly concave bases. Each was filled by a friable or loose mid brown sandy silt deposit (1288, 1470, 1228, 1226, 1437, 1439, 1301, 1561 and 1545 respectively). Fill 1228 contained a single small sherd of residual early to middle Iron Age pottery. Fills 1226 and 1437 contained a single very small sherd each of early Saxon pottery, and, whilst this might be intrusive, it is also possible that this fence dates from that period.

Posthole 1296 to the north of group 1632 was dated to the late 2nd-early 3rd century AD by Roman pottery, but does not seem to form part of the same alignment as 1632. This posthole was circular with steep sides and a flat base. It measured 0.4 m in

diameter and 0.32 m deep. It contained two fills: 1308 (primary) was a loose reddish-brown sandy silt deposit 0.26 m thick, and 1297 (secondary) was a dark brown sandy silt deposit 0.08 m thick. The pottery came from the upper fill.

Posthole group 1635 ran at right angles from the southernmost posthole (1546) of group 1632. This group consists of four postholes (1350, 1548, 1368 and 1364) spaced at *c* 0.5 m intervals that form a line 3.4 m long. With the exception of 1548, the postholes were very regularly sized. They varied in diameter from 0.17 m to 0.19 m in depth from 0.10 m to 0.12 m. Posthole 1548 was significantly larger: 0.33 m in diameter and 0.36 m deep. It is noteworthy that this posthole would have been in the centre of the row of five postholes (group 1632 plus 1546). Each posthole was circular with vertical sides and a concave base. In addition, each was filled by friable mid greyish-brown sandy silt (1349, 1547, 1368 and 1363 respectively). No finds were retrieved from these fills.

Posthole group 1636 ran at right angles to 1635 on the later 2nd-/early 3rd-century alignment. The group comprised six postholes (1370, 1358, 1266, 1276, 1274 and 1260) that were spaced at intervals of *c* 1 m. The line spanned a total of 6.2 m. The postholes were circular with vertical sides and flat bases, except 1358, which had gently sloping sides. Posthole 1358 was also very shallow (only 0.06 m deep), which suggests that it has been heavily truncated. The other postholes varied in diameter from 0.2 m to 0.3 m and in depth from 0.11 m to 0.3 m. The largest posthole was 1260 (0.3 m in diameter x 0.3 m deep), located at the southernmost end of the line and possibly acted as an end-marker. Similar to group 1635, each posthole was filled by a single deposit of friable mid greyish-brown sandy silt. Again no finds were retrieved from these fills.

Posthole groups 1633 and 1634 (Fig. 14)

These fence-lines were focussed around the western end of gully 1629. Posthole group 1633 ran at right angles to the gully and comprised seven postholes: 1258, 1256, 1254, 1252, 1240, 1238 and 1236. The postholes were spaced at intervals of 0.3 m to 0.6 m and spanned a total length of 5 m. All the postholes, except 1258 and 1256, were circular with near vertical sides and flat or slightly rounded bases. Postholes 1258 and 1256 had the same profile, but were oval in plan. They measured 0.25 x 0.20 x 0.13 m and 0.20 m x 0.14 m x 0.14 m respectively. The two smallest postholes (1254 and 1252) were located in the middle of the line and measured 0.15 m to 0.17 m in diameter and 0.06 m deep. The largest postholes (1240, 1238 and 1236) were located close to the gully and at the southern end of the line. These varied in diameter from 0.30 m to 0.36 m and in

depth from 0.16 m to 0.17 m. All the postholes were filled by friable mid brown sandy silt (1257, 1255, 1253, 1251, 1239, 1237 and 1235 respectively). Only fill 1239 produced finds: one sherd of 2nd-century date and another sherd of possible early Saxon date. This posthole, or indeed the whole group, may have been Saxon rather than Roman.

Posthole group 1634, which ran parallel to gully 1629 for 1.3 m, consists of five closely-spaced postholes: 1242, 1244, 1246, 1248 and 1578. These postholes were oval with vertical sides and flat bases. The postholes decreased in size from west to east: posthole 1242 (west) measured 0.4 m x 0.3 m x 0.2 m and posthole 1578 (east) measured 0.2 m x 0.1 m x 0.04 m. Each posthole was filled by friable mid brown sandy silt (1241, 1243, 1245, 1247 and 1577). No finds were retrieved from these fills.

Pits in Area 9 (Fig. 16)

Three pits to the west of the central ditches contained Roman finds: 505, 605 and 1425. Pit 1425, to the east of fence-line 649, was an oval pit with gently sloping sides and a flat base. It measured 1.50 m x 0.70 m x 0.24 m. It contained a single fill (1424) of friable mid brown sandy silt from which three sherds of 2nd-century pottery were retrieved. Pit 605 lay to the south-west of this pit; it contained one sherd of 2nd-century pottery in fill 610, but this sherd is likely to be intrusive (see Iron Age description). Pit 505 lay to the south of pit 605. It was an oval pit with gently sloping sides and an uneven base. The pit measured 1.3 m x 0.6 m x 0.7 m. It was filled by 506, 507 and 508. The primary fill (508) was a dark brown silty loam deposit, 0.15 m thick. It was overlain by a layer of loose gravel, 0.04 m thick (507). The upper fill was a dark brown loam that contained four sherds of 2nd-century pottery.

Modern graves 3509 and 3531

During grave-digging of grave 3509 (4 J 9), three sherds of 2nd-century pottery were retrieved, alongside one sherd of early to middle Iron Age pottery and one sherd of 11th-century pottery (presumably from a later layer). Fifty four sherds of Roman pottery were also retrieved from grave 3531 (11 E 14). Nothing further is known about any archaeology disturbed by these graves and it is possible that these finds were residual in later layers.

SAXON FEATURES

by Zena Kamash

The sunken-featured buildings (Figs 14, 18-19, Pls 2 and 4)

Two sunken-featured buildings (SFB) were excavated in Area 8 in 2000: 2008 and 2687.

SFB 2008 (Fig. 18, Pl. 2)

Sunken featured-building 2008, in the north-east, was a rectangular feature with rounded corners and a flat base 3.05 m x 2.26 m x 0.28 m deep. This feature was excavated in quadrants and contained only a primary fill of friable dark greyish brown clay-silt with 20% fine gravel inclusions: 2009 (south-east) = 2010 (north-west) = 2479 (north-east) = 2480 (south-west). Quadrant 2479 was 100% sampled (<19>). The fill produced a total of 55 sherds (1025 g) of undecorated pottery, as well as daub, a single Fe nail and large quantities of animal bone.

Several postholes appear to be associated with this SFB, both externally and internally. Internally at the western end of the SFB were two postholes: 2624 and 2626. Both postholes cut natural gravel 2007 and were sealed by 2010 and 2480 (respectively). Circular posthole 2624 was the smaller, and contained a single fill (2625) of friable mid greyish-brown clayey silt without finds. Posthole 2626 was larger, and contained packing and a postpipe. The packing (2627) consisted of redeposited natural gravel and the postpipe (2628), which was 0.12 m wide, was a friable mid greyish-brown clayey-silt. Neither deposit contained finds.

To the east of the SFB was a particularly deep posthole (2477) that cut natural gravel 2007 and was sealed by 2009. The posthole contained a primary fill (2481) of loose mid reddish-brown sandy-silt and a postpipe (2478) of friable dark greyish-brown clayey-silt, 0.16 m wide; neither fill contained any finds. Two further postholes were identified in the south-eastern corner of the SFB: 2475 and 2473. Both postholes cut natural gravel 2007 and were sealed by 2009. The larger posthole was 2473, which unusually had gently sloping sides and a concave base. It contained a single fill (2474) that was a sterile friable dark greyish brown clayey-silt. Posthole 2473 does not necessarily belong to the SFB and may instead be part of the inner arc of the timber circle (2726; see above Bronze Age Features), although its fill is similar to that of the other internal SFB postholes including 2475 slightly to the west. The fill of all these internal postholes is very similar in nature to that of the SFB itself, layer 2009 = 2010 =

2479 = 2480, which suggests that the fill of the SFB was deposited after the posts had been removed. The packing fills of postholes with postpipes are of course exceptions.

This SFB was surrounded by six external postholes: one to the west (2016), three to the east (2034, 2032, 2030 running north-south) and one posthole each, facing each other, on the northern and southern sides (2018 and 2022 respectively). Posthole 2032 may instead form part of the inner arc (2726) of the timber circle (see Bronze Age Features). With the exception of 2016, the postholes were shallow (0.0.7 m to 0.10 m deep), circular postholes with gently sloping sides and concave bases. They varied in diameter from 0.21 m to 0.29 m. Each contained a single fill (2035, 2033, 2031, 2019 and 2023) that was friable dark reddish-brown clayey-silt. Their shallow depth suggests that either they have been heavily truncated or that the posts they held were not earth-fast or not very substantial.

Posthole 2016 is something of an anomaly because it is significantly larger and deeper than the others (0.44 m in diameter and 0.38 m deep). Furthermore, it contained two fills: a postpipe (2128) as well as primary fill 2017. The postpipe was a friable dark-brownish black deposit 0.34 m wide and 0.27 m deep. The primary fill, which was a friable mid reddish-brown clayey-silt, produced five sherds of middle Iron Age pottery weighing 154 g in total. Although this posthole is associated spatially with SFB 2008, it is possible that this is coincidental and that this posthole in fact belongs to an Iron Age phase of activity on the site. A further posthole (2012) to the south and east of the SFB contained a small sherd of Saxon pottery in its single fill (2013). This posthole, which truncated posthole 2373 of the Bronze Age posthole arc, was circular with near vertical edges and a V-shaped base. It was 0.23 m in diameter and 0.22 m wide. The primary fill was a friable dark greyish-brown clayey-silt deposit.

SFB 2687 (Fig. 19, Pl. 4)

To the south of Area 8, SFB 2687 truncated Roman ditch 2692 (group 2710). The feature was rectangular with rounded corners and a relatively flat base 3.12 m x 2.90 m x 0.26 m. Unlike SFB 2008, SFB 2687 contained three fills: 2686 (primary), 2673 (secondary) and 2672 (tertiary). In addition, finds reference number 2703 was allocated for finds at the interface between the primary and secondary deposits and 2674 was allocated to the animal bone from the interface between the secondary and tertiary fills. Primary fill 2686, 0.30 m thick, was a friable and fairly compact deposit of light greyish-brown sandy silt with 10% gravel inclusions; it contained 15 sherds of undecorated early

Saxon pottery. The secondary and tertiary deposits (2673 and 2672, respectively) contained a far higher number of finds. Secondary deposit 2673, 0.16 m thick, was also a friable light greyish-brown sandy silt with 45% gravel inclusions; it contained 79 sherds of Saxon pottery including a group of stamped and incised sherds (see Chapter 3: Blinkhorn and Briscoe). The tertiary fill, 0.18 m thick, was a friable mid to dark brown sandy silt with 15% gravel inclusions. As well as containing 147 sherds of early Saxon pottery, this deposit also contained large amounts of articulated animal bone (Fig. 19).

There were three internal postholes associated with this SFB: 2706 (east), 2702 (west) and 2698 (south-west). The principal east and west postholes were large circular postholes 0.5 m in diameter x 0.5 m deep and cut natural gravel 2007. Both had vertical sides and concave bases. Posthole 2702 had three fills: 2701 (primary), 2700 (secondary), 2699 (tertiary). The primary fill was a 0.10 m thick deposit of redeposited natural gravel and contained no finds. The secondary fill was a friable mid brown sandy silt deposit, 0.18 m thick and also contained no finds. The tertiary fill, 0.22 m thick, was a friable mid greyish-brown sandy silt deposit that also contained no finds; this fill was sealed by the primary SFB deposit 2686, which therefore must have been deposited after the posthole had gone out of use. Posthole 2706 had two fills: 2707 (primary) and 2708 (secondary), but there were no finds. The primary fill was a compact light brownish-grey clayey silt deposit 0.12 m thick; the secondary fill was a more substantial deposit, 0.38 m thick, of friable dark greyish-brown clayey-silt. This deposit is recorded as being sealed by 2011, the Holocene subsoil, which must be a recording error and therefore nothing further can be gleaned about this posthole and its exact stratigraphic relationship with the SFB fills.

The circular posthole in the south-eastern area of the SFB was of a similar diameter to the two described above, but much shallower (only 0.16 m deep). This posthole also cut the natural gravel 2007 and its single fill (2697) was sealed by deposit 2686. The fill was a fairly compact light to mid greyish-brown sandy silt deposit that produced animal bone and early Saxon pottery, suggesting that the fill derived from 2686 or was deposited as part of a similar event. In addition, this posthole fill was overlain partly by a limestone slab. There were two such limestone slabs (not retained for post-excavation analysis) in this structure and their function remains obscure. The site records note that the slabs overlay a lower lens (of two) in 2686 and so it is possible that they represent slightly later post-pads. Alternatively, they may simply have been slabs of redundant stone incorporated into the primary fill of the SFB.

Six postholes within the vicinity of the structure may represent an external structure: 2683, 2595 and 2685 (west), 2540 (north) and 2704 and 2588 (north-east). Postholes 2683 and 2595 may have formed the north-western and south-western corners (respectively) of such a structure. Posthole 2683 was the larger of the two measuring 0.62 m in diameter x 0.18 m in depth. This posthole, which had gently sloping sides and a concave base, was cut into the fill of 2692 (group 2710: 2nd century). It had a single fill (2682) of friable dark brown sandy silt that contained no finds. Posthole 2595 was 0.3 m in diameter and 0.12 m deep; it also had gently sloping sides and a concave base. It was filled by a mid reddish-brown sandy silt deposit (2594). Although completely excavated there were no finds.

The third posthole, which was circular with steep sides and V-shaped base, on the western side was closer to the SFB (0.4 m away, rather than *c* 1 m). It measured 0.36 m in diameter and was 0.14 m deep. It may also have truncated ditch intervention 2692, but the relationship was not clear. The posthole contained a single fill (2684) of friable to loose mid to dark brown sandy silt that contained no finds. Posthole 2540 was 0.2 m to the north of the SFB and measured 0.28 m in diameter, but was only 0.05 m deep. It contained a loose dark greyish-brown fill (2539) that produced a fine flint blade.

The two postholes to the north-east were both *c* 1 m away from the SFB. Posthole 2588, the smaller of the two, was 0.36 m in diameter and 0.22 m deep. It was a circular posthole with gently sloping side and a concave base. It was filled by 2587: a friable to loose, mid to dark brown sandy silt deposit that contained two large sherds of early Iron Age pottery (together weighing 130 g). On the basis of the pottery, it is unlikely that this posthole was associated with the SFB and is more likely to have belonged to Iron Age activity in the area. The other posthole was 0.56 m in diameter x 0.26 m deep with irregularly sloping sides and a concave base. This posthole was filled by a friable mid reddish brown sandy-silt (2705) and contained no finds.

Saxon pit 245 (Fig. 14)

The 1994 Abingdon Society excavations found a Saxon pit (245) in Area 9 to the west of Roman gully 250. This pit, which mostly lay under the northern baulk of their trench, was probably circular. It had a single fill, 227, that contained 14 sherds of early to middle Saxon pottery, including a possible lugged vessel (not illustrated). In addition, this pit contained a perforated Roman coin (see Chapter 3: Booth) and a perforated Roman brooch (see Chapter 3, Henig).

Miscellaneous Saxon features

Several other features in Area 9 produced Saxon pottery: a posthole in the central western area (1292), postholes in supposedly Roman alignments (1225, 1240 and 1438) and a pit in the northern area (1449). Both 1292 and pit 1449 lay at some distance from the SFBs. Posthole 1292 was a circular posthole 0.3 m in diameter and 0.26 m deep. It contained a single fill (1291) of loose greyish-brown sandy loam that produced a single small sherd of early to middle Saxon pottery. This posthole forms part of an alignment that is parallel to a Roman ditch (see Fig. 14). If this sherd is intrusive, the postholes may all belong to a 2nd/3rd-century posthole alignment, but if not, then several supposedly Roman alignments may be Saxon; the same is the case for alignments 1632 and 1633 (Fig. 14), to which postholes 1226 and 1438, and posthole 1240 respectively belong. Posthole 2209 in Area 8, whose fill 2210 was a friable dark orange-brown sandy silt containing a single sherd of possible Saxon pottery, may also have been Saxon (Fig. 14).

Pit 1449 was only glimpsed and not bottomed in a slot dug across the north-western end of Area 9 (Fig. 14). The fill (1450) contained a variety of finds including bone, glass, flint and Saxon pottery. It is likely that this pit was associated with the gravel-quarrying pits in this area and like them filled gradually from the late Romano-British period to the medieval period.

Saxon archaeology and modern graves (Figs 3 and 20)

Several modern graves contained high densities of Saxon pottery and are thought to represent areas of Saxon activity on the site. The largest assemblage of pottery was retrieved from a group of four graves: 3526 (3 E 26), 3527 (3 F 26), 3528 (3 F 27) and 3529 (3 F 28). These graves were recorded carefully by Bill Skellington and a report written (but never published) that included plans and section drawings (Fig. 20). The report asserts that the disturbed feature was of 6th-century date and either a 'housestead' or a ditch. It appears from the plans that more than one feature was disturbed, but the exact nature of the archaeology can only be guessed at. The fills of the features are not consistently described, but it is noteworthy that the lower fill of 3528 (3 F 27) comprised a 7 inch thick layer of ash that contained burnt pottery and bone, including a burnt deer antler. In total, 103 sherds of grass-tempered pottery were retrieved from the four graves. The pottery was given to the Institute of Archaeology, Oxford University in the 1970s, but is now lost. Despite not finding the actual pottery, three of the sherds, which are

believed to have come from these graves, were included in Freda Berisford's B Litt. thesis illustration catalogue of large cooking- or storage-jars (Berisford 1973, fig. 39.6-8).

Modern grave 3500 (3 B 30) was recorded by Bill Skellington as an SFB. The plan drawn of the grave seems to indicate two rows of stones towards the western end of the grave, but it is unclear what these represent. The grave produced sixteen relatively large sherds of early to middle Saxon pottery. Modern grave 3511 (4 M 7) had no accompanying records or plans, but the pottery from the grave suggests that it was in an area of Saxon activity too. Thirty-four sherds of early to middle Saxon pottery were recovered from the grave. It is particularly interesting that this assemblage produced a cross-fitting sherd with pottery from tertiary deposit 2672 in SFB 2687.

Several other modern graves contained Saxon pottery: 3501 (3 E 32), 3504 (4 C 23), 3508 (4 H 14), 3510 (4 K 15), 3512 (4 M 8), 3517 (10 A 6), 3521 (10 F 4) and 3523 (11 E 15). These graves all contained between 4 and 17 sherds of early to middle Saxon pottery. Some of them produced very mixed assemblages, producing pottery of late Bronze Age to medieval date and are thus difficult to date securely. The low density of Saxon pottery in all of these graves makes it possible that much of the material was not *in situ* or that large deposits were not disturbed.

In addition to these features, it also seems likely that the grave-diggers disturbed several graves from the Saxon period. Two burials were noted briefly by Humphrey Case (Case 1957). The burials, which were reported by Dr G F O'Connor, were the extended skeleton of a young adult, partially overlain by another skeleton; both skulls were towards the north. Bill Skellington's report on the group of four graves (see above) also made mention of a further two skeletons recorded by Dr O'Connor in 1966. These skeletons were adults, lying close together in a contracted position; Dr O'Connor thought they were 'Pagan Saxon'. Unfortunately, no further records or references concerning any of these burials could be found and these skeletons have now been re-interred on the site.

MEDIEVAL AND POST-MEDIEVAL FEATURES

by Tim Allen and Zena Kamash

Medieval pits in Areas 8 and 9 (Figs 14 and 21, Pl. 5)

A series of intercutting pits was dug along the eastern side of Areas 8 and 9. All these pits lay east of the central 2nd-century ditch 2710=1628, and may therefore have respected it; there was no physical relationship between the pits and the gully or ditch. In Area 8 some of the pits cut gully 2584 which ran parallel to the central ditch and gully, though others again appeared to have been respecting its line. The varying size and irregular shape of these pits suggests that they were dug for gravel-extraction. Gravel spills in some of these pits suggest that the pits were left open after the gravel was extracted, filling slowly thereafter. All of the pits were overlain by the ploughsoils of late medieval date that covered the whole excavation area.

Group 2718 (Fig. 14)

This group, in the south-eastern corner of Area 8, was the only group of intercutting pits investigated in this area. The group comprises at least five pits: 2657, 2659, 2661, 2663 and 2665. A sixth pit 2650 sectioned further north may correspond to one of these pits, but has no direct stratigraphic relationship to it. This latter pit was also the largest of those investigated being 1.75 m in diameter and 0.78 m deep. Stratigraphically pit 2663 was later than 2661, which in turn was truncated by 2659. Pit 2657 truncated both pit 2659 and pit 2665. The pits varied in length from 1.0 m to 1.6 m, in width from 0.6 m to 1.2 m and in depth from 0.36 m to 0.55 m. They were mostly oval, with sides of varying slope and shape of base. With the exception of primary gravel spills 2655 and 2651, the pit fills were homogenous friable mid greyish-brown sandy silt deposits (2656 (secondary fill of 2657), 2658, 2660, 2662, 2664, 2652 (secondary fill of 2650) and 2653 (tertiary fill of 2650)). The fills contained a variety of finds including animal bone, flint, Bronze Age pottery (one small sherd from 2658) and early to middle Saxon pottery (two small sherds from 2664).

Group 1643 and associated pits 1095 and 1139 (Figs 14 and 21)

In the north-eastern corner of Area 9, there was cluster of intercutting pits: group 1643. This group comprised pits 1125, 1127, 1133, 1135, 1137 and 1146. Pit 1133 was truncated by pits 1129 and 1146. Pit 1146 also truncated pit 1135 (Fig. 21). The exact relationship between 1127 and 1125 was obscure, but pit 1125 possibly truncated pit 1127. These pits ranged in size from 0.8 m to 2.0 m (length), 0.5 m to 1.4 m (width) and 0.22 m to 0.95 m (depth). They were generally sub-rectangular in shape, but as above there was no consistent pattern of gradient of sides or shape of base.

Two pits (1133 and 1146) contained more than one fill. The primary deposit of 1133 (1132) was a 0.25 m thick friable mid brown sandy silt deposit overlain by a lens of gravel 0.08 m thick (1131). The tertiary deposit (1130) was a friable mid reddish-brown sandy silt deposit 0.65 m thick that contained a residual sherd of middle to late Bronze Age pottery, animal bone and flint. Pit 1146 also had a primary fill (1145) of friable mid brown sandy silt (0.20 m thick). This was in turn overlain by a 0.06 m thick layer of loose yellow sand (1144). The tertiary fill was again a friable mid brown sandy silt deposit (1143; 0.40 m thick). The other pits all contained a single fill of friable mid brown sandy silt (1124, 1126, 1128, 1134 and 1136). Three of these fills contained finds. Fill 1124 contained flint and some probable ceramic building material. Fill 1126 contained flint and a pottery sherd of 12th-century date. Fill 1135 contained flint and residual early to middle Iron Age pottery.

To the south of pit 1137, was another pit (1095) that stood alone. This pit was sub-rectangular with irregularly sloping sides and a relatively flat base. It measured 2.60 m x 1.40 m x 0.41 m. The pit contained three fills: 1094, 1093, and 1092. Primary fill 1094, which was slumped against the eastern side, was a friable mid brown sandy silt deposit, 0.16 m thick, that contained no finds. Secondary fill 1093, which was also slumped against the eastern side, was a loose yellow sand deposit, 0.20 m thick, that again contained no finds. Tertiary fill 1092 was a friable mid brown sandy silt deposit, 0.40 m thick that contained a single sherd of middle to late Bronze Age pottery.

To the west of group 1643 was a large pit, 1139, that cut subsoil 1080. This pit was oval with a flat base and irregularly sloping sides, and measured 4.6 m x 3.4 m x 0.8 m. The pit contained two fills. Primary fill 1140 was 0.30 m thick deposit of loose yellowish/reddish brown silty sand and 30% gravel that contained no finds. Secondary fill 1141 was a loose to friable dark reddish-brown silty sand deposit, 0.50 m thick, that contained animal bone and eleven sherds (weighing 107 g in total) of 13th-century pottery.

Group 1642 (Fig. 14)

To the south-east of pit 1139 was group 1642, consisting of four pits: 1113, 1114, 1115 and 1116. Pit 1116 truncated pit 1115 that truncated pit 1114. Pit 1113 truncated all three other pits. The pits were probably circular or subcircular with irregular sides and concave bases. They varied in size from 0.7 m in diameter to 2.0 m in diameter and in depth from 0.35 m to 0.6 m. With the exception of pit 1113, all the pits contained two

fills. The primary fills of all the pits (including 1113) was a loose dark brown sandy silt deposit (1123, 1121, 1119 and 1117); the secondary fills all consisted of loose yellow gravel and sand (1122, 1120 and 1118). This suggests that the upper fills were redeposited natural sand and gravel dug out from the next pit in the sequence, though whether deposited by accident or design is not clear. Finds only came from pits 1113 and 1115. Fill 1123 of pit 1113 produced flint and two sherds of early to middle Saxon pottery. Fill 1119 of pit 1115 produced a single sherd of middle to late Bronze Age pottery.

Group 1641 (Fig. 14)

Group 1641 was located to the south-east of group 1642 and consisted of four pits: 1085, 1087, 1089 and 1091. Pits 1085 and 1087 were isolated pits just to the south of 1089, which cut pit 1091 to the north. The isolated pits were also slightly smaller than the two intercutting pits. Pit 1085 was 1.10 m x 0.78 m x 0.25 m. Pit 1087 was 0.87 m x 0.86 m x 0.16 m. Both pits were oval with irregular sides and concave bases. They each contained a single fill of loose mid reddish-brown sandy silt (1084 and 1086 respectively). Fill 1084 contained two flint flakes. Pits 1089 and 1091 were larger. Pit 1089 was 1.45 m x 0.6 m x 0.33 m. Pit 1091, the largest, was 2.10 m x 1.6 m x 0.78 m. These pits were also oval with irregular sides. Pit 1089 had a flatter base than 1091. Both were filled by a single fill (1088 and 1090 respectively) that was very similar to that filling pits 1085 and 1087. Fill 1090 contained animal bone, flint and two sherds of early Saxon pottery. In addition, this pit fill had a small amount of gravel towards its base.

To the west of this group was a large pit (1073). Although close to ditch intervention 1075, no direct stratigraphic relationship was found between the two. This pit was subcircular with gently sloping sides and a flat base. It measured 2.30 m x 2.0 m x 0.25 m deep, and had a single fill (1072) of friable reddish-brown sandy silt from which no finds were retrieved.

To the south-east of this group were two isolated features 1008 and 1071, both of which continued beyond the limits of the site. Pit 1008 measured 2 m north-south by at least 1.35 m west to east, and had a regular profile with sloping sides leading to a flat base at a depth of 0.45 m. There were two fills, 1006 containing charcoal and overlain by 1007, a red brown sandy silt with a fair proportion of gravel. The lower fill contained three small sherds of early Iron Age pottery with incised decoration. Pit 1071 was interpreted on site as a garden feature, but its location and nature suggest that, like 1008,

it is another gravel extraction pit. The exposed extent of pit 1071 was 3.10 m x 3.0 m x 0.25 m, and it was sub-rectangular with a flat base and irregular sides. It contained a single fill (1072) of friable dark brown sandy silt and a high percentage of gravel at the base of the fill. The fill also contained three large sherds of 13th-century pottery.

Groups 1638, 1639 and 1640 (Figs 14 and 21)

The south-eastern corner of Area 9 was heavily pitted. The areas excavated consisted of three groups of pits and two ungrouped pits: groups 1638, 1639 and 1640 and pits 1011 and 1015. Group 1638 was the largest of the groups and comprised seven pits: 1019, 1024, 1022, 1035, 1037, 1033 and 1027, the last five of which were all in stratigraphic sequence. Pits 1022 and 1024 may also have been truncated by pit 1019, but the relationships were uncertain (Fig. 21). All the pits were sub-rectangular and had sides sloping at 70° to 80°; their bases varied between flat and concave. The pits were all substantial and their dimensions varied as follows: 1.30 m to 2.00 m in length, 0.9 m to 1.20 m in width, 0.48 m to 0.86 m in depth.

Three of the pits (1024, 1035 and 1037) contained a single fill of friable mid brown sandy silt (1023, 1034 and 1036 respectively). Fill 1034 produced two sherds of middle to late Bronze Age pottery. Three of the pits (1019, 1022 and 1027) had a sterile primary sand and gravel spill followed by a friable mid brown sandy silt deposit, from which finds were retrieved. Secondary fill 1017 (pit 1019) produced a metal buckle (see Chapter 3: L. Allen) and animal bone, fill 1020 (pit 1022) five sherds of early to mid Saxon pottery and fill 1025 (pit 1027) two sherds of middle to late Bronze Age pottery. Pit 1033, the deepest pit (0.86 m) contained five fills, all friable mid brown sandy silt deposits with varying percentages (from 1% to 30%) of gravel. Fill 1029 produced twelve sherds of early to middle Saxon or possibly Bronze Age date as well as animal bone and flint.

Group 1640, to the east of group 1638, comprised five pits: 1052, 1054, 1058, 1059 and 1061. Pit 1059 was truncated by pit 1058. Pit 1058 was truncated by pits 1061 and 1054. Pit 1054 was truncated by pit 1052. The pits were sub-rectangular with sides at a gradient of between 60° and 80° with either a flat or a concave base. The smallest pit was 1059: 1.3 m x 0.5 m x 0.15 m. The largest pit (1058) measured 2.4 m x 1.9 m x 0.52 m. The other pits varied from 1.10 m to 1.70 m in length, 1.0 m to 1.20 m in width and 0.26 m to 0.61 m in depth. Three of the pits (1054, 1058 and 1061) contained a single fill of friable mid brown sandy silt (1053, 1055 and 1060). Fill 1055 contained three sherds

of 2nd-century pottery. Pit 1052 had a primary fill (1051) of friable mid brown sandy silt material with 30% gravel inclusions.

Group 1639, south of group 1638, consisted of three pits: 1045, 1047 and 1049. Pit 1045 truncated both pit 1047 and pit 1049. Pit 1045 was oval and measured 2.10 m x 1.20 m. The pit was not bottomed but was at least 0.78 m deep. This pit was filled by a loose light reddish-brown sandy silt deposit (1044), which contained no finds. Pit 1047 was not clearly seen in plan, but measured 1.30 m x 1.10 m x 0.74 m. It had irregular sides and a concave bottom. It was filled by loose dark brown silt (1046) from which a small sherd of 2nd-century pottery was retrieved. Pit 1049 was oval, with gently sloping sides and a flat base. The pit measured 0.76 m x 0.4 m x 0.26 m. It was filled by loose mid reddish-brown silt (1048) that contained no finds.

To the west of these pits were pits 1011 and 1015. Pit 1011 was oval with steep sides and a rounded base. It measured 1.4 m x 0.8 m x 0.45 m. The primary fill of the pit was loose brownish yellow sand, 0.14 m thick (1010) that contained no finds. This was overlain by 1009: a friable mid brown sandy silt deposit, 0.52 m thick, which also contained no finds. Pit 1015 was cut by 1011; this pit was subrectangular with steep sides and rounded base. It measured 2.10 m x 1.40 m x 0.70 m. The primary fill (1014) of the pit was a friable mid reddish brown sandy silt 0.20 m thick. Secondary fill (1013) was a friable light greyish brown silty sand 0.17 m thick. The tertiary fill (1012) was a friable mid greyish brown sandy silt 0.30 m thick.

Posthole group 3034 (Fig. 22)

In Area 5 the post-medieval archaeology consisted principally of a line of seven postholes aligned east-west (group 3034), probably forming a land boundary: 3044, 3017, 3019, 3021, 3030, 3046 and 3032. The postholes were placed at approximately 1.5 m to 3 m intervals. These postholes were substantial, varying in diameter from 0.5 m to 0.7 m and in depth from 0.24 m to 0.34 m. Posthole 3042 was on the same alignment, but significantly smaller: 0.27 m x 0.12 m. The seven postholes were subcircular to subrectangular with vertical sides and slightly concave bases. All the postholes contained a single fill of friable dark greyish brown silty sand (3045, 3018, 3020, 3022, 3031, 3047 and 3033 respectively). The fill (3043) of 3042 was similar to the other fills, but slightly paler. Fill 3018 contained a piece of clay pipe. Postholes 3030 and 3021 truncated undated gully 3023. The clay pipe and stratigraphy suggest that this alignment is post-Roman and probably post-medieval.

Victorian quarry 2006

In the north-eastern corner of Area 8 a large Victorian quarry filled with domestic rubbish was excavated by machine. This pit contained a variety of 19th century ceramics and glass. It obliterated any archaeology in this area of the site, including the Bronze Age timber circle. The pit was not fully investigated and was left *in situ* after consultation with English Heritage. As exposed the pit measured a minimum of 12 m in length and 1.2 m in depth.

Layers and ploughsoils

Following the Saxon occupation there was a build-up of soil across the site, but no material dated from the mid to late Saxon period. In general, the archaeology was sealed by a ploughsoil that was directly overlain by the topsoil. This ploughsoil (104 = 204 = 303 = 502 = 602 = 703 = 802 = 902 = 1001 = 2004 = 2234) was a compact light reddish brown sandy loam varying in depth from 0.4 m to 0.6 m, and containing a wide range of residual Iron Age and Roman pottery as well as medieval, post-medieval and modern wares. In some areas the ploughsoil was banded and various layers were seen (for example 2469, 2647, 2470 and 2675; 102 and 103; 202 and 203; 302; and 702). These layers were of a very similar nature to the ploughsoil described above and also contained pottery ranging in date from Iron Age to 19th century. Ploughmarks (2231 and 2233) were also recorded in the western side of Area 8; they measured from 0.11 m to 0.25 m wide and 0.05 m to 0.06 m deep. No dating evidence was retrieved from either of the fills (2230 and 2232); only one sheep bone was retrieved from fill 2232 (of 2233). The topsoil (101 = 201 = 221 = 301 = 501 = 601 = 701 = 801 = 901 = 1000 = 2000) was a 0.15 m thick layer of loose dark greyish-brown sandy loam. It also contained a similar range of pottery. The finds from the soil layers suggest that the soil was cultivated in the medieval and post-medieval period. The post-medieval map evidence indicates that the site was used as agricultural land and allotments until it was converted into a cemetery.

Modern grave 3513

Twenty-six sherds of 13th-century pottery were retrieved from modern grave 3513 (6 C16). No further information is known about this grave and it is possible that it disturbed some medieval archaeology.

A possible late medieval/post-medieval burial

Another grave-digger find was a wire-wound pin (see Chapter 3: L. Allen). Mr Bill Skellington reported that this pin was found next to the shoulder of an extended burial. The burial was located in section 3 of the municipal cemetery by the hedge (see Fig. 3). The burial was aligned south (head) - north (feet). The skull was missing.

Chapter 3: The Finds

STRUCK FLINT

by *Hugo Lamdin-Whymark*

Introduction

A total of 667 flints and 88 g of burnt unworked flint was recovered from various excavations and graves at Spring Road Cemetery (Table 1). The assemblage contains flintwork of Mesolithic and mid-late Neolithic date, predominantly material of the latter date. Flints were recovered from a large number of features, but few features were contemporary with the flintwork. A single late Neolithic Grooved Ware pit (2622) contained 221 flints, a third of the entire assemblage (see below).

Sampling

The incorporation of large numbers of finds recovered by grave-digging has considerably aided the interpretation of the site, although it appears that there was a slight collection bias: in comparison to the excavated assemblage, retouched flints and blades appear to have been collected in preference to flakes. This bias clearly favours the collection of Mesolithic material, and may have excluded some later, Bronze Age flintwork.

Raw materials

Spring Road Cemetery is situated on limestone river gravels; no flint naturally occurs in this deposit and therefore the flint found on the site has been imported. Three primary sources are suggested on the basis of the cortex and condition of the flint. The flint from the first source, used for the majority of the flints, is mid to dark grey in colour with numerous white cherty inclusions. Where present the cortex is relatively thick, but appears slightly weathered. This flint may have originated from a source on, or close to, a chalk outcrop; the polished flint implement fragments are also of the same mid grey flint. The chalk outcrops 12 km to the south and three known Neolithic flint mines are located to the south-west at Martins Clump, Easton Down and Durrington (Barber 1999, 74-75).

The second raw material is of reasonable flaking quality and is various shades of brown. The cortex is weathered and abraded and the flint contains occasional thermal fractures. This flint certainly originates from a derived source, most probably flint river gravels to the south-east.

Eight flakes of Bullhead flint were also recovered, six of which were found in pit 2622. This flint, which has a distinctive dark green cortex with an orange band underneath, originates from the Bullhead Bed at the base of the Reading Beds (Dewey and Bromehead 1915, 2). The nearest source has not been ascertained although deposits of the Reading Beds are present on the chalk and nodules have been recovered in the Kennet river gravels (Healy *et al.* 1992, 48), both of which sources occur to the south.

The assemblage

Other than in pit 2622 there are no large groups of flint; the remaining assemblage comprises 446 flints from 102 contexts, of which only four contexts contain more than ten flints (Table 2). Leaving pit 2622 to be discussed separately, the remaining assemblage will be considered as a whole.

The flake material consists mainly of relatively thin, broad flakes of mixed hammer mode, a similar technology to the group from pit 2622 (see below). A small number of fine blades were also recorded (c 6 flints). These blades were generally narrow and, where the proximal end was present, exhibited platform edge abrasion. This blade material is thought to be Mesolithic. Four other pieces, comprising a single platform bladelet core, a truncated blade, a burin made transversely on a break and an end scraper manufactured on a plunging flake with dorsal blade scars are also probably Mesolithic.

The cores recovered were a mixture of single and multi-platform flake types; additionally a small and slightly irregular later Neolithic levallois core was recovered. All cores weighed under 50 g bar one weighing 92 g.

Retouched flints accounted for 13% of the assemblage (excluding pit 2622) and 12.4% (excluding gravedigger finds). A wide variety of tools were represented, including five serrated flakes - two of which exhibited silica gloss - numerous scrapers - of many types and with varying degrees and quality of retouch - two backed knives and two flakes from reworked polished implements. Three later Neolithic chisel arrowheads were recovered: a slightly asymmetric example, from context 1134,

is quite carefully retouched; a second is relatively crudely retouched and the blade edge broken; an area of chalcedony is present on one surface (context 3506). The third chisel arrowhead exhibits relatively crude edge retouch, and one edge is broken (unstratified gravedigger find).

The majority of this assemblage, with the exception of the Mesolithic flint described above, is of a mid-later Neolithic date and therefore contemporary with the pit assemblage. Given the variety of contexts from which flints were recovered, a few flakes may be either of an earlier or later date, though any such pieces do not represent a large proportion of the assemblage. The condition of the majority of this flintwork is relatively fresh, and some of the flintwork may have been contemporary with the features from which it was recovered, though given the small numbers of flints involved this is necessarily uncertain. Three contexts in particular were noted: 1395, 2123 and 3506 containing 4, 18 and 31 flints respectively. The flint assemblage from posthole fill 2123 is very fresh and several of the flakes appear possibly to have been struck from the same chalk flint nodule, although no refits were found; a small retouched knife was also present (Fig. 27.13). A significant number of flints were collected from the excavation of the modern grave 3506, suggesting that an early prehistoric feature had been disturbed; technologically the broad and thin flakes and the presence of a fragmentary chisel arrowhead indicate a mid to late Neolithic date.

Pit 2622

The Grooved Ware-associated pit 2622 contained a total of 221 flints, recovered from 100% hand excavation and sieving. Flint was recovered from three of the pit's four fills; the secondary deposits, 2620 and 2619, contained high numbers of flints, whilst the tertiary deposit 2623 contained only two flint flakes. The flint was in very fresh, uncorticated condition; no post-depositional edge damage was noted, indicating that none of the flint is residual nor was exposed for a long period prior to deposition. A total of 74 flints were broken, 45% of the assemblage excluding chips. Fifteen of the flints recovered were burnt, the majority of which were recovered from lower fill 2620 (Table 3). The condition and breakage of the flints are discussed further in the low-power use-wear report below.

The composition of the assemblage between the contexts is of considerable interest. The primary fill 2620 contains a single core and seven retouched tools, whereas in the secondary fill 2619 there were two cores, a tested nodule and only a

single retouched artefact. It therefore appears that there is a pattern to the construction of the deposit (see Discussion below and Chapter 7).

Metrical and technological analysis

Methodology

The flint recovered from the pit was subject to metrical and technological analysis. Metrical analysis was performed on all complete flakes over 10 mm² following the standard measurements set by Saville (1980). Technological attributes recorded included butt type, extent of dorsal cortex, termination type, flake type, hammer mode, platform abrasion and the presence of dorsal blade scars. Butt type uses the terminology defined by Bradley (1999, 212), after Inizan *et al.* (1992, 81, fig. 32). Flake type was classified by categories defined by Harding (1990, 218-9) with the exception of 'blank', which is redefined by the author as non-cortical flake. Hammer mode traits are defined by Onhuma and Bergman (1982). The flake to core ratio was calculated on the combined total of flake and blade material (excluding retouched pieces and chips), against all cores (excluding tested nodules).

Results

The pit assemblage contains a total of 8.6% blades (flakes >2:1 ratio[length:breadth]), which falls within Ford's 7-14% bracket for the proportion of blades in later Neolithic assemblages (1987, 79). The average size of the flint from the pit is relatively small at 25 mm long by 22 mm wide; none of the measured flint exceeded 60 mm in length, but a broken flint was present that was more than 70 mm long (Fig. 23).

Technological analysis of dorsal cortex and flake type revealed that while all categories are present the majority of the flints recovered are non-cortical flakes (Fig. 24.1-4). A total of 53% of the flints bore some cortex on the dorsal surface. However, the number of cortical flakes is relatively low and few flints had more than 50% cortex on the dorsal surface, perhaps indicating that the preparation of nodules was performed away from the pit. The presence of three rejuvenation flakes including a rejuvenation tablet suggests the cores were worked relatively carefully; platform edge abrasion on 41% of the flakes and the dominance of feather terminations also support this assertion. The majority of butts are plain indicating a predominance of simple

platforms, and the limited numbers of linear and punctiform butt types imply that the industry was not aimed at blade production.

The three cores recovered from the pit are the three heaviest cores from the site (bar a single unstratified example); the average weight of cores on site is 33 g while the three cores from pit 2622 average 52 g, suggesting that the cores in the pit may not have been entirely exhausted before disposal. Indeed, there are no obvious faults or knapping errors to justify the abandonment of the cores found in the pit. The same pattern of core size was observed in the Grooved Ware pits at Barrow Hills, Radley (Bradley 1999, 213). The flake to core ratio from this pit is considerably lower than that recorded at Barrow Hills, perhaps indicating that the exclusion of many cores from deposition suspected at Barrow Hills did not occur in this pit deposit (*ibid.*).

Refitting

Refitting was particularly unfruitful; no knapping refits were located, but a single conjoin was made between two burnt fragments of a well utilised blade-like flake (SF 153 and SF 154). The results of this exercise were particularly surprising given the presence of cores and numerous chips from sieving, many of which represent genuine micro-debitage rather than burnt and broken fragments of larger flakes. Variations in raw materials within the pit indicate that the debitage from several cores is represented. Three small distinct groups of flakes were noted, including a group of six flakes of Bullhead flint and three possibly associated flints, but none were confirmed by refitting. Therefore, it is possible that a number of flints were excluded from the scatter before deposition, leaving utilised pieces, cores and chips to be deposited in the pit.

Low power use-wear

Introduction

A total of 166 flints from pit 2622 were examined for use-wear. This represents the complete assemblage from the pit excluding chips (<10 mm²) and amounts to 90, 72 and 2 flints from contexts 2619, 2620 and 2623 respectively.

Methodology

The methodology draws on experimental work on the use of flint published by Tringham *et al.* 1974, Cotterell and Kamminga 1979, Mallouf 1982 and Akoshima 1987, and personal communications with Dr Andrew Brown on the identification of use-wear. The assessment was carried out using a binocular microscope at 10x magnification for the identification of use-damage patterns, and 20x magnification for the categorisation of the hardness of contact materials.

Condition

The condition of the flint from pit 2622 is exceptionally good. A total of 22 flints (13%) exhibit some post-depositional edge damage. The majority of the damage consists of slight crescent fractures along thin edges; occasional 'drop-nicks' were also observed (Moss 1984). None of the flints examined was rolled or in such poor condition as to be considered residual. The assemblage contained a large number of broken edges (79) on 64 individual flakes, amounting to 40% of the assemblage. Moreover, a larger proportion of broken edges were present on flakes exhibiting use-wear than those not (54% to 43%), perhaps indicating that a number of the flakes were broken during use. Only 5 of 79 snapped edges bore evidence of use, indicating that breakage was not a deliberate strategy to create useable edges; the breakage therefore may have led to the abandonment of the artefact. Detailed examination of the breaks, however, appeared to indicate that a number of the flints had been deliberately snapped, possibly to form convenient fragments for hafting rather than useable edges (see SF 50 and SF 103). Five flints were too burnt or broken to be assessed.

Extent of use

A total of 91 flints bore edge damage resulting from use, representing 56.5% of the total assemblage (excluding chips). In fills 2619 and 2620, 53 and 37 utilised flints were identified respectively; representing 59% and 54% of the context totals. The overall proportion of use identified in the pit is relatively high, especially because not all edge damage is visible under low magnification; the proportion of use should therefore be considered as a minimum. The 91 utilised flints exhibited a total of 125 utilised edges, or on average 1.4 used edges per utilised flint.

The plot of presence/absence of use against the length to breadth of the flints (complete flakes only) provides an interesting pattern (Fig. 25). It is clear that the

majority of flakes under 20 mm² have not been utilised, whereas all of the flakes over 40 mm² in the pit have been utilised. Indeed the majority of flakes over 2:1 ratio are also utilised. The pattern perhaps indicates that whilst a small proportion of knapping debris may be present in the pit, the larger flints have all been utilised.

Nature of use

The use damage identified in the pits shows a broad range of actions and hardness of contact materials (Figs 26.1 to 26.6). The hardness of contact materials displays a distinctive pattern; only 19% of actions were against soft materials, 51% against medium materials and 30% of actions were against hard materials, indicating that, in general, harder rather than soft materials were worked. The actions also exhibit an interesting pattern, although differing between the two main contexts. Scraping actions form a significant proportion of the assemblage, and in particular scraping of both soft and hard materials (Figs 26.1 to 26.6).

The presence of five rounded edges resulting from scraping actions (on four flints) possibly indicates flints associated with hide processing (Akoshima 1987, 76). Cutting and whittling actions predominate, particularly against medium and hard materials. It is of particular interest that comparatively few soft cutting and whittling actions were recorded, indicating that the cutting and whittling of flesh/fleshy plant materials from which bending fractures can develop may represent a minimal element of the use-wear in this assemblage.

Silica gloss was present on a single flint, and was located behind the teeth on the ventral surface of a serrated flake. Silica gloss is a common occurrence on the teeth of serrated flakes, and while there is some discussion over the specific plant species from which the gloss derives, there is a general consensus that the deposit accumulates from the cutting and whittling of silica rich plants (Juel-Jensen 1994, 62-63, Unger-Hamilton 1988).

Conclusions

A considerable proportion of the flint from pit 2622 has been utilised. The proportion of utilised flints is comparable both with that from the early Neolithic middens and from the Peterborough Ware and Grooved Ware pits at Dorney in the Middle Thames Valley (Lamdin-Whymark forthcoming), but although the overall proportions of cutting/whittling, scraping and boring are comparable with those found in the

middens, the pattern of use differs significantly. Proportions of soft cutting and whittling activities are considerably lower in pit 2622, while hard cutting and whittling actions are common. The proportions of these activities in pit 2622, in broad terms, is more comparable to the Peterborough and Grooved Ware associated assemblages, although in general there is greater variability between the pit assemblages. Both the Peterborough and Grooved Ware assemblages have lower proportions of use against soft materials and in some cases increased hard actions (*ibid.*).

Discussion

The flint assemblage recovered from Spring Road Cemetery reveals a background scatter of Mesolithic material. It is difficult, however, to refine the dating of these few pieces; the bladelet core is most probably later Mesolithic, but some of the other pieces may be earlier.

The majority of the assemblage appears to be of mid to late Neolithic date, based on technological traits and a few typologically dateable artefacts. The early Neolithic and Bronze Age periods have certainly left no typologically distinct artefacts, nor occurred in sufficient numbers to be recognised from technological traits. It is therefore probable that very little activity of these periods is represented on the site. A significant number of flints were recovered as residual finds, suggesting a relatively dense scatter of flint over the entire site, although spatial analysis revealed no distinct concentrations.

The flintwork recovered from Grooved Ware pit 2622 forms a relatively large, coherent assemblage comparable to assemblages from Grooved Ware pits at Barrow Hills, Radley (Barclay 1999) and Cassington (Case 1982). As described above, the assemblage within the primary and secondary fills (2620 and 2619) provides a fine example of the construction of a Grooved Ware pit assemblage, with a higher proportion of retouched tools, burnt flints in the lower fill, and several large (and probably still useful) cores or tested nodules in the upper fill. No refits were found to these cores, although flakes from the cores were probably present, indicating that deposition in the pit was selective and that a number of flakes from the cores were not deposited. It is perhaps significant that use-wear was present on both the heavily worn artefacts and the majority of the fresh and not obviously utilised flints; therefore it is possible that 'unused' or 'still functional' flakes from the cores were not deposited.

A number of deliberate breaks were noted. It appears that some may represent the creation of fragments for use as some of these pieces were well used, although not along the snapped edges (SF 50 and SF 103). The lack of use damage along the snapped edges does allow the possibility that the breaks occurred after use. Deliberate non-functional breakage is also present, however: for example, end scraper, SF 44, was deliberately struck into two pieces and only the distal fragment deposited in the pit. An alternative may be that the snapping of the flint relates to transverse arrowhead manufacture.

Catalogue of illustrated flints

Mesolithic

- 1 **Blade**, broken. Unstratified. Acc. No. 1994.34.
- 2 **Burin** manufactured transversely on a flake. Context 1193. Acc. No. 89.121

Neolithic

Late Neolithic pit 2622

- 3 Distal fragment of a snapped **flake**. Snapped by a blow to the ventral surface, note the fracturing present on the ventral surface. Context 2620. SF 30.
- 4 **End and side scraper**. Distal fragment, snapped by a blow to the dorsal surface. Context 2620. SF 44.
- 5 Medial fragment of a snapped **blade**. Context 2620. SF 103.
- 6 Snapped **flake**. Context 2619. SF 50.
- 7 Conjoining fragments of a snapped **flake**. Context 2619. SF 153 and SF 154.
- 8 **Multi-platform flake core**. Context 2619. SF 53.

Other Neolithic flintwork

- 9 **Chisel arrowhead**. Context 3506, Acc. No. 1994.34
- 10 Fragmentary **chisel arrowhead**. Unstratified. Acc. No. 1994.34.
- 11 **Chisel arrowhead?** Context 1134. Acc. No. 89.121.
- 12 **Levallois-style flake core**. Context 2065. Acc. No. 89.121.
- 13 **Backed knife**. Context 2123. Acc. No. 89.121.

STONE

by Hugo Lamdin-Whymark

Quantification and methodology

Two chalk blocks were recovered from two contexts in the 1990 evaluation. A total of 85 pieces (4.660 kg) of burnt unworked stone were recovered from the 2000 excavations (Table 4).

The stone was counted and weighed, and was examined to establish the lithology, traces of working or utilisation and where possible function. Stone types include flint, ironstone, quartzite and a variety of sandstone and limestone. A table of the numbers and weights of the burnt and unworked stones is in the archive.

Utilised or curated material

A possible used stone was identified from fill 2010 of Saxon sunken-featured building 2008. The stone is a broken shelly limestone and measures 345 mm x 215 mm x 90 mm. It exhibits water-worn surfaces, but bears no signs of additional alteration or wear. The stone may perhaps have been used as a working surface or as a structural element in construction, for example as a post pad.

Two belemnite fossil fragments and one ammonite fragment were also recovered from the fills of the same sunken-featured building (2008). Although available locally, their presence in this context may suggest they were collected, as only one other fossil was recovered (an ammonite fragment from gully fill 1415).

NEOLITHIC AND EARLY BRONZE AGE POTTERY

by Alistair Barclay

Introduction

This report discusses all the pottery of these periods that has been collected and excavated from the Spring Road cemetery (Table 5). In total 36 sherds (372 g) of pottery were identified. The assemblage includes material of every major tradition from the early Neolithic through to the early Bronze Age.

Methodology

Table 5 give a quantification of the assemblage by weight and sherd number (excluding refitting fresh breaks). The pottery is characterised by fabric, form, surface treatment, decoration and colour. The sherds were analyzed using a binocular microscope (x 20) and were divided into fabric groups by principal inclusion type. OA standard codes are used to denote inclusion types. A = sand (quartz and other mineral matter), F = flint, Q = quartzite, S = shell, G = grog and C = calcareous limestone. Size range for inclusions: 1 = <1 mm fine; 2 = 1-3 mm fine-medium and 3 = 3 mm < medium-coarse. Frequency range for inclusions: rare = <3%, sparse = <7%, moderate = 10%, common = 15% and abundant = >20%.

Fabrics

In total 14 fabrics have been identified and are divided by date and group. Early and middle Neolithic pottery (Bowl and Peterborough Ware) is typically flint-tempered, although a grog-tempered middle Neolithic fabric is also identified. Grooved Ware is either principally grog or shell-tempered, while Beaker and early Bronze Age pottery is also grog-tempered. None of the identified fabrics is unusual within the region and all could have been manufactured locally. Within the Abingdon area the range of fabric tempers can be broadly matched at the Abingdon causewayed enclosure and at Barrow Hills, Radley (Avery 1982, 32; Cleal 1999, 196). A breakdown of fabrics by context is given in Table 5.

Early Neolithic (Plain Bowl)

Flint-tempered

F2/EN - Hard fabric with sparse medium angular flint (1-3 mm).

F3/EN - Hard fabric with sparse medium to coarse angular flint (3 mm).

FA2/EN - Hard fabric with sparse medium angular flint (1-3 mm) and rare coarse quartz sand.

Middle Neolithic (Peterborough Ware)

Flint-tempered

F2/MN - Hard fabric with sparse medium angular flint (1-3 mm).

Grog-tempered

GAV2/MN - Hard fabric with moderate medium-size angular grog (1-3 mm), moderate rounded voids (?leached calcareous grit) and rare quartz sand.

Late Neolithic (Grooved Ware)

Grog-tempered

G2/LN - Hard fabric with moderate medium angular grog (1-3 mm).

GF2/LN - Hard fabric with moderate medium angular grog (1-3 mm) and rare angular flint.

Shell-tempered

S2/LN - Hard fabric with common shell platelets (sometimes leached) (1-3 mm).

Late Neolithic/early Bronze Age (Beaker)

Grog-tempered

G2/LNEBA - Hard fabric with moderate angular grog.

GA2/LNEBA - Hard micaceous fabric with moderate angular grog and common black, red and quartz sand.

GAF2/LNEBA - Hard fabric with moderate angular grog, rare sand and rare flint.

GF2/LNEBA - Hard fabric with moderate angular grog and rare flint.

Early Bronze Age

Grog-tempered

G1/EBA - soft fabric with moderate small grog (1 mm).

GF2/EBA - soft fabric with moderate small to medium angular grog (up to 3 mm) and sparse flint (up to 3 mm). Fabric also contains rare flint gravel, quartz and organics (voids).

Discussion

Plain Bowl

Five sherds of plain flint-tempered pottery are likely to derive from bowls of early Neolithic date. Flint-tempered early Neolithic pottery occurs at the Abingdon enclosure. The sherds from Spring Road are all small and abraded and can be considered to be residual (see Table 5). One sherd (2091) came from the post-circle,

two were recovered from Iron Age pits (2184 and 2669) and two were recovered from Grooved Ware pit 2622.

Peterborough Ware

This assemblage includes a semi-complete vessel that is best described as a dish (Fig. 28.1) and a decorated sherd (Fig. 29.2). The decorated sherd had whipped cord impressions and cannot be placed in a particular substyle. It was in a very abraded condition and was recovered from context 2093, a fill of one of the post-pits belonging to the post-circle. It is likely to be residual.

Dish (Fig.28)

Just over half this vessel survives. Traces of recent damage and the presence of a single non-refitting rim fragment with freshly broken edges indicate that more of the vessel existed at the time of discovery. The vessel appears to have survived as four or more refitting fragments suggesting that it was perhaps deposited in an incomplete and possibly broken state. Nothing is known of its depositional context, although from its condition it could only have survived in a cut feature.

The dish-like vessel is of open form and has an irregular elliptical mouth with a rounded profile that is flattened at the base (Fig. 28.1). The sides are slightly higher and almost vertical where the diameter is at its narrowest. The outer walls are decorated all-over with incised lines that form a horizontal herringbone pattern. These may have been made with a point as some of the marks appear to end in a dot. The pattern extends over the rim and into the interior and on one side onto the base. There are four rows of herringbone on the more complete side and only three on the other. These rows run in the same direction and converge just beyond the point where the mouth reaches its widest diameter. The base appears to have an impressed pattern of three (possibly interlocking) grooves, perhaps caused by pressing the base on a mat with coarse weave. The vessel has discoloured grey patches on the rim and inside and wear to the surface on the inside (Fig. 28).

Oval dish-like vessels occur in the middle Neolithic and appear to be part of the Peterborough Ware tradition. A small number of examples are known from Wessex and East Yorkshire, while there is a single example from Harmondsworth, Middlesex (Grimes 1960, fig. 78:20). The latter was found in a pit with more typical Mortlake style vessels, while examples from Yorkshire (Manby 1995, fig. 55.1), from the West

Kennet long barrow (Piggott 1962 fig. 13:P25), and from near the Stonehenge cursus (Cleal 1990, 30 and fig. 21:P273) may have greater stylistic affinities with the Fengate style. A round dish was recovered from Iver, Buckinghamshire (Lacaille 1937, 299 & plate II1), while a deeper oval vessel of related form was recovered from a pit deposit containing Mortlake Ware at Yarnton (Barclay and Edwards in prep.).

The Spring Road dish perhaps has greater affinities with the Mortlake substyle in terms of its use of incised herringbone as decoration and because of its rounded flattened base profile. However, its use of grog as temper, albeit alongside other inclusions of shell and sand, is perhaps slightly more typical of the Fengate style within the region. If its affiliation to either the Fengate or Mortlake substyles is correct then it is likely to have been manufactured and used at some point during the later 4th or possibly early 3rd millennium cal BC. A sufficient number of shallow dishes have now been found to suggest that the early Neolithic ceramic set of bowl and cup was expanded in the middle Neolithic to include a variety of shallow and deep oval dishes.

Grooved Ware

A small number of sherds were recovered from the fills of pit 2622 and from the fill (2368) of one of the postholes within the post-circle.

A simple rim (Fig. 29.3) from context 2368 within the post-circle is possibly from a plain vessel. Its form, firing and fabric indicate that it could belong to the Durrington Walls substyle (Wainwright and Longworth 1971, fig. 60: P478-89). Within this substyle there exists a category of plain vessels that occur in jar or bowl forms. In the Abingdon area a plain Grooved Ware bowl was recovered from the upper fill of a hengiform ring-ditch at Radley (Barclay and Halpin 1999, fig. 4.4: P9), while other comparable plain jar-shaped vessels have been recovered from pit deposits at Yarnton (Barclay and Edwards in prep.).

In contrast to the above find are five sherds of Woodlands style Grooved Ware recovered from pit deposit 2620. At least two vessels are represented by these sherds. One vessel is represented by a rim and a body sherd (Fig. 29.4) and is typically thin-walled, shell-tempered and decorated with horizontal and oblique bands of plain and decorated raised cordons (Longworth and Wainwright 1971, 238-40). A second vessel is represented by a sherd with finger-tip decoration (Fig. 29.5).

Woodlands style Grooved Ware has been found at Radley, less than 5 km to the north-east and to the south at Sutton Courtenay (Cleal 1999; Leeds 1934). At both these sites most of the pottery came from pit deposits.

Late Neolithic/early Bronze Age

At least five sherds can be identified as Beaker, while a further seven plain sherds (contexts unstratified, 704, 1208, 2134, 2479 and 2658) could be of late Neolithic or early Bronze Age in date. This material derives from uncertain, unstratified or residual contexts (see Table 5).

The five Beaker sherds are all comb impressed and appear to belong to a minimum of three vessels. The only stratified sherd is an all-over comb impressed body sherd from posthole fill 2645 (Fig. 29.8), while the remaining four sherds were found during grave digging. The three vessels can all be considered finewares. One vessel is represented by a cordoned rim sherd and a neck sherd that have been decorated with horizontal bands of comb impressions (Fig. 29.6). A second vessel is represented by two body sherds that are decorated with a bounded cross-hatched motif and horizontal lines (Fig. 29.7). These characteristics are features of Clarke's European and Wessex/middle Rhine style groups (1970). The sherd from 2645 could also derive from one of these groups.

Within the Abingdon area of the Upper Thames there are numerous finds of European and Wessex/middle Rhine Beakers (Clarke 1970, map 2-3). Such Beakers are generally considered to be early within the Beaker tradition, their usage falling broadly within the range of 2500-2000 cal BC (see Needham 1996). The barrow cemetery at Radley contained mostly earlier styles of Beaker (Cleal 1999), while other early vessels have been found near or within the cursus monument complexes at Drayton and Dorchester-upon-Thames (Barclay *et al.* 2002; Whittle *et al.* 1992). Although most of these finds are from graves there is increasing evidence for finds of this type from domestic contexts. At Drayton and Yarnton similar material has been recovered from buried ground surfaces and pit deposits (Cleal 2002; Barclay and Edwards in prep.). The suggestion is that fine Beakers of probably early date were used in both domestic and funerary contexts.

Possible early Bronze Age

Three base sherds and a shoulder sherd (Fig. 29.9) are held by the Ashmolean Museum. It is unclear whether they derive from a single vessel. The base sherds have multiple perforations in the base and the wall. The shoulder is angular and has two faint comb impressed lines. The comb impressions indicate a likely early Bronze Age date, while the grog-tempered fabric is more likely but not certainly early Bronze Age. The fabric is close in appearance to one from Yarnton that was used to manufacture Biconical Urn (Barclay and Edwards in prep.). The perforated base is unlike colanders of later prehistoric date, which tend to be perforated only in the base. The perforations were all made prior to firing and possibly extended further up the wall. A comparison can be made with accessory vessels of the early Bronze Age, although the parallels are imprecise as many only have perforated walls (see Longworth 1983 in particular fig. 23; Abercromby 1912, pl. LXXX239).

Overall discussion

The earlier prehistoric pottery assemblage contains a wide range of material of Neolithic and early Bronze Age date. A similar range of material has been found at the monument sites of Drayton and Radley (Barclay *et al.* 2002; Barclay and Halpin 1999), where it is not uncommon to find early-middle Neolithic pottery as residual material occurring in later contexts. The early Neolithic pottery could date to between 4100-3300 cal BC, while the Peterborough Ware is likely to belong to the period 3300-2800 cal BC. In contrast the Woodlands style Grooved ware is more likely to belong to the mid-late third millennium, and could overlap with the primary uptake of Beaker pottery (see Garwood 1999).

Early Neolithic pottery and Peterborough Ware has been found on the east side of Abingdon at Radley (Avery 1982; Cleal 1999) and on the south side at Corporation Farm (Shand *et al.* 2002). Peterborough Ware is also associated with the use and possible construction of the Drayton cursus (Barclay *et al.* 2002).

The decorated Peterborough Ware sherd and Grooved Ware sherd recovered from the post fills of the timber circle are residual but none the less attest to some earlier activity.

The Beaker sherds are from fine vessels and are unlikely to be surface material. However, they are just as likely to derive from graves as from pit deposits. For a long time now the Upper Thames has been recognised as a core area of early Beaker associated activity with a great number of vessels coming from burial contexts

(Clarke 1970; Case 1956; Case 1993). However, these are now complemented by a small but increasing number of domestic sites, most of which occur as pit deposits (Barclay and Edwards in prep.; see Barclay and Lupton 1999, 515). The possible accessory vessel is also likely to have been used in a ritual-funerary context

Illustrated catalogue

Fig. 28

1. **Peterborough Ware**. Mortlake/Fengate substyle. Middle Neolithic, Five conjoining sherds (158 g) make up just over half of an oval dish-shaped vessel. It has a rounded profile with a flattened base. Decorated all-over with a horizontal of incised herringbone pattern, which spreads over the rim and also on to the base. The pattern on the sides runs in the same direction and converges near to the point of maximum rim diameter. The decoration is haphazard and asymmetrical with three and two rows of herringbone on respective sides. Fabric GAV/MN. Colour: ext. yellowish-brown; core grey; int. yellowish-brown. Condition average. 1994.29. OXCMS. Unstratified.

Fig. 29

2. **Peterborough Ware**, Middle Neolithic. Decorated body sherd (6 g) with horizontal bands of impressed whipped cord maggot. Fabric F2/MN. Colour: black throughout. Condition very worn. Context 2093.
3. **Grooved Ware**, ?Durrington Walls substyle, Late Neolithic. Simple pointed rim (5 g). Fabric GF2/LN. Colour: ext. yellowish-brown; core & int. black. Condition average to worn. Context 2368.
4. **Grooved Ware**, Woodlands substyle, Late Neolithic. Rim and body sherds (10 g) decorated with applied cordons. Fabric S2/LN. Colour: ext. greyish-brown; core black; int. greyish-black. Condition average to worn. Black carbonaceous residue below rim. Context 2620.
5. **Grooved Ware**, ?Woodlands substyle. Late Neolithic, Finger-tip impressed body sherd. Fabric S3/LN. Colour: ext. reddish-brown; core & int. grey. Condition average to worn. Context 2620.
- 6 **Beaker**, Late Neolithic/early Bronze Age. Rim and neck sherds with banded comb decoration. Fabric GAF2/LNEBA. Colour: ext. reddish-brown; black

- core; int. reddish-brown. Condition average. . Ashmolean Museum. 1972.21.
Unstratified.
7. **Beaker**, Late Neolithic/early Bronze Age,. Two body sherds with comb decoration filled with white inlay. Fabric GAF2/LNEBA. Colour: reddish-brown throughout. Condition worn. Ashmolean Museum. 1972.21-2.
Unstratified.
8. **Beaker**, Late Neolithic/early Bronze Age. Body sherd (10 g) with all-over comb decoration. Fabric GA2/LNEBA. Colour: ext. reddish-brown; core black; int. yellowish-brown. Condition very worn. Context 2645.
- 9-10. **Vessel**, ?early/middle Bronze Age. Four base sherds and a shoulder sherd (74 g). The shoulder sherd has two comb impressed lines. The base has multiple perforations that were made during manufacture. Fabric GF2/BA. Colour: ext. reddish-brown; core grey; int. reddish-brown. Condition average-worn.
Unstratified.

LATER BRONZE AGE POTTERY

by Alistair Barclay

Introduction

A total of 98 sherds (2.7 kg) of mid to late Bronze Age pottery has been identified, which includes material belonging to the Deverel-Rimbury tradition of the middle Bronze Age and the post-Deverel-Rimbury traditions of the late Bronze Age. However, 67 sherds could not be attributed with confidence to a specific tradition, and are therefore described as mid/late Bronze Age. The assemblage is summarised in Table 6. Pottery considered to be transitional late Bronze Age to early Iron Age (LBAEIA) is discussed in a separate report (see Timby below).

Methodology

Table 6 give a quantification of the assemblage by weight and sherd number (excluding refitting fresh breaks). The later Bronze Age pottery was examined and recorded in the same way as the Neolithic and early Bronze Age pottery (see above).

Fabrics

A total of 20 fabrics were identified by inclusion type, which can be placed in four fabric groups (flint: F1-3; grog: G2, GF1, GQ3, GS3; quartzite: Q2-3, QA2, QB2; shell: S1-3, SG3, SQ3).

Flint-tempered (40 sherds, 1750 g)

F1- hard fabric with fine angular flint (2 sherds, 6 g).

F2- hard fabric with medium angular flint (6 sherds, 72 g).

F3- hard fabric with coarse angular flint (18 sherds, 1520 g).

FA1- hard fabric with fine angular flint and quartz sand (1 sherd, 7g).

FA2- hard fabric with medium angular flint and quartz sand (11 sherds, 113 g).

FA3- hard fabric with coarse angular flint and quartz sand (1 sherd, 32 g).

FG1- hard fabric with fine angular flint and rare grog (1 sherd, 14 g).

Grog-tempered (4 sherds, 119 g)

G2- soft fabric with angular grog (1 sherd, 5g).

GF1- soft fabric with fine grog and flint (1 sherd, 84 g).

GQ3- soft fabric with coarse grog and quartzite (1 sherd, 27 g).

GS3- soft fabric with coarse grog and coarse shell (1 sherd, 3 g).

Quartzite-tempered (23 sherds, 334 g)

Q2- hard fabric with medium angular quartzite (6 sherds, 18 g).

Q3- hard fabric with coarse angular quartzite (4 sherds, 84 g).

QA2- hard fabric with medium angular quartzite and quartz sand (12 sherds, 230 g).

QB2- hard fabric with medium angular quartzite and black glauconitic sand (1 sherd, 2 g).

Shell-tempered (30 sherds, 458 g)

S1- Hard fabric with fine shell inclusions (1 sherd, 2 g).

S2- Hard fabric with medium shell inclusions (4 sherds, 12g).

S3- Hard fabric with coarse shell inclusions (20 sherds, 399 g).

SG3- Hard fabric with coarse shell inclusions and rare angular grog (1 sherd, 4g).

SQ3- Hard fabric with coarse shell inclusions and rare angular quartzite (4 sherds, 41 g).

Fabric discussion

In the Oxford area of the Upper Thames valley Deverel-Rimbury style pottery tends to be manufactured out of calcareous (usually fossil shell) and siliceous rock (flint or quartzite) tempered fabrics. The choice of temper appears simply to reflect what resources were available in the local area. Further up river from Abingdon quartzite, which is found as pebbles within the gravels, is used instead of flint which tends to become more scarce as the distance increases away from the chalk. All three fabric groups have been recorded at Radley (Cleal 1999, 209). It would appear that the use of shell-tempered fabrics decreases with time, while the use of flint/quartzite increases during the later Bronze Age. At Eynsham quartzite was used to temper 49% of the total assemblage, while shell accounted for only 15% (Barclay 2001). At Wallingford, which is arguably later in date than Eynsham, between 80-90% of the total assemblage was tempered with flint and/or quartzite (Barclay forthcoming). This compares with a figure of around 60% for flint/quartzite from Spring Road.

Middle Bronze Age

In total 13 sherds (1264 g) are considered to be from Deverel-Rimbury style vessels. Eleven of these sherds come from at least two Bucket Urns from fill 1180 of pit 1201, including a simple plain lug (Fig. 30.5) and ten refitting sherds from a base. The base is from a well-made, large vessel. There is a difference in the size of the flint temper used for the base and walls, that for the walls being notably much coarser (see Pl.6). A further two sherds from contexts 1204 and 1176 are also thought to come from Bucket Urns.

Mid/late Bronze Age

In total some 56 sherds (1121 g) were classified as indeterminate mid/late Bronze Age, most of which were plain body sherds with the exception of a simple rim in a leached shell fabric (Fig. 30.12) from context 704 and base sherds from contexts 1156 and 1170.

Late Bronze Age

A total of 29 sherds (295 g) were identified as being of this date. This includes rims from at least eight vessels as well as a small number of shoulder and base sherds. A number of these sherds are from ovoid or bipartite jars (Fig. 30.1, 2 & 6), while it is

possible that a number of rims (Fig.30.8-10, 13) derive from similar vessels as well as a base sherd (Fig. 30.11). These vessels are all plain and in terms of form similar to those found among the early post-Deverel-Rimbury assemblages at Eynsham Abbey (Barclay 2001) and Rams Hill (Barrett 1975, fig. 3.5). This author has argued (Barclay 2001) that such assemblages are more characteristic of an early phase (1150-900 cal BC) of the late Bronze Age. However, a small number of sherds from Spring Road are more characteristic of later assemblages that can be placed within the period 900-700 cal BC. This includes the rim (Fig. 30.4) that is almost certainly from a fineware bipartite cup or bowl, a shoulder sherd (Fig. 30.7) which is also from a fineware bowl and a finger-tip decorated shoulder (Fig. 30.3) from a jar. These sherds can all be paralleled amongst the relatively large assemblage recorded from the eyot site at Whitecross Farm, Wallingford (Barclay in Cromarty *et al.* 2006).

Illustrated catalogue (Fig. 30)

1. **Plain bipartite jar**, late Bronze Age. Rim and shoulder sherd (27 g). Fabric GQ3/LBA. Colour: ext. reddish-brown; core grey; int. reddish-brown. Condition worn. Grave 3514 (7/C/17).
2. **Large bipartite jar**, late Bronze Age. Shoulder sherd (84 g). Fabric GF1/LBA. Colour: ext. reddish-brown; core black; int. reddish-brown. Condition average. Grave 3514 (7/C/17).
3. **Bipartite jar**, late Bronze Age. Finger-tip decorated shoulder sherd (5 g). Fabric Q2/LBA. Colour: ext. reddish-brown; core grey; int. brown. Condition average. Grave 3521 (10/F/4).
4. **Rim sherd** (2 g) from a **cup** or **small bowl**, late Bronze Age.. Fabric FA1/LBA. Colour: ext. brown; core black; int. brown. Condition worn. Context 1154.
5. **Simple lug** (5 g) probably from a **Bucket Urn**. Middle Bronze Age. Fabric F2/MBA. Colour: ext. brown-grey; core red; int. brown grey. Condition average to worn. Context 1180.
6. 1994.34. Late Bronze Age. Two refitting sherds (48 g) from the rim of a straight-sided or ovoid jar. Fabric /LBA. Colour: ext. buff; core black; int. grey brown. Condition average.
7. Two **shoulder sherds** (14 g) from a **bipartite jar** or **bowl**. Late Bronze Age. Fabric QA2/LBA. Colour: ext. brown; core & int. black. Condition worn. OCMS 1994.34.

8. **Simple rim** (14 g). Late Bronze Age. Fabric Q3/LBA. Colour: ext. black; core brown; int. grey. Condition average to worn. OCMS 1994.34.
9. **Simple rim** (6 g). Late Bronze Age. Fabric F3/LBA. Colour: ext. reddish-brown; core black; int. reddish-brown. Condition average to worn. OCMS 1994.34.
10. **Simple everted rim** (3 g). Late Bronze Age. Fabric Q2/LBA. Colour: ext. brown; core & int. black. Condition average to worn. OCMS 1994.34.
11. **Three sherds** including a base (35 g). Late Bronze Age. Fabric S3/LBA. Colour: ext. pinkish red; core grey; int. grey pink. Condition worn. OCMS 1994.34 sect 11.
12. **Simple rim** (8 g). Late Bronze Age. Fabric S3/LBA. Colour: ext. orange-brown; core grey; int. brownish-grey. Condition worn. Context 704.
13. **Simple rim** (4 g). Late Bronze Age. Fabric S3/LBA. Colour: ext. mottled grey and reddish-brown; core grey; int. reddish-brown. Condition worn. Context 704.

Discussion

Of the total assemblage only 62 sherds came from excavated contexts and of these the majority were residual in Iron Age and later contexts (704, 803, 805, 1025, 1034, 1092, 1119, 1130, 1154, 1156, 1158, 1176, 1184, 1186, 1208, 1297, 1428, 2004, 2017, 2124, 2422 and 3049). The remainder were recovered from features that may have been of later Bronze Age date; these include the fills of gullies (3010), postholes (1180, 1223, 1299, 1319, 1441, 1553, 1617, 2589) and ditches (1170 and 1204).

With the exception of a small number of Bucket Urn sherds from pit 1201, all of the pottery can be placed within the post-Deverel-Rimbury tradition of the late Bronze Age (1150-700 cal BC). Despite the lack of good context groups the overall character of the assemblage from Spring Road suggests that the site was occupied during both the middle and the late Bronze Age. A small number of body sherds could derive from further Bucket Urns, but given the higher proportion of diagnostic late Bronze Age pottery it is likely that many of the plain body sherds are also of this date. The featured sherds are plain and from simple jar forms that are likely to belong to the earlier phase of the late Bronze Age.

This author has outlined a possible chronological development for this tradition in the Upper Thames valley based on the evidence from a number of recent

excavations and the re-dating of Rams Hill (Barclay 2001; Barclay forthcoming; Barrett 1976; Barrett 1980; Needham and Ambers 1994; Needham 1996). It is argued that in the Upper Thames Valley Deverel-Rimbury style pottery goes out of use by c 1150 cal BC and is replaced by a range of plain, simple ovoid and straight-sided jars and bowls. Some Deverel-Rimbury traits such as finger-tipping survive. After 1000 cal BC this range of vessels is expanded to include shouldered forms such as jars, cups and bowls. By 800 cal BC there is an increase in the use of decoration, which includes finger-tipping on coarseware jars and incision on fineware jars.

Within the Abingdon area an assemblage of Deverel-Rimbury pottery, which included both Bucket and Barrel Urns, was found at Corporation Farm, a settlement site consisting of a complex of rectilinear enclosures (Shand *et al.* 2002, 37-40). It has also been found in funerary contexts at the barrow cemetery at Radley, at Sutton Courtenay and most significantly at Ashville Trading Estate just west of Spring Road (Barclay and Halpin 1999; Case *et al.* 1964/5; Balkwill 1978, 27). A few sherds of Deverel-Rimbury pottery were also found during the Wyndyke Furlong excavations north of Ashville, and only 300 m from the present site (Timby in Muir and Roberts 1999, 30-32). Late Bronze Age pottery is less common in the Abingdon area. Part of a simple jar was found at the base of a Bronze Age waterhole belonging to an enclosed settlement at Eight Acre Field, Radley (Mudd 1995, 35-38). Also at Radley late Bronze Age sherds as well as human and animal burials were recovered from some of the barrows within the Barrow Hills cemetery (Barclay and Halpin 1999). Late Bronze Age pottery has also been noted at Corporation Farm (Barclay *et al.* 2003. South of Abingdon late Bronze Age pottery has been recovered from a settlement site recorded outside the hillfort at Castle Hill, Little Wittenham (Hingley 1980) and from midden and occupation deposits from the preserved eyot at Whitecross Farm, Wallingford (Cromarty *et al.* 2006). To the north of Abingdon late Bronze Age pottery has been recovered from a series of substantial settlement sites in the area between Eynsham and Yarnton (Barclay *et al.* 2001).

LATER PREHISTORIC POTTERY

by Jane Timby

Introduction

Neolithic and Bronze Age pottery has been dealt with in a separate report (see Chapter 3: Barclay). The division between the late Bronze Age and earliest Iron Age is not always clear-cut; in this report pottery that is transitional between the Bronze Age and the Iron Age has been included with the later prehistoric assemblage and is considered in this report.

The later prehistoric assemblage comprises some 715 sherds weighing 6.7 kg. Most of the sherds appear to date to the later Bronze Age-early Iron Age with a small proportion extending into the middle Iron Age period. A few sparse sherds represent the later Iron Age. Approximately 58% of the pottery was recovered from the 2000 excavations, the remainder deriving from earlier investigations at the site both through controlled excavation and through grave digging (Table 7).

The assemblage was not particularly well preserved. The average sherd weight (9 g) is quite low even for prehistoric assemblages; compare for instance 12 g for the later prehistoric material from Wyndyke Furlong only 600 m to the north-west (Timby 1999). Only one complete profile is present and featured sherds are relatively sparse.

Pottery was recovered from 100 individual contexts of which 64 appear to contain exclusively Iron Age sherds. These 64 contexts produced a total of 365 sherds which means that 43.5% of the prehistoric assemblage is redeposited, mixed with other residual material or unstratified. Many of the features with prehistoric pottery were postholes with one or two sherds. Given the level of residuality on the site the presence of prehistoric pot does not necessarily mean that all these features are also prehistoric. Only nine features yielded in excess of ten sherds and this includes one group recovered from a modern grave. This combined with a general paucity of chronologically diagnostic forms has severely limited the extent to which it is possible to date reliably some of the features on ceramic grounds.

Methodology

The assemblage was sorted into fabrics types based on the main inclusions present in the clay following the recommendations outlined in PCRG 1997. Further subdivisions were made according to the relative frequency and size of the aplastic inclusions. The fabric codes designated broadly concord with those established for pottery from the excavations at Wyndyke Furlong (Timby 1999, appendix A). A small number of new fabrics were added to this system where appropriate. The sherds were quantified by

count, weight and estimated vessel equivalents (EVE) for each context. Very small pieces were not classified to fabric types but counted and weighed. The data was entered onto a computer spreadsheet (Excel), which forms part of the site archive.

In the following report the pottery is discussed chronologically. A detailed description of the fabrics can be found in Appendix 3. A small selection of sherds of intrinsic interest has been illustrated (Fig. 31).

Fabrics

Coarseware fabrics augmented by a small number of finer or decorated wares dominate the later prehistoric assemblage. In total some 27 fabrics have been defined which can be condensed down into the following eight broad ware groups (*cf.* Table 8):

A – calcareous (limestone or limestone and fossil shell)

B – sandy wares

C – sand and limestone

D – ferruginous

E – iron and limestone-tempered

F – flint-tempered

G – grog-tempered

H – grog and limestone-tempered

I – organic

In broad terms the calcareous group dominates the assemblage accounting for *c* 52% by count, 87% by weight. The second most frequent group are the sandy wares, which make up a further 23%, followed by ferruginous wares (D and E) at around 6% and the sand and limestone group at 5.5%. Small, unsorted sherds account for 8.5% by sherd count but only 1% by weight.

Although a moderately small group of material the emphasis very much appears to be towards the early Iron Age or possibly slightly earlier back into the later Bronze Age. Fabrics that hint at a later Bronze Age pedigree in particular, include the grog and flint-tempered sherds and sandy wares. Amongst the featured sherds clearly belonging to this phase are the biconical bowl with a short plain upright rim (Fig. 31.1), a tripartite jar (Fig. 31.8), a shouldered jar (Fig. 31.16) and the use of finger-

pressed or slashed decoration (Fig. 31.11, 14-5). Direct parallels for the small bowl (Fig 31.1) can be found in a vessel from the late Bronze Age riverside settlement at Wallingford (Barrett 1986, fig. 4.25) and from the midden site at Potterne, Wiltshire (Gingell and Morris 2000, bowl type 3). More typical of the early Iron Age are the tripartite bowls with flaring rims and a burnished finish (Fig. 31.10, 13), and jars with vertical walls and plain undifferentiated rims (Fig. 31.5).

Eleven decorated sherds were noted; three with finger depressions on the body (*cf.* Fig 31.11); two with finger-tipped rims and six with incised decoration. The latter included a tripartite bowl with incised chevrons on the upper wall (Fig. 31.4), a rim sherd with deeply incised chevrons on the rim edge (Fig. 31.3), one bodysherd with a single curvilinear line and one bodysherd with at least five incised horizontal lines. Two rims had slashed diagonal lines around the rim edge (Fig 31.14-5). This feature can be paralleled amongst the later Bronze Age material from Reading Business Park (Hall 1992). The same assemblage also shows vessels with finger-tipped rims and finger-depressed bodysherds comparable to examples here. The vessel with the incised chevron below the rim (Fig. 31.3) can be compared with a pot from Wittenham Clumps (Hingley 1980, fig. 8.11). The use of a continuous chevron above the carination (Fig. 31.4) is also reminiscent of some of the vessels from Chinnor, Oxon (Richardson 1951, fig 8), Beard Mill, Stanton Harcourt (Williams 1951, fig. 9.16) and from the Vineyard, Abingdon (Allen pers. comm.)

One small sandy ware sherd with a haematite slip was recovered from context 2124 and a sherd with an orange-red burnished finish imitating a haematite slip came from from modern grave 3525.

Other featured sherds include a single countersunk handle redeposited in a Roman ditch, 1153, which may be of early or middle Iron Age date. A middle Iron Age presence is hinted at from the fabric composition although not necessarily from the archaeology. At Wyndyke Furlong and elsewhere in the Thames Valley the trend appears to be towards a greater diversity of fabric types into the middle Iron Age period and in particular an increase in the amount of the sandy limestone-tempered category of wares (Lambrick 1984; Allen 1990; Timby 1999). Whilst the calcareous wares dominate reflecting the earlier emphasis, sandy wares do account for 14% by weight and sand-limestone wares for 6%. Of particular note at Wyndyke Furlong was a very distinctive oolitic iron-tempered ware (fabrics I2, IL1; see Appendix 3) that was recognised in middle Iron Age groups. This same fabric, albeit in very minor

amounts, is present here from pit 605 and posthole 2061. A further six unstratified sherds are also present.

Evidence of use can be seen in the presence of sooting and internal calcareous furring. The former occurs on a sherd in fabric L1, a single example of the latter on a sherd in fabric GRLI.

Catalogue of illustrated sherds (Fig. 31)

1. **Biconical bowl** with a high carination, near vertical rim and a small base. Approximately 75% complete. Patchy firing. The rim is partially vitrified although it is not clear whether this is from the original firing or subsequent use. The exterior is burnished, the interior is carefully smoothed with visible tooling marks. Dark brown to reddish brown or black in colour. The underside of the base is slightly pitted and rough. Fabric FIS. From modern grave 3517.
2. **Bodysherd** with incised line decoration, probably infilled triangles. Slightly rounded profile suggesting a globular bowl. Fabric S5 but with some sub-angular quartz accompanying the rounded grains. Pit 1008 (secondary fill 1006).
3. **Carinated bowl** with deeply incised chevrons on the rim edge. Dark grey-brown sandy ware. Fabric S1. Redeposited in ditch 1077 (1076).
4. Two joining **bodysherds** from a **tripartite bowl** decorated with incised continuous chevrons on the upper body. Matt dark brown surfaces. Fabric S2. Pit 2299 (primary fill 2251).
5. **Rim** and joining **bodysherds**. Dark red-brown to grey in colour with an irregular external surface. Fabric L1. Pit 2299 (primary fill 2251).
6. **Sharply carinated bodysherd** from a **bowl**, dark grey in colour. Burnished on the interior and exterior surfaces, Fabric S6. Pit 2299 (2184).
7. **Rim** from a **jar** with a slightly internally beaded rim and decorated with finger depressions below the rim. Brownish- orange in colour with a hackley fracture. Fabric L1 variant with very sparse coarse shell and occasional rounded limestone. Pit 2299 (2184).
8. **Tripartite jar** or **large bowl**. A coarseware fabric, orange-brown in colour with matt surfaces. Fabric I1. Pit 2299 (2184).
9. **Flared rim, fineware bowl**. Orange-red in colour with a grey core. Finely micaceous. Fabric L2. Posthole 2055 (tertiary fill 2052).

10. **Flared rim bowl.** Light brown exterior, dark grey interior. The smooth surfaces were probably originally burnished internally and externally. A finely micaceous fabric containing sparse iron, quartz sand, limestone and organic matter. Fabric FIS. Tree throw 3050 (3049).
11. **Slackly carinated sherd** with finger depressions on the carination. Fabric L1. Tree throw 2113.
12. **Jar** with a finger-depressed rim broken on the lower edge at the point of a carination. Matt dark brown in colour. Fabric SL. Modern grave 3522 (Area 11/E/14).
13. **Rim and neck** from a **flared rim bowl.** Burnished interior and exterior surfaces. Black slightly micaceous fabric. Fabric S4. Modern grave 3522 (Area 11/E/14).
14. **Plain, sharply everted rim** decorated with incised slashes on the outer edge. Matt dark red-brown in colour with a grey core. Fabric S7. Modern grave 3525 (10/A/ 9).
15. **Plain internally bevelled rim** decorated with incised slashes along the outer edge. Orange brown in colour with a grey core. Fabric L1. Modern grave 3521 (10/F/4).
16. **Crudely handmade jar** with irregular finger moulded surfaces and a slightly thickened rim. Jar with a weakly carinated shoulder, quite thin-walled. Orange-brown in colour. Fabric L1. Unstratified (Ashmolean Museum) (A1972-23).

Site discussion: later Bronze Age-Iron Age

In total 34 excavated feature groups or individual features belonging to the later Bronze Age-Iron Age produced later prehistoric pottery, some 328 sherds, (3.8 kg) representing 45% of the total later prehistoric assemblage. The remaining sherds were associated with unphased layers or other contexts, were unstratified finds from modern graves or were redeposited in stratigraphically later deposits. The features include a mixture of pits, postholes, ditches, gullies and burials. Most of the groups are quite small with less than 10 sherds.

Two features allocated to the later Bronze Age had associated pottery: posthole 2591 and pit 1008. Collectively these features produced at least nine sherds. Further potential later Bronze Age or late Bronze Age-early Iron Age transitional material was recovered from modern graves or later features. Pit 1008 contained just three sandy sherds, one with incised decoration (Fig 31.2). The group of sherds from

posthole 2591 is also small and poorly preserved. Three fabrics are present, (IL2, S8 and SL) which may reflect an Iron Age rather than a later Bronze Age date. Other sherds dating to this period of activity were recovered from tree-throw fill 3049, (two sherds) and modern grave 3515.

Structures

Structure 2719, interpreted as an Iron Age roundhouse, had pottery associated with just four of the exterior structural postholes, those associated with the entranceway and porch. From these postholes 11 bodysherds were recovered, of which 6 were in limestone-tempered fabric L1 and five, all from 2140, in sandy ware fabric S3. A further single sherd of limestone-tempered pottery (fabric L4) came from posthole 2129, part of one of the internal partitions and seven sherds from posthole 2306, part of the inner ring. These latter sherds were over-fired or burnt and comprise six sherds of fabric L1 and one sherd of an undesignated sandy ware. Two sherds of fabric L1 were recovered from posthole 2107, part of the outer ring.

The alternative roundhouse model, structure 2722, had pottery associated only with posthole 2061, again an entrance post. This pottery comprises 14 sherds in a mixture of limestone, ferruginous and sandy wares (fabrics L1, I2, S3, S4 and S7). The presence of both an oolitic iron-tempered ware and glauconitic sandy ware could argue for a slightly later date for this group of material in the early-middle or middle Iron Age (cf. stratigraphic report for potential problems in the attribution of this posthole).

Burials

Burials, 2126, 2200 and 2241 all contained pottery in their backfills. All the groups suggest an early Iron Age date, but all of the sherds appear to be residual, and this is confirmed by the radiocarbon dates from the burials, which date them to the 4th-3rd century BC. Two very small Iron Age and one larger Roman sherd were associated with possible burial 3503.

Grave 2126 contained nine bodysherds and one jar rim. The group comprises seven calcareous sherds, two sandy and one sandy with organic inclusions. One of the sandy wares has a haematite slip. The sherds are small with an average size of 5.7 g, which would be typical of redeposited material.

Grave 2200 contained just 29 sherds of which only one was a rim sherd. Most of the sherds came from the tertiary fill (2197) with just three pieces from the secondary fill (2198) and none in association with the burial. The assemblage comprises 11 sherds of calcareous ware, 6 sandy wares, 1 flint and iron-rich ware (fabric FI) and 11 undesigned crumbs. The sherds are again well fragmented with an average sherd size of just 5 g. One of the sandy wares has an external burnish and the single sherd of FI is from a slightly carinated form, again with an external burnish.

Grave 2241 produced seven sherds amongst which were one calcareous sherd, two sherds from a fine calcareous-tempered bowl, one sherd of fabric L4, and three tiny sherds of sandy ware, one with added grog.

Other features

The largest excavated Iron Age groups came from pits 1207 (1138), 2299 (2251) and 605 (608, 610) comprising some 37, 97 and 26 sherds respectively. The group from pit 1207 was composed exclusively of bodysherds of coarse fossil shell-tempered ware, which might all derive from a single vessel and is likely to date to the early Iron Age.

Pit 2299 produced a more mixed group with calcareous and sandy fabrics with both fine and coarse wares present. Single sherds in fabrics I1, O3 and GL, represent examples of slightly more rare fabrics in the assemblage. Typologically the forms support an early Iron Age chronology. The fine wares include the decorated tripartite bowl (Fig 31.4), a sharply carinated sherd, probably from another tripartite bowl (Fig. 31.6) and the large tripartite bowl or jar (Fig 31.8). Amongst the coarser wares is the wide-mouthed vessel with a plain undifferentiated rim (Fig. 31.5) and a jar with finger depressions below the rim (Fig. 31.7). The sherds are notable in that they are much better preserved than most of the later prehistoric assemblage with an average sherd size of 26 g. Some of the coarse ware sherds show vertical smearing.

The assemblage from pit 605 was by contrast much less well preserved with an average sherd weight of just 7.5 g. This pit, like 2061, contained sherds of oolitic ironstone-tempered ware and a higher incidence of sandy or sandy limestone wares perhaps indicative of a slightly later date. The sandy wares include sherds of glauconitic sandy ware. There were no featured sherds present and one of intrusive Roman oxidised ware.

Curvilinear gully 2712 produced a small assemblage of seven body sherds, two of which were just crumbs. The fabrics present, mainly calcareous, support an early Iron Age date.

Most of the other early Iron Age features to produced pottery were postholes, notably 242, 243, 1083, 1213, 1417, 1430, 1458, 2016, 2055, 2064, 2280, 2288, 2308, 2355, 2434, 2438, 2500, 2528, 2588, 2598 and 2600. Seventeen of these features only produced between one and five sherds. Overall the commonest fabric to feature in these features was L1 for which an early Iron Age date is postulated. Groups of particular note include that from 1083 which produced 11 sherds, of which at least two fine sandy ware tripartite bowls are represented and one carinated sherd in a grog and sandy ware; posthole 2588 which contained two large coarseware basesherds (fabric L1).

Modern graves

Substantial collections of pottery were recovered from a number of modern graves, most of which date to the earlier Iron Age. The collection from 3525 comprised 31 sherds of this date including several featured pieces: at least two fine sandy ware tripartite bowls, one vessel with a slash-decorated rim (Fig 31.14), a jar with a finger-tipped rim, and a sherd with a possible haematite slip or burnished to imitate one. Ten sherds of ferruginous and limestone-tempered fabrics IL1 and IL2, one sherd of organic and limestone-tempered ware and one sherd of grog and limestone-tempered ware were also present. The latter sherd had an internal calcareous deposit.

Modern grave 3522 (11/C/14) produced 25 prehistoric sherds (11/C/14) and 53 sherds came from (11/E/14). The calcareous wares include two bodysherds with finger-depressed decoration, one jar or bowl with a finger-depressed rim (Fig. 31.12), one coarse sandy ware flared rim bowl and two or three finer sandy bowls (eg. Fig. 31.13). In addition there is one sandy ware with an imitation haematite surface. Two sherds had internal calcareous deposits, one in fabric S3, the other a sherd in fabric SL2.

An assemblage of 35 sherds was also recovered from the digging of grave 3524, of which at least 28 are likely to be early Iron Age in origin with three sandy limestone wares possibly of middle Iron Age date and four Roman sherds along with one piece of ceramic building material. The early Iron Age material includes a flared rim tripartite fineware bowl and one carinated sherd in a shelly ware (fabric L4)).

Smaller groups of Iron Age material (16 sherds) were recovered from 3516 (10/A/4) with again one carinated sherd from a fineware sandy bowl, along with one finger-depressed bodysherd and 3521 (10/F/4) (24 sherds) with another jar or bowl with a slashed rim (Fig. 31. 15) and a haematite slipped sherd.

General discussion

The later prehistoric assemblage from Spring Road cemetery complements the material already published from Ashville Trading Estate (De Roche 1978) and Wyndyke Furlong (Timby 1999). It comprises a much smaller assemblage compared to these previously studied groups and would appear to contain a distinctively earlier component dating to the earliest Iron Age or later Bronze Age-early Iron Age transitional phase. Most of the fabrics defined at Wyndyke Furlong can be paralleled amongst the assemblage here. Table 9 provides a comparison of the fabric groups from the two sites.

Although the broad breakdown is similar there are marked differences in detail. At Wyndyke Furlong out of an assemblage of some 4500 sherds, 52% by weight were calcareous compared to 69% at Spring Road. Wyndyke Furlong shows a higher proportion of sandy wares and iron-rich fabrics. Spring Road contains more grog and limestone-tempered and flint-tempered sherds that appear to be earlier in date. These global differences would seem to reflect the greater emphasis on material of middle Iron Age date at Wyndyke Furlong.

The assemblage from Ashville, which is essentially part of the same site as Wyndyke Furlong, does appear to have grog and limestone-tempered wares and flint-tempered wares amongst its earliest assemblages. This could suggest that the earlier focus of late Bronze Age/early Iron Age settlement on this gravel island was to the south. It would thus appear that the occupation either side of the stream is essentially contemporary at this period. The slender evidence from Spring Road suggests that this area was abandoned during the earlier part of the middle Iron Age and not reoccupied until the later 1st or early 2nd century AD.

Later Bronze Age material from Wallingford, suggested to date from the 9th-8th centuries BC, bears some slight comparison with the earlier components of the Spring Road assemblage, for example, the use of finger-tipping on vessel rims, the shouldered jar and biconical bowl but lacks the more angular vessels and the use of incised decoration. The fabrics at Wallingford are mainly flint-based, a feature more

typical of the middle and lower reaches of the Thames than the Upper Thames Valley. It did however produce a single haematite-coated sherd (Barrett 1986, 187). It is likely therefore that if there is any overlap between Wallingford and Abingdon it lies at the very end of the sequence.

Earliest Iron Age transitional pottery was also found at Appleford, south-east of Abingdon (De Roche and Lambrick 1980). One particular pit group here produced decorated shouldered jars comparable to one or two of the Abingdon sherds associated with tripartite angular forms traditionally regarded as more typical of the early Iron Age in the Upper Thames region. One sherd of haematite-coated ware also came from this group. A date somewhere between the 8th-6th centuries is suggested for this material. Other possibly comparable assemblages from the Upper Thames region came from Beard Mill, Stanton Harcourt (Williams 1951) and Standlake (Catling 1982). The former includes sherds from tripartite decorated bowls and vessels with knicked rims, whilst the latter contains a number of flaring rims and the use of finger and incised line decoration.

ROMAN POTTERY

by Jane Timby

Introduction

The total Roman assemblage comprised 647 sherds weighing 6.17 kg. As with the prehistoric assemblage the sherds were well fragmented and generally not well preserved. The average sherd weight was only 9.5 g. Most of the Roman pottery was recovered from the 2000 excavations: 541 sherds (4693 g). Only 13 sherds came from the 1990 evaluation, 57 from the Abingdon Society work and 17 from grave digging.

Roman pottery was recovered from 32 features and 7 layers, a total of 43 excavated contexts. The stratified Roman deposits produced 727 sherds of which 76% are Roman, the remainder being redeposited Iron Age sherds. The rest of the Roman pottery, some 80 sherds, came from post-Roman levels or from unstratified deposits. Most of the sherds date to the 2nd century with a sparse scatter of 3rd to 4th-century wares.

Methodology

The assemblage was sorted by fabric types. Recognised name wares were coded using the National Roman fabric reference collection (Tomber and Dore 1998). These were cross-referenced into the Oxford Archaeology recording system (see Table 10). As most of the wares are recognised types for the region (*cf.* Young 1977) no further description of fabrics is given here.

Discussion

The assemblage is very much composed of local products from the Oxfordshire industries. The only imports present are two small fragments of Central Gaulish samian and two sherds of Dorset black burnished ware. The assemblage as a whole is very much dominated by grey sandy wares, which account for 65.5%.

Most of the Roman pottery, 72%, came from the two ditches crossing Area 9, groups 1626/2710 and 1627. The various interventions across these features produced 159 and 340 sherds respectively, mostly of Roman date but with some redeposited Iron Age sherds.

Ditch group 1626/2710 is cut by ditch 2709, and may be earlier than ditch group 1627. Most of the pottery (129 sherds) came from intervention 1153, with smaller quantities from interventions 520, 704, 1112, 1172, 1185, 2566, 2572 and 2692. Nearly 12% of the assemblage by sherd count comprises redeposited Iron Age material. The pottery is well fragmented, the average sherd weight for the group being just 6 g, particularly low for Roman ware which generally tends to be more robust than prehistoric fabrics. The Roman assemblage from 1153 comprises almost exclusively Oxfordshire products; largely grey sandy wares but also a white-ware Oxfordshire mortarium, Young (1977) form M1 in production AD 100-150, a white ware jar and some grog-tempered storage jar. Most of the forms are necked jars, not closely datable other than broadly typical of the 2nd century. In addition to the pottery one small piece (10 g) of ceramic building material and five fragments of fired clay are present. Ditch group 1628/2711 running parallel to 1626/2710 produced just three local grey sandy wares.

Ditch group 1627 produced nearly twice the amount of material compared to ditch 1626/2710 but still in well-fragmented condition with an average sherd weight of 8.7 g. The assemblage contained a good range of 2nd-century local with a few 3rd century sherds suggesting that the two features are quite close in date. Pottery was recovered from interventions 1077, 1097 and 1099. Intervention 1097 produced 65

Roman sherds and 10 Iron Age pieces. The former are largely local Oxfordshire grey wares with a smaller quantity of oxidised sandy ware and white ware. Recognisable forms include Young (1977) types R57 (straight-sided carinated bowls) and W33 (necked jars), both with a long pedigree.

Intervention 1099 yielded 88 sherds, (9 of which are Iron Age), but in poor condition, the average weight being just 4.3 g. The only featured sherd in the entire group is an Oxfordshire white-slipped ring-necked flagon; Young (*ibid.*) type WC1, which probably dates to the first half of the 3rd century. By contrast intervention 1077 located at the ditch terminal produced the highest frequency of material with some 177 sherds (1899 g) and the better preserved with an average weight of 10.7 g. Of the 177 sherds 13 are redeposited later prehistoric pieces. There are several joining sherds from single vessels, none complete. Of particular note is a white ware beaker (Young type W37) with red painted decoration (Fig. 32.1), a stamped white-ware mortarium (Young *ibid.*, type M1) (Fig. 32.3), various fine grey ware necked jars (eg Fig. 32.2), fine grey ware poppyhead beaker sherds decorated with panels of barbotine dots, a shelly jar (Fig. 32.4), and one small chip of decorated samian. The latest material seems to be later 2nd century although many of the types are not chronologically diagnostic being relatively long-lived.

Ditch group 1629 (interventions 1101 and 1183) produced a moderate assemblage of 80 sherds again mainly comprising Oxfordshire grey wares and white wares. Six sherds of Belgic-type grog-tempered jar were also present and a few residual Iron Age sherds. Amongst the forms present are Young (*ibid.*) types R23, R36, W32 and W33, all fairly long-lived types in production from the 2nd century.

Ditch group 2709, which cut 1626/2710, produced only one Roman greyware sherd (from intervention 2418) and 12 residual Iron Age sherds (from intervention 807).

Gully 1414 produced a small assemblage of 10 sherds, 6 of which were redeposited later prehistoric sherds. The remaining four comprise two of local grey wares and two of local grog-tempered storage jar, which could be of 2nd or 3rd-century date. Pit 505 contained four sherds of 2nd-century local pottery (fabrics R30, O10 and W20) and one residual Iron Age sherd. One sherd of 2nd-century pottery (fabric R30) was retrieved from the fill (225) of gully recut 247. Three small Roman sherds were also retrieved from posthole 1425 and a single oxidised sandy sherd from posthole 1296.

Other features producing 2nd-century Roman pottery include medieval gravel-extraction pits 1047 (group 1639), 1052 (group 1640), 1058 (group 1640 and 2661 (group 2718) with in total just six sherds. The only featured sherd is a grey ware straight-sided bowl with burnished lattice decoration (Young *ibid.* form R43) from 1058.

Material of potentially 3rd-century date was recovered from medieval gravel extraction pit 2650 (group 2718) and layers 222 and 223. Amongst the group of five 3rd-century sherds from pit 2650 (2653) was a rim of a DOR BB1 jar and a flanged bowl in Oxfordshire grey ware. Layer 222 produced seven sherds amongst which were a sherd of Oxfordshire colour-coated ware (OXF RS) and a fragment of an oxidised flask suggesting a date from the second half of the 3rd century onwards. Layer 223 with 14 sherds contained another sherd of OXF RS, one sherd of Central Gaulish samian (Dragendorff form 31), two grey wares and ten later prehistoric sherds.

Later Roman activity is sparse or non-existent. Only five sherds of OXF RS, which generally signal occupation from the second half of the 3rd century through to the later 4th century, came from the site. Two of these sherds come from Roman layers, 222 and 223. The remaining three sherds occur as unstratified finds; two from modern grave 3500, one of which is a mortarium sherd, and one unstratified piece with no context. The latter sherd is from a bowl Young (*ibid.*) form C81 hinting at a 4th-century presence although this could potentially be a vessel still in use in the Saxon period.

The Saxon and later features on the site produced 38 sherds of Roman pottery and 58 sherds of later prehistoric date. The sherds are generally in poor condition with an overall average sherd size of just 7 g reflecting their residual status. The Roman pieces appear to date to the 2nd- to 3rd centuries and are thus contemporary with the Roman occupation. This strongly suggests that the material is more likely to be redeposited than reflective of selective retention of Roman material as is frequently seen in the early Saxon period. Only one Roman sherd came from one of the sunken-featured buildings, 2008 (2469), and this was a fragment of grog-tempered storage jar broadly dating to the 2nd-3rd centuries.

Conclusions

The relatively high incidence of Roman pottery in the main ditches crossing the site might suggest that the focus of Roman activity is fairly close by and that these are not isolated field ditches. If the quantity of fine tablewares and imports can be taken as a reflection of status (*cf.* Booth 1991; Evans 2001) then the assemblage from Spring Road has to be seen as a fairly low status. Most rural assemblages tend to contain between 1 and 2% samian, the percentage being considerably higher for urban sites or higher status sites, perhaps up to 5% total fine and specialist wares. Spring Road has less than 1% of such material intimating a low status site in these terms. Most of the fine and specialist wares represented, for example, the mortaria, are locally available and thus not the result of long distance trading. This is further highlighted by the fact that the focus of activity appears to be in the 2nd century when samian and a range of other imports were in circulation. There are no examples of imported mortaria or amphorae and regional imports appear to be confined to just two sherds of Dorset black burnished ware.

The form composition of an assemblage can also be seen as a signal of status. At Spring Road jars account for 67% by EVE followed by beakers (11.5%) bowls/dishes (10.7%), mortaria (6%) and flasks (4.8%). Jars will dominate on most Roman sites, but rural sites in particular, and the figure here is quite modest at 67%. The assemblage composition here may be reflecting the proximity of the Oxfordshire industry as drinking vessels in particular are well represented, but to a certain extent the relatively limited repertoire also reflects its low status. Vessels such as flagons, platters and cups are absent from the assemblage.

The shorter duration of occupation of the Spring Road contrasts with the development at Ashville/Wyndyke Furlong where occupation seems to have continued from the Iron Age into the late Roman period. Ashville then appears to have been abandoned in the later Roman period and not reoccupied in the Saxon period as is the case at Spring Road.

Catalogue of illustrated Roman sherds

1. **White globular beaker** with sharply out-turned rim similar to Young (1977) form W37. Decorated with orange slip. Fabric OXF WHF. Ditch 1077 (1076).
2. **Cordoned bowl** decorated with a zone of burnished line decoration. Fabric OXF RE. Ditch 1077 (1076).

3. **Whiteware mortaria**, Young (1977) type M1. Stamped either side of the spout with a double-line illiterate stamp. Ditch 1077 (1076).
4. **Handmade fossil shell-tempered jar**. Fabric: C10. Ditch 1077 (1076).

POST-ROMAN POTTERY

by Paul Blinkhorn

Introduction

The pottery assemblage comprised 974 sherds with a total weight of 20,420 g from 77 contexts, of which 46 contexts were fills of cut features. The estimated vessel equivalent, by summation of surviving rimsherd circumference was 4.41. The early to middle Anglo-Saxon assemblage comprised 680 sherds with a total weight of 10,431 g (EVE = 4.36) and showed a good level of preservation (average sherd weight *c* 15.5 g). The medieval and early post-medieval pottery (111 sherds, 902 g, EVE = 0.05) was mostly small sherds (average sherd weight only *c* 8 g) from ploughsoils. The late 19th-century assemblage (183 sherds, 9087 g), the majority of which derived from an infilled gravel pit, was much better preserved (average sherd weight *c* 50 g).

The range of ware types shows that there was domestic occupation at the site during the 6th century. There is no diagnostic ceramic evidence for occupation during the middle or late Saxon periods. The medieval pottery shows that occupation in the vicinity of the site began around the time of the Norman conquest, and continued almost until the present day.

In addition to the assemblage recorded here, a group of sherds recovered during grave digging was given to the Institute of Archaeology in Oxford, but has now been lost. This group included three sherds from plain vessels illustrated in Berisford's B. Litt. thesis (Berisford 1973, fig. 39.6-8).

Methodology

The medieval and later pottery was recorded using the coding system and chronology of the Oxfordshire County type-series (Mellor 1980; 1994). The handmade Anglo-Saxon pottery was classified by fabric type using site-specific categories. Where necessary, sherds were examined under a 20x binocular microscope to aid fabric identification.

The pottery data was recorded on a computer, utilising Dbase IV software, with all physical aspects of the pottery, from fabric through to features such as rim- and vessel-form, rim diameter and decoration recorded. Possible function-related parameters such as visible residue and limescaling were recorded where noted. The material was quantified by number and weight of sherds (in g) and estimated vessel equivalent (EVE).

Fabrics

The range of early to middle Anglo-Saxon pottery fabrics is typical of the region, and comprises the following:

F1: Fine quartz. Moderate to dense sub-angular quartz up to 0.5 mm. Rare calcareous material of the same size and shape. 236 sherds, 2760 g, EVE = 1.52.

F2: Quartz and chaff. Sparse to moderate subrounded quartz up to 2 mm, sparse to moderate chaff voids. 168 sherds, 3170 g, EVE = 1.38.

F3: Coarse quartz. Moderate to dense subrounded quartz up to 3 mm. Rare calcareous material of the same size. 20 sherds, 289 g, EVE = 0.

F4: Calcareous quartz. Sparse to moderate sub-rounded calcareous material up to 1 mm. Sparse subrounded quartz up to 0.5 mm. Sparse chaff voids and fine silver mica. 5 sherds, 40 g, EVE = 0.03.

F5: Ironstone. Sparse to moderate rounded red ironstone up to 3 mm. Sparse quartz up to 0.5mm, rare flint up to 5 mm. 1 sherd, 6 g, EVE = 0.

F6: Chaff, no other visible inclusions. 250 sherds, 4166 g, EVE = 1.43.

As noted above, the medieval and later pottery was recorded using the coding system and chronology of the Oxfordshire County type-series (Mellor 1980; 1994), as follows:

OXAC: Cotswold-type ware, AD 975 – 1350. 5 sherds, 15 g, EVE = 0.

OXAG: Abingdon ware, mid-late 11th - 13th century. 11 sherds, 75 g, EVE = 0.

OXY: Medieval Oxford ware, AD 1075 – 1350. 7 sherds, 37 g, EVE = 0.

OXAQ: East Wiltshire Ware, Early 12th - early 15th century. 6 sherds, 58g, EVE = 0.05.

OXAM: Brill/Boarstall ware, AD 1200 – 1600. 21 sherds, 154 g, EVE = 0.

OXBG : *Surrey whiteware*, Mid 13th - mid 15th century. 2 sherds, 24 g, EVE = 0.

OXBN: *Tudor Green Ware*, late 14th century - c 1500. 2 sherds, 12 g, EVE = 0.

OXCL: *Cistercian ware*, AD 1475 - 1700. 4 sherds, 10 g, EVE = 0.

OXST, *Frechen Stoneware*, AD 1550 – 1700. 2 sherds, 15 g, EVE = 0.

OXDR: *Red Earthenwares*, AD 1550+. 46 sherds, 456 g, EVE = 0.

In addition, the following were noted:

19th century: Miscellaneous 19th/20th-century wares. Ironstone china, English Porcelains and Stonewares, etc. 183 sherds, 9087 g.

Since the medieval and post-medieval periods are not germane to the Revised Research Aims of the project, these wares will not be considered further (OAU 2001).

The early Saxon pottery fabrics appear fairly typical of those from other sites in the Abingdon region (eg at Radley, Barrow Hills, Barton Court Farm and Audlett Drive, Abingdon) , and there is no reason to suspect that the people at this site were exploiting clay sources that were any different from those utilized by the inhabitants of the other settlements in the locality. The calcareous gravels of the second terrace and the Lower Greensand deposits at Bagley Wood seem the most likely sources for the bulk of potting clays (Blinkhorn in press), although an alternative source of greensand outcrops on Culham Heights just south of Abingdon. The chronological significance (or otherwise) of these different fabrics has recently been reviewed (ibid.), and rather than repeat the arguments, it is perhaps sufficient to say that, of past works speculating on the chronological significance of the various fabric types, perhaps only Berisford's (1981) idea that fabrics with a high proportion of calcareous inclusions are early has validity. Certainly, at this site, where the decorated sherds appear entirely 6th-century in date (see below), only one sherd of such pottery was noted.

Other studies (Blinkhorn 1997) have suggested that the amounts of different fabric types at a site of this date are actually a reflection within a settlement of the size of different social groups with different traditions of pottery manufacture, and also of how the size of the social groups, or the nature of their practices, may have changed over time. In this case, it is the two different methods of clay preparation, sand-tempering and chaff-tempering, which are suggested as being indicative of different

social practice. The pottery assemblage from this site is of insufficient size to allow this to be investigated in detail, although some broad analyses are still possible. In these cases (see below), the pottery will be divided into two groups: 'sand-tempered' (Fabrics 1 and 3) and 'chaff-tempered' (Fabrics 2 and 6).

Early Saxon vessel forms and function

The early Saxon assemblage was extremely basic, with only simple bowl and jar forms noted. The occurrence per fabric type is shown in Table 11.

The data indicate that the chaff-tempered fabrics were less likely to be used for bowls than for jars. There are several possible explanations for this, the first being purely functional, in that either the sand-tempered fabric was more suited for the manufacture of bowls, or that chaff-tempered clays were more useful for jars. Certainly, the chaff-tempered jars had a larger mean rim diameter (210.8 mm, standard deviation = 40.42) than the sand-tempered vessels (191.8 mm, standard deviation 56.15), suggesting that they were favoured for such pots for functional reasons (see Figs 33 and 34 for full data). Assuming that the rim diameters are a reflection of the vessel size, the bare statistical data indicates that the sand-tempered vessels were generally smaller, but with a wide range of sizes, whereas the chaff-tempered vessels were larger, with a smaller size range.

It seems likely that the chaff-tempered clays would have been more porous than the sand-tempered examples, which, if the evidence of the ethnographic record is believed, would have made them more suitable for the manufacture of water jars (Rice 1987). Making such vessels in a porous clay means that the liquid is constantly evaporating off the surface, keeping the contents cool and fresh in hot weather. Conversely, this is perhaps not a desirable quality in a drinking vessel, which is one of the many possible specialist functions of the small bowls.

The other interpretation is that the different size ranges are a reflection of different social practices within the settlement. Past work (Blinkhorn 1997) has suggested that the different fabrics and methods of clay preparation demonstrated by Anglo-Saxon pottery is a reflection of groups with different social practices within the same settlement. One group favoured chaff-tempering, the other sand-tempering. Thus the different vessel sizes shown by the two different fabric groups at this site may be a reflection of different practices which required a differing range of vessel sizes. Certainly, differences in vessel sizes in pottery have been seen as being

evidence of changing or differing dining practices in late Iron Age and early Roman Oxfordshire (Meadows 1997); the same may be true of the early Saxon period.

Relatively few vessels showed any evidence of limescaling or burnt residues, and even those that have them offer little information as to the exact use to which the pot was put.

Pottery from specific features

The majority of the context-specific pottery assemblages from this site comprised small groups of featureless bodysherds. However, over half of the Anglo-Saxon pottery assemblage (by weight) derived from the two sunken-floored buildings (SFBs) excavated in 2000 and these merit further consideration.

SFB 2687

SFB 2687 produced an assemblage of 293 sherds (4727 g, EVE = 2.27). The occurrence per context by weight is shown in Table 12. The sherds were largely plain, with many bodysherds being fairly large and thick, and, although a few cross-fits between layers were made, the sherds were mainly from different vessels, and it was not possible to reconstruct any pots to a degree which allowed form definition beyond functional type. This is entirely in keeping with the concept that abandoned SFB hollows were used for refuse disposal.

Few sherds showed any evidence of visible residue or limescaling, although the base of a vessel from 2703 did have traces of a black burnt residue on the inner surface (Fig. 37.SB12). The decorated pottery comprised a group of stamped and incised sherds from the same vessel from contexts 2672 and 2673 (Fig. 35. SB1), three others (two joining) from a different vessel from 2672, 2673 and 2703 (Fig. 35.SB2), and seven small incised sherds from 2672 (not illustrated). In addition, a rusticated sherd was noted from 2672 which joined with sherds from modern grave 3511 (4/M/7), some 40 m to the north, and other sherds of uncertain provenance held by the Oxfordshire County Museums Service (Fig. 35.SB3). Another rusticated sherd, probably from a different vessel, was noted in context 2703. This whole group suggests a date no earlier than the 6th century for the back-filling of the feature.

Catalogue of illustrated sherds

(Fig 35)

- 1 **Stamped and incised sherds.** F1. Dark grey fabric with variegated grey and brown surfaces. Context 2672 and 2673 (SFB).
- 2 **Stamped and incised sherds.** F1. Uniform black fabric with lightly burnished outer surface. Contexts 2672, 2673 and 2703.
- 3 **Rusticated sherds.** F6. Dark grey fabric with light reddish-brown outer surface. Contexts 2672, 3511 (4/M/7) and 'from the OXCHS'.
- 4 **Rusticated sherd.** F6. Uniform dark grey fabric with lighter outer surface. Context 2703.
- 5 **Jar with fragment of upright, rim-mounted lug.** F1. Dark grey fabric with variegated reddish-brown and grey surfaces. Outer surface evenly burnished. Context 2672.
- 6 **Rim sherd from small jar.** F1. Uniform black fabric, lightly burnished outer surface. Context 2672.

(Fig 36)

- 7 **Rim sherd from vessel with pierced longitudinal lug on the shoulder.** F2. Dark grey fabric with slightly browner, smoothed outer surface. Context 2673.
- 8 **Rim sherd from jar.** F6. Dark grey fabric with unfinished surfaces. Context 2673.
- 9 **Rim sherd from jar.** F6. Uniform black fabric, browner on rim, smoothed surfaces. Context 2673.
- 10 **Shouldered jar, shoulder and neck.** F1. Black fabric with browner, lightly-burnished outer surfaces. Context 2673
- 11 **Rim sherd from jar.,** F6. Uniform dark grey fabric with a smoothed outer surface. Context 2703.

(Fig 37)

- 12 **Basesherd.** F6. Uniform black fabric with light brown, unfinished outer surface. Patches of burnt black residue on the inner surface. Context 2703

SFB 2008

This feature produced considerably less pottery (55 sherds, 1025 g) than the southern SFB (Table 13), and none of it was decorated. This could mean that the feature dates to the 7th century, but the assemblage is too small to be certain. Despite the small size of the assemblage, the level of fragmentation does not appear any greater than the other SFB, with the mean sherd weight for context 2010 (29.0 g) being greater than

that of any of the contexts in SFB 2687. Most of the pottery from the feature was externally or internally sooted to a greater or lesser degree.

Catalogue of illustrated sherds

(Fig 37)

- 13 **Large sherd from large bowl.** F2. Uniform black fabric, patches of sooting on the burnished outer surface. Context 2010.
- 14 **Rim sherd from jar.** F2. Uniform black fabric with browner outer surfaces. Context 2479.

Other Groups

Several groups from the modern graves are worthy of comment.

Modern Grave 3513 (6/C/16)

Seven sherds of pottery from this location were extensively vitrified and cracked, showing that they had been subjected to the most intense heat (eg Fig. 38.SR4). These sherds may be wasters, and thus evidence of pottery production at the site, although other factors, such as the major conflagration of a building, may be to blame.

Modern Grave 3501 (3/E/32)

A group of 62 sherds (1072 g, EVE = 0.45) was recovered from this grave. Most sherds were fairly large, although none were decorated. Many of the sherds appear to have originated from a single chaff-tempered (F6) vessel, but no cross-fits were achieved.

Modern Grave 3511 (4/M/7)

A total of 34 sherds (635 g, EVE = 0.42) were noted. This assemblage consisted of large sherds, suggesting that it was deposited directly into a feature cut by the grave, and is noteworthy for a cross-fit with the rusticated vessel from SFB 2687 (see Fig. 35. SB3).

Modern Graves 3527, 3528, 3529 (3/F/26-8)

A group of at least 30 sherds (now lost) is recorded in a letter by David Brown as chaff-tempered (F6). The letter also refers to lugs, suspension holes and rims. Three

of these may be the vessels illustrated in Berisford's thesis (Berisford 1973, fig. 39, 6-8). These are described as of chaff/grass and sandy fabrics, and comprise two jars with slightly everted rims similar to SB8 and SR1, and a wide-mouthed vessel with a short upright rim (fig. 39, 6) that may have been either a bowl or jar.

Catalogue of illustrated sherds (Fig. 38)

- 1 **Globular jar**, upper portion. F6. Uniform black fabric, brown patch on the smoothed, evenly burnished outer surface. Modern grave 3512 4/M/8)
- 2 **Stamped and incised vessel**. F1. Uniform black fabric, burnished surfaces. 'From the OXCMS'
- 3 **Stamped and incised vessel**. F6. Uniform greyish-brown fabric, burnished outer surface. 'From the OXCMS'.
- 4 **Rim sherd from jar**. Slightly warped, with extensive vitrification and some cracking on the outer surface. F1. Modern Grave 3513 (6/C/16)
- 5 **Rim sherd from jar**. F6. Uniform black fabric with lightly burnished surfaces. Modern Grave 3501 (3/E/32)
- 6 **Bowl rim sherd**, F2.. Uniform dark grey fabric, smoothed outer surface. Modern grave 3501 (3/E/32).
- 7 **Stamped and incised vessel**. F2. Uniform dark grey fabric, smoothed outer surface. Modern grave 3530 (3/O/6)

Chronology

The dating of Anglo-Saxon handmade pottery is still based entirely on the scheme devised by Myres (1977), despite the fact that more recent work has questioned the accuracy of at least some areas (eg. Hamerow 1993, 42-4; Blinkhorn 1997).

Generally, however, it seems that a split into 5th and 6th-century types can be made, and it is this broad chronology that has been used here. One of the many further problems is the identification of 7th-century (or even 8th-9th century) groups. The Anglo-Saxons generally stopped decorating pottery at that time, but it cannot be said with certainty that a group of pottery which contains no decorated material is of 7th-century date as decorated pottery rarely comprises more than 5% of an assemblage. For example, at Radley Barrow Hills, where most of the features can be securely dated to the 5th and 6th centuries (Blinkhorn in press), only 335 of the 9131 Anglo-Saxon sherds had any form of decoration (other than rustication), just 3.67% of the

assemblage. Thus, an assemblage of undecorated sherds could be of 7th-century date, or could be an earlier group that lacks decorated pottery. In the absence of any recognisably distinct Middle Saxon ceramic types in the region, Mellor (1994, 36) has suggested that early Saxon potting traditions continue through the 8th and 9th centuries. It is therefore possible that such assemblages could be even later.

Having said this, all the decorated pottery from this site (Figs 35 and 38) appears to be of 6th-century date (ie it is decorated with stamps, sometimes accompanied by incising). The scarcity of such pottery from domestic sites is perhaps demonstrated by the fact that only 16 sherds (294 g, EVE = 0.11) of decorated pottery were noted here, out of a total Anglo-Saxon assemblage of 680 sherds (10,431 g, EVE = 4.36), less than 2.5% of the assemblage. Two small sherds (11 g) were noted with incised lines, but it is impossible to date them other than to within the broad early Saxon period, and a further eight sherds were noted with rustication. These too can only be dated within the early Saxon period. Thus (by sherd count), over 96% of the Anglo-Saxon pottery was undecorated. It is, therefore, entirely possible that occupation at the site continued into the 7th century or later, but it is impossible to say this on the basis of the pottery alone.

Most of the excavated Anglo-Saxon sites in and around Abingdon have produced 5th-century pottery, although generally in small quantities. At Radley Barrow Hills (Blinkhorn in press), a total of 45 sunken featured buildings (SFB) and a number of timber halls and other features produced an assemblage which was largely of 6th-century date, with only five of the SFBs definitely being dateable to the 5th century. The early assemblage included vessels such as a jar with *hängende bogen* ('hanging curve') decoration, carinated incised and/or bossed jars, and others with simple line-and-dot decoration. None of these types were noted at this site. Earlier excavations by Avery and Brown (1972) at the northern edge of the 1980s excavation produced decorated wares of both the 5th and 6th centuries. Wares dating from the 5th and 6th centuries were also noted at Barton Court Farm (Miles 1984, fiche 7). The excavations at Audlett Drive, Abingdon, some 300 m to the south-west of Barton Court Farm, produced a small assemblage of Anglo-Saxon pottery, with few decorated sherds (Underwood-Keevill 1992) although one, with line-and-dot decoration may be of 5th-century date (ibid. fig. 6.14). Pottery dating to the 5th century has also been found at The Vineyard site in Abingdon (Allen 1990; Blinkhorn in prep).

The pottery from the Saxton Road cemetery in Abingdon (Leeds and Harden, 1936) produced vessels of both 5th and 6th-century types. The earlier vessels were later discussed by Myres (1968, figs 7-9), and again comprised line-and-dot and incised decorated carinated pots, as well as others with *stehende bogen* ('standing curve') decoration.

It would seem therefore, from the evidence of this site that the Spring Road cemetery area of Abingdon was, during the Anglo-Saxon period, largely peripheral until the 6th century. Parallels for the stamped sherds from Spring Road were sought with other early Saxon assemblages, particularly that at Saxton Road, Abingdon (see Briscoe, below).

Conclusions

As noted above, the range of forms, fabric and decoration of the Anglo-Saxon pottery at this site appears very similar to that of other 6th-century assemblages from sites in and around the town. There seems little doubt that there was no significant post-Roman activity at the site until the 6th century, and this appears to have been entirely domestic in nature.

The group of vitrified sherds from grave 6/C/16 may be evidence of domestic pottery production at the site, but their condition may equally be the result of other factors. Without corroborating information from the archaeological deposits in the vicinity of the find it is impossible to say what was the cause.

STAMPED SAXON SHERDS

by Diane Briscoe

Introduction

The Archive of Anglo-Saxon Pottery Stamps covers the period which has been referred to as 'Pagan Saxon', but ranges as early as *c* AD 325 and continues as late as the early eighth century. The Archive maintains a database of stamped designs on Anglo-Saxon pottery both as casts and on index cards. Currently the database holds information on over 23,000 stamps from nearly 400 sites (including some from the continent). The Classification includes over 630 different motifs. Each card includes

the classification, size, archive number, other reference data and information on the pot or sherd from which the cast was taken. The main aim of the Archive is to produce material for comparison between sites which may be far apart, in order to discover any patterns in distribution that might lead to more information regarding the early Anglo-Saxon settlers. A subsidiary aim is to provide information to other archaeologists, and to submit reports on stamps from sites when requested to do so.

Methodology for recording stamps

All stamped sherds from the site were examined visually and categorised according to stamp type, size and associated motifs (see Table 15 below). An impression has been taken of each stamp using DAS “Pronto” cold clay in order to facilitate comparisons. A digital photograph of all of the stamped sherds has also been taken for reference.

Comparative material

Abingdon lies on a major bend of the River Thames, close to the confluence with the River Windrush. There are five stamp-producing sites within the environs of the modern town: Saxton Road (1935), Radley Road (1963), Barton Court Farm and Barrow Hills, Radley, as well as Spring Road itself. Within an approximately 15-mile radius of the site there are another 14 sites that have produced stamps recorded in the database assembled by Teresa Briscoe and myself. These have provided a total of 292 stamps for comparison. The sites concerned are listed in Table 14.

The search for parallels for the stamp motifs from Spring Road has been concentrated upon these sites, though stamps from other sites have also been considered. The site has produced four groups of stamped sherds over the years, displaying eight different motifs as listed in Table 15. Each type is considered separately below.

Category A

This category includes all circular stamps. These are by far the most common stamps from the early Medieval Period, representing well over half the total identified stamps.

A 2ai describes two negative rings of equal proportions. This is an extremely common stamp and is found widely distributed. As such, it is of little use for diagnostic purposes. However, it should be noted that examples of comparable size

come from three local sites: Frilford, Sutton Courtenay and Wallingford. The example from Frilford appears on a globular bowl. On th latter pot, the stamp is associated with *C 3ai* and *G 2bi* – a combination which does not appear at any of the other three sites (but see *G 2bi* below).

The *A 3a* group includes all circular grid stamps. The variations record the number of negative squares present. *A 3aii* and *A 3aiii* describe negative grids of 3 x 3 squares and 3 x 4 squares respectively. The first *A 3aiii* stamp falls at the small end of its group, which is reasonably common, and widely distributed. Locally, there is one, much larger, version from Cassington.

The second *A 3aii* stamp also falls at the small end of its group, which is reasonably common, and widely distributed. Locally, there is a version of comparable size (7 x 7 mm) from Sutton Courtenay, and larger versions from Radley Road, Cassington, Long Wittenham and Sutton Courtenay again. The larger *A 3aiii* stamp is closer to the Cassington stamp in size, but it is not from the same die. The closest parallels found locally are from Eynsham Abbey where there are two *A 3as* (unclassifiable) which look similar, but are smaller.

A 4ai describes the ‘hot-cross-bun’ stamp, which is the most common of all Anglo-Saxon motifs. This is an extremely common stamp and is found widely distributed. As such, it is of little use for diagnostic purposes. The first example falls at the small end of the group, although it is not the smallest known to the Archive. Locally, there are two examples comparable size from Eynsham Abbey (4 x 5 mm) and from Abingdon, Radley Road (5 x 5 mm).

The second example is a very common size. Locally, there are the following examples within the standard band of tolerance (1 mm each way): Barrow Hills (3), Eynsham Abbey, Kingsey (2), Sutton Courtenay (3).

A 4aiv describes a ‘hot-cross-bun’ stamp with a small circle where the positive arms of the cross meet. This is an uncommon stamp with all known examples coming from East Anglia, the Midlands or Yorkshire – there are no other local examples. The Spring Road stamp is also the largest example recorded; the next largest (11 x 11 mm) comes from West Keal, Lincolnshire.

A 5aviii describes a circular negative rosette stamp with eight petals. This is a very common stamp with a wide distribution and, as such, is of little diagnostic use. Locally, there are two examples within the standard band of tolerance (1 mm each

way) from Sutton Courtenay, two from Eynsham Abbey (one smaller, one larger), and two much larger examples from Barrow Hills.

Category C

This category comprises all square and rectangular stamps. *C 3ai* describes an open-ended positive upright cross on a negative rectangle. This can be produced by a die which can also make an *A 4ai* stamp. There are five local examples, all much larger and all coming from Eynsham Abbey.

Category G

Category G includes all stamps shaped like half-circles, crescents and horseshoes. *G 2bi* describes a segmented negative horseshoe with a negative inner horseshoe. This is an uncommon stamp, but with a wide distribution. This example falls at the larger end of this group.

The archive holds a cast of a very similar stamp on a sherd from Sutton Courtenay, which is in the Ashmolean Museum (SC XXIV, 1933–528). Following a careful comparison of the two sherds, side-by-side, I am happy to state that the stamp from Sutton Courtenay is a ‘like’ stamp to the Spring Road example. This is a very rare occurrence. Other large examples come from Spong Hill, Norfolk; Staines, Surrey; and Mucking, Essex, but I am of the opinion that these stamps have been made by different dies.

Discussion

Most of the stamps from this site are common motifs from which little can be deduced. Several of the stamps are very small, and the late J N L Myres was of the opinion that a smaller size of stamps indicated an earlier date (pers. comm.), although I have some reservations about this opinion.

The stamp motifs from Spring Road overlap with only 11 of the 19 sites listed within a 15-mile radius, although some of these other sites have produced fairly rare stamp types. However, it seems fairly definite that Spring Road’s closest links are with Sutton Courtenay, lying downstream, and not with Barrow Hills in Radley, or any of the other Abingdon sites. It should be noted that there are less close parallels between Spring Road and the stamps from Eynsham Abbey. Although it might appear plausible from their relative locations that that the Saxton Road cemetery could be the

burial ground for the settlement site at Spring Road, there is no evidence from the stamps to support this suggestion.

The identification of a 'like' stamp is very exciting. The Archive holds only about 10 or 12 examples of stamps which can be identified as 'like' from two different sites, and they are fairly rare even within a single site. The very small number of 'like' stamps would appear to indicate that pottery was generally produced locally, using tools manufactured by individuals on each settlement. I am also quite certain in my own mind that individual potters had a number of dies of the same stamp type, varying in size, and manufacture. However, a couple of the 'like' stamps have been found on sites many miles apart, which would appear to indicate some form of trade or travel between them. In this instance, the presence of a 'like' stamp on pots from these two sites certainly indicates a strong link between them, but whether this is due to the transfer of pots between them, or of people (perhaps by intermarriage) is unknown.

FIRED CLAY

by Alistair Barclay and Jane Timby

A small assemblage of 100 fragments of fired clay weighing 1732 g was recovered from 13 contexts, one of which was Neolithic (2619), two are Iron Age (2197, 2309); three Roman (1076, 1415, 1428), five Saxon (1516, 2009, 2010, 2480 and 2703), one medieval (1124) and one undated (1395). A table listing their details will be found in the archive.

Neolithic fired clay

by Alistair Barclay

In total 15 fragments (203 g) of fired clay came from fills 2619-20 of Grooved Ware pit 2622. The fired clay was made from a generally coarse sandy clay and included a number of small slab-like pieces with either rough or smooth surfaces. The largest of the pieces (context 2619 ss20) was roughly rectangular, 38 mm by 44 mm, and 10 mm thick. It was fired black with a yellowish-brown oxidised outer surface. Two further but smaller fragments possibly from the same piece came from fill 2620.

Another piece from fill 2619 (ss20) was similar in appearance but thicker (up to 17 mm) and had two finger-tip impressions on its oxidised outer surface (see Plate 7). Context 2620 also contained fragments from a slab-like piece that was totally oxidised, up to 14 mm thick with an inner smoothed surface.

These fragments are too well fired to be daub, although they could derive from a structure used as an oven or hearth. One possibility is that they were used as props for the firing of pottery. Locally, similar pieces of fired clay were recovered from a Grooved Ware pit at Barrow Hills, Radley (Barclay and Halpin 1999, 82).

Iron Age fired clay

by Jane Timby

The material from the Iron Age contexts comprised nine fragments of poorly-fired possible pit or hearth lining from 2309, and seventeen amorphous fragments of indeterminate form and function from 2619. The fired clay was orange in colour with a sandy texture. There was no evidence for metalworking debris or for briquetage (salt container).

The upper fill of Grave 2197 (2200) produced half a spherical spindlewhorl (Fig. 12 above) that had been burnt. Pottery Iron Age spindlewhorls of this form are quite common but are sparsely distributed. A group of 18 ceramic examples was found at Danebury hillfort, Hants (Poole 1984, 401), and were distributed across all periods of the site. More frequently spindlewhorls are made from reused potsherds, or fashioned from bone or shale. Early Iron Age examples in bone were found at Hunsbury hillfort (Fell 1936, fig. 5). Clay spindlewhorls have also been found at All Cannings Cross, Glastonbury, Meare and Gussage All Saints, Dorset, the latter alongside bone weaving combs and triangular loomweights (Wainwright 1979, fig. 76.4033; fig. 78). More locally half a clay spindlewhorl in a slightly flatter form was found at Appleford (Hinchcliffe and Thomas 1980, fig. 8.6).

Roman fired clay

by Jane Timby

The Roman contexts produced 48 fragments of fired clay, 271 g, mainly in a dark red fabric with sparse limestone and organic matter. None of the fragments was featured.

Saxon fired clay

by Jane Timby

Similarly, the 23 pieces from Saxon contexts showed no indication of form or function, apart from one wattle impression on the piece from 1516. In contrast to the Roman material the Saxon fired clay had a fine, powdery texture with no visible inclusions. It was mainly buff in colour. Most of the pieces came from the fills of sunken-featured buildings, suggesting the likelihood of a structural function. Context 2480 produced a possible fragment of Roman tile.

Illustrated catalogue (Fig 12, burial 2200)

Clay spindlewhorl approximately 50 % complete. Diameter 44 mm, height 34 mm. Central perforation. The object is made from poorly-wedged, slightly sandy clay containing sparse fossil shell and iron inclusions. It has been burnt. Grave 2200, 2197.

ANALYSIS OF A COPPER AWL

by Peter Northover

Description

Copper awl of lozengic profile and rectangular cross-section. Small Find 4, context 3035 accompanying adult crouched inhumation. The awl is 63.5 mm long, and is thickest 2/3 of the way down the length, where it is 4 mm wide and 2.5 mm thick. The awl is not very symmetrical, the shorter end being slightly bent. Both ends appear to have been blunt points, the bluntness increased by wear and corrosion; there is no sign that either end had been widened to a chisel-like form. It is possible also that the shorter end has been reworked.

The surface is largely covered by brown earthy encrustation over a dark green patina; beneath this are light blue-green corrosion products over cuprite. In some areas the cuprite has been breached and replaced by areas of light blue-green products. The state of encrustation and corrosion has obscured any details of surface finish or use-wear.

Dating and associations

Awls have never been systematically studied but lozengic awls are generally to be associated with Beaker contexts, usually burials; later early Bronze Age awls are of the “tanged” type, with a long round-sectioned point and a shorter part with a squared-off blade-like end and often a rectangular section. With both types of awl it is often difficult to decide which end was the “tang” and which was the working part; quite possibly the tools were double-ended and were reversed as required.

Returning to the lozengic awls, two excavations in south Wales in recent years, at Welsh St Donat’s (Ehrenberg 1976) and Riversdale (Brassil unpubl. data), have both produced associations with Step 6 beakers and a date range between 2200 and 1900 BC. Closer to Abingdon, a radiocarbon date of 2330-1950 cal BC has been obtained from burial A at Amesbury 51, and a date of 2330-1950 cal BC from a burial at Radley, Barrow Hills, both of which contained lozengic awls (Needham in Barclay and Halpin 1999, 188-92 and Table 7.8). The Barrow Hills awl referred to was made of bronze, as indeed were all the awls excavated at Barrow Hills (Northover in Barclay and Halpin 1999).

The skeleton with which the Spring Road awl was associated has produced a radiocarbon date of 2460-2200 cal. BC (95% confidence: see Chapter 5, Marshall).

Analytical method

A single sample, labelled Ox 606, was drilled from one face of the awl using a hand-held modelmaker’s electric drill with a 0.7 mm diameter bit. The sample was hot-mounted in a carbon-filled thermosetting resin, ground and polished to a 1 µm diamond finish. Analysis was by electron probe microanalysis with wavelength dispersive spectrometry; operating conditions were an accelerating voltage of 20 kV, a beam current of 30 nA, and an X-ray take-off angle of 40°. Thirteen elements were sought, as listed in the accompanying table; pure element and mineral standards were used with a counting time of 10 s per element. Detection limits were typically 100-200 ppm with the exception of 400 ppm for gold.

Five areas, each 30x50 µm, were analysed on the sample; the individual compositions and their means, normalised to 100%, are shown in Table 16. All concentrations are in weight %.

Results

The awl has been formed from a slightly impure copper with 0.46% total impurities. The principal impurities recorded are 0.13% silver, 0.15% nickel and 0.08% antimony. All other trace elements were at or below their limits of detection.

There are two points to make about this composition and the first is that the awl is made of copper. Awls have often evaded analysis because of their small size, condition and possible lack of interest to some archaeologists. Among those that have been analysed the writer is only aware of two others of copper, both from Hampshire, one from Basingstoke and one from Stockbridge. Both are from burial contexts, that from Stockbridge being associated with a Beaker of Clarke's N2 form (Clarke 1970, No. 349) in the central, primary crouched inhumation in a bowl barrow. The analyses of both of these are given in Table 16, together with the compositions of early dated copper objects from Barrow Hills, Radley, Oxfordshire.

The second point is the impurity pattern. The compositions of early copper objects in Britain have recently been reviewed by the present writer (Northover 1999). They fall into two groups, the first characterised by a very consistent impurity pattern with arsenic, antimony and silver, often $As > Sb > Ag$, with an Irish origin and typical of copper axes. The other group is more heterogeneous and often contains nickel as an impurity. Much of this metal probably originated on the continent and was most probably imported as finished objects. There are several parallels including two rings from Barrow Hills with a ^{14}C date of 2510-2310 cal BC (at 58%), or 2700-2100 cal BC (at 93%). Human bone from the burial with which this awl is associated has produced a radiocarbon date of 2460-2200 cal BC (at 93%), essentially the same early horizon.

There are two further analyses, one from Barrow Hills and the Stockbridge awl, which are very similar except for a somewhat lower nickel content. Two further items from Barrow Hills, both knife dagger blades, have much higher levels of impurities, especially nickel and arsenic, which indicate a separate continental source for the metal. Because copper is so easily reworked through cutting, annealing and hammering it need not be the case that the metal was imported in its finished form. It is most probable that the earliest metal-working in southern England consisted of the reprocessing of small items of imported copper.

THE ROMAN COINS

by *Paul Booth*

Three Roman coins were recovered. All are typical issues of the second half of the 4th century AD but none is precisely dated.

1. **AE4. Imitation FEL TEMP REP falling horseman type.** c AD 353-360.
Context 1098.
2. **AE3. Valens. SECURITAS REIPUBLICAE with Victory advancing left.**
Probably Trier but mint mark illegible in detail. AD 364-378. Context 1154.
3. **AE3. Gratian. Probably GLORIA NOVI SAECULI with standing figure of emperor holding labarum.** Arles, but mint mark not clear. AD 367-375. Pit 245. The coin has been pierced, presumably for reuse in the Anglo-Saxon period, as it was found in a pit containing only Saxon pottery.

OTHER METAL OBJECTS

by *Leigh Allen and Martin Henig*

A small assemblage of metal objects was recovered from the various phases of excavation at Abingdon Spring Road cemetery. The assemblage comprises 10 copper alloy objects, 52 iron objects and 1 lead object.

The copper alloy objects include a copper awl of Beaker date (see Northover, above) and three Roman coins that are also reported on separately (see Booth, above). Many of the other artefacts (particularly the ironwork) are unidentifiable fragments of strip or sheet or undiagnostic objects such as nails and miscellaneous fittings. Most were recovered from the topsoil, tree-throw holes or from pit 2006 which contained late 19th/early 20th-century rubbish. These objects are not discussed here; a full and detailed list together with the x-radiographic plates of these objects are in the archive.

The remaining objects of interest comprise an Edward I penny (dated 1272-1307), a copper alloy brooch from context 227 (see Henig, below), part of a copper alloy unguent spoon from the 1990 evaluation (OAU Small Find 1), a large copper alloy pin with a wire-wound head that accompanied a burial, and an iron buckle frame from context 1017.

Catalogue

Disc Brooch, copper alloy. *Martin Henig writes:* The brooch has a centre that rises to a cupped stud. There are two fine incised grooves running around the inside of the raised rim and six small, plain lugs around the outside of the disc. The hinge and the catch plate are intact but the iron pin has not survived. There is a small circular perforation drilled from the back of the brooch just next to the hinge. This may have been used to suspend the brooch from a chain. Close parallels for this type of brooch exist at Kidlington, Oxfordshire (Hunter and Kirk 1952/3, 57, fig.25, no.2) where a 2nd- to 3rd-century date is suggested; and at Wakerley, Northamptonshire (Butcher 1978, 218-220, fig 57, no. 6) where an almost exact parallel was recovered from an unstratified context. Context 227

Unguent spoon or ear-scoop, copper alloy, fragmentary . The circular spatulate end from an unguent spoon or ear-scoop (D: 6 mm). The shank has a thin circular cross-section, suggesting an unguent spoon rather than an ear-scoop, but is incomplete. Roman. L: 31 mm. Unstratified

Dress Pin, copper alloy, complete. Large pin with a spherical wire-wound head. L: 53 mm. Accompanying extended burial. Decorative dress pins such as this were used from the 13th century onwards, and continued to be popular even after the advent of buttons in the 17th century. The earliest reference to drawn pins appears in the late 14th century although they are rarely found in early Medieval contexts. The earliest excavated examples come from Southampton from 13th- and 14th-century contexts, but they are much more commonly recovered from 15th-century contexts with many hundreds and thousands coming from 16th- and 17th-century contexts. They would have been used in lieu of buttons to secure veils and headdress.

Buckle, iron, complete. A plain rectangular buckle with the pin still present. Modern/post-medieval. L:29mm. Context 1017, SF -.

WORKED BONE OBJECTS

by Leigh Allen and Tim Allen, with bone identifications by Emma Jayne Evans

Introduction

A total of six worked or utilised bone objects have been recovered from the site. Three were found during grave-digging in the municipal cemetery and three from the 2000 excavations.

Catalogue (Pl. 8, Figs 10 and 39)

(Plate 8)

Gouge or hide-scrapers Mid-shaft of pig tibia. A portion of the mid-shaft of a pig tibia had several areas of polish, showing that it has been utilised. Both ends of the bone are missing, and show evidence of toothmarks, suggesting that gnawing by a dog had removed the ends. L: 180 mm. Context 2375 (posthole 2373). Middle Bronze Age from posthole 2373 in posthole arc.

This bone was submitted for radiocarbon AMS dating, and was dated to 3156 ± 40 (OXA-12377; 1520-1310 cal BC at 95% confidence; see Marshall *et al.* Chapter 5).

Middle Bronze Age worked bone implements are not very numerous on sites in southern Britain. Much larger assemblages have been recovered from late Bronze Age and early Iron Age sites such as Potterne and All Cannings Cross (Seager Smith in Lawson 2000, 222-240). In her review of the Potterne material Seager Smith comments that pig bones are more porous and liable to split than those of sheep/goat, and are only used where the bone is naturally shaped for the purpose (eg pig fibulae for bone points; *ibid.* 222-3). This appears to be borne out by the assemblage from Runnymede Bridge (Longley 1980, 27-31), in which pig bones are not represented. There are also no positively identified pig bones in the middle and late Bronze Age assemblage from Brean Down, Somerset (Foster in Bell 1990, 160-165). The use of a pig bone for an implement therefore appears somewhat unusual.

Pig is particularly common in association with late Neolithic monuments and pits, and is also associated with high status sites at later periods in prehistory. It might therefore be argued that the presence of pig in the posthole arc of a probable timber circle reflects the special context of the monument. This bone was, however, gnawed prior to deposition, and its incorporation into the posthole may therefore have been accidental rather than deliberate.

Tibiae are not the most common elements used, although amongst the Brean Down assemblage tibiae are used almost exclusively for gouges, and occasionally for awls (*ibid.* 163, fig. 114 and 161, fig. 113 no. 52). Although the ends of the bone from Spring Road are missing, and its original function is uncertain, this was most likely another 'gouge'. Alternative interpretations of these objects have included leather-working tools, particularly hide scrapers. (Fig. 10, burial 2126)

Finger ring, bone, complete.. A plain, highly polished bone finger ring with a circular cross-section, made from a cross-section of a long bone of a large mammal. The bone ring (SF 5) was recovered from the base of an Iron Age grave together with skeleton 2125. The ring is circular, with an external diameter of 24 mm and an internal diameter of 16 mm, has a circular cross-section and is highly polished all over. It appears to have been fashioned from a section of long bone belonging to a large mammal: cattle, horse or possibly red deer. Bone from the burial has been radiocarbon-dated to the 4th or 3rd centuries BC: the middle Iron Age. The ring was found in front of the skeleton, just 60 mm from the head and 200 mm from the neckD: 24 mm, Context 2124, SF 5. Iron Age

Formal burials in the Iron Age of Britain are few, except for east Yorkshire and Cornwall, and grave goods rare. No exact parallels have been found for a ring of this type in an Iron Age burial context, nor are such rings common on settlement sites, but a small proportion of the Yorkshire burials do contain rings of similar size made in other materials. Rudston Grave 183 and Garton Station Grave 7 both contained copper alloy toe rings 20 mm in diameter externally and 16 mm internally (Stead 1991, R183 find 2, 208-210 and GS7 find 1, 219-222). Unlike the bone ring, however, these had overlapping ends that were not joined. A slightly smaller iron ring of the same type was found at the neck of Burton Fleming Grave 19 (*ibid.*, BF19, find 3, 212 and 216). As finger- or toe-rings all of these have the advantage of being thin bands that were potentially adjustable. Closer to the Spring Road ring was a shale ring 29 mm in diameter externally and 12 mm internally, found in front of the feet of Burton Fleming Grave 61 (Stead 1991, BF61 find 5, 218-9). The circular cross-section of these rings would have made them more bulky to wear as rings, but would not have made

this impossible; rings of this type are still worn today. The internal diameter is appropriate for wear by adult women.

As this was found accompanying a child of only 4 or 5 years, it might have been too large to wear as a ring, and may instead have been suspended around the neck; a bone toggle was found behind the head of an adult male burial in a pit at Gravelly Guy, Stanton Harcourt in Oxfordshire (Lambrick and Allen 2004, fig. 6.1), and a number of smaller shale rings and glass beads were also found around the necks of some Yorkshire burials (Stead 1991). The object may however have been a grave-offering, not the child's possession. Other possibilities are that such rings were sewn onto clothing either for decoration or to help secure clothing, perhaps as straps, as has been suggested for the bone belt slides of the Beaker period (Clarke 1970, 299, fig.143).

(Fig. 39)

- 1 **Bone comb fragment.** Fragment from the central tooth-segment from a double-sided composite comb, possibly made of antler. Uniformly coarse teeth and parts of two circular perforations for the attachment of the connecting plate. L: 20 mm. Unstratified find from grave-digging.
- 2 **Bone point, incomplete.** Fragment from a highly polished bone point made from a splinter of long bone. The fragment is slender with a subrectangular section. L: 57 mm. Unstratified find from grave-digging.
- 3 **Antler object, incomplete.** A large point made from antler (probably red deer) is roughly worked and lightly polished at the pointed end. The other end is broken but also appears to be tapering to a point. It could be a cigar-shaped pin beater, though this is an unusually large example. Saxon or possibly Iron Age? L: 90 mm. Unstratified find from grave-digging.

Bone point, incomplete (not illustrated). A bone point with an oval cross section tapering to a rounded slightly flattened tip, made from a splinter of long bone. The other end of the point is broken. There appears to be the beginnings of a groove or a narrowing just at the point of the break.

L: 34 mm, ctx 2348. Undated

GLASS

by Rachel Tyson

The excavations of 2000 produced 49 glass finds of jars and bottles, the majority coming from a late 19th- to early-20th-century rubbish pit in Area 8. This late glass has not been researched further in accordance with the research aims as specified in the post-excavation assessment and research design. In addition, two globular glass beads, one blue and one turquoise, were recovered from unstratified contexts during grave digging in the cemetery and are discussed below.

Globular monochrome ‘cobalt blue’ beads were very common throughout the Roman and early medieval periods, and as early as the Iron Age, and they cannot be distinguished without chemical analysis (Guido 1999, 47-8 and 1978, 70). Given the presence of Roman and Saxon archaeology on the site, the Spring Road bead could be from either period. Turquoise beads are less common, but occur more frequently in Anglo-Saxon contexts (Guido 1999, 236 and 252-4), which perhaps makes it more likely that this bead dates between the 5th and 7th centuries. They were made using the same colourants as green glass, but in differing conditions (Bayley 1999). The distinction between green and turquoise is often quite subjective, making it difficult to compare these beads through written descriptions. The presence of only two beads is too small a sample to confirm a higher or lower status.

Catalogue

- 1 **Globular translucent ‘cobalt’ blue bead**, complete. Wound, with circular perforation 3 mm in diameter. Height 12 mm. Diameter 11 mm. OCMS 1994.29
- 2 **Globular translucent turquoise bead**, complete Wound, with circular perforation 3 mm in diameter. Height 8-9 mm. Diameter 9 mm. OCMS 1994.29

Chapter 4: The Environmental Evidence

HUMAN SKELETAL ASSEMBLAGE

by Peter Hacking and Angela Boyle

Introduction

A total of five skeletons were recovered from four graves during the 2000 excavations. These comprised a young adult female in Area 5 (skeleton 3036) dated by a mean of three radiocarbon determinations to 2460-2200 cal BC (95% confidence, see Chapter 5, Marshall), and a group of three inhumations in Area 9 (skeletons 2199, 2243 and 2125), consisting of two young men and a child aged 4-5 years, the last accompanied by many of the bones of a 3-month old infant. All of the three largely complete inhumations were dated by radiocarbon to the middle Iron Age, that is, the 4th-3rd centuries BC (95% confidence, see Chapter 5, Marshall).

Condition

The graves were cut into gravel terrace deposits, and the grave fills were generally friable sandy silts. In consequence the bones are generally in good or very good condition even where retrieval was incomplete. Excavation was careful, and there was little evidence of modern breakage of the bones.

Methodology

Adult individuals were aged by combining a number of different methods. These were dental attrition (Brothwell 1981, 72), pubic symphseal ageing (Suchey and Brooks 1990) and auricular surface ageing (Lovejoy *et al.* 1985). Sub-adults were aged according to degree of epiphyseal fusion, long bone length (Scheuer *et al.* 1980; Workshop 1980; Brothwell 1981; Bass 1987) and dental development (Van Beek 1983). The sexing of adult individuals was based on pelvic and skull morphology and metric data (Workshop 1980). In keeping with standard practice no attempt was made to sex sub-adults. Stature was calculated using the regression formulae of Trotter and Gleser (1952, 1958; reproduced in Brothwell 1981, 101). The dental notation employed was as follows:

/ post mortem loss	X ante mortem loss
C caries	A abscess
NP not present	U unerupted
E erupting	PE pulp exposed
k calculus	- alveolus and tooth absent

Stature

It was possible to calculate stature for the Beaker female and for both of the Iron Age adult males. Skeleton 3036 was 1.52 m (4' 9") in height. An adult female skeleton (8772) of broadly comparable date range from Yarnton was 1.54 m in height (5'0").

The height of skeleton 2243 was 1.68 m and that of skeleton 2199 was 1.70 m. The results have been compared with data from Danebury (Hooper 1984), Poundbury (Molleson 1982), Wetwang Slack (Dawes unpublished), Maiden Castle (Goodman and Morant 1940), Deal (Anderson 1995), various Yorkshire Sites (Stead 1991), Suddern Farm (Hooper 2000) and various Upper Thames Valley sites (see Table 18). The average for 6 male skeletons at Yarnton (see Table 18) was 1.684 m with a range of 1.593-1.780 m. Male height at Spring Road compares most favourably with Yarnton and Maiden Castle.

Skeletal pathology

Trauma

Skeleton 2199 has a united fracture of the left fifth metacarpal which has healed with only minor deformity. There is also evidence of a possible puncture wound on the left distal femoral shaft and associated periostitis which is a skeletal response to infection. The periosteal membrane surrounding the cortex of the bone becomes ossified.

Skeleton 2199 has a benign exostosis on the left emarginate patella, probably ossified muscle which is the result of localised trauma.

Osteochondritis dissecans

Osteochondritis dissecans affects the left femur of skeleton 2243. This condition occurs quite frequently in skeletal material and involves fragmentation and collapse of the joints of the skeleton. It affects young individuals, usually male, in the first decade of life, and is the result of death of bone tissue from significant obliteration of the

affected area's blood supply. The knee is affected in 80% of cases, usually with an underlying traumatic aetiology. The necrotic fragment of bone separates and may remain loose in the joint, may become absorbed or may heal back into the defect (Roberts and Manchester 1995, 87).

Cribræ orbitalia

Skeleton 3036 has a mild degree of cribræ orbitalia affecting the right orbit which is suggestive of anaemia. Iron is needed for the development of haemoglobin in newly formed red blood cells in bone marrow, but in anaemia a person's red blood cells become pale and small, and they have a much shorter life span (up to half the normal 120 days). Iron is usually stored in the liver and the spleen when old blood cells are broken down. Around 90% of the iron in old blood cells is needed to form new cells and as iron deficiency develops, these stores are depleted while the body attempts to absorb increased amounts of iron. Apart from being needed for haemoglobin formation in red blood cells, and hence transfer of oxygen to the body cells, iron is also necessary for transmission of nerve impulses, for collagen (protein) synthesis, and contributes to the strength of the immune system.

Iron is found in high quantities in red meat, vegetables and shellfish, and is absorbed via the intestines. Iron from plants is harder to absorb, and compounds called phytates in staple cereal crops, such as maize, inhibit iron absorption (whereas vitamin C aids absorption).

Excessive blood loss through injury, chronic disease such as cancer and parasitic infection of the gut probably had a large part to play in causing iron deficiency anaemia. Iron deficiency is aggravated by infection. It is believed that the process of infection leads the body to withhold iron from the pathogens which need it to survive and reproduce in the body; thus making the body iron deficient.

Characteristics of the disease include fatigue, pallor, shortness of breath and palpitations. In more severe forms gastro-intestinal disturbances and abnormalities in the skeleton occur. The bone changes probably only occur in childhood although adults do display the lesions. These changes are the result of the body's attempt to produce more red blood cells in the marrow to compensate for lack of iron. Apart from the (external) skull lesions, particularly seen on the parietal and occipital bones, the orbital roofs are affected in the form of holes in the bone surface (cribræ orbitalia). The skeletal changes appear to come in two forms: the orbital lesions alone and both orbital and vault lesions

together - the bones are often symmetrically affected and the vault lesions do not tend to occur without the orbits being involved. Among archaeological populations in Britain the vault lesions are less common than the orbital lesions. Vault lesions occur when the deficiency is more severe.

Cribrra orbitalia was seen in three of the thirty three Neolithic and Bronze Age skeletons from Radley Barrow Hills (Boyle in Barclay and Halpin 1999, 172-3), an incidence of 9%. Adding the woman from Spring Road, it would appear that anaemia was relatively common in the local early prehistoric population.

Uncertain aetiology

The left humerus of skeleton 2243 is 1.6 cm shorter than the right and all the left arm bones are more slender, ie less robust, than the right. The difference may simply indicate greatly predominant right handedness, or underdevelopment of the left arm associated with muscular wasting.

Dental pathology

The rates for dental caries, abscess and ante-mortem loss appear in Table 19 where they are compared with those on some other Iron Age sites. None of the rates for the small group are particularly unusual. The low rate of antemortem loss is probably a reflection of the young age at death of the individuals.

Dental caries

Skeleton 2199 has three carious cavities. Dental caries is a destruction of enamel, dentine and cement resulting from acid production by bacteria in dental plaque, ultimately leading to the formation of a cavity in the crown or root surface. Usually caries progresses slowly (chronic caries) and arrested or remineralizing phases alternate with more active phases, so that a cavity may remain stable for months or years (arrested caries). Rapidly progressive destruction (rampant caries) is rare and characteristically results in the loss of most erupted tooth crowns in a child's mouth (Hillson 1996, 269).

Dental abscess

Skeleton 2199 has two abscesses. Abscess formation can occur as a sequela of dental caries or if an individual develops periodontal disease and a periodontal pocket. This is initiated by the accumulation of plaque between the soft tissue of the gum and teeth

(Hillson 1996, 306). Once micro-organisms accumulate in the pulp cavity, inflammation begins and a body of pus (comprised of dead cells and bacteria) collects and is termed an abscess. This can track to the apex or base of the tooth root and into the surrounding tissues. As the pus accumulates, pressure builds up and eventually a hole, or sinus develops on the surface of the jaw bone to allow the pus to escape.

Enamel hypoplasia

Several of the teeth of skeleton 3036 have enamel hypoplasia which is indicative of episodes of arrested growth in early childhood. The condition is a developmental defect in the enamel of the dentition which can be related to generalised disturbances during the growth period. Although a number of workers have defined methods for estimating the timing of enamel defects (eg Schultz and McHenry 1975; Goodman *et al.* 1980) there are drawbacks and these are discussed elsewhere (Goodman and Rose 1990; Hillson 1996, 172-176).

Non-metric traits

Some non-metric traits probably have a genetic background while others are more likely to be influenced by environmental factors. At present there is very little data and much larger samples are required (especially for prehistoric material) either from large cemeteries or by pooling data from numerous small assemblages (Brothwell and Zakrzewski 2004, 28). Thus, non-metric traits are listed in Table 17 but are not discussed here.

Meric and Cnemic indices

The shape of the proximal shaft of the femur is expressed as an index calculated from the antero-posterior and transverse diameters. This index, known as the meric index, is a measure of the antero-posterior flattening of the bone below the sub-trochanteric portion of the shaft. An index of above 85.0 indicates eurymeria; from 75.0-84.9 indicates platymeria, a flattening frequently noted in earlier populations (Hooper 2000, 169), and an index of below 74.9 is indicative of hyperplatymeria, a more extreme antero-posterior flattening. Skeleton 2199 can be classified as hyperplatymeric. At Yarrnton the majority of adults are platymeric or hyperplatymeric (Boyle forthcoming).

With the tibia, the transverse flattening of the bone at the level of the nutrient foramen is indicated by the cnemic index, calculated from the projective transverse and

maximum antero-posterior diameters. An index of above 70.0 indicates eurycnemia; from 63.0-69.9 indicates mesocnemia; from 55.0-62.9 indicates platycnemia, a condition also found frequently in earlier populations sometimes in association with platymeria; and an index of below 54.9 is indicative of hyperplatycnemia. Skeleton 2199 can be classified as eurycnemic. At Yarnton there is a range of variation: hyperplatycnemic, platycnemic, mesocnemic and eurycnemic.

Platymeria has been ascribed to a number of different causes, including excess mechanical stresses upon the bone during childhood and adolescence and as a physiological response to calcium or vitamin deficiencies in the diet. Various explanations have also been advanced for platycnemia, including as a response to habitual squatting.

Catalogue

Beaker period

Skeleton 3036

Age: 20-24 y

Sex: Female

Stature: 1.52 m tall.

Preservation and completeness: The right parietal, temporal and maxilla and the right half of the frontal; the mandible is incomplete. CV1 and 2 are incomplete and only the neural arches are preserved from CV3 to TV2. TV3-6 are incomplete, but all the vertebrae from TV7 down to and including the sacrum are present. Manubrium and sternum. Two complete left mid ribs and many fragments up to 100 mm in length. Upper right limb complete apart from the carpals and 1st metacarpal. Left: parts only of the clavicle, radius, ulna and 2nd to 4th metacarpals. 11 phalanges. Both lower limbs complete from pelvis to metatarsals apart from an absent right patella and a damaged right femur. Four phalanges.

Non-metric variation: A right acromial ossicle, and tibial squatting facets.

Skeletal pathology: The right orbital roof shows a mild degree (Stage 1) of cribra orbitalia which is suggestive of anaemia.

Dental pathology: Several teeth show enamel hypoplasia which indicates episodes of arrested growth in early childhood.

Dentition:

8 7 6 5 4 3 2 1	1 - - - - -
8 7 6 5 4 3 2 1	1 2 3 4 5 6 - -

Iron Age

Skeleton 2125a

Age: 4-5 years.

Preservation and completeness: The vault is partly fragmented but almost complete and the petrous temporals, maxillae and mandible, including the dentition, are also nearly complete. Spine. CV 1 and 2, the separate bodies and neural arches of 3 other cervical, 10 thoracic and 3 lumbar vertebrae. Three pieces of the sacrum.

Approximately 60 rib fragments, 3-9 cm long. Three pieces of the manubrium and sternum. The right clavicle, the glenoid portions of both scapulae, both pelvic ilia and ischia and the right pubis. The humeral, femoral, tibial, right radial and left fibular diaphyses are virtually complete and measurable. The ulnae, left radius and right fibula are fragmented, as are six metacarpals and six metatarsals. Eighteen phalanges (13 hand, 5 foot). There are unfused proximal and distal femoral and distal tibial epiphyseal centres.

Age estimation from the teeth suggests 4+/-1 years, and from the diaphyseal lengths 5+/-1 years.

Skeleton 2125b

Bones of a second child were found within this context, condition poorer. Long bone length of a complete left femoral diaphysis (90 mm) indicates an infant aged approximately 43.2853+/-2.08 weeks (Scheur *et al* 1980). Also present were the distal right femur, both proximal tibiae, six other long bones, six ribs and two skull fragments.

Dentition:

U	
- e d c b a	a / c d e 6
6 e d c b a	/ b c d e 6
U	U

Skeleton 2199

Age: 20-24 y

Sex: male

Stature: 1.70 m tall.

Preservation and completeness: Skull and mandible complete except for a left parieto-temporal defect (post-mortem). Spine complete but with some damage to TV 1-4.

Ribs and sternum almost complete but many ribs are broken post-mortem. Left scapula fragmented, otherwise complete shoulder and pelvic girdles. All major long bones are complete and measurable. Some carpals are missing but the tarsals, metatarsals and metacarpals are complete. In all 25 hand and 18 foot phalanges survive.

Skeletal pathology: A fracture of the shaft of the left 5th metacarpal had united soundly with minor deformity. There is a 5 x 2 cm area of periostitis on the posterio-medial aspect of the left distal femoral shaft. At its centre is a small opening into the cortex - probably the result of penetration by a fine sharply pointed implement with surrounding inflammation. It is noteworthy that the left leg (Fem+Tib), at 82.5 cm, is 1.5 cm longer than the right. This could be just natural variation but it could possibly result from increased vascularity during adolescence, associated with the inflammation. Radiography did not show any retained opaque foreign body or underlying osteitis. By itself the abnormality would not be fatal but it might have led to a complicating septicaemia. A small benign exostosis is present on the emarginated left patella.

Non-metric variation: Right epipteric bone, enlarged right posterior condylar canal, spina bifida occulta at SV1. Femoral head and neck variations: bilateral, Allen's fossae and third trochanters, tibial squatting facets, left emarginate patella, right accessory navicular.

Cranial index: 74.2 - just long headed

Nasal index: 40.7, narrow

Orbital index: 94.6, narrow

Palatal index: 65.2, narrow

Dentition:

C A C	A C C
8 7 / 5 4 3 2 1	1 2 3 4 / X 7 8
8 7 6 5 4 3 2 1	1 2 3 4 5 6 7 -

Skeleton 2243

Age: 19-21 y

Sex: Male

Stature: 1.68 m.

Preservation and completeness: The skull and mandible are missing apart from one fragment of occipital, otherwise the skeleton is virtually complete. Spine: All the vertebrae from CV4 to LV5, and the sacrum are present and are normal apart from opposing Schmorl's nodes at T7/8. The clavicles and scapulae are incomplete. The humeri and radii are complete and the ulnae lack only their distal ends. The metacarpals, most of the carpals and 20 phalanges are present. The pelvis, femora, tibiae, fibulae, patellae, tarsi and metatarsi are complete, with 12 phalanges.

Non-metric variation: Bilateral acromial ossicles, femoral third trochanters and tibial squatting facets.

Skeletal pathology: There is osteochondritis dissecans of the left femur, shown by a 10 x 8 mm defect in the articular cortex of the medial condyle. A small, 3 x 2 mm, hole is present in the posterior facet of the calcaneum. It is not typical of osteochondritis dissecans, and its cause is uncertain. Both humeri are relatively short – radio-humeral index Rt 80.5, Lt 86.2; the left humerus is 1.6 cm shorter than the right and all the left arm bones are more slender, ie less robust, than the right.

Discussion

The young woman of Beaker age (skeleton 3026) seems to be of average stature within this group. She did not live to old age, but there is no direct indication of the cause of death from the bones. The teeth do however indicate episodes of arrested growth, possibly due to poor diet, which is all the more likely given the evidence of anaemia. This suggests that this individual would have had low resistance to disease and general poor health. A female of comparable date from Gravelly Guy was of comparable age when she died (skeleton 4013/9, 20-25 years) although no cause of

death was apparent and there was no evidence that she had a poor diet when alive (Harman in Lambrick and Allen 2005, 459).

Although only three have been excavated, this group of purpose-dug graves can be described as a small cemetery of 4th or 3rd century BC date. In addition to the dated skeletons, there were at least two more crouched burials, one some 60 m to the west accompanied by sherds of early Iron Age pottery, another a similar distance to the north-west in 1999. Given the presence of a Beaker crouched burial accompanied only by an awl, it is clearly impossible to be certain that the latter grave was not Bronze Age or even Neolithic, but further Iron Age burials on the site seem probable. The group of recorded burials is too small to provide any useful information on population characteristics. A table of Iron Age burials from the Upper Thames valley is provided to illustrate the comparative data currently available (Table 17).

ANIMAL BONES

by Bethan Charles

Introduction

A total of 2123 fragments of hand-collected animal bone was recovered from the excavations, 1935 from the 2000 excavations, a further 170 fragments from excavations in 1994 and 18 fragments of bone from the evaluations in 1990. In addition 1745 fragments of bone were recovered from sieving using meshes of >10 mm, 10 - 4 mm and 4 - 2 mm as appropriate. The small mammal bones, mostly recovered from sieving, are dealt with in a separate report by Mark Nokkert.

Condition

The majority of the bones from the site were in good condition with little attritional damage. However, many of the bones were quite fragmented, either as a result of butchery or of damage during burial and excavation. Some of the damaged bones were re-assembled, reducing the total of hand-retrieved fragments from 2123 to 1957 and the sieved material from 1745 to 1578 fragments.

Many of the bones had butchery marks, most of these occurring on bones from the Saxon deposits (primarily from contexts 2672 and 2673). These included both bones with dismembering chop marks and those with defleshing cut marks.

A small number of bones from most periods had been burnt, the greater number of which were fragmented and came from the sieved material. There was no clear patterning to the burnt bones, and the only concentration was in the Neolithic pit 2622 (53 fragments).

Many bone fragments had canine tooth marks on the shafts. These were from Bronze Age, Iron Age, Romano-British, Saxon and undated deposits (see for instance Plate 8). It is therefore likely that dogs have not only destroyed many of the bone elements, but may also have affected the spatial distribution of the bones by dragging bones across the site.

Very few of the elements had signs of pathological changes. A single sheep astragalus from a Romano-British deposit had minor signs of eburnation on the articulating surface.

Methodology

The total fragment method was used to calculate the proportions of the species recovered from the site. All fragments of bone were counted including elements from the vertebral centrum, ribs and long bone shafts. The vertebrae and ribs were identified to species and made up a substantial proportion of the identified elements. In addition the minimum number of individuals (MNI) may be calculated for the main domestic species depending on the size of the assemblage following the calculations suggested by Chaplin (1971). MNI was calculated using the most commonly identified fragments of bone from each species for each phase.

An attempt was made to separate the sheep and goat bones using the criteria of Boessneck (1969), Prummel and Frisch (1986) in addition to the use of the reference material housed at Oxford Archaeology. Since, however, no goat bones were positively identified all ovicaprine bones have been recorded as sheep.

The ageing of the animals was based on tooth eruption and epiphyseal fusion. Silver's (1969) tables alone were used to give timing of epiphyseal closure for cattle, sheep, pigs and horses. The number of elements recovered did not provide meaningful information on the ages of the animals from the epiphyseal closure of the bones. All data is recorded in the primary record sheets. Sheep tooth eruption and wear was measured using a combination of Payne's (1973) and Grant's (1982) tables. Cattle tooth eruption and wear was measured using the tables of Halstead (1985) and Grant (1982). Pig tooth eruption and wear was measured using Higham (1967), Bull and

Payne (1982) and Grant (1982), as defined by Hambleton (1999). Only the mandibles from the Neolithic pit and the Saxon deposits were complete enough for measurement.

The sex of the animals was ascertained from indicative fragments of bone where preservation allowed. Metrical data was recorded on all suitable complete and fragmented bones as defined by von den Driesch (1976). Not enough elements were recovered to provide a meaningful comparison with the data from the main domestic species from other local sites.

Results

The majority of the earliest material from the site came from the Neolithic pit (2622) and feature 3506. This consisted mostly of pig bone with a small amount of sheep and cattle bone (Tables 20 and 21). The cattle and sheep bone from the pit consisted mostly of teeth and rib fragments. Two of the pig mandibles from the pit were complete enough to indicate the age at death having been between 7 and 14 months of age. The scapula of a very young pig was also identified. The remainder of the bone from the pit was small fragmentary pieces that were not identified to species. Environmental samples taken from the pit produced additional material from sieving and included fragments of immature sheep and pig bones.

Sheep and cattle bones, although in very small numbers, were the main species identified from the late Bronze Age, Iron Age and Romano-British features. Pig bones were only present in the Roman deposits and from sieved Iron Age deposits. This may indicate that pig did not contribute greatly to the diet during these periods. Horse bones were recovered from both the Iron Age and Romano-British deposits including a metatarsal from a Romano-British pit (2299) with knife marks around the proximal articulation. Of the dog bones identified in the Roman deposits two were skull fragments (found within pit 2650 and ditch 1627). No butchery marks were identified on the dog bones.

The majority of the animal bone from the site came from the Saxon deposits (Table 20). Most of this came from within sunken-featured buildings 2008 and 2687, which contained over half of the Saxon bones. Table 23 shows a breakdown of the numbers of bones (excluding small mammal bones) recovered from these features. The deposits contained mostly cattle, sheep and pig bones. Elements recovered consisted mostly of butchery refuse including fragments from the skull, foot bones,

vertebrae and ribs. There did not appear to be any pattern in the deposition of the material and it is most likely a combination of butchery and domestic waste.

Tables 24, 25 and 26 show the tooth wear stages of the cattle, sheep and pig mandibles from the Saxon deposits. Table 24 shows that most of the cattle killed were young animals. It is possible that only a small number of the cattle were kept until adulthood with the majority raised for meat and killed at a younger age.

Some of the sheep also appear to have been killed at an early age. This may have been part of a culling process so as not to have to care for a large flock over the winter months. However, it is clear that some animals were kept until much older, as breeding stock, and for their secondary products such as their milk, wool and dung.

All of the pig bones from the Saxon deposits came from young animals, the majority of which were less than one year of age. Pigs are generally not kept longer since they provided little in the way of secondary products.

Four fragments of Red deer antler were identified from the Saxon deposits as well as one fragment of dog bone. All of the antler fragments had knife marks and it is likely that they represent waste from working; the worked bone objects from the site include part of a bone comb probably made from antler (Fig. 39.1), and a probable pin-beater of antler (Fig. 39.3).

Discussion

The material from the Neolithic period is almost all from a single late Neolithic pit. The majority of the bones were pig bones, and this fits the pattern of bone recovered from other pits associated with Grooved Ware in the Upper Thames (and beyond), and reinforces the importance of pig in this period (Grigson 1982). Whether this reflects their importance in the economy as a whole, or their particular significance in ceremonies that involved the digging of pits and the deposition of bones within them, as suggested at Radley Barrow Hills (Levitan and Serjeantson in Barclay and Halpin 1999, 239), is uncertain. The character of the finds from the majority of such pits suggests the cultural selection of material for deposition, and the material in this pit is no exception (see also Chapter 7 Discussion: the Mesolithic and Neolithic evidence).

The presence of sheep and cattle is also consistent with the bones from other pits of this period, but there are too few to indicate anything about animal husbandry.

The small number of bone identified from the late Bronze Age, Iron Age and Romano-British features does not provide much information regarding the economy

of the site during these periods. It appears that sheep and cattle provided the majority of the meat with sheep being the most numerous animals kept at the site. Excavations at Ashville Trading Estate just across the Larkhill Stream (Wilson 1978) also demonstrated the prevalence of cattle and sheep in deposits from these periods. Bones of sheep were the most numerous in all periods.

Although there is no clear evidence for Romano-British buildings at the site the animal bone does suggest that activity may have been concentrated in the triangular area between ditch groups 1626/2710 and 1627/2709 and in the area around posthole groups 2715 and 2716. This is suggested by the presence of better-preserved and larger deposits of animal bone and burnt material, presumably derived from fires around the site. The gnawed elements are less able to provide information about the origin of activities on the site, since they are likely to have been scattered by dogs. The character of the features found on site (ie ditches and postholes rather than large sealed pits) has contributed to the poorer preservation of the bones of this period, but the small number of bones found suggests that the main areas of Romano-British inhabitation and intensive deposition occurred outside the limits of the excavation area.

The main domestic species identified from the total number of fragments collected from the Saxon deposits were cattle, sheep and pig. The numbers of bone fragments suggest that cattle and sheep were more numerous than pigs, but the MNI data indicates that pig may have provided a larger proportion of the meat (Table 21). The higher numbers of cattle and sheep bones may be a result of the better preservation of these bones than pig bones, which tend to be more porous and fragile. Most Anglo-Saxon assemblages show cattle and sheep to be the most dominant species in this period (Bourdillon and Coy 1980, Crabtree 1994), although it has been suggested by Clutton-Brock (1979) that pigs were more common on small-holdings. The right of pannage would have allowed the farmers to graze the animals in surrounding woodland. It should be borne in mind, however, that the majority of the bones from both the hand-collected and sieved assemblages were recovered from two features and may not be representative of the refuse typical on the site.

Very few medieval and post-medieval bones were recovered, and it is likely that the majority of those recovered from the medieval gravel pits were residual, like the pottery found within these features. Due to the small bone assemblage and its character little can be said about animal husbandry on the site in these periods.

SMALL ANIMAL REMAINS

by Mark Nokkert

Introduction

This report discusses the bird, small mammal (rodent), amphibian and fish remains recovered by hand-collection and sieving (>10 mm, 10-4 mm and 4-2 mm) during the 2000 excavations. No such bones were recovered from the earlier excavations on the site.

The excavations revealed features and artefacts dating from the Mesolithic to the Saxon period (OAU 2001). While a small number of the animal remains discussed here originate from a Neolithic pit, and one from a medieval pit, the majority belong to the early to middle Saxon period, most coming from the fills of two early Saxon (6th century) sunken-featured buildings.

Methodology

The animal bones were identified and recorded at the Centre for Applied Archaeological Analyses (CAAA), Department of Archaeology, University of Southampton. All anatomical elements were identified to species, element and size where possible with the exception of ribs and vertebrae that were assigned to size categories only. Mandibles and limb bones from mammals and birds were recorded using the zoning method as developed by Serjeantson (1996). These identifications produced a basic fragment count or Number of Identified Specimens (NISP), as well as a Minimum Number of Individuals (MNI), based on the most numerous (zone of an) element for each taxon found, taking side and size into account. Presence or absence of butchery marks, burning, and gnawing was also recorded, plus the most likely gnawing agent, the types of butchery marks and the colour of burning marks. Measurements of mammal bones followed von den Driesch (1976), and measurements of bird bones Cohen and Serjeantson (1996).

Frogs were distinguished from toads on the basis of the morphology of the ilium. All other amphibian remains were merely classified as 'Amphibian'. The goose remains were all of a size suggestive of domestic goose. Some were clearly domestic goose, others could only be characterised as 'Greylag/domestic goose'. Of the Galliforms several relatively complete elements could be positively identified as

domestic fowl, based on the criteria of Cohen and Serjeantson (1996); other remains could only be identified to 'Galliform'. Since no other galliform was identified, it can be assumed that all galliform remains are from domestic fowl.

Results

The overall preservation of the animal remains was good to very good. The remains were, however, sometimes rather fractured, predominantly damage sustained during excavation and processing. Despite this, a considerable number of bones provided metrical data; these are listed in the appendix.

A total of 141 bones was recorded. Remains of the following species could be identified: cf. pine marten, *Martes* sp.; house mouse, *Mus musculus*; water vole, *Arvicola terrestris*; domestic fowl, *Gallus gallus*, domestic goose, *Anser* sp., cf. blackbird, *Turdus* sp.; frog, *Rana* sp.; toad, *Bufo* sp.; eel, *Anguilla anguilla*. The results are discussed according to phase and are shown in Table 27.

Neolithic

A Neolithic pit (fill 2619 in context 2622) contained two elements (mandible, radius) belonging to a marten species. The size of the elements found is slightly larger than the remains of pine marten in the reference collection. No remains of the slightly larger stone marten, *M. foina*, have been identified in archaeological deposits in Britain to date, and it is thought that this species never reached Britain (Yalden 1999, 86). Therefore, the marten remains found are most likely to be from the pine marten. It is unclear whether this animal would have been part of the diet, although the animal may have been highly valued for its fur.

Early Saxon

The majority of the remains belonged to the early Saxon period. Most were recovered from contexts 2672 and 2673, deposits within one of the 6th-century Saxon sunken featured buildings (SFB 2687). The remainder of the animal remains from this period originate from other contexts in the two sunken featured buildings: contexts 2010 and 2479 (SFB 2008), plus 2686 and 2703 (SFB 2687), as well as a few remains from a pit 1113 (fill 1123).

A somewhat wider variety of species could be found within these remains, especially from the sieved deposits. Domestic fowl clearly were most commonly

encountered (MNI = 4), followed by domestic goose (MNI = 1). One of the domestic fowl was probably a male, evidenced by a tarsometatarsus showing a well-developed spur. Table 28 gives an overview of the body part representation of the domestic fowl and domestic geese remains.

Very few remains of wild animals were encountered. One bird bone was recovered, probably from a blackbird. Such birds are likely to have been very common around settlements, and may have been attracted by the easy pickings available at human habitation sites. Thrushes were commonly eaten during the medieval period (Hammond 1993, 50 and 130) and it is, therefore, possible that thrushes and similar small birds were hunted during the Saxon period. Alternatively the blackbird may have been a natural casualty.

Despite an extensive sieving program, only one identifiable fish bone was found: a cleithrum of an eel (*Anguilla anguilla*). This shows that some freshwater fishing was taking place, but this was probably a relatively rare activity. Eels were either caught in fish traps or may even have been kept in fishponds, as is known for the medieval period (Hammond 1993).

Other wild remains found were primarily from small rodents, of which the following species could be positively identified: a house mouse (*Mus musculus*) and a water vole (*Arvicola terrestris*). It is likely that all small rodent remains were accidental deaths on site, and were not necessarily the result of human consumption or other human interaction.

The remains of amphibians, representing at least two toads (*Bufo* sp.) and one frog (*Rana* sp.) are most likely accidental pit fall victims, and, therefore, were also not part of the diet. This is supported by the lack of any butchery marks on these remains, plus the general complete state of the bones.

The analysis of the small animal remains confirms the patterns seen in the large mammal bones (see Charles this report) with a few butchery marks, but only one gnawing and burning mark. All five were from the Saxon deposits. A coracoid of a Greylag/domestic goose (context 2673) showed both cut marks and a chop mark. A humerus of a Greylag/domestic goose (context 2686) showed a cut mark. A rib of a rabbit-sized small mammal bone (context 2673) showed a cut mark. A pelvis of a domestic fowl (context 2703) showed teeth imprints of a cat-like creature. Finally, an unidentified bird bone was partly blackened.

Medieval period

One ulna of a domestic fowl was found in fill 1141 of medieval pit 1139. The bone may have been residual.

Conclusion

The assemblage of the small animal remains confirms Charles' observations that wild animals were very insignificant in the diet of the Saxon inhabitants of the site. Most small animal remains were from domestic fowl and domestic goose. Both species were probably highly valued for their meat, feathers and eggs. Hunting for wild mammals and birds or fishing was probably carried out only sporadically. The remains of small rodents and amphibians are all likely to be natural deaths.

The high reliance on domestic animal species is probably a general Saxon feature, but wild animal resources may have been somewhat more commonly exploited in rural contexts (Coy 1982).

CHARRED PLANT REMAINS

by Mark Robinson

Introduction

Extensive sampling was undertaken for charred plant remains during the excavation. Following assessment, the potential for further work was identified for samples from two early Saxon sunken-floored buildings. It was also decided to analyse samples from a late Neolithic pit containing Grooved Ware and to record the presence of charcoal taxa from all the periods of the site to see if there was any change in wood exploitation over time.

Methods and results

The samples were floated using a flotation machine and the flot retained on a 0.3 mm mesh. Residues were sieved to 1 mm to ensure that flotation had been effective. The dried flots from the six samples analysed in full were sorted under a binocular microscope and the remains identified. The results for charred material other than charcoal are given in Table 29. Up to four of the richest flots from each period were selected for charcoal identification. They were scanned under a binocular microscope to enable a representative range of charcoal to be picked out for detailed identification under an incident-light microscope at magnifications of up to x400 as appropriate. The

abundance of the charcoal identified is recorded in Table 30. Nomenclature follows Clapham *et al.* (1987).

Interpretation

Charred Seeds

Remains were sparse from the two samples from the late Neolithic pit (Samples 20 and 21) but both contained a few nut shell fragments of *Corylus avellana* (hazel). This is typical of pits with Grooved Ware, although there is much debate about the importance of nuts in the diet (Robinson 2000). Each sample also contained a single cereal grain, that from Sample 20 being a short free-threshing grain of *Triticum* sp. (rivet or bread wheat). While such remains would be entirely plausible in a Neolithic context, the assessment showed that there was some contamination of prehistoric deposits with charred grain, including this type of wheat, reworked from a Saxon occupation spread.

The concentration of charred remains in the samples from the two sunken-featured buildings (Samples 19, 22, 23, 34) was, at around one item per litre, relatively high for early Saxon contexts. The majority of the remains were cereal grains. Two crops could be identified with certainty: a short-grain free-threshing variety of *Triticum* sp. (rivet or bread wheat) and hulled *Hordeum vulgare* (six-row hulled barley). Barley slightly outnumbered wheat but only about half the grains could be identified. A few grains of *Avena* sp. were also present but it is uncertain whether they were from cultivated or wild oats. Chaff was absent apart from a single fragment of *Hordeum* sp. (barley) rachis from Sample 22. The grain had perhaps become charred as a result of minor accidents when grain was being dried to harden it for grinding.

The charred assemblages from sunken-featured building (SFB) 2008 (Sample 19) and SFB 2687 (Samples 22, 23 and 34) were relatively similar in their composition of cereal grain. However, the samples from SFB 2687 also contained some other food plant remains and many more weed seeds. There were a couple of nut shell fragments of *Corylus avellana* (hazel). There were also some seeds of a large legume likely to have been a cultivar. They could not be identified with certainty but were probably either *Vicia faba* (bean) or *Pisum sativum* (pea).

The crop species identified were all important in the upper Thames Valley during the early Saxon period (Robinson and Wilson 1987, 75). There is no evidence as yet for the continuation of spelt wheat cultivation in the region beyond the end of the Roman

period. However, recent discoveries have shown that there was a Saxon revival in the cultivation of *Triticum dicoccum* (emmer wheat) in the region (Pelling and Robinson 2000). Hulled wheat was absent from the Saxon deposits at Spring Road even though spelt wheat was noted in a Roman ditch.

Weed seeds were abundant in some of the samples. They had probably been derived from more than one source. *Brassica rapa* ssp. *campestris* (wild turnip), *Vicia* or *Lathyrus* (vetch or tare) and *Rumex* sp. (dock) all readily grow as weeds of arable cultivation. They had perhaps been derived from crop cleaning. *Eleocharis* S. *Palustres* sp. (spike rush) is a plant of marshy pasture whose seeds frequently occur with charred crop-processing remains. Its seeds were the second most numerous weed seeds after *Rumex* sp. in the Saxon samples. It is possible that the seeds were from a cereal crop which had been grown on very wet ground. However, it is also possible that *Eleocharis* and *Rumex* spp. had been amongst cut vegetation brought to the site, for example as litter for domestic animals. Finally, stones of *Prunus spinosa* (sloe) and *Crataegus monogyna* (hawthorn) are thought likely to have been from fruit amongst twiggy material used as fuel, rather than food waste.

Charcoal

The samples from the late Neolithic pit with Grooved Ware (Samples 20, 21) were mixed. *Quercus* sp. (oak) predominated but *Corylus avellana* (hazel) and Pomoideae were also present. The samples from the middle Bronze Age timber circle (Samples 24, 26, 30 32) only contained very small quantities of *Quercus* charcoal. *Quercus* sp. predominated in the Iron Age samples (Samples 3, 16, 17, 36) but small quantities of Pomoideae (hawthorn-type) charcoal was also present in all of them. Charcoal was sparse from the Roman samples (Samples 8, 9, 10) but as well as *Quercus* sp., three species of thorny shrub were present including *Rhamnus catharticus* (purging buckthorn). Sample 10 from Context 1428, a Roman ditch, contained a small quantity of *Fagus sylvatica* (beech) charcoal. The samples from the Saxon sunken-featured buildings (Samples 19, 22, 23 and 44) were very rich in charcoal. Pomoideae was the most abundant but *Quercus* was also well represented.

The mixed charcoal from the Grooved Ware pit was in keeping with the likely presence of woodland nearby during the Neolithic. The charcoal in the postholes of the middle Bronze Age timber circle was not from the burning of the posts and was probably no more than a background scatter from earlier activity. The quantity of *Quercus*

charcoal from the Iron Age samples showed that a woodland source of fuel remained available in addition to thorn scrub. The Roman results suggested mixed sources for fuel but the record of *Fagus sylvatica* is interesting. The discovery of *F. sylvatica* at Abingdon Causewayed Enclosure showed that this tree was present in the region as early as the Neolithic (Dimbleby in Case 1956, 18) but the only other archaeological records had been medieval. The Saxon results suggested the availability of both woodland and hedgerow or scrub as sources of fuel.

Conclusions

The results make a useful contribution to the early Saxon crop record for the region. The charred assemblages from the sunken-featured buildings were relatively large in comparison to others of this date from the Upper Thames Valley. Bread or rivet-type wheat and six-row hulled barley were shown to be the main cereal crops and there was evidence for the cultivation of a legume, probably bean or pea. All are known from other Saxon sites in the region. The discovery of beech charcoal from a Roman context was important for showing that this tree was indeed present in the Upper Thames Valley during this period.

GEOARCHAEOLOGICAL REPORT ON SOILS

by M G Canti

Although the sequence of soils at the site was relatively straightforward, some aspects of the site stratigraphy posed problems. As a result, M G Canti undertook a site visit on the 4th August 2000 in order to study the site soils and discuss geoarchaeological details of interpretation. The site occupies part of the limestone gravel terrace (mapped as the 2nd Terrace) overlying Kimmeridge clay (BGS 253).

At the time of the visit to Area 9, various Iron Age, Roman and medieval features had been excavated and these were cut into the limestone gravel. The feature fills were overlain by deep brown earth-type soils. The gravel surface was extremely uneven, particularly on the east side of the site, suggesting previous quarry pit activity, but the land surface generally was flat or only gently undulating. Consequently the soil cover displayed unusual variation in depth, from a fairly normal depth of 0.2 m (on the west side of the site) to 0.6 - 0.7 m in some places (see also

Figs 21 and 22). As commonly found on these limestone gravels, there were also some patches of pinkish red clay. These usually fill solution hollows in the gravel and form quite deep pipes in some places (see Richardson *et al.* 1946, plates 6 and 8).

A large pit containing Roman finds was excavated at the north baulk of Area 9. Its fill consisted of brown soil at the base, not dissimilar to the site's general topsoil, but then further up at around 0.6 m depth there was a clear pinkish layer *c.* 0.1 m thick completely sealing the pit fill and extending across the stratigraphy either side of the pit. This layer (1532) had tentatively been interpreted early in the excavation as having formed as a result of ploughing. The colour of the layer, although only weakly differentiated from the normal dark brown soils, was clearly reminiscent of the distinctive pinkish clays that fill the solution pipes.

The author of this report felt that it was not possible for ploughing to generate such a degree of colour change. In general, these sorts of well-drained limestone soils are fully oxidised, so would not be chemically altered by agricultural activities. More likely, a patch of the pinkish clay was exploited during one of the episodes of levelling that must have gone on over time in the area. This was spread over the fill of the gravel pit and covered with topsoil material, perhaps as one event, or perhaps building up over time with additions from (for example) gardening that went on at the site. During the whole period after deposition, the pinkish layer underwent earthworm burrowing that gradually mixed in the overlying darker topsoil and blurred the edges (Plate 9).

Today, therefore, we see a weakly coloured pink layer with a number of darker earthworm burrows penetrating through it. There is no question that worms are capable of such obliteration of a single layer. Numbers of individuals can be as much as 350 per sq. m in the topsoil layer (see Russell, 1973, 192). In fact, the surprising thing is that there is still any layering left in the upper parts of these soils at all. The fact that it is still present strongly suggests that burrows are constantly re-used, so obliteration is a much slower process than would be the case if each worm dug a new burrow.

Chapter 5: Scientific evidence

RADIOCARBON DATES

by Peter Marshall, Tim Allen, Tom Higham, J van der Plicht and R Sparks

Introduction

Ten radiocarbon measurements were obtained on six samples from Abingdon Spring Road Cemetery. Six samples were processed by the Oxford Radiocarbon Accelerator Unit in 2003, two by the Centre for Isotope Research of the University of Groningen, the Netherlands, in 2003, and one by the Rafter Radiocarbon Laboratory, New Zealand, in 2002. The samples were from:

- Three Iron Age burials (skeletons 2199, 2125 and 2243). These were dated to establish the dates of the individual burials within the Iron Age and whether the early Iron Age pottery with them was contemporary or residual.
- A pig maxilla from posthole 2328. The posthole formed part of the inner posthole arc in Area 8 and the sample was dated to establish the date of the timber circle.
- A pig tibia from posthole 2373. The posthole forms part of the outer ring of the posthole arc. The bone was dated to establish a date for the timber circle.
- Skeleton 3036 from a burial in Area 5. This burial contained a copper awl, which was thought possibly to be an early example.

Radiocarbon analysis and quality assurance

The samples measured at the Oxford Radiocarbon Accelerator Unit were processed according to methods outlined in Bronk Ramsey *et al.* (forthcoming) and Bronk Ramsey and Hedges (1997). The samples processed at the Centre for Isotope Research of the University of Groningen, were measured by Accelerator Mass Spectrometry (AMS), according to the procedures set out in Aerts-Bijma *et al.* (1997; 2001) and van der Plicht *et al.* (2000). The sample sent to the Rafter Radiocarbon

Laboratory was processed according to the methods outlined in Bevan-Athfield and Sparks (2001) and measured by AMS according to Zondervan and Sparks (1997). All three laboratories maintain continual programmes of quality assurance procedures, in addition to participation in international comparisons (Rozanski *et al.* 1992; Scott *et al.* 1988). These tests indicate no significant offsets and demonstrate the validity of the precision quoted.

Stable isotopes

The stable isotope values ($\delta^{13}\text{C}$ and $\delta^{15}\text{N}$) are consistent with a very largely terrestrial diet, with only a minor component of marine protein although this is not likely to affect the radiocarbon dating (Chisholm *et al.* 1982; Mays 2000). The C:N ratios suggest that bone preservation was sufficiently good to have confidence in the radiocarbon determinations (Masters, 1987; Tuross *et al.* 1988).

Results

The results, given in Table 31, are conventional radiocarbon ages (Stuiver and Polach 1977), and are quoted in accordance with the international standard known as the Trondheim convention (Stuiver and Kra 1986).

Calibration

The radiocarbon determinations have been calibrated with data from Stuiver *et al.* (1998), using OxCal (v3.5; Bronk Ramsey 1995; 1998). The date ranges have been calculated according to the maximum intercept method (Stuiver and Reimer 1986), and are cited in the text at two sigma (95% confidence). They are quoted in the form recommended by Mook (1986), with the end points rounded outwards to 10 years if the error term is greater than or equal to 25 radiocarbon years, or to 5 years if it is less. The probability distributions (Figs 40a and 40b) are derived from the usual probability method (Stuiver and Reimer 1993; Dehling and van der Plicht 1993; van der Plicht 1993).

Discussion

The measurements from the three Iron Age burials are not statistically significantly different ($T^2=2.6$; $T^2(5\%)=9.5$; $v=4$, Ward and Wilson 1978) and so could all be of the

same actual age. The date (*c* 4th-3rd century cal BC) suggests that the early Iron Age pottery found in the fill of the graves was residual.

The dates on the pig bones from the timber circle are not statistically consistent ($T'=7.6$; $T'(5\%)=3.8$; $v=1$, Ward and Wilson 1978). However, they do confirm a middle Bronze Age date for the monument.

The three measurements on the skeleton with the associated copper awl are not statistically significantly different ($T'=0.3$; $v=2$; $T'(5\%)=6.0$) and give a calibrated date of 2460-2200 cal BC (weighted mean of OxA-12100; NZA-15865-15866; 3850±21 BP).

MAGNETOMETER AND MAGNETIC SUSCEPTIBILITY SURVEY

by Alister Bartlett

Introduction

The survey was carried out in July 2000 as the initial stage of fieldwork to investigate the remaining unused ground within the cemetery. The survey also extended into the adjacent playing fields of Larkmead School. The cemetery is situated approximately 1 km north west of the town centre and occupies slightly raised ground on gravel terrace deposits. The survey covered the available ground within the cemetery (Fig. 2 Blocks 5, 8 and 9), together with areas amounting to approximately 190 m x 60 m of the school playing fields immediately west. It was hoped that this additional coverage of the playing fields would provide further evidence for the plan and extent of the site beneath the cemetery. Comparison of the survey and excavation findings also provides an indication of the reliability of the survey results from the playing field. Plots were supplied for use during the excavation and the results are reviewed here in relation to the excavation results.

Methodology

The results of the magnetometer survey are shown as graphical and half tone plots at 1:1000 scale on Figures 41 and 42. The plots represent readings collected along lines spaced 1 m apart, using Geoscan fluxgate magnetometers. The x-y graphical plot (not illustrated) shows the initial data after preliminary correction for irregularities in line spacing caused by variations in the instrument zero setting. Additional 2D low pass

filtering has been applied to the grey scale plot (see Figure 41) to reduce background noise levels and emphasise the broader features, which may be archaeologically significant.

The magnetometer survey was supplemented by a magnetic susceptibility survey with readings taken at 10 m intervals using a Bartington MS2 meter and field sensor loop. The results are presented as a plot of shaded squares of density proportional to the readings (inset on Figure 41). Susceptibility measurements can provide a broad indication of areas in which archaeological debris, and particularly burnt material associated with past human activity, has become dispersed in the soil, but they may also be affected by other factors, including modern disturbances and land use.

The survey was located by reference to a grid of temporary markers, the main points of which are indicated by crosses on the plots. Details of measurements to the site boundaries that would be required to relocate the grid on the ground can be supplied on request. Outlines indicating the location of selected magnetic anomalies are shown superimposed on the survey plot, together with plan of excavated features to provide a summary of the findings, on Figure 42.

Results

Cemetery Areas 8 and 9

The magnetometer survey here shows a number of well-defined magnetic anomalies, some of which can be identified with features seen in the excavation. There is, however, interference from the metal fence at the east of the site, and from benches, litter bins and recent graves near to the central path. It is therefore only in the centre of the survey block that the results are clear. Areas of the site in which the survey response is obscured by nonarchaeological interference are marked by cross hatching on Figure 42.

Features visible here include sections of a north-south ditch (feature A on Figure 42), which clearly represents the Roman ditch seen in the excavation. There is another possible linear feature (B), but this appears to correspond to a series of pits in the excavation. The north-south Roman double ditch boundary also appears to have been intermittently detected by the survey. The magnetic anomaly at C is on the line of this ditch, and also lies close to a Saxon sunken-featured building. A number of

more localised anomalies that could represent pits are outlined on the plot, but only some of these correspond with pits seen in the excavation. There are also anomalies that could represent the combined response from a number of closely spaced small pits. Other magnetic anomalies, in addition to those outlined, could also represent pits, but they cannot easily be identified given the presence of numerous iron objects in the topsoil. These typically produce sharp narrow peaks in the plot, but may be difficult to distinguish from silted pits, depending on their orientation and depth of burial.

The magnetic anomaly at D may be associated with an excavated Saxon sunken featured building, but the middle Bronze Age timber circle nearby was not detected. Burials are only rarely identifiable in a magnetometer survey, and thus did not correspond with the excavated inhumations here. The excavation located numerous small pits and postholes (0.2 to 0.4 m in diameter), particularly to the west of ditch C. Features of this size are also difficult to resolve in a magnetometer survey, and would be particularly unlikely to respond here, given the presence of overburden to a depth of 0.75 m - 1 m above the archaeology. The medieval quarry pits at the east of the site lie in an area of interference caused by the fence. The more extensive interference caused by Victorian rubbish in a quarry (E) was, however, clearly detected. The magnetic susceptibility readings in Areas 8 and 9 are distinctly higher than in the other areas investigated, and appear to correlate well with the probable intensity of archaeological activity in different parts of the site.

Cemetery Area 5

Both the survey and excavation here produced only limited findings. There are again magnetic disturbances from fences, recent graves and buried iron. Some of the detected magnetic anomalies could represent pits, but most are small or weak, and there is no very clear correlation with the excavation findings. The excavation identified a limited number of pits, together with a post-medieval gully running across the site. This was only 0.25 m deep, and so was too small for detection by the survey. The excavation also revealed a number of natural soil marks representing periglacial clay deposits. These are not shown on Figure 42, and would not usually be detectable in a magnetometer survey. The magnetic susceptibility readings here were generally lower than in Areas 8 and 9.

Playing Field Area A

The northern part of the survey (Area A) produced very few findings, apart from interference from the fence to the east, and a jumping pit and track to the west. One reason for the limited response is probably that the ground level has been lowered by c1 m - 2 m at the south end of the area, as indicated by the difference in ground level from the cemetery. It is possible that a few pits have been detected at the northern end of the survey, where the original ground level may survive, but these are difficult to distinguish from other disturbances. Susceptibility readings in Area A were lower than in the other areas investigated.

Playing Field Area B

The original ground surface appears to have been preserved within this walled enclosure, and some quite distinct magnetic anomalies were detected. These suggest the presence of one or perhaps two ditched enclosures, together with a number of pits. The susceptibility readings here were higher than in Area A, which would be consistent with such an interpretation.

Chapter 6: Discussion

by Tim Allen and Zena Kamash

INTRODUCTION

Artefacts recovered from the Spring Road Cemetery demonstrate human activity from the Mesolithic onwards. Most periods and phases of prehistory are represented by evidence of some sort, as is Roman and early Saxon occupation. This was evidently a favoured location for a variety of activities over a long period of time.

In the following discussion the nature of the archaeological investigations, and their scale, has to be borne in mind. The excavated areas were small, and covered only a quarter of the area of known finds. In addition, the find spots suggest that the site continued to the west towards the Larkhill Stream, an impression supported by local reports that archaeological material was seen when the playing fields were levelled, although no formal record of this was made. Although the geophysical survey confirms that any traces of archaeology were destroyed immediately west of the site during this levelling, traces of further ditches are indicated further north, perhaps indicating that the site continued in that direction. No investigation took place when the houses to the north and east were constructed, but a natural limit to the site to the north is provided by a branch of the Larkhill Stream, which flows down from the north-east some 250 m from the site. South of the site only a single small trench has been excavated (Ainslie 1999), and although this was sterile it is insufficient to rule out further archaeology in this direction. Overall, therefore, the excavations are not necessarily representative of all aspects of the past history of the site, and while indicative of the periods of activity represented, may not adequately characterise these activities.

Within the excavated part of the cemetery site levels taken on the surface of the natural gravel show that the gravel terrace was highest just east of the mid-line of the site at the north end of Area 8. There was a fall of over 1 m to the west and north-west between Areas 8 and 5, a distance of only 50 m, and the levels also show that the

terrace was rising more gradually northwards, with a difference of 0.5 m over the 80 m from the south end of Area 9 to the north end of Area 8. On the east side of the site there appeared to be a corresponding drop in the level of gravel, but this may not have been natural, as this was the area riddled with medieval gravel pits, which may have resulted in a lowering of the overall level of the gravel. Nevertheless the northern end of the excavation area appears to have represented a high point in the local topography.

MESOLITHIC PERIOD

by Tim Allen

In the local area Mesolithic sites are common along the banks of the Thames, presumably reflecting the presence of openings in the tree cover at the riverside and the greater ease of movement by water in this landscape. These sites include Thrupp (Wallis 1981), Abingdon Vineyard (P Bradley in prep.), Andersey Island (Ainslie 1991) and Corporation Farm, Drayton (Shand *et al.* 2003). Major tributaries such as the Ock are also likely to have been used in this way. Even if not navigable, lesser watercourses such as the Larkhill Stream may also have provided easier pathways to travel on foot, and will certainly have been reference points in the landscape. Small collections of Mesolithic flint have been found on the west bank of the Larkhill stream at Ashville (Skellington in Parrington 1978, 90) and Wyndyke Furlong (Bradley in Muir and Roberts 1999, 40-42), as well as at Spring Road on the east side. Ethnographic studies of modern hunter-gatherers shows that a single community may have ranged over a territory as much as 20 miles across, and will have included hilltop sites like those on Boars Hill overlooking the Thames at Oxford some 4 miles to the north (Allen 1993b; Holgate 1986).

The nature of the archaeological investigations, and the small numbers of struck flints recovered (Chapter 3), make it impossible to be sure what sort of activities were being carried out during the Mesolithic. The small numbers of struck flints may indicate that this was merely a stop-off point during a hunting trip, though it is also possible that activity was on a larger scale, but was focussed outside the areas

investigated. Access to water will have been important both for people and the animals they hunted, and locations such as this close to streams will therefore have been suitable for occupation.

NEOLITHIC ACTIVITY

by Zena Kamash and Tim Allen

Neolithic activity at Spring Road includes material of every major pottery tradition. There is a limited number of sherds of early Neolithic Plain Bowl pottery, much of a Peterborough Ware dish and a pit containing Grooved Ware (see Chapter 3). The Bronze Age timber circle contained residual sherds of all these traditions. Another possible Neolithic feature may have been disturbed during modern grave-digging (3506, 4 D 26). Finds from this grave included 31 flints (probably mid to late Neolithic in date) and 9 animal bones in very good condition. Spatial analysis of the finds distribution shows that Neolithic activity was confined to the northern part of the site (Areas 4 and 8), corresponding to the highest ground.

Early Neolithic

For the early Neolithic the evidence is limited to a few sherds of Plain Bowl pottery, all residual in later contexts. None of the struck flint is diagnostically early Neolithic. The surrounding area was clearly a significant focus for early Neolithic people, as it contained a causewayed enclosure at Radley (Barclay and Halpin 1999), a cursus and mortuary enclosure at Drayton (Barclay *et al.* 2003) and possibly an earthen long mound by the Ock just 1.5 km south-west of the site at Tesco (OAU 1997; see Fig. 43). Away from the monuments domestic sites are mostly known from lithic finds or scatters (Holgate 1986; Holgate 1988), though Plain Bowl pottery was found at Corporation Farm south of the Ock (Shand *et al.* 2003). The discovery of Plain Bowl pottery at Spring Road is therefore significant. The relatively small-scale nature of most sites in the Upper Thames Valley, and the limited evidence for arable agriculture, suggests that these early farming communities were still fairly mobile,

moving frequently within local territories. This may therefore have been a short-lived occupation site.

Middle Neolithic

A semi-complete Peterborough Ware dish was discovered during modern grave-digging, and its good condition would suggest that it came from a cut feature (Chapter 3). A sherd from a second vessel was also found in the Bronze Age posthole arc. A possibly middle Neolithic pit may have been disturbed during modern grave-digging (3506, 4 D 26).

The middle Neolithic activity associated with Peterborough Ware at Spring Road takes place within the same monumental context as in the early Neolithic. These ceramic finds belong to the same period as those recovered from the later use of the causewayed enclosure at Radley, adjacent to which earthen long mounds were constructed in this period (Avery 1982; Cleal 1999). Peterborough Ware is also associated with the cursus at Drayton and the ditches of the probable long barrow at Tesco (OAU 1997), showing that all of these monument complexes remained active. The only other non-monumental site of the period on the west side of Abingdon is at Corporation Farm south of the Ock, where (as at Spring Road) the site has produced both early Neolithic Plain Bowl pottery and Peterborough Ware (Shand *et al.* 2003).

Late Neolithic

Grooved Ware pit 2622

This pit had escaped destruction by the later medieval gravel-extraction pits in the south-eastern corner of Area 8. As is typical with such pits, it was a relatively shallow bowl-shaped pit that contained a variety of finds in a matrix of burnt material (Thomas 1999, 74). Pits of this shape are considered to be unsuitable for the storage of foodstuffs, in contrast to the deeper, straight-sided and flat-bottomed pits of the Iron Age period (Reynolds 1974, 126-7; Thomas 1999, 64). The construction of the deposits in the Spring Road pit point to different interpretations for the function of these pits.

The distribution of finds retrieved from pit fills 2620 and 2619 also displays some very interesting patterns (summarized in Table 8) with the range of material in 2620 being seemingly more selective than that in 2619. As noted by Lamdin-Whymark ('Detailed report', Chapter 3), the struck flint shows signs of structured deposition, the lower fill (2620) containing a single core and seven retouched tools while 2619 contained two cores, a tested nodule and only one retouched artefact. In addition, a higher proportion of the flint was burnt in the lower than in the higher deposit: 15% in 2620 and 4.5% in 2619.

The distribution of animal bone, which was well-preserved, also shows significant variation. Of the 24 identified bones in 2620 (including sieved material), 20 were pig of which 18 were head elements and 2 were foot elements. Three cattle ribs and one sheep phalanx were also retrieved. In deposit 2619, however, out of the 27 identified bones (including sieved material), 11 were pig, 8 were sheep, 5 were cattle and 3 were pine marten. In addition, there was no clear preference for head over other elements: 32% head, 36% ribs and 32% other. Furthermore, while none of the bones from 2620 had been butchered, 3 of the identified bones from 2619 showed signs of butchery, although the condition of the bones was slightly worse in 2619. Table 8 also indicates that the condition of the pottery and fired clay was slightly better in 2620 than in 2619, as in both cases the average weight was higher. In addition, 2619 contained two small residual sherds of Plain Bowl pottery.

The flint assemblage provides some clues for the interpretation of these deposits. Although a high proportion of the flint was used and in some cases broken during use, the cores found in the pit, including those in 2619, were all large with no obvious faults or knapping errors and had not been exhausted (Chapter 3). In contrast, 2620 contained an end and side scraper (SF 44) that had been snapped rendering it useless. The pit therefore included specially-selected items, including both items that were still useful and those that had been deliberately rendered useless or 'killed'. Furthermore, no refits were found in the assemblage, despite there being groups of flakes whose raw material strongly suggested that they had come from the same cores (Chapter 3). This shows that some of the flakes from these cores had not been deposited in the pit, although manufactured during the same knapping process.

The exclusion of some flake material from the pit raises the possibility that all of the material in the pit had been specifically selected for deposition. One possibility

is that the selected material was intended to be representative of the activities carried out on this visit to the site, rather than all of the refuse generated from them. In this case the cores could represent tool production, the domestic animal bones feasting, the marten and hazel nuts hunting and gathering, and so on. Thus, this pit and its contents were made into a 'durable trace' of an event such as a feast, gathering or period of occupation and even the digging of the pit became an event in and for itself (Thomas 1999, 70 and 73).

The pit fills add support to the idea that this pit may have been filled as one event. The pit contained only a small deposit of primary gravel slumping before being largely filled with two dark, charcoal-rich and homogeneous deposits, whose homogeneous nature suggests that the pit was filled quickly (*cf.* Thomas 1999, 64). The last fill was a thin layer in the very top, probably plough-disturbed. In addition, the sides of the pit were steep with no evidence of weathering at the top. Furthermore, the fresh condition of the finds (with the possible exception of the pottery) indicate that the activities or events from which they derived occurred only shortly before the digging and filling of the pit. The flint was in remarkably good condition and very fresh (Chapter 3). The animal bone was also in very good condition, 98.5% of the assemblage (excluding sieved material) being classed as Grade 1 or 2 (Lyman 1996, where Grade 1 is the best-preserved and Grade 5 the worst-preserved bone). Furthermore, none of the animal bone showed signs of gnawing, indicating that it had not been left exposed to scavenging by dogs. This indicates, therefore, that the material in the pit was not subject to provisional discard nor deposited first in another location such as a midden.

Pit-digging reached a zenith at the end of the Neolithic with pits associated with Grooved Ware (Thomas 1999, 69 and fig. 4.4) and such pits are also known from the Abingdon area (Fig. 43). The Grooved Ware from Spring Road included not only the Woodlands style vessels from the pit but also a sherd of Durrington Walls style. Among the other pits in the Abingdon Area those containing Woodlands style pottery include one from Corporation Farm only 2 km to the south (Shand *et al.* 2003), two from Sutton Courtenay some 5 km to the south (Leeds 1934) and several from the area around the Abingdon causewayed enclosure at Daisy Banks *c* 4 km to the east. (Barclay and Halpin 1999). In addition, Durrington Walls style Grooved Ware vessels have been found in a pit beneath the A34 2 km south-west of Spring Road (Balkwill

in Parrington 1978, figs 28-9) and in pits at Barton Court Farm (Miles 1986, fig. 4) some 3 km to the east (see also Barclay 1999, figs 2.1-3). Further Grooved Ware pits have been found at Cassington (Case 1982) and a Neolithic pit (no further details) was also found across the Larkhill Stream south of Ashville during redevelopment (Chambers 1986).

There are some finds common to most of these pits: almost all contain charred hazelnuts, and as at Spring Road pig bones predominate at Barton Court and at Radley, Barrow Hills (Robinson in Barclay and Halpin 1999, 271). The occurrence of other materials such as cereals, wild animal bones, worked bones or axe fragments is, however, much more variable, and may indicate the process of deliberate selection at work; a correlation has recently been suggested between the range of finds present and the fineness and decoration of the pottery (Barclay 1999, 14-15). Taken at face value the finds from Spring Road would suggest a largely pastoral economy supplemented by hunting and gathering, but since the finds were probably selected for deposition, they may reflect only materials deemed appropriate for deposition in pits (that is a ritual assemblage), and may not be representative of the full range of farming practices of the users of Grooved Ware.

An open cleared landscape would fit with the environmental evidence from Radley, Barrow Hills east of Abingdon (Robinson 1999, 271-2). Nevertheless, the contents of the pit at Spring Road suggest that there was woodland in the vicinity, with hazelnuts in the pit and coniferous woodland indicated by the pine marten bones. Some arable is also indicated by charred wheat grains, and domestic livestock included pig, sheep and cattle.

The evidence of the pit below the A34 and those at Barrow Hills suggests that the monuments of the early and middle Neolithic continued to be visited in the late Neolithic. Within this period new monuments were also added. No major henge monuments like those at Dorchester-on-Thames (Whittle *et al.* 1992, 184-93) or Stanton Harcourt (Barclay *et al.* 1995) are known at Abingdon, but a small Class 2 henge monument was constructed at Corporation Farm (Abingdon and District Arch. Soc. 1973; Shand *et al.* 2003; see also Fig. 43). Balkwill argued that a cropmark ring ditch with an apparent gap on the north just south of Tesco (and only 1.5 km from Spring Road) was a Class 1 henge. A trench has since been dug across the south side

(OAU 1997), and a Beaker sherd and struck flint were found in the topmost fill, so this remains a possibility (Balkwill in Parrington 1978, 29).

BEAKER PERIOD

by Tim Allen

Beaker period activity is evident at Spring Road both from the grave accompanied by a copper awl in Area 5, from a sherd within a small pit or posthole in Area 8 and from other sherds of pottery and struck flints found by earlier grave-digging further south. The grave is of considerable interest, as it is radiocarbon-dated between 2460 and 2200 cal BC, making the burial very early in the Beaker period, and the copper awl accompanying the body one of the earliest copper objects from Britain. The pottery sherds from elsewhere on the site are also decorated with styles that place them early in the Beaker period, before 2000 BC (Chapter 3).

Locally early radiocarbon dates have also been obtained from two burials with copper objects at Radley, Barrow Hills (dating to 2700-2100 and 2650-2000 respectively), and together with the burial from Yarnton that was accompanied by a copper bar neck ring (Clarke *et al.* 1985, 270-2), this points to an early focus of metal-using activity in this part of the Upper Thames Valley. The burial at Spring Road, which is more closely dated than those from Barrow Hills, adds a fourth to this group, and considerably strengthens the case for an early Beaker focus in this area. Another relatively early date (2330-1950 cal BC) was obtained for the Radley burial with a double-tanged awl, though this was of tin-bronze (Northover in Barclay and Halpin 1999, 192-5).

It has been suggested (Garwood 1999) that Woodlands-style pottery indicates a later 3rd millennium date. This makes the relationship between the Grooved Ware pit at Spring Road and the early Beaker burial of particular interest. Given the close physical proximity of the pit and grave at Spring Road, the location of the burial may not have been coincidental, but at the least may have made use of a site with ancestral links, and it is even possible that the events were contemporary.

There is growing evidence in the area of late Grooved Ware activity as well as of the early use of copper. Woodlands pottery with later 3rd millennium dates comes from two Grooved Ware features at Radley (Barclay and Halpin 1999). Grooved Ware with comb-decoration has been found locally at Yarnton, the latter a style of decoration normally associated with Beaker pottery (Barclay and Edwards in prep.). In this context it is unfortunate that radiocarbon-dating of the Grooved Ware pit at Spring Road was not carried out as part of the English Heritage programme.

The burial at Spring Road is female, and is accompanied solely by the copper awl. This awl is of the double-tanged type usually associated with Beaker burials. Clarke (1970) and Gibbs (1989) demonstrated a strong association between female burials and awls. The orientation of the burial, lying on its right side and with the head to the SSE, is a common one for female burials of this date in the region; there are three comparable examples of adult female Beaker burials in the Stanton Harcourt complex (Barclay et al. 1995, 80-81, 99-100 and 105), and a fourth unsexed adult in the same position as well (ibid., 88). There are only four adult females of the late Neolithic and early Bronze Age in the group from Radley, but of these, two early Bronze Age examples are laid on the right side with their heads to the south (Barclay and Halpin 1999, 120-126).

The Beaker burial at Spring Road appears to be a 'flat' grave without any associated monument. There is a tradition of Beaker 'flat' graves in the Upper Thames Valley, with more 'flat' burials than burials within ditched barrows both at Radley and at Stanton Harcourt (Barclay and Halpin 1999, 324). There are other examples locally from Yarnton (Hey in prep.). Those at Radley can perhaps be seen as loosely associated with the burial monuments, all comprising a cemetery area, but some of those at Yarnton do not have any clear links to monuments. Barclay argued that the close spacing of two at Radley, and their lack of secondary deposits, suggested that they had never been covered by large mounds, perhaps only by mounds large enough to cover the area of the grave cut. These burials sometimes occur in groups or 'cemeteries'; there were at least four at Radley, and it is therefore possible that some of the other crouched burials found at the Spring Road cemetery may have been of this date. The other fragments of Beaker recovered from the site may have derived either from funerary or domestic contexts.

Beaker sherds, some fingernail- impressed, one cord-impressed, were also recovered from Wyndyke Furlong just across the Larkhill Stream. Barclay argued for a separation of burial and pit deposits, citing Wyndyke Furlong as an example of domestic activity on the low terraces or floodplain (Barclay et al. 1999, 324), but this burial at Spring Road is less than 300 m distant. If the activity at these two sites was contemporary, then it would indicate that pits and burials do occur in relatively close proximity. The Beaker activity at Wyndyke Furlong has not however been radiocarbon-dated, and may be later than that at Spring Road.

Beaker activity is also known 1.5 km to the south-west, where a group of ring ditches is clustered around the long barrow at the Tesco site just north of the river Ock. Evaluation at this site recovered a Beaker sherd from one of the ring ditches, and parts of two domestic Beaker vessels from a small pit south of the ring-ditches (OAU 1997). The pottery appears to be later than that at Spring Road, the decorative styles usually dated after 2000 BC. Sherds of a 'southern Beaker' were found in East St Helen's Street in central Abingdon, and residual sherds in the Vineyard (Wilson and Wallis 1991, 4; Barclay pers. comm.).

The number of locations around Abingdon that have produced Beaker pottery is greater than that producing Grooved Ware, perhaps indicating the spread of clearance and an increase in population.

BRONZE AGE

by Tim Allen and Zena Kamash

Early Bronze Age

Early Bronze Age activity at Spring Road is attested by a small group of decorated sherds recovered from modern graves, and by a single sherd possibly also of this date recovered from a shallow posthole in Area 9. No cremated remains were apparently associated with these finds, although the early Bronze Age pottery is interpreted as belonging to a ritual or funerary vessel (Chapter 3). At this period burials are normally associated with monuments, of which (as in the Beaker period) there is no

evidence on this site. However, if it was a ritual or funerary vessel, it lay less than 300 m from two ring-ditches of this period at Ashville to the south-west across the Larkhill Stream (Balkwill in Parrington 1978, 25-30). An alternative possibility is that the vessel was in fact domestic; evidence for the occurrence of Collared Urn pottery in a probable domestic context has recently been found in a pit group at Taplow Court, Buckinghamshire (Allen and Lambdin-Whymark 2004).

The pattern of ring-ditches west of Abingdon at this period partly demonstrates the continued use of the sites of ancient monuments; there are ring ditches grouped around the long barrows at Tesco, adjacent to the Drayton cursus, and around the henge monument at Corporation Farm (Fig. 43). However, there are other burial sites that appear to be new, such as three barrows known from cropmarks in Barrow Field 400 m east of Spring Road, the two at Ashville and those at Saxton Road south of the Ock, part of a large cemetery group spreading south and east to Corporation Farm (Fig. 43). Unlike Radley, Barrow Hills, where burial was concentrated in one large linear cemetery, the pattern on the west side of Abingdon appears to have been more dispersed; whether Radley, Barrow Hills, was restricted to a particular wealthy social group, to which the barrows west of Abingdon were complementary, or whether these were different social groups using distinct burial sites, is unclear. If the latter is true, it would perhaps suggest that the social organisation west of Abingdon was more fragmented, with more independent social groups each creating its own local burial site.

Snails from the ring-ditches at Ashville showed that the barrows were situated in an open grassland environment (Robinson and Wilson 1987, 38). The number of barrow sites of the Beaker/early Bronze Age, even if not all contemporary, indicate numerous pockets of open or cleared ground around Abingdon, close enough to one another to suggest extensive areas of open grassland by the end of the period. Details of the diversity of the local Beaker/early Bronze Age environment are little clearer than those of the late Neolithic, but clues are provided by the barley and wheat grains, and the acorns, found in a pit south of Tesco (OA 1997). The general picture in this period is provided by a pollen sequence at Daisy Banks Fen near to the barrow cemetery at Radley (Parker 1999), which shows an open landscape continuing from the late Neolithic to the end of the early Bronze Age (see also Robinson 1999, 272-3).

Middle Bronze Age

The timber circle

In Area 8 in the 2000 excavations a double arc of postholes was revealed. Only part of this monument lay within the excavation, and this limits the confidence with which questions about its form, function and associations can be addressed.

The Spring Road structure is assumed to have been circular in shape and perhaps 18-20 m in diameter. The arc that lay within the excavation appears to represent slightly less than quarter of a circle, though given the slightly irregular line of the postholes it is not possible to be certain. If the monument was circular, a limit of less than 32 m in diameter is provided by the excavation in Area 5, where no trace of the monument was found. It is possible that the arc was part of a much larger structure of different shape, but since no trace of it was found either in the NW corner of Area 8 or in evaluation trench F, this seems less likely.

The double arc of postholes is interpreted as belonging to a timber circle rather than a roundhouse because the diameter of the structure is very large for a roundhouse, and the outer arc of posts contains the larger posts, unlike the double-ring large roundhouses of the 1st millennium BC. The postholes of the outer arc are also very close together, unlike those of most houses, and must have formed almost a continuous palisade. Timber circles are normally Neolithic in date, but the radiocarbon dates of 3294 ± 30 BP for a pig bone from posthole 2328 in the inner arc, and 3156 ± 40 BP for bone from posthole 2373 in the outer arc, indicate a middle Bronze Age date, making this a very late example of such monuments. Similar reliable radiocarbon dates have been retrieved from timber circles at Navan B, Co. Armagh (3140 ± 90 BP) and Poole, Dorset (3210 ± 50 BP); later radiocarbon dates have also been retrieved from Haughey's Fort, Ireland and Ogden Down, Wiltshire (Gibson 1998, 48 fig. 39). It is noteworthy that both of these later examples were double circles (Gibson 1998, 59), which shows that there are later prehistoric parallels for the postulated inner ring of posts at Spring Road, even though at Ogden Down it was the inner ring of posts that was more substantial (Green 2000, 115-6).

The lack of any encircling ditch at Spring Road is paralleled at a number of other timber circles. Within the Upper Thames Valley other excavated examples

without ditches include the late Neolithic Sites III-VI at Dorchester-on-Thames (Gibson 1998, 126-7), the penannular post circle at Gravelly Guy, Oxon. (Barclay et al. 1995, 88) and (possibly) the post circle at Langford Downs, Oxon. (Williams 1946-7; see also below). Of the Dorchester group only Site 3 at 20 m by 17 m was of similar size to that at Spring Road (Whittle et al. 1992, 169-175). The post-circle at Gravelly Guy, which predated the Iron Age settlement there but is otherwise undated, had a similar diameter of 18.75 m (Fig. 44); that at Langford Downs, which is also undated, was slightly smaller at 16 m in diameter. Although the excavator interpreted the latter site as late Iron Age on general spatial grounds, it has since been suggested that it might have been earlier (Healy 2004). If so, the presence of late Bronze Age/early Iron Age residual pottery on the site might indicate a later prehistoric date. There is also a cropmark circle of pits or postholes recently identified at Eynsham (Gibson 1998, 29 fig. 20), and another at Radley only 3 km from Spring Road (Gibson pers. comm.), though both of these may be late Neolithic rather than Bronze Age.

The timber circle at Spring Road stands out from these other examples because the distance between the posts is very small, indicating an almost continuous palisade. There was a long tradition of later Neolithic palisades at sites such as Mount Pleasant, Dorset, and West Kennet, Wilts (Whittle 1997). Some of the circles at Dorchester-on-Thames also had closely-spaced posts. For the Bronze Age, the spacing of the posts is most comparable to Seahenge, Holme, Norfolk, where the ring of posts has been described as a 'wall of wood' (Pryor 2001, 246). The size of the Seahenge circle is however much smaller, and the posts were apparently set within a continuous trench (see Fig. 44).

Another Upper Thames late Bronze Age post-circle at Standlake, Oxon, surrounded a ring-ditch (Gibson 1998, 59; Catling 1982, 97; see also Fig. 44). This is also the case at Ogden Down, and Green's reconstructions of this arrangement include one roofing the barrow (Green 2000, fig. 84). From the proportion of the Spring Road circle excavated it is unlikely that this surrounded a ring-ditch, though a central feature such as a burial, or a tree like that at Seahenge is still possible.

Only one or two of the postholes in the arc showed any sign of replacement, and it is therefore possible that the structure was only in use for a relatively short time. Brück (1999, 146-149) has argued that many middle Bronze Age structures had only a

single-generation life-span. While the lifespan of timbers such as these in the local soils is hard to judge, the timber circle may have lasted for only 30-100 years.

The timber circle at Spring Road was not seen by the excavators until a layer very similar to the Holocene subsoil (layer 2648) was removed, revealing an arc of posts cut into the natural gravel. This layer (2648) was so similar to the subsoil that it was not recorded consistently, but appears to have sealed the majority of the postholes in the post arc(s). The fact that this layer directly overlay the gravel indicates either that the original Holocene topsoil had been stripped before the structure was built, or that this was a ploughsoil that truncated the structure. This layer must have been deposited between the middle Bronze Age, during which the postholes were infilled, and the middle Iron Age, when a posthole was cut through this layer. It is likely to have formed some time after the timber circle went out of use, as the majority of the postholes have a thin deposit of friable dark greyish-brown clayey silt in their tops, also sealed by 2648, that appears to have been deposited in the hollows left after the postholes, including those with post pipes, no longer held posts.

Layer 2648 was confined to the north-eastern sector of Area 8, and did not spread much further south than the southernmost postholes of the outer arc. It is possible that this layer was derived from a mound within, and possibly even revetted by, the timber circle. In this case, the topsoil would have to have been stripped before the monument was constructed. In Britain timber circles of stakes are sometimes found under barrows, for instance at Buckskin Barrow, Basingstoke (Allen, M, *et al.* 1995), but are only rarely contemporary parts of the barrow structure. One such example was at Barnack, Cambridgeshire (Donaldson 1977), where there was a double circle. The circles at this site however consisted of stakeholes, not postholes, and such structures are generally much slighter than the structure implied by the posts of the Spring Road circle. Furthermore, there was no surrounding ditch such as is usual with barrows.

Palisaded barrows without surrounding ditches are however a recognised type in the Netherlands, as at Wessinghuizen, where a double palisade encircled a turf mound (Gibson 1998, 72). The fact that layer 2648 did not slump into the tops of the postholes however inclines towards interpretation as a ploughsoil rather than slip from a mound.

Reconstruction of this structure is uncertain. Mercer (1981) suggested that the height of the posts above ground could be calculated using a ratio of 3:1 or 3.5: 1 in relation to the original depth of the posthole. More recently Gibson has revisited these figures, and suggested that a ratio of 4:1 is commonly used in practice today (Gibson 1998, 106-7). Using the 3.5: 1 ratio as a compromise, the posts would have been a minimum of 1.57-2.31 m high. If the sealing layer was a ploughsoil, then the postholes are likely to have been at least 0.1 m deeper, and the posts at least 0.3 m longer (ie 1.87-2.61 m high), preventing a view of the interior. If not, the posts would have stood c 1.12-1.68 m above the ground, significantly lower than the 3 m calculated for Seahenge (Pryor 2001, 270), but adequate for a revetment.

On balance, the structure is more likely to have been a freestanding timber circle than a barrow. Its location corresponds to the highest part of the site, presumably to increase both the visual impressiveness of the monument as it was approached, and to make it more visible in the surrounding landscape. It is also possible that the siting of the monument was influenced by the previous history of burial and deposition in this location, though direct evidence for continuity over the 600-700 years between the Beaker burial and this structure is slight.

The function of the timber circle is hard to define, particularly as only a quarter of the structure itself, and less than half of its immediate surroundings, have been excavated. It is generally considered that while such structures did play an important part in rituals and ceremonies, these did not involve feasting (Gibson 1998, 82), and the lack of associated artefactual evidence at Spring Road perhaps supports this. After 2000 BC timber circles tend to become increasingly focussed on burials (Gibson 1998, 58). No certain middle Bronze Age burials were found in association with the part of the Spring Road circle that was excavated. A pit containing the base of a large middle Bronze Age pot was found in Area 9 some 40 m south of the timber arc. This shallow pit appeared to have been severely truncated, but also contained sherds from a second Bucket Urn. The absence of any cremated material at all, when a little of the side of the vessel was present, may well indicate that this was not a cremation urn. A group of pits containing large middle Bronze Age vessels, some set into pits in the ground, have however recently been found in the Middle Thames Valley at Cippenham (Ford *et al.* 2003, 39-40 and 71-77), and of these pits some contained very small quantities of cremated bone. These pits and pots were therefore interpreted as

deliberate deposits associated with funerary rites, even if not cremation containers themselves. Middle Bronze Age cremation burials were found in a barrow only 300 m to the south-west of the Spring Road site, across the Larkhill Stream at Ashville (Parrington 1978), so even if the vessel at Spring Road was not funerary, a loose association with burial is possible.

More practical functions should not however be excluded. Fenced rings this sort of size are still used today for breaking and training horses, and evidence for horse-riding in Britain starts in the middle Bronze Age. There is however no direct evidence to support this suggestion. Such a use would not exclude a ritual function, as religious and secular activities are unlikely to have been divorced from one another in British prehistory.

Whatever the precise function of this timber structure, its very existence is significant. Only a handful of middle or late Bronze Age examples have yet been discovered in Britain, and these exhibit considerable variety in form and associations, as discussed above. While stone and timber circles are an important and common element of the late Neolithic and Beaker periods, their role in the belief system of the middle and late Bronze Age is rarely mentioned. There is of course no reason why stone circles should not have continued as ritual foci throughout the Bronze Age and beyond, but in areas where stone was uncommon, such as the Upper Thames Valley, few such monuments were apparently constructed (only the Devil's Quoits at Stanton Harcourt), and wooden structures would have needed repeated repair, or rebuilding. On current evidence the Upper Thames Valley, compared to the rest of the country, appears to contain a concentration of these, perhaps indicating a shared regional belief system or cultural identity. At present the rarity of timber circles of this date makes this site, and its location, likely to have been a matter of especial significance. As this site is however small and archaeologically inconspicuous, the possibility must be borne in mind that many more such sites remain to be discovered.

Other features containing only Bronze Age pottery, which comprise two short lengths of gully and six postholes, may all contain residual material and be later in date; similar gullies were however found at Wyndyke Furlong predating the main Iron Age occupation, and were tentatively dated to the Bronze Age (Muir and Roberts 1999, 13 fig. 2.8). It is therefore possible that there was a spread of later Bronze Age activity along both sides of the Larkhill Stream. The Spring Road site, like the

waterhole at Tesco and Eight-Acre Field, shows evidence of both middle and late Bronze Age activity, implying some continuity of use in the later Bronze Age.

The context of the middle Bronze Age activity

Twenty years ago there was little settlement evidence of the middle or late Bronze Age in this area (Bradley 1986). Since then the number and variety of sites of these periods has increased enormously (Fig. 45). Around Abingdon itself there were settlement enclosures at Corporation Farm, burials around one of the ring-ditches at Ashville, a waterhole and other features adjacent to the ring-ditches at Tesco and linear ditches and settlement traces at Wyndyke Furlong (OAU 1997, 5; Muir and Roberts 1999). East of Abingdon there is a further settlement at Eight Acre Field, Radley (Mudd 1995), and middle Bronze Age burials are found around the earlier barrows at Radley, Barrow Hills (Barclay *et al.* 1999).

Excavations at Yarnton have demonstrated that the floodplain of the Thames was a favoured location for settlement in the early and middle Bronze Age, with a number of roundhouses being found. The enclosures at Corporation Farm lie close to the gravel terrace edge, and it is also possible that the main focus of settlement along the river Ock lay close to the river on the floodplain at sites such as that next to Tesco, some way south of the Spring Road site.

Beyond the immediate neighbourhood of the site, enclosure and field systems have been investigated at Fullamoor Farm, Clifton Hampden (Booth *et al.* 1993), Appleford Sidings (Booth and Simmonds *in prep.*), Mount Farm and Berinsfield (Lambrick 1992, 89, fig. 29), and have been identified from cropmarks at Northfield Farm, Long Wittenham (Miles 1977; Baker 2002). They have also been found further west between Steventon and East Hannay (Hearne 2000). A Deverel-Rimbury cemetery has been found at Long Wittenham (Leeds 1929; Case *et al.* 1964, figs 28 and 29; Bradley 1986, 42). Large ditched enclosures of defensive proportions have recently been investigated at Castle Hill, Little Wittenham (Allen and Lamdin-Whymark 2005) and at Eynsham (Barclay *et al.* 2001), while metalwork has been dredged from the Thames at Days' Lock, Dorchester, Culham Reach and Sandford-on-Thames (York 2002). Not all of these sites are contemporary, but they clearly indicate settlement of considerable scale and complexity in this part of the Upper

Thames Valley in the middle to late Bronze Age (Fig. 45), to which the timber circle at Spring Road adds a further dimension.

Environmental evidence from the site for the middle and late Bronze Age is limited. The layer that overlay the postholes of the timber circle has been interpreted as accumulating either in the late Bronze Age or early Iron Age, and as either a ploughsoil or a newly formed topsoil. If it was the latter, it would presumably have formed in the centuries following the abandonment of the timber circle, most likely in the late Bronze Age. If a ploughsoil, a context in the late Bronze Age would also seem more likely than the early Iron Age, when there was a timber building immediately adjacent, and possibly a penannular enclosure as well. Pollen evidence from the wider catchment for this period is lacking, as there is an hiatus in accumulation at Daisy Bank Fen after the early Bronze Age (Parker 1999).

IRON AGE

by Tim Allen

At Spring Road Iron Age activity is of several kinds, including a circular roundhouse of several possible phases, other postholes, several crouched burials in purpose-dug graves and a few pits. Before considering the associations between these types of evidence, the chronology of the Iron Age activity needs to be clarified. Almost all of the pottery belongs to the early Iron Age, yet only one or two pits are securely dated to this phase.

The roundhouse

Few of the postholes contain any quantity of pottery, and the sherds are often small and thus potentially residual. There were however enough early Iron Age sizeable sherds from the porch, inner and outer ring postholes of the roundhouse to be fairly confident that this structure should be dated to the early Iron Age. One posthole from the alternative ring, presumably a different phase of the building, contained early-middle Iron Age pottery.

The main post-ring of the roundhouse (Grp 2719) is approximately 11 m in diameter, as is the possible alternative ring (Grp 2722). On the east side the structure was cut through by two Roman ditches, making it impossible to determine the total number and spacing of posts, but on the west, north and south the evidence is clearer. Most of the postholes of the main ring are roughly 2.5 m apart (centre to centre), though there also appear to be clusters only 1 m apart and gaps of up to 3 m in other places. It is however possible that one of the close-spaced groups on the east and west belong to the alternative ring, though this would still mean gaps of only 2 m in these areas. The alternative ring is more evenly spaced, the posts being mostly around 3 m apart, with one or two slightly wider gaps. The entrance posts are 2.7 m and 3.0 m apart, so that the entrance itself must have been between 2.2 m and 2.7 m wide.

There is an inner ring within the roundhouse approximately 8 m in diameter, most of the posts spaced at 1.5-2 m intervals, but with a 3 m gap on the north-west. This is slightly oval, being 1.5 m or less from the main post-ring at the north and south, but 2 m on the west.

The entrance to the roundhouse is on the south. This is a relatively uncommon orientation, the vast majority of roundhouses in the Upper Thames Valley having entrances that face either east or south-east (Hingley and Miles 1984, 63; Oswald 1997, fig. 10.2). Recently both Fitzpatrick (1997) and Oswald (1997) have suggested that this preference has symbolic significance, although Oswald has pointed out that on some sites interrelationships between buildings appear to be more important than other considerations. This appears to be the case with another local south-facing house at Hardwick, Oxon. (Allen and Robinson 1993), but no such factors are evident from the excavated area at Spring Road.

The postholes forming an outer ring may indicate an approximate diameter of 14 m. The spacing of the outer ring posts varies widely, as does the diameter of the postholes. It is difficult to construct a roundhouse of this diameter without an inner ring of posts, and more so if the outer ring does not have evenly spaced substantial posts, so if genuine it is more likely that this outer ring was part of an aisled building rather than forming the only roof supports. If contemporary with the main ring of posts in any phase, however, the aisle between this and the main ring(s) of posts would have been little more than 1 m on the west, though perhaps as much as 2 m on the north and east sides. Since the main weight of an aisled structure is taken by the

inner ring-beam, this is not structurally impossible, but means that the wall height would have varied around the building, and would imply that the outer wall was constructed after the inner ring.

A structure of this size would have required a substantial inner ring of posts to support the roof, and the postholes of the main ring are not uniformly large. It is possible that additional support for the roof was provided by some or all of the groups of postholes at the centre of the house, as was suggested for the house at Little Woodbury (Musson 1970). On that site, however, there was a square of large postholes, whereas the post-lines within the house at this site are mostly small, and better interpreted as internal partitions or furnishings. It is therefore alternatively possible that this outer ring was either for posts for a fence around the house, or for posts for partitions around the exterior, possibly for storage under the eaves.

The Iron Age burials

Three largely complete burials, one also including bones from an infant, were found within the area enclosed by the house, although the head of burial 2241 was missing, and in the relevant place was a posthole attributed to the latest phase of the structure, which might suggest that the burials were earlier. In fact, the burials all date to the 4th or 3rd century BC, and although different authorities have proposed different end dates for early Iron Age ceramics (Harding 1972; Lambrick 1984), only the very end of the early Iron Age overlaps with the date range of these burials, most of the range belonging with middle Iron Age ceramic forms and fabrics. These burials are therefore unlikely to have been foundation burials, and it is doubtful whether they were made while the structure was still in use. If the burials were directly connected with the building, as their position suggests, they may either have been made when the structure went out of use, possibly as propitiatory rituals, or have made use of the still-standing walls to help mark out what was a new type of burial in this part of Britain in the Iron Age, perhaps requiring its own particular rituals of separation and containment.

A possible parallel for this situation exists less than 5 km to the west at Noah's Ark, Frilford, where the crouched burial of a young adolescent and fragments of a new-born child were buried close to the north and south sides respectively of a stake-

circle 9.5 m in diameter with an entrance 2 m wide on the south-east side (Harding 1987, fig. 3 and pages 7-8). Both early and middle Iron Age pottery was recovered from this site, but the predominance of middle Iron Age forms and fabrics led Harding to date the stake-circle and burials to the 2nd-1st centuries BC (ibid., 12-13). In his earlier thesis, Harding had interpreted the burials as being associated with the circle, and having a ritual purpose (Harding 1972, 64), but in his later report he revised this view, and due to its large size and the use of stakes generally less than 150 mm in diameter, interpreted the stake-circle not as a house but as a pen or enclosure of some sort (Harding 1987, 7-9). The significance of the associated burials is not further commented upon.

Another possible association of a posthole building and a burial occurred at Barton Court Farm on the east side of Abingdon. Here a crouched inhumation was found within an area of postholes possibly defining a circular building, though due to truncation by Roman features the shape was not entirely clear (Miles 1986, Microfiche C: 3-4 and fig. 76). The structure was dated to the late Iron Age, but the burial was undated, and though believed to be contemporary, may possibly have been earlier.

Although only three have been excavated, this group of purpose-dug graves can be described as a small cemetery of 3rd or 4th century BC date. In addition to the dated skeletons, there were at least two more crouched burials found, one some 60 m to the west accompanied by sherds of early Iron Age pottery, another a similar distance to the north-west in 1999. Given the presence of a Beaker crouched burial accompanied only by an awl, it is clearly impossible to be certain that the latter grave was not Bronze Age or even Neolithic, but further Iron Age burials on the site seem probable.

The three largely complete skeletons include two individuals crouched on their sides, and one laid on his back with the knees drawn up and the head bent forward, resting on the end of the grave. This could be viewed simply as a crouched burial in the vertical plane, but a range of skeletons in seated, bent over and other positions have been found recently in France, mirroring images on potin coins and statuettes, suggesting that such variations in the position of the dead are more significant (Lambot 2000). One of Lambot's interpretations for a group of sitting burials was that these were buried facing the rising sun. At Spring Road the individual buried on his

back was facing due south, not towards the rising sun, but on the same orientation as the roundhouse within whose area the burials were found. The orientations of the bodies at Spring Road varied, the other young adult male having his head to the west-north-west, the child with its head to the south-east.

The child and the adult on his back were both moderately crouched, the knees of the other adult (skeleton 2243) were more tightly drawn up, probably to fit into the relatively narrow grave. None of the skeletons however showed signs of having been bound. It is unclear whether the head of skeleton 2243 was removed before burial, as the grave profile itself might suggest, or whether a shallower and narrower slot had been excavated upon which to rest the head before it was cut through by a later posthole.

The infant bones included with the child burial are very unlikely to have been incorporated accidentally. No stray human bones were recovered from other features within the excavation area, so it is likely that the infant bones were purposely gathered and included in the grave. The presence of only part of the skeleton could partly be the result of later truncation, but this infant was not recognised as a group of articulated bones within the grave fill, suggesting that bones were gathered for incorporation after the body had become disarticulated. Both immediate burial of complete bodies and exposure followed later by partial burial therefore appear to have been contemporary rites in local Iron Age society.

Groups of skeletons in purpose-dug graves (in other words cemeteries) were until recently unknown in the Upper Thames Valley. A group of 35 inhumations in purpose-dug graves at Yarnton, Oxfordshire, has however recently been shown through radiocarbon dating to be 4th or 3rd century BC (Hey *et al.* 1999). Almost all of the graves were crouched or flexed, oriented north-south, and all were without grave-goods. The graves represent a mixture of adult men, women, adolescents and children, and are interpreted as a representative cross-section of the local population (see also 'Detailed report', Table 17). Only neonates were not included; these were buried separately within the adjacent settlement. Amongst the Yarnton burials there were two distinct concentrations 20 m apart, one of 15 graves in an area 14 m by 25 m, the other of 10 graves in an area 25 m by 25 m, with the remaining 10 inhumations scattered over a wider area. The concentrations were not in neat rows, though some immediately adjacent graves were aligned with one another.

The character of the Yarnton cemetery may provide a model for the type of cemetery found at this site, with small groups of clustered burials just outside the contemporary settlement focus and a wider scatter of others around the periphery of the settlement itself. At Spring Road the date of the burials may reflect the end of Iron Age occupation at the site, but this is not the case at Yarnton, where the settlement continued until the end of the Iron Age. The similar date range of the two cemeteries may instead represent the common adoption of a new burial rite in this part of the Upper Thames Valley during the middle Iron Age, though on the limited evidence available it does not appear to have lasted for long.

Early Iron Age settlements are now known to be numerous in and around Abingdon, indeed a pattern of sites no more than 2 km apart is now evident on the gravel terraces, situated alongside the north-south tributaries draining into the rivers Ock and Thames (Fig. 46). The settlement at Spring Road is imperfectly known, but on present evidence is different from neighbouring settlements such as Ashville/Wyndyke Furlong, where there were substantial numbers of enclosures surrounded by gullies and numerous deep circular pits. Only a single such pit was found within the Spring Road excavated area, although a scatter of others were reported by the cemetery gravediggers, and have produced pottery to support this dating (see for instance Fig. 31, 13). The fragmentary curving gully at the north end of Area 8 may indicate another roundhouse enclosure, but the absence of any Iron Age activity in Area 5 makes it unlikely that the excavated site lay at the edge of a dense cluster of pits and roundhouse gullies like those at Ashville or Wyndyke Furlong across the Larkhill Stream, or at Gravelly Guy, Stanton Harcourt (Parrington 1978; Muir and Roberts 1999; Lambrick and Allen 2005).

Very little evidence of the environment and economy of the Iron Age settlement was recovered. The animal bones indicated the presence of the main domesticates, with sheep predominating, as occurred at Ashville and Wyndyke Furlong nearby (Wilson in Parrington 1978, 136). One tree-throw hole contained a large sherd of late Bronze Age/early Iron Age pottery, and if not residual, this may indicate that some trees had established themselves on the site, possibly following a phase of ploughing in the late Bronze Age, and were then cleared to make way for the settlement. Charcoal indicates the presence of oak woodland, together with hawthorn, in the vicinity (Chapter 4).

Other than the burials, there is one pit tentatively dated to the middle Iron Age on the basis of the pottery fabrics (605). This sparse evidence possibly indicates that settlement was becoming nucleated at the extensive Ashville/Wyndyke Furlong site. A similar process of nucleation has been suggested under Abingdon town centre with the apparent abandonment of the early Iron Age site at Audlett Drive (Keevill 1992), and the expansion of the Vineyard settlement adjacent (Allen 2000, 11).

Following the discovery of a late Iron Age/early Roman defended oppidum under the town centre, the pottery from Ashville (De Roche 1978) has been reassessed, and it is now clear that occupation continued on that site through the late Iron Age and into the early Roman period (Timby 1999, 38). It would therefore appear that settlement continued to be concentrated west of the Larkhill Stream until the late 1st/early 2nd century AD, when occupation again becomes evident at Spring Road.

THE ROMAN ENCLOSURE SYSTEM IN AREAS 8 AND 9

by Zena Kamash and Tim Allen

Extent of the Roman occupation

A series of coaxial/rectilinear ditches, gullies and fence-lines define the 2nd- and 3rd-century occupation at Spring Road. The ditches of this system continued northwards, southwards and westwards beyond the limits of excavation, and were truncated on the east by medieval pits. There are no cropmarks visible within the cemetery site to throw light on the wider form of the settlement, and to the south the ground was taken over by burials, but geophysical survey did reveal linear anomalies on the same alignment within the allotments to the west that could well represent further enclosures (Fig. 42). Beyond the cemetery site north of this there is a significant drop in ground level, apparently created when the adjacent school was built, which may have truncated any archaeological features, as there were no geophysical anomalies in this area. The absence of similar gullies or any Roman activity in the northernmost excavation area (Area 5) may however indicate that this was close to the northern

limit of the settlement; there was also a dearth of archaeological activity in the evaluation trench dug in 1990 west of Area 5.

Date and status of the Roman activity

The phasing is complicated by the presence of two later-4th-century coins found in the ditches. The AE3 Valens coin from context 1154 (intervention 1153) came from the secondary fill of the ditch, which might have been open for a considerable length of time, or might have incorporated later material falling down cracks or carried down by root action. The coin from 1098 (intervention 1099) is more problematic as it came from low down within the ditch, and from a fill otherwise containing a large deposit of unabraded 2nd- and 3rd- century pottery. The surface condition of the coin (a brassy finish, and cleaned surface with no corrosion), seems extraordinary considering the soil from which it was apparently recovered, and suggests that it was planted in the ditch and actually has an unknown provenance.

The Roman pottery is typical of low-status sites; there are few fine and specialist wares, items like the *mortaria* being found on almost every low-status site in the region (Henig and Booth 2000, 153). The lack of more prestigious wares and other luxury metal items suggests that the site was rural and low-status in character.

Layout and orientation of the enclosures

The ditches and gullies are oriented predominantly on a NNW - SSE and ENE - WSW alignment, the system dating to the 2nd century AD. In the western half of the excavated area this alignment was superseded by two ditches forming a new boundary on a NNE - SSW and ESE - WNW alignment in the late-2nd century/early-3rd century. It is clear that the later system was tacked onto the earlier, as the ditches of the later alignment join those of the earlier at the north end of the excavation, and a ditch at right angles to this later boundary stops short of the earlier boundary, creating a triangular enclosure between them. A parallel for this oddly-shaped enclosure may have existed locally at Appleford Field (Hinchcliffe and Thomas 1980, figs 3 and 13), where the trackway and enclosure boundaries converged north of the excavated area. Although at Spring Road the later boundaries do not physically cut ditches of the earlier system, they cut diagonally across enclosures of the earlier system, and had the

earlier enclosure boundaries still been extant, would have created small and irregular-shaped areas between them. It is therefore likely that the earlier enclosures west of the main NNW-SSE boundary went out of use at this time.

The alignment of the enclosures may have been based upon the course of the Larkhill Stream, which runs southwards towards the river Ock only 200 m or so to the west (see Fig. 47). Nowadays this stream runs SSE from the A34 north of the site, veering to the SSW as it passes the site, and then kinking SSE again south of Spring Road down to the Ock. If the stream has not changed its course, it is possible that the earlier alignment of Roman ditches was related to the line of the Larkhill Stream as it approached the site from the north; locals report much Roman material observed when the playing field was constructed, and the settlement may have continued, and the boundaries have been laid out, from a focus further to the north-west. The later shift in alignment may have been to realign the settlement with the line of the Larkhill Stream immediately west of the site, as the stream changes course below the junction of its two arms, which lay approximately opposite the junction of the two boundary ditches at Spring Road.

West of the Larkhill Stream the Roman boundaries revealed by excavations at Ashville (Parrington 1978) and Wyndyke Furlong (Muir and Roberts 1999) are rather fragmentary, but appear to follow a predominantly north-south alignment (Fig. 47). Those closest to the line of the stream do not respect its line, but are aligned either side of a trackway, which if projected would suggest a crossing point to the north beneath the modern A34. This alignment began with a small middle Iron Age enclosure (Muir and Roberts 1999, Figure 2.4), and was reinforced by the appearance of trackway ditches and adjacent enclosures or fields in the 1st century AD, so the crossing and alignment was in existence before the Roman settlement on the Spring Road side began.

Further south at Wyndyke Furlong an early Roman boundary ditch ran east-west approximately in line with the junction of the two arms of the Larkhill Stream. The early Roman ditches at Ashville ran slightly south of east, again at right angles to the adjacent stream, but the 2nd century Roman ditches run more NNW, parallel to those at Spring Road across the river. A limited watching brief upon construction at Lambourn Court also revealed ditches on an approximately N-S alignment, which although undated were probably also parts of this system.

At Spring Road this network of ditches, gullies and fence-lines created at least five 2nd-century enclosures and three late-2nd/early-3rd-century enclosures (Figs 15 - 16). The 2nd-century enclosures were rectangular or almost square and varied in size from 20.2 m by 11.2 m to 23.2 m by 25.2 m. No whole late-2nd-/early-3rd-century enclosures were revealed in their entirety, but they also seem to have been rectangular or square. From the elements of these later enclosures that are visible, it seems likely that they were of similar dimensions to the earlier enclosures. A group of three possible rectangular enclosures were indicated by the geophysical survey to the west, all approximately 36 m east-west by 19 or 20 m north-south.

A small group of subrectangular enclosures were found in the late Iron Age and Roman phases at Ashville over the Larkhill Stream to the west (Parrington 1978, figs 2 and 3). These were slightly larger, from 32 by 27 m up to *c* 37 by 40 m (minimum), and were defined by much more substantial ditches. At the Vineyard in central Abingdon the settlement within the late Iron Age and early Roman defensive ditches was laid out as a series of rectangular or subrectangular enclosures. The layout was modified frequently, and few complete enclosures survived the later digging of a medieval moat, but several enclosures were 11-12 m wide and 23-25 m long (Allen 1990, fig. 3). The Spring Road enclosures are also comparable to the small later 2nd-century enclosures excavated at Roughground Farm, Lechlade, Gloucestershire, which measured 17 m by 27 m (Allen *et al.* 1993, 187).

The fence-lines are generally either parallel to or at right angles to the ditches and gullies, and sometimes continue their lines, acting as extensions. Despite the shortage of Roman finds from the postholes, one of these alignments (631) is stratigraphically earlier than a Roman ditch, and it is therefore likely that many of the others are also Roman. The use of fences as extensions for ditched enclosures has also been noted locally at Gravelly Guy, Stanton Harcourt in association with 1st-century AD enclosures (Lambrick and Allen 2005).

Nature and function of the site

The enclosures at Ashville were interpreted by the excavator as a series of fields (Parrington 1978, 36), although he recognised that some of them were associated with pits, and a large assemblage of pottery was recovered in fresh condition from both

ditches and pits. This last association suggests that a settlement focus lay very close by, and these enclosures may have been part of the settlement complex itself. Ditches at the north end of Wyndyke Furlong and at Lambourn Court, however, which had few associated features and contained few finds, are more likely to be field boundaries. Clear examples of Roman fields with preserved ploughsoils or ard marks have been identified at Drayton Cursus and at Yarnton (Barclay *et al.* 2003; Hey 1993, 84). In neither case were there associated features, and finds from the ditches were few. The Roman fields at Drayton, which were used first for arable and later for pasture, were 90 m wide and at least as long; those at Yarnton generally more than 100 m in either direction (Hey pers. comm.). Although 'Celtic' fields are small, the Spring Road enclosures are clearly too small to have functioned effectively as fields. At Yarnton a line of small rectangular enclosures around 25 m by 40 m were found, but these lay adjacent to the main domestic enclosures, and were clearly part of the settlement.

With the exception of the fence-lines, no coherent structures could be discerned from the palimpsest of postholes at Spring Road. One reason for the lack of identifiable structures, which are also lacking in many other 1st and 2nd century rural low-status settlements in Oxfordshire, may be the techniques used in the construction of buildings of this period. At the Vineyard in central Abingdon, where huge quantities of domestic debris were recovered from the ditches, no post-built buildings were identified, although painted wall daub with wattle impressions indicates that buildings were present. A subrectangular platform of cobbles of Iron Age origin, remade twice into the early Roman period, may however indicate timber-sill construction. Buildings constructed upon horizontal timber sills, whose shallow timber slots survived, were found at Dorchester-on-Thames nearby (Frere 1984), but evidence of this type is unlikely to have survived the ploughing at Spring Road.

At Gravelly Guy, Stanton Harcourt, Oxfordshire, four 1st-century AD enclosures were excavated, none of which contained structural evidence (Lambrick and Allen 2005). It was however suggested that these enclosures did contain structures that may have been mass-walled, as at Hod Hill in Dorset (Richmond 1968). Mass-wall construction techniques, such as cob construction, build from ground-level or require only shallowly-based posts, and therefore leave little or no trace below ground (Henig and Booth 2000, 82).

Despite the lack of structural evidence it is likely that the small enclosures at Spring Road related to domestic activity, due to the concentrations of pottery, including partly reconstructible vessels, at the terminals of two ditches at right angles, ditch group 1627 (cut 1077) and group 1629 (intervention 1101). The two almost certainly form part of one enclosure. The only other sizeable pottery assemblage came from a secondary fill within ditch group 1626 (cut 1153), and may also have been contemporary debris. This is corroborated by the animal bone evidence, which suggests that human activity was concentrated around these main ditches and around posthole groups 2715 and 2716 (Chapter 4).

Concentrations of domestic finds at the terminals of penannular gullies of the Iron Age have long been argued to indicate house sites (eg at Roughground Farm, Lechlade, Gloucestershire, Allen *et al.* 1993, 51 and 179; see also Allen *et al.* 1984, fig. 6.3). This pattern also appears to continue into the early Roman period: at Old Shifford Farm, for instance, domestic debris was concentrated at the terminals of a succession of D-shaped enclosures containing postholes, argued to represent a house-site (Hey 1995, 102-12 and 168-9). Similar patterns of deposition were also noted at the Vicarage Field, Stanton Harcourt, Oxfordshire (Thomas 1955, 9-11).

The other ditches and gullies on the site, however, contained little or no pottery. This is unlikely to be the result of later recutting, of which there is little evidence on the site, and since the large assemblages of finds from ditches came from throughout their fills, only the shallowest gullies may possibly have had the character of their fills significantly affected by later truncation. For the 2nd century phase it is therefore possible either that the focus of the 2nd-century domestic activity lay outside the excavation area, perhaps destroyed by the medieval gravel-extraction pits to the east, or that the enclosures were fields and there was no domestic activity on the site at this time. The gravel-pits do not, however, seem to account satisfactorily for the low density of postholes in the eastern sector of the site because north of the pits in Area 8 there is also a lack of postholes. It would seem then that the postholes are restricted by the central Roman ditches to the western sector of the site.

Market garden plots, storage areas or paddocks for containing animals with young are possible other uses given the small size of these enclosures. Although some of the ditches seem too shallow to have acted as barriers for animals, particularly those in the north-east of Area 8 (groups 2583, 2584, 2585 and 2586), parallel fence-

lines may in some cases have provided further barriers, and others may have been accompanied by hedges. Evidence for hedges usually takes the form of shallow irregular linear disturbances, which may not have survived later truncation. Charcoal from the site did however indicate three species of thorny shrub that could have come from hedges (Chapter 4).

Environmental evidence for the settlement overall is limited. Charcoal indicates that both oak and beech were present in the vicinity - the latter the first positive identification in the Upper Thames Valley during this period - and several species of thorny shrub (Chapter 4). Animal bones show the presence of the main domesticates, with sheep continuing to predominate (Chapter 4). This is a pattern also shared by the Roman settlement at Abingdon Vineyard below the town centre, but not by Barton Court Farm to the east of the town, where cattle become more important in the Roman period (Wilson in Miles 1986). Charred plant remains were few, but include spelt wheat in one of the ditches; this is the preferred variety in the Iron Age, but was increasingly supplanted by bread wheat during the Roman period, for instance at Barton Court Farm. Overall the impression is of a traditional pattern of farming continuing late prehistoric practices.

The Roman enclosure system in its wider context (Fig. 48)

The Spring Road site has a very different Roman history compared to most other sites in the Abingdon area. Abingdon, like Dorchester-on-Thames, was very important at the end of the Iron Age and saw continued occupation into the early Roman period (Henig and Booth 2000, 75). Many of the early Roman sites previously excavated in the Abingdon area however show evidence of an hiatus or at least a significant decrease in activity in the mid-2nd century AD: Ashville Trading Estate/Wyndyke Furlong (Parrington 1978, 36; reinterpretation of the ceramic evidence: Henig and Booth 2000, 107; Muir and Roberts 1999, 37), Barton Court Farm (Miles 1986, 49; Henig and Booth 2000, 84), Eight Acre Field, Radley (Mudd *et al.* 1995, 38), Drayton North Cursus (Barclay *et al.* 2003) and even Abingdon town centre (Henig and Booth 2000, 71 discussing Abingdon Vineyard). It has been suggested that this may have been due to Frilford/Marcham supplanting Abingdon as a local centre because

Frilford/Marcham was much closer to a major Roman road (Henig and Booth 2000, 75).

At Spring Road, however, the ceramic evidence points to a clear hiatus in settlement from the end of the middle Iron Age until the 2nd century AD, and occupation limited to the 2nd and 3rd centuries AD. A break in occupation on long-established sites at around AD 130 is also evident across much of the Upper Thames Valley (Henig and Booth 2000, 106), and as a corollary a substantial number of rural settlement sites were established in the 2nd century AD and remained stable into the later Roman period (*ibid.*). It would seem, therefore, that Spring Road falls into this latter group of sites, possibly acting as a new focus for the group formerly settled at Ashville.

The reason for this mid-2nd-century dislocation in Abingdon is not entirely clear. Although it is still possible that Abingdon saw a decrease in importance in the mid-2nd century with the rise of Frilford/Marcham as a new local centre, why should activity diminish on established sites and new activity occur on alternative sites? As Henig and Booth point out, none of the listed early Roman settlements that apparently show a hiatus has been completely excavated, and the dating of the apparent re-planning is not precise. It is alternatively possible that these settlements shifted focus individually over a few decades. Locally it may be more of a change in character of existing settlements, or at least only very local movement within farming units, than complete abandonment and relocation.

Within Abingdon town new masonry Romanised buildings were being erected at Abingdon Vineyard and East St. Helen's Street early in the second century (Allen 1990, 74; Wilson and Wallis 1991), and at the periphery of the town there was clearly an expansion in the area of Roman settlement in the second century, concomitant with the apparent decline in intensity of activity in areas occupied in the 1st century AD. It may be that the appearance of these Romanised buildings marks the movement of the local aristocracy into the town, and a reorganisation of rural estates including the creation of separate, new settlements for the farm workers. The Spring Road settlement may therefore be an expression of this new social order, part of what Lambrick described as 'a further stage in a process of break up of earlier, Iron Age structures, in the context of a more capital intensive system involving a much more complex social, economic and political infrastructure' (Lambrick 1992, 105; Henig

and Booth 2000, 109-110). Other rural settlements around Abingdon that on present evidence may appear in the 2nd century include one at Radley (Benson and Miles 1974, map 31), an enclosure on Andersey Island (Ainslie 1991), and possibly the line of enclosures or 'ladder-settlement' east of Gooseacre Farm, Radley (Benson and Miles 1974, map 31).

SAXON PERIOD

by Zena Kamash and Tim Allen

The Saxon period at Spring Road was represented by two sunken-featured buildings in Area 8 and other concentrations of Saxon pottery in Areas 3 and 4. In addition, one pit of Saxon date was identified in Area 9 during the 1994 AAAHS excavations. All of these features and their associated finds appear to be of 6th-century date. Fifth-century domestic activity is known from the centre of town at the Vineyard, and early 5th-century burials were found at the Saxton Road cemetery only some 600 m from the site south of the river Ock (Leeds and Harden 1936, 5; Chadwick Hawkes 1986, 73-4), but on present evidence the Saxon activity at Spring Road appears to represent a 6th century re-occupation of a site not inhabited since Roman times, unlike the suggested continuity at Barton Court Farm east of Abingdon (Miles 1986, 51).

The sunken-featured buildings (SFBs)

Both SFBs (2008 in the north and 2687 in the south) were rectangular with rounded corners and had dimensions of 3.05 m by 2.26 m by 0.28 m (2008) and 3.12 m by 2.90 m by 0.26 m. These dimensions are approximately average for SFBs and are comparable to two out of three SFBs found beyond St Helen's Church to the south in Abingdon (Rahtz 1976, 75 and app. 1, 408). Three slightly smaller and square SFBs have been excavated at Audlett Drive, Abingdon (Keevill 1992, 62). In addition, seven larger SFBs (*c* 3 m by 4 m) were excavated at Barton Court Farm, Abingdon (Miles 1986, 16). Other SFBs identified in the surrounding area include 2 from the Abingdon Vineyard excavations, 60 from Barrow Hills, Radley and 33 from Sutton

Courtenay (Allen 1990, 74; Chambers and Halpin 1986, 111; Leeds 1947, 79) (see Fig. 49). The southern SFB (2687) at Spring Road typically had the postholes in its short sides on the east-west axis. This is the commonest type of SFB (Rahtz 1976, 75); at Mucking and West Stow, for example, the highest proportion of SFBs were of this type (Hamerow 1993, 10; West 1985, 113). The two postholes have been interpreted as ridge-pole supports (Rahtz 1976, 75).

The northern SFB (2008) was slightly atypical since there were two postholes in the western end. This is a rare phenomenon, but can be paralleled at Mucking, Essex where seven SFBs out of a total of 203 had double gable posts (Hamerow 1993, 10f). Both of the Spring Road SFBs appeared to contain additional posts, and in 2687 there were also possible postpads. Only eight SFBs at Mucking had additional supporting posts set within the floor area (Hamerow 1993, 11), but this feature was also present at locally at Barton Court Farm and at Audlett Drive (Miles 1986, 35; Keevill 1992, 62). As Keevill notes, if these posts are additional supports for the ridge pole, then they preclude the provision of a suspended floor above the pit (1992, 77). There are however no clues at Spring Road as to what function these additional posts may have served, nor is it certain that they were contemporary with the use of the structures.

The function of the SFBs at Spring Road is also uncertain. Weaving equipment is often associated with SFBs (Rahtz 1976, 76); local examples occur at both the Abingdon Vineyard and at Barton Court Farm (Allen 1990, 74; Miles 1986, 35). At Spring Road, however, neither SFB produced artefacts associated with weaving. The animal bone assemblages from the SFBs do show more evidence of butchery than other bone assemblages on the site (Chapter 4: Charles). The assemblages are still mixed, however, and are more likely to represent mixed domestic debris than solely butchery debris (*ibid.*). Overall, both the small and large animal bone assemblages probably derived from general domestic activity, rather than special or specific activities. Furthermore, as noted at Barton Court Farm, 'it is dangerous to draw conclusions about the function of buildings on the basis of re-deposited rubbish within them' (Miles 1986, 35).

There is a marked difference between the deposition patterns of the SFBs. Although very similar in depth to 2687, and unlikely to have been truncated to a greater degree, SFB 2008 contained only one fill, whereas 2687 contained three fills. In addition, SFB 2687 produced more than 4.5 times the amount of pottery than 2008

(Table 9). A similar discrepancy is visible in the large animal bone assemblage, three times as many animal bones coming from 2687 than from 2008.

The upper fills of SFB 2687 contained the majority of the ecofactual and artefactual material. A cross-fitting sherd between layer 2672 within 2687 and modern grave 3511 (4 M 7) indicates either that a Saxon feature contemporary with the backfilling of the SFB was disturbed by the modern grave, or that some rubbish was dug out and redeposited on occasions. Given the relatively well-preserved sherds from these upper fills, the former seems more likely in this case.

The animal bone and pottery assemblages from the primary fill (2686) of 2687 were much smaller, and the average sherd size was also smaller. The primary fill of 2687 was 0.3 m thick, thicker than the two upper fills, and this emphasises the low density of material within this deposit. This fill was also more compacted than the layers above, perhaps indicating a build up of soil over a considerable length of time. The character of this deposit suggests that the SFB was left open for some time before being back-filled with rubbish, and so might have been in use somewhat earlier than the material dumped in its upper fills.

The greater compaction of this deposit, and the smaller size of the finds within it, could alternatively be interpreted as indicating an *in situ* accumulation of occupation debris on or below the floor. The lack of surfaces within the deposit, however, or of clear horizons of occupation material, argues against the former. At Barton Court Farm there was no trace of build-up of occupation debris and the excavator felt that this was due to the fact that the 'huts' must have been cleaned regularly (Miles 1986, 35). At Mucking, the majority of finds and workshop debris came from upper fills, and it was thought that only very few SFBs contained an occupation layer (Hamerow 1993, 14). At West Stow, however, more finds were recorded from the primary fills, which were fine-grained and homogeneous, leading the excavator to believe that the primary fill did not represent the use of the pit as a refuse dump after it had gone out of use, but consisted of material that had accumulated below the suspended plank floor of the building during use (West 1985, 119). This pattern of infill could however indicate that SFBs were reused for rubbish-disposal immediately, rather than that the finds necessarily derive from *in situ* activity. With only two SFBs at Spring Road it is impossible to deduce a pattern to the use of these structures at this site.

The features potentially associated with the SFBs at Spring Road are also of interest. Both SFBs have postholes around the outside of the pit (see Fig. 14), although as these are not clearly dated they may not be contemporary. Despite looking for evidence for external walls, none was found at Barrow Hills, Radley nor at Barton Court Farm (Chambers and Halpin 1986, 111; Miles 1986, 35). If genuinely associated, these might lend support to West's interpretation of SFBs as larger timber buildings with partly-celled interiors, although West himself argues that postholes for earth-fast posts are mainly of value during construction, and are not really necessary once the building is up (West 2001, 72). These postholes could however simply represent fenced areas surrounding the structures.

Several of the tentative lines of postholes within the site contained small Saxon sherds, and it is possible that these were Saxon fence lines. The fact that these fence lines share the same alignment as Roman ditches may be due to the persistence of these boundaries into the Late Roman and early Saxon period as hedges. At Barton Court Farm, Abingdon and Barrow Hills, Radley, fences rather than ditches formed enclosures around some of the Saxon buildings (Miles 1986, 16-18 and fig. 13; Chambers and McAdam 2007, 68-9 and fig. 3.8). At both of these sites the sunken-featured buildings were accompanied by a variety of posthole rectangular buildings, although at Barton Court Farm even the best-preserved buildings were incomplete, and corner posts were frequently lacking. Similar structures might be expected at Spring Road, and it is possible to suggest tentative building outlines amongst the many postholes (Figs 14 and 15-16), although none is entirely convincing. Due to the uncertainty, however, further discussion is unwarranted.

A small quantity of fired clay, one fragment bearing a wattle impression, was found within one of the SFBs, but this need not have derived from the superstructure of the building. Generally fired clay and daub is only found at a few early to middle Anglo-Saxon sites (Hamerow 1993, 13), perhaps indicating that this was not the predominant material used for the walls of these structures. West did however find evidence of clay walling adjacent to hearths at West Stow (West 2001, 17, 22 and 72), and one internal oven, from which such fired clay could have derived.

The position of SFB 2687 astride the double Roman boundary ditches strongly suggests that this boundary had disappeared long before. The location of SFB 2008 within the middle Bronze Age timber circle is likely to be fortuitous. It has often been

observed that older monuments were important to the Anglo-Saxons and it has been said that ‘the correlation between important prehistoric sites of the [Upper Thames] region and the important Anglo-Saxon ones is uncanny.’ (Blair 1994, xxiv, xxv). This can be seen for example at Barrow Hills, Radley, Sutton Courtenay and Saxton Road (Blair 1994, 20; Leeds 1947; Leeds and Harden 1936, 9). In this case, however, there is no evidence that the circle, or indeed a mound surrounded by it, would still have been in existence in the Anglo-Saxon period, and since there is no indication that SFB 2687 was dug into a mound, the similar depth of both SFBs at this site strongly suggests that there was none below 2008 either.

Of particular note, is a stamped unstratified sherd collected during modern grave-digging on the site. This sherd has been identified as having a ‘like stamp’ with another small sherd found at Sutton Courtenay some 9 km to the south (see Chapter 3, Fig. 38, and Fig. 49). A find of this kind is exceptionally rare. The sherd from Sutton Courtenay was retrieved during the latter phases of Leeds’ excavations, but sadly no stratified location is given in the report (Leeds 1947, pl. XXII(b)). There is, however, a description of House XXI, which was much larger than the other SFBs excavated and which contained a ‘basket-like pen with a large mass of clay’ (Leeds 1947, 83). The presence of this installation led Leeds to interpret the ‘house’ as a potter’s workshop on analogy with similar installations found at Dorchester (*ibid.*). It is tempting, but highly speculative, to suppose that the stamp was made in that workshop. What we can say with confidence is that some form of trade link existed between Sutton Courtenay and Spring Road, Abingdon, whether involving the pots themselves or the contents of the pots. The limited evidence from Spring Road, however, makes it very difficult to define further links between the two sites.

Considerable environmental evidence has been retrieved for the economy and environment of the Saxon settlement, even though it has come from only two buildings within the settlement. This indicates a mixed farming economy, with sheep and pigs predominant amongst the livestock, which may indicate more woodland locally than in previous periods. Sloe and hawthorn were amongst the charcoal, and were probably collected locally as fuel, as well as oak and hazel; both fruits and nuts may also have been harvested. The weeds of wet ground need only indicate the use of the lower-lying ground alongside the Larkhill Stream for fodder, though bread wheat, barley and either beans or peas were grown, and cultivated plots may have included

these low-lying areas immediately adjacent to the site. A single eel bone suggests that the inhabitants also fished seasonally on the river Ock (Chapter 4).

MEDIEVAL AND POST-MEDIEVAL PERIODS

by Tim Allen

Groups of pits, some open at the same time, others intercutting, covered a considerable area down the east side of the site. Despite this, the excavated sample of these pits produced relatively few finds. The finds were very mixed and included pottery ranging in date from the Bronze Age to the 13th century AD, as well as animal bone and flint. The fills of the pits were either friable or loose sandy silt deposits or redeposited lenses of natural gravel, and the fills often spread between two or more intercutting pits. The low density of finds in the pits makes it highly unlikely that these pits were used for the deposition of rubbish. The irregular shapes and sizes of the pits also contrasts with the regular shape of cesspits and rubbish pits found associated with tenements in Abingdon.

One plausible interpretation was that these pits were dug in repeated visits to extract gravel on a small scale, possibly by individual householders. The lenses of redeposited natural gravel may seem rather anomalous, but several explanations present themselves: erosion of the sides of the pits over time, shovelling of gravel being extracted into adjacent partially-filled pits before carting it away or dumping of unwanted gravel back into open pits. Similarly irregular groups of pits have been observed during redevelopment of the MG works west of the Larkhill Stream, where they were dated to the late Roman period (Halpin pers. comm.), and on the east side of Abingdon Abbey precinct south of the Vineyard (OA 2005), where they also date to the 13th century.

The extent of these intercutting pits, and the wide date range of the pottery found within them, strongly suggests that they truncated or obliterated earlier features in this area of the site. This partly explains the low numbers of earlier prehistoric features on the site and the lack of Roman enclosure ditches in the south-eastern area

of the site. While, however, the pits certainly contain residual material, this does not appear to occur in any obvious concentrations of one period or another. Furthermore, the pits do not seem to account satisfactorily for the low density of postholes in the eastern sector of the site, as the area north of the pits in Area 8 also contains few postholes. It would seem then that the postholes were restricted by the central Roman ditches to the western side of the site, perhaps indicating that the domestic activity was also concentrated west of the boundary.

The site lay outside the known limits of the town during the medieval period. In Munby's reconstruction of the medieval field system of Abingdon (Lambrick and Slade 1991, fig. 4) he does not name this particular land parcel, and it lies outside the main West or North fields of the town, though it lies adjacent to Hitching Field (Fig. 50). It is possible that this patch of ground was peripheral to the main three field system, either one of those fields reserved for additional cultivation depending upon local need, or reserved for grazing. Such an area might well be regarded as open to exploitation for other needs, such as gravel for local building projects. On present evidence, this exploitation did not last for long, as almost all of the medieval pottery dates to the 13th century. Wilson (Harman and Wilson 1981, 60-61) argued that deep pits found at the junction of Spring Road and Faringdon Road were gravel pits periodically used to repair borough roads, but the evidence from the Spring Road cemetery is consistent with a relatively short-lived but quite large-scale requirement for gravel, such as would have been needed for the construction of a chapel and burial ground at the road junction nearby (see Chapter 1).

The use of the site in the late medieval and early post-medieval period is unclear. The single extended burial found on the west edge of the site accompanied by a wound-wire headed pin most likely dates to the 16th or 17th centuries, though such pins continued to be used for fastening as an alternative to buttons into the 18th or even the early 19th century. Wilson (*ibid*, 61) suggested that the burial ground at the road junction to the east went out of use towards the end of the 13th century, following the establishment of the Abbot of Abingdon's right to all mortuaries in the parish in 1284, but even if it continued in use into the post-medieval period, this burial lies over 200 m from the other known burials. It is possible that this was someone who could not be buried in consecrated ground, such as a suicide or criminal hanged on the gallows, or the victim of an unlawful killing, but a more plausible

explanation, given the likely date, is that this was a casualty of the Civil War, buried after one of the many skirmishes around Abingdon, or a victim of the plague. Another lone burial probably of post-medieval date was found on the north side of Ock Street just east of Ock Bridge during redevelopment (SMR). The fact that a burial was made at Spring Road at a time when no field boundaries along this line existed (or at least were not indicated either by Rocque's map of 1761 or the early O.S. maps) perhaps indicates that this land was not under cultivation at the time, although for a hurried burial this may not have mattered.

The origins of the 'headland' that was believed from the evaluation to run north-south down the site need further consideration. A depth of nearly 1 m of soil was found down the centre of the site, while less than half that depth of soil was found in evaluation Trench F, and indeed in excavation Area 5. From the excavations it is now clear that this soil overlies the 13th century gravel pits, and is cut by the late Victorian quarry. The quarry was not shown on the 1st edition Ordnance Survey map of 1873, nor on the 3rd edition of 1914, but does appear on the 2nd edition maps of 1900 and 1904 (Plate 11). It was clearly short lived, and probably opened purely to meet the short-term needs of local development, possibly at St. Helen's School, built between 1900 and 1914 just to the north.

Although it seemed plausible that the depth of soil had resulted from the creation of a medieval headland, no trace of medieval furrows was found in either the excavations or evaluations. Moreover, the finds from all of the soils making up the 1 m accumulation contained post-medieval items, showing that the accumulation did not begin in earnest until at least the 17th century. Rocque's map of 1761 shows the site under cultivation (Plate 10), but there is no indication of a headland or other boundary, suggesting that the accumulation may have occurred later still. No boundary is shown on the Christ's Hospital map of 1835, though as this map does not show detail in this area this may not be relevant. There is similarly no boundary indicated on the 1st edition Ordnance Survey map of 1873. It remains possible that a boundary was established in the late 18th or early 19th century, allowing the gradual build-up of a headland along this line, but had gone out of use by the time the 1st edition Ordnance Survey map was drawn up in 1873.

Alternatively, the build-up of soil could have resulted from quarrying after that date. The linear north-south alignment of the gravel quarry shown on the 2nd edition

O.S. map of 1900 (Plate 11) suggests that a temporary boundary on this alignment was put up when gravel extraction began, and the topsoil and subsoil from the area of the quarry may have been stripped and dumped along the west side. This would explain why the soils all contain a mixture of finds, presumably derived from earlier occupation on the site. Against this interpretation, the western edge of the quarry appeared to cut through all of the layers in the soil accumulation. It is however possible either that the quarry was extended westwards during its lifetime, or that the edge eroded or collapsed, so cutting into the edge of the dumped soils. The 3rd edition 6" O.S. map of 1914 does show a north-south boundary along the line of the putative headland, which had disappeared by the 4th edition 6" O.S. map of 1938, by which time the present outline of the cemetery had been established.

CONCLUDING REMARKS

by Tim Allen

The original research aims were modified as the work progressed. Although the build-up of soil down the middle of the site proved to derive not from a medieval headland but from post-medieval quarrying, and thus the hoped-for preservation of a Saxon ground surface was not forthcoming, a variety of significant new discoveries was made, leading to further research objectives, particularly as regards the Neolithic and Bronze Ages. The site has clearly had a very long history of inhabitation, and was a significant focus within the area for more than 4000 years.

The ability of the investigations to answer the research questions was hampered most by the limited area remaining for excavation by 2000; had the opportunity been taken to investigate the site sooner, significantly more of the cemetery area could have been recorded prior to destruction. For the future, small areas will remain untouched within the cemetery itself below the central walkways, providing a potential opportunity to examine more of the timber circle. The historic maps indicate that quarrying has removed any archaeological deposits over much of the area immediately east and north of the cemetery, but beyond this, private gardens on the east, south and south-east may well contain further traces of past activity. Geophysical

survey has shown that an area of undisturbed archaeology still survives south-west of the cemetery, and this could add significantly to our understanding of the past history of this long-lived site.

APPENDIX 1: POSTHOLES TABULATED ACCORDING TO THEIR ASSIGNED PERIOD

(unphased posthole tables held in archive)

Bronze Age postholes

Abbreviations

U	U-shaped	EMBA	Early to middle Bronze Age
V	V-shaped	MLBA	Mid to late Bronze Age
Sl. U	Sloping U-shaped	LBA	Late Bronze Age
Irreg.	Irregular	EIA	Early Iron Age
EMN	Early to middle Neolithic	EMIA	Early to middle Iron Age
MN	Middle Neolithic	2nd	2nd-century AD
LN	Late Neolithic	EMS	Early to middle Saxon

Table A1: Posthole group 2568

Cut No	Fill No	Fill Type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
2024			0.47	0.47	0.50	Irreg.	
	2025	Primary					
	2376	Postpipe					
2090			0.40	0.40	0.45	Irreg.	
	2091	Secondary					1 EMN
	2318	Primary					
2092			0.49	0.49	0.54	U	
	2093	Primary					1 MN
	2319	Secondary					
	2320	Tertiary					
2094			0.50	0.50	0.60	Irreg.	
	2095	Primary					
	2321	Secondary					
2357			0.40	0.40	0.50	Sl. U	
	2358	Primary					
	2359	Postpipe					
2360			0.20	0.20	0.41	U	
	2361	Primary					
	2362	Secondary					
2363			0.37	0.37	0.66	U	
	2364	Postpipe					
	2365	Primary					
	2366	Tertiary					
2367			0.47	0.47	0.54	U	
	2368	Primary					1 LN
	2369	Secondary					
2370			0.36	0.36	0.46	U	
	2371	Primary					
	2372	Secondary					
2373			0.50	0.50	0.50	U	
	2374	Primary					
	2375	Secondary					
2377			0.42	0.42	0.45	U	
	2378	Primary					
2379			0.52	0.52	0.50	U	
	2380	Primary					
2381			0.22	0.22	0.17	U	
	2382	Primary					
2389			0.46	0.46	0.57	U	
	2390	Primary					
2629			0.52	0.52	0.48	U	
	2631	Primary					
	2630	Postpipe					1 EMIA
2632			0.43	0.43	0.20	U	
	2633	Primary					
2634			0.30	0.30	0.08	U	
	2635	Primary					

Table A2: Posthole group 2726

Cut no	Fill no	Fill type	Length(m)	Breadth(m)	Depth (m)	Profile	Pottery
2014			0.53	0.53	0.34	U	
	2015	Secondary					
	2127	Primary					
2032			0.45	0.45	0.08	U	
	2033	Primary					
2038			0.23	0.23	0.14	U	
	2039	Primary					
2096			0.80	0.30	0.30	U	
	2097	Primary					
	2322	Secondary					
2325			0.43	0.43	0.30	U	
	2326	Postpipe					
	2327	Primary					
2328			0.42	0.42	0.34	U	
	2329	Primary					
2395			0.30	0.30	0.12	U	
	2396	Primary					

Table A3: Possibly Bronze Age postholes in Area 9

Cut no	Fill No	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
1224			0.43	0.43	0.23	U	
	1223	Primary					1 MLBA
1298			0.34	0.34	0.34	U	
	1299	Primary					1 MLBA
1320			0.34	0.34	0.34	U	
	1319	Primary					1 MLBA
1442			0.20	0.20	0.10	U	
	1441	Primary					1 LBA
1554			0.24	0.24	0.15	U	
		Primary					1 MLBA
1618			0.40	0.40	0.36	U	
	1617	Primary					1 MLBA

Iron Age postholes

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
2049			0.24	0.24	0.19	U	
	2048	Primary					
2050*			0.38	0.43	0.34	U	
	2051	Primary					4 EIA
2058			0.58	0.58	0.28	U	
	2056	Secondary					
	2057	Primary					
2072*			0.34	0.44	0.14	U	
	2073	Primary					1 EIA
2075			0.37	0.37	0.27	U	
	2074	Primary					
2076			0.47	0.40	0.16	U	
	2077	Primary					
2100			0.45	0.45	0.36	U	
	2098	Secondary					
	2099	Primary					1 EIA
2104			0.28	0.28	0.14	U	
	2103	Primary					
2140			0.32	0.32	0.09	U	
	2139	Primary					5 EMIA
2142			0.32	0.32	0.08	U	
	2141	Primary					
2194			0.25	0.25	0.11	U	
	2193	Primary					
2196			0.17	0.17	0.10	U	
	2195	Primary					
2225			0.30	0.30	0.10	U	
	2224	Primary					
2227			0.38	0.38	0.27	U	1 ?MLBA
	2226	Primary					
2238			0.35	0.35	0.16	U	
	2237	Primary					
2240			0.33	0.33	0.16	U	
	2239	Primary					
2339			0.60	0.60	0.32	U	
	2336	Tertiary					
	2337	Secondary					
	2338	Primary					
2458			0.15	0.15	0.07	U	
	2457	Primary					
2460			0.15	0.15	0.09	U	
	2459	Primary					
2462			0.22	0.22	0.15	U	
	2461	Primary					
2483			0.23	0.23	0.20	U	
	2482	Primary					
2693			0.38	0.42	0.19	U	
	2694	Primary					

Table A4: Posthole group 2719: Iron Age roundhouse

* Alternative group 2717.

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
2112			0.30	0.37	0.25	U	
	2113	Primary					
2122			0.35	0.35	0.13	U	
	2123	Primary					
2174*			0.50	0.50	0.24	U	
	2173	Primary					

Table A5: Posthole group 2723: central roundhouse feature

* This feature may be a natural feature rather than a genuine posthole.

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
2116			0.23	0.22	0.18	U	
	2117	Primary					
2129			0.32	0.26	0.16	U	1EMIA
	2130	Primary					
2131			0.26	0.28	0.11	U	
	2132	Primary					
2133			0.22	0.20	0.10	U	1?EMBA
	2134	Primary					
2160			0.40	0.40	0.25	U	
	2159	Primary					

Table A6: Posthole group 2720: internal partition - W

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
2118			0.21	0.21	0.11	U	
	2119	Primary					
2120			0.29	0.29	0.17	U	
	2121	Primary					
2185			0.28	0.28	0.07	U	
	2186	Primary					
2217			0.23	0.23	0.15	U	
	2218	Primary					
2187			0.22	0.22	0.08	U	
	2188	Primary					
2219*			0.23	0.23	0.14	U	
	2220	Primary					

Table A7: Posthole group 2721: internal partition - E

* Alternative group 2717.

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
2081*			0.38	0.38	0.24	U	
	2080	Primary					
2135*			0.36	0.40	0.11	U	
	2136	Primary					
2164			0.26	0.26	0.15	U	
	2163	Primary					
2203^			0.20	0.18	0.09	U	
	2204	Primary					
2207			0.14	0.32	0.04	Irreg.	
	2208	Primary					
2209*			0.30	0.28	0.23	U	
	2210	Primary					1 ?EMS
2211*			0.40	0.37	0.13	Sl. U	
	2212	Primary					
2306			0.39	0.39	0.24	U	7 EIA
	2183	Primary					
2333			0.30	0.30	0.14	U	
	2332	Primary					
2349			0.16	0.16	0.06	U	
	2350	Primary					
2616			0.33	0.33	0.17	U	
	2615	Primary					

Table A8: Posthole group 2724: inner roundhouse ring

* Alternative group 2715.

^ Alternative group 2717.

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
2085			0.25	0.25	0.16	U	
	2084	Primary					
2087			0.27	0.27	0.22	U	
	2086	Primary					
2107			0.32	0.32	0.22	U	
	2105	Secondary					2 EIA
	2106	Primary					
2109*			0.30	0.30	0.14	U	
	2108	Primary					
2180			0.39	0.39	0.28	U	
	2179	Primary					2 MLBA
2229^			0.20	0.30	0.06	U	
	2228	Primary					
2236			0.30	0.30	0.17	U	
	2235	Primary					
2246			0.32	0.32	0.04	U	
	2245	Primary					
2560			0.49	0.49	0.36	U	
	2559	Primary					
2564			0.40	0.40	0.35	U	
	2563	Primary					

Table A9: Posthole group 2725: outer roundhouse ring

* Alternative group 2716.

^ Alternative group 2713.

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
2061*			0.50	0.50	0.32	U	
	2059	Secondary					2 EIA 9 EMIA
	2060	Primary					3 EIA
2066			0.36	0.36	0.32	U	
	2065	Primary					
2068			0.46	0.46	0.12	U	
	2067	Primary					
2176			0.36	0.36	0.11	U	
	2175	Primary					
2248			0.19	0.19	0.09	U	
	2247	Primary					
2342			0.42	0.42	0.16	U	
	2340	Secondary					
	2341	Primary					
2351^			0.22	0.22	0.24	U	
	2352	Primary					
2454^			0.21	0.21	0.13	U	
	2453	Primary					
2456			0.31	0.31	0.09	U	
	2455	Primary					
2472			0.23	0.23	0.17	U	
	2471	Primary					

Table A10: Posthole group 2722: alternative roundhouse model

* Alternative group 2715.

^ Alternative group 2713.

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
243			?	?	?	?	
	230	Primary					2 EIA
1417			0.60	0.50	0.10	Sl. U	
	1416	Primary					3 EIA
1430			0.70	0.70	0.22	U	
	1429	Primary					13 EIA
2055			0.78	0.78	0.54	U	
	2052	Tertiary					1 EIA 2 EMIA
	2053	Secondary					2 EIA
	2054	Primary					
2064			0.56	0.56	0.34	Sl. U	
	2062	Secondary					1 EIA
	2063	Primary					
2280			0.50	0.45	0.27	U	
	2279	Primary					1 EIA 1 ?LBA
2308			0.27	0.27	0.12	U	
	2307	Primary					
	2309	Layer					2 EIA
2355			0.23	0.23	0.12	U	
	2356	Primary					2 EIA
2434			0.22	0.22	0.21	U	
	2433	Primary					2 EIA
2438			0.22	0.22	0.28	U	
	2437	Primary					1 EIA
2528			0.24	0.24	0.16	U	
	2527	Primary					1 EIA
2588			0.36	0.36	0.22	U	
	2587	Primary					2 EIA
2600			0.48	0.48	0.23	U	
	2599	Primary					4 EIA

Table A11: early Iron Age postholes

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
1083			0.70	0.70	0.36	U	
	1081	Secondary					5 EIA 7 EMIA
	1082	Primary					
1458			0.18	0.18	0.08	U	
	1457	Primary					4 EMIA
2288			0.31	0.31	0.26	U	
	2287	Primary					1 EMIA

Table A12: early to middle Iron Age postholes.

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
242			?	?	?	?	
	231	Primary					2 EMIA
2016			0.44	0.44	0.38	U	
	2017	Primary					5 EMIA 2 MLBA
	2128	postpipe					
2500			0.30	0.30	0.31	U	
	2499	Primary					1 EIA 1 EMIA
2598			0.48	0.48	0.23	Sl. U	
	2596	Secondary					1 EIA 2 EMIA
	2597	Primary					

Table A13: middle Iron Age postholes

Roman postholes

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
2229*			0.20	0.30	0.06	U	
	2228	Primary					
2296			0.30	0.30	0.16	U	
	2295	Primary					
2351^			0.22	0.22	0.24	U	
	2352	Primary					
2386			0.31	0.31	0.23	U	
	2385	Primary					
2436			0.36	0.33	0.15	U	
	2435	Primary					
2444			0.23	0.25	0.22	U	
	2443	Primary					
2448			0.24	0.24	0.10	U	
	2447	Primary					
2454^			0.21	0.21	0.13	U	
	2453	Primary					
2510			0.30	0.30	0.32	U	
	2509	Primary					
2514			0.35	0.35	0.26	U	
	2513	Primary					

Table A14: 2nd-century fence-line posthole group 2713

* Alternative group 2725.

^ Alternative group 2722.

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
2081*			0.38	0.38	0.24	U	
	2080	Primary					
2104			0.28	0.28	0.14	U	
	2103	Primary					
2135*			0.36	0.40	0.11	U	
	2136	Primary					
2209*			0.30	0.28	0.23	U	
	2210	Primary					1 ?EMS
2211*			0.40	0.37	0.13	U	
	2212	Primary					

Table A15: 2nd-century fence-line posthole group 2715

* Alternative group 2724. 2081 and 2135 also belong to alternative group 2722.

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
711			0.37	0.32	0.27	U	
	713	Primary					
712			0.38	0.38	0.27	U	
	714	Primary					
715			0.43	0.43	0.15	U	
	716	Primary					
717			0.33	0.33	0.25	U	
	718	Primary					
719			0.38	0.38	0.18	U	
	720	Primary					
721			0.27	0.27	0.16	U	
	722	Primary					
723			0.22	0.22	0.12	U	
	724	Primary					
725			0.43	0.38	0.18	U	
	726	Primary					
727			0.30	0.30	0.33	U	
	728	Primary					
729			0.34	0.34	0.27	U	
	730	Primary					
731			0.38	0.38	0.07	U	
	732	Primary					

Table A16: 2nd-century fence-line posthole group 746

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
616			0.32	0.32	0.33	U	
	617	Primary					
620			0.30	0.24	0.08	U	
	621	Primary					
622			0.20	0.20	0.08	U	
	623	Primary					
626			0.37	0.37	0.19	U	
	627	Primary					
628			0.33	0.33	0.15	U	
	629	Primary					
632			0.38	0.38	0.21	U	
	633	Primary					
634			0.43	0.38	0.27	U	
	635	Primary					
638			0.38	0.38	0.20	U	
	639	Primary					
640			0.40	0.38	0.16	U	
	641	Primary					
644			0.48	0.48	0.34	U	
	645	Primary					
646			0.18	0.40	0.28	U	
	647	Primary					

Table A17: 2nd-century fence-line posthole group 649

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
1409			0.42	0.23	0.08	U	
	1408	Primary					
1411			0.32	0.32	0.14	U	
	1410	Primary					
1427			0.50	0.40	0.25	U	
	1426	Primary					

Table A18: 2nd-century fence-line posthole group 1630

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
1482			0.20	0.20	0.12	U	
	1481	Primary					
1616			0.30	0.30	0.10	U	
	1615	Primary					
1620			0.40	0.30	0.10	U	
	1619	Primary					

Table A19: 2nd-century fence-line posthole group 1637

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
2047			0.24	0.24	0.16	U	
	2046	Primary					
2071			0.40	0.40	0.40	U	
	2069	Secondary					
	2070	Primary					
2100*			0.45	0.45	0.36	U	
	2098	Secondary					
	2099	Primary					1 EIA
2102			0.28	0.28	0.14	U	
	2101	Primary					
2109^			0.30	0.30	0.14	U	
	2108	Primary					
2114			0.31	0.33	0.14	U	
	2115	Primary					1 EMIA
2158			0.42	0.42	0.38	U	
	2157	Primary					3 EIA
2205			0.35	0.28	0.15	U	
	2206	Primary					

Table A20: 2nd/3rd-century fence-line posthole group 2716

* Alternative group 2719.

^ Alternative group 2725.

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
2050*			0.38	0.43	0.34	U	
	2051	Primary					4 EIA
2061			0.50	0.50	0.32	U	
	2059	Secondary					2 EIA 9 EMIA
	2060	Primary					3 EIA
2072*			0.34	0.44	0.14	U	
	2073	Primary					1 EIA
2172			0.34	0.34	0.15	U	
	2171	Primary					
2203 [˘]			0.20	0.18	0.09	U	
	2204	Primary					
2219^			0.23	0.23	0.14	U	
	2220	Primary					

Table A21: 2nd/3rd-century fence-line posthole group 2717

* Alternative group 2719.

^ Alternative group 2721.

˘ Alternative group 2724.

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
1294			0.30	0.30	0.21	U	
	1293	Primary					
1337			0.29	0.29	0.17	U	
	1338	Primary					
1401			0.36	0.36	0.24	U	
	1402	Primary					
1403			0.16	0.16	0.15	U	
	1404	Primary					
1405			0.36	0.36	0.12	U	
	1406	Primary					
1432			0.24	0.24	0.18	U	
	1431	Primary					2 EIA

Table A22: 2nd/3rd-century fence-line posthole group 1631

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
1225			0.45	0.38	0.28	U	
	1226	Primary					1 EMS
1227			0.45	0.40	0.30	U	
	1228	Primary					1 EMIA
1287			0.40	0.28	0.18	U	
	1288	Primary					
1300			0.37	0.37	0.25	U	
	1301	Primary					
1438			0.43	0.43	0.27	U	
	1437	Primary					1 ?EMS
1440			0.35	0.35	0.25	U	
	1439	Primary					
1469			0.26	0.26	0.13	U	
	1470	Primary					
1546			0.35	0.35	0.16	U	
	1545	Primary					
1562			0.30	0.30	0.25	U	
	1561	Primary					

Table A23: 2nd/3rd-century fence-line posthole group 1632

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
1350			0.19	0.19	0.12	U	
	1349	Primary					
1364			0.17	0.17	0.12	U	
	1363	Primary					
1368			0.19	0.19	0.10	U	
	1367	Primary					
1548			0.33	0.33	0.36	U	
	1547	Primary					

Table A24: 2nd/3rd-century fence-line posthole group 1635

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
1260			0.30	0.30	0.30	U	
	1259	Primary					
1266			0.22	0.22	0.16	U	
	1265	Primary					
1274			0.24	0.24	0.30	U	
	1273	Primary					
1276			0.22	0.22	0.11	U	
	1275	Primary					
1358			0.20	0.20	0.06	Sl. U	
	1357	Primary					
1370			0.24	0.24	0.17	U	
	1369	Primary					

Table A25: 2nd/3rd-century fence-line posthole group 1636

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
1236			0.30	0.30	0.16	U	
	1235	Primary					
1238			0.36	0.36	0.16	U	
	1237	Primary					
1240			0.30	0.30	0.17	U	
	1239	Primary					1 2nd 1 ?EMS
1252			0.15	0.15	0.06	U	
	1251	Primary					
1254			0.17	0.17	0.06	U	
	1253	Primary					
1256			0.25	0.20	0.13	U	
	1255	Primary					
1258			0.20	0.14	0.14	U	
	1257	Primary					

Table A26: 2nd/3rd-century fence-line posthole group 1633

Cut	Fill	Fill type	Length	Breadth	Depth	Profile	Pottery
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no	no		(m)	(m)	(m)		
1242			0.40	0.25	0.20	U	
	1241	Primary					
1244			0.40	0.30	0.20	U	
	1243	Primary					
1246			0.20	0.14	0.06	U	
	1245	Primary					
1248			0.22	0.13	0.16	U	
	1247	Primary					
1578			0.20	0.10	0.04	U	
	1577	Primary					

Table A27: 2nd/3rd-century fence-line posthole group 1634

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
1155			0.30	0.30	0.09	U	
	1156	Primary					3 2nd 1MLBA
1296			0.40	0.40	0.32	U	
	1297	Secondary					1 EMIA 1 MLBA
	1308	Primary					

Table A28: other Roman postholes

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
1292			0.30	0.30	0.26	U	
	1291	Primary					1 EMS
2012			0.22	0.22	0.23	V	
	2013	Primary					1 ?EMS
2018			0.21	0.21	0.09	Sl. U	
	2019	Primary					
2022			0.24	0.24	0.07	Sl. U	
	2023	Primary					
2030			0.22	0.22	0.10	Sl. U	
	2031	Primary					
2032			0.45	0.45	0.08	Sl. U	
	2033	Primary					
2034			0.29	0.29	0.10	Sl. U	
	2035	Primary					
2473			0.40	0.40	0.20	Sl. U	
	2474	Primary					
2475			0.20	0.20	0.16	U	
	2476	Primary					
2477			0.38	0.38	0.46	U	
	2478	Postpipe					
	2481	Primary					
2540			0.28	0.28	0.05	Sl. U	
	2539	Primary					
2595			0.30	0.30	0.12	Sl. U	
	2594	Primary					
2624			0.19	0.19	0.17	U	
	2625	Primary					
2626			0.30	0.30	0.54	U	
	2627	Primary					
	2628	Postpipe					
2683			0.62	0.62	0.18	Sl. U	
	2682	Primary					
2685			0.18	0.18	0.14	V	
	2684	Primary					
2698			0.48	0.48	0.16	U	
	2697	Primary					2 ?EMS
2702			0.50	0.50	0.47	U	
	2699	Tertiary					
	2700	Secondary					
	2701	Primary					
2704			0.56	0.56	0.26	Irreg.	
	2705	Primary					
2706			0.50	0.50	0.50	U	
	2707	Primary					
	2708	Secondary					

Table A 29: Saxon Postholes in Areas 8 and 9

Cut no	Fill no	Fill type	Length (m)	Breadth (m)	Depth (m)	Profile	Pottery
3017			0.50	0.50	0.29	U	
	3018	Primary fill					
3019			0.70	0.70	0.24	U	
	3020	Primary fill					
3021			0.50	0.47	0.34	U	
	3022	Primary fill					
3030			0.70	0.70	0.28	U	
	3031	Primary fill					
3032			0.67	0.67	0.25	U	
	3033	Primary fill					
3042			0.27	0.27	0.12	U	
	3043	Primary fill					
3044			0.17	0.17	0.24	U	
	3045	Primary fill					
3046			0.67	0.59	0.08	U	
	3047	Primary fill					

Table A30: Post-medieval postholes in Area 5

APPENDIX 2: ROMAN DITCHES AND GULLIES WITH DIMENSIONS*Abbreviations*

U	U-shaped	LBA	Late Bronze Age
V	V-shaped	LBAEIA	Late Bronze Age/early Iron Age transition
Sl. U	Sloping U-shaped	EIA	Early Iron Age
Irreg.	Irregular	EMIA	Early to middle Iron Age
EMN	Early to middle Neolithic	2nd	2nd century AD
MN	Middle Neolithic	3rd/4th	3rd/4th century AD
LN	Late Neolithic	EMS	Early to middle Saxon
EMBA	Early to middle Bronze Age	12th	12th century AD
MBA	Middle Bronze Age	19th	19th century AD
MLBA	Mid to late Bronze Age	CBM	Roman ceramic building material

Table A31: Ditch group 2710

Cut no	Fill no	Fill type	Breadth (m)	Depth (m)	Pottery
809			0.75	0.30	
	804	Primary			
2423			0.90	0.19	
	2424	Primary			
2566			0.55	0.32	
	2565	Primary			3 x EIA, 3 x EMIA
2692			0.90	0.34	
	2690	Secondary			5 x EIA
	2691	Primary			

Table A32: Ditch group 1626

Cut no	Fill no	Fill type	Breadth(m)	Depth (m)	Pottery
520			1.00	0.30	
	510	Primary			3 x 2nd
704			1.15	0.45	
	709	Primary			
	708	Secondary			
705			0.47	0.25	
	710	Primary			
1065			0.75	0.26	
	1064	Primary			
1079			1.45	0.28	
	1078	Primary			
1112			1.25	0.55	
	1110	Secondary			1 x 2nd, 1 x 12th
	1111	Primary			
1153			1.20	0.38	
	1154	Secondary			2 x LBA, 2 x ?LBA, 3 x ?LBAEIA, 2 x EIA, 6 x EMIA 101 x 2nd, 6 x 3rd/4th
	1428	Primary			1 x MLBA, 2 x EMIA 12 x 2nd
1172			1.40	0.35	
	1173	Primary			
	1174	Secondary			6 x 2nd
1185			1.40	0.20	
	1186	Primary			1 x MLBA, 1 x LBA 1 x EMIA, 3 x 2nd

Table A33: Gully group 1628

Cut no	Fill no	Fill type	Breadth (m)	Depth (m)	Pottery
733			0.50	0.20	
	734	Primary			
1063			0.85	0.15	
	1062	Primary			
1075			0.75	0.16	
	1074	Primary			
1147			0.20	0.08	
	1148	Primary			
1157			1.50	0.12	
	1158	Primary			2 x MLBA
1175			1.00	0.15	
	1176	Primary			1 x MBA
1188			0.30	0.04	
	1187	Primary			

Table A34: Gully group 2711

Cut no	Fill no	Fill type	Breadth (m)	Depth(m)	Pottery
808			0.75	0.24	
	805	Primary			1 x MLBA
2468			?	0.14	
	2467	Primary			
2532			0.50	0.15	
	2531	Primary			

Table A35: Gully group 1199

Cut no	Fill no	Fill type	Breadth (m)	Depth (m)	Pottery
1167			0.70	0.12	
	1166	Primary			
1169			0.40	0.10	
	1168	Primary			
1171			0.65	?	
	1170	Primary			4 x MLBA
1194			0.65	0.22	
	1193	Primary			
1198			0.55	0.07	
	1197	Primary			

Table A36: Gully group 1206

Cut no	Fill no	Fill type	Breadth (m)	Depth (m)	Pottery
1069			0.70	0.14	
	1068	Primary			
1102			0.70	0.10	
	1103	Primary			
1203			0.70	0.11	
	1202	Primary			
1205			0.85	0.11	
	1204	Primary			1 x MBA

Table A37: Gully groups 615 and 619

Cut no	Fill no	Fill type	Breadth (m)	Depth (m)	Pottery
615			0.60	0.17	
	618	Primary			
619			0.35	0.09	
	648	Primary			

Table A38: Gully groups 1005 and 1414

Cut no	Fill no	Fill type	Breadth (m)	Depth (m)	Pottery
1005				0.15	
	1004	Primary			1 x 19th
1414			0.70	0.20	
	1514	Primary			
	1415	Secondary			6 x EIA, 4 x 2nd

Table A39: Gully group 2584

Cut no	Fill no	Fill type	Breadth (m)	Depth (m)	Pottery
2578			0.40	0.12	
	2577	Primary			
2580			0.40	0.22	
	2579	Primary			
2582			0.48	0.12	
	2581	Primary			

Table A40: Gully group 2583

Cut no	Fill no	Fill type	Breadth (m)	Depth (m)	Pottery
2550			0.28	0.06	
	2549	Primary			
2554			0.35	0.08	
	2553	Primary			

Table A41: Gully group 2585

Cut no	Fill no	Fill type	Breadth (m)	Depth (m)	Pottery
2570			0.50	0.05	
	2569	Primary			
2574			0.35	0.04	
	2573	Primary			

Table A42: Gully group 2586

Cut no	Fill no	Fill type	Breadth (m)	Depth (m)	Pottery
2552			0.35	0.10	
	2551	Primary			
2572			0.65	0.08	
	2571	Primary			CBM
2576			0.40	0.05	
	2575	Primary			

Late 2nd - early 3rd century AD**Table A43: Ditch group 2709**

Cut no	Fill no	Fill type	Breadth (m)	Depth (m)	Pottery
807			1.15	0.43	
	803	Primary			1 x LBA, 12 x EIA
2418			1.27	0.43	
	2417	Primary			1 x 2nd
2421			1.24	0.35	
	2422	Primary			1 x MLBA, 1 x LBA, 1 x ?EIA
2610			0.52	0.34	
	2609	Primary			
2614			0.40	0.19	
	2613	Primary			
2618			0.48	0.31	
	2617	Primary			

Table A44: Ditch group 1627

Cut no	Fill no	Fill type	Breadth (m)	Depth (m)	Pottery
1077			1.10	0.16	
	1076	Primary			1 x LNEBA, 5 x EIA, 8 x EMIA, 164 x 2nd
1097			0.85	0.25	
	1096	Primary			1 x ?LBA, 2 x EIA, 7 x EMIA, 65 x 2nd, 4 x EMS
1099			0.90	0.20	
	1098	Primary			8 x EIA, 6 x EMIA, 35 x 2nd, 39 x 3rd/4th

Table A45: Gullies 250 and 122

Cut no	Fill no	Fill type	Breadth (m)	Depth (m)	Pottery
122			0.30		
	105	Primary			
250			0.30		
	228	Primary			2 x EMIA

Table A46: Ditch group 1629

Cut no	Fill no	Fill type	Breadth (m)	Depth (m)	Pottery
1101			0.65	0.16	
	1100	Primary			5 x EMIA, 55 x 2nd
1183			0.65	0.20	
	1184	Primary			1 x MLBA, 3 x EMIA, 16 x 2nd

APPENDIX 3: LATER PREHISTORIC AND ROMAN POTTERY FABRIC DESCRIPTIONS

by Jane Timby

Later Prehistoric

The Iron Age fabrics have been divided into nine main ware groups:

- A – calcareous (limestone or limestone and fossil shell)
- B – sandy wares
- C – sand and limestone
- D – ferruginous
- E – iron and limestone-tempered
- F – flint-tempered
- G – grog-tempered
- H – grog and limestone-tempered
- I – organic

Each group has several sub-types discriminated on the basis of macroscopic examination aided by a x20 binocular microscope. There are a great variations of type based on varying proportions and grades of inclusions in the clays.

A. Calcareous wares (limestone / fossil shell)

- L1 clean, smooth clay paste, occasionally slightly sandy with a sparse to moderate scatter of coarse shell fragments up to 10mm in size. In a finer version the fragments reach only 3-4 mm in size. Some sherds show a scatter of fine, dark coloured rounded quartz grains.
- L2 sandy textured ware, dark reddish-brown to black in colour with a sparse to moderate frequency of fine shell, probably alluvial) and occasional iron.

- L3 dark brown or black ware with sparse shell, iron and sparse visible quartz sand. Smooth burnished finish.
- L4 reddish-brown to dark brown ware with a common frequency of fossil shell 20-3 mm in size and a prominent scatter of red-brown ferruginous compounds 2 mm in size and smaller. Fairly smooth, soapy feel.
- L5 dark brown or black ware with an oolitic-limestone temper comprising both discrete grains and agglomerates, rare iron and quartz sand.
- L6 black ware with a brownish interior surface. The paste contains a moderate to common frequency of greyish-white, irregularly shaped limestone, rounded or oval crystalline pellets and rare fragments of fossil shell. A scatter of rounded quartz sand can also be observed.
- L7 dark reddish-brown ware with a black core. Sparse scatter of white limestone up to 2-3 mm in size and fine quartz.
- L00 other miscellaneous limestone-tempered wares.

B: Sandy wares

- S1 black sandy ware characterised by a moderate to common frequency of well-sorted, rounded to sub-angular, quartz sand and rare iron.
- S2 black or red-brown sandy ware with a common frequency of ill-sorted, rounded quartz sand, the larger grains up to 1.5 mm in diameter. Occasional rare iron and calcareous inclusions.
- S3 black or brown sandy ware with a scatter of fine, black or brown grains, 0.5 mm and less, fine mica and fine quartz sand. The iron is likely to be glauconitic indicating a source from the Upper Greensand series.

- S4 very fine, brown sandy ware distinguished by a finely micaceous paste. The paste includes very fine black iron grains but no other macroscopically visible inclusions.
- S5 hard, brown or grey ware characterised by a scatter of ill-sorted quartz. The larger visible grains are greyish-white, rounded and up to 2 mm in size in a dense sandy background matrix.
- S6 fine, black, sandy ware with a sparse scatter of iron, some fine mica and rare fragments of white limestone or shell.
- S7 hard, black sandy ware, sometimes with red-brown margins, with a granular texture. The paste contains a common frequency of slightly ill-sorted, rounded, quartz sand.
- S8 very finely micaceous, dark brown ware. The fine, sandy matrix contains a scatter of red-brown iron. Smooth burnished surfaces.
- S9 fine dark grey, sandy ware with a red haematite slipped exterior surface. Some sherds contains a small amount of limestone.
- S00 miscellaneous medium to fine dense sandy ware.

C: Sand and limestone

- SL1 dark brown or black ware containing a scatter of fine, rounded quartz sand and sparse fine limestone and alluvial shell (less than 1 mm).
- SL2 reduced sandy wares containing visible, fine, quartz sand, sparse fragments of fossiliferous limestone and occasionally iron.

D: Ferruginous ware

- I1 dark grey or brown ware with a very iron-rich fabric. The paste contains a sparse to moderate frequency of red-orange iron, rounded to sub-angular in shape and 1-2 mm in size.
- I2 brownish-red ware characterised by a distinctive temper of iron ooliths with lesser amounts of clear sub-angular quartz. One source of iron ooliths can be found in the Banbury outcrop of the Lower Jurassic ironstone.

E: Iron and limestone-tempered

- IL1 as I2 but with a distinct presence of limestone.
- IL2L as I1 but accompanied by fragments of limestone and some rounded quartz.
- ISL dark brown or black ware with a composite mixture of iron, quartz sand and fossil shell / limestone.

F: Flint-tempered

- FI dark brown to black ware with a sparse frequency of white, angular, calcined flint up to 4mm across in an iron-rich clay.
- FIS light brown or grey ware with a common frequency of well-sorted, rounded quartz sand. A scatter of iron and rare fragments of flint (up to 5 mm) and limestone.

G: Grog-tempered

- G2 red-brown ware with a black core and interior. Smooth, soapy feel, very slightly sandy. Moderate frequency if sub-angular grog, 2 mm and less in size. Handmade.

H: Grog and limestone-tempered ware

GL red-brown ware with a black core. The paste contains a sparse to common frequency of rounded to sub-angular fragments of limestone and probably grog. These appear orange on the surface and grey in fracture. One variant has a finely micaceous paste.

I: Organic-tempered

O2 organic-tempered black or brown ware with sparse limestone.

O3 sparse organic-tempered with a scatter of fine, rounded quartz sand.

Roman (see Table 10 for concurrence with Oxford Archaeology codes)

Continental imports

CG SAM Central Gaulish samian

Regional imports

DOR BB1 Dorset black burnished ware (Tomber and Dore 1998, 127).

Local wares

OXF FR Oxfordshire fine reduced ware (Tomber and Dore 1998, 173)

OXF RE Oxfordshire reduced sandy ware (Young 1977, 202ff)

OXF FO Oxfordshire fine oxidised ware (Young 1977, 185ff)

OXF OX Oxfordshire oxidised sandy ware (Young 1977, 185 ff)

OXF RS Oxfordshire red-slipped ware (Tomber and Dore 1998, 176)

OXF RSM Oxfordshire red-slipped mortaria (Young 1977, 173)

OXF WHF Oxfordshire fine white ware (Young 1977, 93)

OXF WH Oxfordshire white sandy ware (Tomber and Dore 1998, 174-5)

OXF WS Oxfordshire white-slipped ware (Tomber and Dore 1998, 177)

OXF BW Oxfordshire burnt white ware (Young 1977, 113)

SHELL	fossil-shell-tempered ware
OXF GR	Oxfordshire handmade grog-tempered storage jar
GROG	miscellaneous other grog-tempered ware
GROG1	wheelmade late Iron Age-early Roman grog-tempered ware. Red-brown surfaces with a black core.
GREY00	miscellaneous grey sandy wares

APPENDIX 4: MEASUREMENTS OF BONES OF SMALL ANIMALS

Species	Element	Side	Context	GL	L	Lm	Bp	SD	Bd	Dd	Bf	Bb	Did	SC	Dip	Dic
<i>Martes</i> sp.	Radius	R	2619	58.9			7	3.7	9.6							
Domestic Fowl	Coracoid	R	2673	46.3		44					9.5	11.8				
Domestic Fowl	Coracoid	R	2010	52.6		50.9					11.3	14.3				
Domestic Fowl	Scapula	R	2672													10.9
Galliform	Scapula	R	2673													10.7
Domestic Fowl	Scapula	R	2673													12.7
Domestic Fowl	Radius	R	2673	54.5					5.8					2.8		
Domestic Fowl	Radius	R	2010	60.8					6.7					3.1		
Domestic Fowl	Ulna	R	2673	59.8			8.1						8.4	3.9	11.5	
Domestic Fowl	Ulna	R	2010										9.4	4.3		
Domestic Fowl	Ulna	L	2673										10.1	4.5		
Galliform	Carpometacarpus	R	2673	40.6	37.7		12.2						7.3			
Domestic Fowl	Tibiotarsus	R	2673							10.6				4.8		
Galliform	Tibiotarsus	R	2673							12.8				5.4		
Domestic Fowl	Tibiotarsus	R	2673												17.4	
Domestic Fowl	Femur	L	2010				13.2									
Domestic Fowl	Tarsometatarsus	L	2010	72.9			13.8		12.5					6.4		
Greylag/Dom. Goose	Humerus	R	2686						22.7							
<i>Turdus</i> sp.	Humerus	R	2479				8.7									

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Table 1. Quantification of the struck flint assemblage by excavation area

Type	ABSRC'90	OXCMS'94	ABSRC'00	Graves	Graves 1972.22	Graves 1994.29	Total
Flake	18	52	244	105		1	420
Blade		4	25	21	1	2	53
Bladelet			4				4
Blade-like	1	5	15	4		1	26
Irregular waste		1	4	2			7
Chip		1	1	1			3
Sieved chips 10-4 mm			58				58
Rejuvenation flake core face/edge		1	1				2
Rejuvenation flake tablet			3	1			4
Rejuvenation flake other			1				1
Flake from ground implement		1		1			2
Other blade core				1			1
Tested nodule/bashed lump			2	1			3
Single platform flake core			2	1			3
Multiplatform flake core	1	2	6	2			11
Levallois/ other discoidal flake core			1				1
Core on a flake			1	2			3
Chisel arrowhead			1	1			2
Fragmentary chisel arrowhead?				1			1
End scraper			3	5		1	9
Side scraper		1	1				2
End and side scraper			4	2			6
Other scraper			2	5			7
Piercer			2				2
Spurred piece				1			1
Serrated flake			5	1		1	7
Denticulate				2			2
Notch		1	2	1			4
Backed knife			1	1			2
Retouched flake		2	6	3	1	2	14
Other	1	1	1	2			5
Hammerstone				1			1
<i>Total</i>	21	72	396	168	2	8	667
Burnt Unworked flint (g)	36	5	25	22			88
Burnt No. (%) exc. chips	1 (5)	9 (13)	24 (7)	21 (13)		2	57 (9)
Broken No. (%) exc. chips	8 (38)	28 (39)	123 (37)	61 (37)		6	226 (37)
Retouched No. (%) exc. chips		4 (6)	27 (8)	22 (13)	1	4	58 (10)

Table 2. Quantification of the sizeable struck flint assemblages (excluding pit 2622)

<i>Type</i>	<i>1395</i>	<i>2123</i>	<i>3506</i>	<i>Other Contexts</i>	<i>Total</i>
Flake	2	14	24	252	292
Blade	1	3	1	35	40
Blade-like	1		1	17	19
Irregular waste				7	7
Chip				3	3
Sieved chips 10-4mm				3	3
Rejuvenation flake core face/edge				1	1
Rejuvenation flake tablet				3	3
Flake from ground implement				2	2
Other blade core				1	1
Tested nodule/bashed lump			1	1	2
Single platform flake core				2	2
Multiplatform flake core				9	9
Levallois/ other discoidal flake core				1	1
Chisel arrowhead				2	2
Fragmentary chisel arrowhead?			1		1
End scraper			1	7	8
Side scraper				2	2
End and side scraper				5	5
Other scraper				7	7
Piercer				1	1
Spurred piece				1	1
Serrated flake				5	5
Denticulate				2	2
Notch			1	2	3
Backed knife		1		1	2
Retouched flake				13	13
Other				5	5
Hammerstone				1	1
Core on a flake			1	2	3
<i>Total</i>	<i>4</i>	<i>18</i>	<i>31</i>	<i>393</i>	<i>446</i>

Table 3. Quantification of the assemblage from pit 2622 by context and category

<i>Type</i>	<i>Pit 2622</i>			<i>Total</i>
	<i>2620</i>	<i>2619</i>	<i>2623</i>	
Flake	57	69	2	128
Blade	4	9		13
Bladelet	1	3		4
Blade-like	2	5		7
Sieved chips 10-4mm	23	32		55
Rejuvenation flake core face/edge		1		1
Rejuvenation flake tablet	1			1
Rejuvenation flake other		1		1
Tested nodule/bashed lump		1		1
Single platform flake core		1		1
Multiplatform flake core	1	1		2
End scraper	1			1
End and side scraper	1			1
Piercer	1			1
Serrated flake	1	1		2
Notch	1			1
Retouched flake	1			1
<i>Total</i>	95	124	2	221
Burnt Unworked flint (g)	-	-	-	-
Burnt No. (%) exc. chips	11 (15)	4 (4,5)	-	15 (9)
Broken No. (%)exc. chips	30 (42)	44 (48)	-	74 (45)
Retouched No. (%)exc. chips	6 (8)	1 (1)	-	7 (4)
Flake to core ratio	1:65	1:44	-	1:51

Table 4. The burnt unworked stone quantification by type and weight.

	<i>Flint</i>	<i>Ironstone</i>	<i>Limestone</i>	<i>Quartzite</i>	<i>Sandstone</i>	<i>Total</i>
Total no.	19	1	43	12	10	85
Total Weight (g)	287	17	3104	440	812	4660
Average Weight (g)	16.88	17.00	344.89	48.89	81.20	95.10

Table 5. Summary of the Neolithic and Early Bronze Age pottery by context

<i>Museum accession code</i>	<i>Context</i>	<i>Ss</i>	<i>Fabric code</i>	<i>Date</i>	<i>Ware</i>	<i>NOSH</i>	<i>Wt</i>	<i>Catalogue no.</i>	<i>Comment</i>
			GF/2	EBA		5	74g	9-10	One or two vessels.
1972.21			GAF/2	LNEBA	BKR	2	20g	8	
1972.21			GAF/2	LNEBA	BKR	1	5g	7	
1994.34	10/A/4		GA/2	LNEBA		1	6g		
1972.22			GAF/2	LNEBA	BKR	1	10g	7	
1994.34	10/A/4		GF/2	LNEBA		1	5g		
1994.29				MN	PW	5	158g	1	Fengate Ware dish
1994.34	305		G/2	LN?	GW?	1	7g		
	704		S(L)/2	BA		1	5g		
89121	1076		G/2	LNEBA		1	4g		
	1208	4	G/1	EBA?		1	1g		
	2091		F/3	EN		1	2g		
	2093		F/2	MN	PW	1	6g	2	Decorated body sherd
	2134		FG/2	EMBA?		1	3g		
	2184	16	F/2	EN?		1	3g		
	2368		GF/2	LN	GW	1	5g	3	Durrington Walls substyle
	2479	19	GA/2	BA		1	1g		
	2619	20	F/2	EN		2	4g		
	2619		SL/2	LN	GW	1	1g		
	2619		SL/2	LN	GW	1	1g		
	2620		S/2	LN	GW	1	6g	5	?Woodlands substyle
	2620		S/2	LN	GW	1	7g	4	Woodlands substyle
	2620	21	S/2	LN	GW	1	3g	4	Woodlands substyle
	2645		GA/2	LNEBA	BKR	1	10g		
	2658		SL/3	BA?		1	13g		
	2669		FA/2	EN?		1	12g		
<i>Total</i>						36	372g		

Table 6. Summary of the mid-late Bronze Age pottery by context

Museum accession code	Context	Trench	Section	feature	Ss	Fabric code	Size	Date	NOSH	Wt (g)	comments
199434						Q?	2	LBA	1	1	
199434						QA	2	LBA	1	2	
199434						Q	2	LBA	1	3	
199434						F	3	LBA	1	6	
199434						QA	2	LBA	2	14	
199434						F	2	MLBA	1	20	
199434						F	3	MLBA	1	18	
199434						Q	3	LBA	1	14	
199434						S	3	LBA	2	48	
199434			C	14		F	3	MLBA	1	14	
199434		3	E	32		S	3	MLBA	1	20	
199434		4	A	3		F	3	MLBA	2	219	
199434		4	A	3		Q	3	MLBA	1	64	
199434		4	A	3		S	3	MLBA	2	31	
199434		4	D	26		Q	2	LBA	1	6	
199434		4	H	14		F	1	LBA	1	4	
199434		4	H	14		S	3	LBA	1	12	
199434		4	H	14		F	2	MLBA	1	21	
199434		7	C	17		GQ	3	LBA	1	27	
199434		7	C	17		QA	2	MLBA	3	164	
199434		7	C	17		F	3	MLBA	1	4	
199434		7	C	17		GF	1	LBA	1	84	
199434		10	A	3		Q	2	LBA	1	1	
199434		10	F	4		Q	2	LBA	1	5	
199434		11	C	14		QA	2	LBA	1	18	
199434	104					Q	2	LBA	1	2	
199434	104					Q	3	LBA	1	2	
199434	225					QB	2	LBA	1	2	
199434	305					LS	2	MLBA	1	5	
199434	305					G?	2	MLBA	1	5	
199434	704					S	3	MLBA	6	55	
199434	704					S	3	MLBA	1	8	
199434	704					S	3	LBA	1	4	
199434	1034					FA	2	MLBA	1	9	
199434	1092					FA	2	MLBA	1	4	
199434	1119					FA	3	MLBA	1	32	
199434	1130					FA	2	MLBA	1	3	
199434	1154					FA	2	LBA	1	2	
199434	1154					FA	2	LBA	1	2	
199434	1156					S	3	MLBA	1	174	
199434	1158					S	2	MLBA	2	3	
199434	1170					SQ	3	MLBA	4	41	
199434	1176					F	3	MBA	1	32	
199434	1180					F	3	MBA	10	1158	
199434	1180					F	2	MBA	1	5	LUG
199434	1184					SLG	3	MLBA	1	4	
199434	1186					QA	2	LBA	1	2	
199434	1186					FA	2	MLBA	1	11	
199434	1204					F	3	MBA	1	69	Bucket Urn
199434	1208				4	F	1	MLBA	1	2	
199434	1223				2	GS	3	MLBA	1	3	
199434	1297				6	S	3	MLBA	1	20	
199434	1299					S	3	MLBA	1	3	
199434	1319					S	3	MLBA	1	8	
199434	1428					FA	2	MLBA	1	8	
199434	1441					QA	2	LBA	1	2	
199434	1553					F	2	MLBA	1	7	
199434	1617					FA	2	MLBA	1	36	
199434	2004					FA	2	MLBA	1	7	
199434	2017					FA	2	MLBA	1	5	
199434	2017					S	1	MLBA	1	2	
199434	2124					F	2	MLBA	1	9	
199434	2179					S	3	MLBA	2	16	
199434	2422					QA	2	LBA	1	12	
199434	2422					FG	1	MLBA	1	14	
199434	2589				28	FA	1	MLBA	1	7	
199434	3010					F	2	MLBA	1	10	
199434	3049					Q	3	LBA	1	4	
199434	3049					QA	2	LBA	1	6	
199434	704					SL	2	MLBA	1	2	
199434	803					QA	2	LBA	1	10	
199434	805					S	2	MLBA	1	7	
199434	1025					FA	2	MLBA	1	26	
<i>Total</i>									98	2680	

Table 7. Distribution of Iron Age and Roman pottery across the investigations

Contexts	Description	Iron Age		Roman		Total	
		No	Wt (g)	No	Wt (g)	No	Wt (g)
100's	Abingdon Society	14	80	21	101	35	181
200's	Abingdon Society	31	167	14	95	45	262
300's	Abingdon Society	16	84	22	114	38	198
500-900's	1990 evaluation	44	316	13	97	57	413
1000's	2000 excavation	141	1184	530	4523	671	5707
2000's	2000 excavation	253	3042	12	176	265	3218
3000's	grave digging	208	1622	17	217	225	1839
<i>Total</i>		707	6495	629	5323	1336	11818

Table 8. Summary of Iron Age fabrics and their frequency by number and weight

Ware	Fabric	Description	No.	%	Wt (g)	%
A	L1	sparse coarse fossil shell	288	40.5	3843	57
	L2	sandy, alluvial shell	23	3	294	4.5
	L3	sandy, iron, alluvial shell	4	*	36	*
	L4	common fossil shell, iron	39	5.5	326	5
	L5	oolitic limestone	1	*	6	*
	L6	limestone some shell	4	*	28	*
	L7	sparse limestone	14	2	73	1
	L00	other limestone wares	2	*	15	*
B	S1	well-sorted fine quartz	42	6	262	4
	S2	ill-sorted quartz, iron, limestone	7	1	38	*
	S3	glauconitic sand	39	5.5	201	3
	S4	sandy, micaceous, glauconite	7	1	39	*
	S5	ill-sorted quartz, iron, limestone	8	1	67	1
	S6	fine black sandy, iron, mica, lime	19	2.5	121	2
	S7	granular sandy, ill-sorted quartz	13	2	68	1
	S8	fine micaceous with iron	11	1.5	48	*
	S9	fine sandy, haematite imit. Slip	2	*	7	*
	S00	miscellaneous other sandy	25	3.5	90	1
C	SL1	sand and alluvial shell	7	1	43	*
	SL2	sand and fossil limestone	38	5.5	361	5.5
D	I1	Iron rich	7	1	73	1
	I2	oolitic iron	4	*	33	*
E	IL1	oolitic iron and limestone	5	*	43	*
	IL2	iron rich and limestone	9	1	82	1
	ISL	mixture iron, quartz and limestone	23	3	119	2
F	FI	iron rich with flint	1	*	22	*
	FIS	flint and iron in sandy matrix	2	*	171	2.5
G	G2	grog-tempered	1	*	6	*
H	GL	grog and limestone-tempered	9	1	93	1.5
I	O2	organic with limestone	2	*	17	*
	O3	organic with quartz sand	3	*	34	*
unclassif	OO	less than 10mm	55	8	65	1
<i>Total</i>			714	100	6724	100

* = less than 1%

Table 9. Comparison of relative frequency of Iron Age ware groups between Spring Road and Wyndyke Furlong

<i>Ware</i>	<i>Group</i>	<i>Spring Road</i> <i>Wt</i>	<i>Spring Road</i> <i>%</i>	<i>Wyndyke Furlong</i> <i>Wt %</i>	<i>Spring Road</i> <i>No</i>	<i>Spring Road</i> <i>%</i>	<i>Wyndyke Furlong</i> <i>No %</i>
A	calcareous	4621	69	52	375	52.5	42
B	sandy	941	14	28	173	24	30
C	sand and limestone	404	6	6.5	45	6.5	4
D	iron	106	1.5	6	11	1.5	4.5
E	iron and limestone	244	3.5	3.5	37	5	3
F	flint	193	3	*	3	*	*
G	grog	6	*	*	1	*	1
H	grog and limestone	93	1.5	*	9	1	*
I	organic	51	*	*	5	*	2
U	unclassified	65	1	1	55	8	12.5
<i>Total</i>		6724	100	100	714	100	100

* = less than 1%

Table 10. Summary of Roman wares by number, weight and EVEs

	<i>Fabric</i>	<i>OA code</i>	<i>Description</i>	<i>No</i>	<i>%</i>	<i>Wt</i>	<i>%</i>	<i>Eve</i>	<i>%</i>
Import	CGSAM	S30	Central Gaulish samian	2	*	5	*	5	*
Regional	DORBB1	B11	Dorset black burnished ware	2	*	24	*	5	*
Local	OXF FR	R10/11	Oxon reduced ware (fine)	281	43.5	1891	30.5	450	47.5
	OXF RE	R21	Oxon reduced ware (med-coarse)	158	24.5	1484	24	95	10
	OXF FO	O11	Oxon oxidised ware (fine)	18	3	83	1.5	17	2
	OXF OX	O21	Oxon oxidised ware (med-coarse)	6	1	51	1	6	*
	OXF RS	F51	Oxon colour-coated ware	4	*	73	1	7	*
	OXF RSM	M41	Oxon colour-coated mortaria	1	*	10	*	0	0
	OXF WHF	W12	Oxon whiteware (fine)	30	4.5	210	3.5	75	8
	OXF WH	W22	Oxon white ware (medium-coarse)	51	8	562	9	69	7.5
	OXF WHM	M22	Oxon whiteware mortaria	5	*	707	11.5	56	6
	OXF WS	Q21	Oxon white-slipped ware	36	5.5	110	2	40	4
	OXF BWH	W23	Oxon burnt whiteware	18	3	569	9	95	10
	SHELL	C10	shelly ware	4	*	50	1	16	1.5
	OXF GR		Oxon grog-tempered storage jar	13	2	219	3.5	8	*
	GROG	E80	miscellaneous grog-tempered	9	1.5	52	1	0	0
	GROG1		wheelmade grog-tempered	2	*	6	*	0	0
	GREY00		miscellaneous Roman	7	*	66	*	0	0
<i>Total</i>				647	100	6172	100	944	100

* = less than 1%

Table 11. Vessel occurrence per fabric type, expressed as a percentage of EVE per fabric type

<i>Fabric</i>	<i>Jars</i>	<i>Bowls</i>	<i>Total EVE</i>
1	78.30%	21.70%	1.52
2	89.90%	10.10%	1.38
3	100%	0	0.03
6	96.50%	3.50%	1.43
<i>Total EVE</i>	3.84	0.52	4.36

Table 12. Pottery occurrence per layer by weight of sherds per fabric type per layer, SFB 2687

<i>Context</i>	<i>F1</i>	<i>F2</i>	<i>F3</i>	<i>F4</i>	<i>F5</i>	<i>F6</i>	<i>Total</i>	<i>Mean wt</i>
2672	847	632	87	0	0	688	2254	15.6 g
2673	192	515	95	0	0	701	1503	18.6 g
2686	9	161	0	0	0	15	185	12.3 g
2703	99	174	11	0	0	501	785	15.7 g
<i>Total</i>	1147	1482	193	0	0	1905	4727	

Table 13. Pottery occurrence per layer by weight of sherds per fabric type per layer, SFB 2008

<i>Context</i>	<i>F1</i>	<i>F2</i>	<i>F3</i>	<i>F4</i>	<i>F5</i>	<i>F6</i>	<i>Total</i>	<i>Mean wt</i>
2009	0	76	0	0	0	0	76	15.2 g
2010	26	464	0	0	0	3	493	29.0 g
2479	17	77	0	0	0	0	94	18.8 g
2480	71	169	6	0	0	116	362	12.9 g
<i>Total</i>	114	786	6	0	0	119	1025	

Table 14. Early Saxon sites with recorded stamped pottery within a 15-mile radius of Spring Road

<i>Name</i>	<i>County</i>	<i>Site No.</i>	<i>Only Card Index</i>	<i>Nat. Grid</i>	<i>No. of Stamps</i>
Abingdon, Barton Court Farm	Oxon	176		SU 5199	11
Abingdon, Radley Rd (1963)	Oxon	378	CI	SU 5198	6 ?
Abingdon, Saxton Road (1935)	Oxon	001		SU 4997	28
Berinsfield	Oxon	136		SU 5794	3
Brighthampton	Oxon	137		SP 3803	3
Cassington	Oxon	243		SP 4510	9
Eynsham Abbey	Oxon	360		SP 4309	67
Frilford	Berks	010		SU 4497	9
Harwell	Berks	011		SU 4988	1
Kingsey	Bucks	199		SP 7406	4
Long Wittenham	Oxon	088		SU 5493	19
Lower Shiplake	Oxon	341		SU 7779	2
Lower Winchendon	Bucks	198		SU 7414	1
Osney	Oxon	138		SP 5005	1
Radley, Barrow Hills	Oxon	175		SU 5298	90
Souldern	Oxon	264	Myres + CI	SP 5131	2
Sutton Courtney	Oxon	165		SU 5093	27
Theale	Berks	339		SU 6371	7
Wallingford	Berks	012		SU 6089	2

Rarity of Stamps

1–20	Rare
21–40	Uncommon
41–70	Fairly common
71–100	Reasonably common
100–150	Common
151+	Very common

‘Die’ means the actual piece of carved bone, wood, (possibly) chalk or metal used to make the impression. Where stamps are described as ‘like’, it means they have been made with the same die.

Table 15. Stamped designs on Saxon pottery at Spring Road by type

<i>Briscoe Type</i>	<i>Size MM</i>	<i>Pot Type</i>	<i>Arch. No</i>	<i>Myres C No.</i>	<i>Museum/Ref No.</i>	<i>Fig.</i>
A 2ai	10 x 10	Globular ?	001	#	Oxfordshire 1994.29	Fig 38, 3
A 3aii	6 x 6	Sherds x2	003	#	Oxfordshire 1994.29	Fig 38, 2
A 3aiii	7 x 6.5	Sherds x2	002	#	Oxfordshire 89.121/2703	Fig 35, 2
A 3aiiii	14 x 13?	Sherd x 1	-	-	-	Fig. 38, 7
A 4ai	8 x 8	Sherds x4	005	#	Oxfordshire 89.121/2672	Fig 35, 1
A 4ai	4 x 4.5	Sherds x2	004	#	Oxfordshire 1994.29	Fig 38, 2
A 4aiv	13 x 12?	Sherds x4	006	#	Oxfordshire 89.121/2672	Fig 38, 2
A 5aviii	8 x 8.5	Sherds x2	007	#	Oxfordshire 89.121/2703	Fig 35, 2
C 3ai	4.5 x 4	Globular ?	008	#	Oxfordshire 1994.29	Fig 38, 3
G 2bi	11 x 11	Globular ?	009	#	Oxfordshire 1994.29	Fig 38, 3

Table 16. Metallurgical analysis of copper awl and comparison with other early copper objects

Site	Object	sf	Fe	Co	Ni	Cu	Zn	As	Sb	Sn	Ag	Bi	Pb	Au	S
ABSRC 00	lozengic awl	4	0.02	0.00	0.14	99.50	0.00	0.02	0.07	0.00	0.14	0.00	0.00	0.09	0.01
			0.00	0.00	0.15	99.55	0.00	0.03	0.10	0.00	0.10	0.02	0.00	0.05	0.00
			0.00	0.00	0.15	99.45	0.03	0.00	0.10	0.02	0.13	0.01	0.07	0.02	0.00
			0.00	0.00	0.16	99.53	0.02	0.05	0.09	0.02	0.14	0.00	0.00	0.00	0.00
			0.00	0.00	0.14	99.68	0.00	0.02	0.03	0.00	0.11	0.00	0.00	0.00	0.00
ABSRC 00	lozengic awl	4	0.01	0.00	0.15	99.54	0.01	0.02	0.08	0.01	0.13	0.01	0.01	0.03	0.00
Barrow Hills, Radley	Ring	595	0.07	0.00	0.14	99.46	0.02	0.10	0.06	0.01	0.11	0.00	0.00	0.03	
Barrow Hills, Radley	Spiral ring	598	0.02	0.00	0.12	99.57	0.00	0.09	0.07	0.00	0.08	0.02	0.03	0.00	
Abingdon (ABSRC 00)	<0.10	4	0.01	0.00	0.15	99.54	0.01	0.02	0.08	0.01	0.13	0.01	0.01	0.03	0.00
Stockbridge	<0.10		0.00		0.10	99.50	<0.10	<0.10	0.19	0.00	0.24	0.00	0.00	0.00	
Barrow Hills, Radley	Ring	599	0.00	0.01	0.06	99.69	0.00	0.03	0.04	0.01	0.15	0.01	0.00	0.00	
Basingstoke	<0.10	1	0.01	0.00	0.03	99.48	0.00	0.03	0.14	0.01	0.21	0.01	0.01	0.04	0.01
Barrow Hills, Radley	Dagger, blade	1937.169	0.16	0.01	0.91	96.96	0.00	1.55	0.38	0.00	0.02	0.00	0.01	0.00	
Barrow Hills, Radley	Knife, blade	652	0.09	0.01	0.84	96.83	0.01	1.63	0.25	0.02	0.08	0.08	0.02	0.04	0.01
Gravelly Guy, Stanton Harcourt	Dagger rivet	875	0.01	0.00	0.03	98.51	0.00	0.87	0.19	0.25	0.11	0.00	0.03	0.00	

Key: Fe - Iron, Co - Cobalt, Ni - Nickel, Cu - Copper, Zn - Zinc, As - Arsenic, Sb - Antimony, Sn - Tin, Ag - Silver, Bi - Bismuth, Pb - lead, Au - Gold, S - Sulphur

Table 17. Summary of Iron Age burials from Spring Road and comparison with other relatively complete Iron Age burials from Oxfordshire. Skeleton numbers which are highlighted in bold indicate skeletons that have been radiocarbon dated.

Grave group	Skeleton no.	Sex	Age	Stature	Caries	Abscess	AM loss	Vertebral osteo-arthritis	Other dental anomaly	Other pathology	Non-metric variation
Spring Road	2125a	-	infant 1 (4-5 y)	-	0/19	0/22	0/22				
Spring Road	2199	M	young adult (20-24 y)	1.70 m	3/28	2/31	0/31			fracture, periostitis, benign exostosis	right epipteric bone, enlarged right posterior condylar canal, spina bifida occulta at SV1, femoral head and neck variations, bilateral Allen's fossae and third trochanters, tibial squatting facets, left emarginate patella, right accessory navicular
Spring Road	2243	M	young adult (19-21 y)	1.68 m						osteochondritis dissecans of left femur, possible wasting of left humerus	
Yarnton A	133	M	prime adult (25-35 y)	1.593	0/5	0/8	1/8		calculus, mild attrition	healed fracture of right radius and ulna; benign osteochondroma	
Yarnton A	376/1	M	prime adult (25-40 y)					X			
Yarnton A	376/2	M?	adult (18+ y)	1.724	0/14	0/22	2/22		mild calculus, moderate alveolar recession	?localised infection of right calcaneus, could be trauma, ?crush fracture	
Yarnton A	1346	-	infant 1 (1-5 y)								
Yarnton B	1396	M?	prime adult (25-40 y)					X			lambdoid wormian
Yarnton B	1397	F	prime adult (25-35 y)	1.583	0/3	0/4	1/4		impaction, abscess	sacro-iliac ankylosis, right side only	
Yarnton A	1681	M	ageing adult (50+ y)	1.674	1/7	1/20	11/20		moderate alveolar recession	healed fracture of right scapula	
Yarnton A	1682	M	adult (18+ y)	1.780	1/7	0/15	5/15	X	marked alveolar recession		
Yarnton C	2021	?	adult (18+ y)					X			
Yarnton C	2022	M	prime adult (25-40 y)	1.639	2/30	0/32	1/32	X	mild calculus	exostosis on right tibia	lambdoid wormians. parietal foramen, septal aperture
Yarnton C	2025	?	prime adult (25-40 y)	1.655 M 1.625 F						lippling of right femoral head	
Yarnton C	2026	M	adult (18+ y)		2/7	0/10	3/10	X			

<i>Grave group</i>	<i>Skeleton no.</i>	<i>Sex</i>	<i>Age</i>	<i>Stature</i>	<i>Caries</i>	<i>Abscess</i>	<i>AM loss</i>	<i>Vertebral osteo-arthritis</i>	<i>Other dental anomaly</i>	<i>Other pathology</i>	<i>Non-metric variation</i>
Yarnton C	2028	F?	adult (18+ y)	1.543				X			
Yarnton C	2033	M?	adult (18+ y)								
Yarnton C	2041	-	juvenile (13-15 y)		0/16	0/22	0/22	X	mild calculus, impaction, splaying, microdontia		
Yarnton C	2048	?	?adult (18+ y)								
Yarnton C	2051	-	infant 2 (6-11 y)		0/4	0/4	0/4				
Yarnton C	2069	-	juvenile (13-14 y)		1/28	0/32	0/32		retarded eruption, impaction, crowding, rotation heavy attrition		
Yarnton B	2569	M?	young adult (17-25 y)	1.695	2/27	1/28	0/28	X			lambdoid wormians, sagittal wormians
Yarnton B	2709	F?	adult (18+)		3/19	1/23	0/23				
Yarnton B	2710	F	young adult (17-25 y)	1.601	0/7	0/8	0/8			cribra orbitalia	lambdoid wormians, partial sacralisation of lv5, lv3 has separate neural arch
Yarnton B	2711	F?	prime adult (25-40 y)	1.573	0/7	0/7	0/7	X	moderate calculus		
Yarnton B	2712	-	infant 2 (6-7 y)		0/20	0/?	0/20			cribra orbitalia	
Yarnton B	2713	F	prime adult (25-40 y)	1.616	2/22	0/30	3/30		mild calculus		
Yarnton B	2714	-	juvenile (12-13 y)		1/11	0/16	0/16		mild calculus, enamel hypoplasia	cribra orbitalia	lambdoid wormians
Yarnton B	2715	-	juvenile (13-15 y)		0/4	0/4	0/4		mild calculus		
Yarnton B	2716	M	adult (18+ y)					X			
Yarnton B	2717	M	adult (18+ y)		3/14	1/32	14/32		marked alveolar recession	cribra orbitalia, osteo-arthritis affecting left wrist	
Yarnton B	2718	-	juvenile (14-17 y)		0/30	0/30	0/30				
Yarnton B	2719	-	juvenile (13-17 y)		1/17	0/20	0/20				
Yarnton B	2720	F?	prime adult (25-40 y)					X		healed fracture of right clavicle	
Yarnton Ashville Watkins Farm	posthole 27/A pit 62 pit 498 *(partial skeleton)	M? M F	adult adult (50+ y) adult (30+ y)	1.56 m						osteo-arthritis	
Gravelly Guy	502/A,B	F	adult (40+ y)	1.54 m	4/20	0/31	11/31			cribra orbitalia	wormian bone in lambdoid suture
Gravelly Guy	1133	F	adult (35-40 y)	1.57 m	4	3	3			cribra orbitalia	3 wormian bones in lamdoid suture, 1 in coronal
Gravelly Guy	1339/2	?M	adult (40+ y)	1.59 m	3/12	8/27	15/27	X		osteoarthritis at junction between proximal and lateral 1st phalanges	
Gravelly Guy	2144/B/1	F	adult (40+ y)	1.55 m	7/12	3/26	11/26	X		eburnation affects right	metopic suture

<i>Grave group</i>	<i>Skeleton no.</i>	<i>Sex</i>	<i>Age</i>	<i>Stature</i>	<i>Caries</i>	<i>Abscess</i>	<i>AM loss</i>	<i>Vertebral osteo-arthritis</i>	<i>Other dental anomaly</i>	<i>Other pathology</i>	<i>Non-metric variation</i>
Frilford	Pit 41	-	juvenile (15-17 y)						rotation of incisors and canines	knee. compression fracture of T12 cribra orbitalia, enamel hypoplasia	8 lambdoid wormians
Roughground Farm	grave pit 1215	?	adult (18-23 y)								
Roughground Farm	grave pit 1275	M	adult (30-35 y)	1.73 m							
Roughground Farm	grave pit 1157*		adult (30-35 y)								
Castle Hill Little Wittenham	3113/3117	F	prime adult (25-30 y)	1.64 m	0/17	0/?**	0/?**			periodontal disease, enamel hypoplasia	
Castle Hill Little Wittenham	3143	?F	prime adult (c. 25 y)	1.56 m							
Castle Hill Little Wittenham	3159/3160	M	adult (40-50 y)	1.67 m	4/26	0/32	6/32	X			

* indicates a possible later Bronze Age rather than Iron Age date

** data not available

Table 18. Adult male stature from selected sites in Iron Age Britain

Mean Stature	Range	Site	Source
1.69 (no. 2) 5'5.45"	1.68-1.70 5'5.1"-5'5.7"	Spring Road	this report
1.67 (no. 1) 5'4.7"	1.67 5'4.7"	Castle Hill	Witkin (in prep.)
1.56 (no. 1) 5'1.1"	1.56 5'1.1"	Ashville	Edwards 1978
1.645 (no. 15) 5'5"	1.570-1.750 5'2"-5'9"	Danebury	Hooper (1984)
1.660 (no. ??) 5'6.25"	?-1.712 ?-5'7.5"	Poundbury	Molleson (1992)
1.678 (no. 122) 5'6.25"	?-?	Wetwang Slack	Dawes (unpub.)
1.686 (no. 26) 5'6.5"	1.572-1.812 5'2"-5'11.5"	Maiden Castle	Goodman and Morant (1940)
1.700 (no. 8) 5'7"	1.605-1.792 5'3.25"-5'10.75"	Deal	Anderson (1995)
1.707 (no. 23) 5'7"	1.605-1.799 5'2.75"-5'11"	Various Yorkshire sites	Stead (1991)
1.684 (no. 6) 5'5.2"	1.593-1.780 5'2.3"-5'8.4"	Worton Rectory Farm	Boyle forthcoming
1.657 (no. 8) 5'4.4"	1.527-1.759 5'0.1"-5'7.7"	Suddern Farm	Hooper (2000)

Table 19. Prevalence of dental pathology among selected Iron Age populations (adults only)

	AM loss			Caries			Abscess		
	No. affected	No. observed	% rate	No. affected	No. observed	% rate	No. affected	No. observed	% rate
Yarnton	39	239	16.32	16	169	9.47	4	239	1.67
Deal	85	675	12.6	65	521	12.5	25	675	3.7
Yorkshire sites		8290	2.2		7611	2.1			1.0
Suddern Farm	53	442	11.99	26	333	7.8	9	442	2.04
Spring Road	0	53	0	3	47	6.38	2	53	3.77

Table 20. Breakdown of numbers of bones collected by hand according to species and period

Period	Horse	Cattle	Sheep	Pig	Red Deer	Dog	Unidentified	Total
Neolithic	0	10	9	22	0	0	163	204
Late Bronze Age	0	2	5	0	0	0	24	31
Iron Age	2	8	11	0	0	0	35	48
Roman	1	4	18	3	0	3	61	98
Saxon	1	201	179	126	4	1	854	1365
Medieval	1	13	4	1	0	1	66	87
Post Medieval/Modern	0	6	9	0	0	0	11	26
Unphased	0	7	14	5	2	21	49	98
Total	5	251	249	157	6	26	1263	1957

Table 21. MNI of main domestic species from hand-collected assemblage according to period

<i>Phase</i>	<i>Cattle</i>	<i>Sheep</i>	<i>Pig</i>
Neolithic	1	1	5*
Late Bronze Age	0	1	0
Iron Age	1	1	0
Roman	2	2	1
Early to mid Saxon	9*	7*	10*

* MNI calculated from mandibles.

Table 22. Breakdown of sieved bones identified to species by period

<i>Period</i>	<i>Cattle</i>	<i>Sheep</i>	<i>Pig</i>	<i>Unidentified</i>	<i>Total</i>
Neolithic	0	2	9	252	263
Late Bronze Age	0	0	0	2	2
Iron Age	0	2	1	45	48
Roman	0	0	0	21	21
Saxon	7	26	21	1188	1242
Unphased	0	1	0	5	6
<i>Total</i>	7	31	31	1513	1582

Table 23. Breakdown of the hand-collected bones recovered from Sunken-featured buildings FB 2008 and 2687 by species (excluding small mammal bones)

<i>SFB</i>	<i>Cattle</i>	<i>Sheep</i>	<i>Pig</i>	<i>Horse</i>	<i>Red Deer</i>	<i>Dog</i>	<i>Total</i>
2008	42	66	6	0	0	0	114
2687	140	101	113	1	1	1	357
<i>Total</i>	182	167	119	1	1	1	471

Table 24. Tooth wear stages of cattle mandibles from Saxon deposits

<i>Age</i>	<i>1 - 8 mth</i>	<i>8 - 18 mth</i>	<i>18 - 30 mth</i>	<i>Young adult</i>	<i>adult</i>
Cattle	2	1	3	1	1

Table 25. Tooth wear stages of sheep mandibles from Saxon deposits

<i>Age</i>	<i>2 - 6 mth</i>	<i>6 - 12 mth</i>	<i>4 - 6 yrs</i>
Sheep	1	1	1

Table 26. Tooth wear stages of pig mandibles from Saxon deposits

Age	0 - 2 mth	2 - 7 mth	7 - 14 mth	14 - 21 mth
Pig	2	2	3	1

Table 27. Breakdown of identified small bones by species

Period Species/Collection method	Neolithic	Saxon		Medieval	Total	
	Hand	Hand	>10 mm 10-4 mm	Hand		
<i>Martes cf. martes</i>	2				2	
<i>Mus musculus</i>			1		1	
<i>Arvicola terrestris</i>			1		1	
Vole			1		1	
Rodent			10		10	
Small Mammal			3		3	
Unid. Mammal			1	2	3	
<i>Gallus gallus</i> , Domestic fowl		7	8	1	16	
Galliform			8	1	9	
Bird, Chicken-size			6	2	8	
<i>Anser sp.</i> , Domestic goose		1			1	
Greylag/dom. goose		2	2		4	
Bird, Goose-size			7		7	
<i>Turdus cf. merula</i>				1	1	
Bird, Medium-size				1	1	
Bird, Large-size			1		1	
Bird			4	11	15	
<i>Rana sp.</i>				1	1	
<i>Bufo sp.</i>				2	2	
Amphibian			1	41	42	
<i>Anguilla anguilla</i>				1	1	
Unid. Fish				2	2	
Unid. Bone				9	9	
Total	2	10	38	90	1	141

Table 28 . Anatomical distribution of Domestic Fowl and Domestic Goose

<i>Element</i>	<i>Domestic Fowl</i>	<i>Galliform</i>	<i>Domestic Goose</i>	<i>Greylag/Dom. Goose</i>	<i>Total</i>
Carpometacarpus		1			1
Coracoid	2	2		1	5
Femur	1				1
Humerus	1			1	2
Pelvis	1	1			2
First phalanx		1			1
Radius	2				2
Scapula	2	1			3
Sternum		1		1	2
Synsacrum		1	1		2
Tarsometatarsus	1				1
Tibiotarsus	2	1			3
Ulna	4 (1=medieval)			1	5
<i>Total</i>	16	9	1	4	30

Table 29. Charred Plant Remains (excluding charcoal)

Date	Late Neolithic			Saxon			
	Grooved Ware Pit	SFB 2008	SFB 2687	SFB 2672	SFB 2673	SFB 2686	
Context	2619	2620	2479	2672	2673	2686	
Sample	20	21	19	22	23	34	
Sample Volume (litres)	40	40	40	40	40	40	
No. Items/litre	0.15	0.15	0.95	1.38	1.03	1.45	
CEREAL GRAIN							
<i>Triticum</i> sp.							
- short free-threshing grain	rivet or bread wheat	1	-	5	3	4	7
<i>Triticum</i> sp.	wheat	-	-	-	1	1	3
<i>Hordeum vulgare</i> L.							
- hulled lateral grain	hulled six-row barley	-	-	-	-	-	1
<i>Hordeum</i> sp.	- hulled median grain	-	-	1	-	-	-
<i>Hordeum</i> sp.	- hulled	-	-	5	6	2	4
<i>Hordeum</i> sp.	barley	-	-	4	5	4	2
<i>Avena</i> sp.	oats	-	-	-	2	2	1
cereal indet.		-	1	17	13	5	18
Total Cereal Grain		1	1	32	30	18	36
CHAFF							
<i>Hordeum</i> sp.	- rachis	barley	-	-	-	1	-
OTHER FOOD PLANT SEEDS							
<i>Vicia faba</i> L., <i>V. sativa</i> L. or <i>Pisum sativum</i> L.	bean vetch or pea	-	-	-	1	1	2
<i>Corylus avellana</i> L.	- nut shell frag.	hazel	5	5	-	1	-
Total Other Food Plant Items		5	5	-	2	1	3
WEED SEEDS							
<i>Ranunculus</i> S. <i>Ranunculus</i> sp.	buttercup	-	-	-	1	-	-
<i>Brassica rapa</i> L. ssp. <i>campestris</i> (L.) Jan	wild turnip	-	-	1	-	-	-
<i>Chenopodium</i> cf. <i>album</i> L.	fat hen	-	-	-	-	-	1
<i>Vicia</i> or <i>Lathyrus</i> sp.	vetch or tare	-	-	1	-	-	-
<i>Prunus spinosa</i> L.	sloe	-	-	-	-	-	1
<i>Crataegus monogyna</i> Jacq.	hawthorn	-	-	-	-	-	1
<i>Polygonum persicaria</i> L.	red shank	-	-	-	-	1	-
<i>Rumex</i> sp.	dock	-	-	-	6	5	6
<i>Eleocharis</i> S. <i>Palustres</i> sp.	spike rush	-	-	1	7	4	2
Cyperaceae indet.	sedge etc	-	-	-	-	-	1
<i>Bromus</i> cf. <i>secalinus</i> L.	brome grass	-	-	-	-	1	-
Gramineae indet.	grass	-	-	-	1	1	-
weed seeds indet.		-	-	3	7	10	7
Total Weed Seeds		-	-	6	22	22	19

Table 30. Charcoal

Date	Late Neolithic		Middle Bronze Age					Iron Age				Roman			Saxon		
	2619	2620	2670	2630	2592	2597	1138	2184	2251	3035	1154	1100	1428	2479	2672	2673	2686
Context	20	21	24	26	30	32	3	16	17	36	8	9	10	19	22	23	34
Sample	40	40	40	40	32	30	10	40	40	40	40	30	40	40	40	40	40
Sample Volume (litres)																	
<i>Rhamnus catharticus</i> L.	purging buckthorn	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
<i>Prunus cf. spinosa</i> L.	sloe	-	-	-	-	-	-	-	-	-	-	+	-	++	++	++	+
Pomoideae indet.	hawthorn, apple etc	+	+	-	-	-	-	+	+	+	+	+	+	+	+++	+++	+++
<i>Corylus avellana</i> L.	hazel	+	+	-	-	-	-	-	-	-	-	-	-	+	-	-	-
<i>Fagus sylvatica</i> L.	beech	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
<i>Quercus</i> sp.	oak	++	++	+	+	+	+	++	+++	++	+	+	+	+++	++	+	+
<i>Fraxinus excelsior</i> L.	ash	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-

+ present, ++ some, +++ much

Table 31. Radiocarbon results from Abingdon Spring Road

<i>Laboratory Number</i>	<i>Sample Number</i>	<i>Material & context</i>	<i>Radiocarbon Age (BP)</i>	$\delta^{13}C$ (‰)	$\delta^{15}N$ (‰)	<i>C:N ratio</i>	<i>Weighted mean</i>	<i>Calibrated date range (68% confidence)</i>	<i>Calibrated date range (95% confidence)</i>
OxA-12100 ¹	ABSRC 00 3036	Bone, human femur from skeleton 3036	3861±29	-21.7	9.6	3.2			
NZA-15865	ABSRC 00 3036	Bone, human femur from skeleton 3036	3834±45	-21.4					
NZA-15866	ABSRC 00 3036	Bone, human femur from skeleton 3036	3841±40	-21.0	9.75	2.6	3850±21 T'=0.3; v=2; T'(5%)=6.0	2400-2210 cal BC	2460-2200 cal BC
OxA-12101 ²	ABSRC 00 2125	Bone, human femur from skeleton 2125	2286±26	-20.0	9.6	3.1		400-260 cal BC	400-230 cal BC
OxA-12102 ³	ABSRC 00 2199	Bone, human femur from skeleton 2199	2253±27	-20.2	11.2	3.1			
GrA-22752	ABSRC 00 2199	Bone, human femur from skeleton 2199	2310±50	-20.6			2266±24 T'=1.0; v=1; T'(5%)=3.8	390-255 cal BC	400-205 cal BC
OxA-12103 ⁴	ABSRC 00 2243	Bone, human femur from skeleton 2243	2301±27	-20.3	11.2	3.1			

¹ Following the discovery of a technical problem with bone samples at the Oxford Radiocarbon Accelerator Unit in October 2002, the excess collagen from the original measurement on this sample was re-purified and re-dated. All the measurements are statistically consistent (OxA-12100; NZA-15865; NZA-15866 and OxA-X-2037-15 (3901±31BP), T'=2.2, T'(5%)=7.8, v=3; Ward and Wilson 1978). At the time of writing, the measurement of the re-purified collagen was still experimental, and so the re-date has not been included in the chronological model presented here.

² The excess collagen from the original measurement on this sample was re-purified and re-dated. Both pairs of measurements are statistically consistent (OxA-12101 and OxA-X-2037-16 (2281±38BP), T'=0.0, T'(5%)=3.8, v=1; Ward and Wilson 1978).

³ The excess collagen from the original measurement on this sample was re-purified and re-dated. The experimental result is statistically inconsistent with the other measurements (OxA-12102; GrA-22752 and OxA-X-2037-17 (2357±26BP), T'=7.7, T'(5%)=6.0, v=2; Ward and Wilson 1978). This suggests that the re-ultrafiltration of the excess did not completely remove whatever contaminants affected the original measurement (in this particular case).

⁴ The excess collagen from the original measurement on this sample was re-purified and re-dated. All the measurements are statistically consistent (OxA-12103; GrA-22754 and OxA-X-2037-18 (2279±28BP), T'=0.7, T'(5%)=6.0, v=2; Ward and Wilson 1978).

<i>Laboratory Number</i>	<i>Sample Number</i>	<i>Material & context</i>	<i>Radiocarbon Age (BP)</i>	$\delta^{13}C$ (‰)	$\delta^{15}N$ (‰)	<i>C:N ratio</i>	<i>Weighted mean</i>	<i>Calibrated date range (68% confidence)</i>	<i>Calibrated date range (95% confidence)</i>
GrA-22754	ABSRC 00 2243	Bone, human femur from skeleton 2243	2330±60	-20.5			2306±25 T'=0.2; v=1; T'(5%)=3.8	400-380 cal BC	410-260 cal BC
OxA-12376	ABSRC 00 2329	Bone, pig maxilla from posthole 2328	3294±30	-21.8				1620-1520 cal BC	1690-1510 cal BC
OxA-12377	ABSRC 00 2375	Bone, pig tibia with gnaw marks from posthole 2373	3156±40	-20.9				1500-1400 cal BC	1520-1310 cal BC

Table 32. Summary of contents of Grooved Ware pit 2622

Material	Fill 2621	Fill 2620	Fill 2619	Fill 2623	Total	Comments
Grooved Ware		3 (16 g)	2 (2 g)		5 (18 g)	2 vessels represented in 2620
Plain Bowl			2 (4 g)		2 (4 g)	Residual sherds
Fired Clay		12 (168 g)	3 (35 g)		15 (203 g)	Probably structural clay
Flint		95	124	2	221	Some deliberately snapped pieces, including a scraper. High proportion of retouch and burning.
Animal bone (bulk)	1	62	132	1	196	75.8% (2620) and 81% (2619) were unidentifiable
Animal bone (sieved)		216	47		264	Almost 96% unidentifiable material
Hazelnut(s)		5	5		10	
Cereal		1	1		2	<i>Triticum</i> sp. plausibly Neolithic, but possibly later contamination?
Charcoal						Some oak, hazel, <i>pomoideae</i> indet.

Table 33. Comparison of finds from Sunken-Featured Buildings 2687 and 2008

Material	2686 <i>primary</i>	2673 <i>secondary</i>	2703 <i>finds ref.</i>	2672 <i>tertiary</i>	SFB 2687 <i>Total</i>	2009=2010= 2479=2480	SFB 2008 <i>Total</i>
Pottery	15 (185 g)	81 (1503 g)	50 (798 g)	147 (2287 g)	293 (4727 g)	55 (1025 g)	55 (1025 g)
Animal bone (bulk)	23	158	177	604	357	114	114
Animal bone (sieved)	125	522	-	201	848	394	394