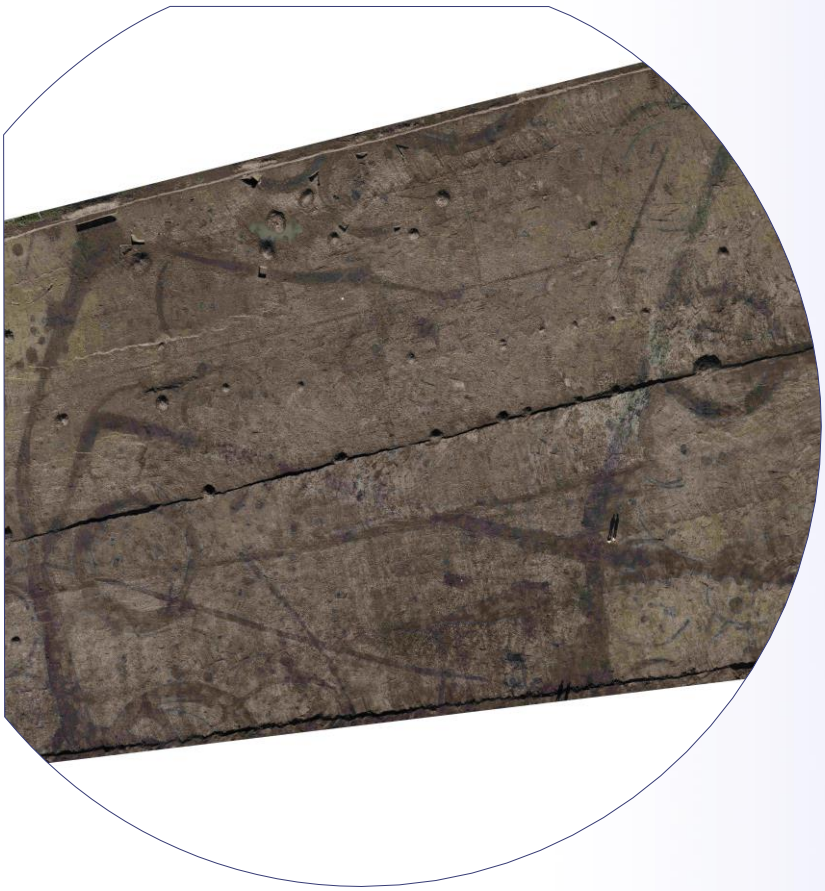

Iron Age, Romano-British and Anglo-Saxon settlement at Crab Hill, near Wantage, Oxfordshire

Archaeological Excavation Report

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Iron Age, Romano-British and Anglo-Saxon settlement at Crab Hill, near Wantage, Oxfordshire

Archaeological Excavation Report

By Martyn Allen and Alex Davies

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Summary

Excavations to the north-east of Wantage, Oxfordshire, uncovered a long-lived Iron Age and Roman settlement alongside more ephemeral evidence for earlier prehistoric and Anglo-Saxon activity.

The earliest archaeological remains comprised a small number of residual early prehistoric worked flints. A small assemblage of largely residual late Bronze Age pottery suggests the presence of settlement activity nearby.

The first clear evidence of settlement remains dated to the earliest Iron Age. The settlement appears to have been established in the 8th or 7th century BC, represented by a large post-built roundhouse containing All Cannings Cross pottery. A further five post-built roundhouses and six roundhouses defined by penannular ditches dated to the earliest or early Iron Age. A further post-built roundhouse was not dated, but probably stood during this phase. Also dated to the earliest/early Iron Age were two adjacent linear pit groups, a four-post structure, and nine pits including one that contained an infant and the disarticulated bones of one or more juveniles. A total of 15 roundhouses defined by penannular ditches dated to the middle Iron Age, alongside 12 pits, a four-post structure and several linear features. Another four-post structure, a possible six-post structure, 19 pits and other minor features were broadly dated as 'Iron Age' (pertaining to either the early or middle Iron Age). Late Iron Age activity was represented by a substantial circular enclosure that may have surrounded a building.

The site was significantly reorganised early in the Roman period. Two rectilinear enclosures and minor subsidiary enclosures were established, with a ditch cutting and possibly purposefully slighting the late Iron Age circular enclosure. The Roman enclosures were recut multiple times throughout the following centuries and the organisation of the site remained remarkably consistent until it was abandoned at the end of the 4th century AD. A middle Roman corndryer and two late Roman corndryers were discovered, along with two late Roman wells. A fragment of a quern made from raw material quarried in the Channel Islands or northern France was also discovered.

One early Saxon sunken-featured building was discovered, probably dating to the 6th or 7th century. This phase of occupation is not likely to have immediately followed on from the Roman settlement. The later medieval period saw the site come under arable cultivation, signified by the presence of numerous furrows. The land may have been farmed from medieval Wantage and a trackway of late 15th–16th-century date was found to extend southwards towards the town.

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The post-excavation was managed by Martyn Allen, assisted by Alex Davies. Thanks are extended to all the specialists who worked on the project, Charles Rousseaux and Anne Kilgour who provided the figures, and the teams of OA staff that cleaned and packaged the finds under the supervision of Leigh Allen and Geraldine Crann, processed the environmental remains under the supervision of Rebecca Nicholson, and prepared the archive under the supervision of Nicola Scott.

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1 INTRODUCTION

1.1.1 In 2018 Oxford Archaeology (OA) was commissioned by RPS Group on behalf of St Modwen Developments to undertake an archaeological excavation within an 83ha site in advance of a mixed-use neighbourhood development at Crab Hill, near Wantage, Oxfordshire. Following geophysical survey and evaluation trenching, two areas within the development site were found to contain significant archaeological remains. This report presents the findings from the excavation of the first of those two areas (Area 1).

1.1.2 Area 1 covered 2.4ha and its excavation was undertaken to inform the specification for further fieldwork mitigation as part of planning application P13/V1764/O as agreed between Atkins and Oxfordshire County Council Archaeologist, Hugh Coddington (Atkins 2017). A written scheme of investigation (WSI) was produced to set out the scope of the archaeological works, which also covered the proposed excavation of Area 2, *c* 300m to the south (OA 2018).

1.1.3 Excavation of Area 1 revealed a concentration of archaeological features dating to the Late Bronze Age, Iron Age, Romano-British and Anglo-Saxon periods, with further finds of earlier prehistoric date also being recovered.

1.1.4 The Iron Age settlement was established in 8th or 7th century BC and continued with episodes of modification and development into the middle Iron Age before a reduction of activity occurred in the late Iron Age. At its peak, the early and middle Iron Age settlement appears to have been home to a sizable farming community.

1.1.5 The Roman period witnessed a redevelopment of the site with the digging of several field boundaries forming an enclosure complex. The organisation of the site remained largely the same through to the later Roman period, but included corndryers in the middle and late phases, indicating that the area was focused on arable processing and perhaps represented the periphery of a wider settlement or estate.

1.1.6 The Romano-British settlement was abandoned by the end of the 4th century. An Anglo-Saxon phase was represented by a 6th/7th-century sunken-featured building, presumably relating to small-scale domestic activity.

1.2 Location, geology and topography

1.2.1 Though it lies within Grove parish, the site is located to the north-east of Wantage, *c* 1.4km from the historic core of the town, with Area 1 centred at NGR 440510 189010 (Fig. 1). Area 1 lay on generally flat ground, situated at *c* 75m aOD in the east, rising gently to *c* 80m aOD in the west. Prior to development, the site consisted largely of farmland, with Area 1 positioned within a field under arable cultivation. Letcombe Brook flows northwards to the west of the site, just beyond the A338, to the River Ock.

1.2.2 The site is on the southern edge of the Vale of White Horse, *c* 5km to the north of the escarpment of the Berkshire Downs, and is located on a band of Upper Greensand Formation (BGS nd). No superficial deposits overlie Area 1, though Head deposits of clay, silt, sand and gravel associated with the Letcombe Brook lie to the west.

1.3 Archaeological and historical background

1.3.1 A considerable amount of archaeological work has recently been undertaken around Wantage and Grove (Brady and Hayden 2017; OA 2019a; 2019b; Brady *et al.* in prep.). This compliments numerous smaller excavations that have taken place within Wantage itself (eg Barber and Holbrook 2001; Holbrook and Thomas 1996; Lewis 2016).

Iron Age

1.3.2 Iron Age discoveries at these nearby excavations have been largely limited to residual pottery sherds, and evidence for Iron Age activity in the immediate vicinity within the Vale of White Horse is comparatively scarce. This may be due to a relative lack of archaeological investigations compared to other areas of the upper Thames Valley rather than a real dearth of activity. A series of evaluations further to the north-east between Drayton, Steventon and East Hanney uncovered two early Iron Age sites and 11 middle Iron Age sites (Hearne 2001, 9). More extensive early and middle Iron Age activity has been excavated at Frilford/Marcham further down in the vale, *c* 8.1km to the north-east of the site (Bradford and Goodchild 1939; Harding 1987; Kamash *et al.* 2010), while recent excavations in advance of urban expansion further to the east at Didcot have also produced early and middle Iron Age settlement remains (Hayden *et al*. forthcoming; Davies *et al.* in prep.).

1.3.3 Known Iron Age evidence is largely focused on the escarpment of the Berkshire Downs to the south, rather than in the vale to the north. Segsbury hillfort is the most prominent of these sites, *c* 4.9km to the south-west of Crab Hill. This is the largest of a string of hillforts located on the ridge, and activity here was possibly episodic or seasonal thorough the early and middle Iron Age (Lock *et al.* 2005, 145) and also appears to have been a focus for human burial (Davies 2018a, 150–2).

1.3.4 A series of substantial linear ditches extending mainly east–west usually near to the escarpment of the Berkshire Downs are likely to have been related to the nearby hillforts. Some of these have been dated to the earliest Iron Age. They may have been territory boundaries, perhaps dividing the Vale of White Horse from the Berkshire Downs (Davies 2018a, 82, 95–7; Ford 1981–2; 1982). This interpretation may find support from a recent isotope study that found that bones of sheep, cattle and pigs from sites in the Vale of White Horse and the Berkshire Downs had chemically distinct signatures, suggesting that livestock were rarely moved between these two areas during the Iron Age (Schulting *et al.* 2019).

Romano-British

1.3.5 Romano-British activity is much better represented in the area around the Crab Hill site. A Roman road extended between Wantage and Frilford, following approximately the line of the modern A338 which passes *c* 500m to the west of the site (Holbrook and Thomas 1996, 171–3; Margary 1967, 170). Within Wantage, early Roman activity is represented by field-system ditches at Mill Street (Holbrook and Thomas 1996, 115-7) and ill-defined pits and ditches at Denchworth Road (Barber and Holbrook 2001, 293–5). The early Roman period is not well represented in excavations at Monks Farm to the north of Grove, *c* 1.9 km to the north-west of the site (Brady and Hayden 2017; Brady *et al.* in prep.), although early Roman features were discovered during

evaluation work at Station Road (OA 2019a, 12). At Grove Airfield *c* 1.5km to the north-west of the site, an early Roman field system and a possible roundhouse were identified, and it is possible that this activity originated in the late Iron Age (OA 2019b, 9–10).

1.3.6 The early Roman field system at Grove Airfield was reorganised around the turn of the 2nd century AD as a new settlement with three post-built structures was established (ibid., 10). Middle Roman activity at Mill Street in Wantage comprised two timber-framed buildings, one interpreted as a granary and the other as a domestic structure, alongside a small number of ditches and pits and one well (Holbrook and Thomas 1996, 117–21). Agricultural plough soil was found between early and late Roman features at Denchworth Road (Barber and Holbrook 2001, 295–6). At Monks Farm, a cremation burial and inhumation burial were dated to the middle Roman period (Brady and Hayden 2017). Romano-British activity was identified on low-lying ground at Stockham Farm in Wantage in the form of drainage ditches (CA 2017).

1.3.7 The late Roman period saw increased activity at several local sites. The corner of a 'villa-type' stone building was exposed at Denchworth Road, apparently facing away from the Roman road (Barber and Holbrook 2001, 296–301), and a smaller stone building interpreted as a granary was found at Mill Street (Holbrook and Thomas 1996, 121–3). A late Roman field system was found at Monks Farm with curvilinear and circular ditched enclosures, two corndryers and an infant burial (OA 2019a; Brady *et al.* in prep.). Activity appears to have reduced in the late Roman period at Grove Airfield, although a corndryer, a metalled track and a stone building were discovered, alongside ditched enclosures (OA 2019b, 10–11).

Anglo-Saxon

1.3.8 Early Saxon evidence from the vicinity is limited. The Roman stone buildings in Wantage were demolished and robbed during this period, and there is evidence for a new field system on a different alignment to the Roman fields (Barber and Holbrook 2001, 303; Holbrook and Thomas 1996, 125–9; Lewis 2016, 5, 15). No early Saxon evidence was recorded at the sites around Grove.

1.3.9 Wantage is the reputed birthplace of King Alfred (born AD 849 and reigning 871–899), and recent finds of imported pottery dating to the late 8th/early 9th century supports the assertion of a high-status settlement prior to the birth of Alfred (Blinkhorn 2016, 25–6).

1.4 Previous work at Crab Hill

1.4.1 A desk-based assessment of the site reported the presence of cropmarks in the northern part of one of the fields within the development boundary (OA 2009, 3). The features bore the appearance of an Iron Age and/or Roman settlement, and Roman pottery and coins were previously discovered in the area of the cropmarks and in the field to the north beyond the development site (ibid., 9).

1.4.2 In 2012 Cotswold Archaeology excavated six evaluation trenches over the cropmark plot of what is now Area 1. All the trenches exposed ditches and recovered finds ranging in date from the late Bronze Age/early Iron Age to the later Roman period (CA

2012). A geophysical survey was then undertaken across a larger area of the development site (WYAS 2012). This corroborated the cropmark evidence, and showed some additional features, but demonstrated that the marks were incorrectly plotted *c* 40m to the south-west. The geophysical anomalies were slightly more extensive to the north and east than was indicated by the cropmarks, although were not present to the south or west, overall encompassing an area of *c* 160m x 130m. Archaeological features appeared to continue to the north beyond the area of geophysical survey and the development boundary (Fig. 2).

1.4.3 The geophysical survey located a second area of archaeological interest *c* 300m to the south of Area 1, centred at SU 4050 8870 (Area 2). This area was not previously identified by cropmarks and the anomalies were less clear than in Area 1, but a possible rectilinear enclosure could be discerned, alongside smaller curvilinear/circular features and pit-like anomalies. These features encompassed an area of *c* 110m x 80m and appeared to continue to the south and east beyond the development area. Another sub-circular cropmark was recorded *c* 400m to the east of Area 1 (OA 2009, 3), though this was not detected by the geophysical survey.

1.4.4 A second phase of evaluation in 2013 opened 68 trenches right across the 83ha development site (CA 2013). One additional trench was placed over the first area archaeological interest as indicated by the geophysical survey (Area 1), further indicating Iron Age and Roman settlement evidence. Six trenches were opened over Area 2, demonstrating the features belong to an Iron Age settlement. In total, 24 of the 68 trenches contained archaeological features, and half of these were in the western *c* 17 hectares of the development area. Iron Age and Roman activity was found across this western area with the densest concentrations of features in Areas 1 and 2. A Saxon ditch was also discovered between the two areas of archaeological interest. Other evidence from the western part of the site included a ditch containing late Bronze Age pottery. Few archaeological features were found across the rest of the development site, but included a pit containing late Bronze Age pottery towards the centre, and in the eastern part a small number of ditches including two that produced late Bronze Age–early Iron Age and Roman pottery respectively. A posthole and three pits produced Iron Age material (ibid.).

1.5 Aims and objectives

1.5.1 The primary objective of the excavation of Area 1 was to mitigate the effects of the development on any surviving archaeological remains.

1.5.2 The specific aims and objectives of the excavation were:

I. To determine and understand the nature, function and character of the archaeological remains within their cultural and environmental setting.

II. To understand the nature, date and extent of the features identified from the cropmarks, geophysical survey and subsequent evaluation trenches.

III. To mitigate the impact of the proposed development on the archaeological remains present.

IV. To determine or confirm the approximate date or date range of any remains, by means of artefactual or other evidence.

V. To establish the extent and longevity of the Romano-British remains identified by the evaluation.

VI. To contextualise the finding within the local and regional landscapes.

VII. To make available the results of the excavation.

1.6 Fieldwork methodology

1.6.1 The fieldwork methodology is presented in more detail in the WSI (OA 2018). The excavation was undertaken in accordance with the Chartered Institute for Archaeologists' *Standard and guidance for archaeological excavation* (CIfA 2014) and local and national planning policies.

1.6.2 A summary of the site-specific methodology is as follows:

I. The areas of excavation were set out by a trained OA surveyor using a GPS system with a sub-25mm accuracy.

II. Removal of the overburden was undertaken by a mechanical excavator fitted with a toothless ditching bucket under archaeological supervision. Removal of the overburden was undertaken in level spits of no more than 100mm down to the first archaeological horizon or the natural geology, whichever was encountered first.

III. Once removal of the overburden deposits was completed, a digital pre-excavation plan showing all the revealed features was produced using a GPS with sub-25mm accuracy.

IV. A sample of the revealed features was investigated by hand to establish their character and date, where possible. The level of hand investigation was discussed with Hugh Coddington, Local Planning Archaeologist for Oxfordshire County Council, during on-site monitoring meetings.

1.6.3 The WSI stated that Areas 1 and 2 are to be excavated, though this report only covers Area 1. Area 2 is yet to have been investigated by open-area excavation.

1.7 Site archive

1.7.1 The documentary and finds archives will be deposited with Oxfordshire County Museum Service under the accession code OXCMS:2018.35. The digital archive is to be deposited with the Archaeology Data Service (ADS), University of York.

2 STRATIGRAPHY

2.1 Introduction

2.1.1 Open-area excavation of Area 1 revealed a dense spread of archaeological features covering most of the *c* 2.4ha site (Fig. 3). The vast majority of the remains were ditches, gullies, pits and postholes dating to the Iron Age and Romano-British periods as expected. Signs of medieval and post-medieval ploughing were evident, particularly in the southern half of Area 1, and this had clearly truncated many of the features.

2.1.2 The major discovery was a long-lived Iron Age settlement with multiple roundhouses that was established perhaps as early as the 8th century BC and appears to have been continued into the later Iron Age (Fig. 4). The site was reorganised in the early Roman period and occupied until the end of the 4th century AD (Fig. 5). Anglo-Saxon remains were restricted to a sunken-featured building of the 6th or 7th century AD.

2.2 Early prehistoric

2.2.1 A small number of early prehistoric pieces of worked flint were discovered as residual finds in later features. This includes one heavily backed blade of potential late Upper Palaeolithic date, though it may be early Mesolithic, as well as some further blades, specialist core-dressing flakes and tools.

2.3 Late Bronze Age

2.3.1 A very small component of the prehistoric pottery assemblage could date to the late Bronze Age. This was recovered from seven contexts forming two clusters in the eastern part of the site. The material was residual in at least five of the contexts, with one pit (511) and a posthole (291) being the only possible late Bronze Age features (Fig. 6). Pit 511 was circular and had vertical sides and a flat base. It was 1.1m across, 0.22m deep, and contained two fills though no other finds came from the pit. Posthole 291 was notably smaller but contained an almost complete cattle scapula.

2.3.2 The pottery belonged to the early or middle part of the late Bronze Age, *c* 1100–900 BC, and probably represents relatively ephemeral activity not clearly represented by any excavated features. The material was probably redeposited from truncated features or above-ground middens. A small amount of similar pottery was found during the evaluation in other parts of the development site that were not subject to excavation (CA 2012, 25). As 9th-century ceramics were not clearly present, it is likely that the site was not occupied during this period. The late Bronze Age activity therefore does not appear to directly precede the Iron Age settlement.

2.3.3 A radiocarbon date taken on *Prunus* charcoal returned a date probably within the 10th century BC (1005–890 cal BC at 88% confidence (SUERC-90349); Table 1). This was from posthole 205 of earliest Iron Age roundhouse 1600. However, the pottery from this roundhouse was of All Cannings Cross-type and it is thought that the charcoal was residual. The date accords with the largely residual late Bronze Age pottery, and both could have belonged to the same elusive phase of activity.

2.4 Earliest Iron Age

2.4.1 The main settlement was established in the earliest Iron Age (Fig. 6), perhaps as early as the 8th century BC, and appeared to be occupied more or less continuously throughout the Iron Age. In some cases, the pottery allowed for the division of the features belonging to the earliest and early Iron Age into more specific sub-phases: earliest Iron Age (*c* 800–600/550 BC), EIA1 (*c* 600/550–450 BC), and EIA2 (*c* 450–350 BC).

2.4.2 There were only a few features that could be dated with confidence to the earliest Iron Age. These were all in the north-western corner of the site and consisted of roundhouse 1600 and associated pits, along with intercutting pits 257 and 255 that were dug to the south of the roundhouse.

2.4.3 Pit 255 was irregularly shaped, measuring 1.78m x 0.60m across and 0.08m deep. Pit 257 was cut into the side of pit 255. It was 0.30m in diameter and 0.20m deep and contained some wattle-impressed fired clay.

Roundhouse 1600

2.4.4 Roundhouse 1600 was only partially exposed and continued north of the excavated area (Fig. 7). It consisted of a fairly regularly and tightly spaced series of postholes enclosing an area *c* 12m in diameter. It had a pair of protruding entrance posts that were *c* 2m to the south-east of the post-ring. The southern entrance posthole was recut as many as five times and measured between 0.32–0.90m in diameter and 0.12-0.48m deep (see pits 173, 176 and 178; Fig 7, section 24).

2.4.5 Although there was no convincing evidence for an outer ring of posts, evidence from better preserved roundhouses of this type suggest that in many cases the outer wall lay beyond the structural post-ring, being archaeologically ephemeral as it was non-loadbearing (Davies 2018a, 289–94; Guilbert 1981). Instead, the outer wall may have followed the circumferential line of the protruding entrance posts, giving an approximate 16m diameter of the house.

2.4.6 Two pits, 205 and 209, were discovered on the southern side of the roundhouse, overlapping with the post-ring. Pit 205 was irregularly shaped and 209 was oval. They were both shallow, respectively 0.07m and 0.16m deep. Posthole 207 was cut into 209, probably belonging to the post-ring but possibly not during its initial phase. Two of the three other excavated post-ring posts had been replaced. There were six internal postholes, two of which were excavated. Both of these were rich in charcoal and posthole 103 was one of only five on the site that had a recorded post-pipe. As well as pottery (see *Prehistoric pottery*), other finds from this roundhouse included wattle-impressed fired clay from entrance posthole 176, six pieces of later prehistoric worked flint from pit 205 and another from posthole 207.

2.4.7 Pit 105 was dated broadly to the earliest/early Iron Age but was positioned very close to the projected wall-line of roundhouse 1600 and may have been contemporary with it. The pit was 2.08m wide and 0.20m deep.

2.5 Earliest/early Iron Age

Post-built roundhouses

2.5.1 Five post-built roundhouses were dated to the earliest/early Iron Age and another remains undated but is probably also of this period (Fig. 7). The post-built roundhouses are summarised in Table 2.

2.5.2 Roundhouse 1614 was located *c* 10m to the east of earliest Iron Age roundhouse 1600. This was not quite as well defined as 1600, though it had an internal post-ring with a diameter of *c* 10.5m and was surrounded by an external ring probably representing an outer wall *c* 14.8m in dimeter (Fig. 8). Two pits were found *c* 1.5m to the south-east of the outer post-ring. These were respectively 1.30m and *c* 1.8m in diameter and 0.11m and 0.15m deep. The pits lay just 0.5m apart but may have been related to a porch structure. The pits were both adjacent to smaller postholes that were 1.60m apart that also might have been related to a porch structure.

2.5.3 Roundhouse 1613 was *c* 50m to the north-east of 1615. This structure was represented by a single circle of 7/8 postholes and was *c* 13m in diameter (Fig. 8). One of the postholes had been replaced. It did not have any entrance posts and the wall-line may have been defined by the post-ring or was very close to it. The house was not recognised during excavation though one of the postholes produced a sherd of pottery in a coarse flint fabric and another in the sandy glauconitic fabric that dominated the Iron Age assemblage.

2.5.4 Roundhouses 399 and 1602 were located at the other side of the excavated area, some *c* 110m to the east of roundhouse 1613. Roundhouse 399 was well-defined, consisting of a circle of 15 postholes with a diameter of 10.5m, with another posthole probably truncated by a medieval ditch (Fig. 9). These were very regularly spaced, although the postholes to the south and east of the roundhouse were set further apart. Three postholes were found 1–2m to the south-east of the post-ring, with at least one probably being an entrance post. These are usually found as pairs, although no adjacent second entrance post was visible. If the outer wall followed the line of the protruding entrance post, the roundhouse would have had a dimeter of *c* 13.5m. Just three sherds of pottery were recovered from three of the postholes, and posthole 381 was rich with charcoal.

2.5.5 Roundhouse 1602 was 15m to the south-west of 399. This was defined by a semi-circle of closely spaced posts with an overall diameter of *c* 8.5m. The eastern half of the house was truncated by a medieval ditch, leaving uncertainty as to whether the structure was a true roundhouse, or a semi-circular structure/enclosure. Glauconitic sandy-fabric pottery dating to the earliest/early Iron Age was recovered from two of the postholes, eight coming from posthole 1209 which also had the remains of a post-pipe. A charred cereal grain from this feature returned a later Roman date of 230–360 cal AD (93% confidence, SUERC-90348; Table 1) and is thus likely to have been intrusive.

2.5.6 Roundhouse 1615 was located 40m to the south of roundhouses 1600 and 1614 (Fig. 17). The house was surrounded by two penannular ditches of middle Iron Age date, but these were not concentric with the post-ring and all of the pottery from 1615,

some four small sherds from four features, was earliest/early Iron Age in date, demonstrating that the post-ring and penannular ditches were separate structures. Roundhouse 1615 was defined by a regularly spaced ring of posts 5.8m in dimeter. The entrance may have been to the south-east where the widest gap between two of the posts was found. There was no clear sign of protruding entrance posts, and unlike the examples above that do have this feature, the wall may have been defined by the post-ring or very close to it (cf Davies 2018a, 289).

2.5.7 The final post-built roundhouse, 479, was located in the northern central part of Area 1, some 85m to the east of roundhouses 1600 and 1614, and 80m to the north-west of 399 and 1602 (Fig. 6). This was well-defined by a series of regularly spaces postholes and had a diameter of 5.75m (Fig. 8). There was no clear evidence for external entrance posts, although the postholes were less regularly spaced to the south-east, possibly suggesting the presence of an entrance.

Penannular ditches

2.5.8 Three penannular ditches that probably surrounded roundhouses dated to the earliest/early Iron Age. These are summarised in Table 3. Roundhouses 970 and 1616 were both very simple and were largely truncated with only remnants of their ditches surviving (Fig. 6).

2.5.9 Roundhouse 1032 was located in the northern central part of the site. It consisted of a penannular ditch 16m in diameter surrounding a slot-trench (Fig. 10). The penannular ditch appeared to have a south to south-west entrance. The southern length of the penannular ditch, 1151, sloped up to form a terminal, though the edge western side, ditch 1026, was not the original terminal as this stopped abruptly due to truncation. The slot-trench, likely to have originally held the wall of the structure, was of two phases and was 12.5m in dimeter. The slot-trench was 0.20m wide and 0.10m deep and had sloping sides and a rounded base. There was no clear evidence for either stakes or planks having been used to form the wall. The single dark fill of the feature was continuous where it was present. The slot-trench could only be followed around part of the circuit making it difficult to define its entrance, although both of its phases were present in the SSW part of the house, suggesting that the entrance to the house itself was slightly off-set to the entrance of the penannular ditch. A sherd from an angular tripartite bowl was recovered from the southern terminal, suggesting a date in the earliest Iron Age or EIA1.

Four-post structure 1611

2.5.10 Four-post structure 1611 was orientated NNE–SSE/WNW–ESE, measuring 2.30m wide and 2.30m long (Fig. 6). It was positioned within southern part of the circuit of roundhouse 970, although did not appear to be contemporary given their off-set spatial relationship. One of the postholes had a post-pipe and packing material consisting of medium-sized stones and silt.

Burial pit 1194

2.5.11 Pit 1194 was circular, measuring 1.68m across and 0.25m deep, with a flat base and sloping sides (Fig. 6; Plate 1). The pit contained a single fill that produced 11 sherds of

pottery weighing 48g, including three in earliest/early Iron Age fabrics, as well as a sizable quantity of animal bones and three disarticulated rib fragments from a human juvenile. In the middle of the fill on the north-eastern side of the pit, an articulated neonate (SK 1196) was discovered with its head to the south-west (Plate 2). Only *c* 20% of the bones survived. A radiocarbon date of 390–205 cal BC (95% confidence, SUERC-90350) was obtained from the articulated skeleton (Table 1).

Posthole 1073

2.5.12 Posthole 1073 was not part of a clearly identifiable structure and was seemingly isolated from contemporary features. The posthole measured 0.4m in diameter and 0.37m deep. It contained sherds from eight vessels, including 12 freshly broken sherds from an angular tripartite vessel weighing 500g and large sherds from a shouldered jar. The size and condition of the majority of the sherds were significantly different from the remainder of the earliest/early Iron Age assemblage, and appears to be the only pottery of this date to have been deposited shortly after breakage in the feature that it was found in. The large sherds should be interpreted as a placed deposit, though it is possible that the assemblage represents a mixture of fresh and secondary refuse without 'ritual' intent (see *Discussion*).

Linear pit group 1640

2.5.13 A linear pit group, extending north–south, was found in the south-eastern part of the site (Fig. 11). Two of the pits were excavated and were found to be very similar, both being circular with vertical sides and flat bases, and measuring 1.20m across and 0.80m deep. Both contained two fills. The designation of these pits as belonging to an alignment is uncertain because a series of later ditches obscured the pits both to the north and the south of the excavated pair. The pits shared many characteristics to the more certain linear pit group 1624, 30m to the east, including the generally large sizes of the pits, their spacing, and alignment.

Other features

2.5.14 Another six pits were dated to the earliest/early Iron Age. These were all relatively isolated in the northern part of the site. Five had single fills and one had two fills. None of these contained any finds of significance.

2.5.15 Two short lengths of linear ditches aligned ENE-WSW produced small amounts of earliest/early Iron Age pottery, in the north-eastern part of the site. Ditch 350 was 6m long and ditch 457 was 10m long. Neither can be clearly understood in relation to contemporary features.

2.6 Early Iron Age

2.6.1 Features dating to the early Iron Age included two roundhouses defined by penannular ditches, a linear pit group, a possible D-shaped enclosure, a very short length of ditch (446), and a pit (1050) in the north-western corner of the settlement (Fig. 6). Pit 1050 was notable for containing an eagle bone (see *Animal bones*).

Linear pit group 1624

2.6.2 Linear pit group 1624 was found in the south-eastern corner of Area 1, 30m to the east of the less certain linear pit group, 1640 (Fig. 11; Plate 3). It consisted of a slightly meandering north–south alignment of up to 48 pits, usually appearing in pairs but sometimes as clusters. The alignment was followed over 40m and extended beyond the excavated area to the south. Neither of the linear pit groups could be seen on the geophysical survey either within or outside of the excavated area, and none of the evaluation trenches were positioned over their projected lines of continuation, making any estimation of their southern termini impossible.

2.6.3 Eight pits belonging to alignment 1624 were excavated, and, like those from the possible alignment 1640, these were all cylindrical in shape with vertical sides, except one pit that was wider towards the base. This consistent shape makes the pits unusual compared to all the other Iron Age pits on site. Three quarters of other pits in Area 1 were bowl-shaped with sloping sides. The pits within the alignments were also all amongst the largest found, their diameters ranging 0.78–2.75m with a mean of 1.42m. They ranged in depth from 0.18–0.80m with a mean of 0.40m. Linear pit group 1624 was the only feature that could be dated to EIA1 based on the pottery. Other finds from these pits included worked flints, a ceramic bead (SF 86) and animal bones. Six of the pits had a single fill, one had two fills, and another had three fills. The fill of pit 496 was notably charcoal rich.

Penannular ditches

2.6.4 Two or three penannular ditches that probably surrounded roundhouses date to the early Iron Age (Table 3). Roundhouse 164 was found close to the northern edge of the excavated area, extending beyond it. The feature was relatively simple consisting of a ditch 1.5m wide that enclosed an area about 12m across. It was orientated towards the south-east. Pottery from the fill dated the building to EIA2.

2.6.5 Roundhouse 1604 was found in the western part of the site and consisted of a penannular ditch 11m in diameter that had been recut once (Fig. 17). The entrance appears to have faced ENE, though a Roman ditch cut the feature here. The ditch was 0.60–1.00m wide and 0.20m deep. A possible partial slot-trench was visible across the northern part of the enclosed area, with a diameter of *c* 8.5m. The roundhouse also had two possible entrance posts following the line of the slot-trench that were 3m apart and orientated ENE. This roundhouse was the second of five roundhouse phases in this part of the site that extended into the middle Iron Age (see below). Some 26 sherds of pottery weighing 461g and numerous animal bones were recovered from four of the five interventions.

2.6.6 Roundhouse 1628 was located just over 8m NNW of 1604. It too was defined by penannular ditches though was less than 8m across in diameter. Much of its ditch was truncated and surviving sections did not produce any pottery. Nonetheless, it was clearly truncated by middle Iron Age roundhouses 930 and 739 (see below) and it is likely to have been broadly contemporary with roundhouse 1604, and enclosure 866 to its west.

D-shaped enclosure 866

2.6.7 A possible D-shaped enclosure, 866, was found in the far western part of the site (Figs 6 and 16). This was 10m long and 8m wide and may have had an entrance on its north-eastern side, though the enclosure was truncated by a middle Iron Age penannular ditch and a medieval furrow, and thus could not be clearly understood. Pottery from the fill of the feature was dated broadly to the Iron Age, though the enclosure was part of a stratigraphic series of roundhouse ditches and could be phased to the early Iron Age based on its relationship with the neighbouring features.

2.7 Early/middle Iron Age

2.7.1 Several features could have dated anywhere between the earliest and middle Iron Age phases and have thus been broadly categorised as 'early/middle Iron Age' (Fig. 12).

Penannular/curvilinear ditches

2.7.2 Three penannular ditches, all probably relating to roundhouses, have been assigned to this phase. Roundhouse 1601 was located in the north-western part of the excavated area. It measured roughly 10m in diameter and was orientated ESE with an entrance approximately 4m across. A posthole close to its northern terminal may have been functionally related to the entrance, and three internal postholes may have related to supporting timbers.

2.7.3 Roundhouses 593 and 594 were found in the central part of the excavated area. Neither of the penannular ditches had survived well, having been truncated by later activity, while 593 had also been cut by Roman ditches. Roundhouse 593 was the larger of the two, measuring potentially 13m across, while 594 was more modest at *c* 8.5m. Pit 360 was located within the area enclosed by penannular ditch 594 and may therefore have been related to this roundhouse. The feature measured 1.30m x 0.60m and was 0.25m deep with two fills. The pit was notable for containing an iron spearhead that could typologically belong to either the Iron Age or Roman period. Three small Iron Age sherds weighing just 3g were also found in the pit.

2.7.4 Curvilinear ditch 1322 was found to the south of roundhouse 593 and was cut by a Roman ditch. This may have been part of a penannular ditch surrounding a roundhouse. Seven linear ditches have been assigned to the early/middle Iron Age phase based on the presence of small quantities of pottery in their fills. These were mostly short, with all bar two less than 10m long. None could be clearly understood within the contemporary settlement landscape.

Four-post structure 1605 and six-post structure 1625

2.7.5 Four-post structure 1605 was located towards the northern end of the site. It measured 2.0m long and 2.20m wide. Possible six-post structure 1625 was found in the north-eastern part of the site. It was aligned NW–SE and measured 5.40m long and 2.60m wide. The central posthole within the northern row was slightly off alignment compared with the southern row, though this may have been deliberate. Two smaller postholes were present between the central and south-western pairs of postholes and may have been related to additional support for the structure. The easternmost posthole had been recut at least once.

Pits

2.7.6 A total of 19 pits (including pit 360—see above) were spread across the northern part of the site. Eight of these were within roundhouses and were probably related to the structures. All but one of the pits had a single fill. The pit with two fills was also the second deepest, at 0.48m deep. The pits had depths ranging from 0.05m to 0.54m, with a mean of 0.30m. They were between 0.45m and 3.92m in width with a mean of 1.32m. All but two of the pits were bowl shaped, with two that were cylindrical and a single undercut example that was just 0.14m deep.

2.8 Middle Iron Age

2.8.1 Middle Iron Age archaeological features included 15 penannular ditches that are likely to have surrounded roundhouses (Fig. 13). Four curvilinear ditches belonged to this phase, two of which may also have been related to roundhouses. In addition, 12 pits, a four-post structure, two postholes, and one linear ditch also dated to the middle Iron Age.

Penannular ditches

2.8.2 Based primarily upon stratigraphic relationships, nine roundhouses could be assigned to either the earlier part of the middle Iron Age (MIA1), or the later part (MIA2). Pottery also assisted this sub-phasing as roundhouse 273 contained sherds dating to the later part of the early Iron Age and the middle Iron Age, whereas roundhouses 221, 1446 and 1635 produced primarily middle Iron Age but also small amounts of late Iron Age material. These roundhouses are thought to be transitional and are considered to have stood during the latter part of the middle Iron Age; stratigraphically they were replacements of, or cut, earlier structures. The remaining six roundhouses were all fairly simple features and need not be fully described, though details of each are presented in Table 4 and their positions are shown on Figure 13.

2.8.3 Roundhouse 1606 was 15.5m in diameter as defined by a V-shaped penannular ditch that was 2m wide and 0.55–0.95m deep (Fig. 14). It was oriented ESE and had an entrance *c* 5m wide. This was replaced by roundhouse 1635 that was cut along the inner edge of penannular ditch 1606 and had a diameter of 14m with a width of 1.0–1.80m and a depth of 0.40m. It was notable that this replacement roundhouse was orientated to the west in the opposite direction to 1606, marked by an entrance 3.5m wide. Posthole 789 was 2.20m west of the southern terminal of 1635, cutting 1606, and may have been an external entrance post. Four pits and 12 postholes were found within both penannular ditches, though none were well dated and or could be clearly associated with the houses.

2.8.4 Roundhouse 1609 had a penannular ditch 12m in diameter and was orientated ESE with an entrance 4.5m wide (Fig. 15). The ditch was 0.40–1.20m wide and 0.15–0.50m deep, and it was cut on its north-eastern side by Anglo-Saxon sunken-featured building 1191. Posthole 1081 was cut into the northern terminal and was possibly related to three further postholes (1010, 1012 and 1014) leading from the terminal to the north-east. This appears to have been an 'antenna fence' creating an external approach towards the house. Similar features have been recognised at numerous other middle Iron Age roundhouses in the region (Davies 2018a, 179–81). Alternatively, the three

external postholes may have related to two more unexcavated postholes to the north-west and south-east of 1012, forming a five-post structure with a central support. Within penannular ditch 1609 were four pits, though none were obviously related to the house.

2.8.5 Roundhouse 1608 was partially exposed at the northern end of the excavated area (Fig. 13). The penannular ditch was 11m in diameter and was 1.0m wide and 0.40m deep in the better-preserved northern circuit. Two recuts were visible in this part of the ditch. The penannular ditch had an entrance to the east, 5.25m wide, while breaks elsewhere in the circuit were the result of truncation. A posthole adjacent to the southern terminal may have been related to the entrance, and a few other internal postholes may have been part of a post-ring, though this was not conclusive.

2.8.6 Roundhouse 273 was in the north-western part of the site (Fig. 16). This comprised a penannular ditch, 10m in diameter, that was *c* 0.40m wide and *c* 0.20m deep. It had two entrances, both apparently real and not the effect of truncation, as genuine terminals were found on the south-eastern and south-western sides. The south-eastern entrance was wider (3.8m), and two pairs of internal entrance posts were found. The south-western entrance was *c* 1.0m wide.

2.8.7 Penannular ditch 273 was truncated by the ditch of roundhouse 221 (Fig. 16). The latter appeared to largely conform to other roundhouses on the site, with a ditch of 13.5m in diameter that was 0.80–1.70m wide and 0.70m deep, though it had a V-shaped profile (similar to 1606—see above) rather than the more common, gentle-sloping sides with a concave base. The entrance was to the south-east and was *c* 3.5m wide, and a posthole was found in the southern terminal. There was a possible internal ring of posts that had a diameter of *c* 8.6m within the penannular ditch. A possibly related ring of posts was also visible external to the north-western side of the ditch. Two elongated curving features on the eastern side may also have been functionally related.

2.8.8 Roundhouses 739, 853, 930 and 931 were located towards the western end of the excavated area (Fig. 17). They appear to have been part of a construction sequence that included roundhouses 1615, 1604 and 1628 and enclosure 866 that have been dated to the earliest and/or early Iron Age (described above). Roundhouse 930 was a replacement of roundhouse 931, both of which were orientated eastward. Aside from their similarity in size (*c* 9.5m diameter) and orientation, both 930 and 931 may have shared construction techniques as several internal support posts were located within the ditches and probably related to each roundhouse.

2.8.9 Only about half of the penannular ditch representing roundhouse 739 was observed as it was truncated on its southern side by a Roman ditch, though it appears to have been wider than most of the other examples at the site. The final structure in this sequence appears to have been roundhouse 853 which is represented by parts of at least two penannular gullies (see interventions 655 and 735—Fig. 17). A significant discovery in this roundhouse feature included much of a freshly broken saucepan vessel in intervention 655 and further 'fresh' sherds from other vessels were found in intervention 735. Both interventions were close to terminals on each side and the vessels appear to have been deliberately placed in the ditch, perhaps to mark a

significant moment in the use of the structure (see *Prehistoric pottery* for more details).

Four-post structure 1612

2.8.10 Four-post structure 1612 was located near the middle of the site (Fig. 13) and overlapped earliest/early Iron Age roundhouse 1613 (Fig. 8). The structure consisted of four large postholes with diameters of 1.0–1.44m and 0.40–0.60m deep. The large size of the postholes suggest that the posts had been removed, and no post-pipes were recorded. The posts were positioned *c* 3.10m apart, which compares to similarly large examples excavated at Horcott Quarry, Fairford, Gloucestershire (Hayden *et al.* 2017, 70–4). The north-eastern posthole (691) produced a large pottery assemblage that included approximately half (15 sherds) of a freshly broken, slack-shouldered vessel, along with sherds from a freshly broken, round-shouldered vessel. The posthole also contained a small amount of charcoal, charred wheat and oat/brome grains, and charred weed seeds.

Other ditches

2.8.11 Curvilinear ditch 1620 was the longest non-structure-related ditch attributed to this phase (Fig. 13). It was primarily aligned NW–SE and consisted of a linear stretch *c* 37m long with a gap *c* 5.50m wide near to its northern end. Its southern trajectory turned south/south-west and continued for *c* 19m to where it turned west before it was cut by a Roman ditch. Ditch 1620 appeared to form a partial enclosure with curvilinear ditch 1217. Their exact chronological relationship with each other was uncertain, though ditch 1217 did cut middle Iron Age roundhouse 1603 and must have been fairly late in this phase. It seems likely, however, that the ditches formed an eastern boundary for this area of middle Iron Age roundhouses, while their general character seems at odds with the subsequent Roman field boundaries.

2.8.12 Ditch 870 was discovered between roundhouses 930/931 and 1635/1606 and was clearly cut by 1606/1635 and a Roman ditch (Fig. 14). The ditch was 1.75m wide and 0.90m deep, with just *c* 3m of its length surviving. It is possible that the feature was originally a penannular ditch surrounding a house, perhaps part of the long sequence of house-building in this part of the site.

2.8.13 Ditch 162 extending beyond the northern end of the excavated area (Fig. 13). The feature was also curvilinear and may have surrounded a roundhouse, though this was not conclusive because only a small part of it was exposed. However, if the ditch was penannular or circular it would have been very large with a projected diameter of over *c* 25m, far larger than the other houses at the site. The dimensions of the ditch itself was also substantial, being 1.50m wide and 0.95m deep.

Pits

2.8.14 Twelve middle Iron Age pits were discovered. Nine of the pits were bowl-shaped in section. Three had a cylindrical profile but did not appear to be any larger than the bowl-shaped pits. All were broadly circular or oval in plan, and all except pit 1171 had a single fill.

2.8.15 Pit 1171 was located in the north-eastern part of the site where it was cut by a medieval ditch (Fig. 13). It was the widest and deepest of any pit in this phase with respective dimensions of 2.40m and 0.74m. The pit contained two fills. The upper fill produced fragments from two quern stones, animal bones, and 25 pottery sherds weighing 524g from 11 vessels. It seems likely that all these remains were deliberately deposited together.

2.9 Late Iron Age

2.9.1 Features dated to the late Iron Age were limited to a circular enclosure and two pits (Fig. 18). This reflects the lack of activity during this period as only *c* 8% of the late Iron Age pottery was found outside of these three features. This remainder was either residual or intrusive or was found in tiny amounts in three MIA2 penannular ditches that have been suggested (above) to have been transitional into this phase. An Iron Age coin of Cunobelinus, assignable to the early 1st century AD, was found in the topsoil in the far north-western corner of the site.

Circular enclosure 474

2.9.2 Circular enclosure 474 was found in the north-eastern part of the excavated area. The ditch was 2.0–2.75m wide and consistently *c* 1m deep, and it enclosed an area *c* 15m in diameter. The sides sloped at a *c* 45-degree angle and it had a concave base. There was no observed entrance and the feature may have been continuous, though the ditch had been truncated on its eastern and north-western sides where there may have been a gap or gaps. The ditch contained 55 sherds of late Iron Age, predominately grog-tempered, pottery weighing 883g. This was mostly from upper fills, although some was also present in the primary fill. In addition to late Iron Age pottery, a residual component was also present including 17 sherds (152g) of middle Iron Age pottery and 21 sherds (252g) of earliest/early Iron Age pottery. A possible copper-alloy spiral finger ring was also found in the ditch, alongside a spindle-whorl roughout and a red deer toe bone.

2.9.3 One of the Roman ditches that cut through the enclosure dated to pre-Flavian period (AD 43–70), suggesting that the feature was not in use for long. Circular enclosure 474 may have enclosed a roundhouse and been comparable to some of the larger early and middle Iron Age penannular ditches. However, the ditch itself was notably wider and deeper in comparison to most. Nevertheless, there are numerous regional examples of middle Iron Age ditches that probably surrounded roundhouses that had similar or even larger dimensions (Davies 2018a, 164–9).

Pits

2.9.4 Pit 424 was cut into the inner edge of the northern side of circular enclosure ditch. This was small with a diameter of *c* 0.50m and a depth of 0.08m. The feature may have been a posthole. The pit contained a small sherd of late Iron Age pottery, though this may have been residual in a later feature.

2.9.5 Pit 995 was found centrally within middle Iron Age roundhouse 221 and it seems unlikely that this position was coincidental. The pit had reasonably steep sides, measured 2.0m in diameter and was excavated to a depth of 0.92m. The bottom was

not reached although the profile suggests that the feature was only a little deeper. Its fill produced mainly early/middle Iron Age pottery along with one hand-made sandy late Iron Age sherd. This dates the pit to the late Iron Age and later than the roundhouse that it is located within. The pit may have been excavated shortly after the abandonment of the house, making it likely that the surrounding ditch was still visible when the pit was dug. The pit was later recut by a smaller, shallower pit in the centre of its fill.

2.10 Early Roman

Enclosures

2.10.1 A complete reorganisation of the site took place early in the Roman period as two large enclosures (Enclosure A and Enclosure B), possibly divided by a trackway, were established alongside subsidiary features (Fig. 19). Understanding the exact form of the earliest layout is hampered as most of the early Roman elements were recut multiple times throughout the Roman period.

2.10.2 A small number of potentially pre-Flavian (AD 43–70) sherds were recovered, mostly from later contexts. Ditch 1626 was one of the few features that only contained this material. The early date for this ditch is of interest as the feature cuts across the substantial late Iron Age circular enclosure 474. The ditch was recut twice, and its early phase was clearly pre-Flavian, while pottery from all the subsequent recuts dated prior to *c* AD 100. It is possible that the ditch was cut as a purposeful slighting of the late Iron Age feature as part of the reorganisation of the site.

2.10.3 Most of the other features of this phase could only be dated more generally to the early Roman period (*c* AD 43–120). Enclosure A was dug in the western half of the excavated area. It measured *c* 73m x 65m and was probably entered from the north-east. Ditch 1489 formed the northern boundary of Enclosure A, and its eastern boundary was partially formed by ditch 1627. Ditch 1489 turned south for a short distance at its eastern end and here it cut north–south ditch 1631, which may have been an earlier boundary on this alignment. Ditch 1631 was 25m long and truncated middle Iron Age roundhouses 1609 and 646.

2.10.4 Elsewhere along its circuit Enclosure A was unfortunately truncated by recutting in the middle and late Roman periods, suggesting that its overall form was long-lived. Cuts containing solely early Roman pottery were nevertheless identified in five interventions on the western side which allowed for a probable trajectory of the enclosure to be estimated. A denarius of Tiberius (AD 14–37) was found on the surface of the western ditch defining Enclosure A, though subsequent recuts in this area suggests that the coin was redeposited.

2.10.5 Enclosure B was also aligned broadly north–south. It was *c* 80 long, though its eastern boundary (if it had one) was not recognised within the excavated area. The northern part of Enclosure B was defined by ditch 1626 (see above), while the southern and western boundaries were defined by ditch 1641 which extended east–west before turning northwards until its trajectory was lost from recutting in the middle Roman phase. If ditch 1641 did continue northwards along the same alignment as the middle

Roman recuts it may have formed a north–south trackway that would have divided the two enclosures. Ditch 1641 was *c* 1.70m wide and 0.80m deep.

2.10.6 To the west of Enclosure A, ditches 912, 932 and 1393 may represent the partial remains of a third enclosure. Ditches 912 and 932 were orientated north–south approximately at a right-angle to ditch 1393, which extended westward beyond the excavated area. Ditch 932 produced the complete upper part of a wide-mouthed jar in a black sandy ware, which dated to the Flavian period or later (Plate 4). This appears to have been placed upturned within the ditch and the base was subsequently truncated.

Pits

2.10.7 Four pits dated to the early Roman period. Pit 577 was the only pit to produce solely pre-Flavian material. This feature was located within Enclosure A and measured 1.10m x 0.67m and was 0.23m deep. Pit 1039 was also discovered within Enclosure A to the north of 577. This pit was 0.78m diameter and 0.20m deep. Pits 796 and 148 were to the west of Enclosure A. Pit 796 was oval in plan measuring 1.17m across. It had vertical sides and a flat base reached at a depth of 0.96m. This feature was thought possibly to have been a waterhole during excavation. Pit 148 was located to the north of pit 796. It was 0.48m in diameter and 0.22m deep.

2.11 Middle Roman

Enclosures

2.11.1 Enclosures A and B retained the same general layout in the middle Roman period (*c* AD 120-240) with signs of recutting of some of the early Roman ditches, while the cutting of several new ditches indicated some minimal modification (Fig. 20).

2.11.2 Enclosure A was redefined in the earlier part of the middle Roman period (*c* AD 120-200). This comprised recutting and elongating early Roman ditch 1489 on the northern side of the enclosure (1130) and the western and southern sides by ditches 1638 and 1618. The eastern side was defined by ditch 1617, itself a probable recut of early Roman ditch 1641 and now became the main dividing line between Enclosures A and B. There was some evidence for recutting in the middle Roman period of ditch 1617 and 1618, though ditch 1638 was more commonly recut. This corresponds with the dating evidence as some upper fills of 1638 produced 2nd-century and early 3rd-century pottery, whereas the material culture from ditches 1617 and 1618 was restricted to the 2nd century. The southern part of ditch 1638 was obscured by late Roman recuts, though it no doubt continued through this area. Ditch 1630 appears to have replaced early Roman ditches 912 and 932.

2.11.3 Ditch 1618 also continued to the west beyond Enclosure A, redefining the boundary created by early Roman ditch 1393, and thus may have been the southern boundary of a third enclosure that was largely outside of the excavated area. Ditch 1638 also continued to the north beyond the edge of Enclosure A. Enclosure A was divided into northern and southern compartments by ditch 1621 in the latter part of the middle Roman period. This ditch only contained pottery dating to the late 2nd century and

the 3rd century. The southern part of the Enclosure A measured *c* 65m x 28m and the northern part *c* 75m x 43m.

2.11.4 Enclosure B was redefined by ditch 1617 (see above) and ditch 1381. Ditch 1381 was not recut and only contained 2nd-century pottery. Enclosure B was enlarged as the ditch defining its northern side in the early Roman period, 1626, was not recut in this phase. Possible northern and eastern sides of Enclosure B lay beyond the excavated area.

Corndryer 1240

2.11.5 Corndryer 1240 was found within the southern part of Enclosure A (Fig. 20). The feature consisted of a circular stoke hole (1237) measuring 1.95m x 1.30m and 0.45m deep, at the southern end of the stone-lined flue (Fig. 21; Plate 5). The flue was 3.90m long, 1.60m wide and 0.40m deep. A separated stone-lined chamber was built along the eastern side of the flue. The flue and the chamber were built together within the same foundation cut (1239). A small gap in the stonework at the northern end of the feature appears to have been inset to allow hot air to enter the chamber from the flue. The chamber measured 3.50m long and 1.40m wide and had a surviving depth of *c* 0.40m. The walls were consistently 0.13–0.33m wide and were made from two rows of roughly hewn, mortared stones. Two courses of stonework survived around most of the structure, although four courses were present in the northern wall. The southern end of the eastern flue wall (also the structure's central wall) had been extended sometime after initial construction and appears to have consolidated the eastern side of the stoke hole.

2.11.6 Two layers of burnt material were found on top of the natural base, which was scorched bright red, at the junction between the stoke hole and the flue. The lower layer (1329, not shown in section) was hard and black and measured 1.30m long and 0.20m thick. Although clearly burnt, very little charcoal was recovered from the fill, though environmental sampling produced some charred cereal grains, charred weed seeds and small fragments of fired clay. A charcoal sample from 1329 was sent for radiocarbon analysis and provided a date mostly likely within the second half of the 2nd century AD or the first half of the 3rd century (Beta-550107: 130–260 cal AD; see Table 1 for full details).

2.11.7 The second burnt layer (1269) was more extensive, filling the base along most of the flue and the northern part of the adjacent chamber. This fill was 0.08m thick, black and softer than the underlying burnt layer. Only small amounts of charcoal were recovered from sampling of 1269, with charred grains and fragments of fired clay once more present. The grain was mostly wheat (probably spelt) and smaller numbers of oat/brome and barley grains were also found. Coleoptiles and glume base fragments were present, as well as occasional rachis fragments and oat awns.

2.11.8 Above the burnt layers, the corndryer was infilled with a silty clay (1241) containing frequent mortar fragments and occasional rubble, no doubt emanating from the superstructure. This layer was 0.42m thick and contained two small sherds of Roman pottery. A thin, backfilled, upper layer (1238) covered most of the feature. This contained three sherds of residual early Roman pottery dating *c* AD 50–100.

Pit 1271

2.11.9 One pit was dated to the middle Roman period. Pit 1271 was located outside of Enclosure A, *c* 25m west of the south-western corner (Fig. 20). This was within a group of 10 pits that were otherwise either not dated by artefacts or were late Roman. Pit 1271 was circular, measuring 0.33m diameter, with near-vertical sides and a flat base. A truncated but probably originally complete Oxford fine reduced ware jar, with a base diameter of 145mm and weighing 2641g, was found placed within the base of the feature. The pot was lifted and fully excavated in laboratory conditions. No human bone was found that would indicate the presence of a cremation burial, though five nails, an iron strip, some worked flint, clinkered material and cereal grains were discovered inside the pot.

2.12 Late Roman

Enclosures

2.12.1 Enclosure A was redefined again in the late Roman period (*c* AD 250–410), largely on the same alignment, but it appears to have been reduced in size (Fig. 22). The southern ditch of Enclosure A (1619) was dug *c* 6m south of the middle Roman boundary. An entrance *c* 4.50m wide was present in this ditch. Immediately north of the entrance were three linear features, one a recut, and five postholes that appear to relate to a gate or fenced structure (1634) controlling access to and from the enclosure (Fig. 23). The linear features were 0.26–0.40m wide and 0.05–0.12m deep with moderately steep sides and flat to concave bases.

2.12.2 Ditch 1639 recut earlier ditches to define the western side of the enclosure, while ditch 1632 represented a new northern boundary extending north from ditch 1639 and turning 45 degrees to the east. This final iteration of Enclosure A measured *c* 72m x 54m. As well as the southern gated entrance, an additional entrance appears to have been present on the north-eastern side as middle Roman ditch 1617 was not recut in this area. Northern ditch 1632 continued at least 85m to the east of Enclosure A and beyond the excavated area.

2.12.3 It is probable that ditch 1632 was dug towards the end of this, almost certainly after the redefinition of the southern half of the enclosure. Most of the pottery from ditch 1632 dated post-AD 350, whereas none of the pottery from ditch 1619 or structure 1634 was certainly of this late date, the latest dating to the later 3rd century AD. The redefinition of the southern side of the enclosure may have occurred while the middle Roman ditches to the north were still in use, but it is still likely to have been extant when ditch 1632 was dug.

2.12.4 Enclosure B was not maintained in this phase. None of the previous ditches were recut and the abandonment of the enclosure is demonstrated by well 1304 cutting the middle Roman ditch.

2.12.5 A short length of late Roman ditch (790) was found to the west of Enclosure A, though its function was uncertain.

Corndryer 1447

2.12.6 Corndryer 1447 was located 40m to the east of Enclosure A (Fig. 22). It was T-shaped and aligned east–west almost parallel to ditch 1632. The feature measured *c* 1.1m wide and 4.8m long and *c* 0.43m deep (Fig. 24, section 356). The western end comprising the stoke hole widened to 2.20m (Plate 6). The natural base in the eastern part of the stoke hole and extending halfway along the flue was hardened and blackened from burning. Almost all of the stone was robbed out, with just one stone remaining near the stoke hole and four still in place at the eastern end (1448). Mortar was present on these few remaining stones. Some smaller stones were scattered throughout the fill of the feature.

2.12.7 Filling the stoke hole and extending slightly into the flue was 1449. This contained a large amount of fuel-ash slag and some charred grains comprising mainly wheat as well as oat/brome. Glume bases, coleoptiles and awns were present but not common. At the eastern end of the structure, fill 1450 was another deposit of burnt material at the base of the structure. A large amount of fuel-ash slag was present here, but the deposit was also rich in charred grains, mostly wheat, and some of this was sprouting. Glume bases and awns were also present. The overlying layer 1451 included pieces of degraded mortar and occasional stones probably originally from the structure and thus represents demolition backfill. This was overlaid by a dark grey silt (1452). Pottery sherds dating to the late Roman period were found in lower fill 1449 and upper fill 1452.

Corndryer 1206

2.12.8 Corndryer 1206 was T-shaped and was broadly aligned north–south (Fig. 25; Plate 7). It was truncated on its western side by a post-medieval ditch, partially obscuring this area. The corndryer was positioned *c* 30m to the west of Enclosure A. The structure was 4.6m long and 1.3m wide. A square stoke hole at the southern end was 1.1m long and exposed to 0.6m before being truncated by a ditch, although originally would have been c 1.4m across. The pit was stepped, 0.18m deep, within the southern half while the northern half reached 0.40m deep, which remained the base level throughout the rest of the structure. The walls were 0.10–0.30m across and comprised roughly hewn stones set in a matrix of pale silt that was very similar to the surrounding natural. The natural beneath the inside edge of the stoke hole and the adjacent part of the flue was scorched.

2.12.9 Along the base of the corndryer lay a dark layer (1242) 0.02–0.12m thick that contained a large amount of burnt cereal grain, mostly of wheat but also oat/brome and barley. Glume bases and charred weed seeds were also present. Three backfill layers (1261, 1213 and 1212) were discovered above 1242, all containing stones probably originating from the structure. The middle fill, 1213, contained the cranium of a juvenile aged 5–7 years, as well as two fragments of an adult parietal (skull) bone and a slate pendant. Four large sherds of pottery dating after *c* AD 350 were found in primary fill 1242, and the rest of the pottery from the structure could all be of a similarly late date. A whittle-tanged knife blade was found in fill 1214, and fragments of iron hoops or bindings from a wooden bucket or vessel in fill 1242.

Well 1463

2.12.10 Well 1463 was found in the southern part of Enclosure A (Fig. 22; Plate 8). This was sub-circular in plan with a 2.20m diameter. The sides sloped steeply for the first 1.06m, narrowing to a vertical shaft 0.90m wide (Fig. 26, section 354). The upper 1.10m was carefully excavated by machine, with the next 1m excavated by hand. A further 2m was augured before an obstruction was encountered, either the base of the well or a large stone. The upper 1.10m fill (1464) was a clayey silt, and all the material below (1465), including the augured section, was a similar homogenous clayey silt. Pottery dating after *c* AD 240 was found in the lower of the two fills, providing a *terminus post quem* for the disuse of the feature.

Well 1304

2.12.11 Well 1304 was found 15m to the east of Enclosure A (Fig. 22; Plate 9). The feature cut middle Roman ditch 1381, demonstrating its use during the late Roman period. The well was circular, 3m in diameter, with a step 0.3m from the top of the natural. A wall (1316) of roughly hewed stones 0.05–0.30m in size was placed on the step to consolidate the sides. The upper 1m of the well sloped steeply, leading to a shaft 1m wide (Fig. 26, section 324). The well was hand excavated to a depth of 2m, then augured a further 1.2m when an obstruction was hit. An environmental sample was taken from the lower fill, producing some cereal grains and weed seeds, but no waterlogged plant remains were present. The only stratified coin found at the site was from the lowest exposed fill of the well, dating to AD 364–378. Given the nature of the stepped and walled sides, and the two upper fills (1318 and 1319), the well may have functioned as a waterhole (perhaps for livestock) towards the end of its use.

Pits

2.12.12 Pit 868 was discovered near the western end of the excavated area, close to corndryer 1206. The pit was rectangular in plan, 1.80m long and 0.95m wide, and had vertical sides and a flat base reaching 0.23m deep. A single fill (869) contained a notable collection of blackened clunch weighing 41g, as well as several iron nails, a small quantity of late Roman pottery and a few animal bones.

2.12.13 Pit 919 was in the north-eastern corner of Enclosure A. It was very similar to pit 868 being rectangular in plan, *c* 2.75m long and 1.46m wide, with vertical sides and a flat base 0.90m deep (Plate 10). Pit 919 contained a larger quantity (at least 12) of iron nails compared with 868, plus remains of a structural T-staple. The nails were found around the edges of the pit suggesting that it may originally have been timber lined. Nearly 4.3kg of pottery was found within the four fills of pit 919, all dating after *c* AD 350. Other finds included numerous animal bones (including a cat skull), marine shells, flints, ceramic building material and several unworked stone fragments, though these were not obviously burnt as in pit 868.

2.12.14 Pit 1307 was also rectangular, measuring 2.20 long and 1.50m wide (Plate 11). It was 0.36m deep and its base was raised in the centre. The pit had two fills, the lower comprising stone rubble and 527g of pottery. The upper fill was a burnt deposit containing more iron nails, though no burnt stone was observed. Nonetheless, this pit could have been functionally similar to pits 868 and 919.

2.12.15 Pit 1249 lay south of the southern boundary of Enclosure A. It was a large, amorphous feature measuring between 3.50–8.0m. The size and shape suggested that this may have been a waterhole, though it was just 0.55m deep. Pit 1418 lay just within the southern boundary of enclosure A. It measured at least 2.0m across and 0.35m deep.

2.12.16 The four remaining late Roman pits (1453, 1466, 1468 and 1479) were much smaller and were located together in a cluster *c* 26m to the south-west of Enclosure A. Pit 1453 contained some miscellaneous pieces of metalwork. The cluster also contained six undated pits and middle Roman pit 1271.

2.13 Iron Age or Roman

2.13.1 While the vast majority of unphased features at the site are likely to be either Iron Age or Romano-British, one is worthy of mention here. Pit 1174 was located in the north-eastern part of the excavated area. It either cut or was cut by the larger middle Iron Age pit 1171, though the true relationship could not be discerned. Pit 1174 was roughly circular in plan, measuring 0.9–1.1m across, and contained two fills. No dating evidence was recovered though the upper fill (1175) produced a quern fragment. Petrographic analysis of the quern shows that it was made of Alderney sandstone and very likely originates from one of the Channel Islands or northern France (See *Worked stone*). The fragment was not large enough to distinguish its form and it may have been either a saddle or rotary quern. Its date is therefore uncertain, but it is likely to be either Iron Age or Roman.

2.14 Anglo-Saxon

2.14.1 Sunken-featured building (SFB) 1191 was the only Saxon feature at the site (Figs 15 and 27; Plate 12). The SFB was aligned east–west and the cut (1126/1189) for the structure measured 3.6m x 2.2m and 0.20m deep. It was excavated in quadrants and was found to contain a single fill (1127/1190) of dark grey/brown clayey silt. Two postholes were found, respectively at the eastern (1128) and western (1140) ends. These were both *c* 0.32m diameter and 0.19m–0.24m deep. A third posthole was found in the south-eastern corner of the building, although its relationship to the building was not clearly established and it may have been associated with Iron Age roundhouse 1609, which the SFB truncated.

2.14.2 Within the fill of the building fragments from four annular loomweights were found along with 51 sherds of organic-tempered pottery weighing 889g. The pottery probably dates between the 6th and 7th century AD. Some 14 sherds (186g) of residual Iron Age and 43 sherds (772g) of Roman pottery was also recovered. Almost all the Roman pottery was from the early period, suggesting that it is genuinely residual and not a continuation in use of late Roman wares. A moderate amount of charred grain including wheat, oat/brome and barley was discovered, alongside charred hazelnut shell fragments and some weed seeds.

2.14.3 Two annular brooches of later 5th- to 7th-century date were discovered by metal detector in the topsoil, and these could be contemporary with activity represented by the SFB.

2.15 Later medieval

2.15.1 Two broadly north-south ditches (1622 and 1623) were found in the eastern part of the site *c* 11.5m apart and probably represent a trackway (Fig. 27). Pottery from the ditches dates to *c* 1480–1600. The ditches appear to have been recut a couple of times. Three more ditches on alignment with these two were found several metres to the east and seem likely to have been broadly contemporary. Much of the excavated area was crossed by furrows extending east–west, mainly to the west of ditches 1622 and 1623. A small amount of medieval pottery generally dating to *c* 1250–1500 was also found as intrusive material in earlier features.

3 ARTEFACTUAL EVIDENCE

3.1 Prehistoric pottery

by Alex Davies

Introduction

3.1.1 The prehistoric pottery assemblage spanned the late Bronze Age to the end of the middle Iron Age. The late Iron Age material is reported with the Roman pottery (see below). The late Bronze Age material is limited and probably dates to the 11th/10th century BC, and there appears to have been a gap in the sequence in the 9th century BC. Earliest Iron Age pottery is represented, possibly dating as early as the 8th century BC, with the remainder of the assemblage covering a continuous period probably into the 1st century BC.

3.1.2 The prehistoric assemblage comprises 1859 sherds weighing 22,861g, with a mean sherd weight (MSW) of 12.3g. Some 755 individual vessels were recorded, based on separating out different pots from each context (Table 5). The represents a maximum number of vessels and the real figure is possibly lower as no cross-context refitting was attempted, and it is likely that some vessels broke and occurred in multiple contexts.

Methodology

3.1.3 The pottery was recorded following the guidelines of the Prehistoric Ceramics Research Group (PCRG 2010). Individual vessels were separated out from each context, weighed, and body, rim and base sherds counted. The major inclusion and up to two different minor inclusions in the fabric were recorded according to grade (1–5; from very fine to very coarse), frequency (1–5; from rare to abundant), how well sorted the inclusions were (1–4; from very well-sorted to poorly sorted), and the level of abrasion (1–3; from fresh to highly abraded). Each vessel was assigned a working fabric number, and this was rationalised into a site fabric code. The code starts with two letters indicating the major inclusion, followed by another pair of letters indicating the minor inclusion. No fabric was defined that included three inclusion types. If there were multiple fabrics that comprised the same inclusions, the letter code is followed by a number. The number indicates the level of coarseness.

3.1.4 Pottery from the environmental samples was scanned and only fully recorded if there was no other pottery from the context or if the samples produced feature sherds, in which case all the material from that sample was recorded. About two-thirds of the pottery from environmental samples was fully recorded.

3.1.5 An attempt was made to separate material belonging to the earliest Iron Age (*c* 800–600/550 BC), early Iron Age 1 (EIA1; *c* 600/550–450 BC), and early Iron Age 2 (EIA2; *c* 450–350 BC). The key vessel types were present on the site and used to distinguish between these sub-phases (Table 6). Some vessels traversed two sub-phases, but not all three.

3.1.6 The pottery was initially spot dated based on this chronology and other accepted typological conventions. This demonstrated that most fabrics were not used in both the earliest/early Iron Age and the middle Iron Age; middle Iron Age pottery was only

made in a very limited range of fabrics, whereas earliest/early Iron Age material included a wider range of generally coarser inclusions (discussed below). Undiagnostic body sherds in fabrics that could be shown to belong to either the earliest/early Iron Age or the middle Iron Age were phased on this basis (the earliest and early Iron Age could not be separated on the basis of fabric alone). This led to 39.4% of the assemblage by sherd count and 31.1% by weight being phased only to the early/middle Iron Age. This broadly phased material was then further rationalised. In features that only contained diagnostic material from a single Iron Age sub-phase (ie where there was no obvious residual or intrusive pottery), any material broadly spot-dated to the early/middle Iron Age was assigned the sub-phase of the associated material. This reduced the pottery broadly dated to the early/middle Iron Age to 25.4% of the material by sherd count and 20.6% by weight. The rest of the report uses this rationalised phasing.

Fabric descriptions

3.1.7 Sixteen fabrics were identified. Of these, FlQg appeared to belong solely to the late Bronze Age, fabrics Fl2, Fl3, Sh, ShQs, ShQg, IoSh, QsIo and Qg1 to the earliest or early Iron Age, and Fl1 and VeQg to the middle Iron Age. Fabrics Qg2, Qs, Li and Gr were found in the earliest/early Iron Age and middle Iron Age. A detailed breakdown of fabrics and period is presented in Table 7 and a simplified version in Table 8. Correlations between fabrics and forms are presented in Table 9.

Flint fabrics

FlQg: Sparse to moderate quantities of medium grade calcinated flint, with moderate quantities of glauconitic sand. LBA

Fl1: Fine well-sorted calcinated flint. Usually very common but can be present in sparse even rare quantities. MIA

Fl2: Sparse quantities of fine to medium grade calcinated flint. Can contain sparse quartz sand. Occasionally micaceous. EstIA/EIA

Fl3: Moderate to very common quantities of medium to coarse calcinated flint. EstIA/EIA

Shell fabrics

Sh: Moderate quantities of moderately to well-sorted fossil shell. Usually quite fine inclusions, although occasionally coarse. EstIA/EIA

ShQs: Sparse quantities of medium grade, well-sorted fossil shell, with moderate quantities of quartz sand without any glauconite. EstIA/EIA

ShQg: Moderate to common quantities of usually coarse but occasionally medium-fine, moderately sorted fossil shell, with moderate quantities of glauconitic and occasional quartz sand. EstIA/EIA

ShVe: Moderate quantities of moderately sorted coarse fossil shell, and moderate quantities of vegetal inclusions represented by linear voids. EstIA/EIA

Iron-oxide fabrics

IoSh: Moderate quantities of iron oxides and fossil shell. EstIA/EIA

QsIo: Sparse quantities of quartz sand and pieces of iron oxide. Est/EIA

Sandy fabrics

Qg1: Very fine silty fabric with rare to sparse glauconitic sand. Usually haematite coated and burnished. EstIA/EIA

Qg2: Glauconitic sand, with variable quantities of quartz sand. Moderate to very common quantities of glauconitic/quartz sand. Occasionally micaceous, but only in MIA sherds. EstIA/EIA/MIA

Qs: Quartz sand, usually in moderate quantities, but occasionally rare/sparse or very common. EstIA/EIA/MIA

Other fabrics

VeQg: Moderate to very common quantities of linear voids representing vegetal inclusions, with moderate quantities of glauconitic sand. MIA?

Li: Sparse medium grade pieces of limestone. Can include quantities of quartz sand. EstIA/EIA/MIA

Gr: Moderate quantities of common grog. EstIA/EIA/MIA

Fabric and forms

Late Bronze Age

3.1.8 A very small component of the assemblage probably dated to the late Bronze Age. The diagnostic sherds comprised two incurving rims belonging to ovoid jars in fabric FlQg, both in later contexts (E/MIA and MIA). Seven other contexts produced pottery in the same fabric, five were residual, with posthole 291 and pit 511 the only features tentatively phased to the late Bronze Age owing to the presence of pottery in fabric FlQg. The features containing the possible late Bronze age pottery formed two clusters in the western part of the site.

3.1.9 Ovoid jars with incurving rims are typical of the late Bronze Age, being most prevalent in assemblages that date to the early and middle part of the period, before *c* 900 BC. Well-dated local sites include Eynsham Abbey (Barclay 2001, 131) and Hartshill Copse (Morris 2006, 386); those further afield include Huntsman's Quarry (Woodward and Jackson 2015) and Tinney's Lane (Tyler and Woodward 2012, 46). While the form does persist into the 9th and perhaps the beginning of the 8th century, for example at Whitecross Farm (Barclay 2006, fig. 3.13.1) and the latter stages at Runnymede (Needham 1996, fig. 67.P680, 79.P766; Waddington *et al.* 2019), it is much rarer during this later period. During the evaluation, late Bronze Age ovoid jars in a flint fabric were found *c* 450m to the east of those discovered during the excavation, with sherds in a similar fabric found in other areas of the wider development (CA 2013, 25).

3.1.10 It is thought that the ovoid jars at Crab Hill, and perhaps all of the pottery in fabric FlQg, belong to a phase of the settlement not clearly represented by any excavated features, with the pottery probably redeposited from truncated features or above-ground middens. It is likely that this phase of activity dates to the early or middle part of the late Bronze Age, *c* 1100–900 BC, and probably did not directly precede the Iron

Age settlement. Ceramics typical of the 9th century were not present, suggesting that the site was not occupied during this period.

Earliest Iron Age

3.1.11 Following a probable gap in the ceramic sequence in the 9th century, the assemblage appears to have spanned the entirety of the Iron Age. The earliest Iron Age pottery, which dates *c* 800–600/550 BC, is broadly of the All Cannings Cross tradition, displaying features much more characteristic of the Wessex chalklands to the south and west of the site than the Thames Valley to the north and east. The clearest All Cannings Cross elements are two certain and four possible fragments of furrowed bowls (Fig. 28 no. 7), and a haematite-coated sherd from a round-bodied jar with deeply scored triangles containing traces of white inlay (Plate 13). Although fragmentary, a probable close parallel for the jar was found at Potterne (Morris 2000, fig. 51.42). A burnished, flaring rim from a similar jar form was found in roundhouse 1600 (Fig. 28 no. 4).

3.1.12 Furrowed bowls are rare in the Thames Valley, occasionally occurring in the northern parts of the area (eg Brown 2017, 275; Williams 1951, fig. 9.20; possibly Edwards 2009a, 81), but, with a few exceptions they are generally confined to the Wessex chalklands with sites along the Oxfordshire ridgeway forming the northern border (Cunliffe 2000, fig. 4.24). Sherds decorated in a broader 'All Cannings Cross' style are more prevalent in the Upper Thames Valley than furrowed bowls, but these usually occur as small sherds with forms rarely surviving (eg Davies 2018a, 112; Edwards 2009b, 61; 2010, 51–3; Williams 1951, fig. 9). The location of the site on the Upper Greensand at the base of the Berkshire Downs, and therefore between the gravels of the Thames Valley and the chalk of Wessex, makes the presence of All Cannings Cross pottery unsurprising but still of note.

3.1.13 Other earliest Iron Age forms include three more certain and two possible biconical jars (Fig. 28 nos 5 and 8), one with a fingertipped shoulder, another with slashes on the outer part of the rim. This form is common to both Wiltshire (eg Chadwick Hawkes *et al*. 2012, fig. 3.9–10; Morris 2000, figs 56–8; Raymond 2010, 68, fig. 10.6) and the Thames Valley (eg Booth 2011, fig. 14.1.20; DeRoche and Lambrick 1980, fig. 21.17–19; Needham 1996, figs 63–4) during this period.

3.1.14 Both of the certain furrowed bowls and one of the biconical jars was in fine–medium flint fabric Fl2, and these forms are present in similar fabrics in both Wessex and the Thames Valley. There are also five examples of burnished, haematite-coated fine ware bowls that dated to the earliest Iron Age (Table 10). An additional 14 examples were dated to the earliest Iron Age or early Iron Age, and five more include those dating specifically to EIA1 and EIA2, demonstrating the continuation of haematite-coated fine ware bowls through the earliest and early Iron Age. Except for one decorated example (Fig. 30 no 25), these were all thin-walled and very fragmentary with an MSW of just 2.3g, but where there was any indication of form, they belonged to angular bowls often with flaring rims. Almost all of these were in the fine glauconitic fabric Qg1, similar to the haematite-coated decorated jar, with five examples in coarser Qg2.

3.1.15 Shell was the most common tempering agent in the earliest Iron Age, in similarity with other sites of the period in the region, and the very fine, silty Qg1 also has parallels at these sites (Edwards 2009a, 82; Brown 2003, tables 9.4, 12.1; Brown 2017, table 10.5).

A relatively high proportion of sherds containing iron oxides was also found, although these all derived from three vessels recovered from posthole 196 of roundhouse 1600.

3.1.16 A large portion of the identifiable earliest or early Iron Age vessels were tripartite angular bowls with unknown neck lengths (Fig. 28 no. 9; Fig. 29 nos 12 and 13; Fig. 30 no. 25). It is thought that those with short necks belong to the earliest Iron Age and those with long necks to EIA1 (Fig. 29 no. 14), with tripartite angular bowls largely going out of fashion by EIA2. As specifically EIA1 forms were very rare at the site, it is likely that most or all the tripartite angular bowls with unknown neck lengths are in fact earliest Iron Age, and most of the pottery assigned a general earliest Iron Age/early Iron Age date is also earliest Iron Age. This assumption agrees with the fabric proportions as the groups dated earliest Iron Age/early Iron Age are more similar to those that are specifically earliest Iron Age (Table 8).

Early Iron Age

3.1.17 An attempt was made to subdivide the early Iron Age into EIA1 (*c* 600/550–450 BC) and EIA2 (*c* 450–350 BC) based on key forms (Table 5). Only one vessel belonging specifically to EIA1 was identified—a tripartite angular bowl with a long neck from linear pit group 1624 (Fig. 29 no. 14)—although all the other forms in the linear pit group could also be EIA1 (Fig. 29 nos 13–14). This was the only feature group assigned to EIA1. Six or seven vessels that had forms specific to EIA2 were identified (Fig. 29 nos 15–16; Table 9), with three features being phased to this period: roundhouse 164, and pits 446 and 1050. The total amount of pottery assigned to each of these phases is low (Table 8), partly owing to a large portion of the early Iron Age pottery being found in later contexts, meaning early Iron Age material associated with diagnostic sherds could rarely be assigned to a sub-phase.

3.1.18 Haematite-coated, burnished vessels were found in contexts belonging to both EIA1 and EIA2. Early Iron Age decoration included one example of finger-tipping on the outside of the rim, slashes on an angular shoulder, two examples of parallel diagonal lines on tripartite bowls, two examples of parallel horizontal lines on an angular bowl, and two further small sherds displaying parallel lines (Fig. 28 no. 9). None of these decorated sherds could be assigned to EIA2, instead belonging to EIA1 or were more broadly phased (Table 10).

3.1.19 Vessels certainly belonging to the early Iron Age were all in sand-dominated fabrics. A possible exception is a straight-sided vessel that may have had an expanded T-shaped rim, although the identification of this is very uncertain (Table 9). These types of vessels are characteristic of the later part of the early Iron Age in the Upper Thames Valley (eg Davies 2018a, 285; Edwards 2010, fig. 3.3.25–27; Lambrick 2010, fig. 30.66), and are known in the vicinity of the site (eg Brook *et al*. 2018, 158–9; Brown 2005, figs 3.2.20, 21, 36). The possible absence of this vessel type at the site is notable, and along with the very few examples of specifically EIA1 vessels. It is probable the that focus of the settlement shifted to the north beyond the excavated area during this time.

Middle Iron Age

3.1.20 The middle Iron Age dominates the prehistoric assemblage accounting for 42.2% of the sherds and 53.6% of pottery by weight. Additionally, it is likely that the vast

majority of the sherds dated broadly to the Iron Age are in fact of middle Iron Age date. Six forms were recognised, with variants of four being identifiable based on the treatment of the rim (Table 9). The most common forms were globular vessels with upright necks, and slack-shouldered vessels (Fig. 29 no. 17; Fig. 30 no. 26), followed by globular vessels without necks (Fig. 30 no. 19). There were additionally three slightly shouldered vessels, one barrel-shaped jar with an incurving rim (Fig. 30 no. 24), and one saucepan pot (Fig. 30 no. 23). Almost all the vessels identifiable to forms were in fabric Qg2.

3.1.21 Stratigraphic relationships existed between four sets of middle Iron Age roundhouses. Identifiable forms in the stratigraphically later roundhouses generally matched the overall range of forms; however, the sole barrel-shaped jar and the sole saucepan pot were found in the later roundhouses (respectively roundhouses 221 and 853) suggesting that these were forms belonging to the later part of the middle Iron Age. The general rarity of these later forms might suggest a decrease in activity towards the end of the middle Iron Age. The exceptional condition of the saucepan pot suggests that this was a placed deposit (see below).

3.1.22 Three roundhouse ditches (221, 1635 and 1446) contained pottery predominantly in a middle Iron Age tradition but included small amounts of often grog-tempered material more associated with the late Iron Age (and included in the late Iron Age/Roman pottery report below). Two of these (221 and 1635) are also stratigraphically later than other middle Iron Age roundhouses. These pottery assemblages are probably transitionary between the middle and late Iron Age and date to the earlier 1st century BC. Eight middle Iron Age forms were present in these three features. These generally matched the overall population of middle Iron Age forms, although the association between the sole barrel-shaped jar from 221 mentioned above and late Iron Age material confirms the typologically late position of this form.

3.1.23 Two vessels in fine flint fabric Fl1 with decorated, parallel diagonal lines in a herringbone pattern with a line of dots in the middle were recorded (Fig. 30 no. 21). Although fragmentary, the decoration and fabric closely match vessels found at Danebury and the environs sites (e.g. Brown 2000a, fig. 2.23a.17, 2.25.60; 2000b, fig. 3.49.149; Cunliffe 1984, fig. 6.42.759). The fabric was generally rare, and it is thought that the decorated vessels and other sherds in Fl1 were imported from the Danebury/Hampshire area. These were two of just three decorated middle Iron Age vessels, the other being the saucepan pot that had a line running beneath the rim (Fig. 30 no. 23).

3.1.24 An unusual and still unidentified sherd was found in the penannular ditch belonging to roundhouse 1607. This was cylindrical with a sub-circular section, measuring 41mm in length and 17mm in diameter (Plate 14). The piece was broken at both ends, although one end flared slightly, and a partial smooth surface was present. Approximately half of the piece was burnt black, including over its break at the end not displaying a partial surface, although it is uncertain if the blackening occurred during use or after breakage, or even during initial firing. The piece was in fabric Qg2 and was very similar in fabric and feel to the middle Iron Age pottery it was directly associated with. The piece had the appearance of a leg or stand that may have supported something, although no Iron Age parallels for such a feature was forthcoming. The closest

comparison to the piece are the centrally perforated clay 'reels' found at Danebury (Poole 1984, 398–401, fig. 7.45), although the Crab Hill piece has no perforation and would need to be somewhat longer and narrower if the perforation was in the centre of the object and beyond the broken edge.

Changes in fabrics through time

3.1.25 Broad changes in fabric proportions can be tracked through the late Bronze Age to middle Iron Age, with almost all the main inclusion types following linear treads (Table 8). Flint fabrics are dominant in the late Bronze Age, comprising a much smaller percentage in the earliest Iron Age, before dropping to much lower levels in the early and middle Iron Age. The fine middle Iron Age fabric Fl1 might have a late focus within the period the three features that appear to be transitionary between the middle and late Iron Age all contained sherds in the fabric, accounting for a third of the Fl1 material.

3.1.26 Fossil shell is the dominant inclusion type for coarse wares in the earliest Iron Age, and this steadily reduces through the early Iron Age and was not used in middle Iron Age. A similar pattern is visible with the fabrics containing iron oxides. The fine silty fabric Qg1 was present at a low level, around 4%, throughout the earliest and early Iron Age. The majority of these vessels were small, fine, thin-walled, coated in haematite and burnished. This represents a long-lived potting tradition, with fine-ware vessels manufactured with very similar and distinctive surface treatment. These are almost all too fragmentary to comment on changes in their exact form through time, although a similar shift from furrowed bowls and/or angular vessels in the earliest Iron Age (eg Raymond 2010, 67), with these developing flaring necks in the early Iron Age, and round bodies later in the early Iron Age, may be appropriate (eg Bryan *et al.* 2004, fig. 25.11; Edwards 2010, fig. Pl.3.2). The evidence from Crab Hill does not contradict this progression.

3.1.27 Sherds containing quartz sand without any glauconite are more common than those with glauconitic sand in the late Bronze Age, with this relationship reversing in the earliest Iron Age. The occurrence of sherds containing quartz sand and no glauconite remains at a low level throughout the Iron Age. Glauconitic sand is present in some sherds in the late Bronze Age, and this inclusion becomes increasingly popular through the Iron Age to be present in 92.7% of sherds by weight in the middle Iron Age.

3.1.28 Organic inclusions, probably of grass or other vegetal inclusions leaving linear voids, were found in EIA1 where it occurred in 13.8% of sherds by weight, although the main inclusion in these examples was fossil shell. This fabric was not found in any other period. Some 1.6% of the middle Iron Age sherds by weight were in a fabric that included grass or other vegetal inclusions, and this was present alongside glauconitic and quartz sand. Two sherds weighing just 8g were in a grog-tempered fabric, one dating to the middle Iron Age. These may belong to an incipient late Iron Age tradition.

3.1.29 Based on inclusions within the fabrics, all the pottery could have been made locally to the site. The site is located on the Upper Greensand formation, with Ampthill, Gault and Kimmeridge Clay and Chalk within 3km of the site. These deposits could have produced the flint, fossil shell and quartz and glauconitic sand found in the pottery.

However, it is argued that sherds in the fine, middle Iron Age flint fabric Fl1 were imported from the Danebury/Hampshire region.

Key contexts

Earliest Iron Age roundhouse 1600

3.1.30 Roundhouse 1600 was partially exposed in the north-western corner of the site. It was post-built with a south-east entrance defined by a pair of projecting postholes that had been replaced multiple times. Of the 13 postholes excavated, 11 produced pottery totalling 87 sherds weighing 799g from a maximum of 36 vessels. Posthole 196, one of the outer entrance postholes, produced 42 sherds from 12 vessels, weighing 728g. Forms from this posthole included a flaring rim from a large jar (Fig. 28 no. 4; possibly similar to Cunliffe 2005, figs A.2.2–7; Morris 2000, fig. 51), a jar with a finger-tipped rounded shoulder and upright neck (Fig. 28 no. 3), a bowl with a rounded body, and a jar with an applied cordon with slashed decoration. Other vessels from the roundhouse included one or two biconical jars (Fig. 28 no. 5) and a possible rounded shouldered jar with an everted rim (Fig. 28 no. 6), and body sherds from a vessel that was distinctive within the entire Iron Age assemblage as being very hard and well-fired. There was also a rim with finger-tipping on the outside, and four vessels had haematite coating. Two of the vessels were recorded as freshly broken, three as highly abraded, and 30 as moderately abraded.

Earliest/early Iron Age posthole 1073

3.1.31 Posthole 1073 was not clearly part of a structure being isolated from any contemporary features. The posthole measured 0.4m in diameter and 0.37m deep and was excavated in its entirety. It contained sherds from eight vessels, including 12 freshly broken sherds from an angular tripartite vessel weighing 500g, with an estimated vessel equivalent (EVE) of 13 (Fig. 28 no. 10). There were also large sherds from a shouldered jar (MSW = 69.7g; Fig. 29 no. 11) and a sherd from a flaring-necked vessel weighing 32g, both moderately abraded, as well as a highly abraded sherd weighing 102g. The remaining four vessels were represented by between 1–4 sherds and had MSWs between 2.0–12.3g. Four were moderately abraded and one was highly abraded. The pottery was found throughout the single fill of the posthole.

3.1.32 The larger sherds were certainly subject to different processes leading to their deposition compared to the rest of the earliest/early Iron Age assemblage. The vessels represented by the large sherds included four of the eight vessels with the highest MSW of the entirety of the earliest/early Iron Age assemblage and included three of the four vessels that weighed the most. However, the five more-fragmentary vessels do not appear to be different to the 'background' pottery assemblages in other contemporary features. The large sherds should probably be interpreted as being deliberately deposited, although it is possible that the assemblage represents a mixture of fresh and secondary refuse without 'ritual' intent.

Early Iron Age linear pit group 1624

3.1.33 Eight pits belonging to linear pit group 1624 were excavated. A total of 79 sherds of early Iron Age pottery weighing 548g was found in six of these from a maximum of 39 vessels. The rather low average sherd weight of 6.9g suggests that none of the pits

were subject to primary refuse disposal, although one of the vessels, a tripartite angular bowl, was freshly broken. Two vessels were highly abraded, with the remaining 29 being moderately abraded. There were four or five other angular tripartite bowls (Fig. 29 nos 12 and 13), with only one retaining information on the length of its neck. This was a long-necked angular bowl (Fig. 29 no. 14), suggestive of an EIA1 date. Other sherds included a flaring rim from a bowl, two angular shoulders, and a possible sherd from a furrowed bowl. One vessel was haematite coated.

Early Iron Age roundhouse 164

3.1.34 The penannular gully belonging to roundhouse 164 was sampled in five interventions, four of which produced pottery totalling 35 sherds, weighing 277g, from 15 vessels. This included sherds from a jar with a high shoulder and a straight neck (Fig. 29 no. 15), a burnished vessel with an upright neck, a vessel with a flaring neck, and an angular red-fired bowl. Two other vessels were haematite coating and were burnished. This assemblage has been assigned an EIA2 date.

Middle Iron Age four-post structure 1612

3.1.35 Three postholes belonging to four-post structure 1612 were half-sectioned. The postholes were large with diameters of 1.10–1.44m without post-pipes, suggesting that the posts had been removed. Posthole 691 contained five vessels, including two that were slack shouldered and one that was round shouldered (Fig. 29 no. 17). One of the slack-shouldered vessels and the round-shouldered vessel were in fresh condition. The slack-shouldered vessel was in 15 sherds weighing 443g, with an EVE of 57, although no base sherds were present. The other four vessels comprised a total of 19 sherds weighing 95g. It is likely that the slack-shouldered vessel and possibly the freshly broken round-shouldered vessel were deliberately deposited, although the remaining sherds do not have characteristics that separate them from 'background' material.

3.1.36 The deposition of large pottery assemblages in postholes belonging to four-post structures has recently been identified at Thame (Ellis *et al.* in prep.) and Great Western Park, Didcot (Davies *et al.* in prep.). The example from Thame is particularly comparable, where large sherds from a globular jar were placed in the upper fills of the posthole after the structure had been dismantled, possibly around the abandonment of the settlement. This is an emerging local pattern that appears to represent instances of votive deposition.

Middle Iron Age roundhouse 853

3.1.37 Seven interventions were excavated in the penannular gully belonging to roundhouse 853. Interventions 735 and 655 produced significant amounts of pottery. These slots were located near to but not across the ditch terminals. Intervention 735 produced sherds from nine vessels and very small sherds of residual earliest/early Iron Age pottery. Five of the vessels were freshly broken including two globular bowls respectively weighing 323g and 222g (Fig. 30 no. 19), and two more fragmentary globular bowls with upright necks. Intervention 655 produced sherds from seven vessels, including four that were freshly broken. One of the vessels was the only saucepan pot found at the site. This had an EVE of 55 from nine sherds weighing 520g,

although most of the pot was in three large sherds (Fig. 30 no. 23). The saucepan pot had a line running around the vessel beneath the rim and was one of just three decorated middle Iron Age vessels. Two globular vessels with upright necks were also freshly broken and were found in 655, one weighing 237g (Fig. 30 no. 22).

Condition of the assemblage and depositional trends

3.1.38 Comparing the condition of the assemblage across periods within the Iron Age and across different context types has revealed patterns relating to depositional practices. The earliest Iron Age/early Iron Age pottery was in a much poorer condition compared with the middle Iron Age material (Table 11). The earlier pottery had a MSW of 10g, which compared to 15.6g in the middle Iron Age, and just 3% was freshly broken compared to 22% in the middle Iron Age.

3.1.39 The MSW and condition of the earliest/early Iron Age material was very similar in contexts that should be broadly contemporary with the pottery, and those that were demonstrably later. This suggests that, overall, similar processes of attrition were taking place before the material was finally deposited in subsoil features both during the earliest/early Iron Age and after. This in turn suggests that pottery was subject to significant pre-depositional disturbance in the earliest/early Iron Age, only entering subsoil contexts in the earliest/early Iron Age after it had been deposited elsewhere.

3.1.40 With the exception of posthole 1073, it is very unlikely that pottery was deposited in subsoil features as either primary refuse or even the deliberate secondary discard of midden material. It appears that pits and postholes were not deemed appropriate for the regular deliberate deposition of pottery, as either refuse or within a ritual context. The exception is posthole 1073, which appears to be the only example of deliberate deposition in the earliest/early Iron Age. Instead, it is likely that broken pottery and presumably other unwanted material was dumped in above-ground middens, only occasionally reaching subsoil features serendipitously.

3.1.41 In support of this interpretation, *c* 30% of the earliest/early Iron Age material was residual in later contexts, compared to just *c* 2.5% of middle Iron Age pottery found in later contexts (Table 11). While this could be explained by a longer period of time allowing for more earliest/early Iron Age material being able to be redeposited in later intercutting features, the pattern could also be due to more material being stored above the ground in the earliest/early Iron Age compared to the middle Iron Age. In this scenario, middle Iron Age material would reach subsoil features after a shorter period of time than in the earliest/early Iron Age, presumably owing largely to the more regular deposition of primary and/or secondary refuse in pits, postholes and ditches in the middle Iron Age compared to the earliest/early Iron Age, as well as rarer 'special' deliberate deposition.

3.1.42 Comparing the condition of middle Iron Age material from contemporary penannular ditches, pits and postholes, and ditches not related to roundhouses is also instructive (Table 11). Pottery from pits and postholes had a MSW of 23.1g, higher than material from either penannular ditches and other ditches, although not as much of this pottery was freshly broken compared with that from ditch contexts. However, vessels deriving from penannular ditches and pits and postholes have very similar MSW, whereas those

from non-penannular ditches tend to be lower. Just 10% of the vessels from non-penannular ditches had a MSW above 20g, compared with 25% of those from penannular ditches and 30% from pits and postholes. This suggests that fresher material was generally entering penannular ditches, pits and postholes compared to ditches not related to roundhouses, although all these contexts appear to have been suitable for the deposition of highly fragmented material, presumably reworked from original deposition areas, and the rarer deposition of larger, fresher sherds.

Discussion and conclusions

3.1.43 In many respects, the Crab Hill pottery conforms to usage and deposition associated with a long-lived Iron Age settlement. The earliest Iron Age pottery includes All Cannings Cross elements, similar to that found at the hillforts of the Oxfordshire Ridgeway to the south of the site and occasionally in the Upper Thames Basin and Vale of White Horse to the north. In this respect, Crab Hill belongs to a group of sites that are on the northern fringe of the distribution of All Cannings Cross material. The cultural significance of this is discussed further at the end of this report.

3.1.44 Less material could be dated to the early Iron Age, though despite this paucity the exercise of trying to separate vessels belonging to the earlier part of the early Iron Age (EIA1) and the later part (EIA2) was still useful. The presence of both EIA1 and EIA2 material suggests that activity continued at the site, but its reduction compared to the earliest Iron Age suggests settlement moved its focus, probably to the north of the excavated area.

3.1.45 The vast majority of the earliest/early Iron Age pottery was in a fairly poor condition, with quite a high percentage found in demonstrably later contexts. This was particularly apparent when compared to the middle Iron Age assemblage. This suggests that earliest/early Iron Age material was subject to different processes preceding deposition compared to the middle Iron Age. It is argued that pottery was stored in above-ground middens in the earliest/early Iron Age with subsoil features rarely thought appropriate for its deposition. In contrast, pottery was more regularly deposited in a fresher state in pits, postholes and ditches during the middle Iron Age, though much of this material was still highly fragmented. An exception to this pattern is the pottery in earliest/early Iron Age posthole 1073 and it appears that much, or all of this was deliberately placed. Two middle Iron Age examples of deliberate deposition of pottery were also identified.

3.1.46 Most of the pottery could have been made in the locality of the site, though a few middle Iron Age sherds have been postulated as being imported from the Danebury/Hampshire region. There is a considerable increase in glauconitic sand inclusions in the middle Iron Age, and while this is a widely recognised phenomenon, the pattern at Crab Hill is no doubt in part due to the availability of the material locally.

Catalogue of selected vessels

No. 1 Incurving rim from ?ovoid jar. IA ditch 927, fill 929. FlQg. LBA

No. 2 Incurving rim from ?ovoid jar. Roman ditch 1620, cut 540, fill 541

No. 3 Jar with rounded shoulder and upright neck, fingertipped shoulder. Roundhouse 1600, posthole 196, fill 197. ShQg. EstIA

No. 4 Flaring rim from a ?globular closed jar, burnished. Roundhouse 1600, posthole 196, fill 197. QsIo. EstIA

No. 5 Biconical jar. Roundhouse 1600, posthole 205, fill 206. Fl2. EstIA

No. 6 Everted rim from a ?shouldered jar. Roundhouse 1600, posthole 205, fill 206. Fl2. EstIA

No. 7 Furrowed bowl. LIA enclosure 474, ditch 472, fill 473. Fl2. EstIA

No. 8 Biconical jar, fingertipped shoulder. Saxon SFB 1191, fill 1127. Qg2. EstIA

No. 9 Tripartite angular bowl, parallel diagonal lines. Saxon SFB 1191, fill 1190. Qg2. Est/EIA1

No. 10 Tripartite angular jar, long neck. Posthole 1086, fill 1073. ShQg. Est/EIA1

No. 11 Jar with rounded shoulder and upright neck. Posthole 1086, fill 1073. Qg2. Est/EIA1

No. 12 Tripartite angular bowl, burnished. Linear pit group 1624, pit 490, fill 493. Qg1. EIA1

No. 13 Tripartite angular bowl, parallel diagonal lines. Linear pit group 1624, pit 1256, fill 1257. Qg2. EIA1

No. 14 Tripartite angular bowl with long neck. Linear pit group 1624, pit 1267, fill 1268. Qg2. EIA1

No. 15 Jar with high rounded shoulders and a straight neck. Internal carbonised residue. Roundhouse 164, penannular ditch 160, fill 161. Qg2. EIA2.

No. 16 Pedestal base, burnished. LIA enclosure 474, ditch 472, fill 473. QsIo. EIA2.

No. 17 Slack-shouldered vessel, simple rim. Four-post structure 1612, posthole 691, fill 692. Qg2. MIA

No. 18 Globular vessel with upright neck and simple rim. Roundhouse 1606, penannular ditch 757, fill 759. Qg2. MIA (not illustrated)

No. 19 Globular vessel, flattened rim. Roundhouse 853, penannular ditch 735, fill 736. Qg2. MIA

No. 20 Shouldered vessel, bead rim. Pit 383, fill 384. Qg2. MIA (not illustrated)

No. 21 Sherd decorated with herringbone pattern and dots. Roundhouse 1607, penannular ditch 306, fill 307. Fl1. MIA

No. 22 Globular vessel, burnished. Roundhouse 853, penannular ditch 655, fill 656. Qg2. MIA

No. 23 Saucepan pot, burnished. Roundhouse 853, penannular ditch 655, fill 656. Qg2. MIA

No. 24 Barrel-shaped jar with incurving rim, external carbonised residue. Roundhouse 221, penannular ditch 200, fill 201. Qg2. MIA

No. 25 Tripartite angular bowl, parallel diagonal lines, haematite coated. Pit 1347, fill 1349. Qg2. Est/EIA1

No. 26 Slack-shouldered vessel, slight bead-rim. Roundhouse 221, penannular ditch 228, fill 229. Qg2. MIA

3.2 Late Iron Age and Roman pottery

by Jane Timby

Introduction

3.2.1 The archaeological work resulted in the recovery of some 2930 sherds of late Iron Age and Roman pottery weighing *c* 45.5kg. In general terms, the assemblage was in moderately good condition with an overall average sherd weight of 15.4g, typical of refuse material. However, this somewhat masks a moderately high level of re-deposition, which is perhaps not unexpected from a site intensively occupied over a considerable period of time. There were a few examples of multiple sherds from single vessels, and the lower half of a placed vessel was also recovered from pit 1271. Surface finishes and decoration were generally very well preserved.

3.2.2 Pottery was recovered from a total of 168 allocated context numbers belonging to 139 cut features, mainly ditches and pits and one well. The distribution of the pottery was quite uneven with some 62% of features yielding fewer than ten sherds and a further 17.6% with between five and ten sherds. A total of 22% of the assemblage by sherd count came from just two features: pit 796 and ditch 1617 (cut 465). This uneven distribution, along with the lack of detailed stratigraphy, residual sherds and the longevity of some of the local pottery industries, has some ramifications in terms of working out a valid chronology for many of the groups.

Methodology

3.2.3 The pottery was analysed following recommendations outlined in recently published guidelines (Barclay *et al*. 2016). Sherds were sorted into fabrics based on the colour, texture and nature of the inclusions present in the clay. Known named or traded Roman wares were coded using the National Roman fabric reference system (codes in brackets) (Tomber and Dore 1998). Other wares, generally of local origin, were coded more generically following a similar nomenclature according to colour and main fabric characteristics. Fabric descriptions have been kept minimal and are based on the guidelines proposed by Peacock (1977, 29ff). The frequency of inclusions is based on density charts devised by Terry and Chilingar (1955): rare (1–3%); sparse (3–10%); moderate (10–20%); common (20–30%); and, abundant (30–40%). For earlier, generally hand-made material the prefixes used follow those recommended by the PCRG (2010) guidelines where the first two letters denote the main fabric constituent.

3.2.4 The sorted assemblage was quantified by sherd count and weight for each context. Freshly broken sherds were counted as single pieces. Rims were additionally coded to general form and measured for the estimation of vessel equivalents (EVE) (Orton *et al*. 1993). Where relevant vessels were coded using established corpora (for example, Young 1977). Any evidence of use, such as sooting, burning, or calcareous deposits was noted along with any modifications. The data was entered onto an MS Excel spreadsheet which is held in the digital archive.

Late Iron Age–early Roman

3.2.5 The latest Iron Age pottery proved difficult to define due to the continued presence of sherds of hand-made glauconitic sandy wares, a potting tradition which dates back to the middle Iron Age (see above). At some point in the early Roman period, these wares started to appear in wheel-made forms or vessel types more recognisable as later Iron Age/early Roman in date, such as shallow dishes.

3.2.6 The grog-tempered tradition (GR) dates back to the later Iron Age and continued into the early Roman period. Six fabrics have been defined, one of which—the large grog-tempered storage jar (GRSJ)—continued to be used from the 2nd century onwards. Overall, these grog-tempered fabrics account for 6.6% (by count) of the total LIA–Roman assemblage. The typical 'soapy' 'Belgic' fabric (GR1, OXGR) usually associated with pre-conquest activity features as hand-made and wheel-made necked jars and shallow carinated dishes. Some sherds from late Iron Age ring ditch 474 have a horizontally rilled or combed surface finish. Most sherds were burnished, and one piece had been modified (Fig. 31 no. 2) (see below). Two sherds of a grog and flint-tempered ware (GRFL) are probably contemporary. Alongside this ware, and probably dating to the later 1st century is a hard, well-fired, hackly fabric (GR2) not too dissimilar to Savernake ware and a thinner-walled, black grog-tempered ware (BWGR). A grey, lumpy grog-tempered, hand-made ware (GYGR) is also likely to date to the post-conquest period and features a beaded-rim jar (Fig. 31 no. 3). A sandier fabric also containing grog (GRSA) was used largely to make large hand-made jars and, again, is likely to span the pre- and post-conquest period.

3.2.7 The glauconitic sandy wares from the earliest features include hand-made, black- and grey-fired wares that were frequently burnished. There are no featured sherds.

Roman

3.2.8 The Roman assemblage spans the early 1st century through to the later 4th century although evidence for 3rd century activity is slight (Table 12). A very small number of largely residual pieces, mostly from local potting industries, can be identified as potentially pre-Flavian. The assemblage comprised a few continental imports and regional imports but mainly consisted of 'local' coarse wares.

3.2.9 The continental imports can be divided into samian and other fine wares. There were no imported mortaria or amphorae present. The samian, which effectively accounts for 1.6% of the total assemblage by sherd count, comprised sherds of South, Central and East Gaulish origin. There are ten sherds of South Gaulish ware (LGF SA) with just one rim from a Drag. 36 dish. Most of the samian sherds are later Central Gaulish (LEZ SA 2; MDV SA) but there is one base sherd, probably from a small Drag. 30 bowl in early Lezoux ware (LEZ SA 1). The later Central Gaulish wares include examples of cups (Drag. 27, 33) and bowls/dishes (Drag. 31, 37, Curle 15 and Curle 23). There is a single stamped vessel from ditch 1632 (cut 581) on which a single letter [..M..] is extant. One vessel from ditch 1363, residual in gateway structure 1634, shows a rivet repair hole. There is also a single sherd of East Gaulish ware probably from Trier (TRI SA).

3.2.10 Other continental fine wares are scarce with just two vessels present. One is a Central Gaulish roughcast beaker (CNG CC 2) and the other a Moselle black-slipped beaker (MOS BS) (cf Richardson 1988, fig. 1.120).

3.2.11 Regional imports to the site are also poorly represented but include colour-coated wares from the Lower Nene Valley and coarse wares from Wiltshire, Dorset and Bedfordshire. The most common is late Roman shelly ware (ROB SH), which is characteristic of the second half of the 4th century and later in this area. This ware is generally assigned to the Harrold industry in Bedfordshire (Brown 1974), though other sources are likely to exist. Late Roman shelly ware accounts for 3.8% (by count) of the assemblage. The second commonest imports are Dorset black burnished ware (DOR BB1) and Savernake ware (SAV GT) both accounting for 1.8%. The former includes flat-rimmed bowls and dishes, plain-walled dishes, one flanged-rim conical bowl and a jar. In addition, there are four sherds of south-west black burnished ware (SOW BB1), here restricted to jar forms, particularly large storage vessels. Of note is a body sherd from ditch 1617 (fill 445) with a tar-like substance along one edge suggesting a repair using pitch. Other regional wares present include one sherd of pink-grog-tempered storage jar (PNK GT), thought to originate from the Buckinghamshire area (Booth 1999), and two sherds of Lower Nene Valley colour-coated ware (LNV CC).

3.2.12 Oxfordshire products are exceptionally common, which is not surprising in view of the location of the site. In the earlier Roman period, these mainly comprised grog-tempered storage jars, Abingdon-region oxidised, reduced and white wares (Timby *et al*. 1997), early Oxfordshire colour-coated ware (Booth 1993), oxidised and grey sandy wares, a grey sandy ware with grog (Oxford fabric R38) (Booth 2018, 300), white-slipped (OXF WS) and white wares (OXF WH). In the later Roman period, the grey wares continued in use, accompanied by one sherd in parchment ware (OXF PA) and one in red-slipped ware (OXF RS).

3.2.13 Amongst the early wares are 70 sherds, mainly from beakers thought to have been made in the Abingdon/Dorchester-on-Thames area from the pre-Flavian period. Most of these were in beaker forms, particular butt beakers with rouletted decorated and a carinated beaker (Fig. 31 no. 10) with one cordon-necked jar (Fig. 31 no. 13). There are also a few sherds from specialist products, in particular a roughcast beaker and a mica-slipped dish probably from the earlier production phases of the Oxfordshire industry as exemplified by the Nuneham Courtenay kilns (Booth 1993). Another ware which appears to be quite early at this site, although traditionally seen as a later Oxfordshire product (Young 1977, 113), is a black-surfaced white sandy ware. The forms are mainly limited to simple everted-rim jars but also include a bowl with a bifid rim (Fig. 31 no. 14).

3.2.14 Black and grey glauconitic sandy wares are quite prominent, especially in the early Roman period as hand-made and wheel-made forms, notably as bowls (Fig. 31 nos 1, 4 and 6) and shallow dishes (Fig. 31 nos 5 and 11) as well as necked, everted-rim and beaded-rim jars. Some dishes have internal, burnished, line decoration. The source of this industry is likely to be quite local as the site is located on the Upper Greensand.

3.2.15 Oxfordshire white wares, including coarse, fine and medium sandy variants account for 3.7% (by count) of the assemblage with mortaria adding a further 0.3%. The range

of mortaria is very limited with just two rims, both Young-type M22 dating to the mid-3rd–4th century (Young 1977).

3.2.16 Reduced (grey and black) wares make up the bulk of assemblage. Grey sandy wares with grog (Oxfordshire fabric R38), dating from the 2nd century, are quite well-represented at 2.9%. Fine grey wares (OXF FR) make up 20.6% (by count) and are split between early Roman wares and those more typical of the later Roman period. The sandier grey ware category makes up a similar amount accounting for 21.7%. The range of vessels is quite limited and overwhelmingly dominated by jar forms. Of note are multiple sherds from a large butt beaker (Fig. 31 no. 9) and the substantial part of a small necked bowl (Fig. 31 no. 12) from pit 796. Various styles of decoration occur including barbotine-dot panels, ring-and-dot barbotine, rouletting, burnished lattice and burnished vertical lines. One beaker from ditch 1632 (cut 581) has rouletting with spaced blobs of barbotine added on top, similar to that seen on the Abingdon-style butt beakers. The oxidised counterpart is more modest making up 2.1% of the group and includes several bowl forms, for example, Young-types O36, O41-2 and a reeded-rim form. One vessel from ditch 1617 (cut 1291) shows the edge of a compass-style, incised semi-circle decoration. There is also a probable lid with erratic, incised wavy-line decoration (Fig. 31 no. 8).

3.2.17 Later Roman Oxfordshire colour-coated tableware, dating from the mid-3rd century onwards, accounts for 3.5% (by count) of the assemblage. There is a moderately limited range of forms including bowls, beakers and flagons/flasks with examples of Young (1977) forms C20, C22, C46, C49, C50, C52, C75, C84 and C94. A small handled flask (Fig. 31 no. 15) came from ditch 1632 (cut 744). Colour-coated mortaria are not prolific with two examples in Young (1977) form C97. There are also 23 sherds from a distinctive, brown colour-coated ware, which was first highlighted by Young (1980) from material found at Wycomb, Andoversford, Glos. The ware appears to copy broadly the same forms, and use the same styles of decoration, as the standard Oxfordshire ware but is distinguished by having a high proportion of stamp-decorated beakers and flagons. It may reflect a separate workshop set up by one of the Oxfordshire potters, perhaps in the west Oxfordshire or Gloucestershire area, and probably dates to the mid–late 4th century. A number of sherds have recently been found from Bourton-on-the-Water perhaps suggesting a source in south Oxfordshire. Oxfordshire parchment ware and white-slipped wares are present but with just a single sherd from a bowl of Young-type P24 in the former and in the latter, sherds from jars and flagon only.

3.2.18 A variety of other sandy wares are present, largely in small quantities, most of which are presumed to be fairly local products and have been treated as generic groups. These include fine grey ware, fine black ware, grey, black and oxidised micaceous wares, unknown colour-coated wares, oxidised wares, grey wares and white-slipped oxidised wares. The largest category is the black sandy wares which make up 5.9% (by count) and include early and later Roman forms. A sub-group included wheel-made copies of black burnished wares as plain-walled dishes, grooved-rim bowls and jars. Amongst the earlier sandy wares is a black micaceous sandy ware used for necked jars (Fig. 31 no. 7). The oxidised sandy wares include some ribbed sherds from pit 919 that are analogous to jars made in the Tilford kilns but were probably made more locally.

Forms

3.2.19 In total, the Roman pottery totalled 40.52 EVEs (Table 13). Jars dominate the group collectively, accounting for 71.4% overall. Where the diameters could be measured, (rims with less than 5% EVE are excluded from this and grouped as 'other jars'), the commonest size of vessel falls within the 140–160mm diameter range followed by the 210–240mm range. Large diameter storage-type jars account for 3.1%. Fine table wares, largely samian vessels with cups, bowls and dishes, contribute 0.5%, whilst drinking vessels, beakers make up a further 8%. Bowls represent the second most-frequent vessel type at 11.5% and dishes contribute a further 5.4%. The rest of the groups comprise liquid-dispensing vessels (flask/flagons) at 2%, mortaria at 0.3% and lids at 0.8%.

Vessel use, repair and reuse

3.2.20 There were no clear examples of post-firing graffiti, though one base sherd with a foot-ring in OXF RS from ditch 1632 (cut 744) has a pre-firing cross inscribed on the underside. One samian vessel from ditch 1634 (cut 1363) had a rivet repair hole. A sherd of Savernake ware from ditch 1617 (cut 444) had a black pitch-like substance along one edge which may reflect a mend (see above).

3.2.21 One body sherd has been shaped into a roughly circular disc and four holes were placed around the edge indicating a secondary use (Fig. 31 no. 2). Five vessels had holes drilled through ante-cocturam (before firing). Three are body sherds, including one with two holes from a dish in GYFL from ditch 1638 (cut 315), a sherd of Savernake ware with one hole from pit 796, and one vessel in black glauconitic sandy ware with one wall perforation from ditch 1626 (cut 344) (Fig. 31 no. 1). The remaining two are bases, both in black sandy ware: one from ditch 1626 (cut 327) with a minimum of three larger holes 9mm in diameter, and the other from the fill of the Anglo-Saxon SFB 1191 (thus likely residual) with at least six smaller holes, one in the centre and the others positioned around the periphery.

Use

3.2.22 Several sherds showed evidence of use in the form of sooting or internal residues, particularly amongst the earlier wares. Sooting was noticeable on the shelly ware vessels. A small number of samian and Oxfordshire colour-coated sherds had been burnt.

Chronology and site distribution

3.2.23 The distribution of the pottery was very uneven and there are a large number of very small assemblages that generally contained undiagnostic material. The basis of dating has been largely on the presence of certain fabrics that effectively provide a *terminus post quem*. For the late Iron Age–early Roman period, this is based on a small group of sherds in grog-tempered and related fabrics and an absence of wheel-made grey wares. Features allocated to this phase include ring-ditches 221, 474 and 1446, roundhouse ditch 1635, ditches 593, 912 and 924, pit 424, and the primary fill of waterhole 995. In total, this amounts to just 70 sherds with fabrics GR1-2, GRSA, BW/GYSA2 and SALI. The largest group, some 55 sherds, came from 474 and mainly

comprised grog-tempered wares (37%) and glauconitic sandy wares (47%). The only forms were simple necked jars and storage jars.

3.2.24 The next group of features that can be isolated probably date to the early Roman pre-Flavian period. These include ditches 1626, 1489 and 1089 and pits 1039 and 577. Collectively, these produced 185 sherds (2803g) of which 12% are grog-tempered wares, 9% are Savernake ware, and 17% are glauconitic sandy ware. Also present are a few sherds of Abingdon-type ware, particularly from ditch 1626 and a micaceous, grey ware butt beaker with rouletted decoration from pit 1039. Ditch 1626 had the largest proportion of these wares (96 sherds) and also produced a number of grey and black sandy wares with dishes, storage jars and necked bowls and jars.

3.2.25 From the Flavian period into possibly the early 2nd century, there is an increased level of activity reflected by the quantity of pottery from features dating to this phase, which yielded a total 544 sherds (7169g). A significant amount of the material (72%) came from pit 796. The previous wares still feature but with increasing numbers of fine and sandy grey wares and oxidised wares. Several sherds of Abingdon-type wares and Savernake ware are present, and forms include further butt beakers, beaded rim jars, storage jars, bowls and dishes.

3.2.26 Activity increased into the 2nd century with several ditches (1381, 1489, 1617, 1618 and 1630) producing a significant quantity of material. Both samian and Dorset black burnished ware feature for the first time in this period, along with several sherds of black surfaced white ware (OXF BWH). The grey wares show a marked increase and come to dominate the assemblages. Overall, some 1085 sherds weighing 17,703g was recovered from these features, but the continued presence of several of the pre-Flavian wares reflect considerable residuality.

3.2.27 At the end of the 2nd century and into the 3rd century, several new wares appear including pink-grog-tempered ware, different DOR BB1 forms and the Moselle beaker. It is difficult to identify any groups of material that can confidently be attributed to the late 2nd–early 3rd centuries. Whether this reflects a genuine absence is uncertain. The only sherd of pink-grog-tempered ware is the sole ceramic find from the construction cut of corndryer 1447 but could be a later introduction. From the mid-3rd century, Oxfordshire colour-coated ware starts to appear and the fills of several features appear to date from this period, including ditches 1619, 1621, 1512, 1473 and 790, pits 1418, 1253, 1466, 1468, wells 1463 and 1304, and in corndryer 1447. Also included here is a placed deposit in pit 1307. Overall, these features produced some 296 sherds (3101g) and a lower average sherd weight compared to previous phased groups could imply a high level of residuality. Sherds typical of the Iron Age still account for 6% of the assemblage while Oxfordshire colour-coated wares contribute 18.6%. The recorded 'placed' deposit comprised 32 body sherds, of which 16 came from a single OXF RS flagon with a worn slip. The remaining sherds are DOR BB1, OXF WH and various grey sandy wares.

3.2.28 In the 4th century, there are distinct bowl forms in the Oxfordshire repertoire that only appear at this time and are followed or accompanied after *c* AD 350/60 by sherds of late shell-tempered wares (ROB SH). Also present are sherds of the brown colour-coated Oxfordshire variant. Features dated to this later phase produced some 1013

sherds (15,789g) showing an overall increase in the average sherd weight to 15.6g. Good groups of material were recovered from within the construction cut of corndryer 1206, ditches 1514, 1632 and 1633, pit 868 and the upper fills of pits 919, 1249 and 1479.

3.2.29 SFB 1191 produced 47 Roman sherds along with Iron Age and Anglo-Saxon material. Apart from two sherds of OXF RS, nearly all the Roman material was early in date suggesting this is accidental incorporation rather than re-use or continuing use of late Roman wares.

Discussion

3.2.30 The Roman assemblage recovered from Crab Hill has a rural character in terms of the comparatively low levels of continental and regional imports, the dominance of local coarse wares, and a quite limited repertoire of vessels overwhelmingly dominated by jars. Samian accounts for just 1.6%, which is a figure typical of rural settlements in this region. Slightly at odds with this is the presence of a few sherds of South Gaulish samian, the early Lezoux bowl and the local pre-Flavian fine wares, which could all suggest it had a slightly different status in the early Roman period. Comparison with assemblages excavated from two other sites in Wantage at Mill Street (Timby 1996) and Denchworth Road (Timby 2001) (Table 14) show a broadly similar composition. Both these sites included a small number of residual Iron Age sherds, Roman wares spanning the late 1st to 4th century and small amounts of early Saxon material. An absence of early local fine wares at Mill Street led to the conclusion that there was unlikely to be pre-Flavian occupation (Timby 1996, 134). The level of samian and imported fine wares are broadly comparable, though the frequency of samian is slightly higher at Denchworth Road.

3.2.31 Excavations at Mill Street and Denchworth Road produced small number of amphora sherds and both had a better representation of mortaria. A higher level of late Roman shelly ware at Crab Hill suggests a more prolonged later phase of occupation despite the fact that Saxon activity was noted at all three sites. Of particular note is the relatively high frequency of Savernake ware present at all three locations and a notable emphasis on jars, particularly larger storage jars that presumably reflect the storage and processing of agricultural products, further reflecting of the rural character of the settlement.

Catalogue of illustrated sherds

No. 1 Wheel-made, necked bowl or wide-mouthed jar. Small perforation through the body. Slightly sooted, burnished exterior. Fabric: BWSA2. Primary fill ditch G1626, [345] (345).

No. 2 Body sherd fashioned into a disc with four small perforations equidistantly placed around the edge. Fabric: GR1. Pale brown with a light grey core. Primary fill ditch G1626, [345] (345).

No. 3 Beaded rim jar. Slightly sooted exterior. Fabric: GYGR/SAV GT. Primary fill ditch G1489 [123] (122).

No. 4 Cordon necked jar/bowl. Burnished exterior. Fabric: BWSA2. Primary fill ditch G1489 [123] (122).

No. 5 Hand-made, shallow dish slightly beaded on the interior. Fabric: BWNSA2 (brown glauconitic sandy). Primary fill ditch G1489 [123] (122).

No. 6 Hand-made, carinated bowl with a collared rim. Fabric: BWNSA2. Second fill ditch G1489 [1130] (1131). Sherds from same vessel from (123) primary fill.

No. 7 Necked jar. Burnished exterior. Fabric: BWMIC. Black surfaces with a red-brown/grey sandwich core. Second fill ditch G1489 [1130] (1131).

No. 8 Lid decorated with a lightly incised wavy line. Blackened towards the top. Fabric: OXSY. Second fill ditch G1489 [1130] (1133).

No. 9 Several sherds from a devolved butt beaker with diagonal lines of combed decoration. Fabric: OXF RE. Pit [796] (797).

No. 10 Carinated beaker. Fabric: ABN OX. Pit [796] (797).

No. 11 Hand-made dish. Burnished on the exterior and interior surfaces. Fabric: BWNSA2. Pit [796] (797).

No. 12 Necked bowl. Grey ware with a red core. Fabric: OXF RE. Pit [796] (797).

No. 13 Cordon-necked jar with a carinated shoulder. Fabric: ABN OX. Pit [796] (798).

No. 14 Bowl with a bifid rim. Fabric: OXF BWH. Primary fill ditch G1617 [445] (444).

No. 15 Handled flask. Fabric: OXF RS. Second fill ditch G1632 [745] (744).

3.3 Post-Roman pottery

by John Cotter

Introduction

3.3.1 SFB 1191 produced a small assemblage of hand-made Anglo-Saxon pottery, in total 51 sherds weighing 889g with a total EVEs of 0.50. At least five vessels were present based on the six rim sherds recovered, though textural and other differences in the body sherds suggest up to a dozen, or more, vessels may be present. The average sherd weight is 17.4g, which is fairly good for quite soft, friable material such as this. Sherds were quite fresh with post-deposition abrasion noted on only a few examples. Four fresh joining sherds from fill 1190 gave a maximum sherd length of 165mm.

3.3.2 The very limited range of fabric and vessel forms present, together with the absence of decoration, allows only a broad dating of 5th to 7th century to be suggested, although a 6th to 7th century date is possibly more likely. A small number of Iron Age and Roman sherds were also recovered from the hut but are not considered here.

Distribution

3.3.3 The SFB was roughly sub-rectangular with its long axis aligned east–west. For excavation purposes, it was divided into quadrants and only material from the north-east quadrant (layer 1127) and south-west quadrant (layer 1190) was recovered (Table 15). The pottery therefore represents a 50% sample of the hut assemblage and the

two layers represent the same fill; a primary fill was sterile. A cross-joining rim sherd from the two upper fills also suggests they are essentially the same deposit. Almost the same number of sherds occurred in both fills, although in south-western fill 1190 the average sherd weight was higher (22g) compared to north-eastern fill 1127, where the average sherd weight was only 13.5g.

Fabric

3.3.4 Organic-tempered ware, also known as chaff-tempered or grass-tempered ware, was the only fabric found in the SFB assemblage. This was characterised by moderate to abundant, coarse, organic temper and burnt-out voids up to 8mm long. The organic material occasionally includes plant structures (fibres and possibly glumes?). The clay matrix is generally smooth or slightly sandy, with moderately fine quartz sand and rare coarser, more-rounded, quartz grains up to 2mm across. The matrix also contains an abundance of very fine mica, which was visible in every sherd examined. Most specimens also contain moderately fine- to medium-sized red/brown iron-rich clay pellets. In a few vessels these clay pellets are noticeably coarser (up to 4mm), and softer or earthier, giving a lumpy surface texture. A few vessels have rare pale grey clay pellets or mudstone up to 3mm, or rare angular flint also up to 3mm. A large rounded stone inclusion (5mm across) in one sherd appears to be a light grey sandstone (greensand?) containing fine black grains of glauconite. Rare fine white calcareous inclusions were also noted.

3.3.5 Firing colour is mainly black or grey-brown. Some vessels have light brown surfaces/margins, usually externally. A few sherds, apparently from a single vessel (from 1127 only), had a dark grey fabric with a distinctive oxidised orange/brown internal surface. These differences are not considered very significant and mostly result from bonfire firing. Many vessels have smoothed external surfaces, but no burnishing or decoration of any sort is present. Internal surfaces sometimes exhibit random scratching or striations. In general, the range of texture, inclusions and firing colour is very similar and probably indicates very local production.

Vessel form

3.3.6 The only vessel form identified is the plain globular jar with a gently everted plain rim. Only six rim sherds were present from a minimum of five individual vessels. One vessel had a rim sherd in both contexts. Rim diameters ranged between 110–220mm (one each of 110mm, 140mm, 160mm, 170mm and 220mm). Wall thicknesses ranged between 4–10mm. The largest vessel (220mm rim diam.) came from fill 1190. Apart from its size, the latter differed from the others only in having a fairly sandy, light grey fabric with less organic temper than most other sherds. It was also the only rim that showed significant post-deposition abrasion, suggesting that it may be an older vessel that was lying around when the SFB was back-filled. Evidence of sooting was only observed on the internal surfaces of two sherds.

Dating

3.3.7 The dating of early Saxon pottery is almost entirely dependent on the presence of decoration and one or two distinctively early vessel forms, all of which are absent here.

Jars of this very plain simple form are not closely datable. The presence of decoration, however, is usually considered typical of 5th- and 6th-century assemblages (Myres 1977) and this might be a slight indication that the assemblage belongs to the 6th or 7th century rather than earlier. As jars are ubiquitous in most Anglo-Saxon assemblages from Oxfordshire and elsewhere, they have not been illustrated (cf Blinkhorn 2007).

3.3.8 Over much of southern England organic-tempered wares are considered characteristic of the 6th–7th centuries although they were already present from the start of Anglo-Saxon occupation in the 5th century. At Mucking in Essex, for example, organic-tempered ware was the predominant pottery type in SFBs of the 7th century (Hamerow 1993, fig. 17). Production continued into the following centuries, but it is likely to have disappeared from most areas by *c* AD 850.

3.4 Fired clay

by Cynthia Poole

Introduction

3.4.1 A modest assemblage of fired clay amounting to 561 fragments weighing 5250g was recovered by hand and sieved samples from a variety of contexts dating from the earliest Iron Age to the late Roman period. Fired clay is not intrinsically dateable except in the case of certain diagnostic forms, and most of the assemblage is dependent on associated dateable material for its phasing. Several Anglo-Saxon fired clay loomweights were also found, though these have been reported on separately (see below).

Methodology

3.4.2 The assemblage has been fully recorded on a MS Excel spreadsheet in accordance with guidelines set out by the Archaeological Ceramic Building Materials Group (ACBMG 2007), which whilst not specifically designed for fired clay provide appropriate guidance. The record includes quantification, fabric type, form, surface finish, organic impressions, dimensions and general description. Fabrics were characterised on macroscopic features and with the aid of x20 hand lens for finer constituents.

Fabrics

3.4.3 The fabrics are very similar throughout all periods with variations reflecting differences in the local geology rather than any significant difference in source. The basis was a very fine sandy clay containing quartz, mica and glauconite often in high density, though proportions of these constituents could vary with mica or glauconite sometimes being sparse or absent. Occasionally a coarser sandy clay was used. Colour was variable though commonly tending to brown, yellowish-brown, reddish-brown or buff, often with a grey or black core. This was very similar to the local very fine-grained cream sandstone, which when burnt had frequently been mistaken for fired clay. This matrix formed the basis of other variants that contained shell or small cream sandstone grits up to 9mm in size. All these derived from the Gault Clay, which is a micaceous mudstone, sometimes glauconitic and from the Upper Greensand

Formation, which consists of glauconitic and shelly fine-grained sandstone. At the interface, there is an upward change from sandy micaceous clay of the Gault to silt or sand. The boundary of these deposits occurs close to the northern edge of the site providing readily accessible raw materials for fired clay (BGS nd). The only deliberately added constituent found in some of the fired clay was chaff or crushed straw inclusions

Earliest–middle Iron Age

3.4.4 Most of the fired clay (30 fragments, 309g) from this period was composed of indeterminate amorphous fragments. Diagnostic material consisted of structural fragments up to 38mm thick with a roughly moulded flat or undulating surface and, on the back, were small wattle or stem impressions measuring between 5mm and 10mm in diameter. Some of these came from features associated with roundhouses 164, 221 and 1600, but the size of the wattles suggests that they are more likely to derive from oven structures than building daub. A few pieces had remnants of a creamy-white render probably made from crushing the local, white, fine-grained sand/siltstone, based on their near identical appearance. This could be taken as indicative that the pieces represent parts of the buildings' walls, but it is equally possible that certain structures were carefully surfaced, particularly drying floors of ovens for crop/food processing. No portable furniture was definitively identified, though one tiny shell-gritted fragment with a smooth well-finished surface that may be a scrap of a baking plate of Roman type. It was found in the primary fill of pit 1171 and suggests that the pit is in fact of later date.

Late Iron Age–Roman

3.4.5 The bulk of the fired clay (521 fragments, 4772g) was recovered from features of this period and includes both structural material and portable furniture. Much of the structural material was found in corndryers 1206 and 1240, being most prevalent in the basal burnt layer, from where it was recovered via environmental samples.

Structural fired clay

3.4.6 The structural material from corndryer 1240 comprised irregular tabular blocks of black fired clay 22–42mm thick with a rough irregular surface. This material probably represented the burnt natural floor-lining that was blackened by heat at the mouth of the flue but had reddened beyond. It was certainly difficult to differentiate these burnt clay fragments from the natural clay or mudstone found on the site. Very similar material, but found in greater quantity, came from charcoal layer 1269 overlying the floor surface after final firing, and which is more likely to represent lining, bedding material or possibly the material forming the vault over the flue. This deposit is overlain by stone from the collapsed superstructure, so it is perhaps more likely that these tabular slabs of clay represent lining or bedding. However, three of the fragments produced evidence of wattle impressions measuring 9–19mm in diameter suggesting that at least some may represent the flue vault and overlying drying floor supported on wattles, though the evidence of wattles is admittedly very sparse.

3.4.7 A further group of structural material with wattle impressions was recovered from pit 1037, within roundhouse 1601. These had a rough, irregular, moulded surface, which

in some instances had been coated with a cream render of fine sandy/silty clay up to 5mm thick producing a smooth flat surface. On the back were wattle impressions ranging in size from 7mm to 29mm in diameter and included both vertical sails and interwoven rods, suggesting some form of woven structure such as a hurdle. The wattles from pit 1037 have slightly larger sizes than are routinely associated with ovens and this may imply a more substantial structure is represented by the fired clay. Burnt debris associated with the fired clay included a substantial quantity of fuel-ash slag, as well as some burnt animal bones and charred plant remains. Although shallow, pit 1037 was 1.8m in diameter and could represent the base of a substantial domestic oven or cooking stove.

Portable furniture

3.4.8 Portable oven furniture was confined exclusively to prefabricated discs or rectangular plates. These generally have well-finished, smooth and even surfaces often flat on one side and slightly convex on the other. Edges vary in profile including rounded, flat vertical or bevelled and thickened bulbous or slightly flanged in form. Occasional knife trimming marks are visible on parts of the edge. Chaff impressions commonly coated the surfaces and, as well as being used as temper in some examples, chaff was frequently used as a separator between the clay and the mould. Two plates with extremely clear but dense chaff impressions were found in the basal layer of waterhole 796. These came in various shapes and sizes ranging in thickness between 15–34mm and two had diameters of 190 and 230mm. These measurements were based on the curvature of the edge, though there is an indication from some fragments of a more oval or oblong shape being present, as well as rectangular or polygonal. The largest surviving example was straight edged with a flange and measured over 200mm long. One surface, often the base, is commonly burnt black or grey.

3.4.9 All fragments were produced in the local glauconitic micaceous sandy fabric indicating that they were a locally made product, possibly by tilers making tiles in the same fabric. Although no tile kilns have been found in Oxfordshire, the use of these local clays implies production took place at one or more places along the base of the chalk escarpment where the Gault and Greensand outcrop between Wantage and Wallingford. Plates in similar glauconitic fabrics have been found at Grove (Poole 2019), Didcot (Poole forthcoming) and Thame (Poole in prep.).

3.4.10 These objects have been referred to as baking plates in a recent analysis and discussion of their function (Evans *et al*. 2017), and this is a useful term that can be used to differentiate them from other forms of plates used in other periods. In Oxfordshire, these have been referred to as discs, but rectangular, polygonal and oval shapes have also been noted at various sites. The discs and plates have been identified as a regular component of assemblages in Oxfordshire with discs known from Watkins Farm (Allen 1990, 53), Farmoor (Lambrick and Robinson 1979, 53–4) and Alchester (Booth 2001; Poole 2018b). The rectangular plates have been found at Castle Hill (Booth 2010, 67). Both discs and plates were found at Gill Mill, where the main period of use was during the 2nd and 3rd centuries AD (Poole 2018a, 473–5). At Great Western Park, Didcot, they occurred throughout the Roman period, though quantities decreased during the late Roman phase (Poole forthcoming). Evidence for their function is rarely present

and it has been assumed that they were used in domestic cooking, though a group from Didcot were associated with pottery wasters and may have been used as kiln furniture in pottery production.

3.4.11 Ceramic baking plates, including a near-complete sub-rectangular example, have been found at the Hive in Worcester where they were associated with ovens, including one set into the base of an oven and fragments of others that were reused and set into oven floors and structure (Evans *et al*. 2017, 51–3). The baking plates are frequently found with prefabricated oven fragments in Worcestershire and north Gloucestershire where they have been interpreted as serving as the oven floor. In Oxfordshire, evidence for prefabricated ovens is lacking and the baking plates are rarely associated with structural fired clay. At Crab Hill, all the baking plates were found discarded in secondary deposits within ditches, waterholes and a pit, and there was no direct association with any of the structural fired clay. The baking plates may have been used solely in conjunction with hearths by placing them on the hot embers, and it may have been possible to bake flat breads in an open-hearth using pairs of plates with the bread laid in between. This would account for the slightly concave surfaces and flanged edges found on some.

3.5 Ceramic building material

by Cynthia Poole

Introduction

3.5.1 A very small quantity of ceramic building material amounting to 12 fragments (835g) of Roman tile was recovered from middle and late Roman pits, ditches, a posthole and a corndryer, together with two scraps (13g) of probable post-Roman flat roof tile from a medieval ditch. The tile is fragmentary with a low mean fragment weight of 55g but is in fresh condition and largely unabraded.

Methodology

3.5.2 The assemblage has been fully recorded on a MS Excel spreadsheet in accordance with guidelines set out by the Archaeological Ceramic Building Materials Group (ACBMG 2007). Fabrics were characterised by macroscopic features supplemented using a x20 hand lens for identifying the detail of finer constituents.

The Roman tile

3.5.3 The assemblage includes roofing tile comprising three tegulae (385g) and one imbrex (87g) mainly from late Roman features, including pits 919 and 1047, posthole 1359 (Group 1634), ditch 1514 and corndryer 1206. Both types of roofing measured 20mm thick. The tegulae included an upper corner with typical upper cutaway in the form of a cut rectangular recess removing the flange for a length of 51mm. Two fragments had the flange surviving: one with a rectangular profile 36mm wide and another with a more rounded profile 40mm wide with knife trimming along its upper arris. A fragment of flat tile 17mm thick probably derives from either a tegula or an imbrex. The tegulae were made in a variety of fabrics, which included a fine sandy micaceous clay, a sandy clay containing medium quartz sand and sparse small chalk/limestone grit 2–4mm and

a sandy brown fabric containing frequent medium quartz and glauconite sand. The imbrex was made in a coarse sandy fabric also containing quartz and rare calcareous grits.

3.5.4 A single fragment of keyed flue tile was recovered from ditch 1381 (cut 1287). It was made in a fine red sandy clay with cream laminations possibly indicating it originated from the Minety tile-production centre. It measured 27mm thick suggesting that it may have been a wall tile used in conjunction with spacer bobbins to create cavity walling rather than box flue. This form was generally in use during the 1st–2nd century AD. It had been keyed with a combed pattern of crossing diagonal bands using a comb at least 18mm wide with five or more teeth.

3.5.5 One piece made in a fine sandy glauconitic fabric of the same type as used for one of the tegulae was identified as a brick and measured 38–42mm thick, increasing slightly to the edge. It had smooth flat surfaces that were heavily burnt and blackened on the base. Although the characteristics are comparable with Roman brick, there are hints that it could in fact be a thick fired-clay oven plate of the type described above.

Discussion

3.5.6 This is a surprisingly small assemblage with no greater quantity of material than that found in features during the evaluation. No tile was found in early Roman features, which is unexceptional for a rural settlement. By the middle and late Roman periods, recycled tiles were more commonly available having filtered through to less affluent communities, probably originating from the repair or refurbishment of masonry buildings, particularly from villas in rural areas. Tile frequently replaced the use of fired clay, at least in part, for ovens, hearths and corndryers and their associated accessories.

3.5.7 The virtual absence of tile at Crab Hill requires some explanation. This could be a result of choice or necessity. It is clear from two of the corndryers present that stone was readily available and used in their construction. Tile may not therefore have been regarded as a useful resource and no attempt was made to obtain it in any quantity, especially if the community had no direct links to wealthier establishments such as a villa from which it could acquire such material.

3.6 Worked stone

by Ruth Shaffrey

Introduction

3.6.1 A small assemblage of worked stone was found, comprising querns, loomweights, spindle whorls and a pendant (fired-clay loomweights are presented separately below). These artefacts are described in detail by period.

Iron Age

3.6.2 Fragments of two querns were recovered from middle Iron Age pit 1171, including a piece of Culham Grit (Cat. no. 1) and a large portion of Lodsworth stone (Cat. no. 2; Fig. 32 no. 1). The fragment of Culham Grit is too small to determine whether it was

from a rotary quern or a saddle quern, but the fragment of Lodsworth stone is from an upper rotary quern. Culham Greensand and the associated Faringdon Greensand and Lower Calcareous Grit were mainly used to manufacture saddle querns, principally during the middle Iron Age date (Shaffrey and Roe in prep.). It seems most likely that this is a fragment of saddle quern. Querns of Lodsworth Greensand are common in Oxfordshire during the Roman period, and although less used during the Iron Age, have been found in contexts of middle Iron Age date at Abingdon Vineyard and at Castle Hill, Little Wittenham (F Roe pers. comm.; 2010).

3.6.3 A small chalk weight was recovered from ditch 1326 (Cat. no. 3; Fig. 32 no. 2). It is a small weight of only 158g but seems likely to have been used on a loom. A circular chalk roughout with a partially drilled perforation was recovered from late Iron Age circular enclosure ditch 474 (cut 339) (Cat. no. 4; Fig. 33 no. 3). This seems likely to have been intended for use as a spindle whorl and its weight would have been significantly reduced when complete. It is possible that it could have been intended as a small loomweight, but as this would not have required as neat a shape and finish as a spindle whorl, it seems unnecessary for it to have been abandoned before completion.

3.6.4 The Iron Age tools from Crab Hill are indicative of domestic activity, with querns for the grinding of grain and spindle whorls and loomweights for textile manufacture. The spindle whorl roughout also indicates that tools were made on site. It seems likely that spindle whorls and loomweights, which were easy to manufacture from the soft local chalk and siltstone, were simply made at the point of use when required.

Roman

3.6.5 A small assemblage of worked stone was also recovered from Romano-British features. This includes one fragment of rotary quern of Old Red Sandstone from posthole 1351 (Cat. no. 5). A fragment of quern of indeterminate form in a coarse gritstone was recovered from pit 1174 (Cat. no. 6). The pit was not phased but is considered here likely to be Roman on the basis of the presence of the quern. Petrographic analysis of the fragment in thin section indicates that it is of Alderney sandstone type (see below).

3.6.6 A chalk spindle whorl with smoothed faces was recovered from ditch 669 (Cat. no. 7; Fig. 33 no. 5). Another disc, this time a partially perforated roughout, probably also for a spindle whorl, was found in context 1124 (Cat. no. 8; Fig. 33 no. 4). This on-site manufacture of tools appears to have continued from the middle Iron Age.

3.6.7 A fragment of small slate pendant was found in the construction cut of corndryer 1206 (Cat. no. 9; Fig. 33 no. 6). It has smoothed faces and rounded edges. Slate is not native to the area so the pendant must have been imported, either in a finished state, or as roofing and was later reworked.

Thin section of quern from pit 1174 (Cat. no. 6)

3.6.8 A quern fragment from unphased pit 1174 was not found to match any locally or regionally produced quern-producing rocks, nor any of the typically used types of Millstone Grit. Instead, it was found to be comparable to samples of Alderney sandstone, a quern lithology only identified very rarely in the UK, and only in contexts

of Roman and Saxon date. A small sample of the quern fragment was therefore removed, thin sectioned and analysed by the author at the Department of Earth Sciences, University of Oxford. This thin section will be archived with a collection of sections held by the author, but it is available for consultation through Oxford Archaeology.

3.6.9 The quern was made from a poorly sorted, coarse-grained feldspathic sandstone with extensive sericite cement. It comprises mainly quartz grains, both mono- and poly-crystalline quartz, feldspar, and some minor rock fragments, mainly of chert. The feldspars are frequently found to be in the process of altering into sericite, but orthoclase feldspar dominates, and microcline and pethite feldspar were also observed. The quartz typically demonstrates straight extinction. There are haematite rims around some of the quartz grains. The pore spaces have been entirely filled with sericite cement demonstrating a typical high birefringence.

3.6.10 In hand and broadly in thin section, the rock is comparable to field samples of Alderney sandstone. It is closest in petrology to a quern from Wilbees in Sussex, also identified as of Alderney sandstone-type, but both lack the distinctively twinned plagioclase feldspar of the field sample, whilst the Crab Hill quern also lacks the biotite mica. It is sufficiently comparable petrographically to querns and field samples of Alderney sandstone for this to be identified as the likely lithology. Querns of Alderney sandstone were being made on Alderney from the Iron Age onwards (Watts 2003). However, the subtle differences in mineralogy suggest the precise provenance is not the same and the quern may originate in another of the Channel Islands or mainland France, where these rocks also outcrop.

3.6.11 Since the quern does not precisely match samples from Alderney itself, it is possible that it came from one of these other locales. Alderney sandstone has only recently been identified as the source of some querns during the Roman period, with examples now identified at Silchester, on the Isle of Wight, in Sussex, and in London (Allen 2013; Hayward pers. comm.). Although this is the most northerly example thus far identified, it seems likely that further examples will come to light with continued petrographic analysis of unusual stone types.

Catalogue of worked stone

No. 1 Quern. Culham Grit. Fragment with one flat pecked grinding surface, now smoothed. No original edges. Weighs 376g. Ctx 1173. Secondary fill of pit 1171. Middle Iron Age

No. 2 Upper rotary quern (Fig. 32 no. 1). Lodsworth Greensand. Large portion of thick upper stone with a slightly concave curved grinding surface, rounded steep sides that lean in and probably a flat top, although this is damaged. Neatly pecked all over. There is some general rotational wear to the grinding surface and some very smoothed areas on the outermost 2cm. There is a trace of a lateral penetrating handle socket laid across the top. Measures approximately 350mm diameter x 137mm high. Weighs 3701g. Ctx 1173. Secondary fill of pit 1171. Middle Iron Age

No. 3 Loomweight (Fig. 32 no. 2). Clunch/chalk. Almost complete with flat top and straight sides and faces. Tapers in width and thickness towards the top. Has a central circular perforation of 9mm diameter. Burnt and blackened including on broken edge. Traces

of shaping marks survive. Measures 103mm long x 47–67+mm wide x 21–32mm thick. Weighs 158g. Ctx 1324. Secondary fill of ditch 1326. Iron Age

No. 4 Spindle whorl roughout (Fig. 33 no. 3). Clunch/chalk. Circular roughout with partially drilled perforation visible on both faces. Measures 71–74mm diameter x 19mm thick. Weighs 87g. Ctx 341. Upper fill of ring ditch 339. Group 474 Circular enclosure. Late Iron Age

No. 5 Upper rotary quern. ORS QC. Edge fragment of flat-topped type. Neatly pecked all over with straight edges and tapered to centre. No centre survives. Measures >200mm diameter x 42mm max thickness on edge. Weighs 593g. Ctx 1352. Single fill of posthole 1351. Group 1634 Gateway into enclosure ditches and postholes. Late Roman

No. 6 Quern. Alderney sandstone. Fragment with flat worked grinding surface now slightly smoothed. No edges or centre remain. Could be saddle or rotary quern. Measures 53mm thick. Weighs 405g. Ctx 1176. Secondary fill of pit 1174. Unphased

No. 7 Spindle whorl/loomweight (Fig. 33 no. 5). Clunch/chalk. Just over half a flat crudely circular disc with neat drilled circular perforation measuring 11.5mm diameter at its narrowest point (14mm at faces). Both faces are smoothed suggesting the disc rubbed against something else, possibly another disc. Measures 74mm diameter x 18mm thick. Weighs 58g. Ctx 700. Primary fill of ditch 669. Group 1630. Middle Roman

No. 8 Spindle whorl/loomweight (Fig. 33 no. 4). Clunch/chalk. Blank for loomweight. Circular roughout with partially drilled perforation visible on both faces. Measures 67–72mm diameter x 19mm thick. Weighs 112g. Ctx 1125. Fill of ditch 1124. Group 1627. Early Roman

No. 9 Pendant (Fig. 33 no. 6). Slate. Top portion of rounded flat pendant. The faces have been smoothed and the edges are rounded. There is a small circular perforation measuring 2.5mm diameter to 4mm on the faces. Measures >32mm long x >46mm wide x 5mm thick. Weighs 11g. Ctx 1213. Secondary fill of construction cut 1258. Group 1206. Late Roman

3.7 Fired-clay loomweights

by Ruth Shaffrey

3.7.1 A total of four fired-clay loomweights were found in the single fill of Anglo-Saxon SFB 1191. These do not adjoin and appear to represent two separate artefacts. Three more fragments probably representing two loomweights were also found in the feature. All the loomweights are of ring-shaped annular form (Fig. 34). The annular loomweight is the earliest type of ring-shaped loomweight, appearing in Britain during the 5th–6th century AD (Walton Rogers 2007, 30).

Catalogue of fired-clay loomweights

No. 1 Approximately 5% of a ring-shaped annular loomweight. Measures 33mm ring thickness x 34mm high x indeterminate diameter. Weighs 42g. Context 1190. Fill of SFB 1191. Anglo-Saxon

No. 2 Approximately 5% of a ring-shaped annular loomweight. Does not adjoin or appear to be part of same loomweight as above. Burnt and blackened. Measures 39mm high. Weighs 39g. Context 1190. Fill of SFB 1191. Anglo-Saxon

No. 3 Approximately 40% of a ring-shaped annular loomweight (Fig. 34). The two pieces do not adjoin but are of comparable form and height and appear to be from the same loomweight. Burnt and blackened. Measures 125mm diameter x 34mm high. Ring is 38mm thick and hole is approximately 70mm diameter. Weighs 144g. Context 1127. Fill of SFB 1191. Anglo-Saxon

No. 4 Approximately 5% of a ring shaped annular loomweight. Burnt and blackened on one broken end. Measures approximately 130mm diameter x 46–49mm high. Ring is 39mm thick and hole is approximately 70mm diameter. Weighs 150g. Context 1127. Fill of SFB 1191. Anglo-Saxon

3.8 Worked bone artefacts

by Leigh Allen

3.8.1 Two worked bone objects were recovered from the excavation, both from middle Iron Age contexts associated with roundhouses. One is a double-ended implement from secondary fill 727 of ring ditch 725 (roundhouse 931). The tool has a plano-convex section and smoothed and rounded ends that have been worn flat through use. The object has a high polish on the back and on the front at both ends. Measuring 82mm long, it fits comfortably in the hand and was probably used in the weaving process (much like the thread pickers or pin beaters of the Anglo-Saxon period). A similar Iron Age tool was recovered from Meare Village East, Glastonbury, which was found with other textile-working implements (Coles 1987, 53, fig 3.3, B9).

3.8.2 The second object is a broken tip from a gouge recovered from primary fill 307 of ring ditch 306 (roundhouse 1607). The end of the gouge has an oblique diagonal cut across the shaft in a longitudinal direction creating a wedge-shaped terminal with raised flanges at either side. The tip is blunted and worn and the whole fragment is very highly polished. Common finds on Iron Age sites, gouges could have been used for a variety of tasks from textile working to hide dressing (Sellwood 1984, 382–7).

3.9 Iron Age and Roman coins

by Paul Booth

Introduction

3.9.1 The excavation produced one Iron Age and 37 Roman coins, almost all recovered by metal detecting and therefore effectively unstratified. Eight post-medieval coins and tokens, most highly eroded, are not considered here but their details are included in the full coin list (Table 16).

Methods

3.9.2 The coins were scanned with the principal aims of providing dating for the site sequence and characterisation of the assemblage, in turn informing interpretation of the site. The condition of the coins was quite variable, ranging from very good to very

poor, although relatively few were extremely heavily encrusted. Some manual cleaning was undertaken by the specialist to facilitate identification, while six coins were subject to formal cleaning by a qualified conservator (Dana Goodburn Brown). Detailed identifications were made where possible, with notes of obverse and reverse types and mintmarks. Standard references referred to volumes of ABC (Cottam *et al*. 2011), RIC (Mattingly *et al*. 1923–1984) or LRBC (Hill *et al*. 1976) where possible (LRBC was used in lieu of RIC volume IX). Wear was recorded (approximately) using the categories defined by Brickstock (2004).

Iron Age

3.9.3 The single Iron Age coin, from topsoil context 100, is a copper-alloy unit of Cunobelinus of a common type assignable to the early 1st century AD. The coin is fairly worn, and part of the obverse legend is still legible but that on the reverse is lost.

Roman

3.9.4 The 37 coins are, with a single exception, of later 3rd- to 4th-century date. The earlier coin is a denarius of Tiberius (AD 14–37), of a type common in numismatic terms but as far as is known not previously recorded from Oxfordshire. This coin is worn but not excessively, and it may be reasonable to suggest that it was related to the Cunobelinus issue, perhaps reflecting late pre-Conquest or very early post-Conquest activity.

3.9.5 The late Roman emphasis of the remaining coins is characteristic of rural settlements in the region and more widely. Five are of later 3rd-century date, starting with an uncertain issue of Gallienus and including two issues of Tetricus I, of which one may have been irregular. The other two radiates are not identifiable beyond that basic characteristic and all are from topsoil.

3.9.6 The 4th-century coins, none of which are intrinsically remarkable, comprise one (dated AD 323–4) of Reece's (1991) issue period 16, eight (one uncertain) of period 17 (AD 330–48), and ten each of periods 18 (AD 348–64) and 19 (AD 364–78). Of the two remaining (uncertain) late Roman coins it is possible that one (SF 50) was also of period 19. The emphasis on period 19 rather than period 17 (typically best represented in rural settlement loss patterns) is notable, particularly as later coins are completely absent (the latest closely dated coin is an issue of Gratian of AD 375–78), but as the assemblage is small it is not clear how far these points are significant. The condition of the coins means that it is difficult to judge how many issues were irregular, but at least three of the period-18 coins were certainly of this type.

3.9.7 Twenty of the 4th-century coins can be assigned to mints with varying degrees of confidence. The patterns are typical with Trier dominant in period 17 and Arles later, while Lyon, Rome and Aquileia were also represented.

3.9.8 The domination of the assemblage by 4th-century issues is clear and represents a common rural coin-loss pattern, although not all rural assemblages in the region show an exactly comparable profile. Closely adjacent assemblages have slightly different emphases. At Wantage a slightly more diverse assemblage is seen at both Denchworth Road (20 coins) and Mill Street (58 coins), but while the former site has a peak of loss in period 17 the latter has an emphasis on period 19 coins similar to that at Crab Hill,

albeit then followed by coins of periods 20 and 21 (Guest 2001, 305). The sizes of the assemblages involved mean that they cannot be pressed too far in terms of detailed interpretation. Further comparative discussion based on some of the larger assemblages from the region has been prepared in the context of reporting material from Didcot (Booth forthcoming). Much the largest assemblage in the area comes from the Oxford University excavations at Marcham/Frilford (Kamash *et al*. 2010), which have produced about 2300 coins (S Raven pers. comm.) but the listing of these is not complete.

3.10 Metal objects

by Ian R. Scott

Introduction

3.10.1 The metal objects form a relatively small assemblage comprising 124 objects (162 fragments). There are 84 iron objects (122 fragments) including nails (n = 48; no. fragments = 70) which make up a significant proportion of the assemblage. There are 28 copper-alloy objects (29 fragments) and nine lead objects. Twenty-six finds came from the topsoil and subsoil layers and 12 came from unphased contexts. Stratified finds were predominantly from Roman contexts (Table 17).

3.10.2 The metal finds have been recorded in detail and the data entered into a MS Excel spreadsheet that will form part of the site archive. The finds have been identified, recorded by context, described, and measured where appropriate.

Iron Age

3.10.3 There were a very few finds from Iron Age contexts. These included a fragment of a nail with flat head from pit 255. This feature was phased as earliest Iron Age, though the nail is almost certainly intrusive. Another small iron nail or tack was recovered from middle Iron Age pit 719 (fill 720) and may also be intrusive. There was a long spearhead with slim leaf-shaped blade (Cat. no. 1; Fig. 35 no. 1), which was recovered from pit 360 (fill 361), which contained some sherds of early/middle Iron Age pottery. Another probably middle Iron Age find included a tanged awl, probably used for leatherworking (Cat. no. 4), from roundhouse ditch 1607 (cut 306).

3.10.4 The only metal find from a late Iron Age context was a fragment of a possible, copper-alloy, spiral finger ring (Cat. No. 16). This came from a secondary fill of the late Iron Age circular enclosure ditch 474 (cut 339). Amongst the finds from subsoil was an adze of a form found occasionally on sites of Iron Age date (Cat. no. 3; Fig. 35 no. 3). These are quite distinct from the adzes and adze-hammers found in Roman contexts.

Roman

3.10.5 Finds from middle Roman contexts were limited to fragments of eight nails and two refitting fragments of iron strip. The nails include two from the secondary fill (1290) of ditch 1287. Neither were complete but measured at least 80mm long. A single T-headed nail (L: 53mm) came from the secondary fill (586) of ditch 1617 (cut 584). The two refitting fragments of iron strip, possibly a binding or strapping, and the remaining

five nails, all complete, were recovered from pit 1271. The nails measured 65mm, two at 85mm long and two at 100mm long.

3.10.6 The majority of stratified metal finds came from late Roman contexts. These included a tanged leatherworking awl (Cat. no. 5) from ditch 550, a small tack from ditch 550, a small penannular brooch (Cat. no. 12; Fig. 35 no. 6) from ditch 1512, and a complete Hod Hill brooch (Cat. no. 11; Fig. 35 no. 5) from ditch 1514. Excavation of corndryer 1206 produced a whittle-tanged knife blade (Cat. no. 9; Fig. 35 no. 4) and six fragments from iron hoops or bindings for a wooden bucket or vessel (Cat. no. 10). Ditch 1619 (cut 321) produced a small ring made from thin stiff wire, which is probably also intrusive, and a possible small rim fragment from a lead, or pewter, vessel. Insufficient of the latter survives to identify the form or date of the vessel. An intrusive post-medieval shank button was also recovered from this context. There are five pieces of miscellaneous metalwork from the primary fill 1454 of pit 1453 comprising a length of iron bar, a circular collar of fragment of tube, and three small flat iron fragments.

3.10.7 A total of 11 Roman hobnails were recovered, two from fill 1465 of well 1463, two from fill 1332 of ditch 1619 (cut 1331), five from fill 1317 of corndryer 1304, and two from the secondary fill of ditch 1632 (cut 744). The remaining metal finds from late Roman contexts were largely nails, plus four miscellaneous pieces and three unidentified fragments.

Unphased

3.10.8 A number of interesting and datable finds were recovered from the topsoil and subsoil layers. The earliest in date was an adze, or mattock head (Cat. no. 3), of Iron Age date. A biconical lead steelyard weight with the remains of an iron suspension loop (Cat. no. 6) is almost certainly Roman. There was a fragment from a probable fantail brooch (Cat. no. 11) which was also certainly Roman, although its precise identification to type was not possible. Perhaps the most interesting item of Roman date was a late Roman buckle (Cat. no. 2; Fig. 35 no. 2), a late 4th-century type of Sommer's Sorte 1 Form A Type A, which is likely to be from the belt of soldier or state official.

3.10.9 An annular brooch and a fragment of a second similar brooch (Cat. nos 13–14; Fig. 35 no. 7) were Anglo-Saxon, dating to the later 5th–7th century. There was also a late medieval rectangular buckle (cf Egan and Pritchard, 1991, 97, fig. 62, no. 445), and a circular seal matrix with a thin conical handle and a pierced loop (cf Cherry 1991, passim) of late medieval or early post-medieval date.

Catalogue of selected finds

No. 1 Spearhead (Fig. 35 no. 1). Elongated leaf-shaped blade of lozenge section. It has a closed socket with a rivet close to its mouth. Fe. L: 312mm; W: 38mm; D: 26mm. Context 234, fill of pit 233. Sf 1.

The association of the find with a small number of Iron Age pottery sherds suggests its date. The long, slim, leave-shaped blade, the relatively short closed and welded socket, and the lozenge-shaped cross-section of the blade would be appropriate for spearheads of Iron Age and Roman date. It is certainly not Anglo-Saxon, of which few if any have lozenge-shaped cross-sections.

The length of the Crab Hill spearhead is comparable with spearheads of related size and form from Hod Hill, Dorset (Manning 1985, 167, pl. 79, V111–2). The latter date to the Conquest period, although there are some variations in form. The problem with the Hod Hill finds, particularly those in the Durden Collection, is distinguishing between Iron Age and Roman finds. Manning confidently assigned these spearheads to the Roman Army (Manning op. cit. 161), though Inall (2015) includes these with Iron Age types. The majority of Iron Age spearheads from archaeological sites in Britain are short with relatively broad blades (Stead 1991, 74–8, fig. 57; Inall 2015, figs 4.1 and 4.2). There are longer Iron Age spearheads, which Inall views as thrusting rather than throwing weapons, and small number of these do have leaf-shaped blades. The most notable example is a recently excavated spearhead with a long, slim, leaf-shaped blade and lozenge cross-section from a large Iron Age cemetery at Pocklington, Yorkshire (Inall 2015, fig. 4.37, ID 115). Inall has included this spearhead with her Type 2.5, narrow-bladed spearheads (ibid., 106–8, fig. 4.37). It is a little longer than the Crab Hill spearhead. The Crab Hill spearhead could be either Iron Age or Roman in date.

No. 2 Buckle (Fig. 35 no. 2). Late Roman buckle with oval buckle loop attached to folded oval buckle plate with two rivets. The plate is decorated with lines of distinctive rocker arm (walking scorper) decoration, and ring and dot. Cu alloy. L: 48mm; W: 35mm. Context 100, topsoil. Sf 25

This is a late Roman buckle with a bag- or purse-shaped (taschenförmigen) plate of Sommer's Sorte 1 Form A Type A (1984, 18–9 and Taf 1, nos 1–8). The buckle form dates to the late 4th century AD. Only a small number of late Roman buckles of this type have been found in Britain. Six buckles were found in burials at the Lankhills cemetery, Winchester (Clarke 1979, 270–2, fig. 34 [graves 23, 106, 283 and 426]; Booth *et al*. 2010, 218–20, fig. 3:249; 234–5, fig. 3.271 [graves 1846 and 3030]; Cool 2010, 285–6) and a further four certain buckles have been found more recently in soldiers' burials at Scorton, near Catterick (Eckardt *et al*. 2015, 193–207, figs 5–9 [graves 5, 7, 12 and 14]). A small number of similar buckles from contexts other than graves are known: two from Canterbury (Ager 1988, 27, fig. 1: e–f), and single buckles from Gestingthorpe, Essex (Henig 1985, 29, fig. 9: 17), Caister-by-Sea, near Yarmouth (Darling, with Gurney 1993, 120, fig. 104: 743), Silchester (Boon 1959, 88, pl. 3, 8a), and Lydney, Glos. (Wheeler and Wheeler 1932, 90, pl. xxvii, 132).

Late Roman belt buckles and belt fittings in the western empire have been discussed by Swift (2000, 185–205), and the distribution of Sorte 1 Form A Type A buckles is concentrated in Belgica, and along the Limes in the two Germanies, Raetia and in Pannonia (ibid., 190, fig. 231). The small but growing numbers found in Britain of this particular buckle type can be seen as a westward extension of its range.

No. 3 Adze head (Fig. 35 no. 3). The head is large and heavy and has an oval eye with a slightly raised ridge above. The blade starts narrow but widens to its cutting edge. Fe. L: 225mm; blade W: 81mm. Context 101, subsoil. Sf 9.

The basic form of this blade is paralleled by numerous broadly similar heads from Iron Age sites. Darbyshire (1995 (vol. 2), 139–63) listed 37 examples, and to these can be added the adze blade from Yarnton, Oxfordshire (Barclay and Fell 2011, 427, no. 1, figs 15.3: no 7, and 15.4). These blades are quite distinctive and differ markedly in form

from Roman adzes and adze-hammers (cf Manning 1985, pl. 8, B10 and B14 and pl. 9, B16; see also Duvauchelle 1990, 19–22, fig. 11, 92–4, nos 53–60). As well as their distinct form, the blades of Iron Age adzes generally have a less acute angle in relation to their handles than Roman adzes. Although the Crab Hill blade is comparable in form to the blades catalogued by Darbyshire (1995 (vol. 1) 360–98; (vol. 2) 139–60) it is distinguished from those tools by its size. All but one of the adzes catalogued by Darbyshire measure between 120mm and 185mm long and have blade widths of between 34mm and 70mm. The Crab Hill adze is 225mm long with a blade width of 81mm and is larger by some margin. The only blade catalogued by Darbyshire that even approaches the size of the Crab Hill example is the adze from the Waltham Abbey hoard (ibid. (vol. 1), 371–2; (vol. 2) 157, J29), which measures 195mm long and has a blade width of 65mm. At least one example, complete with wooden handle, was recovered during the excavations of the Glastonbury Lake Village (Bulleid and Grey 1917, 373–4, pl. lx: I50). Darbyshire (1995 (vol. 1), 387–91), like others including Manning (1985, 16) and Rees (1979, 308–9), has considered the possibility that some of the adzes may have been hoes or mattocks.

No. 4 Awl (not illustrated). One end forms a tapered, square-section tang (L: c 30mm). The blade is circular in section but bent. Fe. L: 95mm. Context 308, secondary fill of roundhouse ditch 1607 (cut 306). MIA.

Probably used in leather working (cf Allen 2011, 428, no. 3, fig. 15.3: no.9)

No. 5 Awl, slim square section tang (L: c28mm) and encrusted blade of circular section (not illustrated). Fe. L: 88mm. Context 555, secondary fill of ditch 1639 (cut 550).

Awls of this form are the most common and probably used in leatherworking.

No. 6 Steelyard weight (not illustrated). Biconical lead pendant weight, originally with fe suspension loop. Pb. Ht extant: 46mm; D: 46.5mm x 45mm. Context 100, topsoil. Sf 98.

Almost certainly of Roman date.

No. 7 Stylus eraser (not illustrated). The eraser has concave sides. The stem, which appears to be quite thin is broken off and largely lost. Cu alloy. L extant: 26mm; W: 15mm. Context 100, topsoil. Sf 29.

Roman stylus fragment.

No. 8 Knife blade with whittle tang, single-dropped edge (Fig. 35 no. 4). The back continues the line of the tang, blade tapers towards the tip then the back curves down sharply to the tip, Fe. L: 200mm. Context 1214, secondary fill of construction cut 1258, Group 1206. Sf 104. LR2.

Does not conform to any specific form identified by Manning (1985, 108–20) but it is probably Roman. It is more akin to Roman forms than medieval or later knives.

No. 9 Bucket or vessel hoops (not illustrated). Six fragments of possible iron bucket or vessel hoops or bindings. No clear refits. The angles of strips suggest a tapered vessel. Fe. L: 65mm; 69mm; 78mm; 81mm; 86mm; 110mm. Max W of bindings *c* 24–5mm. Diameter of vessel *c* 180mm. Context 1242, primary fill of construction cut 1258, corndryer 1206. Sf 106.

No. 10 Hod Hill brooch (Fig. 35 no. 5). It has a tapered bow, flat in cross-section with five grooves or ribs, an unpierced catch plate, and a pointed rather than knobbed terminal. Hinged pin (now lost) with iron axle bar. Cu alloy. L: 48mm; W: 18.5mm. Context 1513, fill of ditch 1514. Sf 129.

Mid-1st to early 2nd century AD.

No. 11 Bow brooch fragment (not illustrated). Plain fantail(?) and catch plate from a bow brooch. Cu alloy. L extant: 19mm; W: 16mm. Context 100, topsoil. Sf 61.

No. 12 Penannular brooch (Fig. 35 no. 6). Small complete brooch with knobbed terminals, flat faced with some grooving. Plain undecorated pin. Tinned Cu alloy. L: 31mm; W: 25.5mm. Context 1511, fill of ditch 1512. Sf 128.

The late Roman context would fit within the broad date range of penannular brooches with knurled knobs (Form k2.a) suggested by Mackreth (2011, 212).

No. 13 Annular brooch (Fig. 35 no. 7). Flat, annular Cu-alloy hoop with iron pin attached to single circular hole. The hoop is decorated with pairs of transverse lines. D: 38mm. Context 100, topsoil. Sf 26.

See Macgregor and Bolick 1993, 82–93. Where they occur in burials they are found exclusively with females. They range in date from the later 5th to the 7th century (ibid., 82).

No. 14 Annular brooch (not illustrated). Crescent-shaped fragment from the hoop of an annular brooch. Cu alloy with iron pin attached to single circular hole. D: 33mm. Context 100, topsoil. Sf 34 (cf No. 13 Sf 26).

No. 15 Finger ring (not illustrated). Fragment of finger ring of plano-convex section. Narrow at the broken end, widens to a tapered terminal. Possibly a fragment of a coiled ring? Cu alloy. L extant: 20mm; W: 2.5mm. Context 341, secondary fill of ditch 339. Group 474 circular enclosure. Sample <4>. LIA.

3.11 Slag and associated waste materials

by David Dungworth

Introduction

3.11.1 just over half a kilogram of slag and other industrial material was recovered during the excavation. The majority of this was vitrified fuel ash slag that was recovered from both Iron Age and Roman features.

Methods

3.11.2 All of the material submitted was examined visually and recorded following standard guidance (HE 2015). The following categories of material were recognised:

Non-diagnostic ironworking slag (NDFe)

Most ironworking slag assemblages include a significant proportion of slag which lacks a diagnostic surface morphology that would allow the identification of the process(es) which produced them. In many cases, this is simply because the lumps of slag are small

fragments of a larger whole; however, in some cases the lumps of slag are essentially complete but amorphous (cf HE 2015, fig. 18).

Hammerscale (HS)

Fragments of slag and oxidised iron that are produced during the smithing of iron (including the initial consolidation of an iron bloom). Hammerscale can be present as small flakes (HS) or as small spheres (SS) (Dungworth and Wilkes 2009).

Vitrified fuel ash (VFA)

Vitrified fuel ash is a non-metallurgical waste material formed in a fire. Almost all organic fuels contain a small proportion of inorganic material. In many cases, this will remain as ash; however, if the fire is hot enough this may vitrify (HE 2015, fig. 54).

Unidentified vitreous material (UID)

Vitrified material which is usually present in very small fragments that lack any diagnostic features. This material cannot be linked to any specific process (metallurgical or not).

Iron objects (Fe obj)

Fragments of metallic ferrous material usually obscured by corrosion.

Heat-magnetised residues (HMR)

A category to cover non-metallurgical waste that has been recovered from environmental soil samples with a magnet. Mostly fragments of soil, rock or ceramic (which contain some iron) that display some thermoremanent magnetisation.

Results

3.11.3 A total of 514.12g of material was examined (Table 18). The bulk of this material (456.32g) comprises vitrified fuel ash slag (VFA). This material was recovered from both Iron Age and Roman contexts, though much of the latter could be residual.

3.11.4 The vitrified fuel ash represents a non-metallurgical waste material formed in a fire. Almost all organic fuels contain a small proportion of inorganic material. In many cases this will remain as ash. However, if the fire is hot enough this may vitrify; the temperature required will depend on the chemical composition of the ash (Dungworth 2016; HE 2015, fig. 54). One suggested origin of vitrified fuel ash is haystacks that have accidentally burnt (Biek 1977; Nickolls 1977). In some cases, it is also likely that earthy materials (such as daub) may be incorporated into vitrified fuel ash (cf Biek 1978; Evans and Tylecote 1967; Salter 2005). It is highly unlikely that vitrified fuel ash is directly associated with any metallurgical activity. The detailed examination of similar material from Beckford (Dungworth and McDonnell forthcoming) suggests that it was produced by reactions between wood ash and soil and/or ceramic material (possibly daub) at temperatures between 850°C and 1150°C. Mack and McDonnell (2006) also rule out a metallurgical association but suggest a slightly higher temperature of formation. The abundance of vitrified fuel ash slag from this site is a phenomenon shared by several sites with Iron Age occupation (Andrews 2009; Cowgill *et al*. 2006; Grimes and Close-Brooks 1993; McDonnell 1986; Salter 1991; Young 2011). It is possible that the vitrified

fuel ash described here corresponds to the 'Iron Age Grey' proposed by Cowgill *et al.* (2006).

3.11.5 The other material examined includes a very small amount of non-diagnostic ironworking slag and very small amounts of hammerscale (the latter only from Roman contexts). While hammerscale can provide evidence for blacksmithing, the very small quantities recovered from Crab Hill (1.2g) are perhaps more consistent with the occasional over-heating of iron during everyday use rather than the deliberate working of iron. Whenever iron utensils or fittings were placed in a fire (eg for cooking), the heat of the fire would promote the formation of very small amounts of iron scale that would be indistinguishable from hammerscale.

Discussion

3.11.6 The material recovered from Crab Hill shows that fire was employed in the Iron Age and Roman periods. At times these fires were intense enough to generate durable residues (largely formed from the ash of the fuel) but the purpose of the fire(s) remains uncertain, although a metallurgical use is unlikely.

3.12 Worked flint

by Mike Donnelly

Introduction

3.12.1 The excavation produced 159 pieces of struck flint and 94 fragments of burnt unworked flint weighing 467g (Table 19). A large proportion of the assemblage was made up of very poorly worked flake technology alongside quite expedient tools that are probably middle–late Bronze Age in date but could also conceivably be Iron Age flintwork given the lack of later Bronze Age activity at the site. There was also a very limited early prehistoric component that included some blades, specialist core dressing flakes and some tools, including one heavily backed blade of potential late Upper Palaeolithic date although an early Mesolithic date is also possible. The bulk of the flintwork was dispersed across numerous contexts with an average of around two flints per flint-bearing context, which strongly suggests a largely residual assemblage or one in which there was no clear focus to the flint-related activity.

Methodology

3.12.2 The artefacts were catalogued according to OA South's standard system of broad artefact/debitage type (Anderson-Whymark 2013; Bradley 1999), general condition noted, and dating was attempted where possible. The assemblage was catalogued directly onto an Open Office spreadsheet. During the assessment, additional information on condition (rolled, abraded, fresh and degree of cortication), and state of the artefact (burnt, broken, or visibly utilised) was also recorded. Retouched pieces were classified according to standard morphological descriptions (eg Bamford 1985, 72–7; Healy 1988, 48–9; Bradley 1999). Technological attribute analysis was initially undertaken and included the recording of butt and termination type (Inizan *et al*. 1999), flake type (Harding 1990), hammer mode (Onhuma and Bergman 1982), and the presence of platform-edge abrasion.

Provenance

3.12.3 A significant component of the assemblage was recovered from ditches (64.78%), either from ring ditches (35.22%) or from linear boundaries (29.56%) (Table 20). Pits contained the third-largest component at 43 pieces (27.04%) and there was a small number of flints found in a posthole that included some key pieces (5.66%). The remainder were recovered from the fill (1272) of a pot placed in pit 1271 (3.14%, all sieved and heavily burnt chips), a corndryer (3.14%), a waterhole (1.26%), a well (0.63%) and a sunken-featured building (0.63%). No flints were found in either the topsoil or subsoil. These figures represent a relatively even spread over the archaeological remains but there does appear to be a noticeable increase in flint recovery from pits and postholes.

3.12.4 Most of the contexts containing flint contained a single piece or had two pieces (Table 21). Only three contexts had more than five flints, two had six and one had seven pieces, but all seven were sieved chips, a pattern that holds true for several of the contexts with five flints. Pit 1247 (fill 1245) was located at the south-western edge of site and contained six pieces, while pit 205 (fill 206) at the opposite north-west corner of the site also had six, two of which were recovered via sampling but lacked any fine-sieved material. Both features appeared to have later prehistoric flintwork that could have been contemporary, and there were several other potentially later assemblages scattered over the site. Early activity was generally limited to just one piece per context and there was a very strong likelihood that they were all residual. However, pit 105 (fill 106) contained three flints, all blade forms that were also in relatively good condition and could possibly represent an early feature (Fig. 36 no. 3). Posthole 1157, located in the north-east corner of the site close to several unexcavated postholes, contained one heavy-backed blade segment of probable early Mesolithic or late Upper Palaeolithic date (Fig. 36 no. 1).

Raw material and condition

3.12.5 Exactly two-thirds of the worked flint exhibited cortex (66.67%, 84/126), most of which was chalk flint (fresh chalk = 67.86% and weathered chalk = 13.10%) (Table 22). The next commonest type was thermal examples (11.90%) followed by minimal amounts that either had thin weathered surfaces (4.76%) or were rolled (2.38%). Many of the pieces with thick chalk cortex also had thermal surfaces but the dominant cortex type has been counted in each case. Overall, this suggests the presence of material recovered from on or near chalk bedrock with minimal use of Thames gravel deposits.

3.12.6 The assemblage was in good condition with over 90% of the flints either being fresh (52.53%) or with low levels of edge damage (41.42%). Moderately damaged pieces accounted for just 3.03% of the assemblage and only2.02% were heavily damaged or rolled. Cortication was typically light with smaller amounts displaying moderate, heavy and no cortication.

The assemblage

3.12.7 The assemblage was clearly flake-based with a very low blade index of just 6.10% (cf Ford 1987), and this was also reflected in the core assemblage where all displayed

flake-reduction scars. However, several tools were formed on blades, and there were several core dressing pieces, such as a core tablet and a crested blade that indicate a limited early prehistoric component. As was mentioned earlier, the cores were all geared towards flake production and the range of forms suggests knapping dated to the Neolithic through to the Bronze Age or even the Iron Age (Humphreys and Young 1999; McLaren 2008).

3.12.8 Hard-hammer technology dominated the assemblage with 54.79% of all bulbs, while indeterminate bulbs came next with 32.88% and there was 12.33% soft-hammer struck pieces. Platforms tended to be plain (50.67%, 38/75) but there were also several faceted/dihedral (13.33%), indeterminate (12.0%), cortical (9.33%) and thermal (8.0%) examples. The faceted and dihedral complex platforms indicate that there was a limited earlier component, perhaps dating to the late Neolithic period when such platforms were common and were often associated with Levallois core reduction. Platform preparation/edge abrasion was rare and occurred on just 5.47% of all surviving proximal platform margins.

3.12.9 Tools forms comprised three denticulates on flake blanks, a knife or heavy denticulate on a flake blank and a piercer on a thermal blank that are all probably later prehistoric in date. Also present were a retouched flake, a heavy-backed fragment and a probable fabricator fragment that were undiagnostic. Finally, some early forms were also present and included a retouched blade, an end truncation on an inner flake (Fig. 36 no. 2) and a backed blade segment. This latter piece had very abrupt left edge backing with inverse backing obliquely along its distal edge. This piece could possibly be some form of atypical microlith or heavy-backed blade of early Mesolithic date but could also conceivably be late Upper Palaeolithic in date. Stray finds of late Upper Palaeolithic date are known from Oxfordshire and include backed pieces and a heavy-blade industry from Drayton cursus (Barclay *et al*. 2003), a Federmesser point from Sutton Courtenay (Donnelly 2016) and long blades from Goring (Allen 1995).

Discussion

3.12.10 This site contained a very dispersed flint assemblage that was typically later prehistoric in character but contained several tools, core forms and related debitage that indicated a much broader date range for the lithics. The earliest activity concerned a very limited number of blades, specialist core debitage (crested blade and core tablet) as well as several tools, most of which had quite broad early prehistoric date ranges. Most importantly, one heavy-backed blade segment was of possible late upper Palaeolithic date and would represent another example for a very rare tool dated to this period that indicates that the Thames was probably a favoured routeway into the interior of England during the late Pleistocene period. The quantity of the early material is limited, and it probably represented a very transient group or groups.

3.12.11 The flintwork also displayed a moderate number of complex platforms such as dihedral and faceted examples. These tend to have a restricted date range similar to the early tools forms, but also including the later Neolithic period, where such platforms are often a direct result of the use of Levallois core technologies. One such core was also present in the assemblage and it is very likely that a part of the flint

industry relates to another phase of quite minimal flint-related activity during the late Neolithic.

3.12.12 The bulk of the flintwork is later prehistoric in character and while this may relate to a now heavily disturbed middle–late Bronze Age component resulting in the dispersed and largely residual spread of flintwork we have observed (cf Humphrey and Young 1999; Saville 1981), the possibility also remains that the flints relate to very expedient use of flint in the Iron Age (McLaren 2008) and recent investigations at Iron Age sites in Oxfordshire have highlighted probable Iron Age knapping events (Donnelly 2016). While the scale of the flint industry is limited, the presence of cores and tool forms suggests that the flintwork amounted to more than just the ad-hoc creation of cutting tools whenever the need arose. Moreover, the fact that several of the tool forms would have been suited to butchery tasks and carcass preparation/sinew extraction (denticulates) and possibly hide-working (although the lack of scrapers would argue against this) is of note and may indicate that the processing of livestock was practised here at that time. This component of the assemblage included the two larger pit assemblages: 205 in the north-west and 1245 in the south-east. In addition to this, a moderate assemblage was also recovered from ring ditch groups 474 and 1606/1634 suggesting flint use associated with those structures; both contained tools such as a knife and denticulates that probably related to butchery.

4 ORGANIC REMAINS

4.1 Human skeletal remains

by Lauren McIntyre

Introduction

4.1.1 Articulated skeleton 1196 was located in the north-east corner of earliest/early Iron Age pit 1194. It was placed halfway up in the single fill of the pit. Radiocarbon analysis of the skeleton dated the individual to the 4th–3rd century cal BC (see section 2.5.11 and Table 1). Unburnt disarticulated bone was also recovered from pit 1194. The skull of a child, fragments from an adult skull, and some burnt bones were recovered from the fill (1213) of late Roman corndryer 1206.

Methodology

4.1.2 Recording of the articulated human remains was undertaken with reference to Brickley and McKinley (2004) and Mitchell and Brickley (2017). The articulated skeleton was assessed in terms of bone surface condition: grade 0–5+ (after McKinley 2004, 16), completeness (0–25%, 26–50%, 51–75%, 76–100%) and fragmentation ('low', <25% of the skeleton fragmented, 'medium', 25–75% of the skeleton fragmented, or 'high', >75% fragmented). Age was estimated using relevant standards (eg Scheuer and Black 2000). It was not possible to estimate the sex or stature of any of the adult skeletons because of insufficient sexually dimorphic bones (ie skull and pelvis) or complete long bones. The presence/absence of non-metric traits was scored for adults with reference to Berry and Berry (1967) and Finnegan (1978). In addition, they were recorded when they were observed as present in juvenile remains. Pathological lesions were recorded with reference to standard texts (eg Aufderheide and Rodríguez-Martín 1998; Ortner 2019).

4.1.3 Disarticulated bone was also analysed using the above methods. The minimum number of individuals (MNI) was determined based on the presence/absence of repeated skeletal elements, on the comparative size of bones (ie adult versus juvenile size), and presence of fully mature versus unfused skeletal elements (McKinley 2004, 14–17; O'Connell 2004, 18). Observations pertaining to age, sex, non-metric traits and pathology were made where possible. No evidence of peri- or post-mortem anthropogenic modification was observed.

Inhumation 1196

4.1.4 Skeleton 1196 was approximately 20% complete. Fragments of bone from the skull, right arm, torso, and left and right legs were present. Bone surface condition was scored as grade 1 (slight and patchy surface erosion) and fragmentation was low.

4.1.5 The individual was a neonate, no more than a month old (Table 23), based upon epiphyseal fusion, the maximum lengths of the right clavicle, right ulna and left and right tibiae, and dental development. A total of five unerupted, deciduous teeth and eight tooth positions/sockets were present. No dental pathology was present.

4.1.6 Small, subtle fibre bone deposits (endocranial lesions) were observed on the interior surface of the frontal bone (Lewis 2018, 141). Endocranial deposits typically follow the areas of venous drainage and their presence is suggestive of disruption of this system. Other possible causes include inflammation and/or haemorrhage of the meninges (the fibrous membrane layers that separate the cranial vault), tumour or ossification of a subdural haematoma (ibid., 142). Other conditions that may cause inflammation and/or haemorrhage of the meningeal vessels include scurvy, rickets, anaemia and chronic meningitis (Kreutz *et al*. 1995; Schultz 2001; Lewis 2018, 143). However, it should also be noted that in very young individuals, new bone can form on the endocranial surface during normal growth (eg intramembranous ossification), and this can be difficult to distinguish from pathological lesions (Lewis 2018, 144–5).

4.1.7 New bone formation and slight abnormal increased porosity was observed on one small fragment of the sphenoid, and porosity on the superior/lingual side of the ascending ramus of the left mandible. New bone formation and porosity in these locations can occur as a result of scurvy caused by vitamin-C deficiency (Brickley and Ives 2008, 57). The most common period for children to be affected by scurvy is between eight and ten months of age, but it can occur at other ages (Ortner 2003, 384). The endocranial lesions described above may also occur because of scurvy, secondary to tearing or inflammation of the meninges (Lewis 2018, 217). However, the presence of such lesions is not pathognomic to scurvy and the presence of multiple features is required for a firm diagnosis, as they may also occur in other diseases and conditions (ibid., 216–7).

Unburnt disarticulated bone

4.1.8 Disarticulated human bone belonging to at least three people was found in earliest/early Iron Age pit 1194 and late Roman corndryer 1206 (Table 24). Disarticulated rib fragments found in pit 1194 were checked against skeleton 1196, which came from the same feature, though these were too large and instead belonged to a second, slightly older, juvenile.

4.1.9 Layer 1213 in the late Roman corndryer contained two fragments of adult parietal bone and the cranium of a juvenile. the latter was aged based on dental eruption timing a 5–7 years.

Burnt bone

4.1.10 Burnt bone was also recovered from the corndryer layer 1213. This comprised 0.2g of white, fully calcined bone; however, the fragment could not be positively identified as human or animal.

Discussion

4.1.11 Neonate 1196 was the only articulating human burial found and was dated by radiocarbon analysis to the 4th–3rd century cal BC. This individual showed evidence for pathological lesions that were indicators of possible metabolic disease (vitamin-C deficiency). Scurvy normally occurs in infants between the ages of eight and 11 months (Brickley and Ives 2006), with clinical manifestations appearing after the child has

lacked vitamin C for around 2–4 months (Tamura *et al*. 2000). The younger age of the Crab Hill infant suggests that the baby may have had a nutrient deficient mother, thus its dietary deficiency started *in-utero* (cf Lewis 2010, 413). However, the observed cranial lesions were very subtle, and as the individual was so young, the possibility that these resulted from normal (non-pathological) growth cannot be discounted.

4.1.12 The presence of human remains in Iron Age pits is not unusual. Fragmentary disarticulated remains of this date were discovered in storage pits at sites such as Danebury and Suddern Farm, Hampshire, and have been interpreted as the result of sub-aerial exposure of corpses in naturally silting pits, with selective retrieval of body parts for secondary burial or other treatment/distribution before complete decomposition had taken place (Booth and Madgwick 2016, 23). Juvenile remains are also found within both pit fills during the Iron Age (eg at Gussage All Saints, Dorset).

4.1.13 The presence of a disarticulated juvenile skull found within late Roman corndryer 1206 has several parallels at other Romano-British sites, though these usually comprise inhumation burials rather than disarticulated bones. Examples include both juvenile and adult individuals interred within or close to corndryers (eg Scott 1990; 1991; Pearce 2013, 94). These include a mid-4th/early 5th century burial in the stokehole of a corndryer at Welton Wold in Humberside (Wilson 1973), a late 4th/early 5th century burial in a slab-lined grave constructed inside a corndryer at Biglis, South Glamorgan (Robinson 1988, 30), and two adult inhumation burials aligned on the north wall of a 4th century corndryer at Choseley Farm, Hampshire (Pearce 2013, 94). In some of these cases it is unclear how long the corndryers had been out of use before deposition of the burial. Pearce (ibid., 102–3) describes how the association of inhumation burials with corndryers may be seen within the context of an association between the persons and craft/industrial activities. However, it is difficult to know whether the skulls found in the Crab Hill corndryer were deliberately placed or were disturbed from elsewhere.

4.2 Animal bones

by Lee Broderick

Introduction

4.2.1 The excavation produced 6,791 specimens of animal bone. Preservation at the site was generally good. Although highly fragmented, surface weathering was moderate. The majority of specimens were retrieved through hand-collection, though environmental samples were taken and sieved at 10mm, 4mm, 2mm and 0.5mm fractions. Environmental samples contributed 130 specimens to the assemblage.

Methods

4.2.2 Identifications were made with the aid of standard reference guides and the OA skeletal reference collection, using a diagnostic zone system or recording parts of elements present (Serjeantson 1996). Material recovered from the environmental samples was recorded using the same system only when the specimens were identifiable, ie small unidentifiable fragments were not entered into the database.

Late Bronze Age

4.2.3 Just four specimens were recovered from this phase at the site. These included an almost-complete cattle scapula from posthole 291 and a sheep/goat lower third molar from pit 511.

Iron Age

4.2.4 Over half of the assemblage (57.4% of hand-collected specimens) derives from Iron Age features. This includes several features that could not be dated any more precisely than to the early/middle Iron Age. In general, this material follows the pattern prevalent through all phases at the site, with a dominance of sheep/goats followed by cattle.

Earliest Iron Age

4.2.5 Sheep/goat are the most common species in this phase, with pig and cattle remains also present (Table 25). This is the only phase in which cattle is not the second-most common species by NISP. Three are of sheep as opposed to goat which are absent. Dogs also appear to be present as evidenced by six gnawed animal bones.

Early Iron Age

4.2.6 This is the first phase for which there is definite evidence of horse, though some specimens were also identified among the earliest/early iron Age material. Cattle, pig and sheep were all present, along with dog, which is represented by a single ulna specimen from the ditch of roundhouse 164.

4.2.7 Among the environmental samples, a small eagle coracoid was recovered from pit 1050 (Table 26). Morphologically, this is similar to white-tailed eagle (*Haliaeetus albicilla*) and unlike Britain's only other native, the golden eagle (*Aquila chrysaetos*). However, it appears to be rather small for both species. The morphological definition on the bone is not sharp and it could be from a juvenile bird. If so, this would suggest that there was a nest in the vicinity at this time. It is possible that these impressive birds may have been a focus for ritual practices. Iron Age eagle bones have been discovered at Fenny Lock, Milton Keynes, Buckinghamshire (Ford *et al*. 2001) and at Puckeridge/Braughing, Hertfordshire (Ashdown 1979). The last site featured a wing bones with butchery marks. A focus on wing bones may also suggest exploitation of the feathers (Holmes 2018). Eagle specimens are a rare find with currently just 13 specimens recovered from Iron Age sites in Britain (ibid.).

Middle Iron Age

4.2.8 The middle Iron Age assemblage is the largest from a single phase, including 266 sheep/goat specimens and 187 of cattle. Twenty-nine of the sheep/goat specimens are sheep, while no specimens of goat were identified. As in the preceding phase, pig, horse and dog are also present, as are two fox bones. Fox specimens are relatively rare on archaeological sites (cf Fairnell 2003, 41). Although totemic uses cannot be ruled out, nor pest-culling, interpretation has usually focused on the exploitation of fox fur (ibid.).

Late Iron Age

4.2.9 The relative frequency of sheep/goats reduces in this phase, while pig bones become more common. These species, along with cattle and horse, continue to be present in this phase. A red deer first phalanx was recovered from cut 339 of circular enclosure ditch 474. The proximal epiphysis of the bone was fusing suggesting that the animal was in its second year when it died.

Roman-British

Early Roman

4.2.10 Cattle, sheep/goat, pig, horse and dog bones are all present in the early Roman phase.

Middle Roman

4.2.11 The middle Roman assemblage is the second largest phased group. In addition to the main domestic mammals, this is the first phase for which there is evidence of chicken, while goose is also represented by a single specimen. The goose specimen is part of a tibiotarsus from a juvenile bird. It is possible that geese were being raised at the site, though this young wetland fowl may equally have been caught nearby. Red deer is represented by a single fragment of worked antler.

Late Roman

4.2.12 The late Roman phase is the last substantial phase of occupation on the site and it is the most different from the other phases in terms of the animal bone assemblage. Cattle are the most common species by NISP. There is a corresponding reduction in the proportion of sheep/goat specimens and the number of bird specimens increases.

4.2.13 All the species present in the middle Roman phase are present in this late Roman group, and these are joined by cat, represented by four skull fragments from pit 919, all probably from the same animal. Most of the bird specimens were also recovered from pit 919, including 13 of the 19 chicken, goose and duck specimens. Six chicken bones were recovered via an environmental sample from this pit, suggesting that the concentration cannot be entirely attributed to excavator bias. Ditch 1632 (cut 744) produced a crow/rook carpometacarpus, a woodcock carpometacarpus and a probable lapwing ulna, in addition to two chicken specimens and a goose tibiotarsus. The woodcock and lapwing specimens undoubtedly represent food waste and demonstrate that wildfowling played a minor role in local activities. The crow/rook specimen could well be the chance inclusion of a scavenger but, given its association with the other bird bones, the possibility that it also represents food waste must be considered.

Anglo-Saxon

4.2.14 SFB 1191 produced 39 animal bone specimens, including six from sieved samples. Many of these were small unidentifiable fragments. Sheep/goat bones accounted for 12 specimens, including skull, mandibles, radius, ulna, tibia, patella, calcaneus and metapodial fragments. The calcaneus had been chopped. Cattle bones were accounted for by tooth, pelvis, 2nd and 3rd phalanx fragments. A single chicken humerus was found, while the remaining specimens identified to species were from mice and voles.

Later medieval

4.2.15 Animal bones were lacking from later medieval features. Of over 40 fragments, only two were identified to species. These included a sheep/goat femur and a pig tibia.

Discussion

4.2.16 The principle point of interest from animal bone assemblage is the similarity in species proportions between the Iron Age and Romano-British phases. This perhaps suggests that patterns of livestock exploitation remained fairly consistent throughout the period. Sheep were commonly the mainstay of the economy in Iron Age Britain (Albarella 2007), with domestic cattle becoming more common in the Roman period (King, 1999). Here, that transition from sheep to cattle seems to have been slow to take place, with sheep/goats remaining by far the most common species until the late Roman phase when cattle became more dominant.

4.2.17 The assemblage is notable for the few wild animals that are present. These include the coracoid of a probable white-tailed Eagle, which is the earliest record of this bird in Oxfordshire, as well as fox and red deer.

4.3 Fish bones

by Rebecca Nicholson

Introduction and methodology

4.3.1 A small number of fish bones were recovered exclusively from the residues of processed soil samples, all of which were sieved to 0.5mm, dried and sorted to 2mm. The fish remains came entirely from Roman features. These included sample 3 from middle Roman ditch fill 316, sample 15 from late Roman ditch fill 522, sample 23 from late Roman ditch fill 745, sample 26 from late Roman pit fill 923, sample 41 from middle Roman ditch fill 1131, and sample 59 from late Roman well fill 1465. Identifications were made with the aid of the author's fish bone reference collection and fish sizes, where given, were made by comparison with bones from fish of known size.

The assemblage

4.3.2 The bones are in good condition and include both freshwater fish and seafish (Table 28). The only fish bones from middle Roman contexts are three eel (*Anguilla anguilla*) vertebrae from ditch fills 316 and 1131, all from juvenile fish likely to have lived in nearby rivers or ponds. With such scant evidence, the catching and consumption of fish cannot be demonstrated, since these bones could have come from fish that entered the feature naturally, as eels can travel through wet grass (Phillips and Rix 1985, 122), or be dropped by fish-eating birds.

4.3.3 By contrast, the small assemblage from late Roman features includes bones from fish that must have been brought to the site. They include clupeids (probably herring, *Clupea harengus*) which must have come from the coast, probably as salted and/or dried fish. The two bones from ditch fill 745 come from individuals of different size. Pit fill 923 contained bones from flatfish. These included three vertebrae and a frontal

bone consistent with flounder *Platichthys flesus* of a total fish length of 25–30cm, while a single posterior caudal vertebra is from a different flatfish species, probably plaice (*Pleuronectes platessa*). Although classified as a seafish, flounders can tolerate freshwater and often frequent brackish-water estuaries. They can even be found in freshwater rivers where there is easy connection to the sea (Phillips and Rix 1985, 132), but in this case flounder is most likely to have been brought to this inland site as salted fish together with the other flatfish. A small salmonid from the same pit fill may be brown trout (*Salmo trutta* morpha *fario*) or juvenile salmon (*Salmo salar*). Trout are likely to have been available in the chalk streams to the south of Wantage, such as the River Lambourn, a tributary of the River Kennet. Some freshwater fishing is clearly indicated by the presence of perch (*Perca fluviatilis*) in ditch fill 522, in this case from a fish of around 25–30cm long.

Discussion

4.3.4 Fish remains are still an uncommon find on Roman rural sites, particularly those situated far inland as is the case here (Locker 2007). This scarcity cannot be entirely explained by the collection method, since sieving is now conducted as a matter of routine on archaeological sites. Nevertheless, the fact that all the bones found at Crab Hill were recovered by sieving and careful sorting down to 2mm shows the importance of this methodology for recovering small and scarce remains. Fish would have appeared absent from the site if only hand-collection during excavation had been employed.

4.3.5 Typically, as is the case at Crab Hill, where fish are recorded from Roman rural settlement sites the assemblages comprise small numbers of freshwater fish remains, usually dominated by the catadromous eel, but also sometimes with small numbers of flatfish or herring bones (ibid.). A similar suite of bones was recovered from Roman contexts at Berryfields near Aylesbury (Nicholson 2019) and Great Western Park, Didcot, Oxfordshire (Nicholson forthcoming a) as well as at Longdoles Field, Claydon Pike, Oxfordshire (Miles *et al*. 2007, 355) and Barton Court Farm, Abingdon (Wheeler 1984), although at these two sites only freshwater fish were recovered from the Roman contexts. It seems likely that small-scale fishing in local rivers and streams was practised and occasional purchases of seafish made, perhaps from local markets or from travelling salesmen. Although it has been proposed that tanks associated with the late Roman villa at Claydon Pike may have been used for keeping fish, for curing perhaps 'on a commercial basis' (Miles *et al*. 2007, 210) there was, in fact, no actual evidence of fish in the bone assemblage from that site. From the fishbone evidence at Crab Hill and elsewhere, it seems likely that in the middle and later Roman period, at inland settlement sites fish would have made only a very occasional meal.

4.4 Marine shells

by Rebecca Nicholson

Introduction and methodology

4.4.1 A small collection of marine shell was recovered by hand and from the residues of sieved soil samples, which were sorted to 2mm. The shell came from late Roman ditch

fills 549, 580 and 745, late Roman pit fill 923, late Roman well fill 1319 and late Roman corndryer fills 1449 and 1452. Shells were quantified by the number of hinges and brief notes made on condition.

The assemblage

4.4.2 Most of the shell is European flat oyster (*Ostrea edulis* L.), with occasional fragments of mussel, probably *Mytilus edulis* L., present only in sample 26, from pit fill 923 (Table 29). The shell is in variable condition, in some cases being extremely degraded and flaky (especially in fill 580) while in other deposits the shell is in good or fair condition and shells are largely complete. The shells from the corndryer fills show no evidence of heating so it is likely that they were included with general backfill material.

4.4.3 Most of the oyster valves are of the rounded shape typical of the species when grown in managed beds, free from excessive over-crowding, but with such a small number of shells such an interpretation is clearly very tentative. Shell size is variable.

4.4.4 Probably due in part to the poor condition of many of the shells, there is evidence of epibont encrustation and damage from polychaete worms is limited to two valves: a right valve from (923) has clear u-shaped tunnels to the margin and exterior of the shell, similar to those of the bristleworm *Polydora hoplura* Claparède (illustrated by Winder 2011) and there is also possible evidence for this worm from a tunnel on the interior margin of a left valve from fill 1452. Another left valve from that context exhibits several gastropod boreholes while the right valve has a single gastropod borehole as well as a clear opening notch at the margin opposite the hinge, indicating that the shellfish was prised open while still alive.

Discussion

4.4.5 The deposits that contained marine shells are all late Roman, which may indicate that at this time the occupants of the settlement could be considered to be 'Romanised' at least in part since the transport to, and consumption of, shellfish at sites away from the immediate coastal region appears to have been a Roman-period innovation in England. Oysters can be kept alive for over a week if stored in cool and damp conditions (Winder 1985), perhaps transported in brine or packed in damp seaweed, and it is likely that mussels were similarly packed and transported alive in the shell. Nevertheless, their consumption can be considered to be a luxury since the costs involved in transporting this relatively bulky item would have been considerable, yet the calorific value of the meat within is low. The presence of *Polydora hoplura* may indicate an origin for the shellfish in or around the Solent or further west, since in Britain occurrences of this worm appear to be largely restricted to the warmer waters around the south-west coast (Winder 1985) although it is now a world-wide oyster pest.

4.4.6 Shellfish, especially oysters, have been recovered from a number of Roman sites in the region including at Claydon Pike in deposits dating to the 2nd–3rd century associated with a villa (Miles *et al*. 2007, 104), and at Great Western Park, Didcot (Nicholson forthcoming b) where again the shell came from features that are likely to have been associated with a villa complex. Oyster shells recovered from late Roman deposits at

sites such as Gill Mill, Oxfordshire (Nicholson 2018) are, however, less clearly associated with 'high-status' occupants.

4.5 Charred plant remains

by Sharon Cook

Introduction

4.5.1 Sixty-five bulk samples ranging in size from 1–40 litres, representing a range of feature types and phases across the excavated area, were processed primarily for the retrieval of charred plant remains, small bones and artefacts. Typically, samples were 30–40 litres, with smaller samples usually coming from small features such as postholes. After initial assessment, 22 flots were selected for analysis, all from features dating to the Iron Age, Roman and Saxon periods.

Method

4.5.2 The bulk samples were processed in their entirety using a modified Siraf-type water flotation machine to 250µm (flot) and 500µm mesh (residue). The residue fractions were sorted by eye and all bones and artefacts were removed while the flot material was sorted using a low power (x10) binocular microscope to extract cereal grains and chaff, smaller seeds and other quantifiable remains.

4.5.3 Identifications were carried out using standard morphological criteria for the cereals (Jacomet 2006) and with reference to the Digital Seed Atlas of the Netherlands (Cappers *et al*. 2006) for the identification of wild plant remains, as well as comparison with modern reference material. Classification and nomenclature of plant material follows Stace (2010).

4.5.4 Cereal grains and the seeds of wild plants were only quantified for items of which more than half was observed, allowing for basic counts to be used to identify the minimum number of individual (MNI) grains or seeds. Seeds of vetches (*Vicia/Lathyrus*) are the exception in that their easily recognisable structures have enabled fragments to be quantified although these are always recorded as such. For chaff, awns and nutshell fragments the count considered all observed fragments, and therefore do represent the MNI.

4.5.5 Several flots were riffled prior to analysis due to their size and relative richness, following van der Veen and Fieller (1982) to produce a more manageable assemblage.

The assemblages

4.5.6 The condition of the charred material is variable with some samples including very well-preserved plant remains, while in other samples the material is in poor condition and highly fragmented. Overall, the Roman charred plant remains are in better condition than those from the Iron Age; while the Iron Age grain frequently appears 'clinkered', the Roman grain is often well preserved, especially within samples 23 and 46. Where charcoal is present it is generally small and highly fragmented, and hence has not been the subject of detailed study.

4.5.7 Samples from the Roman period include examples of sprouted grains and several features also contain silicified plant remains including fragments such as wheat awns, which are particularly fragile and rarely survive within archaeological deposits. The Saxon period is represented by two samples from SFB 1191, which contained charred plant remains in a similar condition to samples from nearby Iron Age features.

4.5.8 Most of the identifiable cereal grains in each phase are wheat (*Triticum* sp.) and these typically appear to be spelt (*Triticum spelta*), although there is some variation in grain shape and size. All identifiable glume bases also appear to be from spelt, although several of the smaller fragments are indeterminate and may be from emmer (*T. dicoccum*). However, no certain identification of emmer wheat has been made. Small numbers of barley grains (*Hordeum* sp.) are also present but they never dominate any sample, nor are they present in quantities to indicate that barley was a major crop. Positively identified grain have the characteristics indicative of six-rowed hulled barley (*Hordeum vulgare*) with asymmetrical boat-shaped grains and a shallow v-shaped ventral furrow. Where grains have been classified as indeterminate, they are largely so badly damaged that the original shape is obscured, although the majority are of a shape and size suggestive of wheat or barley.

4.5.9 Oat (*Avena* sp.) and oat/brome (*Avena/Bromus*) are present in small quantities in each phase and are likely to represent crop weeds. The exception to this pattern comes from samples taken from the rake-out pits of corndryer 1206 (discussed below), though where oat has been identified, it is not possible to determine whether they are cultivated or wild types as none of the diagnostic floret bases are present.

Early Iron Age

4.5.10 Two early Iron Age samples were selected for analysis, both from the single fills of pits (1050 and 1194). Although found in different parts of the site, the flots are very similar in composition (Table 30). The two samples contain a relatively low quantity of cereal grain with a larger amount of chaff and some wild plant seeds. The charred plant remains are generally fragmented and have a clinkered appearance shared by all the plant remains from Iron Age features. For this reason, certain fragments, such as rachis fragments, have not been identified to species as too many of the distinguishing characteristics used for identification are missing or badly damaged. It would appear, however, that the main type of cereal in these samples is spelt wheat (*Triticum spelta*).

4.5.11 The mixture of relatively low quantities of grain with chaff and wild plant seeds is typical of samples from Iron Age sites in England (van der Veen 1992). This is usually interpreted as waste from crop-processing with small numbers of grain representing accidental inclusions from sieving of the chaff and weed seeds. The wild plant seeds are from plants which are cornfield weeds or commonly found growing at field margins, including cleavers (*Galium aparine*), vetches (mainly *Vicia/Lathyrus*), docks (*Rumex* sp.), medick (*Medicago* sp.), goosefoot (*Chenopodium* sp.), field madder (*Sherardia arvensis*), scentless mayweed (*Tripleurospermum inodorum*) and chickweed (*Stellaria media*) as well as grasses (*Poaceae*). Rushes (*Juncus* sp.) and sedge (*Carex* sp.) are likely to indicate some cultivation of, or collection of plants from, damp ground. Considering the relatively low numbers of seeds and the lack of some

elements of cereal chaff, such as awns, these assemblages may be waste from a later stage of crop-processing.

Middle Iron Age

4.5.12 Samples analysed from middle Iron Age features come from the fills of ring ditch 1635 (sample 24), ring ditch 975 (sample 29), and pit 719 (sample 21). As with the samples from the previous phase, the grain is largely clinkered and seeds from wild flora are generally few. The pit sample includes a higher proportion of waste, such as chaff, than the samples from ditches, which are more likely to include material that gradually accumulated over time. The difference is slight, however, and it is not possible to identify areas of crop-processing activity.

4.5.13 Small quantities of barley (*Hordeum* sp.) are present for the first time in this phase but it is unclear whether these grains represent a secondary crop or the remains of weeds. It is possible that these are residual crop contaminants from previous harvests, but there are only a small number of grains and there is no evidence currently that demonstrates that barley was previously cultivated near the site. It has been suggested (Lodwick 2017) that barley, a free threshing cereal, is less likely than hulled wheat to be in contact with heat during processing and is therefore less likely to be represented within charred assemblages. The same argument holds for oats (*Avena* sp.) which is also present in early and middle Iron Age phases.

4.5.14 The range of wild plant remains is very similar to those in the early Iron Age samples, with those species not previously present (including nightshade *Solanum* sp., daisy family *Asteraceae* and stinking chamomile *Anthemis cotula*) also likely to represent arable weeds.

Late Iron Age

4.5.15 Only one late Iron Age sample was worthy of further consideration, largely owing to the paucity of features in this phase. The sample analysed came from waterhole 995 (sample 32). Although no waterlogged plant remains were present, the sample did contain charred plant remains which are likely to have been part of a gradual build-up of material over time rather than a single deposit. The condition of the charred assemblage is very similar to that in other Iron Age features.

4.5.16 As in the preceding phases, the sample contains a small number of cereal grains, mainly of wheat with occasional possible barley. The identifiable glume bases are all spelt, and a very small number of oat grains and awns are present. Far fewer seeds from wild plants are present but these include taxa identified in the earlier phases.

Early Roman

4.5.17 Sample 18 came from pit 577 (Table 31). While also fragmented, the grain from this feature has a less clinkered appearance than the material from Iron Age samples, although the quantities and the species represented remain broadly similar. Small quantities of silicified wheat awns and occasional fragments of fuel-ash slag are present although in low quantities.

Middle Roman

4.5.18 Sample 53 from fill 1269 in the centre of the flue of corndryer 1240 proved to be extremely rich in cereal chaff, including large numbers of glume-base fragments, coleoptiles and silicified wheat/barley awns. All the identified glume bases are spelt and all or most of the wheat grain is also likely to be spelt. Rare examples of barley and oats were identified, and fuel-ash slag was also common in the sample. While the grain is generally badly damaged, some grains show evidence of sprouting in the form of coleoptile grooves across the surface of the grains. The very few wild-plant seeds include small legumes, dock, goosefoot, cleavers, scentless mayweed and stinking chamomile as well as grasses and a single rush seed. The large quantity of charred remains within this deposit is likely to reflect multiple uses of the corndryer allowing a build-up of ash and fine debris, rather than a single deposit. Sample 54, which was taken from just above the base of corn-dryer 1240 (context 1329) and was sealed by deposit 1269, contained very little identifiable charred material. Sample 50, also from deposit 1269, appeared compositionally similar to sample 53 although the general level of preservation was less good and quantities of material lower.

4.5.19 Sample 17 came from the upper fill of enclosure ditch 1617. In terms of taxonomic composition, the small flot contains material consistent with other Roman samples from the site. While the grain is damaged it is typically less clinkered than the Iron Age examples, and wild-plant seeds are rare.

Late Roman

4.5.20 The majority of the Roman samples came from late Roman contexts. Samples 15, 23 and 28 all originate from different interventions into ditch 1632. Samples 26 and 52 are from pit fills in the north-eastern corner of Enclosure A (pits 919 and 1307), and sample 59 is from the upper fill of well 1463.

Enclosure ditch 1632

4.5.21 Samples from this feature were relatively rich in charred material. Spelt wheat dominated the cereals and the condition of the grain is generally good, although distortion caused by burning and fragmentation has affected identification there is little clinkering of the grain. While superficially similar in terms of taxonomic composition, the samples from this ditch are likely to derive from separate deposition events. Sample 15 was located only a small distance away from sample 23 yet produced a smaller flot containing a smaller quantity of grain. However, glume bases from sample 15 are generally less fragmentary than those in sample 23 and coleoptile fragments are common, while sample 23 contains large numbers of non-sprouting embryos and few coleoptile fragments.

4.5.22 The flot from sample 28, from the western end of the ditch, contains large quantities of grain but very few glume base fragments, possibly indicating an assemblage that had been dehusked. It contained many coleoptile fragments as well as silicified awns suggesting the deposit was of mixed origin. It is likely that at least some of this was dumped waste from a corndryer. All three samples contain some wild-plant seeds, with samples 15 and 23 being particularly rich in stinking mayweed (*Anthemis cotula*), although other taxa not previously seen on the site are also present in small numbers

including poppy (*Papaver* sp.) and corncockle (*Agrostemma githago*). These are also likely to be crop contaminants.

Pits 919 and 1307

4.5.23 Sample 26 from pit 919 contains a high ratio of grain to glume, similar to sample 28 in ditch 1632. The large concentration of silicified awns again suggests a corndryer as the source of material. This flot contains one of the largest and most varied wild-plant assemblages from the site. Grass seeds are especially common, and the variety of plants shows that a diverse landscape was being exploited. Plants often found on heavy clay soils, such as *Anthemis cotula*, are frequent as well as grasses, oxeye daisies (*Leucanthemum vulgare*), field gromwell (*Lithospermum arvense*) and hawkbit (*Leontodon* sp.), which prefer dryer grasslands. Plants such as sedges (*Carex* sp.) which prefer damp conditions and wasteland plants such as docks (*Rumex* sp.) and thistles (*Cirsium/Carduus*) may also occur due to expansion of arable onto previously uncultivated land. This expansion is particularly noticeable from the presence of stinking chamomile (*Anthemis cotula*) which becomes the most common single plant represented within the Roman assemblages. This can be explained by the expansion of cultivation beyond the well-drained silty soils of the Lower Chalk to the clay soils found further north.

4.5.24 While most flots contained little charcoal, sample 52 from pit 1307 is one of the few that can be described as charcoal rich. The lower volume of other material is therefore more a reflection of the increased proportion of charcoal than a paucity of other plant remains. The lack of silicified plant material may be significant when compared to pit 919, which is relatively close.

Wells 1463 and 1304

4.5.25 Sample 59 is from the upper fill of well 1463. There is no waterlogging at this level and therefore the only plant remains present are charred. While small amounts of fuel-ash slag are present there is no sign of the silicified plant remains that accompany it in other features at the site. Numbers of grains and seeds are generally low, but chaff is common with glume-base fragments and coleoptiles well represented. As with other Roman samples, *Anthemis cotula* is the most commonly represented wild-plant species. Sample 55 from well 1304 contains similar material although in smaller quantities and less well preserved.

Corndryers 1206 and 1447

4.5.26 Three samples (46, 47 and 48) were retrieved from corndryer 1206. All three were analysed though owing to the large volume of the flots, each was riffled, and fractions were sorted (Table 32). Sample 48 came from the main fill of the corndryer structure, while 46 and 47 came from the fills of the rake-out pit. The frequency of glume bases is less than that found in corndryer 1240, though this may be due to the frequency of cleaning-out and/or the period of usage. The large quantity of grain is likely to be the result of repeated use of the corndryer, and it is noticeable that the grain from the rake-out pit is in much better condition than that from within the flue. This suggests that the grain may have been through multiple firings.

4.5.27 The presence of chaff and other waste materials is usual in Roman corndryers, as chaff was regularly utilised as fuel (van der Veen 2007; Lodwick 2017). However, in contrast to the evidence from corndryers 1240 and 1447 (see below), there are very sprouted grains in the form of coleoptiles or scarred and collapsed grains. Silicified awns and fuel-ash slag are present in all three samples though in fairly small quantities. Wild-plant taxa follow the general pattern for the Roman phases.

4.5.28 Two samples taken from corndryer 1447 comprised similar material to one another, though sample 56 from the stokehole contains a much larger and richer assemblage. Fuel-ash slag and silicified plant material are present in large amounts in both samples. While coleoptiles are rarer in sample 57, the number of grains with evidence of sprouting is similar in both samples (*c* 30% in sorted portion). As with other samples from this period, sample 56 contains a range of wild-plant seeds numerically dominated by stinking chamomile (*Anthemis cotula*). This is a regular component of the late Roman samples and is likely to indicate cultivation of heavier, more clay-rich soils in this period (as above, and Lodwick 2018).

Anglo-Saxon

4.5.29 Two samples were taken from the fill of SFB 1191 (Table 33). The condition of the charred material from this phase is similar to that in the Iron Age, with high levels of fragmentation and clinkering. The flots from both samples are small and little charred plant material is present in either. Although sample 42 from the south-west quadrant contained a greater proportion of plant remains than sample 38, the variation is slight.

4.5.30 The degree of damage to the cereal grains has made firm identifications impossible for much of the assemblage and therefore the ratio of wheat to barley grains is hard to determine. While it is usual to find wheat and barley within Saxon deposits, the presence of glume-base fragments, in this case spelt, is much less common. It has long been thought that free-threshing wheats replaced glume wheats during the Saxon period (McKerracher 2018), though there is some variation across the country. Since the SFB cuts the penannular ditch of Iron Age roundhouse 1609 and residual Iron Age and Roman pottery was present within the fill, it is possible that some or all the charred material is earlier in date. However, the proportion of wheat to barley in this feature is lower than elsewhere on the site, where barley is generally very uncommon, so this assemblage is hard to interpret.

Discussion

Iron Age

4.5.31 The charred material from the Iron Age samples follows a pattern considered typical for the Iron Age in southern Britain, composed of a small quantity of grain alongside greater quantities of cereal waste products (chaff) with accompanying seeds from wild plants likely to have been growing alongside the crop (van der Veen 2014). The wild-plant component is reasonably small, which is a probable indicator that much of this material represents the presence of waste from later stages of crop processing after initial cleaning and winnowing has occurred.

4.5.32 It is generally accepted that, in the Iron Age, glumed wheats were customarily stored in the glume and processed in a piecemeal fashion as and when needed (Hillman 1981), and the Crab Hill material certainly reflects this pattern. There is no evidence of any early-stage processing such as straw and the lighter chaff fragments (awns, lemna, palea, etc.) in any of the Iron Age samples. However, material from these earlier stages is more likely to result from activity undertaken off-site with initial cleaning and threshing carried out before storage within the settlement. In addition, such material is far less likely to be burnt, with chaff and straw being used as livestock fodder and bedding and possibly building construction (van der Veen 1999).

4.5.33 The few wild plants represented in Iron Age samples may reflect the fact that some cleaning of the grain, in the form of coarse sieving and winnowing, had already occurred as most seeds present are small, although the presence of culm nodes in three of the Iron Age samples could indicate the presence of straw. It was not until the Roman phases that larger seeds such as corncockle (*Agrostemma githago*) became present in the assemblages. Almost all species are represented by less than five individuals and it is therefore difficult to accurately ascertain the types of soil under cultivation. Iron Age deposits at this site are generally dominated by small numbers of grass seeds, docks, medicks and probable common bird's foot trefoil with occasional other species present in low numbers. Plants that prefer heavy soils, such as *Anthemis cotula* which is so common during the Roman period, are uncommon in Iron Age samples.

Romano-British

4.5.34 Although the site was reorganised in the early Roman period, spelt wheat continued to be the main cereal cultivated. However, other significant changes have been identified. The scale of grain processing clearly increased by the middle Roman phase with the construction and use of the corndryers, and there was a marked increase in the quantities of sprouted grain in several samples. Where samples were rich in coleoptiles, the length of the sprouts tended to be similar with a certain uniformity across several assemblages associated with corndryers, which suggests deliberate attempts to produce malt. The length of the coleoptiles is significant as that found here is usually associated with deliberate sprouting of grain for brewing (Campbell 2017).

4.5.35 Corndryers are generally assumed to have been used to dry glume wheat grains before de-husking but may also be associated with malting (Lodwick 2017). When producing malt, once the grain has sprouted it is heated to stop the germination process during which the starch is converted to fermentable glucose and then to alcohol (Cappers 2018). Although coleoptiles are present in the corndryer samples here, many detached embryos show no sign of sprouting. It has been suggested that accidental sprouting is less likely in grain within the spikelet, and that over 20% of sprouted grains within a deposit is a good indicator of deliberate germination (Parks 2012; Lodwick 2017). Samples 28 and 56 contain around 40% sprouted grains, though sample 28 especially contained a large number that were too badly damaged to identify whether sprouting had occurred.

4.5.36 An increase in the quantity of sprouted grain in Roman-period assemblages has been linked to an increase in the storage of grain in bulk (Lodwick 2017). Glume wheats are

generally assumed to have been stored in the glume (eg Hunter 2016). However, several excavations have produced evidence of the storage of cleaned grains, mainly in urban and military sites (eg Helbæk 1952; Kenward and Williams 1979; Hall and Kenward 1990; van der Veen 1988). In contrast, few rural sites have been found to contain cleaned grain stores (Lodwick 2017), and it is therefore possible that cleaning was more likely to occur with grain meant for transportation to towns rather than that intended for domestic consumption, increasing the likelihood that much of the sprouted grains found here had been deliberately sprouted. It would seem likely therefore that the corndryers were multi-function, being used both for the drying of grain for consumption and for roasting grains after malting (van der Veen 1989).

4.5.37 During the 2nd and 3rd centuries AD, there is evidence from weed-seed flora that an expansion of arable farming occurred. Weeds associated with low soil fertility, such as stinking chamomile, which is associated with heavier clayey soils, increase in frequency during this period. At Crab Hill, the range of weed flora and quantity of weed seeds is notably higher in the Roman samples compared with the Iron Age samples, suggesting expansion of the land taken into cultivation, possibly to increase the crop yield. Although fragments of rotary querns are present in this phase, indicating small-scale domestic processing, the absence of millstones perhaps suggests that much of the grain processed here was exported off-site fairly rapidly.

Anglo-Saxon

4.5.38 Material from the Anglo-Saxon SFB is difficult to interpret, and it is possible that much of it was residual from the Iron Age ditch that this feature cut.

Conclusion

4.5.39 The Iron Age samples are fairly typical for assemblages in this period, often dominated by the by-products of grain de-husking and cleaning, which are deliberately burnt as either fuel or waste (van der Veen 2014). This generally results in assemblages of chaff and weed seeds, with only little grain.

4.5.40 The increase in charred plant remains in the Roman period is consistent with an expansion in the scale of arable cultivation and a more centralised approach to crop-processing. Alongside this, the presence of new types of arable weed, such as *Anthemis cotula* which was particularly common in sample 56, indicates the utilisation of newly cultivated land possibly to increase grain yields. Sprouted grains in some of the Roman samples may be an indication of malting on site, perhaps for subsequent export suggesting that the site was part of a wider agricultural network.

5 DISCUSSION

5.1 Early prehistoric activity

5.1.1 Neither the evaluation or the excavation uncovered any features that predated the late Bronze Age, and only a small number of pieces of worked flint were recovered that dated prior to the later Bronze Age. The absence of middle Bronze Age activity in particular is of note as field-system ditches and more ephemeral settlement remains dating to this period have recently been discovered to the north and south-west of Grove (Brady and Hayden 2017; OA 2019a; 2019b; Brady *et al.* in prep.). However, middle Bronze Age field systems do not appear to have continued up onto the Upper Greensand ridge.

5.1.2 Late Bronze Age finds were discovered both within the excavated area and the wider development site, discovered via evaluation trenches (CA 2012). The late Bronze Age material may have been solely residual in later features, although a few pits, a posthole and a ditch have been tentatively dated to the period. More of the features were in the western part of the development area, with single features in the central and eastern part. Exactly what this activity represents is difficult to understand. Late Bronze Age settlements in the Thames Valley are characterised by small, short-lived unenclosed sites comprising a small number of roundhouses, often just one or two, alongside one or two four-post structures and a limited number of pits and other postholes (Davies 2018a, 21–43). The restricted size and, in particular, the lack of ditches belonging to such settlements mean that they can be easily missed or be represented by just one or two features. It is possible that one or more late Bronze Age settlements were originally present in the development area. Such a settlement might have been partly within the excavated area, but perhaps truncated and obscured by later activity. The pottery and a radiocarbon date suggest that the late Bronze Age activity belongs somewhere within the period *c* 1100–900 BC, so it does not appear to directly precede the Iron Age settlement.

5.2 The Iron Age settlement

Establishment and development

5.2.1 The Iron Age settlement appears to have been established at the beginning of the period, perhaps in the 8th century BC. Elements that are confirmed as very early are limited to a single large post-built roundhouse and a pit, both in the north-western corner of the site. The earliest Iron Age settlement clearly continued beyond the development site into the field to the north. Features dating to the earliest and early Iron Age are fairly scattered and do not have the appearance of a coherent, nucleated settlement. This may in part be due to chronological development as this phase may have covered as much as 450 years, with relatively few of the features confidently assigned a tighter date within this. Nevertheless, there is a clear focus of settlement features in the northern part of the excavated area. The two linear pit groups were positionally separate from the main settlement area in the south-eastern corner of the site, although roundhouses 399 and 1602 were fairly nearby. The linear pit groups were not fully exposed, and they are difficult to interpret.

5.2.2 Domestic activity intensified in the middle Iron Age. More roundhouses dated to this period and there was more pottery compared to the earlier phases, despite the shorter time span, and this may be biased by the greater visibility of middle Iron Age roundhouses, which are more regularly surrounded by ditches compared to those of the early Iron Age (Davies 2018a, 221).

5.2.3 Middle Iron Age settlement was more nucleated than the early Iron Age, concentrating in the north-western part of the site, with houses more likely to be rebuilt on top of or overlapping previous houses, perhaps being direct replacements. This might represent a closer structuring of the appropriation of space within the settlement in the middle Iron Age, perhaps with certain areas inhabited by a household over several generations. The penannular enclosure ditches around the houses may have partly functioned to segregate and separate these households, although there was little evidence for boundaries beyond these to delineate any larger plots.

5.2.4 In common with the earliest/early Iron Age, the settlement clearly extended to the north into the adjacent field though it seems unlikely that this would have extended far. Further signs of settlement possibly exist *c* 300m to the south of Area 1, where geophysical anomalies indicate signs of activity. It is worth pointing out, however, that the geophysics primarily highlighted Roman features, rather than those of Iron Age origin, and it is possible that more Iron Age activity is yet to be discovered there. The evaluation also demonstrated the presence of small numbers of Iron Age features in the western part of the development area.

5.2.5 Compared with earlier phases, the late Iron Age is not well represented, although a circular ditch of similar morphology to the middle Iron Age roundhouses demonstrates some continuity of activity, though the character and function of the site in this phase is difficult to discern.

Finds distributions and house usage

5.2.6 The presence of several recut postholes at the south-eastern entrance to roundhouse 1600, along with the presence of several large pits within the southern part of the building, provides evidence that the deposition of most finds recovered were deliberately deposited in these areas of the house. Outer-entrance posthole 196 produced a significant quantity of pottery consisting of 42 sherds from at least 12 vessels, including bowls, jars and large jars. This was recovered along with the largest quantity of animal bones from a feature associated with this building. Notable collections of pottery were also recovered from pits 205 and 209 and posthole 207, animal bones were recovered from posthole 173 and pit 209, and pit 205 also contained six worked flint tools. Although not fully excavated, it seems likely that there was a concentration of finds within the southern/south-eastern part of the building.

5.2.7 This pattern of deposition has been observed at other earliest/early Iron Age roundhouses, most notably House 3 at Longbridge Deverill Cow Down, Wiltshire (Chadwick Hawkes 1994; 2012, 42–60), Dunston Park, Thatcham, Berkshire (Fitzpatrick 1994; Fitzpatrick *et al*. 1995) and Pimperne, Dorset (Harding *et al*. 1993). It has been argued that this represents an ordering of living space within such houses, reflecting the movement of light from the sun around the inside of the house, thus daytime activities would have been undertaken in the south-western half of the building (food

preparation, weaving, grain processing, potting, etc.), while the north-eastern half was designated for sleeping and storage (Parker Pearson 1996; 1999). Although the 'sun' model was generally accepted at first, later critiques focussed on the possibility of other factors influencing deposition and the structuring of space (see Pope 2007). Webley (2007, 141–2) has pointed out that although such finds concentrations are evident, the bulk of the material found is less likely to have resulted from domestic activities and more attention should be given to the probability that the abandonment of earliest/early Iron Age houses was undertaken in a 'ritualised' manner, leaving behind the pattern of deposition often found during excavation.

5.2.8 Analysis of finds distributions at Crab Hill and of the distribution of internal features has been severely hampered by the longevity of the settlement and the continual refurbishment, rebuilding and replacement of houses over a considerable period of time. Limitations were also placed on the number of features that could be excavated, given the quantity of archaeology revealed and restrictions governed by commercial archaeological practice. Many postholes, for example, could not be sampled owing to their sheer number, thus it was not always possible to relate internal features to particular houses. For example, early Iron Age roundhouse ditch 164 at the northern end of the excavated area encircled at least seven large pits and several postholes. These appeared to congregate in the north-western half of the roundhouse. However, only two of the pits and one of the postholes were sampled by excavation and only one of the pits was dated to the early/middle Iron Age, and thus was probably of a later phase. Several internal features were also discovered within middle Iron Age roundhouse 1606 and its successor 1635. Three of the pits were excavated, two of which could not be dated and one (488) turned out to be of Roman date. This highlights the considerable difficulty inherent in trying to appropriate unphased and/or unexcavated pits and postholes to particular structures of Iron Age date.

Cultural connections

5.2.9 The earliest Iron Age pottery discovered at the site is of All Cannings Cross-type, which is predominately found on the Wessex chalklands of Wiltshire, Hampshire, Dorset and Berkshire (now southern Oxfordshire; Cunliffe 2000, fig. 4.24). The All Cannings Cross style is diverse and, where it is present in the Thames Valley, the material generally appears modified from the assemblages known in its heartlands to the south-west. The most distinctive forms—furrowed bowls both of the biconical and long-necked varieties, and large decorated round-bodied jars (eg Cunliffe 2005, fig. A:2; Morris 2000, figs 48 and 51; Chadwick Hawkes *et al.* 2012, figs 3.1–8)—are very rare north of the Berkshire Downs, even where All Cannings Cross-type pottery occurs or possibly occurs (eg Brown 2017, 275; Williams 1951, fig. 9.20; Booth 2011, fig. 14.1; Edwards 2009a; 2009b; Duncan *et al.* 2005, 286, fig. 7.3). The presence at Crab Hill of at least two but up to six fragments of furrowed bowls and a sherd from a probable round-bodied jar perhaps closely allies this site more than any other in the Thames Valley to the classic All Cannings Cross assemblages of the Wessex chalk. These features do, however, form only a minor component of the earliest Iron Age assemblage, with the remainder displaying characteristics common to both Wessex and the Thames Valley.

5.2.10 As well as pottery, the earlier post-built roundhouses appear to be more allied to those on the chalklands to the south-west than the gravels to the north-east. Seven post-

built roundhouses were excavated, one certainly dating to the earliest Iron Age, six more broadly to the earliest/early Iron Age, and one not dated by artefactual means. Earliest Iron Age houses in Wessex were often very large, with inner post-rings usually around 9–10m in diameter and often exceeding this (Sharples 2010, fig. 4.4). In contrast, the inner rings of earliest Iron Age houses in the Thames Valley most commonly occur at around 6–8m across and were very rarely larger than 9m (Davies 2018a, 83; Hayden *et al.* 2017, 60–1). At Crab Hill, two were just less than 6m in diameter, one around 8.5m, and four were over 10m across. Over half were, therefore, larger than their Thames Valley counterparts, their size much more in line with houses more commonly found in Wessex. The large size of at least some of the Crab Hill houses becomes even more apparent when assessing the projected wall diameters on houses that have protruding entrance posts and/or double post-rings. The three Crab Hill houses with protruding entrance posts have projected wall dimeters of 13m or more. The largest house, 1600, belonging to the earliest Iron Age, and is very similar in size to the well-known and broadly contemporary House 3 at Longbridge Deverill, Wiltshire (Chadwick Hawkes *et al.* 2012, 42–59). The inner posts of House 3 had a diameter of 11.6m, compared with the *c* 12m of 1600, with the outer wall of House 3 measuring 15.5m and the projected outer wall of 1600 at *c* 16m. Again, these are substantially larger than houses found in the Thames Valley.

5.2.11 Roundhouse 221 also had an external post-ring on one side of the penannular ditch. Similar external post-rings have been noted in the region at Winterbrook near Wallingford (OA in prep.), Coxwell Road, Faringdon (Cook *et al.* 2004, 189–93) and Groundwell West, Blunsdon St Andrew, Wiltshire (Walker *et al*. 2001, 10–2). They have also been found surrounding large post-built roundhouses where they have been interpreted as extended rafter butts, used principally during initial construction and placed to steady the conical roof of the house (Chadwick Hawkes *et al*. 2012, 52–3; Reynolds 1993, 98–9). The position of these features outside of the penannular ditch might make sense if they are primarily construction features and not integral to the finished house. In this scenario, the ditch could have been dug after the features were no longer functional and became cut off between the eaves and the ground. Alternatively, the external post-ring may have been a palisade to enclose the house and isolate it from the rest of the settlement (see Davies 2018a, 171–6).

5.2.12 House size and construction technique are related not just to architectural choice and engineering technology but may also have implications regarding social relations. A roundhouse with a diameter of 15m covers an area nearly twice the size of a roundhouse with diameter of 11m, which is the average for Thames Valley post-built roundhouses with entrance posts and/or a double post-ring. This much-larger living space may suggest that more individuals occupied such houses, perhaps encompassing more-extended families. Alternatively, different house sizes could imply differing status afforded to those living in the large house at Crab Hill compared to those occupying structures at the lower side of the size scale, if indeed the smaller houses were contemporary and had a similar function, marking divisions of labour and social standing within the settlement (cf Barrett 1989, 312; Sharples 2010, 197).

5.2.13 The location of Crab Hill on the Upper Greensand at the base of the Berkshire Downs, lies between the gravels of the Thames Valley and the chalk of Wessex. This is no doubt

a factor in the presence of All Cannings Cross-type pottery and the large houses that characterise the earliest Iron Age on the Wessex chalklands. However, this closer cultural tie to Wessex diminishes through the period. The most distinctive early Iron Age pottery form that is closely associated with Wessex, the scratched-cordoned bowl, was not present at Crab Hill. These have a more restricted distribution than All Cannings Cross pottery (Cunliffe 2000, fig. 4.25), and none are currently known in the Thames Valley. In contrast, there was one possible example of a straight-sided vessel with an expanded T-shaped rim, one of the most distinctive early Iron Age vessels that are regionally restricted to the Thames Valley, and are known at other sites near Crab Hill (eg Brook *et al.* 2018, 158–9; Brown 2005, fig. 3.2.20, 21, 36).

5.2.14 While the pottery does not provide clear evidence of changing cultural affiliation during the early Iron Age, the houses types become more closely comparable to those of the Thames Valley between this phase and into the middle Iron Age. At least two early Iron Age houses are defined by penannular ditches, with four more probably also of this date, while all the middle Iron Age houses were surrounded by penannular ditches. In the Thames Valley more widely, penannular ditches have been found to surround around one-third of early Iron Age houses and over 90% of middle Iron Age houses (Davies 2018a, 219–20), and yet these features are rare in Wessex (Sharples 2010, note 12). A total of 24 penannular ditches were excavated at Crab Hill, 15 of which dated to the middle Iron Age. The earliest/early Iron Age ditches had a mean width of 0.71m and a mean depth of 0.14m. In the middle Iron Age, this had increased to 1.02m width and 0.43m depth, and there was no appreciable difference between the houses designated to sub-phases MIA1 and MIA2. Thus, the middle Iron Age penannular ditches were significantly more substantial features than the earliest/early Iron Age examples. The normal assumption is that penannular ditches, where they are not demonstrably wall trenches, functioned as drainage features designed to redirect water away from the eaves. This has recently been critiqued, with the argument put forward that penannular ditches often served to enclose the house to physically and symbolically separate the area and its inhabitants from the rest of the settlement. It has been proposed that this was more of a concern in the middle Iron Age and can be related to changes in social organisation and community definition through the first millennium BC (Davies 2018a, 161–76; 2018b, 332).

5.2.15 A very small amount of middle Iron Age pottery found at Crab Hill was thought to have been imported from the Danebury/Hampshire region, though this need not imply any significant cultural affiliation with the area as much as occasional trade/exchange links. Recent isotopic work on livestock remains also suggests that sheep, cattle and pigs were not moved between the Vale and the Downs to any great extent during the Iron Age (Schulting *et al.* 2019). Together, the evidence suggests a diminishing cultural connection between Crab Hill and Wessex from the earliest Iron Age, with the settlement increasingly looking towards the Thames Valley.

5.3 The Romano-British settlement

Continuity and change

5.3.1 It is uncertain whether activity continued directly from the late Iron Age into the early Roman period, though there are clear signs of a complete change in the organisation

and morphology of the settlement. This is clearly marked by the definition of the pre-Flavian ditch 1626 cutting across the substantial late Iron Age circular enclosure 474, which was probably still extant at this time. Also, part of Enclosure A (ditch 1631) appears to have cut through the centre of middle Iron Age roundhouses 646 and 609, though it is far less certain whether this was deliberate. Although a small amount of late Iron Age-type, mostly grog-tempered pottery was found, most of this was recovered from late Iron Age features, and these often locally made fabrics are known to have remained in use during the very early Roman period before being replaced by wheel-turned forms (see *Roman pottery*). Its presence at the site is not proof of continued occupation.

5.3.2 The level of continuity (or discontinuity) between the late Iron Age and the early Roman period in this region has been discussed elsewhere, most notably in relation to the site at Marcham/Frilford, *c* 8.1km to the north-east of Crab Hill (Bradford and Goodchild 1939; Harding 1987; Kamash *et al.* 2010). As at Crab Hill, recent fieldwork has shown that little late Iron Age material has been discovered, though it has been suggested that continuity between the Iron Age and the Roman period may have prevailed with later practices appropriating and referencing older activity (Kamash *et al.* 2010).

5.3.3 Both enclosures were laid out in the 1st century AD were recut and re-established with remarkable consistency throughout the rest of the Roman period. Changes are apparent, but the site shows much more continuity between the 1st and the 4th centuries than at other local sites. Significant changes have been found to have occurred between the middle of the 2nd century and the middle of the 3rd century within Wantage at Mill Street and Denchworth Road (Barber and Holbrook 2001, 295–6; Holbrook and Thomas 1996, 121–4). At Monks Farm, north of Grove, much of the known activity belonged to the late Roman period, including the laying out of a field system and signs of reorganization within the late 3rd and 4th century (OA 2019a; Brady *et al.* in prep.). More continuity through the Roman period was evidenced at Grove Airfield, though here the layout of the settlement enclosure ditches did not remain as consistent as at Crab Hill.

5.3.4 The Roman pottery assemblage from Crab Hill suggests prolonged activity, perhaps through to the end of the Roman period. Although not unusual for a rural site, the coin assemblage had an emphasis on Reece's period 19, AD 364–78 (Reece 1991). The latest coin dated to AD 375–8, although interpreting the absence of coins dating to the final decades of the Roman administration is difficult due to the relatively small assemblage. A significant find is the late Roman buckle that was unfortunately recovered out of context from the topsoil. The find is rare in Britain but is often associated with military or state official figures. The relationship of the buckle to the late Roman settlement at Crab Hill is not clear but it was probably deposited around the time of its abandonment. The Saxon SFB contained pottery that might date to the 5th century, although a later date is favoured. Together, this suggests that the there was a break of occupation sometime between the end of the Roman period and the early medieval phase.

Site function and economy

5.3.5 The remarkable degree of continuity in the layout and organisation of the Romano-British settlement from the 1st century AD, certainly the Flavian period, to the later 4th century perhaps suggests that the function of the site also remained largely the same. There is no evidence for buildings in this period at the site, though this is not unusual. The very low quantities of brick and tile indicate that there is unlikely to have been a masonry or masonry-footed structure in the vicinity, such as that found at Denchworth Road in Wantage, which dated to the late 3rd and 4th century AD (Barber and Holbrook 2001, fig. 3). Timber-built and/or mass-walled structures that are often associated with relatively low-status agricultural settlements do not survive well in the archaeological record, often due to truncation of the shallow foundations (Smith 2016, 56–7). Most of the Roman features discovered consist of large boundary ditches, corndryer foundations, or wells, all generally deep-cut features. Certainly nothing structural survived as well as the middle Iron Age ring gullies at the site. However, it is worth noting the survival of the foundations to the post-built roundhouses of the earliest/early Iron Age. Post-built rectangular buildings of Roman date have been found fairly well preserved nearby at Grove Airfield (OA 2019b), *c* 1.4km west of Crab Hill, and at Mill Street in Wantage (Holbrook and Thomas 1996, fig. 3), *c* 1.2km to the south-west. If post-built structures were apparent at Crab Hill, it possible that the postholes were not deep enough or substantial enough to survive later agricultural truncation, or that some are present as unphased postholes. Unfortunately, none of those present could be resolved into the plan of a structure that may have been of Roman date. Alternatively, a mass-walling technique such as cob, which often leaves no archaeological trace, may have been used here. Despite the clear lack of structural remains, occupational activity is signified by the pottery and animal bone assemblages. The quantities of domestic waste are not exceptional but are present in the ditches and other features to suggest that it was not moved far from areas of habitation.

5.3.6 The period between the later 1st century and the mid-2nd century witnessed an increase in activity, marked by a notably larger pottery assemblage. However, the character of the early Roman phase is difficult to discern owing to the relative lack of features. These mostly comprised a series of ditches marking a north–south trackway and the early incarnation of Enclosures A and B, though subsequent recutting of these had removed much of the existing evidence beyond the basic layout of the settlement. There is little in the finds and environmental assemblages from early Roman features which shed light on the character of the site.

5.3.7 By the middle Roman phase, it becomes clearer that the settlement was focused on mixed farming with an emphasis on arable production. The construction of corndryer 1240 during this phase (dated by radiocarbon analysis of charred remains from its basal fill to the later 2nd or early 3rd century AD, see Table 1) presents the first indication of a concern with crop-processing on a larger scale than previously seen. The corndryer has a single long flue and an adjoining compartment, suggesting that one side of the structure would have been hotter than the other when it was operating. It is uncertain whether the drying floor within the superstructure was a single-roomed surface on which one yield of grain would have been gradually turned over and dried, or whether there were two rooms: perhaps a ‘hot’ room and a ‘warm’ room in which two separate grain yields could have been dried at different

temperatures. Corndryer 1240 partially shares its form with the late Roman structure (10002) discovered nearby at Grove Airfield, though this version was larger and symmetrical, having two adjacent flues with adjoining compartments on either side (OA 2019b, fig. 5). Environmental samples from basal fill 1269 of corndryer 1240 contained an abundance of wheat chaff, no doubt used as fuel, and fuel-ash slag, together representing a build-up of ash and fine debris from multiple firings. Very few weed seeds and cereal grains were found in the flue, suggesting that the crops had been well sieved beforehand and extensively cleared out after each firing. Some grains, however, showed signs that they had sprouted, indicating that malting was undertaken in the structure.

5.3.8 The late Roman phase of the settlement appears to have continued in much the same way as in the preceding period. The enclosures were slightly modified to focus on a single area (Enclosure A) and the trackway leading north appears to have been abandoned and the area to the north of Enclosure A was separated by ditch 1632. Corndryer 1240 had probably ceased to function by this time and two new T-shaped corndryers, 1206 and 1447, were built outside of the main enclosure. One lay to the west and the other lay to the east, though it was notable that both were aligned with the enclosure boundaries. Two wells were dug, one within Enclosure A and the other to the east of the enclosure, south-west of corndryer 1447. A possible waterhole (1249) also lay to the south of Enclosure A, presumably to allow livestock access to water. Access to the enclosure from this southern area was gained via gated entrance to control movement.

5.3.9 Charred weed seeds from middle and late Roman features indicate that arable expansion occurred onto areas of land that were previously uncultivated. Weeds such as docks and thistles, and particularly stinking chamomile, are associated with heavier clay soils with low fertility. These were recovered along with weeds that prefer drier grassland areas as well as damper environments, the latter being more common in the Iron Age, which together suggests that the Roman period saw arable cultivation expanding into a range of habitats, some of which were comparatively difficult to farm. This indicates a clear concern with significantly increasing crop yields beyond local, subsistence-based needs. The presence of corndryers at Crab Hill and at Grove Airfield (OA 2019b), along with the expansion of field systems to the north of Grove at Monk's Farm in the late Roman period together indicate this arable intensification in the wider landscape. Evidence of Romano-British arable expansion may also be found at Stockham Farm, Wantage, where ditches of Romano-British date appear to have been dug to drain some of the lower-lying alluvial clays, presumably to aid cultivation, in an area where earlier Iron Age activity was very limited (CA 2017).

5.3.10 Corndryer 1206 produced several rich charred-plant samples and contained a particularly large quantity of grains, many of which were heavily sprouted. The presence of numerous long coleoptiles or scarred and collapsed grain bodies appear to represent waste from multiple firings. Corndryer 1447 also contained a large sample of charred cereal grain with a high proportion of coleoptiles (*c* 30%), suggesting that it too was used to parch malted grain. It is difficult to determine whether the grain was further processed at the site or exported soon after parching. The regular plan and profiles of pits 868, 919 and 1307 indicate a possible specialised function, and they

may have been related to crop-processing. Pit 868 was located close to corndryer 1206 to its west. The pit contained a quantity of blackened stone which suggests that water was being heated either somewhere close by or perhaps in the pit itself. Pits 919 and 1307 were within Enclosure A and both contained numerous iron nails, particularly 919 in which the nails were found lining the sides of the cut, suggesting that the pit was originally wood-lined. Whether this provides evidence that the pits were used to hold water or just to stabilise the sides for storage is unclear. Nonetheless, both pits contained charred plant assemblages, notably 919 which produced a high proportion of grains and a concentration of silicified awns suggesting that much of the material had derived from a corndryer, while 1307 was rich in charcoal.

5.3.11 Coupled with the environmental remains, the middle and late Roman pottery assemblages may also indicate a concern with the storage of agricultural produce. A heavy dominance of jars and particularly a notable proportion of large storage jars amongst an otherwise limited repertoire of vessels is significant, and it is arguable that this strongly represents the processing and storage of cereal grain, presumably for export. The presence of only a few quern stones is also notable here; given the very good evidence for extensive cultivation, processing of surplus arable produce, and potentially or storage, it is interesting that the querns indicate that local subsistence-based grinding for flour and no evidence of larger-scale milling. This suggests that dried and/or malted cereal grain was perhaps being exported as a readied product. If this was the case, it could have been undertaken from an independent farming establishment or as part of a wider (villa?) estate. This issue is currently difficult to answer, as is the logistics of the onward movement of arable surpluses. Was this for sale at a local market centre or part of a larger-scale command economy directing supplies to an urban centre or to the military?

5.3.12 The nearby location of the Roman road following the roughly north–south route of the modern A338 is no doubt important in a local economic context; however, the nature of Roman settlement in Wantage is currently difficult to classify. Barber and Holbrook (2001, 334) forward the idea that Wantage may have formed a villa-estate centre by the late Roman period, owing to the presence of an apparent high-status building at Denchworth Road, though its interpretation as a roadside settlement has been more recently albeit tentatively suggested (Allen *et al*. 2018). A villa is known *c* 3km to the west of the site at East Challow, possibly constructed in the 2nd century (Davey 1876). It is notable that while middle and late Roman corndryers are present at several local rural sites, no corndryers were found at either Mill Street or Denchworth Road. However, a possible granary was found at Mill Street, which may suggest the location for the centralised gathering of arable surplus, perhaps already processed at surrounding farms. As mentioned above, the absence of millstones at Crab Hill is interesting given the evidence for larger-scale production and processing, though the remains of two millstones were found at Mill Street, which perhaps supports the possibility that dried grain/malt was being prepared on the farms and then moved to the roadside settlement for further processing and/or temporary storage before being moved on elsewhere. It is also worth pointing out that while the Romano-British settlement at Crab Hill was essentially a relatively low-status, agricultural establishment, some of the finds recovered from these phases of activity suggest that

the inhabitants were able to access some marketed goods that must have been imported to the site, perhaps paid for with the proceeds from arable export, such as dried fish, coinage, and brooches.

5.4 Medieval activity

5.4.1 The sole excavated Anglo-Saxon feature was an SFB probably dating to the 6th or 7th century. A Saxon boundary ditch was discovered to the south of the excavated area during the evaluation, producing finds dating to the 6th–8th centuries (CA 2013). Early Saxon evidence in the surrounding landscape is generally lacking, also suggesting that a break in occupation took place at the end of the Roman administration. The establishment of a high-status settlement at Wantage by the middle Saxon period has found some recent archaeological support (Lewis 2016, 38–9). Middle Saxon evidence from Crab Hill and archaeological sites outside the core of Wantage is lacking, however, and the early Saxon SFB and boundary ditch here provides little to further understand the development of any burgeoning settlement within Wantage.

5.4.2 The following centuries appears to have seen the site turn over to agriculture, given that no evidence for domestic activity is found at the site after the abandonment of the SFB. The presence of numerous, parallel, east–west furrows along with a probably contemporary trackway indicates arable cultivation in the 15th and 16th centuries, which probably began sometime earlier owing to the presence of a small amount of intrusive 13th–14th-century pottery in several Iron Age and Roman features. The trackway clearly bounds the area of ridge and furrow on its eastern side, being perpendicular to it, and extends southwards towards the medieval core of Wantage (though the site would have been part of the parish of Grove, with the settlement lying to the north). The trackway and several other essentially undated land boundaries that are parallel to the trackway are also on a similar alignment to the modern field boundary to the east. This boundary appears on early OS editions and thus may be a relic from this earlier phase of agricultural use.

6 CONCLUSIONS

6.1 The significance of the archaeology

6.1.1 The excavation at Crab Hill has revealed significant archaeological remains dating to the Iron Age and Romano-British periods, with lower-level activity dating to the late Bronze Age and medieval periods. The Iron Age settlement was long-lived and continuously occupied from the earliest Iron Age through to the late Iron Age. The settlement saw a peak in activity in the early and middle Iron Age phases when the site was a modest nucleated settlement. There is good evidence that the cultural outlook of the settlement shifted geographically during this period. The sizes and forms of the roundhouses of the early Iron Age phase, along with some of the artefactual remains, suggested that the site was more akin to settlements in Wessex chalkland to the south and west. These aspects changed into the middle Iron Age when it appears that the site became more like contemporary settlements on the gravels of the Upper Thames Valley to the north. This shift provides information about the changing political and economic influences and pressures in the region at that time, and with its location on the boundary between these cultural spheres, the Iron Age settlement at Crab Hill is now a site of some significance in this respect.

6.1.2 Romano-British activity appears to have followed a short hiatus after the abandonment of the Iron Age settlement, probably around the 1st century BC or early 1st century AD. Although still fundamentally rural, the Roman site was quite different in character and economic scope. The settlement became focused on arable production and processing, signified by corndryers, while environmental remains indicate that an expansion of cereal cultivation occurred. As in the Iron Age, Romano-British activity spanned almost the full duration of the period lasting from the mid-1st century AD through to the latter part of the 4th century.

6.1.3 Medieval finds and features were somewhat lacking compared with the Iron Age and Romano-British phases, though the presence of a sunken-featured building pointed to some domestic activity in the 6th and/or 7th centuries. Although Wantage to the south is thought to have been an important centre in the late Saxon period, there is no sign that its influence spread to the Crab Hill site, which clearly came under arable cultivation in the later medieval period.

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APPENDIX A TABLES

Lab code	Material	Context	δ13C	RC Age BP	Calibrated Age 95% confidence	Calibrated Age 68% confidence
SUERC-90349	Charcoal (*Prunus*)	206	-26.4%	2787 ± 26	1005–890 cal BC (88%) 880–850 cal BC (7%)	975–905 cal BC
SUERC-90350	Human bone	SK 1196	-20.2%	2242 ± 26	320–205 cal BC (70%) 390–345 cal BC (26%)	290–230 cal BC (49%) 380–355 cal BC (19%)
SUERC-90348	Charred cereal grain	1210	-22.8%	1752 ± 26	230–360 cal AD (93%) 365–380 cal AD (3%)	275–330 cal AD (52%) 245–265 cal AD (17%)
BETA-550107	Charcoal	1329	-22.3%	1800 ± 30	130–260 cal AD (79%) 279–326 cal AD (16.4%)	208–252 cal AD (34.7%) 140–196 cal AD (33.5%)

Table 1: Radiocarbon dates

Roundhouse	Phase	Post-ring dia.	Projected wall dia.	Orientation	Notes
1600	EstIA	*c* 12m	*c* 16m	SE	Pair of entrance postholes *c* 2m to the south-east of post-ring. One of these recut five times.
1614	Est/EIA	*c* 10.5m	*c* 14.8m	SE?	Double post-ring. Two wide, shallow pits and two postholes poss. belonging to entrance posts.
1615	Est/EIA	5.8m	*c* 5.8m	SE?	No entrance posts.
399	Est/EIA	10.5m	*c* 13.5m	SE	2-3 poss. entrance posts, although not paired and on same side.
1602	Est/EIA	*c* 8.5m	*c* 8.5m	?	No entrance posts. Poss. semi-circle – truncated
1613	Est/EIA	*c* 13m	*c* 13m	?	No entrance posts.
479	Undated	5.75m	*c* 5.75m	SE?	No entrance posts

Table 2: Earliest/early Iron Age post-built roundhouses

Roundhouse	Phase	Diameter	Orientation	Ditch width	Ditch depth	Pottery	Notes
1032	Est/EIA1	Ditch: 16m ST: 12.5m	S-SW	Ditch: 0.35m ST: 0.20m	Ditch: 0.15m ST: 0.10m	21/128g	Slot-trench. See text
970	Est/EIA	15.5m	SW-NE	0.75m	0.10m	2/25g	Neither terminal observed
1616	Est/EIA	*c* 8m	?	0.45m	0.05m	5/12g	Much truncated. Cut by two undated pits.
1604	EIA	Ditch: 11m ST: *c* 8.5m	ENE	Ditch: 0.6-1m ST: 0.20m	Ditch: 0.20m	26/461g	Poss. entrance posts. Recut. See text
164	EIA2	12m	SE	Up to 1.5m	0.25m	37/281g	Entrance 5.3m wide. Poss. entrance post and wall post, 4 more internal postholes. 7 internal pits, none clearly associated. Cut by ?RH 1607
1628	EIA?	*c* 9m	?	0.41m	0.11m	0/0g	Much truncated. Not dated by pottery but truncated by MIA house 739. Poss. contemporary with 1604. See text and Fig. 17

Table 3: Earliest and/or early Iron Age roundhouses defined by penannular ditches

Roundhouse	Phase	Diameter	Orientation	Ditch width	Ditch depth	Pottery	Notes
593	E/MIA	13m	NW-SW or NE-SE	0.50m	0.05-0.15m	1/18g	Heavily truncated. No clear relationship with 594.
594	E/MIA?	*c* 8.5	?	0.30m	0.10m	0/0g	Heavily truncated. Less than 25% surviving. No clear relationship with 593.
1601	E/MIA	10m	ESE	0.80m	0.20m	6/24g	Entrance 4m wide. Poss. entrance post.
273	MIA1	10m	Main: SE Second: SW	*c* 0.40m	*c* 0.20m	28/332g	Cut by RH 221. Two pairs of entrance posts. Two entrances: main 3.8m wide, second *c* 1m wide.
739	MIA1	*c* 16m	SW-NE	1.30-2.50m	0.50m	41/579g	Replaced by RH 853. Open on SW-NE, but truncated by Roman ditch across S side.
931	MIA1	10.5m	ENE	0.60m	0.30m	34/430g	Replaced by RH 930. Entrance 3.5m wide. Poss. central post and entrance post. Other poss. internal postholes. Bone implement.
1606	MIA1	15.5m	ESE	2m	0.55-0.95m	166/2541g	Replaced by RH 1635. Entrance *c* 5m wide. V-shaped ditch
646	MIA	11m	SE-E	0.40-0.90m	0.10-0.30m	14/338g	Truncated. Open across NE half, but real terminal at SE suggesting SE or E entrance.
1603	MIA	*c* 20m	S-E	0.80-1.20m	0.30-1.10m	69/1082g	Recut twice. Entrance 10-18m wide
1607	MIA	*c* 14m	?	1.90m	1.05m	47/450g	Only about *c* 30% exposed. Poorly understood. V-shaped ditch. Bone gouge and iron awl.
1608	MIA	11m	E	1m	0.40m	7/88g	Recut twice. Entrance 5.25m wide. Structural and/or entrance postholes
1609	MIA	12m	ESE	0.40-1.20m	0.15-0.50m	42/452g	Entrance 4.5m wide. Posthole in N terminal. Poss. antenna fence.
1629	MIA	*c* 12m	SE?	0.40-0.50m	0.10-0.20m	1/34g	Heavily truncated, although SE terminal is real. Recut.
221	MIA2	13.5m	SE	0.80-1.70m	0.70m	173/1952g	Cuts RH 273. V-shaped ditch. Entrance *c* 3.5m wide. Cuts RH 273. Posthole in ditch terminal. Poss. internal post-ring *c* 8.6m dimeter, and poss. post-ring outside of ditch.
853	MIA2	13.5m	NNE or SE	0.40-1m	0.18-0.40m	87/1579g	Replacement of 739. Truncated on SE and N side. Special deposition of pottery on E and N side of ditch.
930	MIA2	11.5m	E	0.50m	0.10m	26/225g	Replacement of RH 931. Entrance *c* 8.20-11.50m wide. Poss. central post. Other poss. internal postholes.
1446	MIA2	7.5-9m	W	0.70m	0.35m	6/177g	Sub-rectangular. Entrance 5.5m wide.
1635	MIA2	14m	W	1-1.80m	0.40m	92/1112g	Replacement of RH 1606. Entrance 3.5m wide. Poss. external entrance post.

Table 4: Early/middle Iron Age and middle Iron Age roundhouses defined by penannular ditches

Phase	No. vessels	No. primary contexts	No. residual contexts
Late Bronze Age	11	2	7
Earliest Iron Age	44	13	5
Earliest Iron Age/Early Iron Age	163	32	48
Early Iron Age 1	32	6	0
Early Iron Age 1/2	25	4	6
Early Iron Age 2	28	6	1
Early–middle Iron Age	224	95	21
Middle Iron Age	227	78	10

Table 5: Maximum number of prehistoric vessels and number of contexts producing prehistoric pottery

Earliest Iron Age	Early Iron Age 1	Early Iron Age 2
Tripartite angular bowl, short neck (Edwards 2009a, fig. 26.P25)	Tripartite angular bowl, long neck (Fig. 27 no.10)	Round-bodied bowl, long flaring neck (Edwards 2010, fig. 3.3.34)
Tripartite angular bowl, neck length unknown		
Tripartite jar, long neck (Fig. 28 no.10)		*Vessel with straight sides and expanded T-shaped rim* (Edwards 2010, fig. 3.3.25-27)
Biconical jar (Fig. 28 nos 5 and 8; DeRoche and Lambrick 1980, fig. 21.17-19)		Jar with high shoulders and straight neck (Fig. 29 no.15)
Furrowed bowl (Fig. 28 no.7; Morris 2000, fig. 47.13, 16)		Jar with pedestal base (Fig. 29 no. 16; Cunliffe 2005, fig. A:11.7)
Jar with a rounded shoulder and everted rim (Fig. 27 no.6; Longley 1991, fig. 78.P35)		
Globular closed jar (Fig. 28 no.4; Morris 2000, fig. 51)		
All Cannings Cross decoration (Plate 13)		

Table 6: Key vessels and features present that define subperiods within the earliest/early Iron Age. Vessels in *italics* are those that were only possibly present

Phase	Fl1	Fl2	Fl3	FlQg	Sh	ShQg	ShQs	IoSh	ShVe	Li	Qg1	Qg2	Qs	QsIo	VeQg	Gr	None	Unsure
Late Bronze Age				15 *83.3%* 93g *73.2%*								1 *5.6%* 11g *8.7%*	2 *11.1%* 23g *18.1%*					
Earliest Iron Age		10 *10.4%* 136g *15%*			11 *11.5%* 165g *18.2%*	19 *19.8%* 171g *18.9%*					7 *7.3%* 62g *6.9%*	27 *28.1%* 141g *15.6%*	5 *5.2%* 28g *3.1%*	14 *14.6%* 188g *20.8%*			2 *0.1%* 8g *0.9%*	1 *1%* 6g *0.7%*
Earliest IA/ EIA1					1 *1.5%* 12g *1%*	23 *33.3%* 578g *46.3%*		3 *4.4%* 117g *9.4%*			2 *2.9%* 37g *3%*	34 *49.3%* 445g *35.7%*	6 *8.7%* 59g *4.7%*					
Early Iron Age 1			1 *1.5%* 16g *3.6%*			8 *11.9%* 68g *15.1%*			6 *9%* 62g *14%*	1 *1.5%* 6g *1.3%*	6 *9%* 20g *4.5%*	37 *55.2%* 227g *50.6%*	6 *9%* 43g *9.6%*	2 *3%* 7g *1.6%*				
EIA1/EIA2					3 *7.3%* 34g *4.6%*	5 *12.2%* 76g *10.3%*					4 *9.8%* 28g *3.8%*	26 *63.4%* 580g *78.5%*	3 *7.3%* 21g *2.8%*					
Earliest IA/ EIA1/EIA2		23 *9.9%* 104g *5.5%*	15 *6.4%* 114g *6.1%*		5 *2.2%* 51g *2.7%*	71 *30.5%* 589g *31.3%*	16 *6.9%* 160g *8.5%*	2 *0.9%* 20g *1.1%*	1 *0.4%* 8g *0.4%*	2 *0.9%* 37g *2%*	14 6% 29g *1.4%*	68 *29.2%* 501g *26.6%*	12 *5.2%* 112g *6%*	3 *1.3%* 82g *4.4%*			1 *0.4%* 76g *4%*	
Early Iron Age 2		7 *9.1%* 51g *9.1%*			2 *2.6%* 8g *1.4%*	6 *7.8%* 85g *15.1%*	1 *1.3%* 7g *1.3%*				7 *9.1%* 22g *3.9%*	51 *66.2%* 361g *64.2%*		3 *3.9%* 28g *5%*				
Early–middle Iron Age		1 *0.2%* 4g *0.1%*								2 *0.4%* 36g *0.8%*	1 *0.2%* 2g *0.05%*	380 *80.3%* 4020g *85.5%*	65 *13.7%* 616g *13.1%*			1 *0.2%* 3g *0.1%*	3 *0.6%* 19g *0.4%*	20 *4.2%* 2g *0.05%*
Middle Iron Age	30 *3.8%* 231g *1.9%*									3 *0.4%* 126g *1%*		716 *91.2%* 11360g *92.8%*	22 *2.8%* 329g *2.7%*		13 *1.7%* 195g *1.6%*	1 *0.1%* 5g *0.05%*		
TOTAL	30 231g	41 295g	16 130g	93 15g	22 270g	132 1567g	17 167g	5 137g	7 70g	8 205g	41 200g	1340 17646g	121 1231g	22 305g	13 195g	2 8g	6 103g	21 8g

Table 7: Prehistoric pottery by fabric and period. Showing sherd count and weight, and percentage of sherd count and weight of the period

Fabric	LBA	EstIA	Est/EIA	EIA1	EIA1/2	EIA2	IA	MIA	TOTAL
Flint	15/93g *73.2%*	10/136g *15%*	38/218g *7%*	1/16g *3.6%*	-	7/51g *9.1%*	1/4g *0.1%*	30/231g *1.9%*	*102* *749g*
Shell	-	30/336g *37.1%*	117/1398g *44.7%*	14/130g *29%*	14/110g *14.9%*	9/100g *17.8%*	-	-	*178* *2074g*
Iron Oxides	-	14/188g *20.8%*	8/219g *7%*	2/7g *1.6%*	-	3/28g *5%*	-	-	*27* *442g*
Fine, rare glauconitic sand (Qg1)	-	7/62g *6.7%*	16/66g *2.1%*	6/20g *4.5%*	4/28g *3.8%*	7/22g *3.9%*	1/2g *0.05%*	-	*41* *200g*
Quartz sand (Qs)	2/23g *18.1%*	5/28g *3.1%*	18/171g *5.5%*	6/43g *9.6%*	3/21g *2.8%*	-	65/616g *13.1%*	22/329g *2.7%*	*121* *1231g*
Glauconitic sand (Qg2)	1/11g *8.7%*	27/141g *15.6%*	102/946g *30.2%*	37/227g *50.6%*	26/580g *78.5%*	51/361g *64.2%*	380/4020g *85.5%*	716/11,360g *92.8%*	*1340* *17,646g*
Other	-	3/14g *1.6%*	3/113g *3.6%*	1/6g *1.3%*	-	-	26/60g *1.3%*	17/326g *2.7%*	*50* *519g*
TOTAL	*18* *127g*	*96* *905g*	*302* *3131g*	*67* *449g*	*41* *739g*	*77* *562g*	*473* *4702g*	*785* *12,246g*	1859 22,861g

Table 8: Simplified breakdown of prehistoric fabrics by sherd count/weight (g)/ percentage of the weight of the period

Vessel type	FlQg	Fl2	Sh	ShQs	Qg1	ShQg	Qslo	Qs	Qg2	VeQg	Total
Late Bronze Age?											
Incurving hook rim, ?ovoid vessel (Fig. 28 no. 1–2; Leivers 2010, fig. 81)	••										*2*
Earliest Iron Age											
Furrowed bowl (Fig. 28 no. 7; Morris 2000, fig. 47.13, 16)		••			○		○		○○		*2(6?)*
Globular closed jar (Fig. 28 no. 4; Morris 2000, fig. 51)					○		○				*(2?)*
Jar with rounded shoulder and everted rim (Fig. 28 no. 6; Longley 1991, fig. 78.P35)		○									*(1?)*
Biconical jar (Fig. 28 nos 5 and 8; DeRoche and Lambrick 1980, fig. 21.17–19)		•○	•						•○		*3(5?)*
Earliest/Early Iron Age											
Tripartite angular bowl, neck unknown (EstIA/EIA1) (Fig. 28 nos 9, 12–14)				•	••••	••		•••	••••••••		*18*
Jar with a rounded shoulder and upright neck (Fig. 29 no. 15)						•			•		*2*

Vessel type	FlQg	Fl2	Sh	ShQs	Qg1	ShQg	Qslo	Qs	Qg2	VeQg	Total
Tripartite angular jar, long neck (Fig. 28 no. 10)						•			•		*2*
Early Iron Age 1											
Tripartite angular bowl, long neck (Fig. 28 no. 10)									•		*1*
Early Iron Age 1/2											
Flaring neck bowl					•••	○	•	••	•		*7(8?)*
Early Iron Age 2											
Round-bodied bowl, long flaring neck (Edwards 2010, fig. 3.3.34)							•		••		*3*
Jar with pedestal base (Fig. 29 no. 16; Cunliffe 2005, fig. A:11.7)							•				*1*
Vessel with straight sides and expanded T-shaped rim (Edwards 2010, fig. 3.3.25–7)						○					*(1?)*
Jar with high shoulder and straight neck (Fig. 29 no. 15)									•★		*2*
Middle Iron Age											
Globular vessel with upright neck and simple rim									••••★☆○		*5(7?)*
Globular vessel with upright neck and bead rim									••••••○○○○		*6(10?)*
Globular vessel with upright neck and unknown rim								•	○○		*1(3?)*
Globular vessel without neck, simple rim (Fig. 30 no. 19)									•		*1*
Globular vessel without neck, bead rim									•••••		*5*
Globular vessel without neck, unknown rim								○	○	○	*(3?)*
Slack-shouldered vessel with simple rim (Fig. 29 no. 17)									•••★		*4*
Slack-shouldered vessel with bead rim (Fig. 30 no. 26)									••••••★○○○ ○○○		*7(13?)*
Slack-shouldered vessel with unknown rim									••○		*2(3?)*
Shouldered vessel with simple rim									•		*1*
Shouldered vessel with bead rim									••		*2*
Barrel jar with incurving rim (Fig. 30 no. 24)									★		*1*
Saucepan pot with bead rim (Fig. 30 no. 23)									•		*1*

Table 9: Correlations between fabrics and form (○ = Possible example; • = Haematite coated and burnished; ★ = Carbonised residue)

Phase	Decorated	Haematite and burnished	Burnished (no haematite)	Carbonised residue
Late Bronze Age	-	-	-	-
Earliest Iron Age	8 (*19.5%*)	5 (*11.4%*)	9 (*21.9%*)	-
Earliest/Early Iron Age	7 (*4.3%*)	14 (*8.6%*)	5 (*3.1%*)	1 (*0.6%*)
Early Iron Age 1	2 (*6.3%*)	1 (*3.1%*)	1 (*3.1%*)	-
Early Iron Age 1/2	3 (*12%*)	1 (*4%*)	1 (*4%*)	-
Early Iron Age 2	-	3 (*11.1%*)	4 (*14.8%*)	1 (*3.7%*)
Early/middle Iron Age	-	-	29 (*13.6%*)	5 (*2.4%*)
Middle Iron Age	3 (*1.3%*)	-	46 (*20.3%*)	8 (*3.5%*)

Table 10: Frequency of decoration, surface treatment and carbonised residue on vessels

	Sherds	Weight	MSW	Vessels	% fresh	% moderate	% high
Est/EIA pottery in Est/EIA features	402	4045g	10.1g	193	4%	85%	11%
Est/EIA pottery in later features	181	1741g	9.6	99	3%	87%	10%
Est/EIA pottery total	*583*	*5786g*	*9.9g*	*292*	*3%*	*86%*	*11%*
MIA pottery in MIA features	764	11,940g	15.6g	214	22%	72%	6%
MIA pottery in later features	20	306g	15.3g	13	15%	69%	15%
MIA pottery total	*785*	*12,246g*	*15.6g*	*227*	*22%*	*71%*	*7%*
MIA pottery in penannular ditches	572	9123g	16g	167	23%	72%	5%
MIA pottery in pits and postholes	87	2013g	23.1g	29	17%	69%	14%
MIA pottery in ditches	55	645g	11.7g	14	21%	79%	0%
IA pottery total	*456*	*4605g*	*10.1g*	*213*	*8%*	*84%*	*8%*
Overall prehistoric assemblage	*1859*	*22,861g*	*12.3g*	*754*	*11%*	*80%*	*9%*

Table 11: Condition of the assemblage, and quantification of residual material

Type	Fabric	Description	No.	% No.	Wt/g	% Wt	EVE	EVE %
Imports	LGF SA	South Gaulish samian	10	0.3	16.5	0.0	0.06	0.15
	LEZ SA 1	early Lezoux samian	1	0.0	38	0.1	0.00	0.00
	LEZ SA 2	Central Gaulish (Lezoux) samian	33	1.1	286.5	0.6	0.21	0.52
	MDV SA	Les Martres de Veyre samian	3	0.1	20	0.0	0.00	0.00
	TR1 SA	Trier samian	1	0.0	5	0.0	0.00	0.00
	CNG CC2	Central Gaulish	1	0.0	5	0.0	0.15	0.37
	MOS BS	Moselle black-slipped ware	11	0.4	30	0.1	0.42	1.04
Regional	DOR BB1	Dorset black-burnished ware	55	1.9	649	1.4	1.09	2.69
	LNV CC	Lower Nene Valley colour-coat	2	0.1	17	0.0	0.07	0.17
	PNK GT	Midlands pink grog-tempered	1	0.0	110	0.2	0.00	0.00
	ROB SH	late shelly ware	112	3.8	2651	5.8	2.22	5.48
	SAV GT	Savernake ware	53	1.8	1399	3.1	1.01	2.49
	SOW BB1	South-west BB1	4	0.1	50	0.1	0.00	0.00
Oxfordshire	ABN OX/RE/WH	Abingdon-type oxid/reduced/white	73	2.5	442	1.0	0.85	2.10
	OXF BWH	Oxon burnt whiteware	44	1.5	799	1.8	0.75	1.85
	OXF CC	early Oxon colour-coats	4	0.1	53	0.1	0.00	0.00
	OXF FR	Oxon fine grey ware	612	20.6	8803.7	19.3	7.23	17.84
	OXF OX	Oxon oxidised sandy ware	47	1.6	288.3	0.6	1.53	3.78
	OXF OXF	Oxon fine oxidised ware	14	0.5	90.0	0.2	0.32	0.79
	OXF PA	Oxon parchment ware	1	0.0	6	0.0	0.05	0.12
	OXF RE	Oxon grey ware	643	21.7	10,892	23.9	8.36	20.63
	OXF RE38	grey sandy wares with grog/pellets	87	2.9	1116	2.4	0.86	2.12
	OXF RS	Oxon colour-coated ware	104	3.5	1479	3.2	1.43	3.53
	OXF RS(M)	Oxon colour-coated mortaria	3	0.1	63	0.1	0.14	0.35
	OXF SH	Oxon shelly ware	14	0.5	112	0.2	0.07	0.17
	OXF WH	Oxon white ware	89	3.0	821.5	1.8	0.55	1.36
	OXFWHC	Oxon coarse white ware	9	0.3	68	0.1	0.12	0.30

Type	Fabric	Description	No.	% No.	Wt/g	% Wt	EVE	EVE %
	OXFWHF	Oxon fine white ware	8	0.3	58	0.1	0.00	0.00
	OXF WHM	Oxfordshire whiteware mortaria	10	0.3	543	1.2	0.35	0.86
	OXF WS	Oxon white-slipped ware	7	0.2	38.25	0.1	0.07	0.17
	SOW BS	South-west/Oxon brown slip	23	0.8	403	0.9	0.11	0.27
Grog	BWGR	black grog-tempered	5	0.2	48	0.1	0.08	0.20
	GR1	grog-tempered	48	1.6	1074	2.4	0.29	0.72
	GR2	hackley, hard fired grog-tempered	47	1.6	632	1.4	0.39	0.96
	GRSA	grog tempered sandy ware	23	0.8	438	1.0	0.90	2.22
	GRSJ	grog-tempered storage jar	46	1.5	3363	7.4	0.97	2.39
	GRFL	grog and flint-tempered	2	0.1	37	0.1	0.00	0.00
	GYGR	grey grog/clay pellet-tempered	21	0.7	81	0.2	0.10	0.25
	OXGR	oxidised grog-tempered	12	0.4	282	0.6	0.07	0.17
Flint	BWFL	black flint-tempered	7	0.2	62	0.1	0.00	0.00
	FL1	coarse flint-tempered	12	0.4	169	0.4	0.03	0.07
	FL2	fine flint-tempered	10	0.3	83	0.2	0.05	0.12
	FL3	ill-sorted flint-tempered	11	0.4	93	0.2	0.00	0.00
	OXMICFL2	brown/oxid micaceous with flint	2	0.1	17	0.0	0.00	0.00
	GYFL	grey ware with flint	4	0.1	63	0.1	0.00	0.00
	SAFL	sandy with flint	7	0.2	110	0.2	0.00	0.00
	SAFLGR	sandy with flint and grog	1	0.0	12	0.0	0.00	0.00
Limestone	SALI	sandy with limestone	1	0.0	5	0.0	0.00	0.00
	SALIFL	sandy with limestone and flint	6	0.2	99	0.2	0.03	0.07
Sandy	BUFF/PALE	misc buff sandy	1	0.0	8	0.0	0.00	0.00
	BBIcopy	BB1 copy	4	0.1	50	0.1	0.19	0.47
	BSGYF/GYSY	black surfaced fine / sandy grey	5	0.2	84	0.2	0.03	0.07
	BSOX/GY	black surfaced oxidised/grey wares	8	0.3	110	0.2	0.00	0.00
	BW	black sandy wares	172	5.8	1884	4.1	3.56	8.79

Type	Fabric	Description	No.	% No.	Wt/g	% Wt	EVE	EVE %
	BWMIC	black micaceous wares	23	0.8	331	0.7	0.45	1.11
	BWF	fine black ware	7	0.2	86.25	0.2	0.73	1.80
	BWFMIC	fine black micaceous	26	0.9	181	0.4	0.23	0.57
	BWFSY	fine black sandy	7	0.2	50	0.1	0.02	0.05
	BWFSYMIC	fine black sandy micaceous	22	0.7	161	0.4	0.46	1.14
	BW/BWN/GYSA2	black/grey/brown glauconitic sandy	125	4.2	1872	4.1	1.83	4.52
	CC	misc. colour-coated ware	2	0.1	16	0.0	0.00	0.00
	GYSY	grey sandy ware	22	0.7	489	1.1	0.39	0.96
	GYQTZ	quartzite tempered grey ware	1	0.0	10	0.0	0.00	0.00
	GSOX	grey-slipped oxidised ware	1	0.0	19	0.0	0.18	0.44
	GYMIC	micaceous grey ware	7	0.2	70	0.2	0.00	0.00
	GY/BWSA1	grey coarse, sandy, micaceous	74	2.5	1113	2.4	1.18	2.91
	MICA	mica-slipped	2	0.1	16	0.0	0.05	0.12
	OXSY	misc. oxidised ware	31	1.0	891	2.0	0.22	0.54
	OXIDF	fine oxidised ware	5	0.2	37.75	0.1	0.00	0.00
	OXSA1	oxidised coarse, sandy micaceous	31	1.0	30	0.1	0.00	0.00
	OXSA2	oxidised glauconitic sandy	2	0.1	8	0.0	0.00	0.00
	OXSAFE	iron-rich oxidised sandy	1	0.0	10	0.0	0.07	0.17
	WSOX	white-slipped oxidised sandy	10	0.3	47.25	0.1	0.00	0.00
	OO	crumbs	35	1.2	38.75	0.1	0.00	0.00
		Total	2968	100.0	45,634	100.0	40.52	100.00

Table 12: Quantification of LIA/Roman pottery fabrics

Category	Form	Size (diam.)	EVE	EVE %
Tableware: fine ware	cup		0.05	0.1
	bowl/dishes		0.19	0.5
Drinking vessel	beaker		3.24	8.0
Dispensing liquids	flagon/flask		0.82	2.0
food preparation	mortarium		0.14	0.3
Storage	large storage jars		1.27	3.1
Domestic/storage	everted rim jars: narrow neck	90-100 mm	2.94	7.3
	everted rim jars: medium	110-130 mm	3.77	9.3
	everted rim jars: wide-mouth	140-160 mm	9.6	23.7
	everted rim jars: wide-mouth	170-200 mm	3.43	8.5
	everted rim jars: wide-mouth	210-240 mm	4.24	10.5
	everted rim jars: wide-mouth	250 mm+	1.85	4.6
	beaded rim jars		0.59	1.5
	other jars		1.16	2.9
	bowls: flat rim		0.49	1.2
	bowls: grooved rim		0.05	0.1
	bowls: flanged rim		0.34	0.8
	bowls: other		3.82	9.4
	dishes		2.19	5.4
	lids		0.34	0.8
Total			40.52	100.0

Table 13: LIA/Roman vessel forms by EVE

Type	Fabric	Crab Hill		Mill Street		Denchworth Rd	
		No %	Wt %	No%	Wt %	No %	Wt %
Imports	Samian	1.6	0.8	0.5	1.6	3.4	1.9
	fine wares	0.4	0	0.1	0.0	0.5	0.1
	amphora	0	0	0.5	1.6	0.6	4.1
Regional	DOR BB1/SOWBB1	2	1.5	7.9	4.0	5.1	4.6
	LNV CC	0.1	0	0	0.0	0.4	0.1
	PNK GT	0	0.2	0	0.0	0.4	2.4
	ROB SH	3.8	5.8	0.7	0.2	2.3	2.4
	SAV GT	1.8	3.1	2.3	5.5	0.8	3.1
	ALH RE	0	0	0.2	0.8	0.2	1.1
Oxfordshire	OXF BWH	1.5	1.8	0	0.0	1.3	1.0
	OXF CC	0.1	0.1	0	0.0	0.2	0.1
	OXF PA	0	0	0.2	0.6	0.1	0.0
	OXF RE/FR	45.2	45.6	46.9	39.5	31.9	28.8
	OXF RS	3.5	3.2	4.9	3.6	9.1	7.5
	OXF RS(M)	0.1	0.1	0.3	0.5	1.1	1.9
	OXF SH	0.4	0.2	0.5	0.4	0.0	0.0
	OXF WH	3.6	2.1	4.4	3.4	1.6	0.7
	OXF WHM	0.3	1.2	0.7	1.6	0.9	4.8
	OXF WS	0.2	0.1	0.1	0.1	0.1	0.2
Grog	Grog	6.9	13.1	12.2	27.9	8.7	15.9
Flint	Flint	1.8	1.3	0	0.0	0.5	0.3
other/misc		26.6	19.6	17.6	8.7	30.8	19.0
TOTAL		**99.9**	**99.8**	**100**	**100.0**	**100.0**	**100.0**

Table 14: Comparison of LIA/Roman fabric types from three Wantage sites

Fill number	No. sherds	Weight (g)	EVEs	MNV (based on rims)	Av. sherd weight (g)
1127 (NE)	27	364	0.39	4	13.5
1190 (SW)	24	525	0.11	1	22
TOTAL	51	889	0.5	5	17.4

Table 15: Pottery distribution in SFB 1191

SF	Context	Date	Reece period	Denom./Size	OBV	REV	Mint	Ref.	Wear	COMMENT
36	100	271–274	14	radiate 15–17mm	..TET]RICVS P[	figure l			W/W	irregular
37	100	350–364	18	AE3 16mm	DN MAGNEN TIVS PF AVG	FEL TEMP REPARATIO phoenix on globe			W/W	irregular?
38	100	330–335	17	AE3 16mm	CONSTAN TINOPOLIS	victory on prow	TRP Trier		SW/SW	mm prob incomplete
39	100	364–375	19	AE3 16–18mm	DN VALENTIN[I ANVS PF AVG	SECVRITAS [REIPVBLICAE	OF/II//?C]ON[Arles?		SW/W	mm incomplete
40	100	PMED	PMED							
41	100	PMED	PMED	jeton?						
42	100	257–268?		radiate 18–19mm	GALLIENVS AVG ?	.....A AVG			W/W	obv reading uncertain
43	100	PMED	PMED						EW/EW	
44	100	347–348	17	AE3 14–15mm	CONSTAN SPFA[VG	VICTORIAE [DD AVGG Q NN	branch//TRP?	RIC VIII Trier, 206 or 210	SW/SW	
45	100	1625–1649?	PMED	?halfgroat	?Charles I					battered
46	100	IA		Cu unit 15mm	CVNOBI [LINVS REX, bust r	bull r [TASC] below		ABC 2966	W/W	
47	100	1727–1760	PMED	halfpenny	GEORGIUS II REX	BRITANNIA			VW/VW	date eroded
48	100	348–350	18	AE3 20–21mm	DN CON[Constans or Constantius II	FEL TEMP REPARATIO hut3	?		SW/SW	but eroded, mm illegible
49	100	PMED	PMED	farthing?					EW/EW	
50	100	4C?		AE3 16mm					EW/EW?	eroded?
51	100	367–375	19	AE3 17mm	Gratian	GLORIA NO VI SAECVLI	(Arles)		W/W	mm lost
52	100	333–334	17	AE3 16mm	VRBS ROMA	wolf and twins	branch//TRP	RIC VII Trier, 561	W/W	obv legend fragmentary
53	100	375–378	19	AE3 16–17mm	DN GRATI ANVS PF AVG	SECVRITAS REIPVBLIC	??SCON	cf LRBC2, 533	SW/SW	abbreviation of rev legend is clear, but possible damage (and partial obscuring of mm) in this area
54	100	330–331	17	AE3 16mm	CONSTANTINVS IVN NOB C	GLORIA EXERCITVS	.PLG	RIC VII Lyon, 244	SW/SW	

SF	Context	Date	Reece period	Denom./Size	OBV	REV	Mint	Ref.	Wear	COMMENT
56	100	364–375	19	AE3 16mm	DN VALENTINI] ANVS PF AVG	SECVRITAS [REIPVBLICAE			W/W	irregular?
57	100	271–274?	14	radiate 19mm	..TET]RICVS[?	figure?			VW/VW	incomplete, obv uncertain
58	100	later 3C		radiate 17–18mm	radiate head r	figure standing			EW/EW	
59	100	364–375	19	AE3 16mm	DN V]ALENTINI ANVS PF AVG	GLORIA RO MANORVM	Lyon?		SW/SW	eroding
60	100	364–375	19	AE3 16–18mm	DN VALENTINI [ANVS PF AVG	Securitas Reipublicae			SW/W	incomplete and eroded, particularly rev
72	100	364–375	19	AE3 18mm	DN V]ALENTINI ANVS PF AVG	SECVRITAS REIPVBLICAE	OF/I//? Aquileia??		SW/SW	part encrusted
96	100	353?	18	AE2 22mm	DN CONSTAN [TIVS PF AVG	SALVS AVG NOSTRI	TRP[*	RIC VIII Trier, 332	SW/SW	Clipped
97	100	350–351	18	AE2 20–23mm	DN MAGNENTIO [PERPETVO] AVG	FELICITAS REIPVBLICE	PAR	RIC VIII Arles, 135	SW/SW	legends partly off flan
99	100	later 3C		radiate 17–19mm	radiate head r	?			EW/EW	rev eroded
10	101	364–378	19	AE3 16–17mm	DN VALEN S PF AVG	SECVRITAS REPVBLICAE	OF/I//]CON[Arles		SW/W	irregular?? part encrusted
65	101	350–364?	18	AE3 13–14mm	head r	Victoriae dd nn aug et cae?			VW/VW	irregular, encrusted/eroded
66	101	330+		AE3 15mm	]AVG head r					eroded
68	101	late 3–4C		AE3 13–15mm						eroded
2	274	348–350	18	AE3 19mm	DN] CONS[TA N]S P F AVG	FEL TEMP REPARATIO hut2	R]*P	RIC VIII Rome, 140	SW/SW	edge damage
11	282	14–37	1	denarius 16mm	TI CAE]SAR DIVI [AVG F AVGUSTVS	[PONTIF MAXIM] seated figure r with staff	Lugdunum	RIC I(2), 30	W/W	
19	289	330–335	17	AE3 16–17mm	CONSTANTINVS IVN NOB C	GLORIA EXERCITVS 2 standards	TRP*	RIC VII Trier, 545	SW/SW	mm fairly certain, but part worn
20	290	323–324	16	AE3 20mm	CONSTAN TINVS AVG	SARMATIA DEVICTA	PTRarc?	RIC VII Trier, 435	SW/SW	mm fairly certain, but part worn
70	321	333–334	17	AE3 16mm	CONSTANTI NOPOLIS	victory on prow	*PLG	RIC VII Lyon, 266	SW/SW	
74	321	330–331	17	AE3 17mm	CONSTANTI NOPOLIS	victory on prow	RBP?	RIC VII Rome, 339?	SW/SW	

SF	Context	Date	Reece period	Denom./Size	OBV	REV	Mint	Ref.	Wear	COMMENT
75	321	350–364	18	AE4 13mm	head r	Victoriae dd nn aug et cae?			VW/VW	irregular, encrusted/eroded
79	321	PMED	PMED	27mm						flat
81	321	323–324	16	AE3 20mm	DN CONSTAN] TIVS PF AVG	FEL TEMP REPARATIO hut	PARL?	RIC VIII Arles,104?	SW/SW	part encrusted, mm not very clear
82	321	350–364	18	AE4 11–13mm	head	Fel Temp Reparatio fallen horseman			VW/VW	irregular
83	321	348+	18	AE3 17mm	DN CONSTAN] TIVS PF AVG	FEL TEMP REPARATIO fallen horseman			SW/SW	part encrusted, mm not clear, ?irregular
84	321	PMED	PMED	20mm						eroded flat
95	321	367–375	19	AE3 18mm	DN GRATIANVS AVGG AVG	GLORIA NO VI SAECVLI	PCON?	LRBC2, 529?	SW/SW	
114	1317	364–378	19	AE3 16–19mm	DN VALEN S PF AVG	SECVRITAS REPVBLICAE	OF/I//?		W/W	encrusted, fragile

Table 16: Summary of the coins

Artefact function	Earliest Iron Age	E/M Iron Age	Middle Iron Age	Late Iron Age	Early Roman	Middle Roman	Late Roman	Roman	Saxon	modern	unphased	Total
Arms		1										1
Tools							1			1		2
Measure										1		1
Writing										1		1
Personal				1			3			15		19
Footwear							11					11
Household							3			3		6
Structural							2			1	1	4
Nails	1		1			8	33	4		0	1	48
Misc.			1			1	10		1	2	4	19
Query			1				3			2		6
Waste					1						5	6
Total	1	1	3	1	1	9	67	4	1	26	11	124

Table 17: Number of metal finds by function and phase

Context	Sample	Fraction	Description	Phase	Type	Comment	Weight
363	8	2-0.5mm	Pit	undated	HMR	+ Fe obj	0.1
421			Ring ditch	Late Iron Age	VFA		9.2
466	14	2-0.5mm	Ditch	Middle Roman	HMR-HS	75-25	0.38
522	15	>10mm	Ditch	Late Roman	NDFe		2.2
522	15	10-4mm	Ditch	Late Roman	NDFe		1.7
522	15	2-0.5mm	Ditch	Late Roman	HMR-HS	50-50	2.2
578	18	>10mm	Pit	Early Roman	VFA		2.5
586	17	4-2mm	Ditch	Middle Roman	HS	1 flake	0.02
662			Ditch	Early Roman	UID	Black - Mn concretion?	7.2
720	21	10-4mm	Ditch	Middle Iron Age	UID	VFA?	0.72
745	23	10-4mm	Ditch	Late Roman	UID	VFA?	0.47
762	24	10-4mm	Ring ditch	Middle Iron Age	VFA		0.93
762			Ring ditch	Middle Iron Age	VFA		103
943	27	4-2mm	Ring ditch	Middle Iron Age	NDFe	Magnetic	0.07
1038	34	10-4mm	Pit	Roman?	VFA		16.6
1038	34		Pit	Roman?	VFA		258
1038			Pit	Roman?	VFA		0.8
1104	39	>10mm	Ring ditch	Middle Iron Age	VFA		0.8
1127	38	10-4mm	Pit	Saxon	VFA		0.13
1156			Ditch	Early Roman	VFA		1.6
1195	43	4-2mm	Pit	Early Iron Age	HMR		0.54
1210	44	10-4mm	Posthole	Early Iron Age	VFA		0.09
1302	62	>10mm	Pot fill	Middle Roman	VFA	Black	5.4
1302	63	10-4mm	Pot fill	Middle Roman	VFA	Black	0.92
1302	63	2-0.5mm	Pot fill	Middle Roman	UID		<0.01
1302	64	10-4mm	Pot fill	Middle Roman	VFA	Black	1.2
1302	65	10-4mm	Pot fill	Middle Roman	VFA	Black	0.82
1309	52	10-4mm	Placed deposit	Late Roman	Fe Obj		1.9
1449			Corndryer	Late Roman	VFA		36.1
1450			Corndryer	Late Roman	VFA		18.1
1454	58	>10mm	Pit	Late Roman	Fe Obj		1.7
1454	58	10-4mm	Pit	Late Roman	VFA	Black	0.13
1454	58	10-4mm	Pit	Late Roman	UID	NDFe-Fe Obj?	4.4
1454			Pit	Late Roman	Fe Obj	+ adhering sandstone	34.2
ALL							514.12

Table 18: Summary of slag and associated waste material (weight in grams)

Category	Quantity
Flake	77
Blade	4
Bladelet	1
Blade index	6.10% (5/82)
Irregular waste	22
Sieved chip	33
Core rejuvenation flake	1
Core tablet	1
Crested bladelet	1
Core single platform flakes	3
Core multiplatform flakes	1
Core levallois flakes	2
Core fragment	2
Piercer	1
Denticulate	3
Knife other	1
Retouched flake	1
Retouched other	2
Retouched blade	1
End truncation	1
Backed blade	1
Total	159
No burnt unworked/weight (g)	94/467g
No. burnt (%)	36/159 (22.64%)
No. broken (%)	56/126 (44.44%)
No cores/related debitage (%)	11/126 (8.73%)
No. retouched (%)	11/126 (8.73%)

Table 19: Overview of the worked flint assemblage

Context type	Total	Percentage
Ring ditches	56	35.22
Other ditches	47	29.56
Pits	43	27.04
Posthole	9	5.66
Pot fill	5	3.14
Corndryer	5	3.14
Misc features	4	2.52
Topsoil/subsoil	0	0
Total	159	[100]

Table 20: The flint assemblage by context type

No. of flints	No of contexts	Total flints
1	46	46
2	15	30
3	5	15
4	6	24
5	5	25
6	2	12
7	1	7
	80	159

Table 21: Number of flints by context type

Condition	Total	%	Cortication	Total	%
Fresh	53	52.53%	None	10	10.10%
Light	41	41.42%	Light	74	74.75%
Moderate	3	3.03%	Moderate	14	14.14%
Heavy/rolled	2	2.02%	Heavy/very heavy	1	1.01%
	99			99	

Table 22: Flint by condition and cortication

Age group	Age range
Pre-term	<37 weeks gestation
Neonate	Birth–1 month
Infant	1–12 months
Young child	1–5 years
Older child	6–12 years
Adolescent	13–17 years
Young adult	18–25 years
Prime adult	26–35 years
Middle adult	36–45 years
Mature adult	>45 years
Unspecified Child	2–12 years
Unspecified Juvenile	<18 years
Unspecified Adult	>18 years

Table 23: Summary of age categories

Context	1213	1195
Description	Fill corndryer 1206 flue	Fill of pit 1194 (also contains SK 1196)
Elements present	1x cranium (recorded on site as SK 1264), 2x fragments of un-sided parietal, 11x fragments unid. bone (unclear whether animal or human)	3x fragments of rib shaft
MNI	2	1
Age	1x juvenile aged 5–7yrs (cranium) 1x adult aged >18yrs (parietal frags)	Juvenile <18 yrs
Sex	U	U
Dentition	Juvenile cranium: 8x permanent teeth, 4x deciduous teeth (inc. 2x with dental calculus, 1x with ante mortem chipping)	-

Table 24: Summary of disarticulated bones

Taxa	L. Bronze Age	Earliest Iron Age	Est/E Iron Age	Early Iron Age	E/M Iron Age	Middle Iron Age	Late Iron Age	Early Roman	Middle Roman	Late Roman	Roman	Anglo-Saxon	Medieval	Total
cattle	1	1	18	12	16	187	49	37	96	97	8	4		526
cattle?					2	4			1	1				8
sheep/goat	1	7	21	14	29	237	56	71	149	70	3	12	1	671
sheep/goat?				1		6		3	4	2				16
sheep		3	4	6	1	29	6	2	12	5				68
pig		3	9	6	4	56	20	14	32	24			1	169
pig?								1	1					2
horse			4	5	8	30	8	9	20	6				90
horse?						3	1							4
horse/donkey				1										1
dog				1		3		1	3	5				13
fox						2								2
fox/dog										1				1
cat										4				4
red deer							1		1					2
red deer?										1				1
European hare										1				1
small rodent								1	2	2				5
small mammal				1		3		2	3	2				11
medium mammal		25	82	69	24	474	185	160	318	112		14	1	1464
large mammal	2	18	51	81	93	793	176	223	287	349	102	2	41	2218
bird				1										1
goose									1	3				4
duck										5				5
domestic fowl									1			1		2
lapwing?										1				1
small passerine							1							1
crow/rook										1				1
frog/toad									1	1				2
Total	4	57	189	198	177	1827	503	524	932	693	113	33	44	5294

Table 25: Number of hand-collected animal bone specimens by phase

Taxa	Earliest Iron Age	Est/E Iron Age	Early Iron Age	Middle Iron Age	Late Iron Age	Early Roman	Middle Roman	Late Roman	Anglo-Saxon	Total
cattle		1	1						1	3
sheep/goat		4		20	3	1	4	5	1	38
sheep						1				1
pig			1	4	1	1	1	2		10
horse				2						2
dog								1		1
rodent	1		2	7	1			11	1	23
mouse			1		1		2	3	2	9
vole		1		1	2	1	2	9	1	17
common shrew								2		2
domestic fowl								9		9
domestic fowl?								3		3
woodcock								1		1
small eagle			1							1
frog/toad				2			7	1		10
common frog					1		1	2		4
common toad				2						2
total	1	6	6	38	9	4	17	49	6	136

Table 26: Number of animal bone specimens from sieved samples by phase

Taxa	Butchery marks	Pathologies	Gnawed	Burnt	Ageing data	Sex
domestic cattle	32	18	85	1	142	
domestic cattle?			1			
caprine	15	12	95	1	132	
caprine?			5		5	
sheep		1	2		39	
pig	4	3	24		54	12
pig?						
horse	1	2	14		35	2
horse?			1		1	
dog				1	3	
fox					1	
red deer					1	
hare					1	
small rodent					17	
mouse				1		
vole					2	
common shrew					2	
medium mammal	1	1		185		
large mammal	13			60		
common frog				1		
goose					4	
duck					3	
domestic fowl				1	10	
unidentified				128		
total	66	37	227	379	452	14

Table 27: Number of animal bones providing taphonomic, ageing and sex data

Sample	Context	Phase	Taxon	Skeletal element	Notes
3	316	Middle Roman	*Anguilla anguilla*	1 caudal vertebra	small fish
15	522	Late Roman	*Perca fluviatilis*	maxilla	distal fragment
23 (<4mm residue)	745	Late Roman	Clupeidae	2 caudal vertebrae	probably *Clupea harengus*
23 (>4mm reside)	745	Late Roman	*Anguilla anguilla*, 2 indeterminate frags	1 vertebra	
26 (<4mm residue)	923	Late Roman	Salmonidae	1 vertebra; also 10 indeterminate frags	small fish; vertebra is crushed
26 (>4mm residue)	923	Late Roman	*Platichthys flesus;* Pleuronectidae	3 caudal and 1 precaudal vertebrae; 1 frontal; 5 indeterminate frags	2 caudal and 1 precaudal vertebrae are *P. flesus*, 1 caudal vertebra cf. *Pleuronectes platessa;* frontal is cf. *P. flesus*
41	1131	Middle Roman	*Anguilla anguilla*	2 vertebrae	elvers
59	1465	Late Roman	*Anguilla anguilla*	1 vertebra	

Table 28: Fish remains from sieved soil samples

Context	Sample	Shell weight (g)	No. oyster left valves	No. oyster right valves	Other shells	Notes
549	n/a	16	1			Fair condition, intact but internally flaky/degraded
580	n/a	43	2	3		Extremely flaky and chalky
745	23	48	1			Large valve, fair condition, almost complete
923	26	48	3	3	2 mussels	Shells in fair-poor condition, chalky and flaky
319	n/a	4	1			Hinge portion only
1449	n/a	10		1		Fair condition but flaky internally
1452	n/a	67	2	1		Fair-good condition

Table 29: Number and weight of shellfish

Sample No		35	43	21	24	29	32
Context No		1051	1195	720	762	977	996
Feature		1050	1194	719	1635	975	995
Description		Pit fill	Pit fill	Pit fill	Ring ditch fill	Ring ditch fill	Waterhole fill
Date/Phase		EIA	EIA	MIA	MIA	MIA	LIA
Volume (L)		40	35	34	36	40	20
Flot Volume (ml)		50	28	20	14	20	10
Proportion of flot sorted		100%	100%	100%	100%	100%	100%
Cereal grain							
Triticum sp.	wheat	41	36	21	21	14	13
cf *Triticum* sp.		13	19	12	12	7	12
Hordeum sp.	barley				4	1	
cf *Hordeum* sp.				2		1	3
Avena sp.	oat		6	6			1
Avena/Bromus	oat/brome	5	5	9	8	2	2
Cerealia	indet cereal	23#	49#	27#	28#	26#	39#
Chaff							
Triticum spelta L.	spelt glume base	74	96	32	22	52	10
Triticum dicoccum/spelta	emmer/spelt glume base fragments	283#	478#	123#	76#	92#	121#
Triticum spelta L.	spikelet forks	3	5				2
Triticum/Hordeum	rachis internode					1f	
Triticum/Hordeum	rachis node	2f	3f				
Avena sp.	oat awns				*		*
Cerealia	detached embryos	2	3	2	2		2
Nuts/Fruit etc.							
Corylus avellana L.	hazelnut shell	1f	2f				
Legume	>5mm				1f		
Wild Species							
Fumaria officinalis L.	common fumitory		1				
Fabaceae	pea family, small, Lotus type	2	22	3	2		
Vicia/Lathyrus sp. >2 mm	vetch/vetchling/tare, etc.	1 + 2(1/2)	2	1 + 2(1/2) + 1f	1f+ 3(1/2)	3f+ 1(1/2)	
Vicia/Lathyrus sp. <2 mm	vetch/vetchling/tare, etc.	6 + 1(1/2) +2f	3(1/2)	2 + 3(1/2) + 3f			1(1/2)
Medicago sp.	medicks		8	10		1	2

Sample No		35	43	21	24	29	32
Context No		1051	1195	720	762	977	996
Feature		1050	1194	719	1635	975	995
Rumex sp.	docks	1f	8	4	2		
Caryophyllaceae	pink family		2				
Stellaria media (L.) Vill.	common chickweed		3	1			
Amaranthaceae	goosefoot family			3			
Chenopodium sp.	goosefoots		3		1	1	
Sherardia arvensis L.	field madder		1	1	1		
Galium aparine L.	cleavers	2	3	3	1	4f	1
Solanaceae	nightshade family			1			
Veronica hederifolia L.	ivy-leaved speedwell		1				
Asteraceae	daisy family, cirsium size					1f	
Asteraceae	daisy family, leucanthemum/anthemis size			2			
Anthemis cotula L.	stinking chamomile			1			
Tripleurospermum inodorum (L.) Sch. Bip	scentless mayweed	2	1	1		1	
Valerianella dentata/locusta	narrow-fruited cornsalad/common cornsalad					1f	
cf *Juncus* sp.	rushes	1	1		1	1	
Carex sp.	sedges (3 sided)			2			
Carex sp.	sedges (2 sided)		1				
Poaceae	grass seeds (various)	14	22	19	3	8	3
Other							
Indet.	seed/fruit	10#	6#	4#	2#	2#	1#
Poaceae	culm node		1	1	1		
Key: # item is very damaged f = fragment only * fragments rare ** fragments occasional *** fragments common (1/2) half only present s = silicified							

Table 30: Charred remains from Iron Age features

Sample No		18	17	15	23	28	26	52	59
Context No		578	586	522	745	951	923	1309	1465
Feature		577	1617	1632	1632	1632	919	1307	1463
Description		Pit fill	Ditch fill	Ditch fill	Ditch fill	Ditch fill	Pit fill	Pit fill	Well fill
Date/Phase		ER	MR	LR	LR	LR	LR	LR	LR
Volume (L)		5	10	36	34	40	40	40	32
Flot Volume (ml)		10	8	75	195	50	150	400	15
Proportion of flot sorted		100%	100%	100%	25%	100%	25%	25%	100%
Cereal grain									
Triticum sp.	wheat	12	30	111	414	299	132	18	27
cf *Triticum* sp.		19	15	16	182	213	63	9	22
Hordeum sp.	barley	1		1	10	21			1
cf *Hordeum* sp.		5	2		9	10	15	2	2
Avena	oat			3	4		5		
Avena/Bromus	oat/brome	5		10	12	8	11		3
Cerealia	indet cereal	37#	39#	104#	149#	319#	270#	27#	52#
Chaff									
Triticum spelta L.	spelt glume base	16	3	391	121	17	49	32	166
Triticum dicoccum/spelta	emmer/spelt glume base fragments	164#	33#	1319#	1347#	61#	201#	254#	1621#
Triticum spelta L.	spikelet forks			3	24		5		
Hordeum sp.	rachis internode	1f					5f		
Triticum/Hordeum	rachis internode							1f	
Triticum/Hordeum	rachis node	3f		3f	4f		13f		
Triticum/Hordeum	wheat/barley awns	*s				****s	*****s		
Cerealia	detached embryos	2	3	11	175	2	8	2	24
Cerealia	coleoptiles		3f	65 + 72f	5 + 1f	140 + 28f	3	1 + 7f	25 + 26f
Nuts/Fruit etc.									
Corylus avellana L.	hazelnut shell					1f	2f		
Prunus cf *spinosa*						3f			
Legume	>5mm	1f						1f	1f
Wild species									
Papaver sp.	poppy				1				

Sample No		18	17	15	23	28	26	52	59
Context No		578	586	522	745	951	923	1309	1465
Feature		577	1617	1632	1632	1632	919	1307	1463
Ranunculus acris/repens/bulbosus	buttercups					1	4		
Fabaceae	pea family, small, Lotus type	4		3		1	4	5	5
Vicia/Lathyrus sp. >2 mm	vetch/vetchling/tare, etc		1(1/2)	2(1/2) + 1f	7(1/2) + 1f	3			
Vicia/Lathyrus sp. <2 mm	vetch/vetchling/tare, etc	5 + 2(1/2) + 1f		3 + 2(1/2) + 2f	4 + 4 (1/2) + 1f	1 + 2(1/2)	1 + 2(1/2)	1 + 2(1/2)	2
Medicago sp.	medicks	2		1			1		6
Rumex sp.	docks	2		10	2		30		4
Rumex/Carex	dock/sedge (3 sided)						7	1	2
Rumex acetosella L.	sheep's sorrel			2			1		
Stellaria media (L.) Vill.	common chickweed							1	
Agrostemma githago L.	corncockle	2			1				
Amaranthaceae	goosefoot family	3							
Chenopodium sp.	goosefoots			13	1		4	8	
Atriplex sp.	oraches			1					
Galium aparine L.	cleavers	3		2	2	1		1	1
Lithospermum arvense L.	field gromwell						18s		
Plantago lanceolata L.	ribwort plantain						2		
Asteraceae	daisy family, cirsium size						10f		
Asteraceae	daisy family, leucanthemum/ anthemis size	3	1		7	2	8	34	
Cirsium /Caardus sp.	thistles			2			4		
Centaurea sp.	knapweeds					1	8		
Leontodon hispidus/autumalis	hawkbit						2		
Leontodon/Picris sp.	hawkbit/hawkweed oxtongue						8		

Sample No		18	17	15	23	28	26	52	59
Context No		578	586	522	745	951	923	1309	1465
Feature		577	1617	1632	1632	1632	919	1307	1463
Anthemis cotula L.	stinking chamomile			80	50	5	32	62	20
Leucanthemum vugare Lam.	oxeye daisy			9	6		4	8	1
Tripleurospermum inodorum (L.) Sch. Bip	scentless mayweed	6	1	16	8	1	5		4
Cyperaceae	sedge family			1					
cf *Eleocharis* sp. R. Br.	spike-rushes			1					1
Carex sp.	sedges (3 sided)		1	1			5		
Carex sp.	sedges (2 sided)	9					1		2
Poaceae	grass seeds (various)	22	2	16	10	7	85	4	19
cf Poaceae	grass seeds (various)						29		
Other									
Indet.	seed/fruit	2#	1#	15#	6#	2#	31#	2#	9#
Raphanus raphanistrum L.	seed capsule							1f	
Poaceae	culm node						1		
Key: # item is very damaged f = fragment only * fragments rare ** fragments occasional *** fragments common (1/2) half only present s = silicified									

Table 31: Charred remains from Roman features (except corndryers)

Sample No		53	46	47	48	56	57
Context No		1269	1214	1242	1242	1449	1450
Feature		1240	1206	1206	1206	1447	1447
Description		Corndryer fill	Middle fill of rake-out pit	Lower fill of rake-out pit	Corndryer fill	Corndryer fill	Corndryer fill
Date/Phase		MR	LR	LR	LR	LR	LR
Volume (L)		28	10	20	20	20	20
Flot Volume (ml)		45	170	470	125	375	150
Proportion of flot sorted		100%	25%	12.5%	25%	50%	50%
Cereal grain							
Triticum sp.	wheat	126	298	297	156	59	74
cf *Triticum* sp.		43	126	59	28	9	14
Hordeum sp.	barley	2	4	8		1	1
cf *Hordeum* sp.		1	2	2	1		1
Avena	oat	4	30	19	16	2	
Avena/Bromus	oat/brome	11	39	67	25	1	
Cerealia	indet cereal	166#	178#	186#	284#	36#	28#
Chaff							
Triticum spelta L.	spelt glume base	445	58	255	85	291	38
Triticum dicoccum/spelta	emmer/spelt glume base fragments	4000+ #	734#	1575#	1151#	849#	62#
Triticum spelta L.	spikelet forks		2	11			
Triticum sp.	rachis internode						
Hordeum sp.	rachis internode						
Triticum/Hordeum	rachis internode	2f				2f	
Triticum/Hordeum	rachis node	5f	2f			4f	
Triticum/Hordeum	wheat/barley awns	****s	*s	*s	***s	*****s	*****s
Avena sp.	oat awns	**	*	**	**		
Avena/Bromus	oat/brome						
Cerealia	detached embryos	5	214	751	13		
Cerealia	coleoptiles	148 + 742f		15 + 21f	1 + 2f	54 + 71f	8
Nuts							
Corylus avellana L.	hazelnut shell	1f			2f		
Wild Species							

Sample No		53	46	47	48	56	57
Context No		1269	1214	1242	1242	1449	1450
Feature		1240	1206	1206	1206	1447	1447
Papaver sp.	poppy				1	2	1
Ranunculus acris/repens/bulbosus	buttercups		1			1	
Fabaceae	pea family, small, Lotus type	3		1		11	1
Vicia/Lathyrus sp. *>2 mm*	vetch/vetchling/tare, etc	1(1/2)			1(1/2)		4 + 1
Vicia/Lathyrus sp. *<2 mm*	vetch/vetchling/tare, etc	1 + 1(1/2)					
Medicago sp.	medicks						
Rumex sp.	docks	1	11	6	3	3	
Rumex/Carex	dock/sedge (3 sided)		9		2		
Rumex acetosella L.	sheep's sorrel			6			1
Caryophyllaceae	pink family					1	
Stellaria gramanea L.	lesser stitchwort					4	
Agrostemma githago L.	corncockle		3	6			
Amaranthaceae	goosefoot family	1				3	
Chenopodium sp.	goosefoots	5			2		
Galium aparine L.	cleavers	1	1			1	
Lithospermum arvense L.	field gromwell					2s	
Veronica hederifolia L.	ivy-leaved speedwell			1			
Asteraceae	daisy family, cirsium size		1	1		3	1
Asteraceae	daisy family, leucanthemum/anthemis size	1	8	12	2	39	
Cirsium arvense (L.) Scop.	creeping thistle			2			
Centaurea sp.	knapweeds					1	1
Leontodon hispidus/autumalis	hawkbit		2	1			
Anthemis cotula L.	stinking chamomile	5	2	12	5	110	5
Leucanthemum vulgare Lam.	oxeye daisy	1		2	1	4	
Tripleurospermum inodorum (L.) Sch. Bip	scentless mayweed	1	2	2		15	
Sambucus nigra L.	elder				1		

Sample No		53	46	47	48	56	57
Context No		1269	1214	1242	1242	1449	1450
Feature		1240	1206	1206	1206	1447	1447
cf Daucas carota L.	wild carrot			3			
cf Juncus sp.	rushes	1		7			
Cyperaceae	sedge family			4			
cf Eleocharis sp.	spike-rushes			1		2	
cf Isolepsis setacea (L.) R. Br.	bristle club rush			2			
Carex sp.	sedges (2 sided)					1	
Poaceae	grass seeds (various)	47	10	18	5	13	
Other							
Indet.	seed/fruit	3#	6#	4#	3#	9#	4#
Raphanus raphanistrum L.	seed capsule						
Poaceae	culm node					3	
Key: # item is very damaged f = fragment only * fragments rare ** fragments occasional *** fragments common (1/2) half only present s = silicified							

Table 32: Charred remains from Roman corndryers

Sample No		38	42
Context No		1127	1190
Feature		1191	1191
Description		NE quadrant of SFB	SW quadrant of SFB
Date/Phase		Anglo-Saxon	Anglo-Saxon
Volume (L)		40	35
Flot Volume (ml)		30	30
Proportion of flot sorted		100%	100%
Cereal grain			
Triticum sp.	wheat	4	11
cf Triticum sp.			5
Hordeum sp.	barley	4	6
Triticum/Hordeum sp.	wheat/barley	6#	7#
Avena/Bromus	oat/brome	1	2
Cerealia	indet cereal	6#	12#
Chaff			
Triticum spelta L.	spelt glume base	6	11
Triticum dicoccum/spelta	emmer/spelt glume base fragments	5	26
Avena sp.	oat awns	*	*
Avena/Bromus	oat/brome		2f
Cerealia	detached embryos		2
Nuts/Fruit etc			
Corylus avellana L.	hazelnut shell		4f
Wild Species			
Vicia/Lathyrus sp. >2 mm	vetch/vetchling/tare, etc	2f	3(I/2) + 1f
Rumex sp.	docks	1f	
Rumex acetosella L.	sheep's sorrel		2
Chenopodium sp.	goosefoots	1	6
Sherardia arvensis L.	field madder		1
Galium aparine L.	cleavers	1	
Veronica hederifolia L.	ivy-leaved speedwell	1	1
Asteraceae	daisy family, cirsium size		1f
Asteraceae	daisy family, leucanthemum/anthemis size		1
Valerianella dentata/locusta	narrow-fruited cornsalad/common cornsalad		3f
cf *Juncus* sp.	rushes		2
Poaceae	grass seeds (various)		2
Other			
Indet.	seed/fruit	2#	4#
Key: # item is very damaged f = fragment only * fragments rare ** fragments occasional *** fragments common (1/2) half only present s = silicified			

Table 33: Charred remains from Anglo-Saxon features

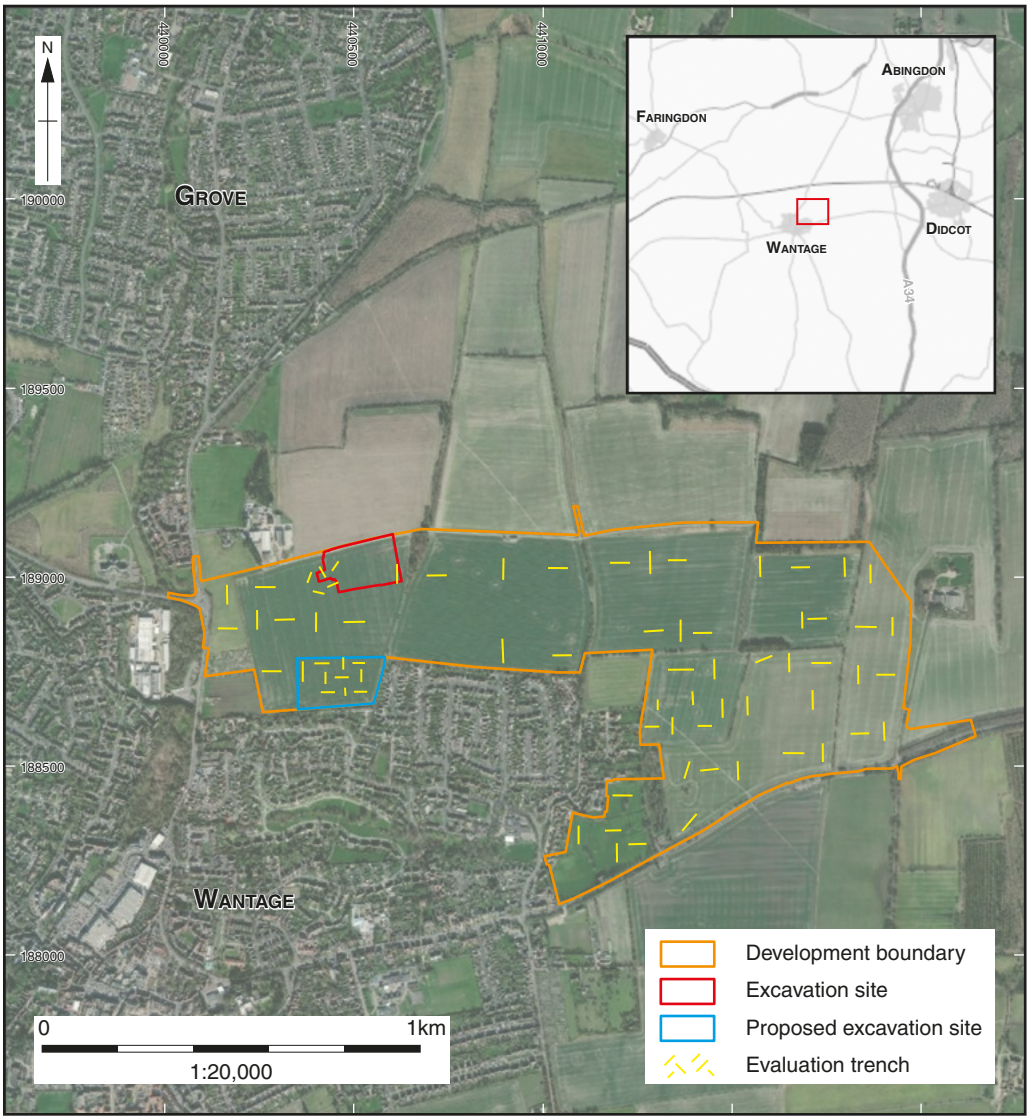


Figure 1: Site location

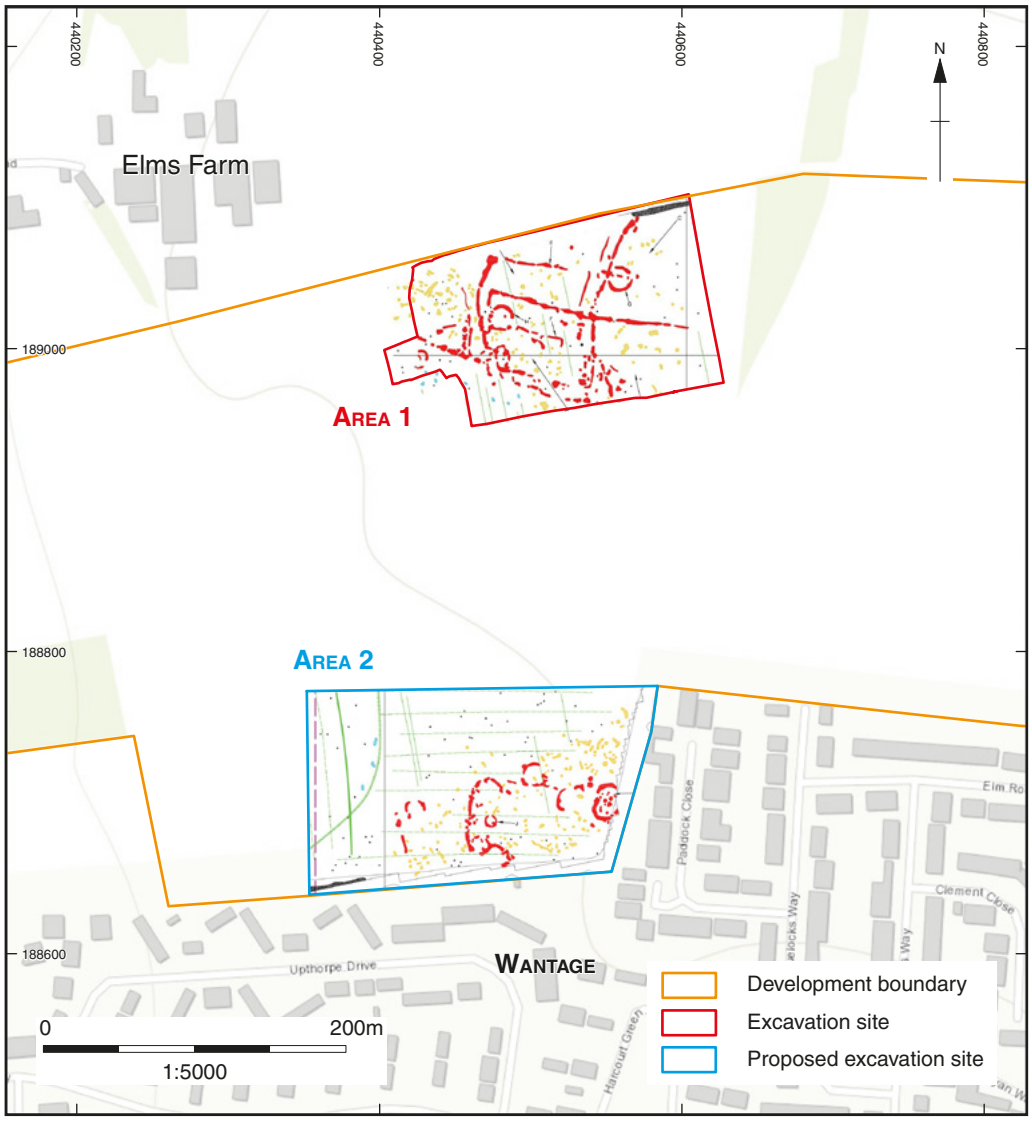


Figure 2: Geophysical survey showing anomalies within present excavation area (Area 1) and proposed excavation area (Area 2)

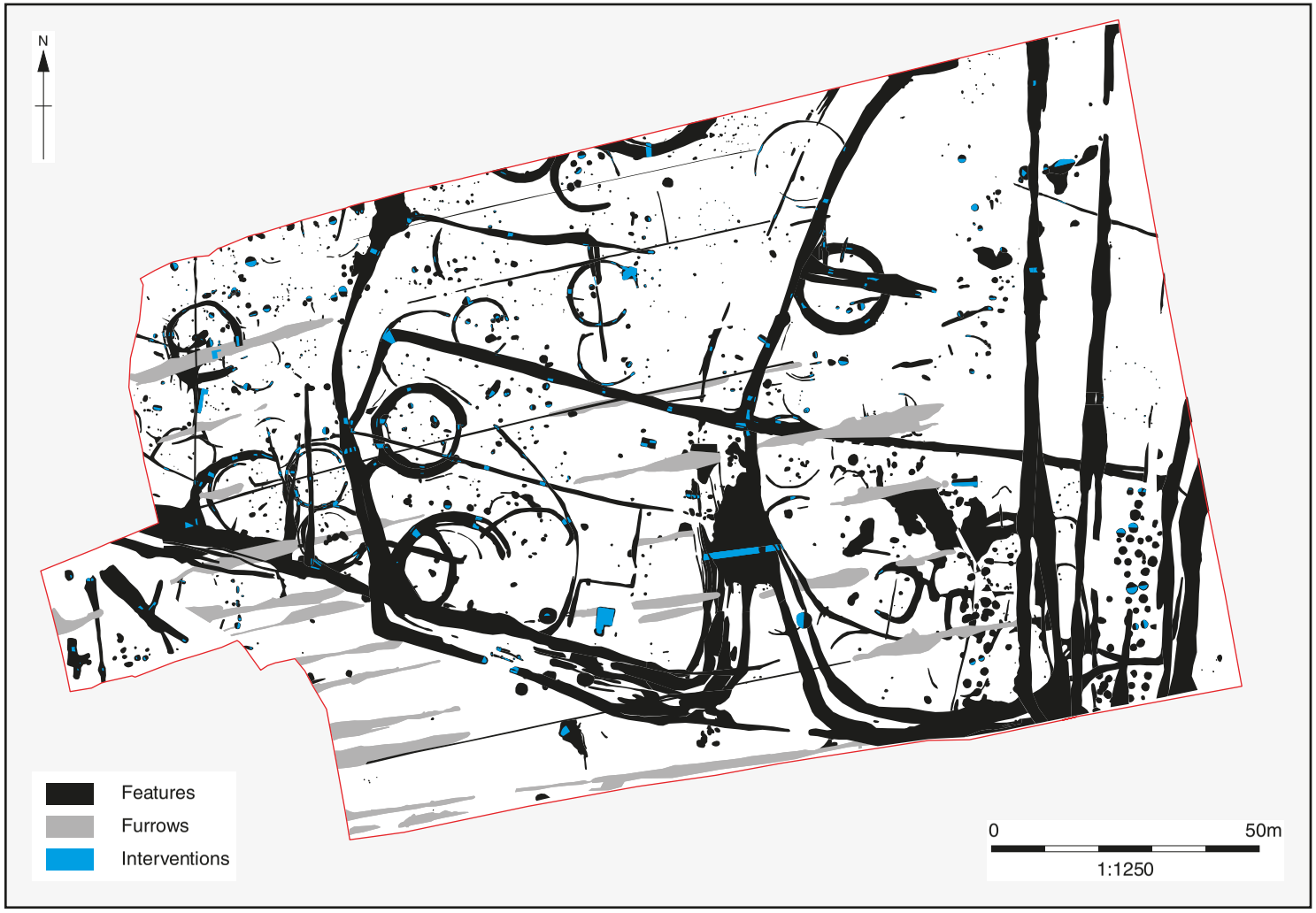


Figure 3: Plan of all features and interventions

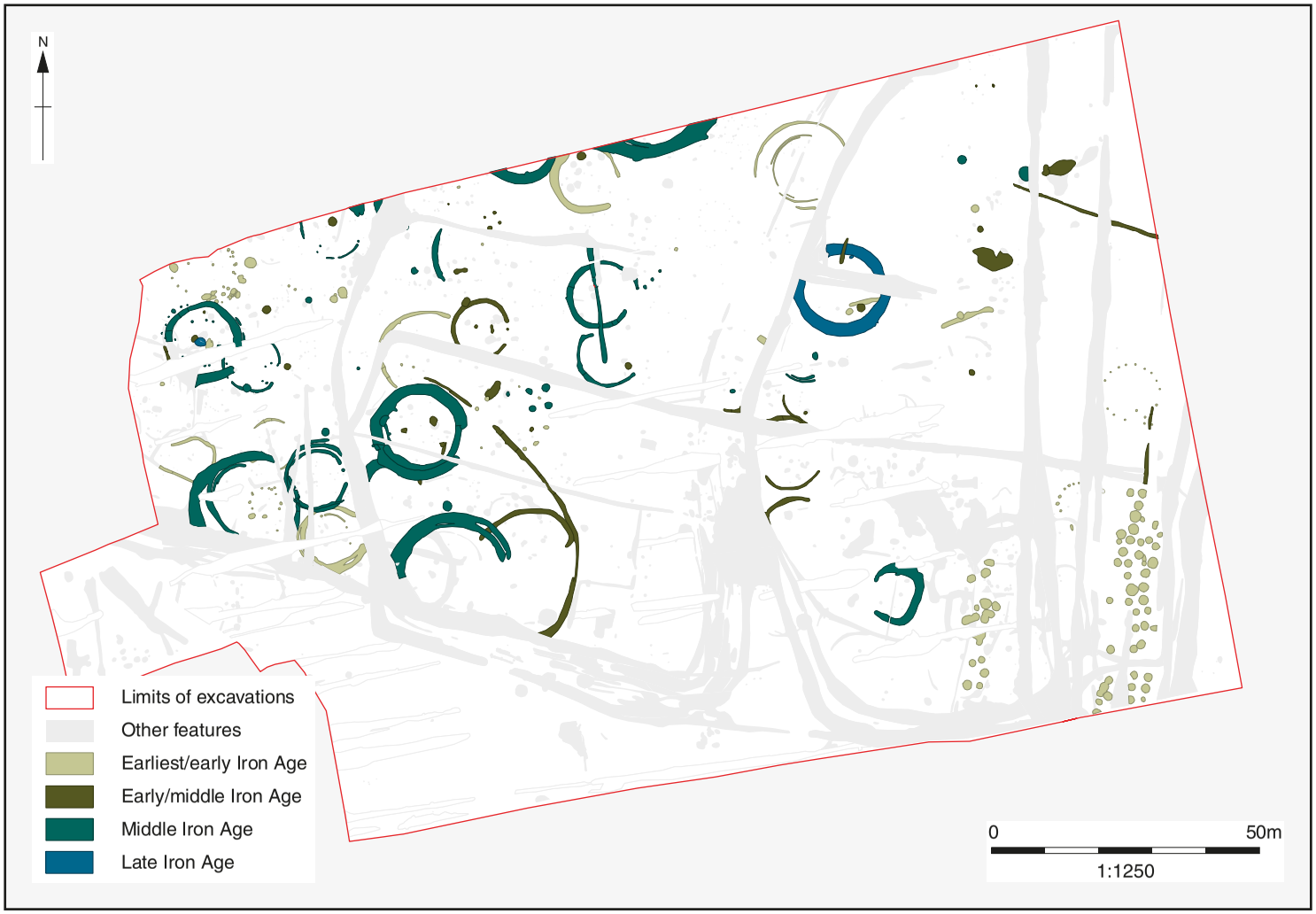


Figure 4: The Iron Age settlement

Figure 5: The Romano-British settlement

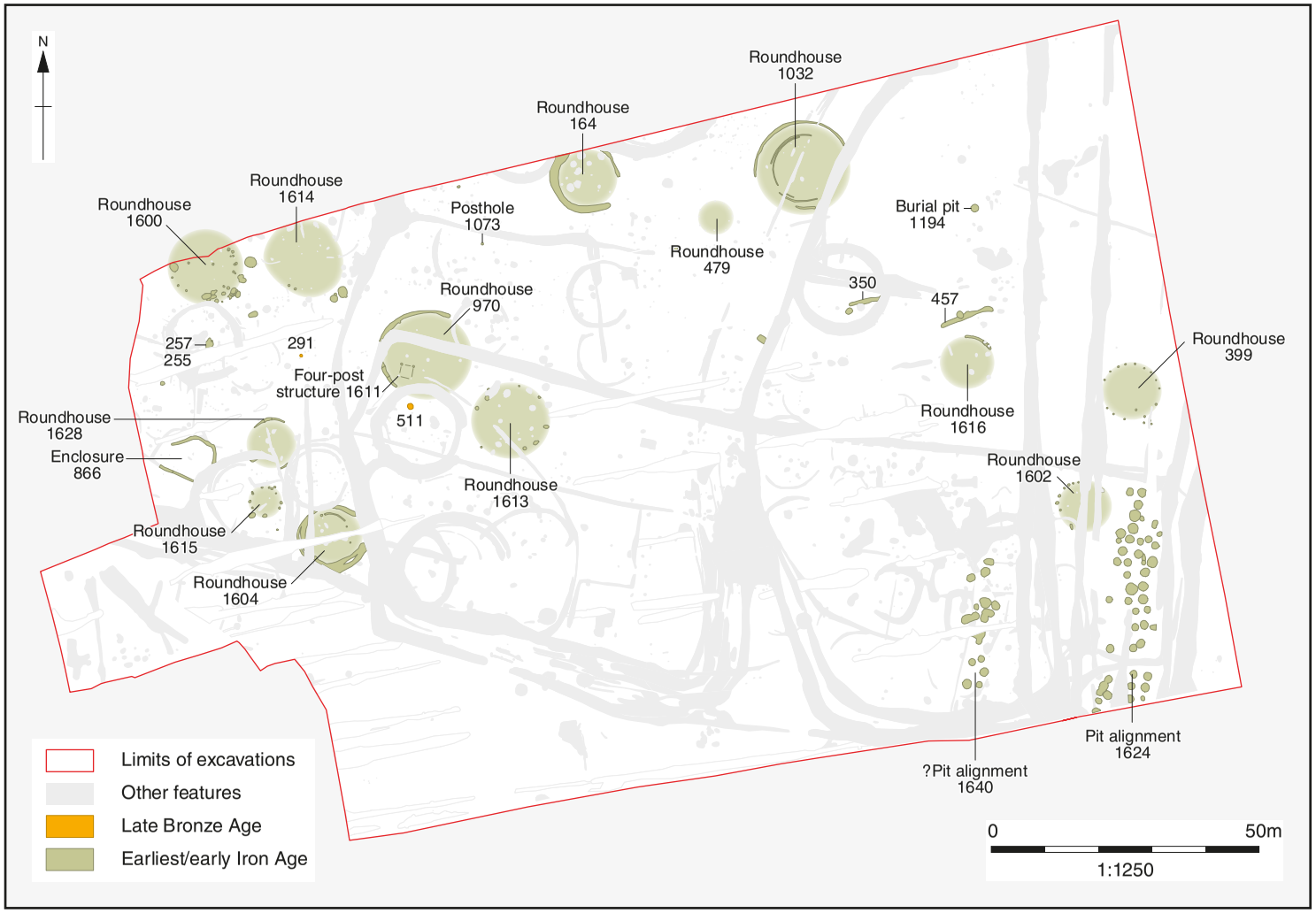


Figure 6: Late Bronze Age and earliest/early Iron Age phase plan

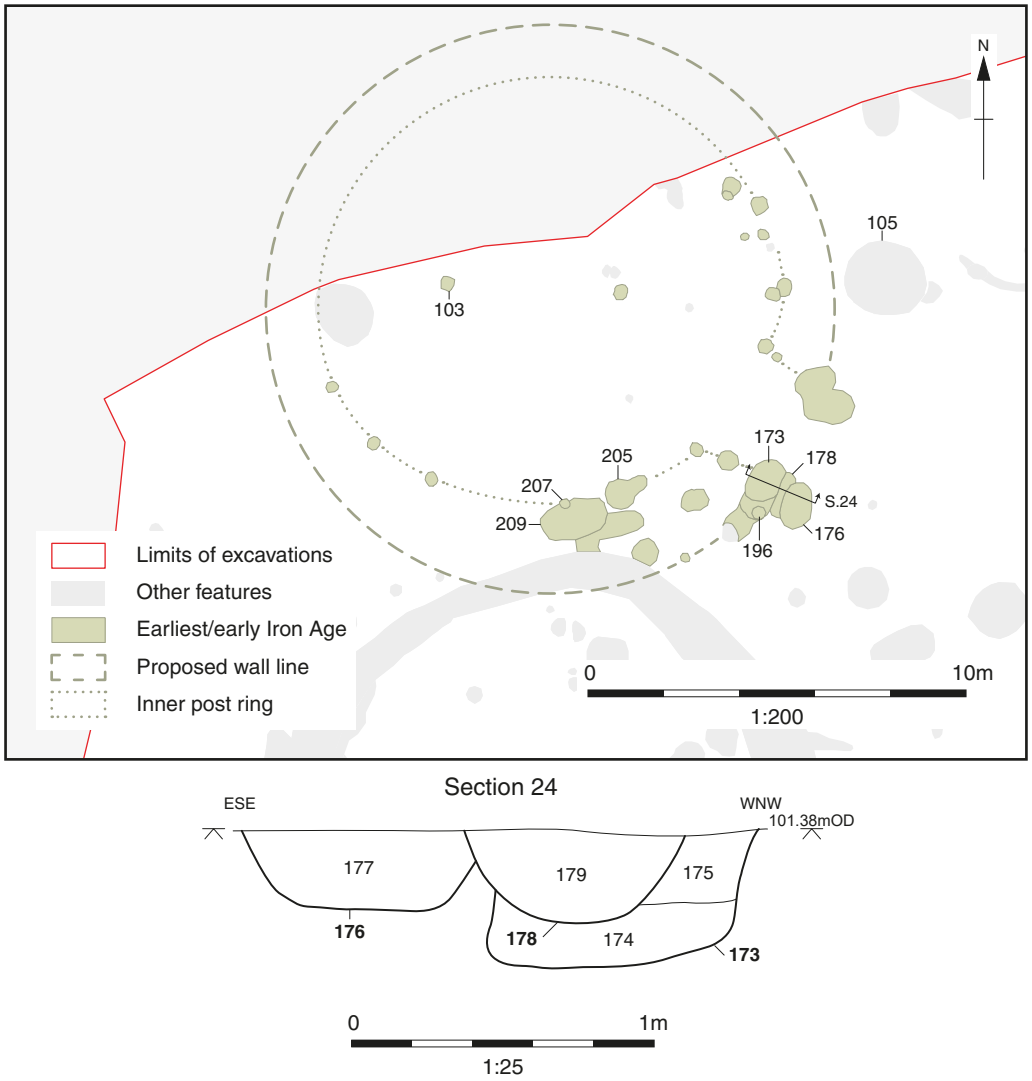


Figure 7: Roundhouse 1600

Figure 8: Roundhouses 1614, 1613 and 479

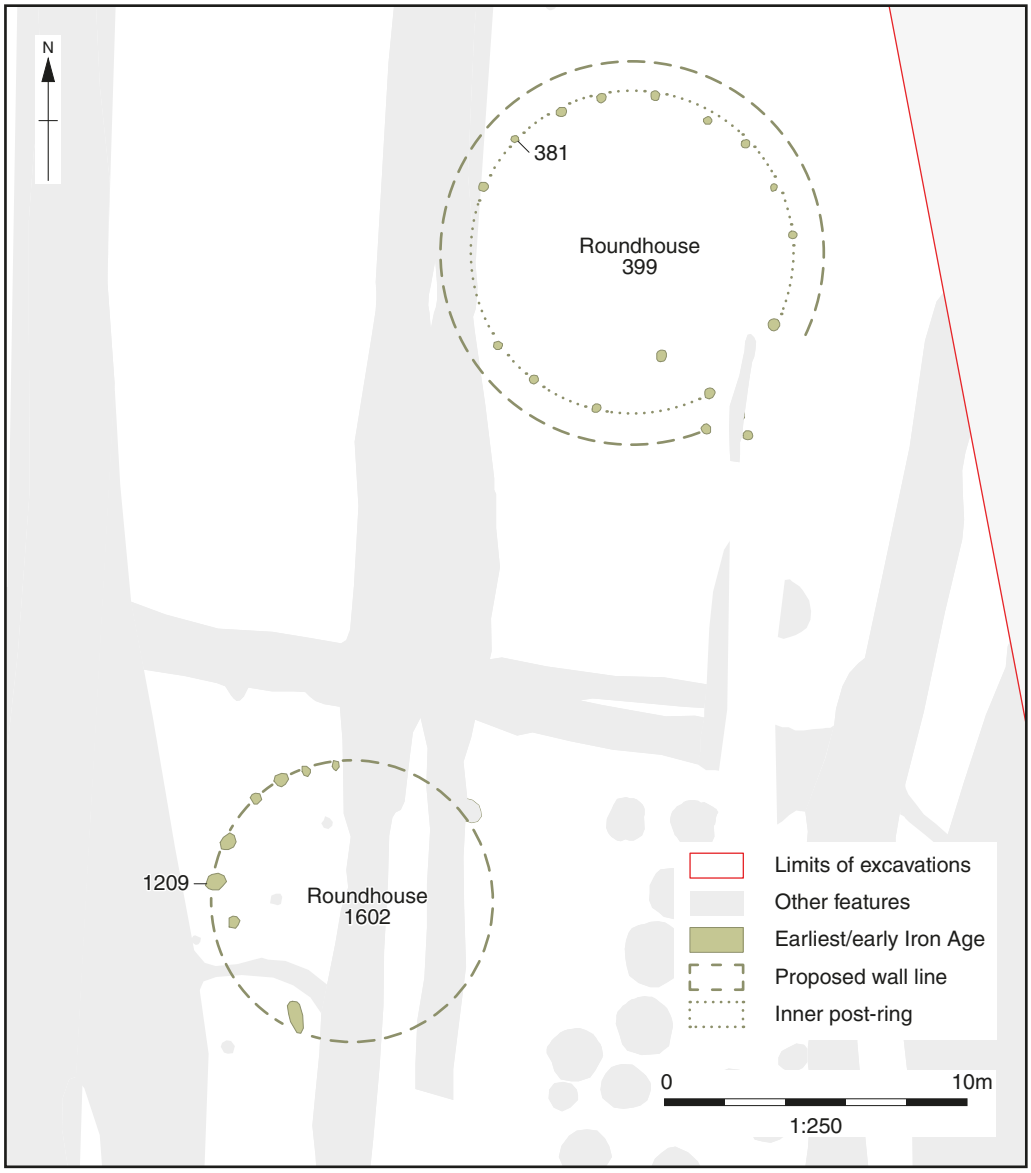


Figure 9: Roundhouse 399 and 1602

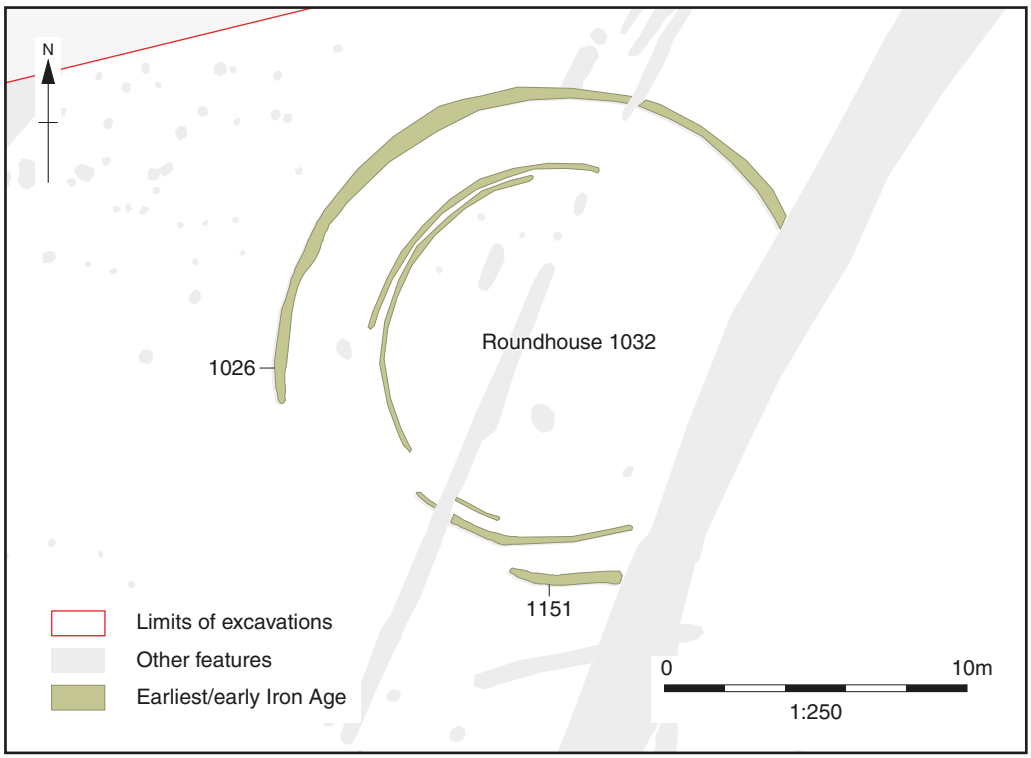


Figure 10: Roundhouse 1032

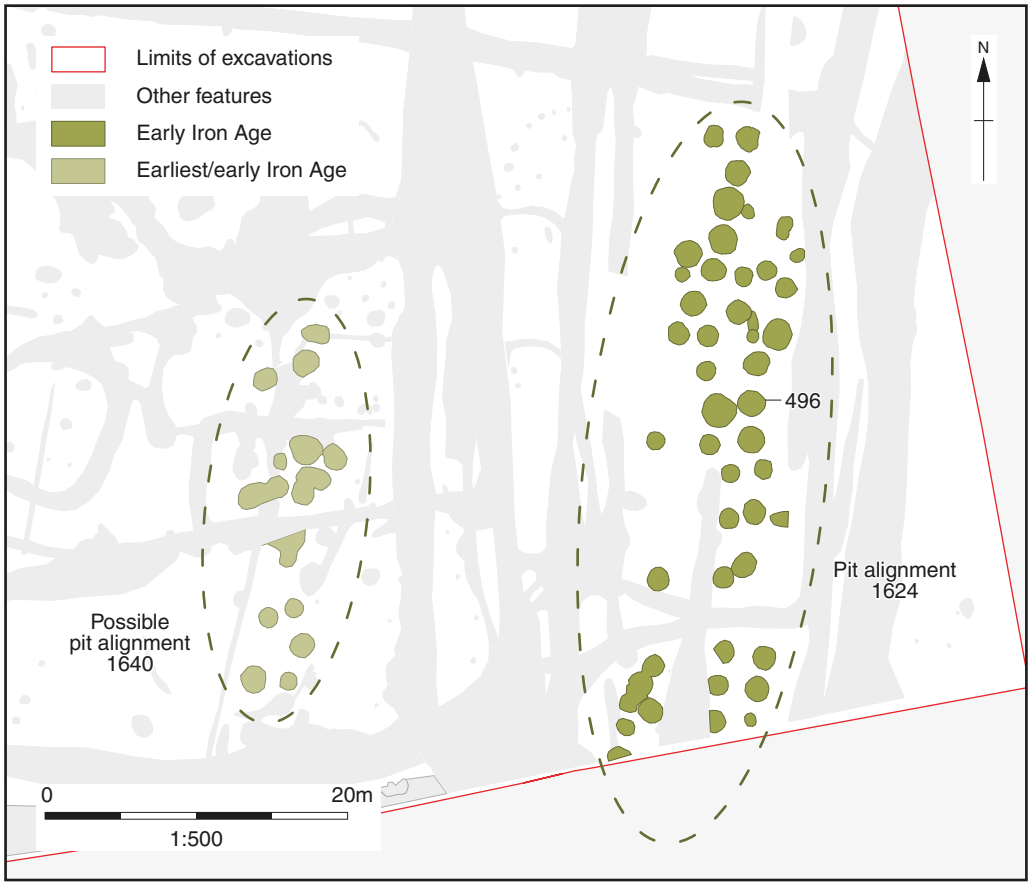


Figure 11: Linear pit groups 1624 and 1640

Figure 12: Early/middle Iron Age phase plan

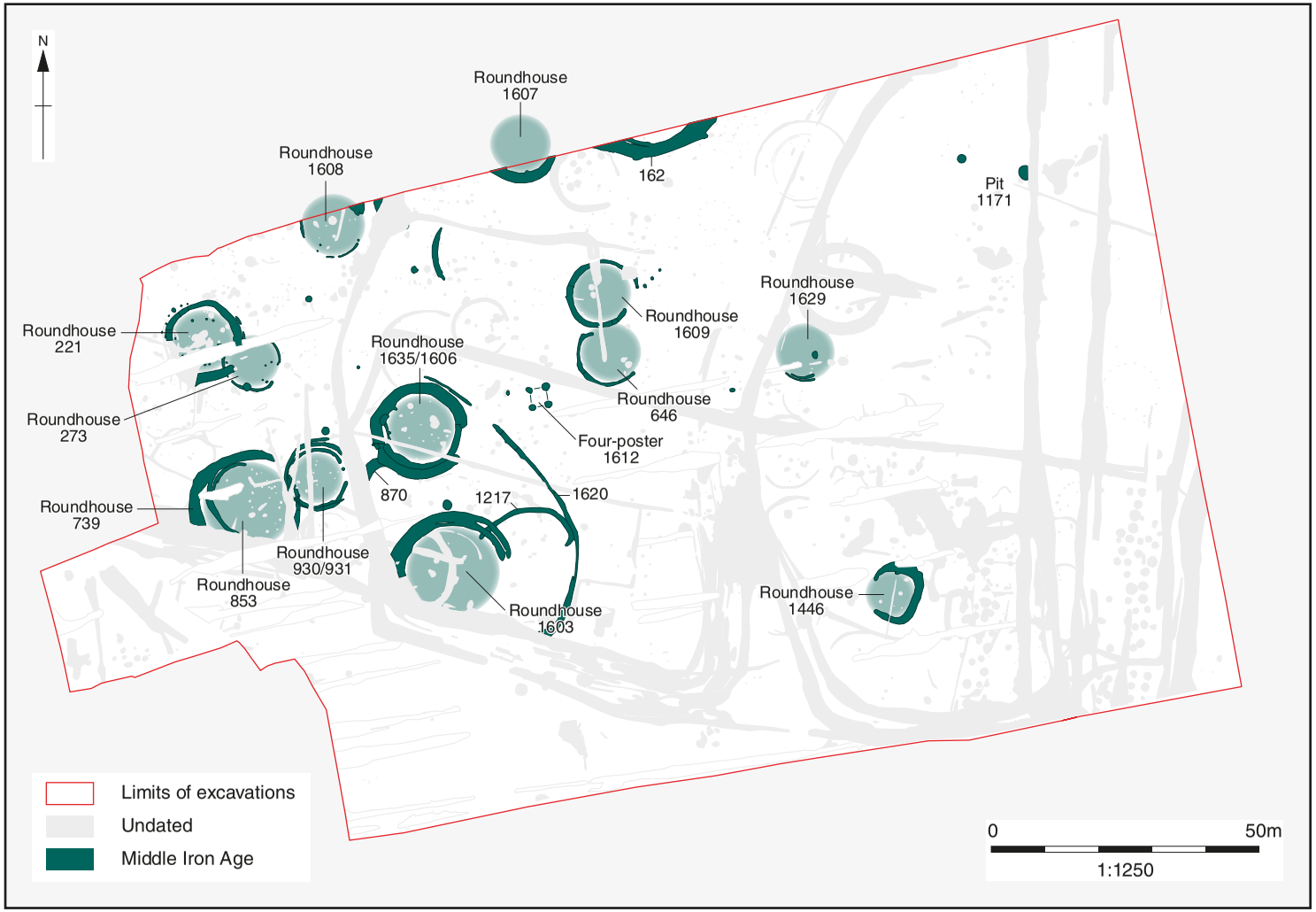
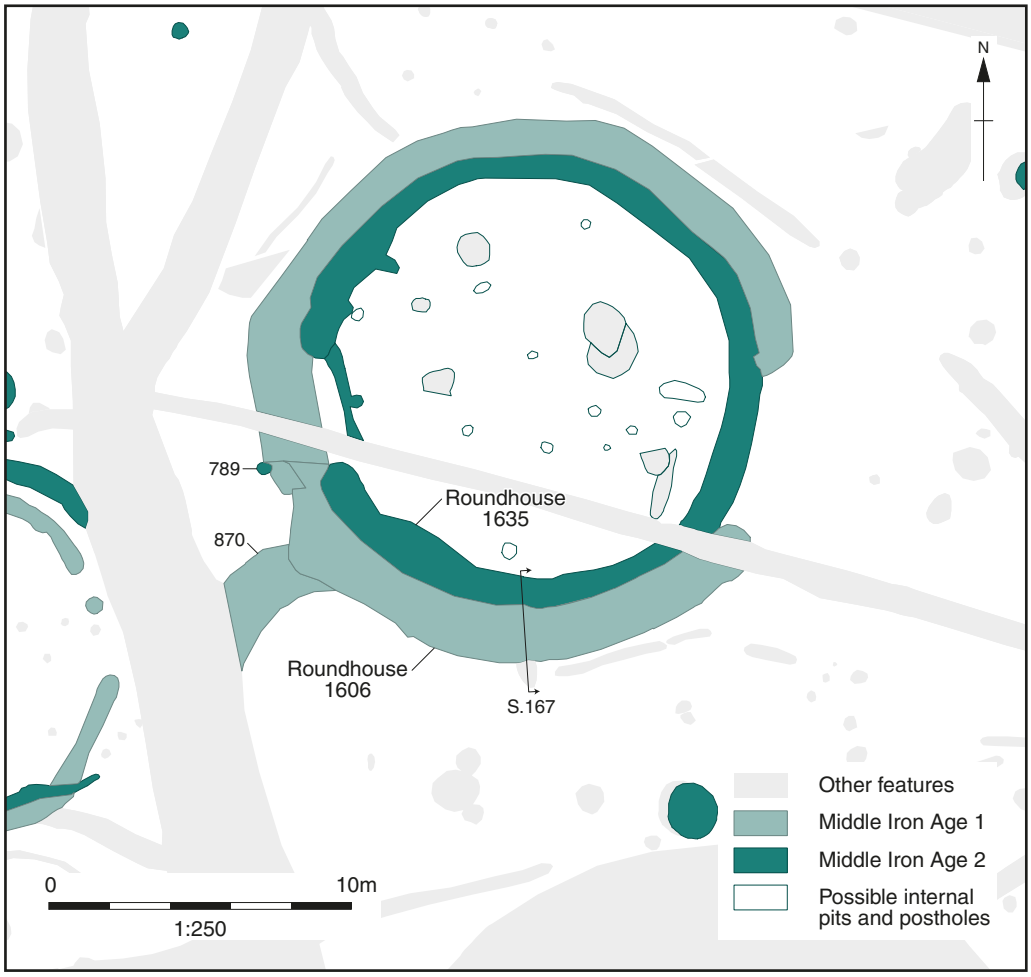


Figure 13: Middle Iron Age phase plan



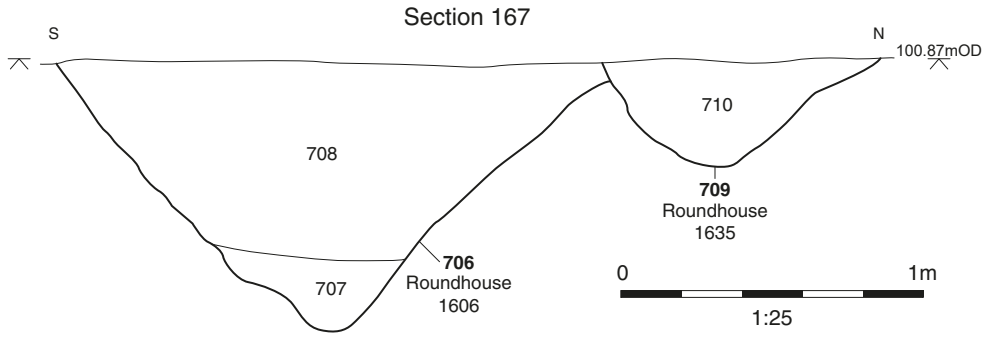


Figure 14: Roundhouses 1606 and 1635

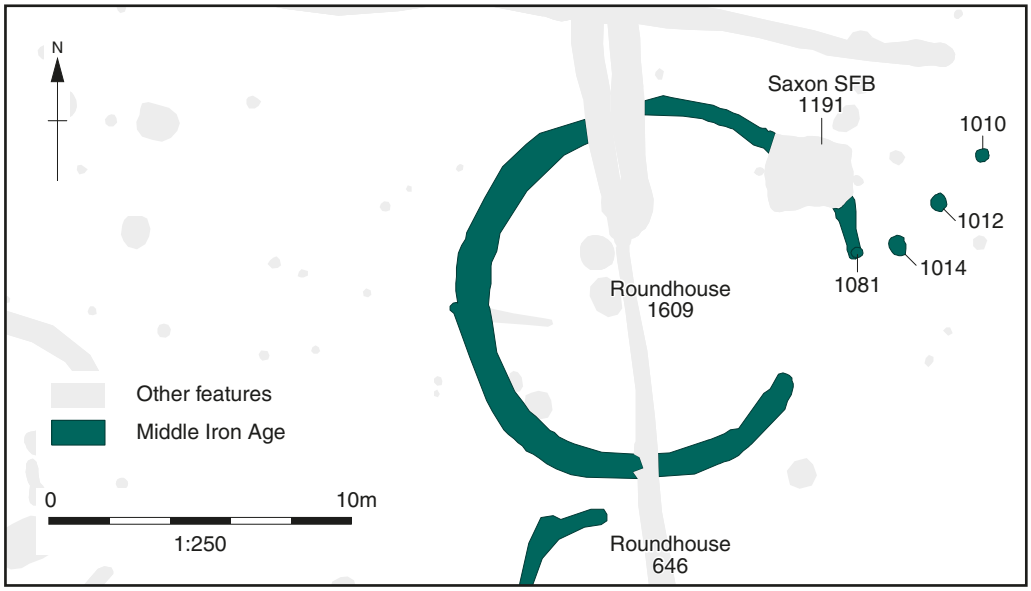


Figure 15: Roundhouse 1609

Figure 16: Roundhouses 273 and 221

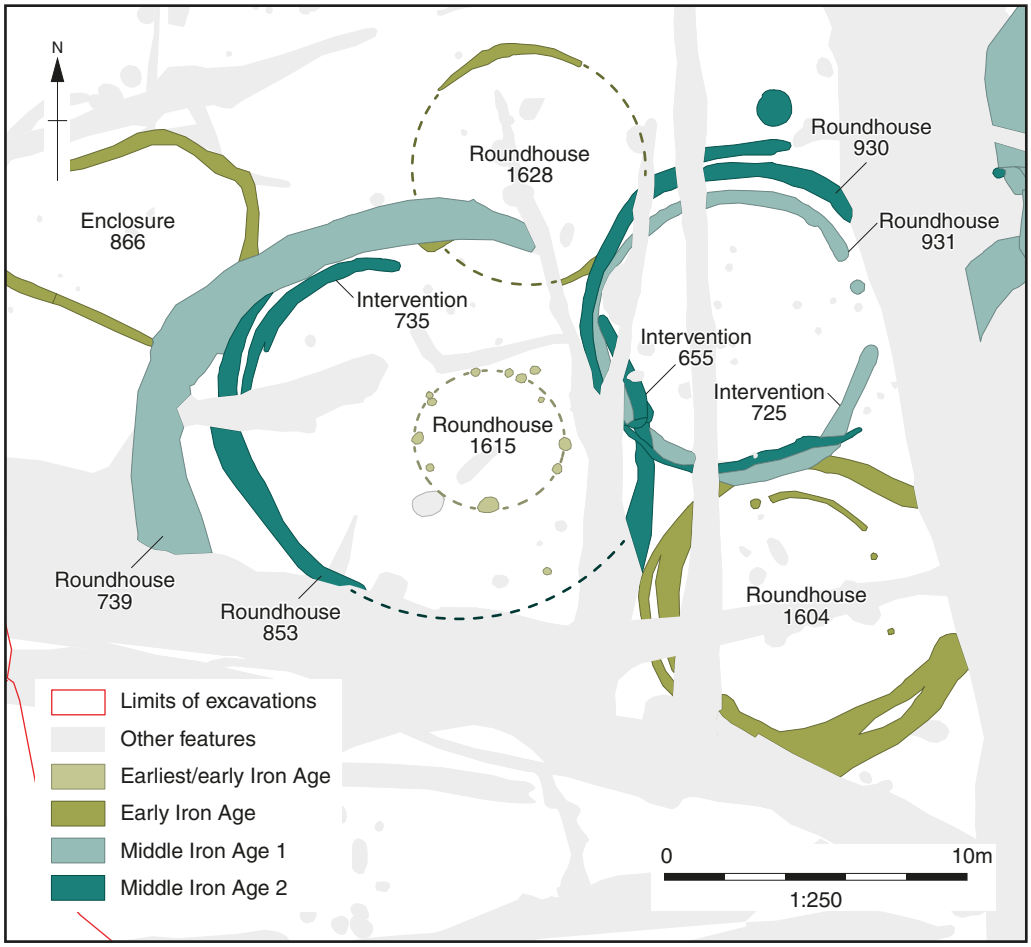


Figure 17: Roundhouses 1615, 1604, 1628, 931, 739, 930, 853 and enclosure 866

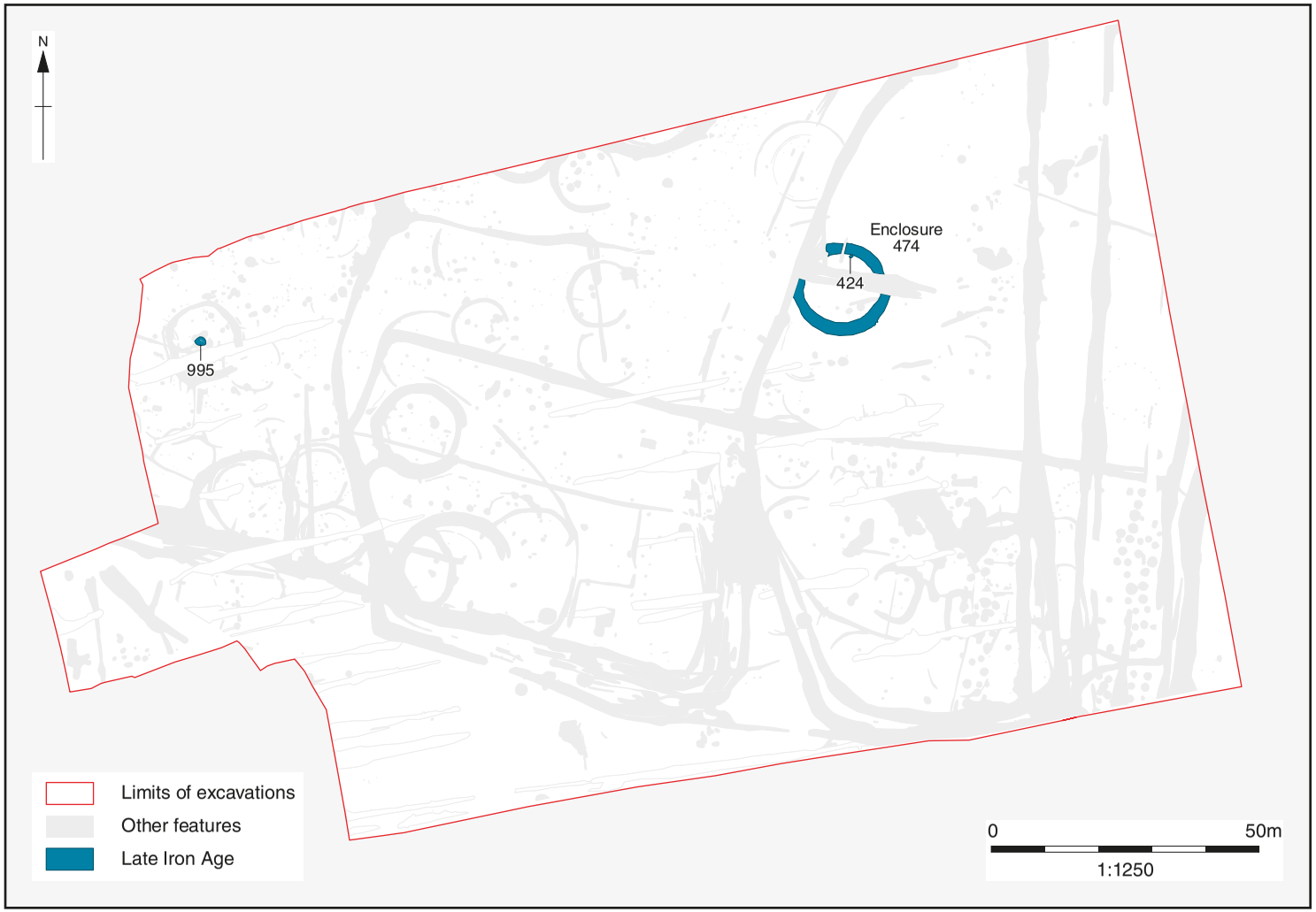


Figure 18: Late Iron Age phase plan

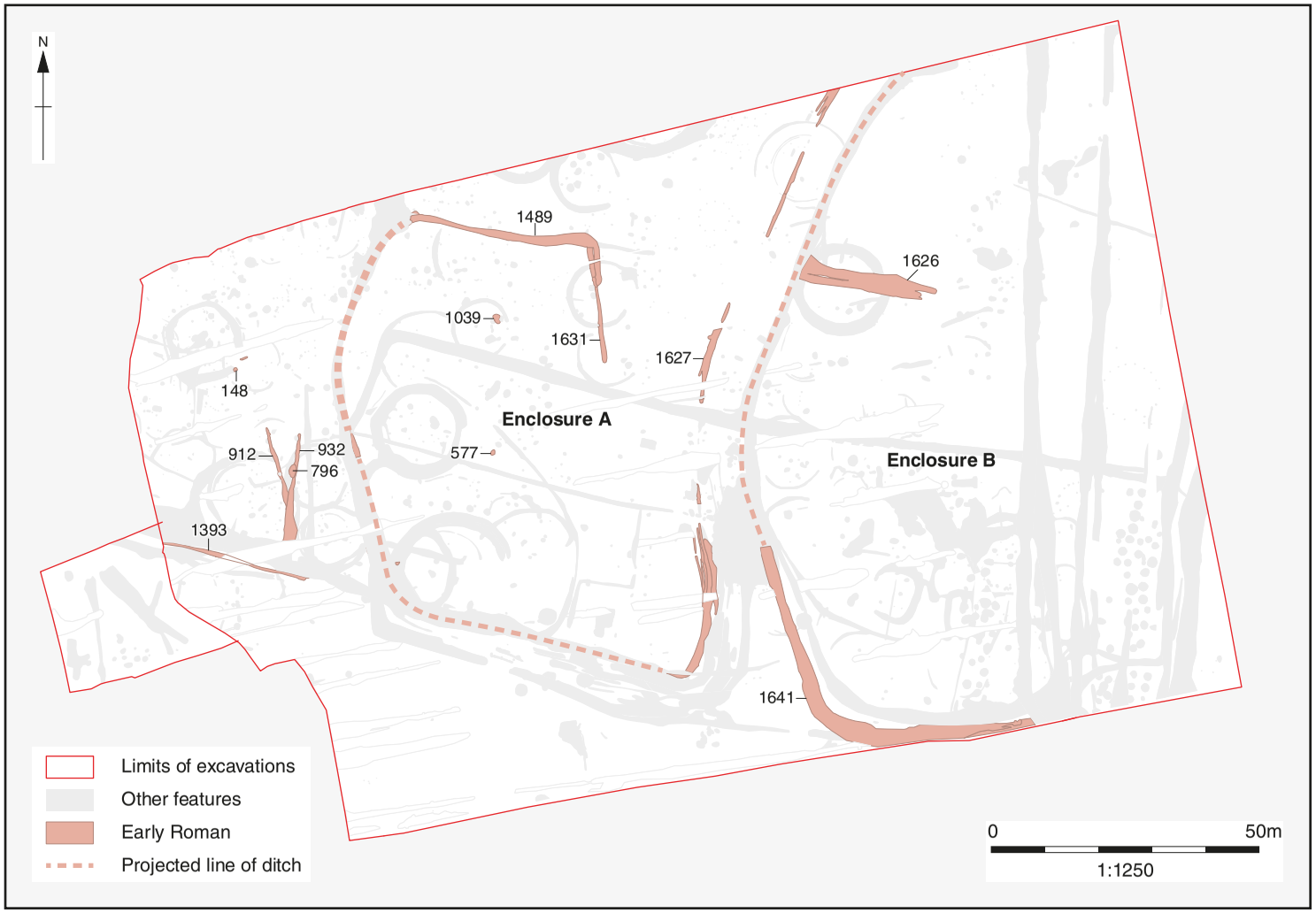


Figure 19: Early Roman phase plan

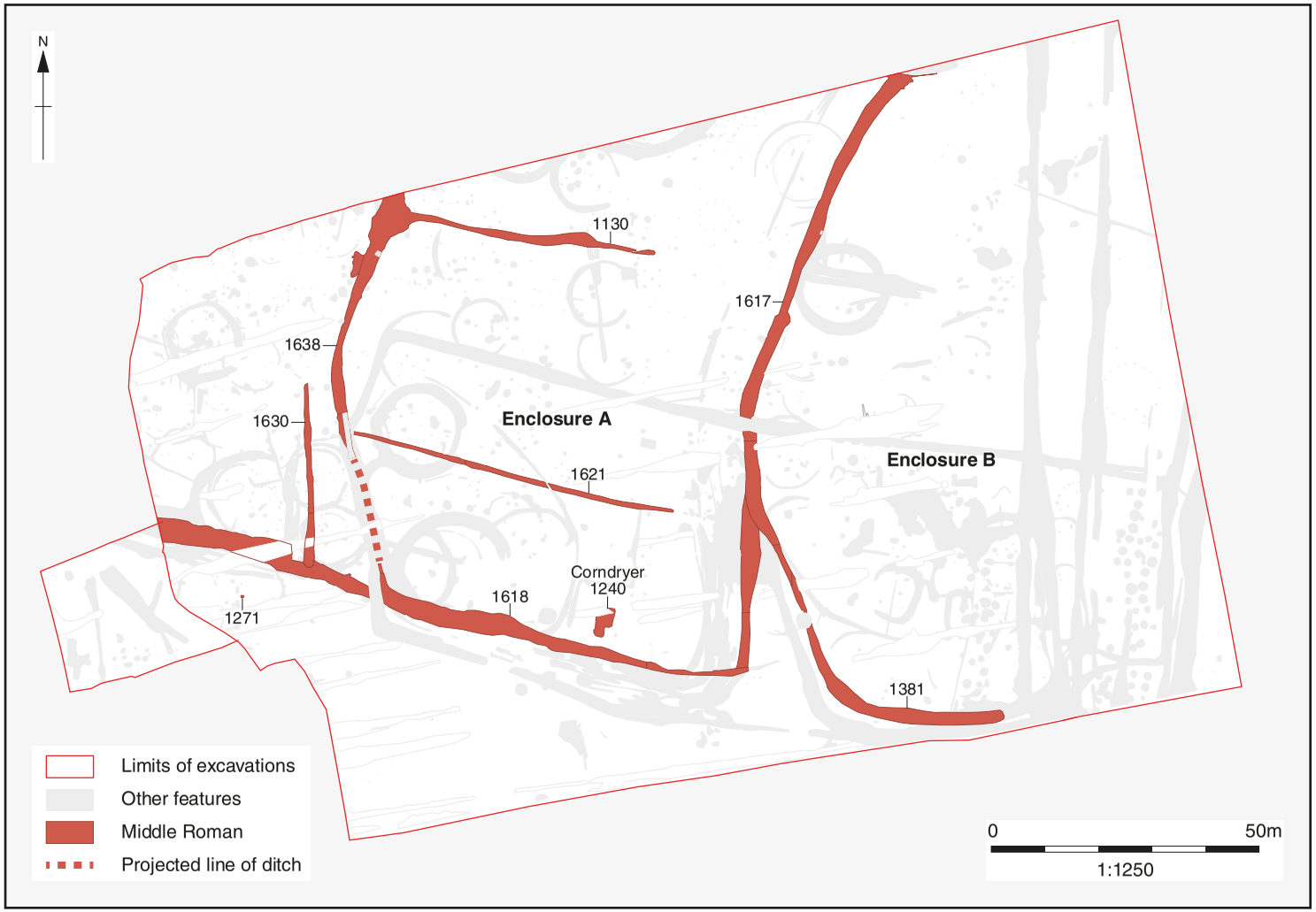


Figure 20: Middle Roman phase plan

Section 320

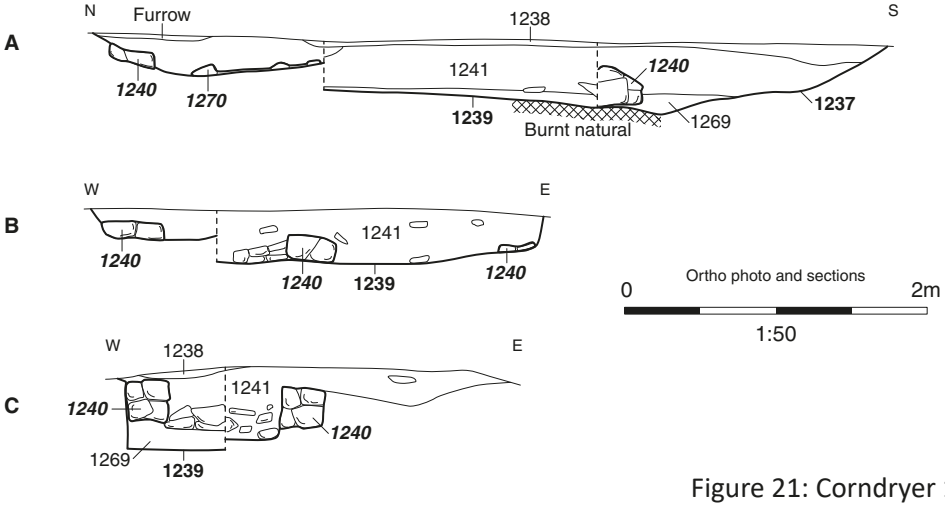


Figure 21: Corndryer 1240

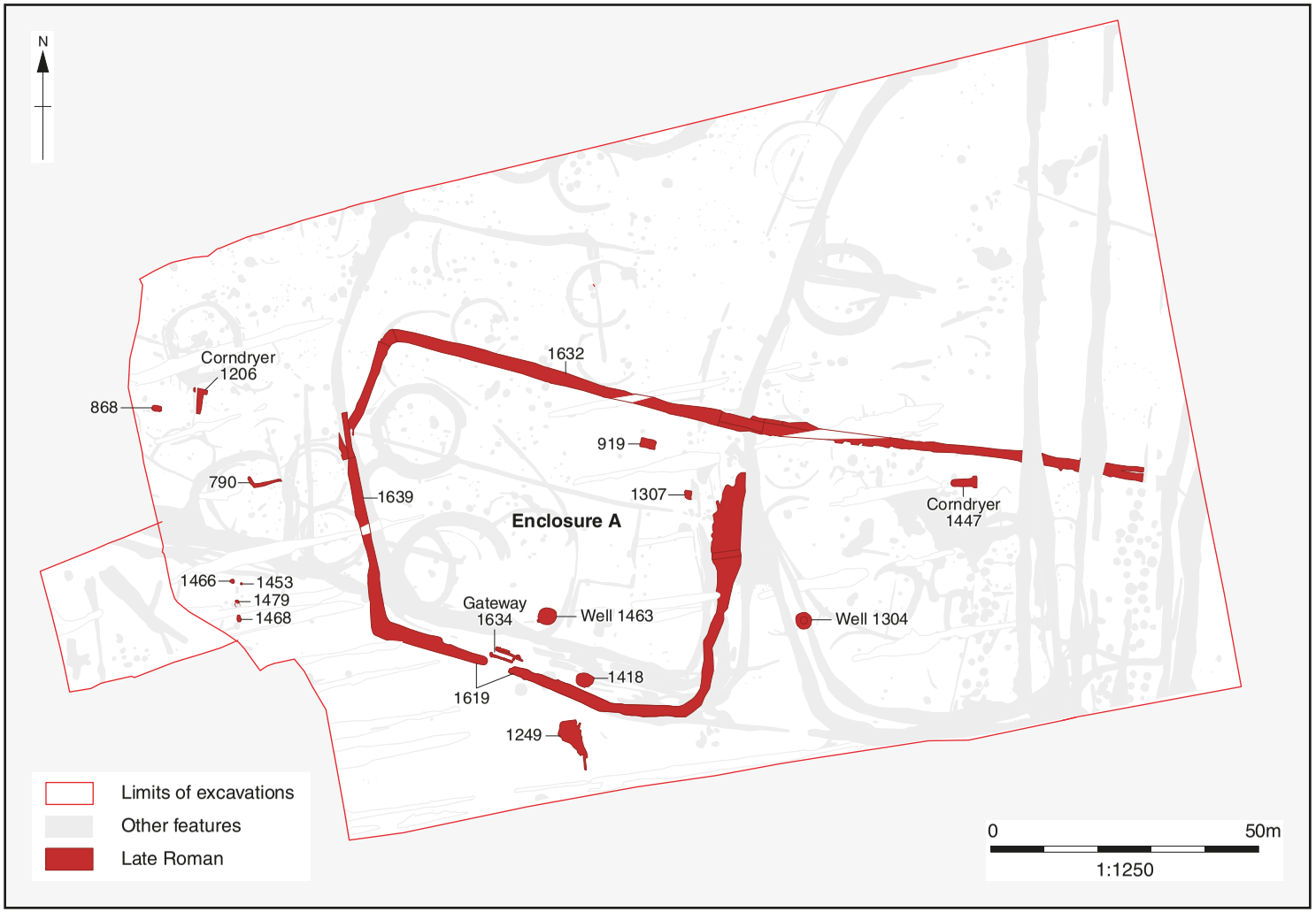
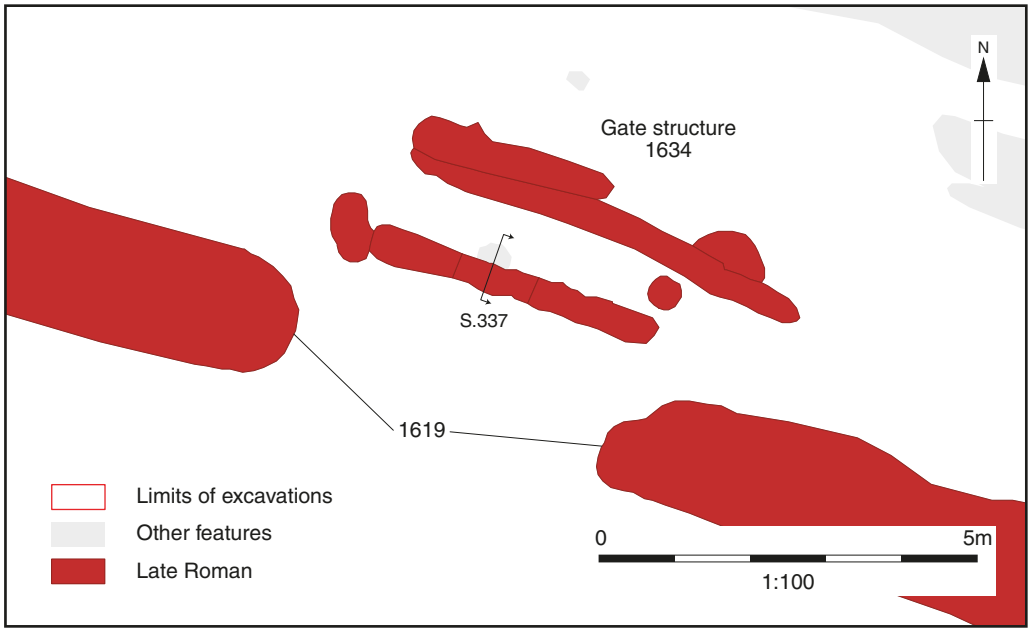


Figure 22: Late Roman phase plan



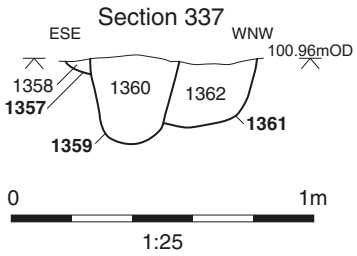
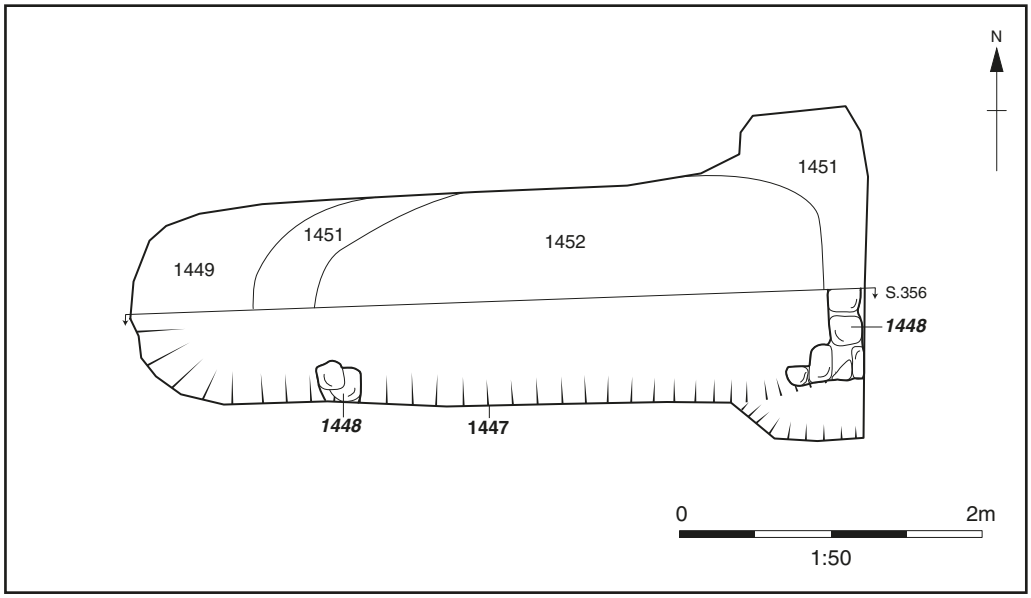


Figure 23: Gateway structure 1634



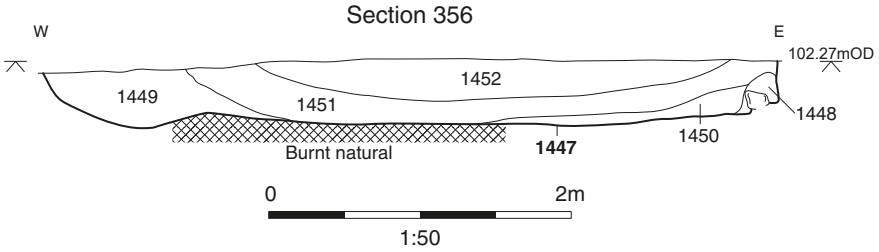
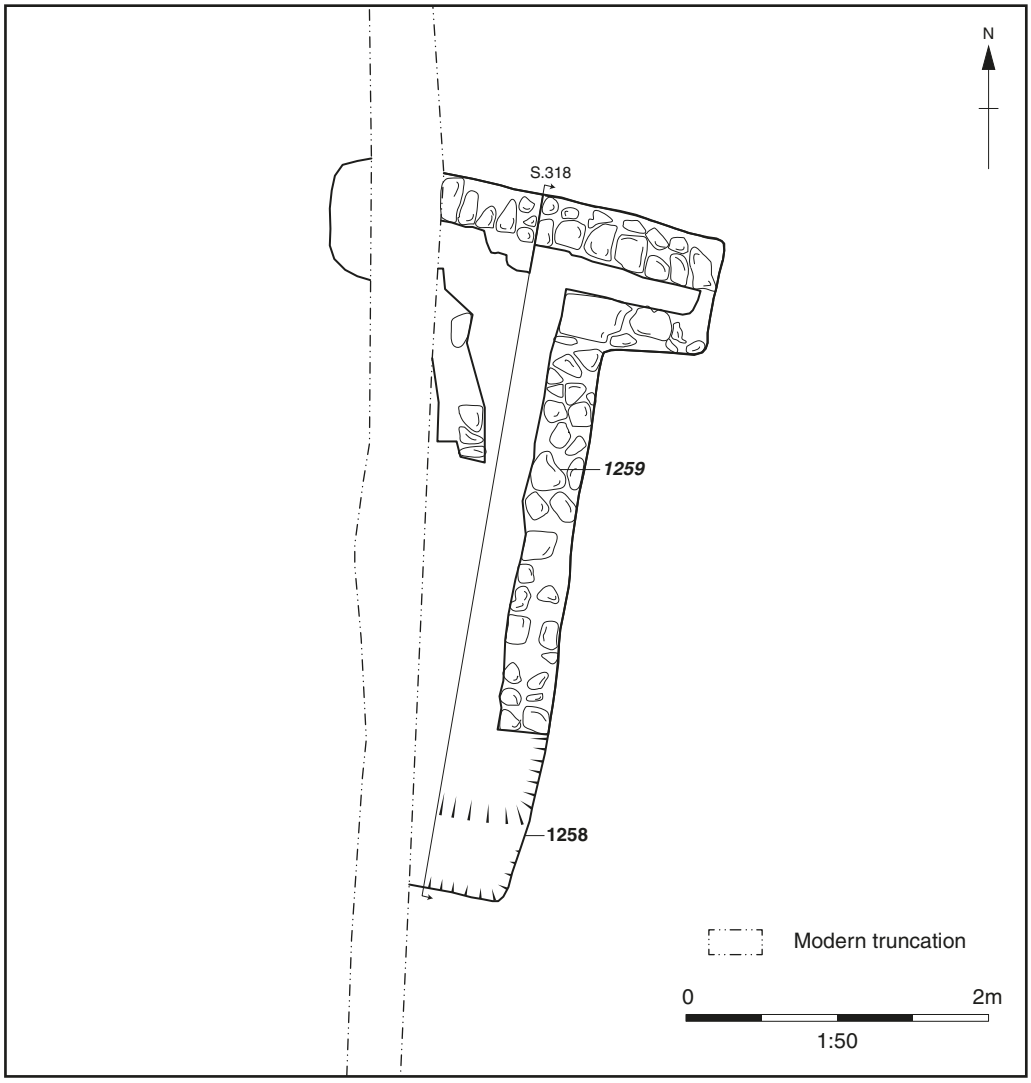


Figure 24: Corndryer 1447



Section 318

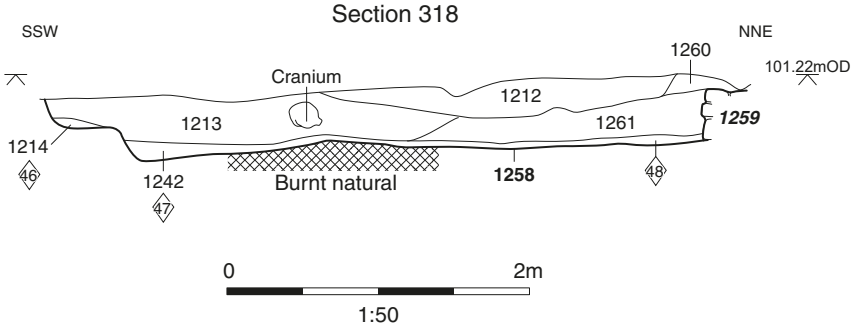


Figure 25: Corndryer 1206

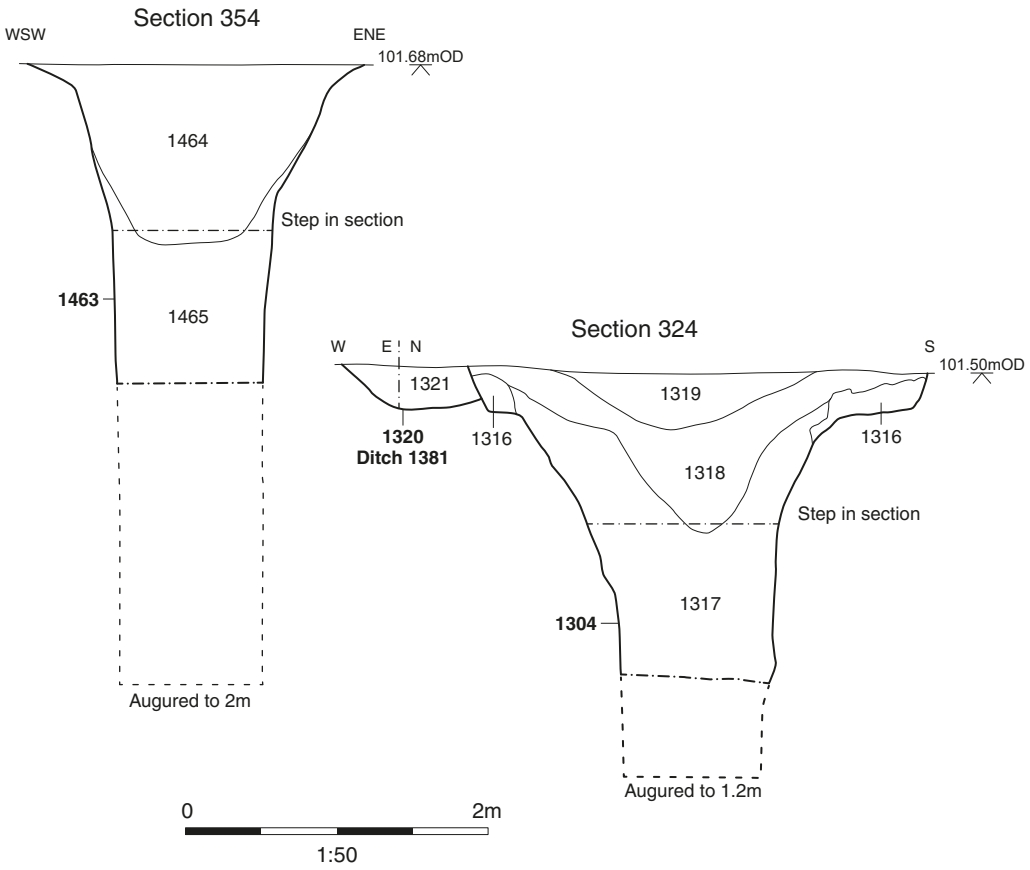


Figure 26: Sections of well 1463 and 1304

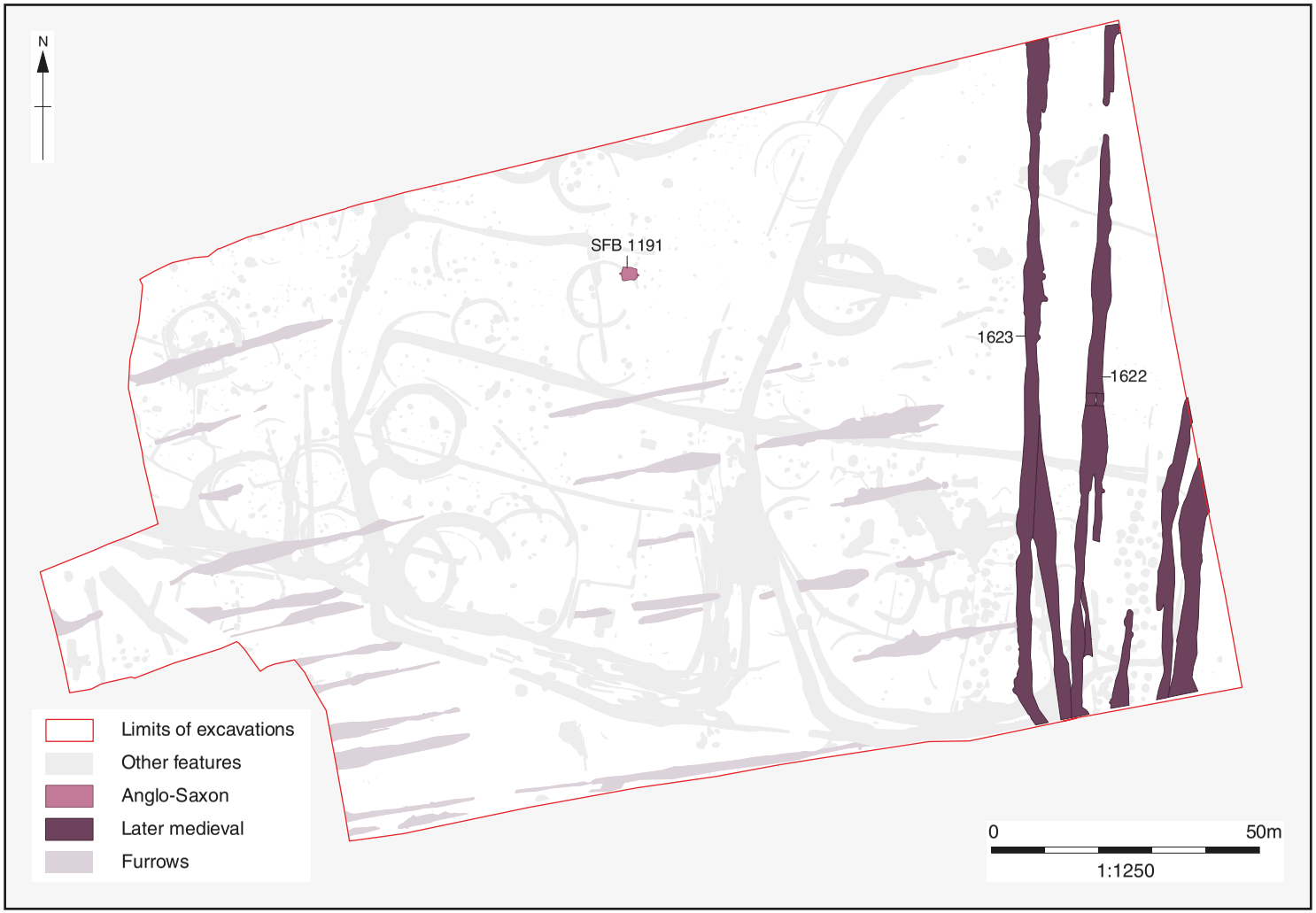


Figure 27: Medieval features

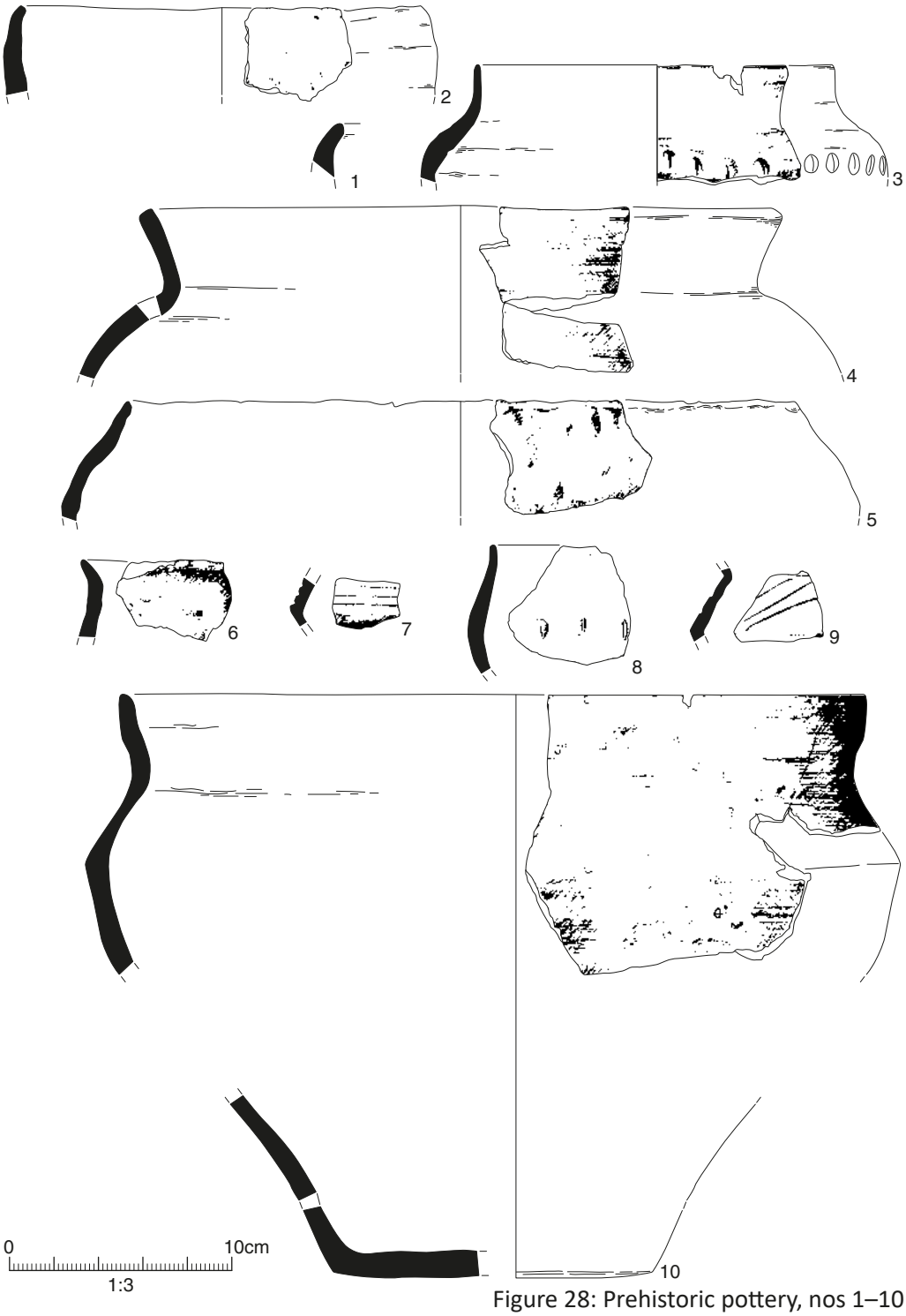


Figure 28: Prehistoric pottery, nos 1–10

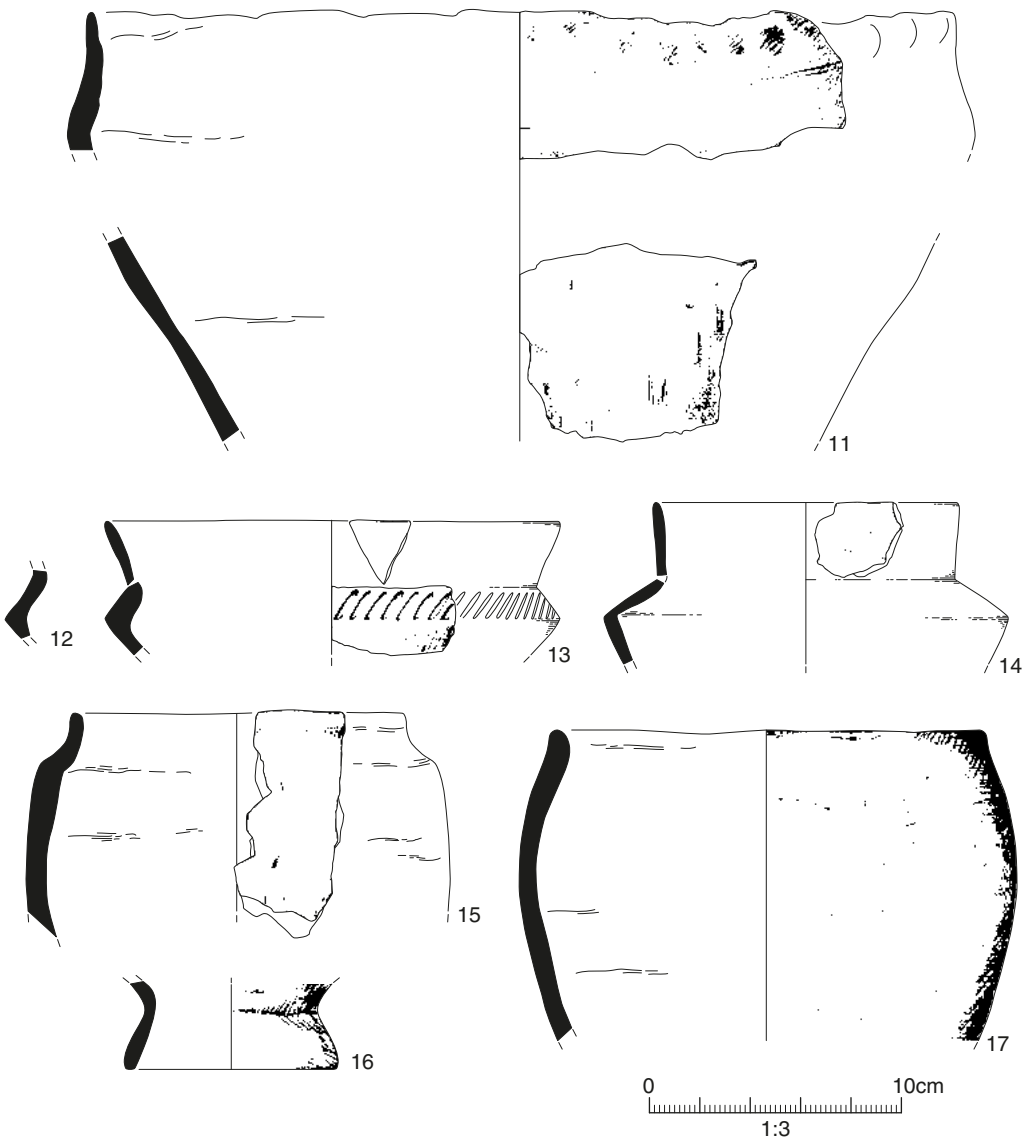


Figure 29: Prehistoric pottery, nos 11–17

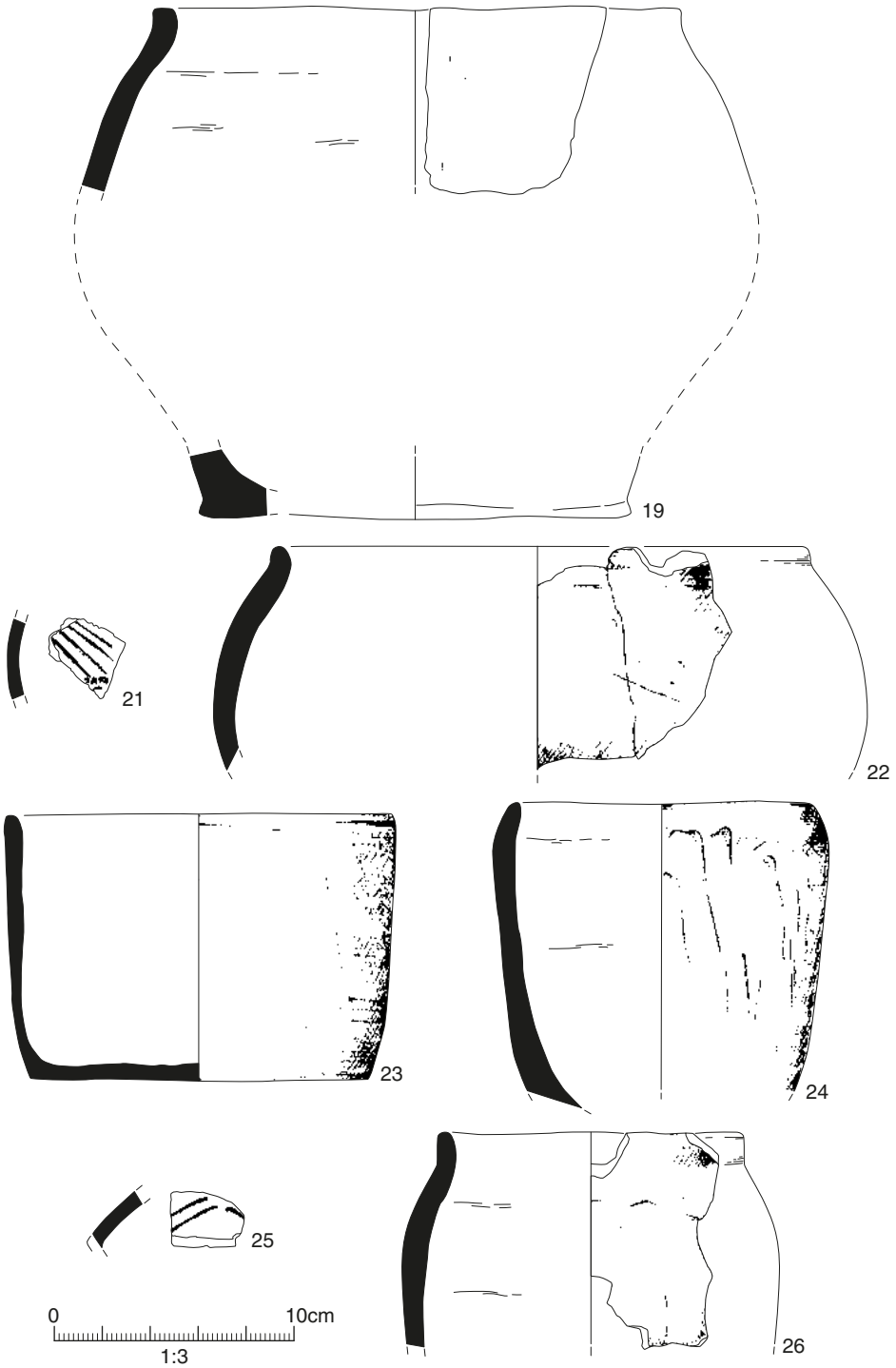


Figure 30: Prehistoric pottery, nos 19–26

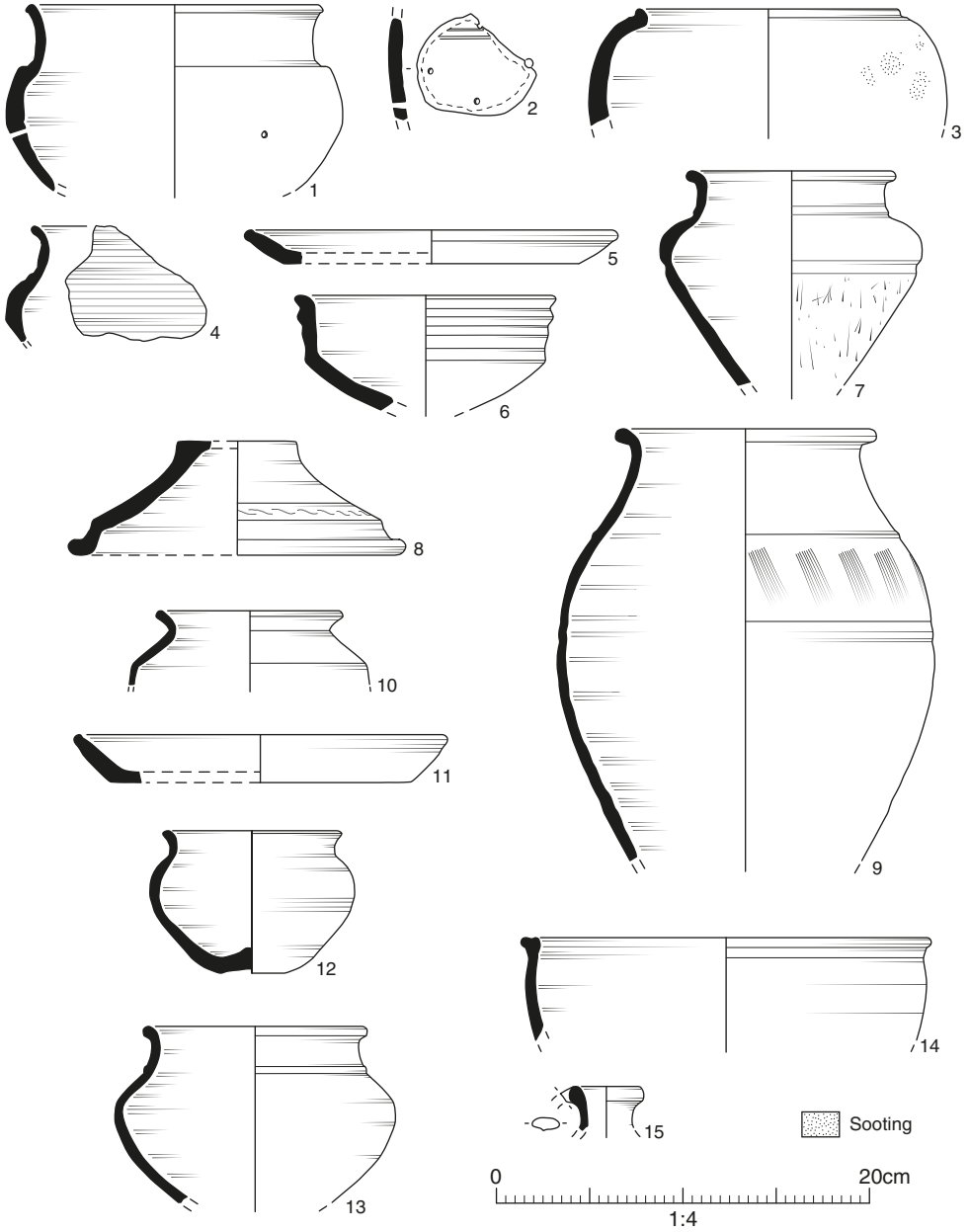


Figure 31: Roman pottery

Figure 32: Worked stone artefacts, nos 1-2

Figure 33: Worked stone artefacts, nos 3-6

Figure 34: Fired-clay loomweight

Figure 35: Metal artefacts

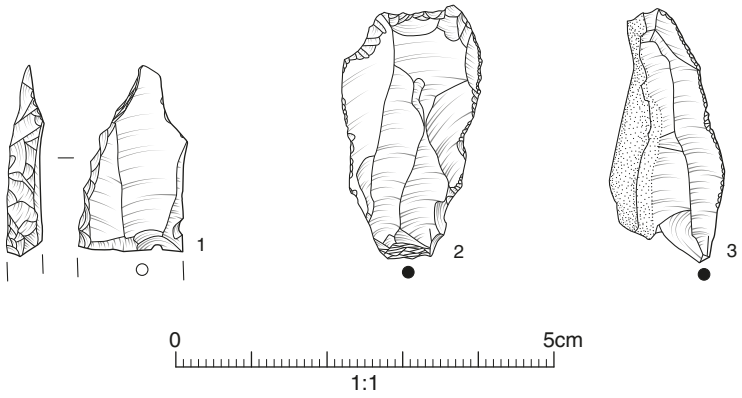


Figure 36: Selected worked flints

Plate 1: Pit 1194, prior to removal of skeleton 1196, looking north-east

Plate 2: Skeleton 1196, looking south-west

Plate 3: Linear pit group 1624, showing pit 490 (left) and 494 (right), looking north

Plate 4: Early Roman jar in ditch 932

Plate 5: Corndryer 1240, looking north-west

Plate 6: Corndryer 1447, looking north-east

Plate 7: Corndryer 1206 showing skull at the far end of ranging rod, looking south-west

Plate 8: Well 1463, looking south

Plate 9: Well 1304, looking north-east

Plate 10: Pit 919, looking north-east

Plate 11: Pit 1307, looking north

Plate 12: SFB 1191, looking south

Plate 13: All Cannings Cross jar

Plate 14: Unknown middle Iron Age ceramic object

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