Excavation of a banjo enclosure at Amen Corner, Bracknell, Berkshire

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Contents

Summary

An archaeological excavation was undertaken at Amen Corner, Bracknell, Berkshire (NGR SU 84103 69195). It was undertaken on behalf of CgMs Consulting, whose client has secured planning permission for a mixed use development a site which comprises a number of fields on the western edge of Bracknell. Permission was granted subject to conditions including a programme of archaeological works. A desk-based assessment of the site was undertaken and a geophysical survey which identified anomalies of potential archaeological original.

A subsequent archaeological evaluation established the survival of features of Iron Age date in the south-east of the site and consultation with Berkshire Archaeology established the requirement for an archaeological excavation. The excavation was carried out by Worcestershire Archaeology between April and June 2016.

The excavation revealed a near complete banjo enclosure, with associated internal features. These included a single round house defined by post holes and a ring gully. Furthermore, two hearths were excavated, and a four post structure was identified. The remainder of internal features consisted of postholes and rubbish pits. There was also evidence for iron working on the site, with quantities of slag found throughout the enclosure ditch and within a number of pits. Evidence for earlier activity was identified, with a possible segmented ditch predating the banjo enclosure with the later ditches maintaining this original entrance.

Report

1 Introduction

An archaeological excavation was undertaken on behalf of CgMs Consulting for Bellway Homes Ltd. The client intends construction of a mixed use development and has submitted a planning application to Bracknell Forest Council (reference 14/00315/OUT), who granted permission subject to conditions, these including a programme of archaeological works.

The excavation followed earlier project stages, comprising a desk-based assessment (CgMs 2013) and a field evaluation (OA 2016). The desk-based assessment identified a low potential for all periods of human activity, with the exception of a possible medieval bank on the western side of the site. The evaluation was in part targeted to investigate specific geophysical anomalies as determined by a geophysical survey (Stratascan 2014). The remainder of the trenching was laid out to provide an even coverage of the site. The evaluation demonstrated that both Iron Age and post-medieval deposits survived. Following assessment of the results of the evaluation, the excavation was commissioned.

A Written Scheme of Investigation for the works was submitted to Roland Smith, Archaeology Officer for Berkshire Archaeology and approved.

The excavation fieldwork was undertaken between 9th April and 9th June 2016.

2 Aims

The aims, as stated in the Written Scheme of Investigation for the excavation, were to locate, plan, excavate and record archaeological deposits to produce a comprehensive report and site archive.

3 Methods

3.1 Personnel

The project was led by Peter Lovett (BSc (hons.)), assisted by Jamie Wilkins (BA (hons.)), James Spry (BA (hons.); MA), Jessica Wheeler (BA (hons.)), Elspeth Iliff (BA (hons.); MSc), and Aidan Woodger (BA (hons.); MSc). The project manager responsible for the quality of the project was Tom Rogers (BA (hons.); MSc). Illustrations were prepared by Laura Templeton (BA; PG Cert; MCIfA). Elizabeth Pearson (MSc; ACIfA) contributed the environmental report, Laura Griffin (BA (hons.) and Robert Hedge (MA Cantab) contributed the finds report. Dr Gerry McDonnell contributed the archaeometallurgical report.

3.2 Fieldwork strategy

An area amounting to just over 2600m² (Figures 4 and 8) was initially excavated, covering two areas (Areas 1 and 2) on the southern edge of the development site. These were sited to investigate the middle Iron Age ditches identified during the evaluation. During the stripping of Area 1, what had been interpreted as boundary ditches were revealed to be an enclosure ditch. Following the stripping of Area 2, a third area (Area 3) was proposed by Steve Weaver of CgMs, and approved by Roland Smith, the planning archaeologist. This joined the first two areas together and extended the excavation site to the north, in order to fully reveal the enclosure. This area had to be further extended to the north and east by 10m and 5m respectively when the enclosure ditch was found to be larger than projected. Following this connecting strip, the whole site was referred to as Area 1.

Deposits considered not to be significant were removed using a 360º tracked excavator, employing a toothless bucket and under archaeological supervision. Subsequent excavation was undertaken by hand. Clean surfaces were inspected and selected deposits were excavated to retrieve artefactual material and environmental samples, as well as to determine their nature. Deposits were recorded according to standard WA practice (WA 2012).

Features were sampled and excavated as follows:

Type of context	Percentage
Structural features (postholes, floors, wall foundations, hearths), burials, industrial structures (ovens, kilns)	100%
Pits	50%
Gullies and ditches	10%- 20%
Layers	50%

Sampling method	Features to be sampled
Hand retrieval of all artefacts and animal bone	All features
Sample retrieval of building materials (building stone, roof tile, brick) with total volume recorded/estimated.	All features
Bulk samples (40 litres) taken for wet sieving (plant macrofossils, small animal bone, small artefacts)	All pits, ditches considered by the Project Leader to have potential for the survival of organic deposits.

On completion of the excavation, the site was left open, as identified in the proposal (WA 2016, 3)

3.3 Structural analysis

Field records were all checked and a stratigraphic matrix produced. Key structural and depositional information was recorded on a project database (Microsoft Access 2000) which also integrated the artefact and ecofactual data.

3.4 Statement of confidence in the methods and results

The methods adopted allow a high degree of confidence that the aims of the project have been achieved.

4 The application site

4.1 Topography, geology and archaeological context

The site lies upon River Terrace Deposits 8, consisting of sands and gravels, with underlying geology of the Bagshot Formation sand (BGS 2017). It is bounded to the south by the B3408

(London Road), and elsewhere by farmland, and lies at *c* 90m AOD. The land to the immediate west of the excavation area has been previously quarried.

Recent archaeological investigations in the wider locale have revealed a number of middle Iron Age sites. Jennett's Park, *c* 1.2km south of Amen Corner, revealed a small middle Iron Age farmstead as the first phase of a later prehistoric and Roman settlement (Simmonds *et al,* 2009). At RAF Staff College 3.5km to the south-east of Amen Corner, were discovered one or possibly two house sites, again in an unenclosed settlement (Lowe 2013). Excavations at Fairclough Farm (Torrance and Durden 2003), on the northern edge of Bracknell, and Park Farm, Binfield (Roberts 1995), have also revealed middle Iron Age activity in the vicinity.

5 Results

5.1 Structural analysis

The trenches and features recorded are shown in Figs 4-22

5.1.1 Phase 1: Natural deposits

The natural geology consisted predominantly of a soft mid yellow brown clay sand. In the central part of the excavation area, veins of compacted gravels and cobbles in a clay matrix were encountered, whilst at the north-western edge the natural strata was a clean soft yellow sand.

5.1.2 Phase 2 Mid Iron Age deposits

The site consisted of a large sub-rectangular enclosure, measuring *c* 74m north to south and *c* 57m east to west, with two known entrances (Fig 4). The approach to one of these entrances was along two parallel antennae ditches. Within the interior was a ring gully, a four-post structure, two hearths and a number of small pits. A number of features pre and post-dated this main phase.

5.1.3 Phase 2a: Early pits

The earliest features stratigraphically offer some suggestion as to the development of the settlement. On the western edge of the site were three deep, round and undercutting pits (1267; 1272; 1282) (Figures 6 and 9). No artefacts were recovered from them, but charcoal was present in fills from all three features. The depositional sequence showed flecks of charcoal in the lower fills, with redeposited natural dumped or slumped over the top, suggesting a possible storage use followed by abandonment and intentional backfilling. All three of these pits were truncated by the later Enclosure Ditch 3.

5.1.4 Phase 2b: Segmented enclosure?

Preceding the establishment of the banjo enclosure was a number of seemingly segmented ditches (Figure 6, 10 and 11). These followed a similar alignment to the main enclosure ditch, and so further examples may have been truncated. Of the three features excavated, two (Segmented Ditch 1 (SD1) and 2 (SD2)) formed a possible entrance in the same location as the later ditch, albeit a narrower one. The third example (SD3) was located on the edge of Enclosure Ditch 2 to the north of the site. All three features were on the outer edge of the main ditch. A smaller gully (1313) lay parallel but off-set with SD3, on the interior of the main enclosure ditch. SD1 was 7.5m long, and up to 1.8m wide. It narrowed to the south, as well as becoming shallower, from 0.6m deep to 0.36m. SD2 was visible for 5.1m before becoming lost in the later ditch. SD3 was 6m long and 1m wide. Some later prehistoric pottery was recovered from both SD12 and SD3.

5.1.5 Phase 2c: Banjo enclosure

Main enclosure ditches

The main enclosure ditch comprised of three separate parts (Figures 3, 4, 9, 12-14). Enclosure Ditch 1 (ED1) formed the south-easterly side of the circuit. It ran for *c* 24m north to south-west, and was 2.4m wide and 1.2m deep. At its northern end it terminated to form one half of the eastern entrance. At its southern extent, the ditch extended beyond the excavation area, though it is likely that it would have terminated again within 15m, as it formed a second, southern entrance with the eastern end of Enclosure Ditch 3. There was a possibility of a recut in one of the interventions excavated through ED1, though this was an isolated interpretation, and no other example was observed in any of the three enclosure ditches.

Enclosure Ditch 2 (ED2) formed the eastern and northern boundary of the enclosure, with the southern end forming the opposing terminal entrance to ED1. The ditch then ran north before turning west and continuing into the quarry area beyond the limit of excavation. It measured *c* 80m in length.

The western and southern sides of the circuit were formed by Enclosure Ditch 3 (ED3). This was *c* 66m long, from its terminus in the south, to where it continued beyond the limit of excavation in the west of the site. The ditch was 3.4m wide at its terminal end, but narrowed as it progressed west and north, to 2.7m and finally 2m.

All three ditches showed similar depositional patterns, with generally sterile, upcast material eroding back into the features, interspersed by occasional fills containing domestic material. It is likely that this material represented sporadic dumping, probably a mix of internment of material directly from a domestic context, and secondary deposition from spread midden material. The fill pattern did not indicate upon which side the bank was located, though the small distance of just 1.3m between the ring gully and ED3 would suggest that any bank must have been external (if the two are contemporary). The profile of the ditches changed from a sharp V-shape to a more rounded U-shape, even within individual ditches.

Antenna ditches

The approach to the eastern entrance of the enclosure was seemingly defined by two roughly parallel ditches (Figures 5, 12 and 13). Antenna Ditch 1 (AD1) ran, with a slight curve, west to east and formed the northern boundary, whilst Antenna Ditch 2 (AD2) ran west to east for 15m before curving to the south-east and beyond the limits of excavation. Both ditches were *c* 30m long, and terminated approximately 3m from the main enclosure ditches. They ranged in width and depth along their lengths, with both termini being well defined, though AD1 in particular became shallower, and narrowed as it progressed east. They were *c* 1m at their widest, and between 0.4m-0.5m deep.

Ring gully

On the western edge of the enclosure, just 1.3m from the internal edge of the ditch, was a ring gully (RG1) (Figures 5, 19-22), assumed to be evidence for a roundhouse. This had a 10m internal diameter, with an average width of *c* 0.8m and a depth of *c* 0.3m. No breaks in the gully were identified, though an evaluation trench ran through the middle of it, and truncated it to the north-east and south-west. A possible recut in the eastern part of the gully was visible following excavation, which could suggest that the entrance had been reworked at some point. The large quantity of domestic material recovered from the eastern side of the gully compared to the dearth of such artefacts on the western side is of note. A possible hearth pit (1178) was excavated on the eastern side of the interior of the gully. It contained some evidence for burning, though its position on the edge rather than in the middle of the circle is atypical.

Only four postholes were identified within the ring gully (1188; 1300; 1303; 1305); one on the western side, and three on the eastern and south-eastern side. Whilst these postholes were located as to partially form an internal post-built structure, after a concerted effort to locate further such features, none could be identified.

Around the outer northern edge of the ring gully, were a series of small pits and postholes Figure 15). Some contained large amounts of pottery, but all were rich in charcoal.

Four-post structure and other postholes

In the middle of the enclosure were five postholes (FP1). These formed a roughly square shape (the south-east corner consisted of two postholes, one a possible replacement for the other). The distance between the posts, measured from the centre of the holes, was *c* 1.8m.

Various other postholes were excavated across the interior of the enclosure. None formed a complete structure like the feature described above, but there were possible alignments that could be truncated. Postholes 1216, 1218, and 1220 could form three sides of a structure, to the north of FP1. Similarly, in the south of the central area, the three postholes 1320, 1325, and 1329 could form three corners of a four-post structure.

On the eastern side of the enclosure interior, to the east of two hearths, were four postholes that could have formed a fence line to enclose this activity. Three of these postholes were aligned north to south with a fourth to the west of the northern hole.

Three postholes were identified close to the internal side of the enclosure ditches, all too far apart from each other to be directly related, but suggesting a possible revetment or fence line that has been substantially truncated. Alongside the eastern enclosure ditch (ED2) were postholes 1204 and 1345, some 14m apart. The most interesting one was 1309, next to the terminus of ED3 to the south. This was filled almost entirely with iron slag. It could be that this was a pit dug for the dumping of industrial waste, but it could have formed part of a poorly surviving entrance structure, or have been a structured deposit.

In the entranceway on the eastern side of the enclosure, five postholes were identified. Two of these were substantial (1097; 1106), with the remaining three shallower. Posthole 1097 was dug through the top of SD2, and in possible conjunction with at least 1106, could have formed a gate structure.

A posthole cluster lay on the outside of the enclosure, in the south-east corner of the site. This may also have formed a four post structure, though it was partially obscured by being cut through a tree bowl.

Hearths

As mentioned above, two hearth structures were recorded (Figure 16). These were 2.7m apart, on the eastern side of the enclosure interior. Structure1125 was an oval shaped feature, with a central bowl filled with ashy remains and a possible lining. Part of a possible crucible was recovered from it, suggesting a metal working use. There was also a large fragment of daub, which may have been a piece of oven furniture. The second hearth (1333), to the south-west, contained large amounts of fired clay. It was initially thought that this was part of an *in situ* super-structure for an oven, but upon complete excavation it was seen to sit on lower fills and it lacked any real form. It is therefore likely to have been a collapsed wall structure. Two postholes were cut into the base of the hearth, *c* 1m apart.

These would have formed a further aspect to the structure, though in what form is currently unknown.

Pits

Various small pits were located across the interior of the enclosure. No specific pattern relating to function could be determined from this distribution, though the pits nearest the ring gully were particularly rich in charcoal and pottery sherds (1298; 1294; 1129).

5.1.6 Phase 2d: Post-enclosure features

Only two features were stratigraphically later than the enclosure ditch, both being pits on the north side of the circuit. Pit 1209 truncated the southern side of ED2, and small gully 1313. It contained Iron Age pottery, though this could have derived from material excavated from the ditch. A small pit, 1310, was also cut into the top of ED2 10m east. This was full of fire-cracked stone and charcoal. This suggests that some level of activity was still occurring after the enclosure ditches had been backfilled, and therefore the phasing of the interior features described above is uncertain.

5.1.7 Phase 3: Post-medieval deposits

The natural stratum was overlain by a sandy subsoil, which contained some post-medieval ceramic roof tiles. A post-medieval field boundary ran north to south on the eastern side of the excavation area. This bisected both antennae ditches, and cut through the subsoil. It appeared on the 1842 Tithe Map and OS 1st Edition but was gone by the time of the 1901 OS Map. A topsoil covered the whole site.

5.2 Artefact analysis, by Laura Griffin

5.2.1 The artefact assemblage

A relatively large assemblage was recovered and is summarised in Table 1. The total assemblage retrieved from the excavated area consisted of 1215 finds weighing 31.543kg, with pottery forming the largest material group amounting to 1050 sherds. The material could be dated from the later Bronze Age onwards but the bulk of material was of Iron Age date (see Table 1). Level of preservation was variable with some pottery being extremely friable but other finds displaying only light abrasion.

material class	material subtype	object specific type	SumOfcount	SumOfweight(g)
ceramic		pot	1050	12362
ceramic		loomweight	32	1921
ceramic	fired clay		7	17
ceramic		roof tile(flat)	2	300
industrial waste	fuel	charcoal	2	14
industrial waste	slag		72	16002
stone		burnt stone	8	97
stone		worked	24	313
stone		unworked	18	517

Table 1: Quantification of the artefactual assemblage

5.2.2 Methodology

The finds work reported here conforms with the following guidance: for finds work by CIfA (2014a), for archive creation by AAF (2011) and for museum deposition by SMA (1993).

Prehistoric pottery

The prehistoric pottery assemblage was recorded according to the Prehistoric Ceramics Research Group guidelines (PCRG 1997). Sherds were quantified by count and weight and where possible, fabric and form type. A terminus post quem was produced for each stratified context. This date has been used for determining the broad date of the prehistoric phases defining in the site stratigraphic sequence.

Fabrics were identified by x20 magnification and basic fabric descriptions are included in the report below. Where possible, forms were referenced to other published typologies from the region.

Where appropriate, sherd colour, decoration, surface treatment and evidence of usage such as sooting and wear were also noted. All information was entered into a pro-forma Microsoft Access database and a corresponding identifying record number written on each finds bag, so that every record could be related back to the relevant sherd or group of sherds.

The illustrated pottery was selected to show the range of forms present. These have been grouped chronologically to give an overview of form changes throughout the period.

Artefacts retrieved from environmental samples were scanned but due to time and budget constraints, it was not possible to include these finds in this report.

Flint

Classification of worked flint follows conventions outlined in Ballin (2000), Inizan *et. al* (1999), and Butler (2005); the material was catalogued according to type and dated where possible. Visible retouch, edge-damage, cortex, raw material characteristics and quality, burning, and breakage were noted.

All information was recorded in a Microsoft Access database. Tables were adapted and formatted using Microsoft Excel.

Artefacts from environmental samples were examined and are included below.

5.2.3 The pottery

Prehistoric

The site at Amen Corner has produced an interesting and substantial assemblage of later prehistoric pottery totalling 1048 sherds (12.335kg), ranging in date from the Later Bronze Age to Later Iron Age periods. The assemblage included a good number of diagnostic sherds and a range of distinctive fabric types.

The level of preservation was variable with some sherds being small and fragmentary, displaying high levels of surface abrasion, whilst others appeared only lightly abraded. In general, and this appeared to be largely dependent on fabric hardness, with lower fired (ie softer) sherds being in a poorer condition. This variable condition was reflected in an above average sherd size of 11.8g.

fabric code	total	weight (g)
F	6	60
QF	2	34
S	82	791
SF	54	606
SG	3	5
SO	612	7846
SR	272	2897
SS	1	16
Unidentified	16	80

Table 2: Quantification of the prehistoric pottery by fabric type

Fabrics

Eight main fabric types were identified within the pottery assemblage (see Table 2) and are described below. A small proportion of sherds were too small to be accurately identified and have been grouped as 'fabric 0'.

- **S** – fine to medium sand. No other obvious inclusions present.
- **SR** – predominantly fine sand with red rounded/sub-rounded inclusions, mica and occasional organics
- **SO** – predominantly fine sand but with organic inclusions (varying from sparse-common) and silver mica
- **SS** – sand with stony inclusions – possibly sandstone and small rounded, red inclusions.
- **SG** – sand, ?grog and mica
- **SF** – sand with angular flint, red rounded/sub-rounded inclusions and possible grog
- **F** – large angular flint inclusions and ?occasional grog in some examples
- **QF** – large angular white quartz and ?calcined flint, fine sand and mica

The fabric profile of this assemblage, dominated by sandy fabrics and supplemented by smaller quantities of flint-tempered sherds, appears to be typical not only of local assemblages such as that from nearby Jennett's Park (Brown 2009, 29) but from the wider region with the assemblages from Queen Mary's Hospital, Carshalton (Adkins and Needham 1985) and Heathrow Terminal 5 (Leivers *et al*. 2014) having a similar range.

The majority of sandy fabrics are thought to be of fairly local production, although it has been noted at nearby Jennett's Park, that those containing glauconitic sand are more likely to come from greensand formations at least 15km to the south and west of Bracknell (Brown 2009, 28).

Bronze Age

The earliest pottery from the site consisted of nine fragments thought to date to the Bronze Age due to coarse flint temper (fabric types F, QF and SF), with all being highly abraded. As discussed above, the presence of this flint indicates that these vessels were not of local production. Due to none of the sherds being diagnostic, it is not possible to date the sherds more closely than to the general period.

Late Bronze Age/Early Iron Age–Middle Iron Age

Dating

Sherds of this period formed the bulk of the pottery assemblage totalling 1037 sherds weighing 11.529 kg. Dating the assemblage has been problematic, in part due to there being limited comparative assemblages from the immediate area. If looking at the assemblage as a whole, it is possible to make general observations. For example, it has been noted that assemblages in this region dominated by sandy fabrics are more typical of the Middle Iron Age (Raymond 2013, 14). Such a date also fits well with results of the C14 dating and also the accepted dating of the associated banjo-type enclosure.

However, when also taking the range of forms into account, things are not so clear-cut, with many of the diagnostic sherds appearing to have good parallels from securely dated Late Bronze Age/Early Iron Age assemblages such as Heathrow Terminal 5 (Leivers *et al*. 2014, nos. 60 and 69), Green Park, Reading (Morris 2004) and Queen Mary's Hospital, Carshalton (Adkins and Needham 1985, fig. 4, no. 4). Furthermore, some of these same forms have been dated to the Middle Iron Age in other assemblages (Raymond 2013; Brown 2009; Timby 2003). As a result, understanding the chronology of the site, and the dating and phasing of individual features, has not been straightforward.

Fabrics

Fabrics present within this assemblage consisted of S, SF, SG, SO, SR and SS (see above for descriptions). The sand and organically tempered fabric (SO) was the most dominant with 612 sherds recorded and accounting for 58% of the group (see Table 2). Interestingly, fabrics with organic tempering form only a small proportion of the assemblages from nearby Jennett's Park (Simmonds *et al*. 2013, table 2) and Fairclough Farm (Timby 2003, 104).

Forms

The earliest vessels in the group had distinctive upright expanded rim forms (although one was highly abraded) typical of Late Bronze Age-Early Iron Age assemblages (contexts 1092 and 1165; fig 7*, nos. 1 and 2) and comparable to other examples identified both locally at Jennett's Park (Brown 2009, fig. 28, no.3) and also further afield at Heathrow Terminal 5

(Leivers *et al*. 2014, nos. 60 and 69), and at Queen Mary's Hospital, Carshalton (Adkins and Needham 1985, fig.4, no.4). Both of these sherds were of fine sand and organic fabric (SO), which would appear consistent with this early date.

In addition, there was a short, upright rim with finger-tipping characteristic of the Late Bronze Age-Early Iron Age period (context 1044, fabric SR; fig 5, no. 3), although similar forms from Fairclough Farm (Timby 2003, fig 4.5, no.2) and Broad Lane, Bracknell (Raymond 2013, fig 7, no. 8) have been dated to the Middle Iron Age. Further finger-tipping and impressed finger decoration was noted on a small number of other vessels (eg. fig 7* no. 4), all jars and all of which could be paralleled with forms of Late Bronze Age to Early Iron Age date from Heathrow Terminal 5 (Leivers *et al*. 2014).

Sherds from two small handles were also thought to be of early date (context 1165, fabric SO). Sadly neither was complete enough to illustrate but they appeared to be of the same form as the lugs seen on globular and biconical jar forms at Queen Mary's Hospital Carshalton (Adkins and Needham 1985, fig 11, nos. 339 and 340). Here it was noted that such handled forms are commonplace in a number of Late Bronze Age assemblages across the south-east (*ibid*. 31).

Remaining forms were of longer lived types which first appear in assemblages of the Late Bronze Age but are also equally commonplace throughout the Early Iron Age and into the earlier Middle Iron Age. These included ovoid jars (fig 7 nos. 5–8), a distinctive jar with an upright rim and finger-impressed decoration around the neck (fig 5, no. 9) and a number of bowl forms including small necked bowls (fig 7, no. 10) and a larger shouldered bowl (fig 7, no.11). Very few sherds were decorated but it was noted that a number of vessels, particularly those of ovoid form, had brushed scoring on the external surface. Examples from elsewhere would suggest that this form of surface finish dated from the early Middle Iron Age onwards (Griffin forthcoming).

Forms of definite Middle Iron Age date included slack-profile jars (fig 7, no.12) and rounded jars with short, upright necks (fig 7, nos. 13, 14 and 15). These forms are consistent with contemporary groups in the region, including those from Bracknell itself, such as Broad Lane (Raymond 2013, 14), Jennett's Park (Brown 2009, 29) and Fairclough Farm (Timby 2003, 103). The these later sherds were also noted to be more uniformly fired to a dark brown/black, unlike the uneven, patchy reddish brown to dark grey finish of those thought to be earlier in date. The surface finish was also better and more even. A number of undiagnostic sherds were also dated to the Middle Iron Age period on this basis.

Function

There was very little in the way of evidence for function amongst the assemblage. Just one sherd had an internal carbonised residue (context 1168) and only a relatively small group of 211 sherds displayed blackening or sooting. However, it is interesting to note that 106 of these sherds came from the fills of the roundhouse ring gully (contexts 1165 and 1168) clearly indicating a concentration of domestic activity. This feature and particularly the upper fill on the eastern side (context 1165) was densely packed with pottery, totalling 569 sherds in all, and forming the largest single group of pottery from any feature of this period. Many of these sherds were large, adjoining and relatively unabraded, suggesting some vessels to have been near-complete when discarded, and may possibly indicate some form of structured deposition. The variation of rim diameters present in the group (between 350mm and 120mm, with a peak *c*.240mm) may further support this, with a range of vessel sizes indicating the possibility of some of these vessels being a 'feasting set' as seen in similar deposits of this date from elsewhere (Woodward 2000, 42). It is noticeable that diagnostic forms from this context included examples of both the earliest and latest form types identified for this period (fig 7, nos. 2 and 13).

Dating of the site as indicated by the prehistoric pottery assemblage

Based on the range of forms present, the stratigraphic information and result of radiocarbon dating, it would appear that the bulk of the pottery from the site forms an assemblage dating to the transition between the Early and Middle Iron Age. This would account for the presence of forms of both Early and Middle Iron Age date despite the absence of any definite structural evidence indicating activity on the site prior to the Middle Iron Age period. Such a sequence begs the question of how the earlier material reached the site. It was also noted that Middle Iron Age pottery was associated with contexts containing ironworking slag.

The dating and interpretation of the pottery assemblage is consistent with activity on the site being relatively short-lived, as indicated by the structural evidence. The absence of Late Iron Age and Roman pottery would imply that settlement has ceased at the latest by the end of the Middle Iron Age.

Medieval

Two sherds from a Kennet Valley B cooking pot was the only later pottery retrieved from the site. This came from the subsoil (context 1001) and could be dated 13th–14th century.

Catalogue of the illustrated pottery (fig.7)

1. Jar with upright expanded rim, context 1092, fabric SO
2. Jar with upright expanded rim (abraded example), context 1165, fabric SO
3. Jar with finger-tipping around rim, context 1044, fabric SR
4. Jar with impressed finger decoration, context 1185, fabric SR
5. Jar of ovoid form, context 1165, fabric SO
6. Jar of ovoid form, context 1165, fabric SF
7. Jar of ovoid form, context 1189, fabric SO
8. Jar of ovoid form, context 1058, fabric SO
9. Jar with upright rim and finger-impressed decoration, context 1165, fabric SO
10. Necked bowl, context 1080, fabric S
11. Large, shouldered bowl, context 1187, fabric SO
12. Slack-profiled jar, context 1210, fabric SR
13. Rounded jar with short, upright neck, context 1165, fabric SR
14. Rounded jar with short, upright neck, context 1290, fabric SO

15. Rounded jar with short, upright neck, context 1185, fabric SR

5.2.4 Other ceramic material

Loom weights

The assemblage included six large pieces of triangular clay loomweight (contexts 1120, 1139, 1165, 1210 and 1343), and a further 26 smaller fragments which are also thought to come from further examples (contexts 1134, 1139, 1157, 1165 and 1202). All are crudely formed from poorly mixed/wedged clay, which is thought to represent the local geology, containing fine sand, common fine organics and occasional soft, red iron-rich inclusions.

Although incomplete, all of the six more complete examples had a definite triangular form and each had the remains of at least one hole for attachment of threads. Parallels of this form can be seen within the assemblage from Danebury, where they are classified as 'Type 1' and date from the Middle through to Late Iron Age (Cunliffe 1984, 401).

It has been suggested that this type of object functioned as oven furniture rather than loomweights (Poole 1995), with numerous examples being found in association with ovens or similar structures. However, although one fragment from this assemblage was found in the back-fill of a hearth (context 1120), there is no further evidence to suggest that the examples from Amen Corner were used in this way, and so they are taken, more conventionally, to be evidence for textile making.

Fired clay

Just seven very small fragments of undiagnostic fired clay were identified in addition to the loomweights. It is interesting to note that, despite the large quantity of iron-working waste retrieved from the site, the site assemblage contained no obvious fragments of structural fired clay. However, a hearth (context 1333) containing a large amount of fired clay (context 1332) was recorded *in-situ.* This was interpreted by the excavator as collapsed superstructure.

Ceramic building material

Two pieces of late medieval/early post-medieval flat roof tile were retrieved from the subsoil (context 1001). Both were pegged; one with a pierced circular hole and one with a pierced square hole.

5.2.5 Knapped and burnt stone, by Rob Hedge

The artefactual assemblage recovered is summarised in Tables 3 and 4. The lithics assemblage retrieved from the excavated area consisted of 24 pieces (313g) of knapped stone and 18 fragments (517g) of burnt, unworked stone. The group came from 19 stratified contexts and was largely later prehistoric in date. The majority of artefacts displayed low levels of abrasion, consistent with occurrence in primary contexts.

period	material class	material subtype	object specific type	count	weight(g)
prehistoric	stone	flint	utilised flake	1	2
			burin spall	1	4
later prehistoric	stone	flint	chip	3	2
			chunk	2	7
		chert	chunk	1	24
		flint	flake	12	51
			flake core	3	173
undated	stone	flint	split nodule	1	50
			unworked burnt flint	10	420
		various	unworked burnt stone	8	97
			totals:	42	830

Table 3: Quantification of the assemblage

Worked flint

A small assemblage of 24 pieces of worked stone was recovered. With the exception of a single chunk of chert, all were of mottled, moderate-grained flint with frequent flaws, ranging in colour from translucent blue-grey and orange-grey to opaque orange-grey. Cortex was present on the majority of pieces, and was invariably thin, stained, and contused. Post-depositional patination was evident on only one piece.

Although flint-bearing exposures of Upper Cretaceous Chalk and associated deposits of clay-with-flints occur locally and contain good-quality flint, the raw material in evidence here is likely to have been sourced from glacio-fluvial sources very close to the site, probably the underlying River Terrace Deposits 8 (BGS 2017).

One finely worked utilised flake, exhibiting edge-damage along the right lateral margin, appears to be of earlier prehistoric (Mesolithic/Neolithic) date. Recovered from tree-throw feature [1112] just within the enclosure, it is in relatively unabraded condition and may represent an earlier phase of activity on the site.

The remainder of the assemblage comprises very crude cores, large irregular shattered chunks, squat flakes and small chips, many of which display obtuse striking angles and thick, wide platforms; these attributes are characteristic of casual, domestic late Bronze Age and Iron Age flintworking assemblages (Humphrey and Young 1999, 59). The condition is fresh and unabraded, suggesting that they were recovered from their original place of deposition and were not residual within the Iron Age deposits. No significant spatial patterning was evident. This material is thought likely to be contemporary with the Iron Age activity on the site, and represents an interesting addition to the growing body of evidence for such later prehistoric assemblages.

Phase		3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Area																					
Feature		Topsoil	Subsoil	Fill of gully [1006]	Fill of ditch [1050]	Fill of ditch [1050]	Fill of ditch [1060]	??Posthole [1106]	Tree throw [1112]	Fill of hearth [1125]	Fill of ditch [1161]	Fill of gully [1167]	Fill of gully [1171]	Fill of hearth [1178]	Fill of gully [1194]	Fill of ditch [1201]	Fill of pit [1294]	Fill of pit [1310]	Fill of gully [1315]	Fill of pit [1333]	
Context		**1000**	**1001**	**1005**	**1042**	**1048**	**1057**	**1106**	**1109**	**1119**	**1157**	**1165**	**1168**	**1173**	**1190**	**1196**	**1290**	**1312**	**1316**	**1331**	**Total**
Debitage	flake	2	1					1			3		1			3	1				**12**
	core				1	1					1										**3**
	chunk			1						1							1				**3**
	burin spall					1															**1**
	split nodule														1						**1**
	chip						2							1							**3**
Tool	utilised flake								1												**1**
unworked	burnt stone											1							1	6	**7**
	burnt flint											2					1	7			**10**
Quantity		2	1	1	1	2	2	1	1	1	4	3	1	1	1	3	3	7	1	6	**42**
Weight(g)		4	5	6	102	48	1	7	2	1	49	32	2	1	50	6	30	395	3	86	**830**
Retouch?																					**0.0%**
Edge-damage?									1												**2.4%**
Burnt?												3					1	7	1	6	**42.9%**

Table 4: Quantification of flint by context

Burnt stone

Large quantities of burnt unworked flint were dumped within pit [1310]. A sample from context (1312) was examined, and showed crazing, discolouration and fragmentation consistent with thermal shock produced by heavy burning and rapid cooling, consistent with a wide range of domestic (e.g. use as potboilers) and industrial processes.

Burnt fragments of other (unidentified) stone were present within a pit [1333] thought to have contained a hearth and so burnt *in-situ* (as interpreted by the excavators).

Conclusions

A small assemblage of worked flint was scattered thinly across the site. With the exception of a single utilised flake within tree-throw [1112] which may be earlier prehistoric, the assemblage bore the hallmarks of the crude, casual approach consistent with late Bronze Age and Iron Age flintworking.

5.3 Environmental analysis, by Elizabeth Pearson

5.3.1 Methodology

The environmental project conforms to relevant sections of the Standard and guidance: Archaeological excavation (CIfA 2014b) and Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation (English Heritage 2011).

Samples were taken according to standard Worcestershire Archaeology practice (2012). A total of 116 samples (each of up to 40 litres) were taken from the site, of which 39 were selected for assessment (Table 5).
The samples were processed by flotation using a Siraf tank. The flots were collected on a 300μm sieve and the residue retained on a 1mm mesh. This allows for the recovery of items such as small animal bones, molluscs and seeds.

The residues were scanned by eye and the abundance of each category of environmental remains estimated. A magnet was also used to test for the presence of hammerscale. The flots were scanned using a low power MEIJI stereo light microscope and plant remains identified using modern reference collections maintained by Worcestershire Archaeology, and a seed identification manual (Cappers et al 2012). Nomenclature for the plant remains follows the New Flora of the British Isles, 3rd edition (Stace 2010).

Charcoal was examined under a low power MEIJI stereo light microscope in order to determine the presence of oak and non-oak charcoal. Identifications, where possible, were carried out using reference texts (Schweingruber 1978, and Hather 2000) and reference slides housed at Worcestershire Archaeology.

5.3.2 Environmental remains

The environmental evidence recovered is summarised in Tables 5 and 6.

Uncharred remains, consisting of mainly root fragments are assumed to be modern and intrusive as they are unlikely to have survived in the soils on site for long without charring or waterlogging.

Environmental remains are poorly preserved in these samples. Only low levels of charred cereal crop waste (cereal grains) have been recovered from posthole, ditch, gully and hearth deposits (contexts 1105, 1140, 1165, 1168, 1173 and 1175). Emmer or spelt wheat (*Triticum dicoccum/spelta*) and hulled barley (*Hordeum vulgare*) crops were in use. It is of interest that charred cereal crop waste was not associated with four-post structures, which are normally interpreted as granaries. However, charred remains are only likely to have survived in those structures destroyed by fire. It may be the case that these structures were short-lived and not affected by fire. The low levels of charred cereal crop waste generally suggests that the settlement was not focused on arable agriculture, and that crop processing was undertaken in a piecemeal fashion at the household level. This would be consistent with the interpretation that banjo settlements were based on a pastoral economy.

Occasional hazelnut shell (*Corylus avellana*) indicates some use of foraged resources.

Charcoal was present in most deposits, but consisted generally of very fragmented heartwood material and appears to be dominated by oak (*Quercus robur/petraea*). The dominance of oak may have resulted from selective wood collection. Where charcoal was abundant, it does not appear to be *in situ* and associated with specific activities such as use in hearths or kilns or with metal working. Rather it is found in gullies, ditches and postholes.

Context	Sample	Feature type	Fill of	Period	Phase	Sample volume (L)	Volume processed (L)	Residue assessed	Flot assessed
1042	6	Ditch	1050	MIA	2	40	10	Yes	Yes
1049	9	Ditch	1050	MIA	2	10	10	Yes	Yes
1092	22	Pit	1093	MIA	2	5	5	Yes	Yes
1096	24	Pit	1097	MIA	2	30	10	Yes	Yes
1105	29	Posthole	1106	MIA	2	40	10	Yes	Yes
1113	31	Posthole	1117	MIA	2	40	10	Yes	Yes
1118	32	Hearth	1125	MIA	2	10	10	Yes	Yes
1119	33	Hearth	1125	MIA	2	40	20	Yes	Yes
1121	36	Hearth	1125	MIA	2	10	10	Yes	Yes
1122	34	Posthole	1124	MIA	2	30	10	Yes	Yes
1126	37	Pit	1129	MIA	2	10	10	Yes	Yes
1140	40	Ditch	1141	MIA	2	40	10	Yes	Yes
1162	49	Gully	1164	MIA	2	40	10	Yes	Yes
1165	50	Gully	1167	MIA	2	40	20	Yes	Yes
1168	52	Gully	1171	MIA	2	40	20	Yes	Yes
1173	57	Hearth	1178	MIA	2	20	20	Yes	Yes
1175	56	Hearth	1178	MIA	2	40	10	Yes	Yes
1181	53	Gully	1182	MIA	2	40	20	Yes	Yes
1186	61	Posthole	1188	MIA	2	1	1	Yes	Yes
1187	62	Posthole	1188	MIA	2	10	10	Yes	Yes
1189	58	Gully	1194	MIA	2	40	20	Yes	Yes
1190	59	Gully	1194	MIA	2	40	10	Yes	Yes
1192	60	Gully	1193	MIA	2	40	10	Yes	Yes
1214	74	Ditch	1215	MIA	2	40	10	Yes	Yes
1221	72	Pit	1220	MIA	2	20	10	Yes	Yes
1223	67	Ditch	1227	MIA	2	40	10	Yes	Yes
1225	84	Ditch	1227	MIA	2	40	10	Yes	Yes
1290	91	Pit	1294	MIA	2	40	40	Yes	Yes
1291	92	Pit	1294	MIA	2	10	10	Yes	Yes
1299	88	Posthole	1300	MIA	2	10	10	Yes	Yes
1301	89	Posthole	1303	MIA	2	4	4	Yes	Yes
1308	98	Pit	1309	MIA	2	10	10	Yes	Yes
1312	99	Pit	1310	MIA	2	10	10	Yes	Yes
1316	102	Gully	1315	MIA	2	30	10	Yes	Yes
1326	105	Pit	1329	MIA	2	10	10	Yes	Yes
1331	107	Pit	1333	MIA	2	20	20	Yes	Yes

Table 5: List of bulk samples selected for assessment; MIA – middle Iron Age

context	sample	large mammal	charcoal	charred plant	uncharred plant	artefacts
1042	6		occ		mod-abt*	occ burnt stone
1049	9		occ		occ*	occ, pot, worked (?) chert, heat- affected stones
1092	22		abt			occ fired clay, pot, heat-cracked stone
1096	24		occ		occ*	occ pot, heat-cracked stone, chert
1105	29		occ	occ	mod*	occ heat-cracked stone
1113	31		occ			occ pot, heat-cracked stone, ?chert
1118	32		occ		occ*	occ worm, heat-affected stones
1119	33		abt	occ	abt*	occ, fired clay, pot, Fe slag, worked(?) chert, abt heat-affected stones.
1121	36		mod		mod*	occ, worm, pot, heat-affected stones
1122	34		occ		occ*	occ pot, ?chert
1126	37		occ		occ*	abt heat-cracked stone
1140	40		occ	occ	occ*	coal, mod heat-affected stones
1162	49		abt		occ*	occ pot, heat-cracked stone
1165	50		occ	occ	occ*	occ pot, mod heat-affected stones
1168	52		mod	occ		occ clinker, fired clay, heat-affected stones, worked (?) chert
1173	57		mod	occ	occ*	occ pot, heat-affected stones, chert flake
1175	56		occ	occ	occ*	heat-affected stones
1181	53	occ	abt	occ	occ*	occ pot, mod heat-affected stones
1186	61		abt			
1187	62		occ			occ burnt stone
1189	58		occ		occ*	occ pot, heat-affected stones
1190	59		occ		occ*	occ pot, hea-affected stones, worked(?) chert
1192	60		occ	occ		occ ash (?), pot, heat-affected stones
1214	74		mod		mod*	occ heat-cracked stone
1221	72	occ	occ	occ	occ*	occ heat-cracked stone
1223	67		mod			occ worked stone
1225	84		abt			occ heat-cracked stones
1226	69		occ		occ*	occ heat-cracked stone
1252	97		occ		occ*	occ pot, heat-cracked stone
1290	91		mod		occ*	occ worm cast, fired clay, pot, Fe slag, heat-affected stone, flint & chert
1291	92		mod	occ	mod-abt*	occ pot, Fe slag, heat-affected stones, worked (?) chert
1299	88		occ		occ*	occ pot, heat-cracked stone
1301	89		mod		occ*	occ heat-cracked stone
1304	90		occ		occ*	occ pot, heat-cracked stone
1308	98		occ		occ*	abt Fe slag, occ heat-cracked stone
1312	99		occ		occ*	abt heat-cracked stone, occ burnt Fe ore
1316	102		abt			occ heat-cracked stone, pot
1326	105		mod		occ*	mod heat-cracked stones
1331	107		occ		mod-abt*	occ worm cast, pot (?), mod heat-affected stones, abt fired clay.

*Table 6: Summary of remains from bulk samples; occ = occasional, mod = moderate, abt = abundant, * = probably intrusive*

context	sample	preservation type	species detail	category remains	quantity/ diversity	comment
1042	6	ch	unidentified wood fragments	misc	+/++low	
1049	9	ch	*Alnus/Carpinus/Corylus* sp wood, unidentified wood fragments	misc	+/low	
1092	22	ch	*Quercus robur/petraea* wood, unidentified wood fragments	misc	+++/low	
1096	24	?wa*	*Chenopodium glaucum/rubrum*	seed	+/low	
1096	24	ch	unidentified wood fragments	misc	+/low	
1105	29	?wa*	*Chenopodium album*, unidentified herbaceous root fragments	misc	++/low	
1105	29	ch	Cereal sp indet grain	grain	+/low	
1113	31	ch	unidentified wood fragments	misc	+/low	
1118	32	?wa*	*Rubus* sect *Glandulosus*, *Urtica dioica*, *Chenopodium album*	seed	+/low	
1118	32	ch	unidentified wood fragments	large mammal	+/low	
1119	33	ch	*Quercus robur/petraea* wood, cf *Corylus avellana* shell fragment, unidentified wood fragments, non-oak wood	misc	+/low	
1119	33	?wa*	*Rubus idaeus*/*sect Glandulosus*, *Chenopodium album*	seed	+/low	probably intrusive
1121	36	ch	*Alnus/Carpinus/Corylus* sp wood, unidentified wood fragments	misc	+/low	
1126	37	?wa*	*Urtica dioica*, *Chenopodium album*	misc	+/low	
1126	37	ch	unidentified wood fragments	misc	+/low	
1140	40	ch	cf Cereal sp indet grain	grain	+/low	
1162	49	?wa*	*Sambucus nigra*	seed	+/low	
1162	49	ch	unidentified wood fragments	weed	+++/low	
1165	50	ch	unidentified wood fragments	misc	+/low	
1165	50	ch	*Hordeum vulgare* grain (hulled)	grain	+/low	
1168	52	ch	*Quercus robur/petraea* wood, *Alnus/Carpinus/Corylus* sp wood, unidentified wood fragments, non-oak wood	misc	+++/low	mostly small frags, some identifiable non-oak
1168	52	ch	*Triticum dicoccum/spelta* grain, *Triticum* sp (free-threshing) grain, Cereal sp indet grain, Poaceae sp indet grain	grain	+/low	poorly preserved
1168	52	ch	Galium aparine	seed	+/low	
1168	52	ch	*Triticum dicoccum/spelta* grain	grain	+/low	
1173	57	ch	unidentified wood fragments	misc	+/low	
1173	57	?wa*	*Brassica* sp (fragment)	seed	+/low	
1173	57	ch	Cereal sp indet grain	grain	+/low	poorly preserved
1173	57	ch	*Triticum dicoccum/spelta* grain	grain	+/low	
1175	56	ch	unidentified wood fragments	misc	+/low	
1175	56	ch	cf *Hordeum vulgare* grain (hulled)	grain	+/low	
1181	53	?wa*	*Rubus* sp	seed	+/low	
1181	53	ch	unidentified wood fragments, non-oak wood	misc	++/low	mostly small fragments, occ identifiable fragments
1181	53					
1181	53	ch	*Corylus avellana* shell fragment	misc	+/low	
1189	58	ch	unidentified wood fragments	misc	+/low	

1190	59	ch	*Alnus/Carpinus/Corylus* sp wood, unidentified wood fragments	misc	+++/low	mostly unidentified fragments
1192	60	ch	*Hordeum vulgare* grain (hulled)	grain	+/low	
1192	60	ch	unidentified wood fragments	misc	+/low	
1214	74	ch	unidentified wood fragments	misc	++/low	
1221	72	?wa*	*Ranunculus acris/repens/bulbosus*, *Rubus* cf idaeus	seed	+/low	
1221	72	ch	unidentified wood fragments	misc	+/low	
1221	72	ch	Poaceae sp indet grain (small), Poaceae sp indet grain (fragments)	grain	+/low	
1225	84	ch	*Quercus robur/petraea* wood, unidentified wood fragments	misc	+++/low	mainly oak
1252	97	ch	unidentified wood fragments	misc	+/low	tiny frags
1290	91	ch	*Quercus robur/petraea* wood, unidentified wood fragments	misc	+/low	
1290	91	?wa*	*Rubus* sect *Glandulosus*, *Sambucus nigra/ebulus*	seed	+/low	
1291	92	ch	*Corylus avellana* shell fragment, *Alnus/Corylus* sp wood, unidentified wood fragments, non-oak wood	misc	+++/low	mostly tiny frags, occ identifiable frags, incl roundwood frags
1291	92	?wa*	*Rubus* sect *Glandulosus*, *Corylus avellana* whole nut, *Carduus/Cirsium* sp	seed	+/low	
1299	88	ch	unidentified wood fragments	misc	+/low	
1299	88	?wa	*Rubus* sect *Glandulosus*, *Chenopodium album*	seed	+/low	
1301	89	ch	unidentified wood fragments	misc	+/low	tiny fragments
1304	90	?wa*	*Galium aparine*	misc	+/low	
1304	90	ch	unidentified wood fragments	misc	+/low	
1312	99	ch	unidentified wood fragments	misc	+/low	
1312	99	?wa*	*Rubus* sect *Glandulosus*, *Ficus carica*, *Chenopodium album*, *Galium aparine*	seed	+/low	
1312	99	?wa*	unidentified herbaceous root fragments	misc	+/low	
1316	102	ch	*Quercus robur/petraea* wood, unidentified wood fragments	misc	+/low	mostly oak?
1326	105	?wa*	*Urtica dioica*, *Sambucus nigra*, unidentified herbaceous root fragments	misc	++/low	
1326	105	ch	*Quercus robur/petraea* wood, unidentified wood fragments	misc	+/low	mostly oak?
1331	107	ch	unidentified wood fragments	misc	+/++low	

*Table 7: Plant remains from bulk samples; * = probably intrusive*

NB unidentified herbaceous root fragments found in most samples are thought to be intrusive and are not included in this table

5.3.3 Radiocarbon dating

The results are conventional radiocarbon ages (Stuiver and Polach 1977) and are listed in Table 8.

The results show a Middle Iron Age date for both the ring ditch gully associated with the roundhouse (contexts 1165 and 1168) and the main banjo enclosure ditch (1049). However, as lime (*Tilia* sp) may have lived up to around 400 years, there is some concern that the radiocarbon date may include an 'old wood effect'. As the charcoal fragment submitted for dating was small, it was uncertain whether it derived from the central heartwood of a long-lived tree or from a branch representing fewer years of growth before felling, and hence the possibility that the date represents wood laid down a long time before the tree was felled cannot be ruled out. Nonetheless, in practice it is likely that the lime came from nearby woodland that was managed, where most trees are likely to have been much younger than 400 years old. In all three contexts a degree of 'old wood effect' may mean that the date spans the later part of the Early Iron Age into the Middle Iron Age.

The calibrated date ranges for the samples have been calculated using the maximum intercept method (Stuiver and Reimer 1986), and are quoted with end points rounded outwards to ten years. The probability distributions of the calibrated dates, calculated using the probability method (Stuiver and Reimer 1993) are shown in Graphs 6 and 7 in Appendix 2. They have been calculated using OxCal v4.2 (Bronk Ramsey 2009) and the current internationally-agreed atmospheric calibration dataset for the northern hemisphere, IntCal13 (Reimer *et al* 2013).

Laboratory code	Context number	Material	$\delta^{13}C$ (‰)	Conventional Age	OxCal calibrated age (95.4% probability or 2 sigma)
SUERC-71933 (GU43013)	1165	Charcoal: *Ilex aquifolium*	-24.3 %	2340 ± 25	410 – 380 cal BC
SUERC-71934 (GU43014)	1049	Charcoal: *Corylus avellana*	-26.5 %	2302 ± 29	410 – 260 cal BC
SUERC-72135 (GU43391)	1168	Charcoal: *Tilia* sp	-23.2 %	2234 ± 25	390 – 200 cal BC

Table 8 Radiocarbon dating results

5.4 Archaeometallurgy analysis, by Dr Gerry McDonnell

5.4.1 Introduction

The introduction and adoption of iron was one of the major developments in prehistory. It provided society with a widely available highly effective tool-making material that enabled other crafts and industries to be more efficient. Iron replaced the less available tin bronze as the tool-making material of choice. There is no clear picture as to when iron technology arrived in Britain and what sort of smelting technology it was and how it evolved. For example there is evidence for the early iron smelting ((c.600-450BC) and use of steel (c.400BC) at Broxmouth Hillfort in East Lothian, Scotland (McDonnell 2013), and recently, very early dates (8-7thC BC) have been obtained for a smelting furnace in Lincolnshire. However, the bulk of the evidence for iron production is in the later Iron Age. The evidence available suggest that iron smelting is conducted outside, and smithing within settlements. For example, the evidence from East Yorkshire and Lincolnshire is that iron smelting sites are located at the edge of the fen or low lying areas, where there were the natural resources required for smelting; bog iron ore formed in the wet areas of the fen, clay was available to build the furnace and woodland supplied the charcoal fuel. The evidence for iron smelting is also geographically scattered; hence it is difficult to establish a clear time line for the adoption and evolution of ironworking technology in Britain. Other evidence for the use of iron includes the widespread occurrence of smithing slag on Iron Age sites and indirect evidence, e.g. cut marks on bone. Thus, any evidence for Iron Age ironworking, and smelting in particular is of great importance, however the quantities of iron smelting slag on early smelting sites is often small (<10’s kg), and so small deposits are significant.

5.4.2 Amen Corner, Bracknell, Berkshire

The recovery of iron smelting slag dating to the Middle Iron Age at Amen Corner is of significance for understanding the evolution of iron smelting technology in Britain and the evidence for iron smelting in Berkshire in particular (which is sparse). Tylecote in his first pioneering book in 1962 listed Berkshire as one of nine English counties without a recognised ore source (Tylecote 1962, 175), however research has moved on since then, but there is still little evidence for Iron Age iron smelting.

Although Tylecote listed Berkshire as a 'non-ore' bearing County, at that time there was a lack of recognition of the importance of bog ore as a primary source for Iron Age and Saxon iron smelters. For example, East Yorkshire lacks recognisable iron ore deposits but there is extensive evidence for iron smelting in the area. The Bagshot Bed sands have been postulated as a possible source, but little research has been carried out on them, and if they are fine sands they are very difficult to smelt as they will cascade through the furnace too quickly. A more likely possibility is that in the low-lying area of the Thames Valley bog ores developed, no doubt derived from the Bagshot Beds. Thus, a similar picture to East Yorkshire or Lincolnshire could be envisaged with the iron smelting close to the low-lying area, but slightly elevated on drier ground, but easily able to access bog ore, clay and fuel. The site photographs indicate that the site lies in an iron rich environment, with iron staining visible in the sub-soil.

In addition to the evidence for ironworking, there were two possible fragments of ceramic crucible used for melting non-ferrous metals recovered from the site.

5.4.3 Examination and X-ray Flourescence Analysis Methodology

The slags were visually examined and the classification is based solely on morphology. Selected samples were then analysed using Hand Held X-Ray Fluorescence (HH-XRF). The debris associated with metalworking, or submitted in the understanding that they are associated with metalworking, can be divided into two broad groups; residues diagnostic of a particular metallurgical process or non-diagnostic residues that may have derived from any pyrotechnological process (McDonnell 2001). The diagnostic ferrous debris can be attributed to a particular ironworking process; these comprise ores and the ironworking slags, i.e. the macro, hand recovered smelting and smithing slags and the micro-residues such as hammerscale and slag fragments recovered from sieving programmes. The second group, are the diagnostic non-ferrous metalworking debris, e.g. crucibles and moulds. Thirdly, there are the non-diagnostic slags, which could have been generated by a number of different processes but show no diagnostic characteristic that can identify the process. In many cases the non-diagnostic residues, e.g. hearth or furnace lining, may be ascribed to a particular process through archaeological association. The residue classifications used in the report are defined below.

5.4.3.1 Diagnostic Ferrous Slags and Residues

Ore - Iron rich natural mineral, may be identifiable to a particular type e.g. Goethite or hematite

Smelting Slag - this smelting slag is characterised by its viscous appearance (compared with the relative free flowing morphology of smelting tap slags), and the presence of large charcoal impressions (approximately 25 mm in square section).

Furnace Base – a pool of smelting slag that may have formed either in the base of the furnace or in a pit in front of the furnace.

Ironworking Slag – ironworking slag that lacks any characteristic features and may derive either from the smelting or smithing process.

Fe Metal – pieces of metallic iron or high metal bearing slags.

5.4.3.2 Diagnostic Non-Ferrous Slags and Residues

Crucible – a ceramic vessel used for melting non-ferrous metals, usually characterised by external vitrification due to the high temperatures required to melt the metals or alloys.

5.4.3.3 Non-Diagnostic Residues.

Cinder - high silica residue, possibly slag that has reacted with furnace of hearth lining.

Other – material that is not metalworking debris. .

5.4.4 Results

5.4.4.1 The Crucible Fragments

The aim of the analysis is to determine whether (a) the crucibles has been used and (b) if they had used which metals or alloys had been melted in it. The exterior and interior faces of the crucibles were analysed by Hand-Held X-ray Fluorescence (HH-XRF, the methodology is detailed in Appendix 1) to assess for the presence of non-ferrous metals.

The first fragment (Finds Number 1; Context 1118, Rec. Num. 198), was a probable base of a crucible. However, although trace levels of copper (Cu), Zinc tin, (Sn) and lead (Pb) were detected e.g. Figure 1, these are considered as the levels of trace elements present in the clay. The major elements detected are iron (Fe) and zirconium (Zr)

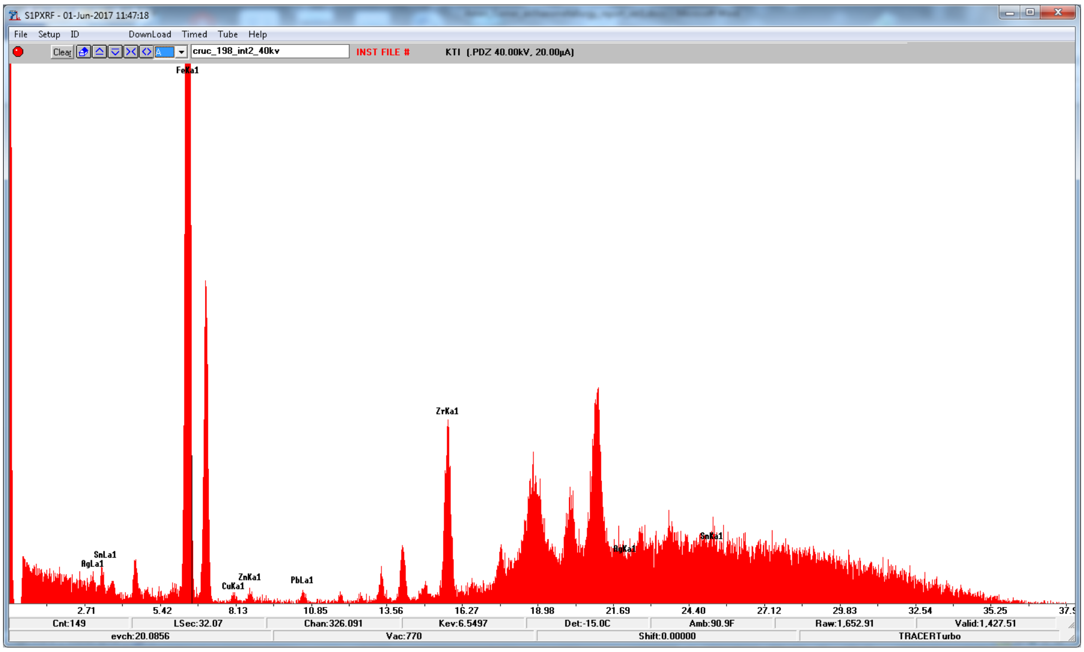

Figure 1 HH-XRF spectrum obtained from the internal basal surface of Crucible Fragment SFN 1, Context 1118, Rec. Num. 198). [40kV accelerating voltage].

The second fragment (Context 1113, Rec. Num. 63), displayed the same pattern. The HH-XRF analyses indicate that these ceramic fragments are not fragments of used crucibles. They could either be (a) crucibles fired to a high temperature prior to use for melting metals and fractured in the heat and were discarded, or (b) are not fragments of crucible, which is more likely.

5.4.4.2 The Slags

The slags were visually examined and the number and count of each slag type in each context was recorded. (Table 8). The assemblage is dominated by one large piece of slag (Context 1308, weight 4.8kg) described as a furnace base. The lump is plano-convex in shape, with semi-straight sides, the largest diameter/width is 24cm, the smaller width is 18cm with a depth of c. 9cm. This pool of slag cooled and froze either inside the furnace or in a pit outside the furnace. There were 47 fragments of smelting slag, total weight 10kg, distributed across 13 contexts. The slag varied in morphology, but individual pieces displayed features characteristic of Iron Age smelting slags, e.g. large charcoal impressions (the largest was 97mm long and 300mm in square section (Context 1056), surfaces that have flowed, and surfaces that have dribbled. This indicates that the slag did not achieve high fluidity and was probably raked out as a very viscous liquid. The remaining material was a small quantity of iron working slag, which lacked the characteristics of the smelting slag (total weight 133 grams); 13 fragments of iron ore (total weight 411 grams). One deposit of ore fragments occurred in the same context as smelting slag (Context 1056), another with the non-diagnostic iron working slag (Context 1118), and one piece was not associated with slag (Context 1165), and appeared to be a nodular ore rather than the box like morphology of the other ore pieces. In addition there were some fragments of corroded metallic iron (Context 1127), again not in association with slag. The remaining material was a fragment of cinder (Context 1057), and a significant quantity of burnt flint (Context 1043 (52 grams), associated with smelting slag and Context 1096 (391 grams), associated with non-diagnostic iron working slag.

The aim of the HH-XRF analysis was to identify the major elements present in the slag. The analyses assessed the overall composition of the furnace base and the smelting slag. It investigated if there are any significant differences between the non-diagnostic iron working slag and the smelting slags. Samples of ore were analysed to assess whether they are potential ore sources used in the smelting or represent background iron rich nodules occurring naturally on the site. A key element of interest is manganese, which does occur in some ores and partitions to the slag during smelting. The presence of manganese at significant levels can be used to confirm that the slags derive from iron smelting rather than iron smithing (McDonnell 1986 and 1988).

A fresh fractured surface was prepared on each sample analysed. The furnace base (Context 1308) and samples of smelting slag from Contexts 1096 (Rec. Num: 243), 1134 (Rec. Num:235), 1162 (Rec. Num:238) and 1308 were analysed. The samples were analysed at 15kV and 55µA for 30 live seconds. The spectra were stored and then processed using a bespoke programme to provide semi-quantitative data. These data show broad trends allowing comparison of analyses between samples, the precision is good but they do lack accuracy. The spectrum derived from a sample of smelting slag from Context 1308 is shown in Figure 2 and demonstrates that the slag is dominated by the presence of iron (Fe), with only a trace of manganese (Mn) present and low levels of potassium (K) and calcium (Ca). Silicon (Si) is the second most abundant element with low levels of aluminium (Al) and phosphorus (P) also present. The spectra from all other smelting slags and the furnace base slag (Context 1308) were similar. The semi-quantitative results are presented in Table 9 and confirm the interpretation of the spectra. The different samples do display some differences, for example Sample Slag 235 is richer in silica than the other samples, in contrast to Slag 243 which has the lowest silica content. The analysis of the furnace base (Context 1308) is similar but it has the highest alumina (Al_2O_3), phosphorous pentoxide (P_2O_5) and lime (CaO) contents. Table 9 also presents the data from the analysis of one example of the non-diagnostic iron working slag; it had a significantly different composition, being richer in alumina, silica and lime, and very significantly manganese oxide (MnO), inevitably it has a lower iron oxide (FeO) content.

Four samples of iron ore were analysed (Table 10) and the data shows that they are not viable as iron ores for smelting due to the high silica (SiO_2) content.

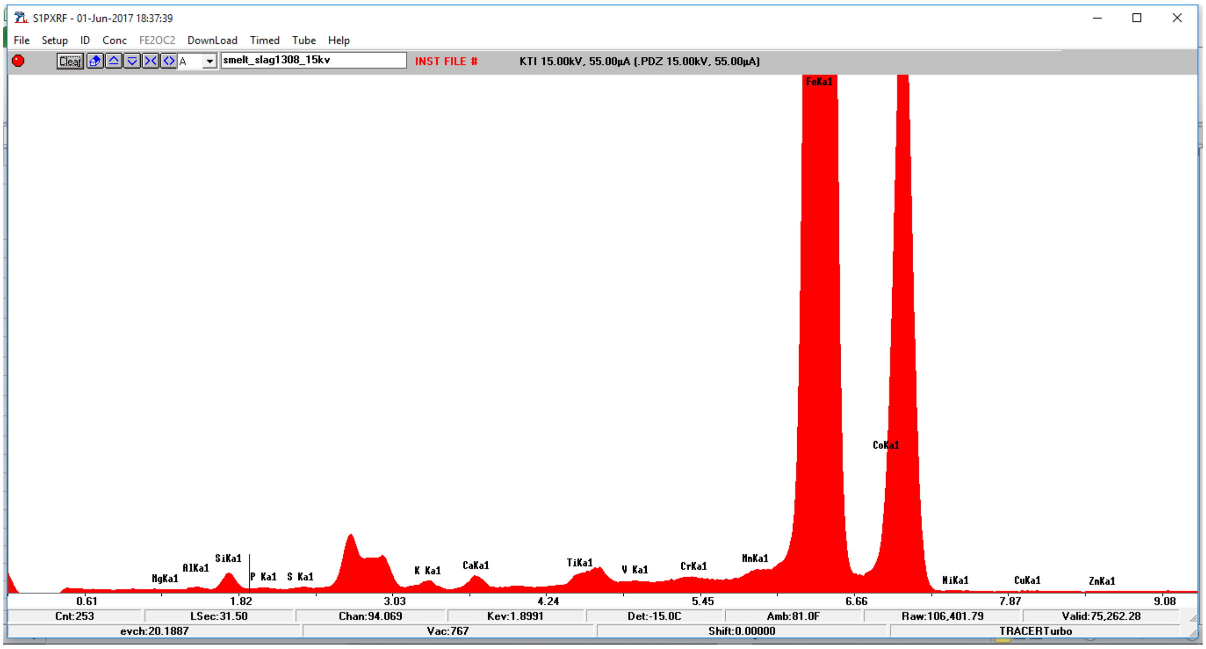

Figure 2 HH-XRF spectrum derived from smelting slag sample Context 1308

5.4.5 Discussion

The HH-XRF analyses of the crucible demonstrated that they were not sherds of used crucibles.

The examination of the ironworking slag revealed that it was dominated by iron smelting slag. There were three forms of slag, a single large 'furnace base' that either formed within the furnace at the base, or as a puddle of slag outside the furnace. It is more likely that it formed in the base of the furnace, similar to the 'slag pit' furnace described by Crabb (2013) at Sadler's End, Sindlesham, Berkshire. The dimensions of that furnace (Furnace 236) were 40cm by 30cm, in which the Amen Corner furnace base would sit comfortably (the furnace base measured 24 x 18cm). The majority of the slag was lumps, varying in size from small fragments to 'fist sized' pieces. There were 47 pieces with a total weight of 10 kg giving an average weight of 214 grams per piece. The third slag type lacked the characteristic features of the smelting slag, e.g. dribbles, flowed surfaces, large charcoal impressions, and could have derived either from iron smelting or smithing. There were only 5 fragments with a total weight of 133 grams (average piece weight 27grams). A small quantity of iron ore (13 fragments, 411 grams in 3 contexts) was recovered from the site. In addition there were some un-identified iron fragments (10 fragments weighing 15grams from one context (1127). One fragment of cinder was recoded as well as 2 pieces of burnt flint (total weight 443 grams). The burnt flint occurred in contexts containing smelting slag (Contexts 1043 and 1096), and it may be possible that the flint was associated with iron smelting. Burnt flint was recovered from the Saxon iron smelting site of Millbrook in Sussex (Tebbutt 1982). However the presence of worked Iron Age flint and burnt flint was noted in the site post-excavation assessment (Hedge in Lovett, 2016, p16).

The HH-XRF analyses (Table 9) of the furnace bottom and the smelting slags demonstrated that the composition varied between samples, the iron oxide content ranging between 54% and 79% FeO, the silica content, between 10% and 30% SiO_2. This variation may be expected in viscous slags that did not achieve complete fluidity to allow diffusion of oxides, also some parts of slags may have reacted with the clay lining resulting in higher silica content, or some regions may contain a higher proportion of entrapped metallic iron prills or particles resulting in a higher iron response. The viscosity of slags increases with iron oxide content, thus although the temperature within the furnace where the slag liquates may be constant, due to variations in composition, different parts of the slag mass will be more or less fluid. There are two other significant findings; firstly that the level of manganese oxide is very low (mean value 0.2%). Secondly the level of phosphorus pentoxide is high compared to many smelting slags. The mean P_2O_5 content of the Amen Corner slags was 4%, compared to an overall mean value of a range of smelting slags from England of 0.1% (after McDonnell 1986). Allen (2013) analysed the slags from Sadler's End, Sindlesham, Berkshire and they had a mean value of c2% P_2O_5. The Sindlesham slags were also low in manganese oxide and had relatively high iron oxide contents (note Allen returns iron oxide as Fe_2O_3, whereas it is conventional to return it as FeO for archaeological and historic iron working slags).

The HH-XRF analysis of the non-diagnostic smelting slag returned a different composition, notably a higher manganese oxide content and a significantly lower iron oxide content (Table 10). This may be caused by severe heterogeneity as was discussed above, however the MnO content tends to correlate with the FeO content, which makes this unlikely. It could indicate the exploitation of a different ore source for one or more smelts or be indicative of a different smelting event.

The Amen Corner slag assemblage derives solely from iron smelting; there is no evidence for iron smithing. This is a pattern that appears quite common in the Iron Age, suggesting iron smelting was conducted in specific locations and the smithing elsewhere. This was clearly demonstrated by Crew's excavation at Bryn Y Castel, North Wales (Crew 1998 and pers. Comm.), with smelting outside the hillfort and smithing within. In East Yorkshire, Halkon (in Halkon and Millet 1999) has demonstrated that smelting occurs outside the settlement, often at or close to the 'fen edge', with smithing occurring within settlements.

The Amen Corner assemblage is very distinct in that it is comprised wholly of smelting slag, there are no fragments of furnace lining, though it must be noted that there was no mention of lining in the Sindlesham assemblage (Crabb 2013). There were no magnetic residues in the fills of features, which would be the case if there had been an active iron smelting industry taking place on the site. This strongly argues that the Amen Corner slags were deliberately deposited in specific locations. It is interesting to note that the largest deposit of smelting slag (totalling 9.2kg) was in the fill (Context 1308) of an isolated Pit (Context 1309), which was located close to the terminal of the enclosure ditch

Although the slag deposits themselves were not dated, the ^{14}Cdates suggest that the ironworking dates to the 3rd-5th centuries BCE. The iron smelting at Sindlesham provided a range of dates, the earliest indicating a date of 8th/9th Centuries BCE, was rejected, and a date of 6th/5th for the smelting is proposed. Halkon had two dates for the iron smelting at Welham Bridge, East Yorkshire and he postulated a date of 6th- 3rd Centuries BCE (Halkon and Millett 1999, p81). Recently a date for a smelting site in North East Lincolnshire provides dates of 5th-8th Centuries BCE.

5.4.6 Conclusions

The Amen Corner assemblage is a small but significant deposit of Iron Age iron smelting slag. The total quantity of slag from the site is 15kg, which is small compared to the estimated 21tonnes that were deposited at the Sindlesham site (Crabb 2013, p23), but provides important evidence for iron smelting in the first 500 years of the introduction of iron technology into Britain. It is especially important that such sites are found in Berkshire a county noted by Tylecote in his first book as lacking iron ore deposits. The slag would have been viscous, due in part to the high iron oxide content of the slag. The slag contains high phosphorus pentoxide levels which means that the iron smelters were exploiting a phosphorus rich (and manganese poor) iron ore. The analyses of the ore fragments preclude their use as an ore. Whether the smelters were controlling the smelt to ensure that the phosphorus partitioned to the slag, which is unlikely due to the low lime (CaO) level in the slag, or that the phosphorus entered both the slag and the metal, cannot be determined without analysis of associated metallic iron. The profile of the Amen Corner assemblage suggests deliberate deposition of the slag in Pit 1309.

Context	Slag Count	Slag Weight	Smelt Slag count	Smelt Slag weight	Furnace Base Count	Furnace Base Weight	Cinder Count	Cinder Weight	Ore Count	Ore Weight	Fe Metal Count	Fe Metal Weight	Other Count	Other Weight
1308			21	4409	1	4798								
1039			2	248										
1043			1	116									1	52
1056			2	428					2	183				
1057			2	156			1	22						
1061			1	465										
1096			6	804									1	391
1118	1	49							10	166				
1127											10	15		
1134			3	1705										
1138	1	23												
1139			1	216										
1162			1	865										
1165									1	62				
1185	1	14												
1199			3	240										
1210			3	99										
1212	1	41												
1221	1	7												
1312			1	328										
Total	**5**	**133**	**47**	**10079**	**1**	**4798**	**1**	**22**	**13**	**411**	**10**	**15**	**2**	**443**

Table 9 Amen Corner slag listing by context number (weight in grams)

	Smelting Slags						
	Slag 235	**Slag 238**	**Slag 243**	**Slag 1308**	**Furnace Base**	**mean**	**N-D Slag 1118**
MgO	n.d	0.9	5.5	1.4	n.d	1.6	n.d
Al_2O_3	8.0	6.5	1.2	7.5	11.2	6.9	15.0
SiO_2	30.4	14.3	9.6	17.0	20.9	18.4	38.5
P_2O_5	4.1	5.1	3.3	3.4	5.9	4.4	5.7
S	0.4	0.4	0.3	0.4	0.3	0.4	0.2
K_2O	0.8	n.d	0.2	0.2	n.d	0.2	0.7
CaO	1.0	0.9	0.7	1.0	1.2	0.9	2.0
TiO_2	0.4	0.2	n.d	0.3	0.5	0.3	0.9
V_2O_5	0.2	0.2	0.1	0.2	0.3	0.2	0.3
Cr_2O_3	n.d	n.d	n.d	n.d	n.d	n.d	n.d
MnO	0.2	0.2	0.3	0.2	0.3	0.2	1.7
FeO	54.4	71.4	79.0	68.5	59.3	66.5	34.8
CoO	n.d	n.d	n.d	n.d	n.d	n.d	n.d
NiO	n.d	n.d	n.d	n.d	0.1	n.d	0.1
CuO	n.d	n.d	n.d	n.d	n.d	n.d	n.d

Table 10 Semi-quantitative data derived from the HH-XRF analyses of the slags (weight %)

	Rec Num 114	Rec Num 137	Rec Num 161	Context 1118	Mean
MgO	n.d	n.d	3.0	n.d	0.8
Al_2O_3	n.d	0.3	6.2	4.1	2.7
SiO_2	42.3	51.4	67.7	65.1	56.6
P_2O_5	0.4	0.3	0.6	0.6	0.5
S	0.1	0.1	n.d	n.d	n.d
K_2O	0.4	0.7	1.0	1.2	0.8
CaO	0.1	0.1	0.3	0.3	0.2
TiO_2	0.2	0.5	0.5	0.5	0.4
V_2O_5	0.1	0.1	0.1	0.1	0.1
Cr_2O_3	0.1	0.1	0.1	0.1	0.1
MnO	n.d	n.d	n.d	n.d	n.d
Fe_2O_3	56.2	46.4	20.3	27.9	37.7
CoO	n.d	n.d	n.d	n.d	n.d
NiO	n.d	n.d	n.d	n.d	n.d
CuO	n.d	n.d	n.d	n.d	n.d
ZnO	n.d	n.d	n.d	n.d	n.d

Table 11 Semi-quantitative data derived from the HH-XRF analyses of iron ore samples.

6 Synthesis

6.1 Defining banjo enclosures

Banjo enclosures are a poorly understood monument type, despite being researched for many years. The term was originally coined by Perry "to draw attention to a distinctive type of small enclosure….recently come to light in Hampshire….and other parts of Wessex" (1966, 39). They are defined as usually sub-circular enclosures, of up to 0.6ha in size, with a ditch and outer bank, and a set of parallel ditches that form a long passageway to the entrance of the enclosure (Perry 1969; McOmish 2011; Lang 2016). Banjos can also exist in a larger complex, with attached paddocks, or enclosed within a larger compound (Darvill *et al* 1987, 399-400). As well as individual banjos, double and even triple banjo forms have been identified (Lang 2008, 115).

Over 200 banjo enclosure sites are known in Britain (McOmish 2011, 2), though only 16 have been subject to some form of excavation (Lang 2016, 341). Similarly, few radiocarbon dates have been realised from banjo enclosures; Lang (2016, 347) identifies only one site at Micheldever Wood as being the sum total of published dates, though recent excavations at Winterborne Kingston as part of the Durotriges Project has yielded further dates (Russell *et al* 2014).

Banjo enclosures are often sited on upland over 100m above sea level, with their entrances facing downhill, and many are located on the edge of changes in local geology (Lang 2016; Winton 2003). The Amen Corner banjo lies at *c.*90m AOD, with its entrance approach facing downhill, and with sandy clay in the eastern approach changing to sand and gravel geology where the roundhouse was constructed in the west.

A possible banjo enclosure was excavated at Old Kempshott Lane, Worting (Lythe 2007) though this was not fully revealed in plan during the excavation, and certain aspects of its morphology raise questions as to its classification. For instance, the western half of the main enclosure was beyond the limits of excavation, and the two antennae ditches were quite different in profile from one another. As such, it may be that the two ditches would never have met to form an enclosure. However, such is the variability of banjo design, coupled with the low number of excavated examples, that this may just be a variant in the form. It was suggested that this enclosure was for stock control, a theory that has been often suggested due to the long funnel entrance and the lack of domestic internal structures seen via crop marks (Winton 2003, 18).

Banjo enclosures have more recently been interpreted as high status sites, at least where a roundhouse has been present. As there is often but one roundhouse, and therefore a small family unit living in it, the effort needed to construct the enclosure, coupled with the long entrance way, suggests a powerful social position (McOmish 2011).

6.2 The earliest phases

6.2.1 The segmented ditches (SD1-3)

The earliest phase of the enclosure is known mainly through stratigraphic relationships, rather than artefact or scientific dating, though some later prehistoric pottery was recovered from upper fills of some of these features. SD1 and SD2 lay within the later entranceway, suggesting a continuation of the layout when the banjo was created. However, segmented ditches by their very nature, have frequent gaps. It may be that the later entranceway is the only reason so much of this earlier phase remained, the rest having been heavily obscured by subsequent activity. The only further example of this earlier phase was identified on the outer edge of the main ditch, in the north of the site.

Lang (2016, 347) identifies three sites that indicate earlier activity preceding the banjo enclosures. In all of the sites that have been excavated, no evidence for Early Iron Age adoption of the banjo as an enclosure type has been found, but where the earlier activity exists, there is "no significant break between Early and Middle Iron Age phases of use, suggesting a level of continuity in the evolution of the site to banjo enclosure form" (*ibid*).

6.2.2 The early pits

The three large pits that were identified underneath ED2 immediately west of the roundhouse were deep, cylindrical features, suggestive of storage pits. Disappointingly barren of both artefacts and useful environmental remains, it was not possible to further refine their phasing. Their proximity to the roundhouse could suggest that the building predated the enclosure, as has been mooted at Caldecote (Kenney and Lyons 2011, 67), though without any dating from the pits, or evidence of specific function, this is a tenuous supposition.

6.3 The banjo enclosure

The Amen Corner enclosure measured *c.* 0.38ha, and was sub-circular in shape, formed by at least two and potentially three large ditches. The elongated entrance passageway, defined by two parallel ditches, approached the enclosure from the east. A radiocarbon date recovered from a sample of the basal fill of the terminus of ED1 returned a date of 410-260 cal BC.

6.3.1 The enclosure ditches (ED1-3)

The ditches that defined the enclosure were not fully revealed during the excavation, due partly to the limits of the site, but mainly because of previous quarrying that had removed the north-west corner of the enclosure. It is not possible to know if ED2 and ED3 were in fact one and the same, but ED1 was a distinct ditch in its own right. The additional entrance that this layout creates is anomalous for the standard morphology of banjo enclosures, though not unknown; the banjo enclosure at Walton-in-Gordano has an eastern main entrance with long antennae ditches, and a western entrance with a much shorter passageway (Moore 2006, 57; Pastscape 2017). It is probable from the alignment of ED1 that it would have continued beyond the terminus of ED3, possibly creating a funnel entrance for the control of livestock.

An external bank has been identified as a common factor of this enclosure type. Whilst the depositional evidence from the excavated sections at Amen Corner has not been conclusive in proving one way or another from which direction the material filled the features, it tends to suggest an outer bank. Furthermore, if the roundhouse that was located close to the western side of the enclosure ditch is contemporary with the ditch (and it is likely that it is), then the ditch must have been external, for there would not have been enough room between the drip gully and the ditch for such a bank to have been sited. It has been highlighted that an external bank would be non-defensive in nature, suggesting therefore that the undertaking of the enterprise is a demonstration of status (Lang 2016, 346, 355).

6.3.2 The antennae ditches (AD1-2)

These ditches were much smaller than the main enclosure ditches, and did not join up to form a contiguous circuit. Rather, they terminated *c.*3m from the terminal ends that form the main entrance, having run for *c.*30m in their approach. They were much narrower and shallower than those that formed the enclosure, and were U-shaped. The southern of these two passageway ditches (AD1) began to turn to the south at the eastern excavated extent, whilst the northern one (AD2) continued roughly east. Such passageways tend to be between 25m to 90m or more in length, often flare out away from the entrance, and can form further land divisions around the main enclosure (McOmish 2011, 3). It was not possible to determine the extent or morphology of the antennae ditches, due to the limits of the excavation. However, several undated ditches from the evaluation phase (OA 2016) have a similar profile to the antennae ditches, and an external compound can be conjectured, though it is realised that this extrapolation is somewhat tenuous.

From the non-contiguous nature of the antennae and enclosure ditches, it could be argued that this site does not represent a true banjo enclosure. Indeed, Lang (2016, 348) makes such a case when discussing an example from Wavendon Gate, which has, similarly to Amen Corner, V-shaped main ditches and U-shaped antennae ditches. The banjo excavated at Caldecote offers support to the Amen Corner cause, demonstrating that the main enclosure ditches and antennae ditches never met during the various phases of its existence (Kenney and Lyons 2011, 69). It was suggested that wooden hurdles would have been placed in the gaps, to allow flexibility in corralling animals. Such archaeologically invisible features could have been employed at Amen Corner to similar effect.

6.4 The roundhouse

The single roundhouse, as defined by a drainage gully, measured *c.*10m in internal diameter. Two radiocarbon dates were returned from the gully, yielding dates of 410-380 cal BC and 390-200 cal BC. The short overlap of dates at the start of the 4th century BC is tempting, though as has been discussed above, the risk of old wood effect should be considered. The date returned from the enclosure ditch does not contradict an early 4th century BC origin, but rather reinforces the likelihood that the enclosure and roundhouse were contemporary.

No entrance way was identified, suggesting that it was a continuous circuit, accessed via a plank, though an evaluation trench through the middle of it could have obscured an entrance way if it was located in the south or north. However, a number of factors suggest that the entrance would have been to the east. Firstly, the well-established phenomenon for finds deposition in the terminal ends of eaves-drip gullies can be projected onto this example (Webley 2007, 133: Torrance and Durden 2003, 105). The high density of pottery in the eastern part of the gully, to the point where pottery sherds outweighed sediment as the dominant fill (Figure 19), compared to the dearth of artefacts in the western half, would suggest an eastern entrance. Furthermore, where roundhouses are identified within banjo enclosures, their entrances tend to point towards the enclosure entrance (Kenney and Lyons 2011; Russell *et al* 2014).

The interpretation of the feature as a drainage gully as opposed to a wall slot has been analysed with respect to Pope's (2003, 77) checklist for such determination.

Internally, the picture of the roundhouse is unclear. No floor surfaces were discerned, and only four postholes were identified within the drip gully. This is too few to determine any particular design aspect, and it should be noted that such absence of evidence for outer wall structure is not uncommon (Pope 2003, 95). Later truncation may well have removed shallow wall-slots, the most common timber-built house type (Pope 2003, 96), and the remaining postholes could be part of an internal division of the structure.

A potential hearth was sited very close to the eastern side of the drainage gully, and therefore close to the proposed entrance. Its position would also put it within the potential footprint of the structure wall, suggesting that it may pre- or post-date the roundhouse. Pottery from the fills can only be dated broadly to the Iron Age, so it is not possible to discern the phasing.

6.5 The hearths and metal working

The two hearths identified in the central area did not yield any evidence to suggest function. The possible oven furniture was most likely a loom weight, and the potential crucible was never used for metalworking. As such, these two hearths may have had an agricultural or domestic function as opposed to a metallurgical one. The presence of smelting slag deposited across the site indicates iron working was undertaken by the inhabitants of the enclosure, though this is often an activity reserved for outside of settlements, with smithing taking place within (see Crew 1998 and Halkon and Millet 1999). No evidence for smithing was found; all the slag recovered was smelting slag.

The later Iron Age site at Sindlesham (Lewis *et al* 2013) approximately 8km to the west of Amen Corner, revealed extensive iron production over a 400-500 year period. Several simple furnaces were constructed, probably for single use, before a larger, more permanent furnace indicated an increase in production. There, an estimated 21 tonnes of slag was recovered, alongside evidence for a number of charcoal clamps. Bog iron was considered to be the source of ore exploited at Sindlesham, as it is at Amen Corner. This resource forms in low lying and iron-rich wetland areas, and the Bagshot formation upon which Amen Corner sits has a high iron content. The enclosure was sited on slightly higher ground, potentially on the edge of such a terrain. However, the surrounding landscape of the banjo enclosure was not within the scope of this excavation.

Iron ore is just one of three major components required for the smelting of iron; clay for the furnace and wood for the fuel are the other two considerations. Of these, wood is needed in the largest amounts. Salter and Ehrenriech (1984, 147) have estimated that 20kg of iron ore and 90kg of fuel is needed to produce 1kg of iron. As such, the location of smelting sites may well be dictated primarily by access to fuel, rather than ore.

6.6 The four-posters and other posthole structures (FP1-2)

Only one complete four-post structure could be identified, and with impressive nomenclatorial logic it is termed Four-post Structure 1 (FP1). This was sited in the middle of the enclosure, and whilst it did not yield any pottery, it seems unlikely to be non-contemporary. The second, albeit incomplete FP2 was located in the south-west side of the enclosure, and was made up of three quite substantial postholes with the south-eastern corner absent.

Four-post structures have been variably interpreted, though the most common suggestion is as raised granaries (Gent 1983). Grain is stored above ground to keep it dry and free from microbial or vermin attack, and to prevent germination (Mann and Jackson forthcoming, 170). Whilst the environmental evidence for charred crop remains is poor at Amen Corner, it still remains the most likely function of these structures. Indeed, some banjo enclosures have been interpreted as crop processing sites (Lang 2016, 349).

6.7 The wider landscape

The radiocarbon dates retrieved from Amen Corner suggest that this site is an early example of a banjo enclosure, which was constructed at a time when there was great change in societies throughout southern Britain. Moore (20067, 215) notes that "there is increasing importance placed on emphasising the boundedness of the community." This has been seen to manifest itself in the increase in enclosed settlements. However, from recent work in the wider area, it would suggest that this phenomenon was not rapidly embraced. A middle Iron Age settlement 3.5km north-east of Amen Corner at Fairclough Farm (Torrance and Durden 2003) revealed two roundhouse structures, seemingly in an unenclosed settlement. The pottery dated the site to the 3rd to 2nd century BC, with no evidence for either earlier or later occupation of the site. RAF Staff College, Bracknell was an unenclosed settlement of one or possibly two house structures (Lowe 2013). A radiocarbon date placed the settlement in the 3rd or 2nd century BC, and it was considered to be "a basic farmstead of relatively low status" (Lowe 2013, 21). Excavation at Jennet's Park, Bracknell revealed an unenclosed settlement of four circular structures, along with two four-post structures and associated pits (Simmonds *et al* 2009). A settlement at Park Farm, Binfield 1.5km north-east of Amen Corner contained four possible roundhouses, defined by penannular gullies (Roberts 1995). Whilst this site certainly continued to function into the early Romano-British period, it appeared to have its founding in the middle Iron Age. Most recently, Hatch Farm (McNicoll-Norbury and Ford, forthcoming) has revealed yet further unenclosed middle Iron Age settlement in the region.

The environmental evidence from Amen Corner was sparse, though this is a problem inherent to the region, either due to the acidity of the geology (in regards bone preservation) or as an indication for the minor role that arable agriculture played in the local economy (Simmonds *et al* 2009, 72; McNicoll-Norbury and Ford, forthcoming).

6.8 The end?

It is not known when or why the enclosure went out of use, though it is clear that its use did not continue into the Roman period, or even the late Iron Age. The analysis by Pope (2008, 18) on the projected lifespan of roundhouses suggests that one would not last more than a generation. The evidence at Amen Corner is for a single structure, which would therefore indicate roughly 40-60 years of occupation. The pottery dates lie within that awkward phase in time where one tradition is giving way to another, and so both types are apparent, on a site that seemingly lasted for just half a century.

The enclosure ditches contained slowly accumulated fills, presumably from associated bank material, and did not indicate any intentional slighting or backfilling.

No evidence for conflagration of the roundhouse existed. The absence of intact material goods, and the deposition of broken pottery in the probable entranceway of the ring gully suggests a planned removal from site of the occupants (cf. Pope 2003).

A small pit truncated the northern part of ED2, and contained some later prehistoric pottery, but this could easily be residual from the enclosure ditch itself.

Following its abandonment, the area did not see any further occupation, or indeed much evidence of farming and formal land division, until the medieval period. However, recent evaluation of land just 500m north of Amen Corner has revealed an enclosure of 1st Century AD date (OA 2017), showing that exploitation of the immediate landscape continued.

The banjo enclosure at Amen Corner provides new data for this monument type, in both morphology and scientific dating. As the morphology is so reliant on unexcavated examples known primarily through aerial photography, the otherwise anomalous characteristics of this enclosure can be construed as variations upon a theme. The antennae ditches do not need to be contiguous with the enclosure ditches. This is possibly only the third banjo enclosure from which radiocarbon dates have been retrieved, and these would place it at the earliest end of the broad, middle to late Iron Age range. The pottery assemblage, straddling as it does two periods, illuminates the longevity of traditions in the area, and could help refine the dating of previously excavated sites.

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8 Bibliography

AAF 2011 *Archaeological archives: a guide to the best practice in the creation, compilation, transfer and curation,* Archaeological Archives Forum, http://www.archaeologyuk.org/archives/

Adkins, L, and Needham, S, 1985 New research on a Late Bronze Age enclosure at Queen Mary's Hospital, Carshalton*, Surrey Archaeological Collections,* **76**, 11–50

Allen JRL 2013 *Geochemistry of the slags* in Preston S. 2013 *Iron Age Iron Production Sites in Berkshire: Excavations 2003 – 2012* Thames Valley Archaeological Services Monograph: Volume 16, 23- 29.

Ballin, T, 2000 Classification and description of lithic artefacts: a discussion of the basic lithic terminology, *Lithics*, [online] 21, 9-15. Available at: http://journal.lithics.org/index.php/lithics/article/viewFile/490/475

BGS 2017 *Geology of Britain Viewer*, http://mapapps.bgs.ac.uk/geologyofbritain/home.html, British Geological Survey, accessed 31 May 2017

Bronk Ramsey, C, 2009 Bayesian analysis of radiocarbon dates, *Radiocarbon*, **51**, 337-60

Brown, L, 2009 Prehistoric pottery, in A Simmonds *et al*. 2009, Archaeology in the Park. Excavations at Jennett's Park, Bracknell, Berkshire, Oxford Archaeology Occasional Paper

Butler, C, 2005 *Prehistoric flintwork*. Stroud: Tempus.

Cappers, T R J, Bekker, R M, and Jans, J E A, 2012 Digitale Zadenatlas van Nederland: Digital seed atlas of the Netherlands, *Groningen Archaeological Studies,* **4**, Barkhuis Publishing and Groningen University Library: Groningen

CgMs 2013 *Land at Amen Corner, North Bracknell, Berkshire*, CgMs Consulting Ltd, unpublished document, dated September 2013, ref SW/SR-P/15775

CIfA 2014a *Standard and guidance for the collection, documentation, conservation and research of archaeological materials,* Chartered Institute for Archaeologists, http://www.archaeologists.net/codes/ifa

CIfA 2014b *Standard and guidance: Archaeological excavation*, Chartered Institute for Archaeologists

Crabb S. 2013 *Slag Analysis* in Preston S. 2013 *Iron Age Iron Production Sites in Berkshire: Excavations 2003 – 2012* Thames Valley Archaeological Services Monograph: Volume 16, 19-23.

Crew P 1988, '*Bryn y Castell hillfort, Gwynedd, North Wales: a preliminary analysis of the iron-working debris'*, in J Ellis Jones (ed), *Aspects of Ancient Mining and Metallurgy (Bangor*), 129–135.

Cunliffe, B 1984 *Danebury and Iron Age hillfort in Hampshire*, Vol 2, CBA Research Report **52**. London

Darvill, TC, Saunders, A & Sartin, B 1987 *A question of national importance: Approaches to the evaluation of ancient monuments for the Monuments Proection Programme in England*, Antiquity 61

Dungworth D. (Ed.) 2015 *Archaeometallurgy Guidelines for Best Practice*. Historic England (www.HistoricEngland.org.uk/advice/)

English Heritage 2011 *Environmental archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation*, Centre for Archaeology Guidelines

Gent, H. (1983) *Centralised Storage in Later Prehistoric Britain*. Proceedings of the Prehistoric Society 49, 243–67.

Griffin, L, forthcoming, Prehistoric pottery, in A Mann *et al. 'Archaeological investigations at Whitemoor Haye Quarry, Staffordshire, 2005-2012: a prehistoric and Roman landscape in the Tame Valley*

Hather, J G, 2000 *The identification of the northern European hardwoods: a guide for archaeologists and conservators*, Archetype Publications Ltd

Halkon, P. And Millett, M. 1999. *Rural Settlement and industry: Studies in the Iron Age and Roman archaeology of lowland East Yorkshire.* Leeds: Yorkshire Archaeological Report **4,** Yorkshire Archaeological Society.

Humphrey, J, and Young, R, 1999 Flint Use in Later Bronze Age and Iron Age England - Still a Fiction?, *Lithics*, [online] 20, 57-61. Available at: http://journal.lithics.org/index.php/lithics/article/download/515/500

Inizan, M, Féblot-Augustins, J, Reduron-Ballinger, M, Roche, H, and Tixier, J, 1999 *Technology and terminology of knapped stone*. Nanterre: Cercle de Recherches et d'Études Préhistoriques.

Kenney, S and Lyons, A 2011 *An Iron Age banjo enclosure and contemporary settlement at Caldecote, Cambridgeshire.* Proceedings of the Cambridge Antiquary Society 100

Lang A. T. O 2008 *The Iron Age Archaeology of the Upper Thames and North Oxfordshire Region, with Especial Reference to the Eastern Cotswolds,* Hertford College, University of Oxford

Lang A. T. O 2016 *Defining Banjo Enclosures: Investigations, Interpretations, and Understanding in the Iron Age of Southern Britain*. Proceedings of the Prehistoric Society 82

Leivers, M, Every, R and Mepham, L, 2014 *Landscape Evolution in the Middle Thames Valley. Heathrow Terminal 5 Excavations, volume 2. Prehistoric pottery (Section 1)*

Lewis, J, Crabb, S, and Ford, S. 2013 'Bronze Age urns, Iron Age iron smelting and Saxon charcoal production at Sadler's End, Sindlsham, Wokingham, Berkshire', in Preston S. 2013 *Iron Age Iron Production Sites in Berkshire: Excavations 2003 – 2012* Thames Valley Archaeological Services Monograph: Volume 16, 1-34.

Lovett P. 2016 *Assessment and Updated Project Design for Archaeological Excavations at Amen Corner, Bracknell, Berkshire*. Worcestershire Archaeology, Archive & Archaeology Service, Worcestershire County Council

Lowe, J, 2013 *Middle Bronze Age and Middle Iron Age Occupation and Post-Medieval Limekilns at RAF Staff College, Broad Lane, Bracknell, Berkshire* Thames Valley Archaeological Services Occasional Paper 3

Lythe, R, 2007 *An Archaeological Evaluation and Excavation On Land At Old Kempshott Lane, Worting, Basingstoke*, Pre-Construct Archaeology

Mann, A and Jackson, R, forthcoming *Clifton Quarry, Worcestershire, Pits, posts and cereals: Archaeological Investigations 2006-09*, Oxbow, Oxford

McDonnell J.G. 1986 *The Classification of Early Ironworking Slags* Unpublished PhD Aston University

McDonnell J.G. 1988 Ore to Artefact: A Study of Early Ironworking in eds Slater, E. and Tate. J. *Science and Archaeology Glasgow 1987.* BAR British Series 196

McDonnell J.G. 2001 “Pyrotechnology” in Brothwell, D. and Pollard A.M.P. (eds) *Handbook of Archaeological Sciences*, John Wiley & Sons, London pp. 493-506.

McDonnell 2013 The metallurgy in Armit, I. and Mckenzie, J. 2013 *An Inherited Place: Broxmouth Hillfort and the South East Scottish Iron Age.* Edinburgh: Society of Antiquaries of Scotland. (382-401)

McNicholl-Norbury, J, and Ford, S, forthcoming *Middle Iron Age, Late Iron Age and Roman occupation at Hatch Farm, Winnersh, Reading, Berkshire*, Thames Valley Archaeological Services

McOmish, D 2011 *Introductions to Heritage Assets: Banjo Enclosures*. English Heritage, London

Moore, T, 2006 *Iron Age Societies in the Severn-Cotswolds,* BAR British Series 421

Morris, E, 2004 Later prehistoric pottery, in A Brossler, R Early and C Allen, *Green Park (Reading Business Park). Phase 2 Excavations 1995 – Neolithic and Bronze Age sites*, Thames Valley Landscapes Monograph **19**, Oxford Archaeology, 58–91

OA 2016 *Amen Corner, Bracknell, Berkshire; Archaeological Evaluation Report*, Oxford Archaeology, unpublished report, dated March 2016, ref 6351

OA 2017 *Foxley Oaks, Binfield, Berkshire: Archaeological Evaluation Report, Oxford Archaeology,* unpublished report, dated February 2017

Pastscape 2017 http://www.pastscape.org.uk/hob.aspx?hob_id=195425 accessed 24th May 2017

PCRG, 1997 *The study of later prehistoric pottery: general policies and guidelines for analysis and publication*, Prehistoric Ceramics Research Group Occasional Papers 1 and 2, Oxford. Reprinted

Perry, B.T 1966 Some recent discoveries in Hampshire. In A.C Thomas (ed.), *Rural Settlement in Roman Britain,* 39-42. London: Council for British Archaeology Research Report 7

Perry, B. T. 1969 Iron Age enclosures and settlements on the Hampshire Chalklands. *Archaeological Journal* 126, 29-43

Poole, C, 1995 Loomweights versus oven bricks, in B Cunliffe (ed) *Danebury: an Iron Age hillfort in Hampshire. Volume 6: A hillfort community in perspective*, CBA Research Report **102**, 285–6. York

Pope, R, 2003 *Prehistoric dwelling: circular structures in north and central Britain c 2500 BC-AD 500,* Durham these, Durham University

Pope, R, 2008 *Roundhouses: 3000 years of prehistoric design*, Current Archaeology 222, 14-21

Preston S. 2013 *Iron Age Iron Production Sites in Berkshire: Excavations 2003 – 2012* Thames Valley Archaeological Services Monograph: Volume 16

Ragg, J M, Beard, G R, George, H, Heaven, F W, Hollis, J M, Jones, R J A, Palmer, R C, Reeve, M J, Robson, J D, and Whitfield, W A D, 1984 *Soils and their use in midland and western England*, Soil Survey of England and Wales, **12**

Raymond, F, 2013 Prehistoric pottery, in J Lowe, *Middle Bronze Age and Middle Iron Age occupation and post-medieval limekilns at RAF Staff College, Broad Lane, Bracknell, Berkshire,* TVAS Occasional Paper **3,** 10–14. Reading

Reimer, P J, Bard, E, Bayliss, A, Beck, J W, Blackwell, P, Bronk Ramsey, C, Buck, C E, Cheng, H, Edwards, R L, Friedrich, M, Grootes, P M, Guilderson, T P, Haflidason, H, Hajdas, I, Hatté, C, Heaton, T J, Hoffmann, D L, Hogg, A G, Hughen, K A, Kaiser, K F, Kromer, B, Manning, S W, Niu, M, Reimer, R W, Richards, D A, Scott, E M, Southon, J R, Staff, R A, Turney, C S M, and van der Plicht, J, 2013 IntCal13 and Marine13 radiocarbon age calibration curves 0–50,000 years cal BP, *Radiocarbon*, **55**, 1869–87

Roberts, M R, 1995 'Excavations at Park Farm, Binfield, Berkshire, 1990: An Iron Age and Romano-British Settlement and Two Mesolithic Flint Scatters' in *Early Settlement in Berkshire. Mesolithic-Roman Occupation in the Thames and Kennet Valleys* Wessex Archaeology Report No. 6, 93 – 132

Russell, M, Cheetham, P, Evans, D, Hambleton, E, Hewitt, I, Manley, H, and Smith M 2014 *The Durotriges Project, Phase One; an interim statement*, Proceedings of the Dorset Natural History and Archaeological Society 135

Salter, C and Ehrenreich, R, 1984 'Iron Age iron metallurgy in central southern Britain', in B Cunliffe and D Miles (eds), *Aspects of the Iron Age in central southern Britain*, Oxford Univ Comm Archaeol Monogr **2**, Oxford, 146-61

Schweingruber, F H, 1978 *Microscopic wood anatomy: structural variability of stems and twigs in recent and subfossil woods from central Europe*, Swiss Federal Institute of Forestry Research

Simmonds, A, Cook, S, Bidulph, E, and Score, D, 2009 *Archaeology in the Park. Excavations at Jennett's Park, Bracknell, Berkshire,* Oxford Archaeology Occasional Paper Number 18

SMA 1993 *Selection, retention and dispersal of archaeological collections,* Society for Museum Archaeology, http://www.socmusarch.org.uk/publica.htm

Stace, C, 2010 *New flora of the British Isles*, Cambridge University Press, (3rd edition)

Stratascan 2014 *Land at Amen Corner North, Bracknell, Berkshire. Geophysical Survey Report,* Stratascan

Stuiver, M, and Polach, H A, 1977 Reporting of 14C data, *Radiocarbon*, **19**, 355–63

Stuiver, M, and Reimer, P J, 1986 A computer program for radiocarbon age calculation, *Radiocarbon*, **28**, 1022–30

Stuiver, M, and Reimer, P J, 1993 Extended 14C data base and revised CALIB 3.0 14C age calibration program, *Radiocarbon*, **35**, 215–30

Tebbutt, C.F. 1982 A Middle-Saxon Iron Smelting Furnace Site at Millbrook, Ashdown Forest, Sussex. Sussex Archaeological Collections, 120, 19-35

Timby, J, 2003 The pottery, in L J Torrance and T Durden, A middle Iron Age settlement at Fairclough Farm, Bracknell, 1994, in S Preston (ed), *Prehistoric, Roman and Saxon Sites in Eastern Berkshire*, TVAS Monograph **3**, 101–4. Reading

Torrance, L J, and Durden, T, 2003 'A Middle Iron Age Settlement at Fairclough Farm, Bracknell, 1994' in *Prehistoric, Roman and Saxon Sites in Eastern Berkshire. Excavations 1989-1997* Thames Valley Archaeological Services Monograph 2, 98-106

Tylecote R.F. 1962 *Metallurgy in Archaeology*. London Edward Arnold

WA 2012 *Manual of service practice, recording manual*, Worcestershire Archaeology, Worcestershire County Council, report **1842**

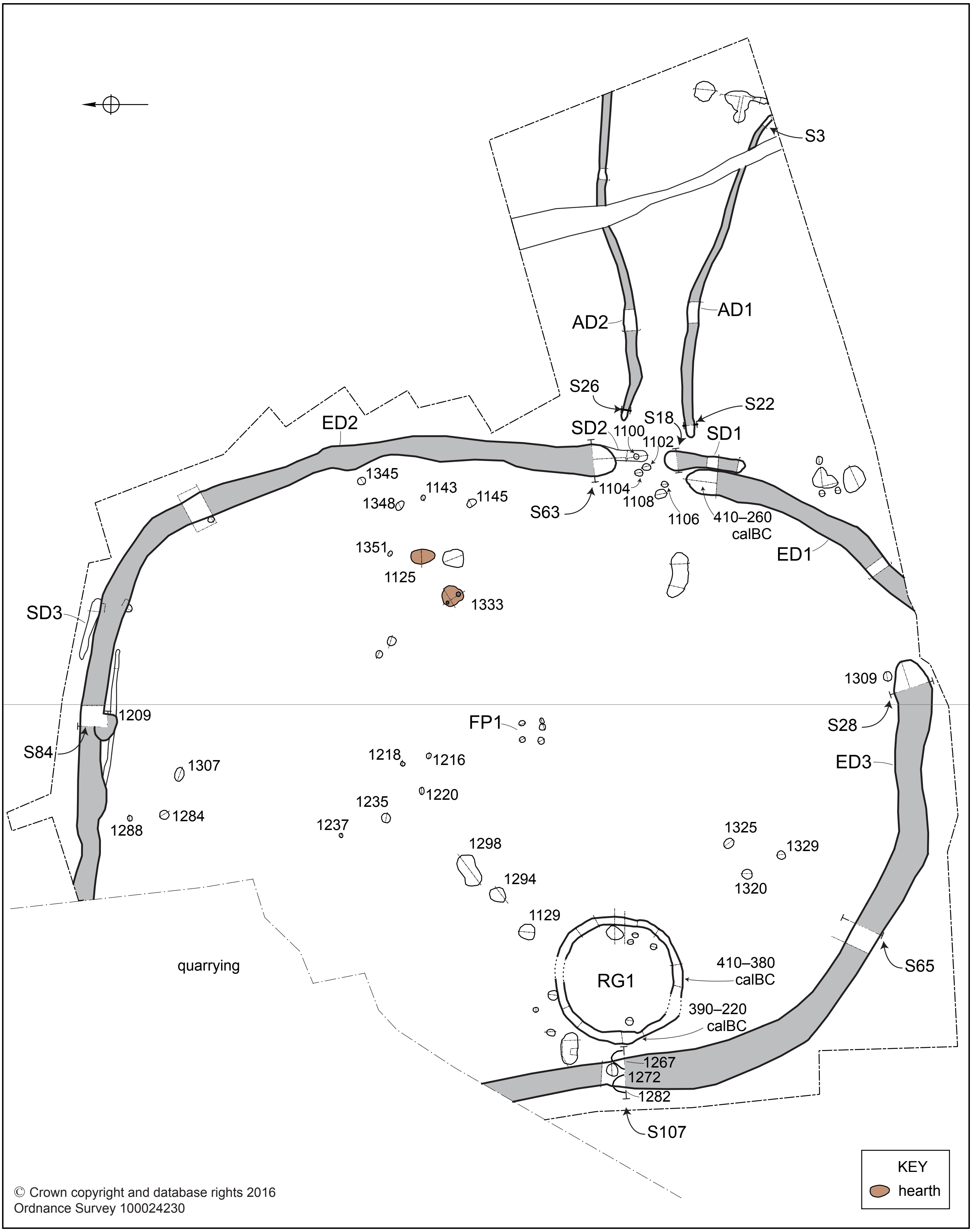
Webley, L, 2007 *Using and abandoning roundhouses: a reinterpretation of the evidence from late Bronze Age-early Iron Age Southern England*, Oxford Journal of Archaeology 26 (2), 127-144

Winton, H 2003 *Possible Iron Age 'Banjo' Enclosures on the Lambourn Downs*, Oxoniensia LXVIII

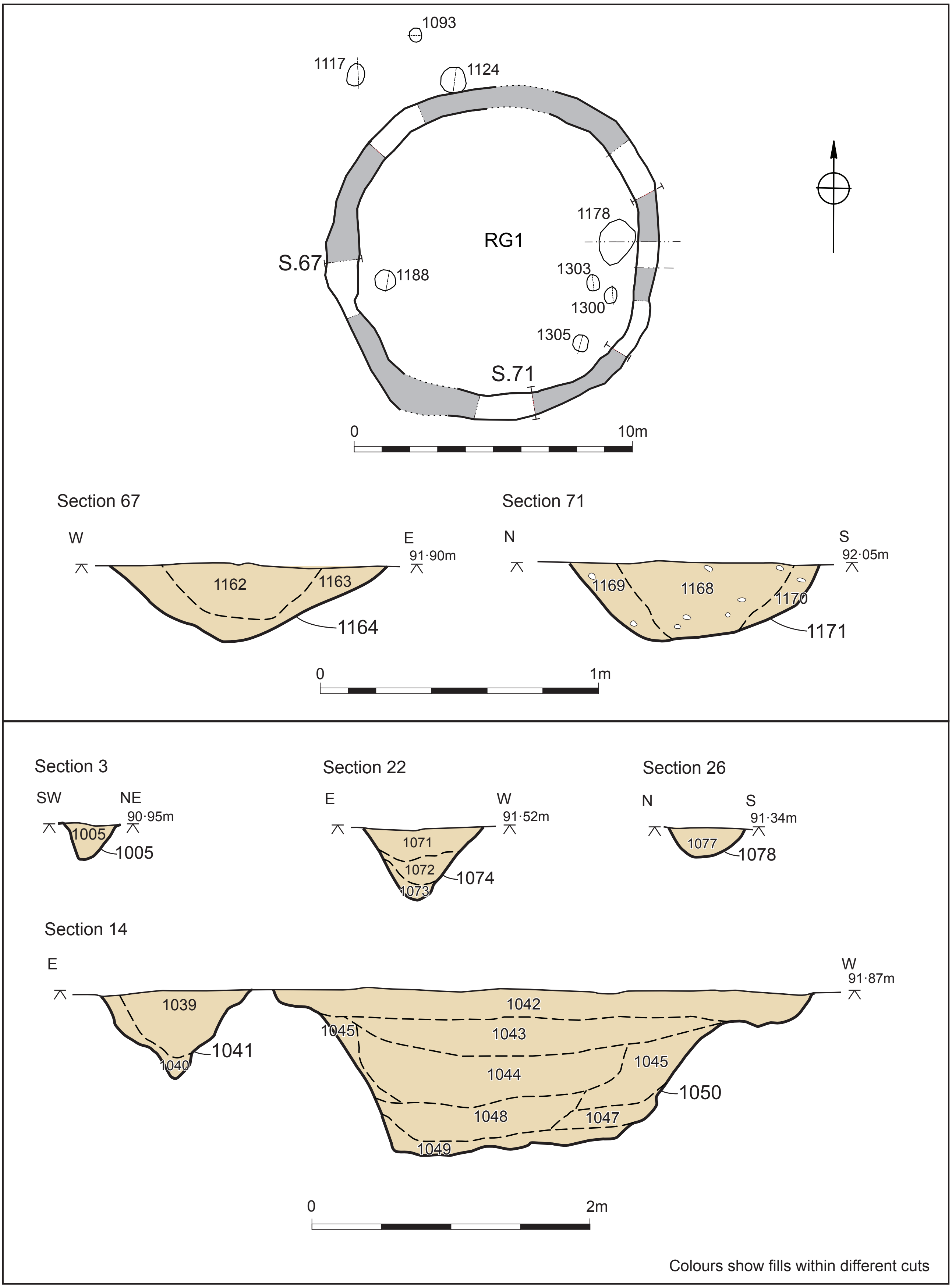
Woodward, A, 2000 When did pots become domestic? Special pots and everyday pots in British prehistory, *Medieval Ceramics*, **22/3**, 3–10

Figures

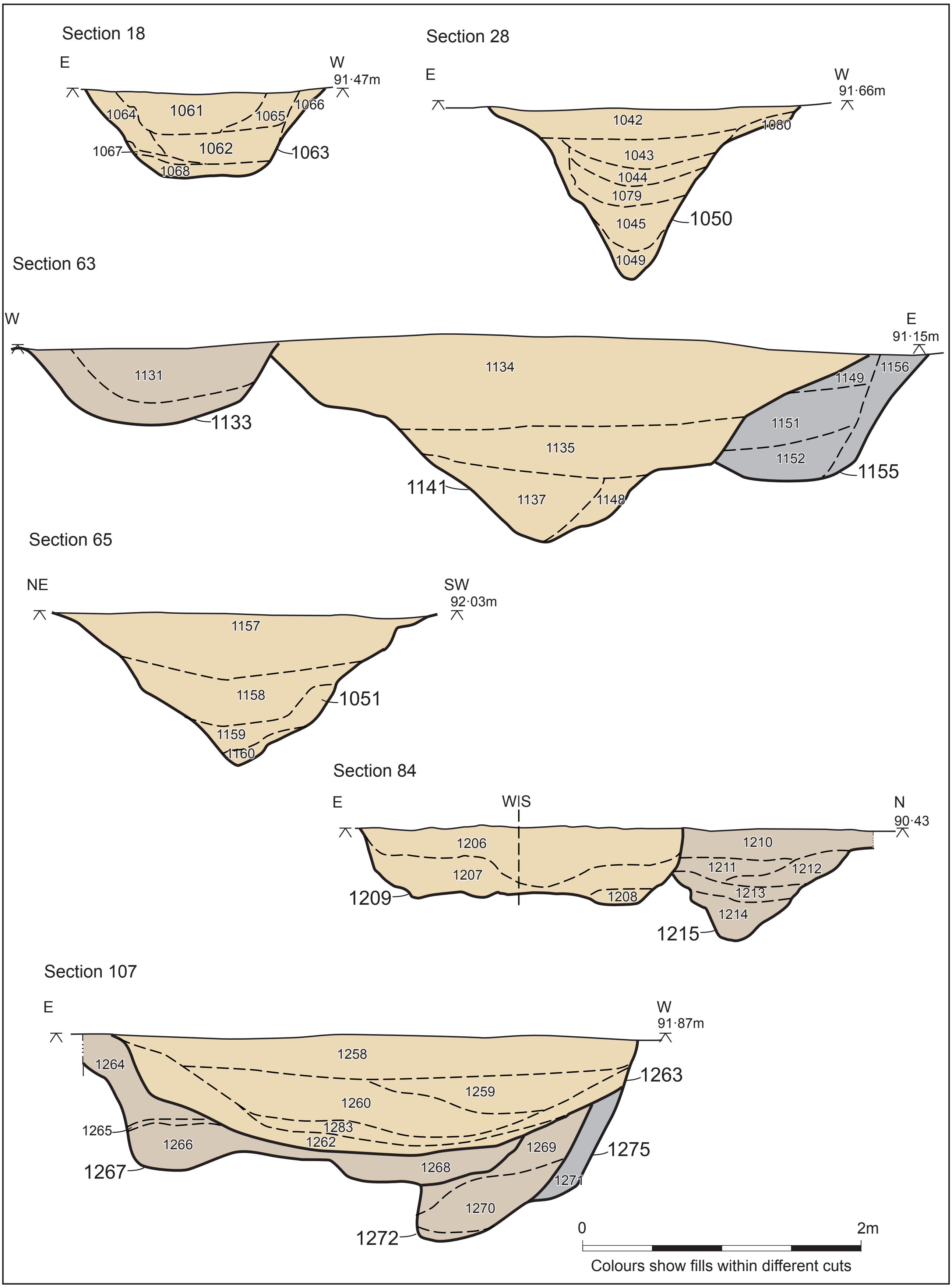
Location of the site *Figure 3*



The Banjo Enclosure *Figure 4*

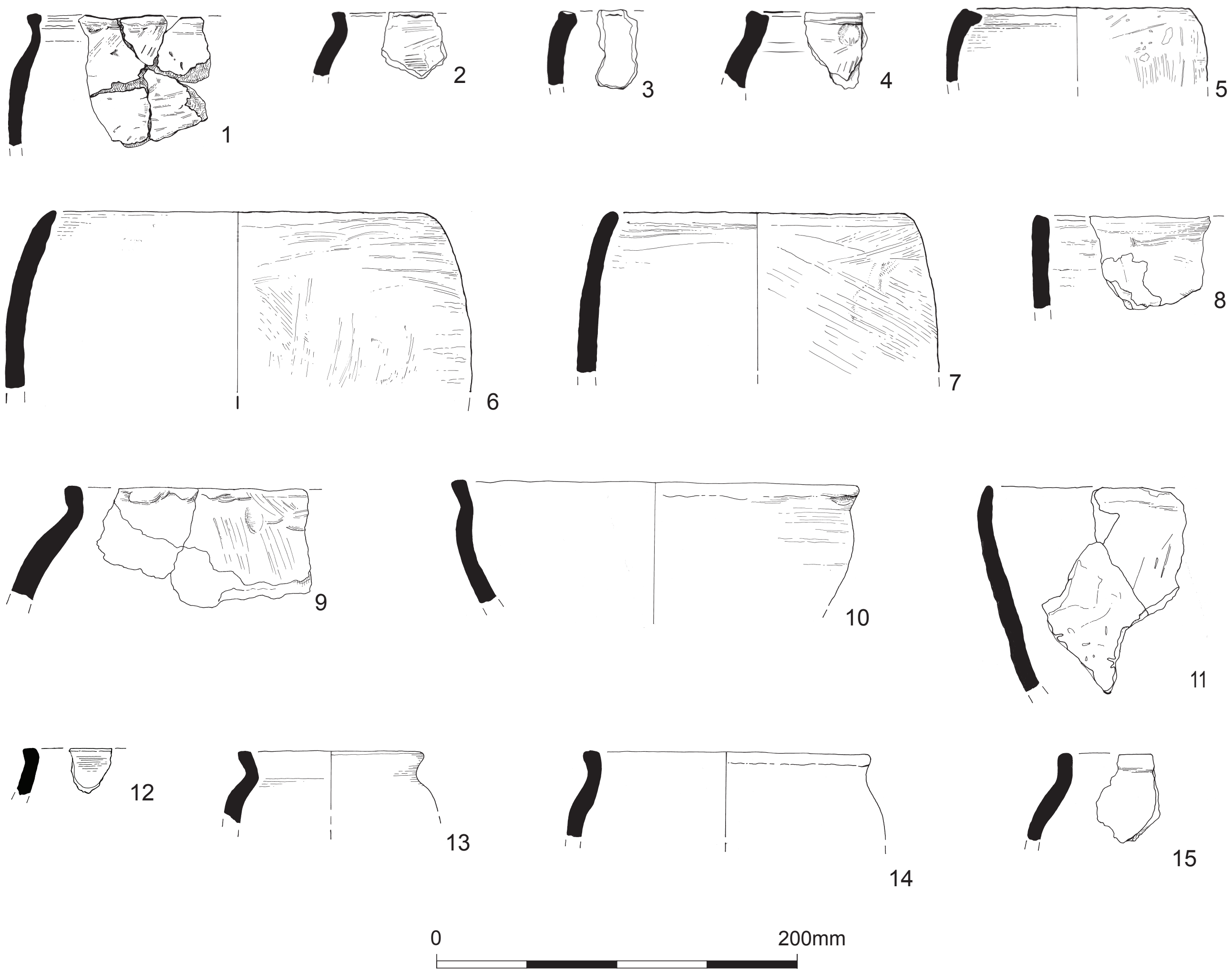


Ring Gully plan and sections and ditch sections *Figure 5*



Ditch sections

Figure 6



Pottery *Figure 7*

Figure 8 Aerial shot of site, south to the top of the image. Some areas of site were more recently stripped than others.

Figure 9 The earliest pits, beneath enclosure ditch, looking south (1m scales)

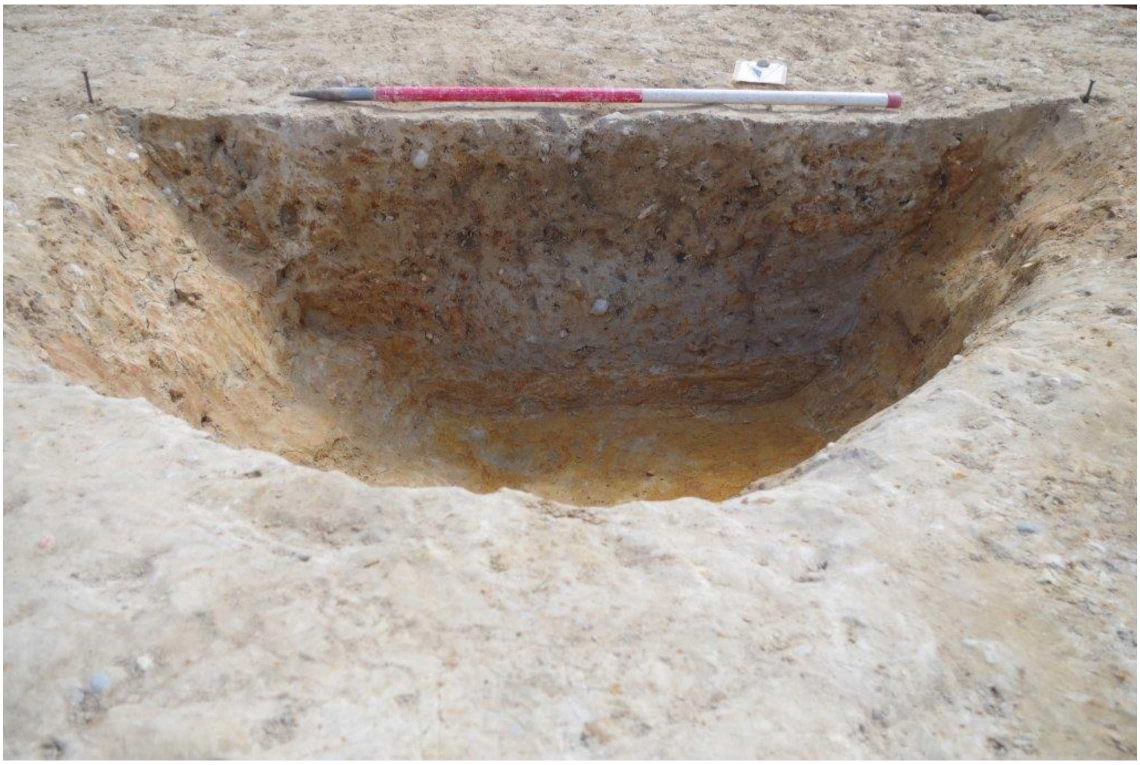


Figure 10 Segmented ditch terminus 1063, looking south (1m scale)

Figure 11 Banjo ditch 1141 cutting earlier ditch 1155, looking north (1m and 0.5m scales)

Figure 12 Antenna ditch 1006, looking north-west (0.2m scale)

Figure 13 Antenna ditch terminus 1074, looking east (0.5m scale)

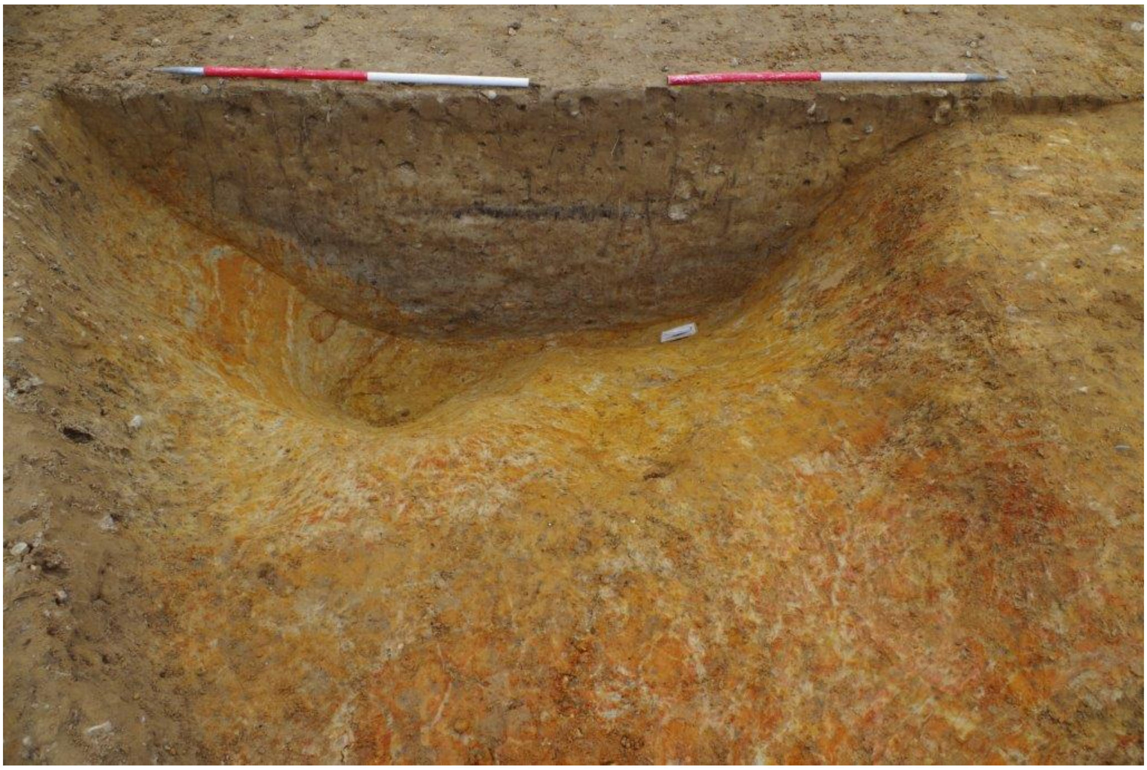


Figure 14 Enclosure ditch terminus 1227, looking west (1m scales). This forms the secondary entrance to the enclosure.

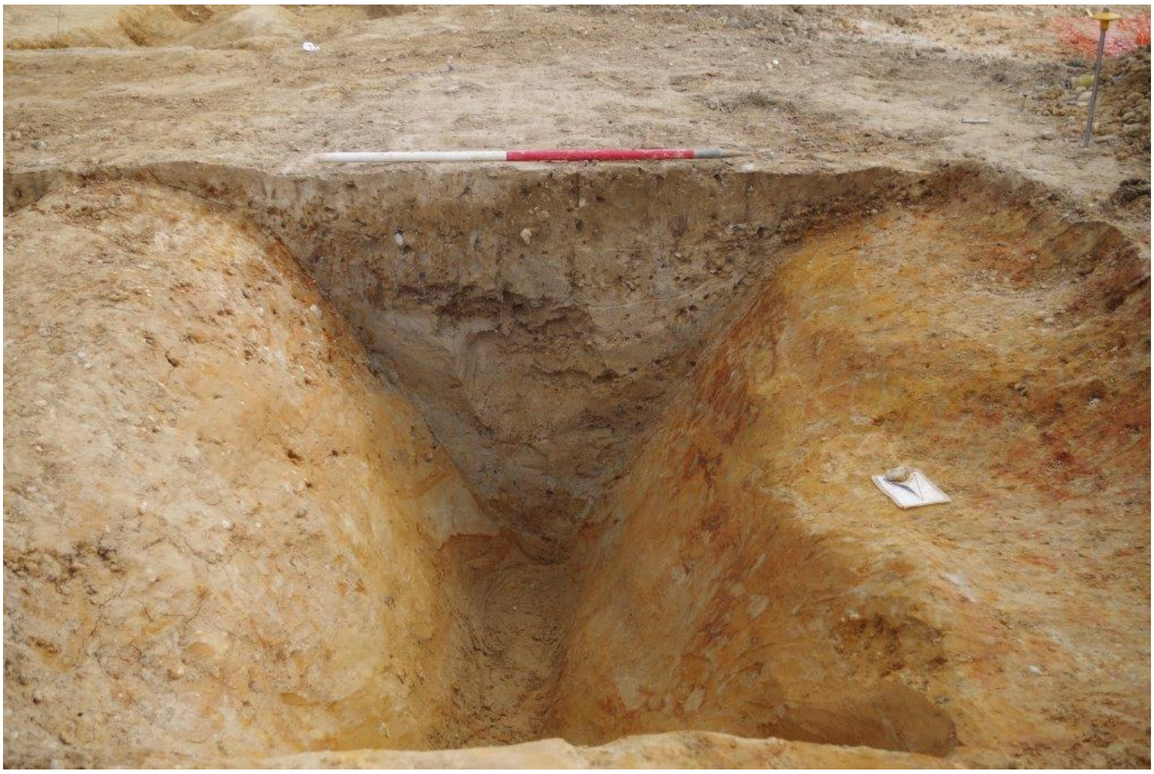


Figure 15 Enclosure ditch terminus 1050, looking south (1m scale), forming the main entrance of the banjo.

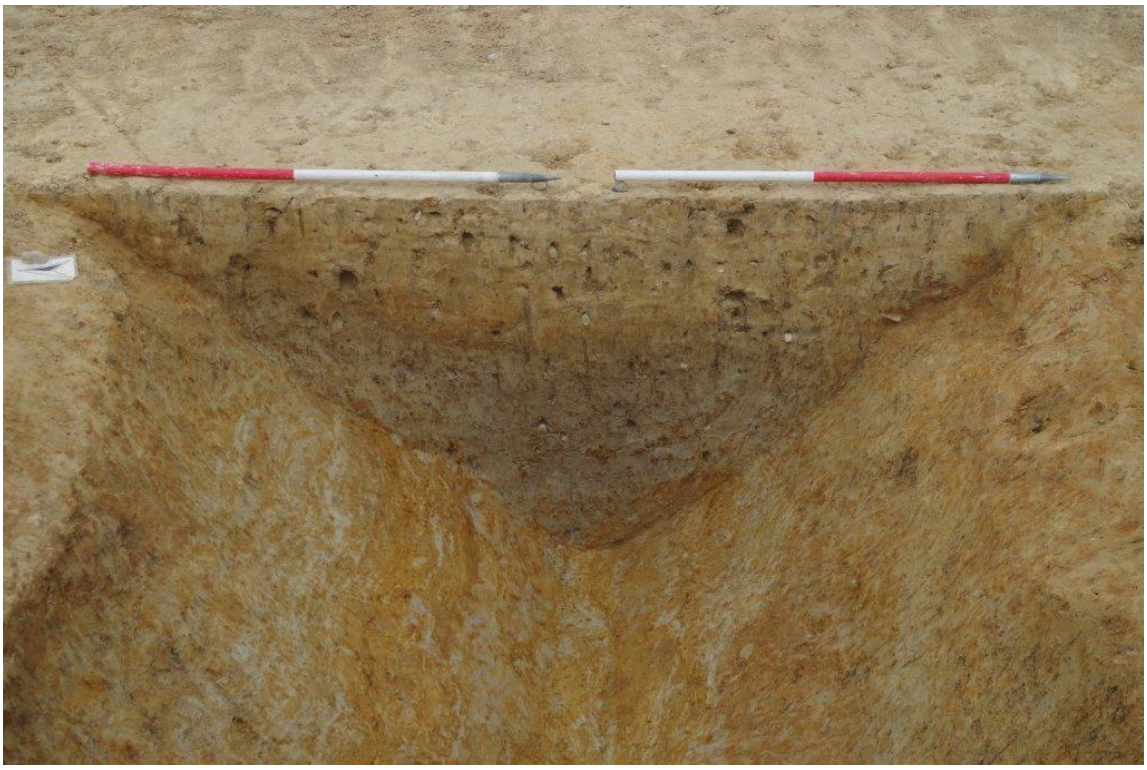


Figure 16 Enclosure ditch 1161, looking south-east (1m scales)

Figure 17 Pit 1294, looking south-east (1m scale)

Figure 18 Hearth 1333 with collapsed clay superstructure, looking east (1m scale)

Figure 19 Pottery dump in ring gully 1187, looking west (0.5m scale)

Figure 20 Ring gully 1164, looking north (0.5m scale)

Figure 21 Ring gully 1167, looking south-west (0.5m scale)

Figure 22 Aerial shot of ring gully, looking south (1m scales)