Archaeological investigations at land south of Mytton Oak Road, Shrewsbury, Shropshire

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Contents

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Summary

Two phases of archaeological investigation were undertaken from late May until July 2015 on land to the south of Mytton Oak Road, on the west side of Shrewsbury, Shropshire (NGR: 346540 312030). The work was commissioned by CgMs Consulting on behalf of their clients, Bovis Homes Limited and Barratt Homes West Midlands, who are undertaking residential development with associated access roads and utilities on the site. The overall site incorporates a wide area, but archaeological mitigation was focussed immediately to the south of Crowmeole Farm, within the south-eastern corner of the development.

The site was known to contain cropmarks considered to represent a series of rectilinear enclosures to the north of a possible trackway which had previously been subject to a desk-based assessment, geophysical survey and evaluation trenching. The latter work confirmed the presence of archaeological remains that closely corresponded with the cropmarks, as well as the presence of additional geophysical anomalies. Therefore, a subsequent mitigation strategy was produced which detailed a programme of archaeological investigation across the site area.

Four separate areas were investigated, revealing multiple phases of activity across the site. Activity of medieval and later date was the most prominent, probably representing the remains of a small farmstead dating from at least the 12th century onwards, if not earlier. This comprised varying elements of drainage, extraction of clay, the remnants of arable farming, crop processing and iron smelting, all within or around a defined enclosure that demarcated the higher ground in this landscape. There was a corn-drier associated with a timber built building and a rich assemblage of burnt but well-preserved cultivated oat grains that suggest an arable regime which had a reliance on oat as the principal cereal crop. The farmstead appears to have become disused by the 13th or 14th century, and it is possible that this represents the forerunner to the current Crowmeole Farm, which exists just to the north of the site.

The medieval and later agricultural activity had succeeded remains of earlier prehistoric activity, dating to the Early Bronze Age. The presence of an urn inverted over a cremation deposit was of particular significance, and suggests that this area had a role as part of a funerary landscape in this period. Independent scientific dating of the *in situ* urn, as well as the cremated bone within, suggested that the burial took place around 2000BC. This is of high significance in a regional context, being one of the few cremation deposits that is well-recorded and has had the enclosing vessel independently dated. The absence of demonstrable activity during the intervening timespan suggests that there was no continuity of activity from the early prehistoric to the medieval period.

Report

1 Background

1.1 Reasons for the project

Two phases of archaeological investigation were undertaken from late May until July 2015 on land to the south of Mytton Oak Road, on the west side of Shrewsbury, Shropshire (NGR: 346540 312030). This was commissioned by CgMs Consulting (the Client) on behalf of their clients, Bovis Homes Limited and Barratt Homes West Midlands, who have been granted permission for residential development with associated access roads and utilities on the site, subject to conditions that included a programme of archaeological works.

The overall development site incorporates a wide area and is 36.03 hectares in extent, but archaeological mitigation was focussed immediately to the south of Crowmeole Farm, within the south-eastern corner (Figure 1). The site had previously been subject to a desk-based assessment which highlighted undesignated cropmarks (HER 00007), recorded from an aerial photograph to the south of the farm and potentially representing surviving archaeological features (CgMs 2010, revised 2013; Appendix B). The cropmarks and the area around them were then subject to a geophysical survey (Stratascan 2013); this confirmed that the cropmarks, which were considered to represent a series of rectilinear enclosures to the north of a possible trackway, and additional potential archaeological anomalies, were tightly clustered and did not appear to extend further west or north-west into the wider application site. Archaeological evaluation (six trenches) targeted these features and recorded a series of ditches which closely corresponded with the geophysical anomalies (Rogers 2013). Artefacts were very limited and none were closely datable, suggesting that the remains were likely to be agricultural rather than related to occupation, although one pit did have smelting slag in its fill which hinted at the presence of industrial working nearby. On this basis, and in comparison with similar sites in the county, a speculative Roman date was suggested.

Subsequently, a mitigation strategy (CgMs 2014) was produced which detailed a programme of archaeological investigation, as agreed with Andy Wigley, Planning Archaeologist for Shropshire Council (the Curator).

The project conforms to a written scheme of investigation, including detailed specification, prepared by Worcestershire Archaeology (WA 2015) and approved by the Curator. The project also conforms to the national professional standards and guidance for archaeological excavation detailed by the Chartered Institute for Archaeologists (CIfA 2014).

The event reference for this project has not yet been provided by the Shropshire HER.

2 Aims

The aims of the archaeological programme of works can be summarised as follows:

- To preserve by record through a strip, map and sample exercise the archaeological remains within the areas subject to mitigation and to determine, as far as reasonably practicable, the date, character, condition and significance of these archaeological remains;
- to establish the ecofactual and environmental significance of archaeological deposits and features encountered;
- to report on the findings of the archaeological investigations and where relevant, make comparison of the site with other known parallel sites within the County and beyond, and;
- thereby, to fulfil the requirements of the planning conditions for the development.

3 Methods

3.1 Personnel

The project was led by Richard Bradley (BA (hons.); MA; ACIfA), who joined Worcestershire Archaeology in 2008 and has been practicing archaeology since 2005. Fieldwork assistance was provided by Graham Arnold (BA (hons.); MSc), Tom Rogers (BA (hons.); MSc), James Spry (BA (hons.); MA), Andy Walsh (BSc; MSc; ACIfA; FSA Scot) and Jessica Wheeler (BA (hons.)). The project manager responsible for the quality of the project was Tom Rogers (BA (hons.); MSc).

Elizabeth Pearson (MSc; ACIfA; MAEA) contributed the environmental report, James Spry (BA (hons.); MA) the animal bone report, and C Jane Evans (BA, MA, MCIfA) and Robert Hedge (MA Cantab) the finds report. Specialist osteological analysis of the cremated human bone was undertaken by Jacqueline McKinley of Wessex Archaeology (BTech (hons.); MCIfA).

Illustrations were prepared by Carolyn Hunt (BSc (hons.); PG Cert; MCIfA), Laura Templeton (BA; PG Cert; MCIfA) and Steve Rigby (BA).

3.2 Documentary research

As mentioned above, an archaeological desk-based assessment (DBA) of the site had been previously prepared by CgMs, on behalf of Commercial Estates Group (CgMs 2010, revised 2013). This document provided the detailed background research information for the project.

Shropshire Historic Environment Record (HER) and Shropshire Record Office were consulted during the preparation of the DBA to access records of archaeological sites, monuments and findspots within the vicinity, as well as readily available archaeological and historical information from documentary and cartographic sources relating to the site and the surrounding area. Aerial photographs were also examined and a site walkover survey was conducted.

This work identified the presence of cropmarks on the site and recommended a programme of geophysical survey followed by trial-trenching in order to clarify the extent, character and significance of these undesignated assets of archaeological interest.

3.3 Fieldwork strategy

A written scheme of investigation was prepared by Worcestershire Archaeology (WA 2015), based upon the previously agreed mitigation strategy (CgMs 2014).

Fieldwork was undertaken in two phases between 26th May and 13th July 2015. Initially, during the first phase of work, three areas of variable size were opened that were targeted on clusters or intersections of linear features that had been identified through the geophysical survey and subsequent trial-trenching (see Figure 2).

Area 1 (409m²) was centred on geophysical anomalies thought to represent a pit grouping partly bounded by a series of linear features. Area 2 (1183m²) was located to the east of Area 1 and covered a group of linear features identified within Evaluation Trench 5, while Area 3 (980m²) was positioned to the south-east of this and expanded upon Evaluation Trench 6, in which a pit had been identified from which smelting slag and fired clay had been retrieved.

Subsequently, as a result of the findings in these areas (which included a prehistoric ditch associated with pits and a possible sunken-featured building of medieval date) and following consultation with the Client and Curator, two additional areas were excavated. This involved the extension of Area 2 to the north by 467m² and, located to the north-west of this, the opening of Area 4 (745m²), focused on a cluster of geophysical anomalies adjacent to the northern boundary of the site area.

Deposits considered not to be significant were removed using an 8 tonne 360º tracked excavator, employing a toothless bucket and under constant 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 Worcestershire Archaeology practice (WA 2012). As the areas were separate from each other rather than concurrent, recording was undertaken whereby features were assigned context numbers specific to their site area, for ease of location. Therefore, Area 1 contexts were assigned in sequence from '1000', Area 2 '2000', Area 3 '3000' and Area 4 '4000'.

3.4 Structural analysis

All fieldwork records were checked and cross-referenced. Analysis was effected through a combination of structural, artefactual and ecofactual evidence, allied to the information derived from other sources.

3.5 Artefact methodology, by C Jane Evans

The finds work reported here conforms with the relevant sections of *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (CIfA 2014; http://www.archaeologists.net/codes/ifa), with archive creation informed by *Archaeological archives: a guide to the best practice in the creation, compilation, transfer and curation* (AAF 2011; http://www.archaeologyuk.org/archives/), and museum deposition by *Selection, retention and dispersal of archaeological collections* (SMA 1993; http://www.socmusarch.org.uk/publica.htm

3.5.1 Artefact recovery policy

The artefact recovery policy conformed to standard Worcestershire Archaeology practice (WA 2012; appendix 2). During the excavation, an Early Bronze Age food vessel urn was found inverted over a cremation deposit. This was block lifted as a whole and then excavated in controlled conditions at the Worcestershire Archaeology offices, as detailed below.

3.5.2 Method of analysis

All hand-retrieved finds were examined. They were identified, quantified and, where possible, dated to period. A *terminus post quem* date was produced for each stratified context. The date was used for determining the broad date of phases defined for the site. All information was recorded on a *pro forma* Access database.

Small quantities of finds were recovered from environmental samples after the finds reports were completed. These were all scanned and are referred to in the text below, where appropriate, but are not included in the tables. The only finds of potential significance from the samples were three tiny fragments of fired clay from the fill surrounding the urn containing a cremation deposit (4068).

The pottery was examined under x20 magnification. There is no comprehensive county fabric series for Shropshire. The medieval pottery was therefore recorded with reference to fabrics and forms described from Shrewsbury Abbey (Bryant 2002), and the prehistoric pottery with reference to fabrics and forms described in 'Prehistory in lowland Shropshire' (Carver 1991) or other published Shropshire assemblages, as agreed with Emma-Kate Lanyon of Shropshire Museums. Evidence for manufacture, use and repair was recorded if evident. All the pottery was quantified by count and weight, with rim EVE (estimated vessel equivalent) recorded for the medieval pottery. Only the Early Bronze Age urn is illustrated (Figure 5).

3.5.3 Discard policy

As required by the brief, all identified finds will be retained.

3.5.4 Excavation of the urn contents, by Jessica Wheeler

During post-excavation, the Early Bronze Age food vessel urn was initially stabilised and wrapped using crêpe bandages. It remained inverted (as buried), thereby ensuring that the integrity of the contents was maintained throughout. Excavation was then undertaken following specialist advice provided by Jacqueline McKinley. This was carried out in quadrants using small tools to remove material in 10mm spits accessed through the upturned base of the urn, measured by callipers from the centre of the internal base level. As the bone was removed the inverted layers accurate to the

corresponding placement and orientation within the urn were placed onto a quadranted board, along with any finds or debris found within. After each 10mm spit had been excavated, the material removed was photographed and then bagged according to depth, quadrant and material type. The interior of the urn showing the next spit was photographed prior to excavation. Additional photographs were taken of the bagged contents to ensure there was an extra visual record, separate to written notes detailing the varying material excavated. It was not possible to create scale drawings of each spit due to lack of visibility and access through the base of the urn (see Plates 14-15).

From the sixth spit (50-60mm) and below it was necessary to pass the material through a 2mm sieve, with the finer residue being combined into a single bag per spit. The larger diagnostic pieces of bone remained separate and divided by quadrants. Eleven spits were excavated in total, accurate to 10mm where possible, although as the urn was sat at angle this may have produced a bias towards the two quadrants that were tilted lower. After 110mm the deposit was solid and immovable, so the crepe bandages were removed from the collar and neck of the urn to expose the sealing layer at the top. Any debris disturbed during the excavation was then bagged separately, as was material recovered from the interface where it was not possible to accurately distinguish between the fill of the urn and the natural substrate beneath it (a small part of this had also been lifted so as to prevent the contents collapsing through the top of the urn). The blocked final 'spit' could therefore be removed in quadrants from the area around the rim and collar of the urn; this varied between 15mm and >30mm in thickness at the bias.

Observational notes were made throughout the excavation of the contents, and an extensive photo record was maintained. On completion of the excavation updated context records were added to the site archive.

3.6 Environmental archaeology methodology, by Elizabeth Pearson

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

3.6.1 Sampling policy

Samples were taken according to standard Worcestershire Archaeology practice (WA 2012). A total of 19 samples (each of up to 40 litres) were taken from the site (Table 5), of which 13 samples were assessed.

Samples selected for assessment were subject to a brief scan in order to characterise the assemblage. Assessment demonstrated the presence of significant assemblages of charred cereal crop remains from the fill of a pit (4068) into which an Early Bronze Age urn was placed, and from assemblages of medieval date, particularly infill of a sunken-featured building (2024, 2025, 2093) and an adjacent corn drier (2118).

In some cases where the flot was large (for example context 2118), the flot was only part scanned, and in the case of contexts (4072) and (4062) only the flot (ie not the residue) was scanned in order to resolve questions about dating for the charred plant remains from the fill (4068) of the Early Bronze Age pit [4066].

The charred plant remains from the fill of Bronze Age pit (4068) were fully sorted. The composition of the charred cereal crop remains from the medieval building and corn drier were found to be very similar, and clearly dominated by cultivated oat grain. As budgetary restraints dictated, and because the overall composition of these assemblages was clear, semi-quantitative results are presented for contexts (2093 and 2118) to represent the building and adjacent corn drier (see below).

Although the charcoal evidence was of interest and included well-preserved roundwood fragments, due to similar restrictions of budget a decision was taken to focus on analysis of charred plant remains. Therefore, only brief assessment of the charcoal was undertaken. It is recommended that

if publication is undertaken for some aspects of the site further funding is sought to analyse this material in detail, particularly from the prehistoric and medieval contexts.

3.6.2 Processing and analysis

The samples were processed by flotation using a Siraf tank. The flots were collected on a 300mm 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 fully sorted 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 flot from the Early Bronze Age pit fill (4068) was fully sorted. Semi-quantitative analysis of (2093 and 2118) involved scanning the entire flot, and presenting estimates of abundance for abundant taxa (mostly oat and the crop weed, corn marigold) and counts for rare taxa. Full sorting and counting of the abundant taxa would not add significantly to the impression gained at assessment that oat and the weed, corn marigold, made up over 90% of the assemblage. However, it was decided that full scanning of the flot would provide a more complete record of the weed assemblage, from which counts could be rapidly made. This data had the potential to aid interpretation of the growing conditions of the crop, and harvesting methods. All flots (4068, 2093 and 2118) were examined 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. The cell structure of selected fragments was examined in three planes under a MEIJI dark illumination microscope and identifications were carried out using reference texts (Schweingruber 1978, Brazier and Franklin 1961 and Hather 2000) and reference slides housed at Worcestershire Archaeology.

3.6.3 Discard policy

Remaining sample material and scanned residues will be discarded after a period of 6 months following submission of this report unless there is a specific request to retain them.

3.7 Cremated bone methodology, by Jacqueline Mckinley

Cremated bone from a single Early Bronze Age context (4095; grave 4066) was subject to analysis. The material derived from the remains of an urned burial made in an inverted vessel which had survived undisturbed and fully intact (to a depth of 210mm) up to the point of discovery, when part of the inverted base was removed during machine stripping of the site. The Early Bronze Age date indicated by the vessel form was confirmed by radiocarbon analysis of a sample of cremated bone and an internal carbonised residue (see section 7.2).

Following block-lifting of the vessel on site, the burial remains were excavated in quadranted spits in controlled conditions at the Worcestershire Archaeology offices (from the exposed, inverted base down; see section 3.5.4 above). Thereafter, the material was dry sieved to 1mm fraction. The context sub-divisions were maintained throughout analysis to allow details of the burial formation process to be studied (see Appendix 3).

Recording and analysis of the cremated bone followed the writer's standard procedures (McKinley 1994a, 5–21; 2004a; 2013a). Age and sex was ascertained following standard methodologies (Buikstra and Ubelaker 1994; Gejvall 1981; Scheuer and Black 2000; Wahl 1982).

3.8 Animal bone methodology, by James Spry

All of the animal bones were hand-collected on site. The bone has been identified using the aid of a modern bone reference collection housed at the Worcestershire Archive and Archaeology Service, in conjunction with identification guides (Sisson 1930; Hillson 1992; Serjeantson 2009).

The recording and identification of all cranial and post cranial elements has been attempted, both to element and taxon. Cranial fragments have been identified to the specific skull part. Where taxon could not be established the sample has been recorded as either *large, medium* or *small mammal/ bird* or as *unidentifiable*. Where the element could not be established it has been recorded as *unidentifiable*. Following Serjeantson's (1996) bone zone recording system, at least 50 per cent of a zone had to be present in order for it to be recorded.

In order to distinguish between sheep and goat where possible, the skull, axis, atlas, scapula, humerus, radius, pelvis, femur, tibia, astragalus, calcaneum, metapodials and phalanges, third and fourth deciduous pre-molars and the third molar have been used as a point of reference (Boessneck 1969; Kratchovil 1969; Payne 1985). An attempt to distinguish between horse and donkey was made using the folds of the teeth (Davis 1980) and using the first phalanx (Davis 1992). Bird bones have been identified following Tomek and Bochénski's (2009) key. Measurements follow von den Driesch (1976).

The age at death for cattle, pig, sheep and red deer specimens has been established using either epiphyseal bone fusion (Reitz and Wing 2008, 72, 193) or the eruption sequence and wear stages of teeth (Grant 1982; Lowe 1967; Payne 1973; Payne 1987). However, not enough ageable or sexable bones were recovered to create age or sex profiles for any species during any period.

The material has been quantified using an individual fragment count and the number of identified specimens per taxon (NISP). Butchery marks have been recorded as *cut*, *chop* or *saw* and their anatomical location (Lauwerier 1988; Sykes 2007). Evidence of burning has been recorded as *singed, burnt* or *calcined* (O'Connor 2000, 45). Where present, pathologies have also been noted. Preservation has been recorded on Harland's four point scale (Harland *et al* 2003).

3.9 Statement of confidence in the methods and results

Based on the combined pre-existing information, the separate areas targeted for strip, map and sample excavation allowed a characterisation of the archaeology to be made across a broad area of the landscape. Although the whole cropmark complex was not exposed and it remains possible that further significant remains may have been present beyond the excavation limits, confidence may be attached to the results of the work undertaken within the mitigation areas. Overall, therefore, it is considered that the conclusions of the project are valid and the aims of the investigation have been achieved.

4 The application site

4.1 Topography, geology and current land-use

The site was under arable cultivation until recently, existing as rural space on the western edge of Shrewsbury. To the north, the area of investigation is bounded by a small lane and Crowmeole Farm, to the east by Crowmeole Lane, to the south by a small brook, and there are adjoining fields with hedgerow boundaries to the west. The ground forms a plateau in the vicinity of Crowmeole Farm, at around 76m AOD, before dropping sharply down to 69m AOD in the south-east.

Geologically, the site is situated on bedrock geology of mixed mudstone, sandstone and conglomerate of the Salop Formation, overlain by glaciofluvial sands and gravels in the southern part of the site area and glacial till deposits in the northern part (BGS 2015). The soils across the area are defined as permeable brownish fine loam and silt over clay of the Pinder Association Ragg *et al* 1984, 263).

4.2 Archaeological context

As detailed in the desk-based assessment (CgMs 2010, revised 2013), there are no designated heritage assets on the site or in the immediate vicinity, but undesignated archaeological assets in the form of cropmarks have been identified from aerial photographs (HER 00007). These were thought to be late prehistoric or Roman in origin, although this was not clear, and comprise the

features subject to geophysical survey (Stratascan 2013), trial trenching (Rogers 2013) and the reported investigations here.

The DBA demonstrated that there are very limited indications of archaeological assets in the wider surrounds of the site, aside from post-medieval buildings and agricultural related features such as Crowmeole Farm, with an absence of prehistoric, Saxon and medieval evidence recorded on the HER. There were however a few records for Roman features at a considerable distance from the site area, including a possible route of a Roman road running from the north to the south-east (HER 08160) and a findspot of three coins, adjacent to the road 850m to the north-east (HER 00069).

Therefore, aside from the cropmarks forming a cluster of evidence for one part of the site, there was little pre-existing evidence for a large area of occupation across multiple periods. Archaeological work undertaken immediately to the south, in adjacent fields, included geophysical survey and evaluation trenching but did not identify significant anomalies or features (Wessex Archaeology 2013a; 2013b), suggesting that the cropmark complex is limited in extent.

Prior to the current programme of archaeological investigations, there were no known interventions on the site.

5 Structural analysis

The areas of excavation and the features recorded are shown in Figures 2-8.

5.1 Phase 1: Natural deposits

Natural deposits were encountered across the site and, although variable, could be consistently identified. These comprised mid orangey brown sandy gravels with clay sand patches for the most part, though the lower-lying south-eastern portion of Area 3 included an area of gleyed orangey blue clays associated with a 20th century pond.

5.2 Phase 2: Prehistoric deposits (Early Bronze Age)

On the edge of the plateau of higher ground, a group of features in Area 1 could be dated as prehistoric in origin, probably Early Bronze Age. Of similar date, on the slightly higher ground of Area 4 to the north, was a pit containing a cremation deposit covered by an inverted food vessel urn.

Area 1

Area 1 included a north-north-east to south-south-west aligned v-shaped ditch [1006; 1012], 1.65m wide and 0.90m in depth, from which some fragmentary Bronze Age pottery was recovered (Plate 3; Figure 4 lower). This was truncated to the south by a later boundary ditch of medieval date (see below). Although it was only visible for a length of 15m in this area, earlier geophysical survey (Stratascan 2013) suggested that the prehistoric ditch continued *c* 80m further north on this alignment. During the evaluation trenching (Rogers 2013), the same feature was located at the eastern end of Trench 3 [310] and ran parallel to a similar feature 7m to the west, again located on the geophysical survey, which may suggest that this formed a bounded routeway. The terminus of the western ditch was identified in Area 4 [4061], described below.

The ditch was also truncated by a shallow sub-oval pit [1004] 2.45m by 1.10m in size that included a number of abraded sherds of decorated Early Bronze Age pottery (Plate 3). A further irregular sub-oval pit in this area was 3.60m by 1.80m in size [1015], located to the east of the ditch, and contained a convex, D-shaped flint knife and a single fragment of Bronze Age pottery (Plate 2 and Plate 17). Both pits had mid brown clayey-sand fills, with frequent sub-round stones, so given the similarity in dating evidence there is the potential for these to have been contemporary.

Area 4

A feature initially thought to be a large pit during the excavation [4061], in the western part of Area 4, was, during post-excavation, more readily defined as the terminus of the western of the parallel

ditches visible on the geophysical survey (Stratascan 2013). This was 1.90m wide and 0.49m in depth, and survived here for a length of 3.4m. No finds were recovered, but the alignment and association with the parallel (eastern) ditch found in Area 1 [1006; 1012], as well as later truncation by a medieval gully and a post-medieval possible hedge line, suggest that this is also of Early Bronze Age date.

Also in Area 4, to the north-east of the projected alignment of the Early Bronze Age ditches, was a small 0.58m by 0.44m oval pit, only 0.26m in depth [4066]. This was perhaps the most significant feature identified on the site; it had originally been excavated for use as a grave to contain the remains of a cremated individual within an inverted food vessel urn (Plates 4-6). The human bone removed from within (4095; 4096), and the vessel itself (4067; recorded artefact 1), are discussed in detail below (see sections 6 and 7), but it was observed during excavation that some of the cremated material had slumped down from within the urn, which may suggest that there was once an organic cover or internal bag that had decayed. The urn was sealed by a dark greyish brown silty backfill (4068) that included fragmentary bone and a single complete cattle tooth. There was no indication of *in situ* burning within the pit. During post-excavation work following excavation of the contents it was apparent that an internal charred residue was present that probably related to earlier use of the vessel (4097); this deposit was therefore sampled and sent for radiocarbon dating (SUERC-64464). It returned a radiocarbon measurement of 3655±37 BP, giving a calibrated date of 2140–1920calBC and placing the origin of this object firmly in the Early Bronze Age. The human bone within it was similarly sampled for radiocarbon dating (SUERC-65619) and returned a radiocarbon measurement of 3594±30 BP, giving a calibrated date of 2030-1880calBC. This demonstrated that the urn was of comparable date to the death of the cremated individual, even if it had perhaps originally been used as a food vessel.

The pit containing the urn [4066] and an adjacent pit [4071] of probable medieval date, truncated a further pit [4069] that was only visible in section (Figure 4). This earlier feature did not contain any dating evidence or indication of purpose but, due to the association and stratigraphic relationship with the Early Bronze Age pit, is also considered to be prehistoric in origin.

5.3 Phase 3: Medieval deposits

The main period of activity across all areas is characterised by a spread of medieval features across the plateau in the northern half of the site, mainly within an area defined by a large ditch. Artefacts, although not especially numerous, combined with scientific dating, suggest that activity on the site was concentrated during the late 12th to 14th century, probably towards the earlier end of this date range.

Area 1

The ditch enclosing the higher ground can be identified as part of a trapezoidal shaped cropmark on aerial photographs, and was also clearly visible on the geophysical survey (Stratascan 2013; see also Figures 2 and 3). Located at the edge of Area 1, where it truncated the earlier Bronze Age ditch, the south-west corner of this feature was partially revealed, aligned east-west [1007] and turning north-south [1014]. Beyond Area 1, the ditch continues northwards for a further 72m where it was identified in Trench 3 [304] during the site evaluation (Rogers 2013).

Area 2

The ditch also continued to the east and then turned north-east, where it was excavated in Area 2. Here, the full profile could be revealed (Plate 7). The ditch was particularly substantial, which supports the indication that it was an enclosure ditch defining the plateau; it was 4.10m wide and 0.90m deep in one slot [2007] and 3m wide and 1m deep in another, further to the north-east [2046] (Figure 8). A few small fragments of pottery were recovered from the upper fills of [2007] and dated the final infilling of this feature to the 13th or 14th century. The angle of these fills implied that the deposits may have originated from the inside of the enclosure, suggesting that there may once have been an internal bank. The ditch was also located in Trench 5 [506] of the evaluation and was again a large and imposing feature, 3.60m wide and 1.10m deep (Rogers 2013).

Within the area of ground defined by the ditch were numerous features in both Area 2 and Area 4 but unfortunately, a lack of artefactual evidence and stratigraphic relationships has limited the number of these that can be accurately dated to the medieval period. Therefore, some features remain undated. Of those that could be securely dated, a sandstone and clay corn drier associated with a post-built sunken-featured building were clearly the most important features of medieval date identified on the site (Figure 6).

The structure of the corn drier (2095) was built using roughly hewn sandstone blocks (up to 460mm in length, 200mm wide and 80mm in depth) placed in two parallel wall sections each around 1m in length, the eastern part of which had survived for four courses in height. Tumbled and broken blocks removed from in between the wall lines suggested that perhaps an archway or domed structure had once existed (Plate 11). The blocks were supported on a base of firm, heat-affected whiteish yellow clay (2119) which had been placed in a shallow cut [2104], itself within a large pit feature [2092] 3m long, 2m wide and 1m deep that could have acted as a working hollow for the construction of the drier (Plate 12). A charcoal-rich burnt deposit was identified in the base and probably represents the last firing of this feature (2118). Sampling revealed that it was dominated by a rich assemblage of burnt but well-preserved cultivated oat grains, with the amount of grain indicative of a structure for processing, rather than a domestic structure for cooking. This material was sent for radiocarbon dating (SUERC-64312) which returned a radiocarbon measurement of 849±38 BP, giving a calibrated date of 1040–1270calAD and therefore suggesting that it had a final use sometime between the late 11th to the first half of the 13th century. Numerous backfill deposits sealed the structure within the large pit [2092]; of particular interest was (2097) that included fired clay with wattle impressions, but none of these fills contained any further dating evidence.

A later truncation was visible which had partly removed the drier and the original form of the associated structure, but it is likely that, as an earlier version of what remained, a sunken-featured building adjacent to the corn drier had originally provided access (Figure 6). This structure was built within an elongated 'D'-shaped hollow [2021], 4.50m long and 3.60m wide, that sloped down towards the (presumed) flue side of the drier (Plates 8-10). Whilst no clear evidence of the material forming the superstructure survived, the building was probably of timber or timber and clay construction, supported by two parallel lines of substantial posts set opposite at around 2.80m apart. The two main rows comprising three posts in each were identified at either side of the hollow; the western group, [2030], [2098] and [2100], were all circular and near vertical sided, between 0.46m and 0.56m deep, and the eastern group, [2064], [2066] and [2112], were similarly shaped but of variable depth, from 0.45m to 0.96m. A number of shallow possible postholes were noted internal to the structure, perhaps once providing additional support for a roof or maybe representing earlier phases of construction, but the exact form of these was unclear. A posthole positioned towards the western side [2032] did appear to be on an angle however, potentially acting as a bracing post. At the southern end of the hollow, a small 0.50m wide and 0.30m deep gully feature [2034] extended away from the structure. This was probably used for drainage, forming a route worn through repeated water run-off, as it continued downslope for approximately 12m where it became smaller and shallower before eventually petering out.

There was little indication that the building had been used as a domestic structure, although this cannot be ruled out; it is more probable that is was built for a processing use in association with the corn drier. It was infilled with numerous mixed deposits, one of which (2025) was particularly charcoal-rich and was therefore sampled and sent for radiocarbon dating (SUERC-64313). This returned a radiocarbon measurement of 907±38 BP, giving a calibrated date of 1020–1220calAD, a slightly earlier date range than that from the drier sample. This suggests that this could be disturbed residual material from earlier firings of the corn drier during the 11th of 12th century, or, as the dates do partly overlap, that the use of the drier and the associated structure was only during this intersecting period (ie the late 11th to early 13th century). Either way, the radiocarbon dating provides a secure demonstration of the medieval date of these features, and indicates that their main use was probably towards the earlier part of this period, perhaps being of Saxon-Norman

origin. A few small pieces of iron were recovered from fill (2024), in the base of the sunken-featured building, and fragments of pottery from the upper backfills (2026; 2027) dated to the late 12th to 14th century. Based on the radiocarbon dating, it is probable that the pottery is from the earlier end of that date range and, as it was recovered from the uppermost fills of the feature, supports the indication that the drier and building were in use prior to this date.

Around 14m west of the building, a substantial geophysical anomaly was investigated and found to represent multiple intrusions relating to large-scale extraction. The natural substrate was particularly variable in this area and comprised much more clayey ground than elsewhere on the site. It is likely that this material was what was being targeted for removal, perhaps for use in structures nearby or to improve agricultural soils in the surrounds. The overall extraction area [2110] was *c* 12.5m by 10.5m in size and up to 0.80m deep, but a series of smaller irregular pits dug to chase seams of clay throughout, such as [2091], [2083], [2081], meant it was difficult to be certain regarding the full dimensions of the original feature. The nature of this probably reflects numerous small-scale interventions over a prolonged period. Infill deposits included redeposited natural and dark silty soils, one of which (2089) contained a piece of 13th to 14th century pottery.

Area 3

External to the large enclosure ditch, on the sloping ground of Area 3 heading towards a boggy area associated with the Radbrook to the south, were a number of features also thought to be medieval in origin.

This comprised a small grouping of four pits, [3010], [3012], [3014] and [3016], all shallow and only 0.14m-0.27m in depth. These were located in the western part of the area, separated from the lower ground by a curving drainage ditch [3006], [3007] which continued for 29m down slope. Although there was no pottery recovered, most of these features contained smelting slag and/or vitrified clay. The slag waste included tap slag and was of high density, typical of an inefficient bloomery process and therefore suggesting a likely Roman or medieval date rather than being more modern. As there was no indication of Roman activity on the site the features are considered to be medieval and associated with the 12th to 14th century activity higher upslope.

Similarly, by association, a further feature towards the north-east part of Area 3 was thought to be medieval. This was a very shallow 'L'-shaped gully or beam slot [3003], possibly being the remnants of a small 3.20m long temporary structure related to the iron working evidence in the vicinity.

Area 4

In Area 4, a single feature could be securely dated to the medieval period, being a large circular pit feature, possibly a well, which was 3.86m in diameter and more than 1.40m deep [4065] (Plate 13). This could not be fully excavated due to its depth and the working space within so it is not entirely clear how long the feature was used for, but it was tested using a hand auger, demonstrating that it continued for a further 0.40-0.45m onto solid bedrock (see Figure 7). The uppermost 0.60m formed a wide bowl-shape, before the sides became narrower and near vertical; this change corresponded with a variation in the natural substrate from sand and gravel to firm clay mudstone, implying that the feature had been open for some time, during which the upper edges had eroded outwards. Multiple backfill deposits had infilled the pit, some of which had clearly been dumped in from the eastern side, with a substantial number of finds concentrated in the upper part. These included abundant fragments of animal bone and 13th-14th century jugs and cooking wares consistent with a domestic origin. One tiny fragment (4 grams) of later medieval or post-medieval pottery is considered to be intrusive and not associated with this pit.

The pit may have been associated with activity slightly to the north-west, where a short gully [4043], [4048] was aligned east-west and 8m in length but truncated by a later shallow ditch thought to be a furrow. This contained some glazed tile in a sandy fabric, probably medieval in date, and was parallel to, and 9m north of, a comparable east-west shallow gully feature [4052], [4054] that was also 9m long and included fired clay but not securely dated. It is not definitive,

particularly as the dating is not conclusive to prove contemporaneity between the two gullies, but it is possible that these features are the remains of beam slots representing two sides of an ephemeral timber construction.

There was also a sub-oval pit in Area 4 that contained a piece of smelting slag [4071], located adjacent to the pit containing the Early Bronze Age cremation deposit and urn and within the space formed by the possible beam slots. Another large sub-oval but shallow pit contained numerous pieces of fired clay [4017] and a small curvilinear gully [4055], [4092], partially masked by a later furrow to the west also included similar finds. Parallel to this, a small and shallow segmented gully [4004], [4006], [4063], again included fired clay and post-dated the probable terminus of the prehistoric ditch. Based on the nature of this material, particularly when considered alongside the group of slag waste from Area 3 and combined with the lack of Roman activity on the site, these features are all interpreted as being of medieval date.

5.4 Phase 5: Late medieval to post-medieval deposits

A number of features across the plateau in Area 2 and Area 4 were identified as late-medieval or post-medieval in date. Most of these appeared to relate to drainage or agricultural activity. As with the medieval period it is possible that more features originated in this period, but due to a lack of stratigraphic relationships or artefactual evidence others remain undated. The light brown silty sand subsoil seen across the site was probably formed during agricultural use throughout this period. Medieval pottery and later clay pipe was recovered from the subsoil in Area 2.

Area 2

A ditch ran downslope, broadly north-east to south-west through the middle of Area 2 [2072], [2036], [2060]. This had a variable profile, being rather substantial towards the middle of the area before eventually becoming very diffuse and shallow. At its largest point [2036], the ditch had a flattened base and was 3.5m wide and 1.06m deep, with a series of fills indicating that it had been repeatedly lined with brownish yellow clay containing large sub-round stones, probably to aid water flow. It is possible that the ditch was used to drain higher ground or acted as water-filled ditch around a field boundary. A single iron nail, thought to be post-medieval in origin, was recovered from the south-west end of the feature (2059), but there was no other dating evidence. As the ditch ran close to the medieval sunken-featured building and appeared to have once truncated the very edge of that feature however (although dry, bleached out soil conditions made this difficult to confidently determine), it is considered that it is of later medieval or post-medieval date.

A similar but smaller drainage ditch was present to the west, which post-dated the large area of 13th to 14th century extraction pits. This appeared to have been created through a series of small gullies [2087], [2085] that had merged or expanded with water run-off downslope, where they split into smaller features around 0.20m in depth before eventually dissipating [2016], [2014].

Area 4

The same small drainage feature was identified further to the north [4081], towards the eastern end of Area 4, where it continued beyond the limit of excavation. Area 4 also contained a series of north-south aligned linear spreads comprised of mid orange brown silty sand [4075], [4060], [4046], [4090], probably being the remains of plough furrows. Where finds were recovered from these, a late medieval or early post-medieval date was indicated. The drainage ditches may relate to agricultural improvement of this arable landscape over many years.

At the southern edge of Area 4, a small 23m long east-west ditch [4009], [4042] was associated with a linear alignment of regularly spaced oval pits, around 1.20-1.60m in diameter [4011], [4040], [4019]. Although only a few pieces of ceramic building material were recovered from the ditch so the dating is not conclusive, this feature and the pits all contained a comparable sterile brown silty sand fill with frequent rooting. It is probable, therefore, that these represent a former tree-lined hedgerow defining a land parcel. This truncated the western terminus of the parallel ditches considered to be of prehistoric date (section 5.2).

A small number of pits were also dated to this period. In the north-west of Area 4, a sub-circular pit of unclear purpose was 2.30m in diameter and 0.47m deep and contained a piece of folded lead and some ceramic building material. Another pit [4033], adjacent to a similar pit [4035], was only 0.23m in depth but included a small piece of black-glazed 17th century pottery.

5.5 Phase 6: Post-medieval to modern deposits

Topsoil and subsoil deposits were present across all areas, although these were not as substantial in depth in Area 4 as the other parts of the site. Later post-medieval pottery was recovered from the soft, light brown silty sand subsoil in Area 2 and similarly dated material came from the mid grey brown clay silt topsoil in Area 3. This latter deposit had undoubtedly been ploughed and disturbed through agricultural activity in the very recent past.

The naturally accumulated gleyed clays noted in the south-eastern part of Area 3 may potentially relate to the modern creation of a formalised pond area in what had always been waterlogged ground. This is visible on the aerial photograph of the site (CgMs 2010, revised 2013; Appendix B), but is not marked on earlier historic mapping.

5.6 Undated deposits

As noted above, various features remain undated due to a lack of artefactual evidence or stratigraphic relationships. Some could be determined to be earlier than the post-medieval period, but as there was clear evidence of both Bronze Age and medieval activity on the site it is uncertain as to which specific phase these were in use.

Area 2

At the south-eastern edge of Area 2, a small, irregular tree bole was identified [2012], close to two shallow, irregular linear features [2056], [2058]. Although some charcoal was in evidence, no finds were recovered and they were very ill-defined, both in plan and when excavated, suggesting that they probably represent natural glacial scarring rather than anything of cultural origin.

A couple of elongated oval pits also remain undated; one [2054] was located in the western part of Area 2, being 2.84m long, 0.70m wide but only 0.10m in depth so of unusual form. The other [2077] was found close to the medieval drier and sunken-featured building, again unusually shaped at 3.38m long, 1.14m wide and 0.29m deep. Both would presumably have been fairly substantial features if not for later plough truncation, but there was no indication of their purpose. An isolated circular posthole [2010], 0.53m in diameter and 0.30m deep, did not appear to be associated with any other features.

Aligned north-east to south-west was a 15m long v-shaped ditch [2075] that could clearly be traced continuing for another 36m to the north-east on the geophysical survey (Stratascan 2013). This was of substantial size, 1.26m wide and 0.66m in depth, terminating just to the east of the medieval sunken-featured building, but lacked any dating evidence. The alignment of this may indicate that it served a similar purpose to the late-medieval or post-medieval ditch to the west of the building, perhaps a former field boundary, but the limited area observed makes this difficult to be certain. Separated by a gap of 8m, just to the south-west was a possible continuation of this ditch [2048], [2050]. As the alignment was slightly different to that of [2075] and the profile was considerably changed however, being a wide u-shape only 0.20m in depth, this is not certain.

Area 4

In the centre of Area 4, in the vicinity of the short gullies that may represent beam slots, were a cluster of undated pits lacking in finds or indications of function. It was often only rare charcoal flecking that indicated the presence of the features. They could potentially be associated with the medieval activity in this area but this cannot be demonstrated with any confidence so remain unphased. Pit [4029] was a slightly irregular elongated oval shape, 2.44m long, 0.80m wide but only 0.24m in depth and, like the similar undated pit features seen in Area 2, probably was once fairly substantial before plough truncation. Likewise, pit [4032] was sub-oval in shape, 2.10m long, 1m wide and 0.50m in depth, and pit [4016], although truncated by a land drain, was 1.90m long,

1.24m wide and 0.36m in depth. Two small oval features [4026], [4028], may either have been the base of pits or postholes, but this was indeterminate as they were both very shallow at 0.07m and 0.17m respectively.

A few other features also lack dating evidence, including an irregular pit or spread of material [4079] and a small gully [4077] in the eastern part of Area 4 that pre-date a late-medieval or post-medieval furrow and drainage ditch. A small and shallow sub-circular pit [4057] to the west of Area 4 also remains undated.

6 Artefactual evidence

6.1 Artefactual analysis, by C Jane Evans (with specialist comment from Neil Wilkin and Ann Woodward)

The artefact assemblage is summarised in Table 1. The assemblage included pottery and a range of other finds dating to the Bronze Age, medieval and post medieval periods (Tables 1-4). By far the most significant find was an Early Bronze Age urn, inverted in pit [4066] and containing cremated remains and worked stone including a heavily burnt, fragmented knife. Further prehistoric finds, including a knife and fragmentary sherds of possible Early Bronze Age pottery, were found in Area 1. A concentration of medieval pottery was associated with ditches and pits in Area 4, particularly pit [4065], with smaller quantities from Area 2. Evidence for iron smelting, including tap slag and vitrified hearth lining, was associated with Area 3; from a ditch terminus [3006] and three pits [3010], [3014] and [3016]. This material was not in itself datable, and there were no chronologically diagnostic finds from these features. Two sherds of post-medieval pottery were recovered from the topsoil above. No diagnostically Roman finds were identified.

period	material	material subtype	object specific type	count	weight(g)	average weight (g)
Early Bronze Age	ceramic	earthenware	pot	177	2370.25	13
Early Bronze Age	stone	flint/quartzite?	worked stone	4	4.20	1.05
prehistoric	stone	Old Red sandstone	quern (saddle)	1	806	806
prehistoric	stone	flint	knife	1	18	18
medieval	ceramic	earthenware	pot	96	578	6
medieval	ceramic	earthenware	brick/tile	7	21	3
medieval	ceramic	earthenware	tile	4	111	28
late med/ early post-med	ceramic	earthenware	pot	1	6	6
medieval/post-medieval	ceramic	earthenware	brick	1	106	106
medieval/post-medieval	ceramic	earthenware	brick/tile	6	35	6
medieval/post-medieval	ceramic	earthenware	tile	12	364	30
medieval/post-	metal	iron	fragment	2	74	37

medieval						
post-medieval	ceramic	earthenware	pot	4	17.5	4
post-medieval	ceramic	earthenware	clay pipe	1	1	1
post-medieval/modern	ceramic	earthenware	tile	1	46	46
undated	ceramic	fired clay	fragment	84	502	6
undated	ceramic	fired clay	hearth	3	16	5
undated	ceramic	fired clay	hearth	2	226	113
undated	metal	iron	fragment	1	21	21
undated	metal	lead	sheet	1	29	29
undated	metal	iron	nail	3	30	10
undated	metal	slag(Fe)	fragment	1	30	30
undated	metal	slag(Fe)	smelting slag	3	1846	615
undated	metal	slag(Fe)	smelting slag(tap)	11	2507	228
undated	slag	fuel ash slag	fragment	1	3	3
undated	stone	igneous	whetstone	1	518	518

Table 1: Quantification of the assemblage

6.1.1 Early Bronze Age pottery

All sherds were grouped and quantified according to fabric type and, where possible, fabric number (Table 2). Full details of the recording methodology are presented in Section 3.5 above.

The most significant find from the excavations was the urn, inverted over the cremation deposit in Area 4 (Plates 4-6, and Plate 14; Figure 5). This single vessel accounts for most of the Early Bronze Age sherds recorded in Tables 1 and 2 (161 sherds, 2355.25g). The majority of the vessel survived complete, providing a full profile. However, part of the base was broken when the vessel was discovered during initial site machining. A significant number of very small fragments were, therefore, recovered from the interior of vessel when the contents were excavated, resulting in the relatively low overall average sherd weight. Specialist comment on the urn was sought from Dr Ann Woodward and Dr Neil Wilkin.

A sample of charred residue, from the internal base of the urn, was submitted for radiocarbon dating (SUERC-64464). This dated the vessel securely to the Early Bronze Age, with a radiocarbon measurement of 3655±37BP and a calibrated date of 2140–1920calBC. A sample of the cremated human bone contained within the urn was also submitted for radiocarbon dating (SUERC-65619). This returned a radiocarbon measurement of 3594±30BP, giving a calibrated date of 2030-1880calBC.

Fabric

The vessel is in a slightly soft, coarse fabric with a loose matrix, giving a rather 'blocky' appearance. The main inclusions are angular, dark grey igneous rock <5mm, thought to be Clee Hills dolerite. Other inclusions consist of occasional angular grog, and more crystalline rock

fragments. This fabric does not match the description for Clee Hills dolerite tempered ware published elsewhere (Gelling and Peacock 1966), but, if the identification of dolerite is correct, is likely to have a similar source. The urn is oxidised externally (Munsell 10YR5/4 yellowish brown), with an oxidised external margin 7.5YR 5/8 strong brown), black core/internal margins (7.5YR N2/0) and a partially oxidised internal surface (approximately 10YR 7/4 very pale brown). Petrographic analysis of the fabric is highly recommended for any future publication. This would contribute to identification of the source and studies of fabric change through time, given that the vessel is independently dated. The use of dark-hued rock fragments as temper has been noted in urns from the Lake District and Welsh Marches, and it has been suggested that the stone is derived from locations with particular ritual significance (Woodward 2008).

Form and decoration

Neil Wilkin considers that classification of this urn is problematic (pers. comm.). The absence of a collar and the size of the vessel, with a height taller than 20cm, place it in the Food Vessel Urn tradition (Cowie 1978, 20–4; Wilkin 2013, 21, fig 1.7). The absence of lugs on the shoulder of the vessel is consistent with this identification. The form is similar to Wilkins' northern counties of England type NC 1A (ibid, table 4.6) where the height and rim diameter are roughly equal; the form is slightly enclosed so more vase-like than bowl-shaped, another characteristic of Food Vessel Urns (Cowrie 1978, 22–3); and the vessel has a single cavetto zone and a high shoulder. However, other aspects of the form are more consistent with the wider Collared Urn tradition. While the rim is quite rounded with an internal bevel and a concave profile of Food Vessel Urns (see Wilkin 2013, 95, fig 3.11, R1), observation by Wilkin notes that this vessel lacks the more marked bevel typically associated with Food Vessel Urns and that the placing of the decoration, and motifs used, have more in common with Collared Urns (pers. comm.). It is suggested, therefore, that while it belongs to the wider Collared Urn tradition based on form, particularly the internal shoulder/neck angle, and decoration, in strict typological terms it should be classified as a Food Vessel Urn/Collared Urn hybrid (Neil Wilkin pers. comm.). The top of the rim has impressed finger-nail decoration, while both the external and internal surfaces are decorated with tooled, zig-zag chevrons. This simple zig-zag decoration is rare on food vessels, though not unknown. Similar decoration is present on a vessel from Kerry, Montgomeryshire (Ann Woodward pers. comm.; Savory 1980, 205, 388). The shoulder is decorated externally with incised slashes, but there is no decoration lower on the vessel. Another aspect of the vessel that might justify further study in additional publication would be to assess if any of these markings represent ideograms, particularly a roughly square motif amongst the chevrons and horizontal lines on one of the shoulder slashes.

A similar form is illustrated from the Early Bronze Age cemetery at Trelystan, Powys (Britnell 1982, 167, fig 19, P21). This vessel, found upright, was decorated with faint twisted cord impressions delineating a chevron pattern, in-filled with light rounded impressions. The fabric of this vessel is characterised by angular grog and occasional sandstone (ibid, 194, Fabric 2). It was associated with a radiocarbon date of 1695±70BC, 3645±70BP (ibid 167, 192), based on a sample of charcoal from a stake, though this date may need to be reviewed. Like the vessel from Mytton Oak, this vessel also had carbonised remains on the internal base and lower wall, suggesting a domestic function before use with the cremation deposit. A Food Vessel Urn found at Trelystan (ibid, fig 20. P22), though less similar in form, was inverted like the urn from Mytton Oak. Another inverted Food Vessel Urn, possibly a hybrid, is published from excavations at Sharpstones Hill, also near Shrewsbury (Barker *et al* 1991, 36, fig 16b, plate 5). The form and decoration of these, however, is less similar. Two further Food Vessel Urns, of broadly similar form and also in a dolerite-tempered fabric, were excavated in the western quarry at Bromfield, Shropshire. These had been placed upright, side by side (Stanford 1982, fig 6, P52, P53). The simplicity and the placing of the decoration on these is reminiscent of the Mytton Oak vessel, though the motifs are very different. Neil Wilkin has noted that another vessel, from Little Ryton, Shropshire has some similarities to the Mytton urn (pers. comm.), in the use of slashed vertical incised lines and the collared urn tradition. Conversely, however, the neck and rim on this vessel is more characteristic of a Food Vessel urn, as is the fact that it was deposited upright containing the cremated bone (Wilkin pers. comm.).

Illustrated Early Bronze Age pottery

1 The Food Vessel Urn/Collared Urn hybrid. Rim diameter 215mm, base diameter 115mm, Height 220mm Area 4 pit [4066] (4067)

Other prehistoric pottery

Further, fragmentary sherds of possible Early Bronze Age pottery were recovered from Area 1. These included a very small, abraded sherd of sand and grog-tempered ware, found in pit [1015] and associated with the flint knife described below. Pit [1004] produced 12 abraded sherds of sand-tempered ware, a couple of which had tooth-comb decoration, suggesting an Early Bronze Age date. Ditch [1006] produced another small flake of grog-tempered pottery with impressed tooth-comb decoration and two tiny fragments of sand and grog-tempered pottery.

Fired clay

Three small fragments of fired clay were retrieved from samples associated with the urn and cremation deposit (fill 4068; not included in the tables above). These could well be accidental inclusions in the fill, perhaps a by-product of the cremation process, and, if found elsewhere on the site, would not have been attributed any significance. Given their association however it is perhaps worth noting their presence. The use of clay as grog temper in pottery of this period has been interpreted elsewhere as having significance, perhaps associated with vessels belonging to ancestors (Woodward 2008). There is no clear evidence that these small abraded fragments are from a vessel, but their presence may perhaps be of interest to future researchers as more sieved material from cremation deposits is analysed and published.

period	area	fabric name	fabric code	count	weight (g)	rim EVE	average weight (g)
Early Bronze Age	1	grog		1	1	na	1
Early Bronze Age	1	sand		12	11	na	1
Early Bronze Age	1	sand and grog		3	3	na	1
Early Bronze Age (urn)	4	Igneous (dolerite tempered?)		161	2355	na	15
total prehistoric pottery				*177*	*2370*	*na*	*13*
medieval	2	Local sandy ware (medium)	14	11	116	0	11
medieval	2	Local sandy ware (frequent)	68	2	27	0.05	14
medieval	4	Local sandy ware (medium)	14	28	183	0.16	7
medieval	4	Local sandy ware (sparse)	63	17	74	0	4
medieval	4	Sandy white ware (dark green glaze)	65	20	73	0	4
medieval	4	Buff iron tempered ware (sandy)	67	4	31	0.08	8
medieval	4	Local sandy ware (frequent)	68	14	74	0	5
total medieval pottery				*96*	*578*	*0.29*	*6*
late medieval/	4	Midlands purple	16	1	6	na	6

early post-med							
post-medieval	3	black-glazed, red-bodied ware		2	13	0	7
post-medieval	4	black-glazed, red-bodied ware		1	0.5	0	1
post-medieval	4	press-moulded, red-bodied slipware		1	4	0	4
total late medieval/ post medieval pottery				*5*	*23.5*	*0*	*5*
total pottery				**278**	**2971.5**	**0.29**	**11**

Table 2: Quantification of the pottery by period, area and fabric-type

6.1.2 Medieval pottery

Ninety-six sherds of medieval pottery were recovered, weighing 578g and with a rim EVE of 0.29. The condition of the sherds varied, with surfaces surviving better on some sherds than others, but all sherds were fragmentary, reflected in the average sherd weight of 6g. All the medieval pottery is likely to have been produced locally, or at least in this region. There was no evidence for vessels from further afield, such as the Malvern Chase ware noted at Shrewsbury Abbey (Bryant 2002, 101). This presumably reflects the lower economic status of this rural area, compared to a site such as Shrewsbury Abbey.

The majority of sherds were from glazed jugs rather than cooking pots or other forms, and dated to the 13th to 14th century. Most sherds fell within the broad grouping of 'Local Sandy ware' (Table 2; ibid 95–7), with fabrics ranging from sparsely sand-tempered (Fabric 63), to medium (Fabric 14) and coarse/frequent sand temper (Fabric 68). As at Shrewsbury Abbey, Fabric 14 was the most common variant. Only a couple of form sherds were represented in this fabric: a thumbed base from a large, round bodied jug (cf Bryant 2002, fig 55.6) dating to the 13th century, found in subsoil in Area 2 (2001); and a fragment of rim/spout with a slight flange, possibly from a rounded pipkin (cf Bryant 2004, 291, type 6), found in an Area 4 pit [4065], fill (4074). A single, unglazed, thickened rim in Fabric 68, found in Area 2 construction cut [2021], fill (2026), is possibly from a cooking pot, similar to types noted at Hen Domen (cf Barker 1970, fig 6.HD2). The other fabrics recorded were buff iron-tempered wares and a sandy white ware (Bryant 2002, 98-9 Fabric 67 and 101 Fabric 65 respectively). One rim was noted in the former fabric, a flat, in-turned rim from a jug, similar to a late 13th-14th century vessel illustrated from Shrewsbury Abbey (ibid, fig 58.1), found in the same Area 4 pit as the vessel described above [4065]. No rims were present in the sandy white ware (ibid 99, Fabric 65), which all came from the same Area 4 pit (fills 4074, 4085, 4087). One sherd came from a sagging base and a number of sherds had smoke fuming externally, as noted on this fabric at Shrewsbury Abbey. One sherd was glazed but most were unglazed and so, most likely, are from cooking pots.

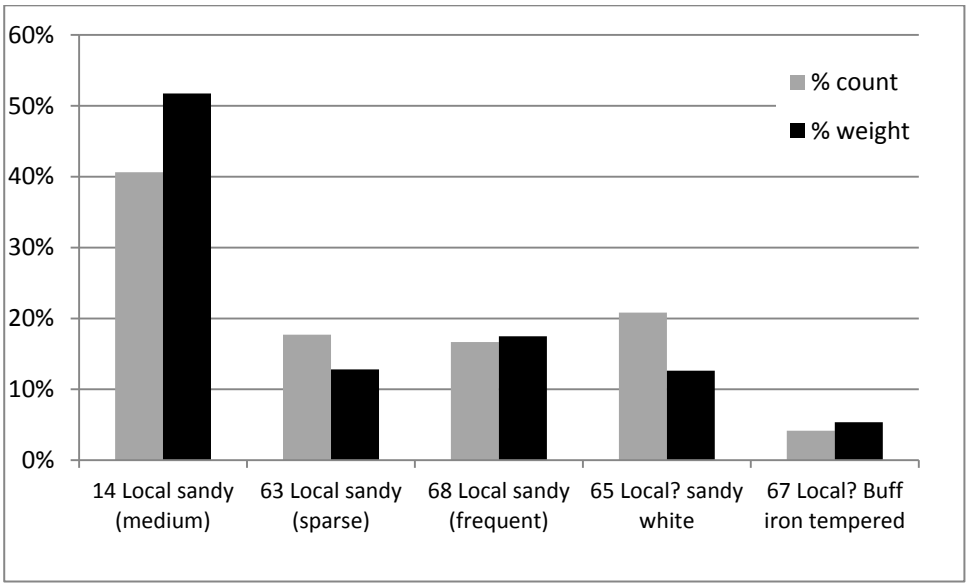

Figure 9: Medieval pottery by fabric (count and weight)

6.1.3 Late-medieval to post-medieval pottery

Only five sherds of this date were recorded, two from Area 3 and three from Area 4. The two sherds from Area 3 were from the topsoil. Both were in black-glazed, red-bodied ware. One was from a thin walled vessel, possibly a cup, probably dating to the 17th century. The other sherd was from a dish or pancheon and had a streaky, poorly mixed fabric indicating a late 17th to 18th century date. The Area 4 sherds came from three separate pits. Pit [4033] (fill 4034) produced a very thin walled sherd in a black-glazed, red-bodied ware, possibly from another 17th century cup. Pit [4065] (fill 4074) produced a small, intrusive sherd from a press moulded, red ware, baking dish, decorated with cream, trailed slip on a brown background. This has a broad late 17th to 18th century date inconsistent with the rest of the assemblage from this feature and was probably transported into the pit during excavation. The final sherd, from furrow [4060] was in Midlands purple (Bryant 2002, 103, fabric 16), a fabric which in Shrewsbury has a late 14th to early 15th century origin but continued in use into the 18th century.

6.1.4 Prehistoric and other stone artefacts, by Rob Hedge and C Jane Evans (with geological identification by Katherine Andrew)

A small assemblage of stone artefacts was recovered, including a flint knife, a prehistoric quern fragment, and a rubber or whetstone. During the excavation of the inverted urn four burnt fragments of worked stone were recovered from (4095), the cremation deposit within.

The material from the urn was heavily burnt; extensive vitrification was evident across the surfaces. Some surface-cracking was also visible, although not extensive: the material had apparently been burnt at a high enough temperature for vitrification to supplant the more usual surface 'crazing' commonly observed on burnt flint. The exact nature of the raw material remains unclear: a small broken flake recovered from spit 5, quadrant B, resembles flint but may be quartzite.

Three further fragments from spit 2 quadrant C, spit 2 quadrant B and spit 3 quadrant D comprise the proximal, medial and distal sections of a small knife (Plate 16). Although part of the medial section is missing, its original dimensions would have been circa 40mm in length, 20mm in width and 5mm thick. Semi-invasive retouch is evident at the distal end of the left lateral margin. The surface vitrification and fracture planes resemble those that might be expected from quartzite, although further analysis would be needed for a definitive identification in further publication. The presence of worked quartz in Early Bronze Age cremation contexts is not uncommon, especially in examples from Northern Britain: for this reason, this piece is thought likely to be a quartzite tool deliberately incorporated into the urn during the funerary rites.

The flint knife from Area 1 was associated with a small sherd of sand and grog tempered pottery in pit [1015]. Fashioned on a thick, convex D-shaped flake of mottled blue-grey flint, 60 x 25 x 15mm, the cutting edge along the left lateral margin shows extensive use-wear and multiple phases of direct unifacial retouch. It may originally have been serrated. A thick band of cortex remains along 60% of the right lateral margin, with the remainder exhibiting bifacial abrupt retouch, presumably to facilitate hafting or handling. Typologically, it most closely resembles knives and serrated blades of early Neolithic date, though given its association with features of Early Bronze Age date, and the fact that it is in isolation, a later date is considered possible.

The broken fragment from a saddle quern was recovered from the sunken-featured building [2021] in Area 2 (fill 2024). The edge fragment was probably from a local source (Katherine Andrew, pers. comm.). It could be contemporary with the Early Bronze Age pottery described above, though saddle querns continued in use at least into the middle Iron Age; at Croft Ambrey hillfort, for example, they were the only quern type found (Stanford 1995, 116; Stanford 1974, 136). The associated finds were not helpful in dating the quern, especially as the presence of later finds indicated that it was residual. The rubber or whetstone, from the terminus of a linear feature in Area 3 [3006], is not in itself datable but was associated with smelting slag.

material	material subtype	object specific type	area/ trench	period	count	weight(g)
stone	Flint/quartzite	worked stone		Early Bronze Age	4	4.2
	flint	knife	1	prehistoric	1	18
	Old Red sandstone	quern (saddle)	2	prehistoric	1	806
	Igneous	whetstone	3		1	518
ceramic	earthenware (CBM)	brick/tile	4	medieval	7	21
		tile	4	medieval	4	111
		brick	2	medieval/post-medieval	1	106
		brick/tile	2	medieval/post-medieval	5	30
		tile	2	medieval/post-medieval	1	61
		brick/tile	4	medieval/post-medieval	1	5
		tile	4	medieval/post-medieval	11	303
		tile	4	post-medieval/modern	1	46
ceramic	earthenware	clay pipe	2	post-medieval	1	1
ceramic	fired clay	fragment	2		8	196
		fragment	3		1	17
		hearth	3		5	242
		fragment	4		75	289

slag	slag(Fe)	smelting slag	2		1	111
		fragment	3		1	30
		smelting slag	3		1	1206
		smelting slag(tap)	3		11	2507
		Smelting slag	4		1	529
slag	fuel ash slag	fragment	4		1	3
metal	iron	fragment	2	medieval/post-medieval	2	74
		nail	2	undated	2	14
		fragment	4		1	21
		nail	4	undated	1	16
	lead	sheet	4		1	29

Table 3: Quantification of the other finds by material, object type, area and period

6.1.5 Ceramic building material (CBM)

Thirty-one fragments of ceramic building material were recovered, weighing 683g (Table 3). Eleven fragments, in a sandy fabric, were identified as medieval, based on the presence of patches of green glaze. These are most likely to be fragments of ridge tile, although glaze is found less commonly on flat roof tiles and floor tiles. These fragments were all from Area 4, from ditches [4009] and [4043], and pit [4065]. Most of the remaining fragments could only be attributed a broadly medieval to post-medieval date. The majority (12 fragments, 308g) came from Area 4, which also produced most of the medieval pottery. Based on this association, it is perhaps more likely that the building material is all medieval in date, although a few sherds of post-medieval pottery were also recovered. Only medieval pottery was recovered from Area 2, again perhaps suggesting a medieval date for the associated building material. A single fragment of post-medieval or modern tile was recovered from an Area 4 furrow [4090], distinguished from the other material by its hard firing. A fragment from Area 2 was found in a large pit-like feature [2092], associated with mixed charcoal remains potentially from the corn-drier structure.

6.1.6 Clay pipe

A single, undiagnostic stem fragment was recovered from the subsoil in Area 2 (2001).

6.1.7 Industrial waste and fired clay

Waste from iron smelting was found in Area 3 and, to a lesser extent, in Areas 2 and 4. The smelting slag, which included tap slag, was not in itself datable and none of the fragments were associated with other dated finds. The slag, like that from the evaluation (Williams 2013, 5-6), had the high density typical of waste from an inefficient bloomery smelting process, resulting in a significant amount of iron being retained in the slag. This slag, therefore, is most likely to be Roman or medieval in date. The presence of medieval finds and the complete absence of any Roman pottery or other finds suggest that a medieval date is more appropriate. The slag from Area 3, mainly tap slag including rods, came from dumps of material deposited in two pits [3010] and [3016], and the terminus of a ditch [3006] that also included charcoal. Soil samples produced further small quantities of tap slag, including rods, from pits [3010] (230g), [3012] (172g), and [3014] (28g). The Area 2 slag came from the large pit-like feature [2092], which is securely medieval in date, and the Area 4 slag from pit [4071], again associated with charcoal flecks.

Some of the fired clay recovered is likely to be associated with this iron working activity. In Area 3, vitrified clay/hearth lining was found in the ditch terminus [3006], a pit [3014], and the topsoil (3000). Only one vitrified fragment was recovered from Area 2, from extraction pit [2110], but other undiagnostic fragments were noted in the sunken-featured building [2021], associated with a high concentration of charcoal, and in [2092]. The latter had one flat edge and a wattle impression, so appeared to be a structural element, probably from the corn drier. Most of the fired clay, however, came from Area 4, and was all undiagnostic. The largest concentration came from pit [4017] (37 fragments, 73g), but occasional fragments were recorded from a number of other pits, ditches, a gully and layer. Small fragments of fuel-ash slag were recorded from post-medieval pit [4040], and from soil samples taken from the sunken-featured building in Area 2 [2021] (fills 2024 and 2025, 37g).

6.1.8 Iron and lead finds

The only iron finds comprised three nails, from sunken-featured building [2021], ditch [2060], and pit [4065], and three unidentified fragments, also from [2021] and [4065]. The nails could not be closely dated, but given the associated finds are likely to be medieval or post-medieval. An undated fragment of folded lead sheet was recovered from the upper fill of pit [4024].

6.1.9 Site dating summary

The prehistoric finds indicated the presence of significant Early Bronze Age activity on the site. The remaining finds dated largely to the medieval period, particularly the 13th – 14th century, and the post-medieval to modern periods. Some of the medieval finds, as discussed in the site narrative, may date towards the earlier end of their date range, given the associated scientific dating, and probably represent the infilling of features at a later date than their original construction and use.

Early Bronze Age

The most significant find, the Food Vessel Urn/Collared Urn hybrid, is securely dated to the Early Bronze Age. Further evidence for prehistoric activity on the site came from a handful of fragmentary sherds of other Early Bronze Age pottery, a flint knife and the saddle quern fragment.

Medieval and post-medieval finds

The quantities of medieval pottery and ceramic building material indicate activity in the area from the late 12th, through the 13th to 14th centuries. These finds could perhaps have been deposited on the site after use in nearby farm buildings. The evidence for iron smelting probably also dates to this period. Very little post-medieval material was found, and none was of any significance.

context	material	object specific type	count	weight(g)	period	start date	end date	TPQ
1003	ceramic	pot	12	11	Early Bronze Age	-2350	-1601	Early Bronze Age
1005	ceramic	pot	1	1	Early Bronze Age	-2350	-1601	Early Bronze Age
1005	ceramic	pot	2	1	Early Bronze Age?	0	0	
1016	ceramic	pot	1	2	Early Bronze Age?	0	0	
1016	flint	knife	1	18	Early Neolithic – Early Bronze Age	-4000	-1601	
2001	ceramic	pot	3	69	medieval	1200	1299?	
2001	ceramic	brick/tile	2	20	medieval/post-med			

2001	ceramic	clay pipe	1	1	post-medieval	1600	1799	1600-1799
2001	ceramic	tile	1	61	medieval/post-med			
2003	ceramic	pot	1	7	medieval	1200	1399	1200-1399
2005	ceramic	pot	1	9	medieval	1200	1399	1200-1399
2024	metal	iron frag	2	74	undated			
2024	metal	iron nail	1	3	undated			undated
2024	stone	quern (saddle)	1	806	prehistoric			
2026	ceramic	pot	2	27	medieval	late 12th	1399	Late 12th-1399
2026	ceramic	brick/tile	2	2	medieval/post-med			
2027	ceramic	pot	4	3	medieval	1200	1399	1200-1399
2043	ceramic	brick/tile	1	8	medieval/post-med			medieval/ post-med
2059	metal	iron nail	1	11	post-medieval			post-med
2082	ceramic	pot	1	2	medieval	1200	1399	1200-1399
2086	ceramic	brick	1	106	medieval/post-med			medieval/ post-med
2089	ceramic	pot	1	26	medieval	1200	1399	1200-1399
3000	ceramic	pot	1	3	post-medieval	1600	1799	
3000	ceramic	pot	1	10	post-medieval	1675	1799	1675-1799
3005	ceramic	hearth	2	226	Medieval?			medieval?
4008	ceramic	brick/tile	3	11	medieval			medieval
4034	ceramic	pot	1	0.5	post-medieval	1600	1799	1600-1799
4037	ceramic	tile	1	219	medieval/post-med			medieval/ post-med
4044	ceramic	brick/tile	1	7	medieval			medieval
4059	ceramic	pot	1	6	late med/early post-med	1375	1700	1375-1700
4059	ceramic	tile	1	18	medieval			
4067	ceramic	Pot (urn)			Early Bronze Age	2140 calBC	1920 calBC	-2140 to -1920
4073	ceramic	pot	4	42	medieval	1200	1399	1200-1399

4074	ceramic	pot	2	18	medieval	1200	1299	
4074	ceramic	pot	6	33	medieval	1200	1299	
4074	ceramic	pot	57	236	medieval	1200	1399	1200-1399
4074	ceramic	pot	1	4	post-medieval	1650	1799	(1650-1799 ?intrusive sherd)
4074	ceramic	brick/tile	3	3	medieval			
4074	ceramic	tile	3	93	medieval			
4085	ceramic	pot	10	57	medieval	1200	1399	1200-1399
4085	metal	iron nail	1	16	Medieval/post-med			
4087	ceramic	pot	2	3	medieval	1200	1399	1200-1399
4089	ceramic	tile	9	75	medieval/post-med			
4089	ceramic	tile	1	46	post-medieval/modern			post-med/ modern
4093	ceramic	pot	2	46	medieval	1200	1399	1200-1399
4093	ceramic	brick/tile	1	5	medieval/post-med			
4093	ceramic	tile	1	9	medieval/post-med			

Table 4: Summary of context dating based on artefacts, in context order (excluding undated finds)

6.1.10 Discard and retention

The Early Bronze Age urn is of regional and national significance and must be retained together with the other prehistoric finds, the Early Bronze Age pottery and stone artefacts. The medieval pottery provides useful dating for the site and may be of interest to future researchers. This should also be retained. The other finds are of less significance and could be considered for discard, if this was required by the museum.

7 Environmental evidence

7.1 Environmental analysis, by Elizabeth Pearson

Environmental results are summarised in Tables 5-7 below. 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.

Context	Sample	Feature type	Fill of	Period	Sample volume (L)	Volume processed (L)	Residue assessed	Flot assessed
1016	1	Pit	1015	Bronze Age	20	10	Yes	Yes

2011	1	Pit	2012	Undated	20	0	No	No
2024	3	Construction Cut	2021	Medieval	20	10	Yes	Yes
2025	9	Construction Cut	2021	Medieval	30	10	Yes	Yes
2037	5	Ditch	2036	?Late medieval/post-medieval	40	0	No	No
2045	4	Ditch	2046	Medieval	20	0	No	No
2080	17	Pit	2081	Medieval	10	0	No	No
2093	16	Construction Cut	2092, 2104	Medieval	20	10	Yes	Yes
2094	18	Construction Cut	2092	Medieval	20	0	No	No
2096	15	Construction Cut	2092	Medieval	20	10	Yes	Yes
2097	14	Construction Cut	2092	Medieval	20	10	Yes	Yes
2118	19	Corn Drier	2095	Medieval	40	10	Yes	Yes
3009	6	Pit	3010	?Medieval	10	10	Yes	Yes
3011	7	Pit	3012	?Medieval	20	10	Yes	Yes
3013	8	Pit	3014	?Medieval	10	10	Yes	Yes
4062	10	Pit	4061	?Bronze Age	20	20	No	Yes
4068	12	Pit	4066	Bronze Age	40	40	Yes	Yes
4072	11	Pit	4071	?Medieval	20	20	No	Yes
4073	13	Pit	4065	Medieval	20	0	No	No

Table 5: List of environmental samples

context	sample	large mammal	charcoal	charred plant	uncharred plant	artefacts	comment
2093	16		abt	abt		occ ?pot, fired clay, heat-cracked stones	
2118	19	occ	abt	abt		abt fired clay	
4068	12	occ	occ	mod	abt*	occ fied clay	* = probably intrusive

Table 6: Summary of remains from samples selected for analysis, occ = occasional, mod = moderate, abt = abundant

7.1.1 Charred plant remains

Early Bronze Age

Only uncharred remains, which are likely to be intrusive, were found in pit fill (1016).

However, fill (4068), the backfill of the pit into which the urn was placed, contained charred wheat, including possibly free-threshing wheat, and oat (*Avena* sp) grain. The urn has been dated to 2140 to 1920calBC using charred residue from the pot, and cremated bone from within was dated to 2030 to 1880cal BC. The preservation of the wheat grains from the fill around the pot was poorer than the oat grains, being pitted and broken, whilst the oat grains were well preserved and largely intact. Wild radish pods (*Raphanus raphanistrum*) were also well preserved. As oat was abundant

in medieval contexts on this site, and (4068) was adjacent to a feature thought to be medieval in date (fill 4072), it was considered that the oat grains, and possibly other charred remains, were potentially intrusive. Therefore, as there was uncertainty, samples from medieval pit fill (4072) and the fill of possible prehistoric ditch terminus (4062), also in Area 4, were processed and the flots scanned. Fragments of indeterminate wheat (*Triticum* sp) and a single grain of free-threshing wheat (*Triticum* sp free-threshing) were identified from medieval pit fill (4072), along with a possible oat (*Avena* sp) and rye (*Secale cereale*) grain. However, no wild radish pods were recovered. Only a single indeterminate cereal grain and cereal culm node (straw node) was identified from prehistoric ditch fill (4062). On balance, as there is more similarity between the charred plant remains from the fill (4068) of the pit surrounding the urn and the medieval pit (4072), it is assumed that the remains from (4068) are intrusive, resulting from contamination during excavation.

Early medieval (11th/12th century) to medieval (12th to 13th century)

The fills in the construction cut for a sunken-featured building (2024, 2025 and 2093) were very rich in charred cereal remains, which were dominated by well-preserved oat grain, with smaller quantities of free-threshing wheat and large grass grains. The material appeared to be fully processed (or cleaned) cereal grain. Radiocarbon dating of the oat grain (*Avena* sp) from (2025) dated this to 1020 to 1220calAD. Corn marigold (*Glebionis segetum*) was an abundant weed contaminant, the small seeds being probably retained with the grain after processing as the seeds have a tendency to remain in seed heads which would have been difficult to separate from the grain. It is also a weed which is common on base poor sandy soils, on which this site is located, and therefore suggests a locally grown crop. Other weed seeds were found in low levels; for example, stinking chamomile (*Anthemis cotula*), probable corn flower (*Centaurea* cf *cyanus*), and nipplewort (*Lapsana communis*).

Fill (2096) was dominated by oak charcoal and some large fragments of non-oak charcoal. A small amount of possible rye grain was also noted in (2097).

A rich assemblage of well-preserved cultivated oat (*Avena sativa*) grain and small grass grains was recovered from the fill (2118) in the base of the corn drier adjacent to the building, dated 1040 to 1270cal AD. The corn drier was truncated by the latest phase of the building and contains material that may be of a slightly later date than the construction cuts of the building. The grain in the corn drier probably represents residue from the last use of this feature (see Section 5). The material clearly represented cleaned cereal grain, although, like the charred remains from the construction cut (above), abundant corn marigold was probably an associated crop weed which would be difficult to separate from the grain by during processing. It also included a similar assemblage of other weed contaminants to those recorded from the construction cut, comprising narrow ever-lasting pea (*Lathyrus sylvestris*), melilot/medick (*Melilotus/Medicago* sp), cabbage/mustard (*Brassica/Sinapis* sp) and corn cockle (*Agrostemma githago*). The narrow-everlasting pea and melilot/medick may be evidence of crop rotation; that is, leaving land fallow and planting with peas and beans (legumes) which replenish nitrogen into the soil. The assemblage is likely to have been accidentally parched in the corn drier during the last firing.

Significant remains from Area 3 included abundant charcoal, which was dominated by oak, but included some Betulaceae and other non-oak roundwood fragments in pit fill (3011), possibly of medieval date. This was associated with iron slag, so may be the remains of charcoal used to fire iron working hearths. Roundwood fragments suggest that coppiced wood was used or narrow branch wood selected.

Charred cereal chaff, oat and other grass grains recorded in fill (2080), within a large quarry pit, may also be cereal crop processing or hearth waste from medieval activity.

Latin name	Family	Common name	Habitat	2093	2118	4068
Volume sample analysed (L)				20	40	40
Triticum sp (free-threshing) grain	Poaceae	free-threshing wheat	F	1	1	
cf *Triticum* sp (free-threshing)	Poaceae	Free-threshing wheat	F			2

grain						
Triticum sp grain	Poaceae	wheat	F			3
Triticum sp tail grain	Poaceae	wheat	F			1
cf *Hordeum vulgare* grain (hulled)	Poaceae	barley	F	1	1	
Cereal sp indet grain	Poaceae	cereal	F	1		
Cereal sp indet culm node	Poaceae	cereal	F	6	7	
Avena sativa grain & floret	Poaceae	cultivated oat	AF	++	++	
Avena sp grain	Poaceae	oat	AF	++++	++++	10
Ranunculus acris/repens/bulbosus	Ranunculaceae	buttercup	CD		1	
Lathyrus sylvestris	Fabaceae	Narrow ever-lasting pea	CD		1	
Melilotus/*Medicago* sp	Fabaceae	melilot/medick	ABD		2	
Brassica/*Sinapis* fruit	Brassicaceae	cabbage/mustard	ABDF		3	
Raphanus raphanistrum (pod fragment)	Brassicaceae	Wild radish	ABF			11
Polygonum aviculare	Polygonaceae	knotgrass	AB		1	
Rumex acetosella	Polygonaceae	sheep's sorrel	ABD	1	5	
Stellaria media	Caryophyllaceae	common chickweed	AB	1		
Agrostemma githago	Caryophyllaceae	corn cockle	AB		1	
Chenopodium glaucum/rubrum	Amaranthaceae	oak-leaved/red goosefoot	AB	1		
Chenopodium album	Amaranthaceae	fat hen	AB	1		
Atriplex sp	Amaranthaceae	orache	AB		1	
Galium aparine	Rubiaceae	cleavers/goosefoot	ABC	1		
Centaurea cf *cyanus*	Asteraceae	cornflower	D	9	8	
Lapsana communis	Asteraceae	nipplewort	BCD	13	13	
Anthemis cotula	Asteraceae	stinking chamomile	AB	11	9	
Glebionis segetum	Asteraceae	corn marigold	AB	++++	++++	
Anthriscus cerefolium	Apiaceae	garden chervil	ABF	2		
cf *Scandix pecten-veneris*	Apiaceae	shepherd's needle	AB	1		
Eleocharis sp	Cyperaceae	spike-rush	E	1		
Carex sp (2-sided) nutlets	Cyperaceae	sedge	CDE		4	
Festuca/*Lolium* sp grain	Poaceae	fescue/rye-grass	ABD		++	
Poa sp grain	Poaceae	meadow-grass	ABCD			
Poaceae sp indet grain	Poaceae	grass	AF	+		
Poaceae sp indet grain (2mm size)	Poaceae	grass	ABD	++/+++	++/+++	
Poaceae sp indet grain (1mm)	Poaceae	grass	AF		+	
unidentified stem fragments	unidentified				2	4
unidentified seed	unidentified				+	2

Table 7: Plant remains from selected samples

Key:

Habitat	Quantity
A= cultivated ground	+ = 1 - 10
B= disturbed ground	++ = 11- 50
C= woodlands, hedgerows, scrub etc	+++ = 51 - 100
D = grasslands, meadows and heathland	++++ = 101+
E = aquatic/wet habitats	* = fragments
F = cultivar	

7.1.2 Summary

Early Bronze Age

Only low levels of charred cereal crop remains were found within the fill around the Early Bronze Age urn. As these remains are similar to those recovered from an adjacent medieval pit, it is considered that the remains have resulted from contamination during excavation. Further radiocarbon dating may clarify this interpretation, should it be possible to fund submission of material.

Charred plant remains have also been found at sites where cremation urns of similar date have been recorded, for example at Meole Brace, close to Mytton Oak (de Rouffignac 1995) and at places further afield in the midlands area, such as Barrow Hills, Radley in Oxfordshire (Moffett 2007). There was little similarity between the assemblage at Mytton Oak and the remains from Meole Brace and Radley, as no confirmed contemporary charred plant remains were identified from (4068). This was particularly manifest as the onion couch tuber (*Arrenatherum elatius*) and pignut (*Conopodium majus*), characteristic of cremation and pyre deposits found at both these sites, was not recorded from the Mytton Oak material.

Early medieval to medieval

The abundant oat dominated cereal crop residues in the corn drier and adjacent building, and other contexts of medieval date, suggest a reliance on oat as the principal cereal crop. Although broadly unusual for early medieval to medieval deposits from the region, and nationally, other oat dominated assemblages of medieval date have been recorded locally from Shrewsbury and into Wales. Examples include sites at Riggs Hall (Colledge 1983), where oat was dominant in all samples, and at Owen Owen Superstore at Pride Hill/High Street, both in Shrewsbury (Moffett 1992). In Wales, similarly oat dominated arable agriculture has been demonstrated at Ysgol yr Hendre, Llanbeblig, Caernarfon (Mckenna 2013), and comparisons with other sites in Wales suggest that it was fairly typical for early medieval rural and urban sites to be consuming predominantly oats (Mckenna 2013). Remains of oats have been found at Capel Maelog, Powys (Caseldine 1990, 102), a 12th century sample from Loughor Castle, West Glamorgan (Carruthers 1994), and in medieval corn driers at Collfryn, Llansantffraid Deuddr, Powys (Jones and Milles 1984), all cited in McKenna (2013). Oats were commonly used for animal feed but also for human consumption in the form of malt for ale, oat bread or biscuits and grains in porridge. Oats at Mytton Oak were widespread and dominant and it seems unlikely that it was used exclusively as animal fodder; at least some production for human consumption is suggested.

Although oats have been found as the dominant cereal in individual assemblages of charred plant remains of Saxon and medieval date at other sites in England, for example at Stafford (Moffett 1994), Cathedral Close, Hereford (noted by the author in ongoing work), Flaxengate, Lincoln (Moffett 1996), Marefair, Northampton (Straker 1979) and Lydgate, Devon (Green 1980), there seems to be a particularly strong pattern of oats being the dominant cereal in Wales and on other settlements around Shrewsbury. The fact that oats tolerate high levels of rainfall, low summer temperatures and poor acidic soils could have been an important factor in their dominance. This would be especially true on high land in Wales, and their importance in Devon has been commented on by Green (1980, citing Vancouver 1808 and Stanes 1969) on high and uncompromising land around Dartmoor. This may also have been the case at Mytton Oak, probably with poor, acidic soils more of a factor than high land or cool summer temperatures with high rainfall. It could also be suggested that a Welsh or western British Isles cultural influence may have been equally important. Further evidence from future excavations in this part of the west midlands and Wales may determine if this is a particularly strong pattern in arable agriculture across the region.

7.2 Radiocarbon dating, by Elizabeth Pearson

Samples were submitted to SUERC for Accelerator Mass Spectrometry (AMS) radiocarbon dating, the results of which are summarised in Table 8 below. The full radiocarbon report is appended as Appendix 2. All calibrated date ranges cited in the text are those for 95% confidence and calibrated dates are identifiable by the prefix ‘Cal’.

No sources of contamination or non-contemporaneous carbon were evident during the fieldwork or during the subsequent analysis for these dates.

Laboratory code	Context number	Material	$\delta^{13}C$ (‰)	Conventional Age	OxCal calibrated age (95.4% probability or 2 sigma)
SUERC 64464 (GU39352)	4097	Carbonised residue from Bronze Age vessel	-26.9 %	3655 ± 37 BP	2140 – 1920calBC
SUERC 65619 (GU39882)	4096	Cremated bone	-25.4 %	3594 ± 30 BP	2030 – 1880calBC
SUERC 64312 (GU39245)	2118	Charred plant remains (*Avena sativa*)	-22.1 %	849 ± 38	1040 – 1270calAD
SUERC 64313 (GU39246)	2025	Charred plant remains (*Avena* sp grain)	-24.6 %	907 ± 38	1020 – 1220calAD

Table 8: Radiocarbon dating results

7.3 Cremated bone, by Jacqueline McKinley

7.3.1 Results and discussion

The 1792.2g of bone recovered is in good visual condition, and trabecular bone (generally the first to suffer in a burial environment adverse to bone survival; McKinley 1997a, 245; Nielsen-Marsh *et al* 2000), as well as the more robust compact bone, is well represented. Given the well-protected burial environment, the intact vessel having excluded any soil or other extraneous materials, it is highly unlikely any bone will have been lost due to taphonomic factors, and the bone is probably in close-to the same condition it was in at time of deposition. The identified skeletal elements, divided by spits and quadrants, are detailed in Appendix 3.

The individual

The cremated remains represent those of an adult, probably female, who was 30-40 years of age at time of death. Although some skeletal elements (skull and much of the upper limb) indicate a relatively gracile individual, the size of the hand and some of the foot bones, together with the moderately marked muscle attachments in the lower limb bones, suggest larger, more robust – possibly more strenuously used – extremities.

A few minor pathological lesions were observed, predominantly in the neck area of the spine where slight pitting in the articular facets of two cervical vertebrae and marginal osteophytes (new bone) are indicative of a degenerative joint disease, probably the early stages of osteoarthritis. Similar lesions were observed in one (of three) costo-vertebral rib facets and one (uni-laterally) medial clavicle. The type of slight marginal osteophytes recorded on the body surface margins of one (of three) cervical vertebrae are generally viewed as age-related wear-and-tear (Rogers and Waldron 1995, 27). Enthesophytes, new bone growths which develop at tendon insertions most frequently as a consequence of repeat trauma from muscle exertion (Rogers and Waldron 1995, 23–5), were recorded in the dorsal (along the *linea aspera*) femoral shafts, one fibula shaft and (slight) one patella. In the lower limb these lesions are commonly seen as indicative of repetitive strenuous walking (especially over rough ground) and lifting. Those in the fibula are likely to relate to a specific traumatic event (or events) damaging the interosseous ligament.

Non-metric traits – generally asymptomatic variations in skeletal morphology which may indicate population diversity or homogeneity – were recorded in the patella (Vastus notch) and left mandibular condyle. The former can be relatively common in some populations; for example, 33.3% of the Early Bronze Age individuals from Amesbury Down, Wiltshire had this trait (McKinley forthcoming). The left mandibular condyle had a more unusual variation in the form of a deep central groove in the anterior aspect creating the appearance of double facet.

Mortuary rite

The bone is almost exclusively white in colour, indicating full oxidation of the organic components (Holden *et al* 1995a and b). Minor divergences (slightly grey or blue colouration) indicative of incomplete oxidation were observed in nine bone fragments – mandible, 1st cervical vertebra, finger phalanx, and the inner core of upper and lower limb bones. A variety of intrinsic and extrinsic factors may have an impact on the efficiency of oxidation (McKinley 1994a, 76–78; 2004b, 293–295; 2008) and variable levels are commonly observed amongst Bronze Age cremated remains (e.g. Bell 1988; Boyle 1999; McKinley 1997a; 2004c; forthcoming). At Mytton Oak, however, the variations are so minor as to indicate a well-executed cremation with ample fuel, suitable weather conditions and no impediments to the supply of heat and oxygen to the corpse.

The recorded weight of bone is amongst the highest for a single cremation burial from the British Isles for any temporal period, and in the upper regions of the consistently high range of weights for Bronze Age deposits recovered from the central graves within barrows (902–2747g, average 1525.7g; McKinley 1997b). Identifiable skeletal elements from all four areas of the skeleton (skull, axial skeleton, upper and lower limb) are present, with the commonly observed under-representation of axial elements (7% identifiable bone by weight); these elements being the most fragile and liable to crumble and be rendered to dust-fraction size during cremation and recovery (both from the pyre site for burial and during archaeological excavation/processing). Although representing above the average weight of bone from an adult cremation (McKinley 1993), with a relatively high proportion identified to skeletal element (53% compared with the more general 30–40%), there is a noticeable paucity of some areas of the skeleton, particularly the cranial vault and lower areas of the spine. Much of the latter are likely to be amongst the 47% by weight of bone not identified to skeletal element and the estimated 180g of bone present in the 1mm fraction residues (not included in the total weight presented due to the presence of non-osseous material rendering an accurate weight reading impossible). Skull elements, however, tend to survive well and be readily identifiable even as small fragments and the relative paucity of vault fragments suggests that some were deliberately or accidentally overlooked during collection from the pyre site for burial.

The writer has previously discussed how the frequency of occurrence of the small bones of the hands and feet may indicate how the bone was recovered from the pyre site for burial (McKinley 2004b, 300–1). Generally in the region of five to 20 such small elements have been recovered from, for example, Middle Bronze Age burials (pers. obs.). At Mytton Oak, all or parts of 110 such elements were identified, representing over half the total. Their frequent inclusion here suggests that rather than hand collection of individual bone fragments, the material in the upper levels of the burnt-out pyre (including most of the bone) was raked-off and subsequently winnowed (by wind or water) thereby enhancing the ease of recovery of these small bones. Alternatively, the remains may have been left at the pyre site for several days allowing natural winnowing by the wind to remove the fine fuel ash, leaving the cremated bone more exposed and easily accessible.

Numerous factors may affect the size of cremated bone fragments, most of which are exclusive of any deliberate human action other than that of cremation itself (McKinley 1994b). The largest bone fragment recorded from Mytton Oak is 79mm and the majority of the bone (*c*. 54% by weight) was recovered from the 10mm sieve fraction. A substantial proportion (18%) fell in the 2mm sieve fraction, however, and, were the estimated <1mm fraction to be included it would represent 9% by weight. Both these small fraction residues are unusually high. In part this may be due to the lack of disturbance and absence of soil/intrusive extraneous material within the burial environment enabling the true quantity of bone within the 2mm fraction to be given (often this weight cannot be stated with confidence since the large quantity of small stones in the unsorted residues obscures the weight of the bone itself). However, the large ‘dust’ (<2mm) fraction, clearly evident in excavation, far exceeded that previously observed by the writer in similar circumstances. This fraction was not produced by break-down of the bone post-deposition (no disturbance or soil within the vessel) but represents material originally deposited in the grave. Its common presence suggests one of two (possibly both) factors. The bone may have been collected and placed in the organic container sometime before burial and in the intervening period the bag was moved/handled

sufficiently for some physical-breakdown of the trabecular bone to occur (which would concur with the apparent paucity of vertebral bodies; see above). Alternatively, if after cremation the remains were left to lay for a few days to allow the fuel ash to naturally disperse (see above), this small fraction could be recovered by 'sweeping' the pyre site (which would also collect the type of small fraction pyre debris observed in the burial remains). Irrespective, there is no indication of deliberate fragmentation of the bone prior to burial in this case.

In addition to the worked stone tool discussed elsewhere in the report (see section 6.1.4), pyre goods in the form of a few very small fragments of cremated animal bone (1–2g) were recovered during osteological analysis; the species is unidentifiable, but within the small mammal size range. The inclusion of animal remains on the pyre was a relatively common part of the rite in the Bronze Age (average *c*. 16% of burials), with sheep/goat/pig being the most commonly recognised species (McKinley 1997b).

Blue/green 'spot' staining was observed to several fragments of humerus and radius shaft, a fragment of mandibular ramus and a fragment of femur shaft. Such staining is suggestive of the presence of some form of copper-alloy object(s) overlying these parts of the body during cremation. This form of staining has been observed on cremated remains from both the Bronze Age and other periods, often where no remains of copper-alloy pyre goods were found (pers. obs.). Generally the recovery of the human remains for burial is far less extensive than in this case from Mytton Oak and it is probable that the remains of pyre goods were also overlooked (accidentally or deliberately) in this secondary part of the mortuary rite. If the temperature attained in the appropriate part of the pyre was sufficient (*c*. 700–1000°C), the copper-alloy would have reached a liquid state and all that may survive of it would be small re-formed globules which would be difficult to recover for burial.

Particulars of the burial formation process were deduced from the detailed excavation and osteological data. The bone was not evenly distributed within the 120-140 mm depth of the burial. Just over half of the bone (by weight) lay in the lower 70–80m, though the highest proportions from discrete areas were recovered from 50–70mm and 80–100mm within the depth of burial remains and in the lowest (closest to the rim) 20–30mm, with 20% laying in the latter. Nor was there an even distribution between the quadrants, the highest overall proportion laying in quadrants D and C (27% and 26% by weight respectively), with what appears to be a gradual shift in density from quadrants A/B in the upper half to C/D in the lower. This suggests the bone might have been held within an organic container – a skin or, more likely textile bag – prior to insertion within the vessel. Detailed excavation and analysis of the burial formation process from other Early Bronze Age sites is providing a growing body of evidence for such a practice, both within inverted and upright urned burials as well as unurned burial deposits (e.g. McKinley forthcoming; 2015a and b).

There might also have been an organic cover over the mouth of the vessel allowing the weight of bone to 'bag-down' below the level of the rim centrally (also observed in excavation). The weight of the vessel appears to have pressed it down over time into the underlying natural on the side attributed to quadrants A and B, tilting the vessel slightly and potentially contributing to the skewed distribution of its contents.

Most of the bone appeared to be laid more-or-less horizontally within the vessel and there was no marked settling of smaller fragments towards the base, other than the noticeable presence of a large 'dust' fraction below the upper-most 40mm depth of bone (see above). Skeletal elements from all areas were distributed throughout the fill with direct joins between several fragments from the upper and lower levels (30–70mm apart). This suggests there was no ordered distribution of skeletal elements within the original container (corroborating the proposed mode of recovery of material from the pyre site outlined above) within which the remains had settled prior to burial.

7.4 Animal bone, by James Spry

7.4.1 Quantification

In total, 311 individual bone fragments were recorded from nine separate contexts, weighing a total of 1,138g (Table 9). One (0.3%) specimen is from an Early Bronze Age context, 264 (84.9%) are from medieval contexts, and 46 (14.8%) are from late medieval to post-medieval contexts.

Context	Material class	Material subtype	Count	Weight (g)	Feature type	Period
2003	bone	animal bone	4	14	Ditch	medieval
2006	bone	animal bone	11	85	Ditch	medieval
2024	bone	animal bone	1	1	Construction Cut	medieval
2037	bone	animal bone	14	30	Ditch	late medieval
2045	bone	animal bone	17	11	Ditch	medieval
2108	bone	animal bone	32	280	Pit	late medieval
4068	bone	animal bone	1	20	Pit	Early Bronze Age
4073	bone	animal bone	221	695	Pit	medieval
4074	bone	animal bone	10	2	Pit	medieval

Table 9: Count and weight of animal bones for each context on site

7.4.2 Element representation

A total of 62 (19.9%) individual post-cranial fragments were identifiable to element. Of these skeletal fragments, 34 (54.8%) were also identifiable as cattle, horse, sheep or sheep/goat. This is too small a number to draw any reliable conclusions regarding element presence or absence for any species during any period.

7.4.3 Species representation

In total, 62 (19.9%) cranial and post-cranial specimens were identifiable to taxon (Table 10).

	Early Bronze Age		medieval		late medieval to post-medieval		
Taxon	NISP	NISP%	NISP	NISP%	NISP	NISP%	**Total**
Cattle	1	100	33	62.3	6	75.0	**40**
Horse	-	-	5	9.4	2	25.0	**7**
Sheep	-	-	3	5.7	-	-	**3**
Sheep/goat	-	-	12	22.6	-	-	**12**
Total	**1**	**-**	**53**	**-**	**8**	**-**	**62**

Table 10: NISP count and percentages for each species in each period

Early Bronze Age

One cattle upper first or second molar from an adult animal was recovered from (4068), the backfill around the food vessel urn in pit [4066]. This tooth does not appear to have been heat affected in any way. No pathologies or modifications were recorded.

Medieval

The medieval assemblage was dominated by cattle bones, followed by sheep/goat, horse and then sheep. One cattle bone is from an animal at least 10 months old, three from animals at least 24 months old, and one molar from a senile animal. One sheep or sheep/goat bone is from an animal less than 6 months old, two from animals at least 10 months old, one from an animal at least 16 months old and one at least 42 months old. All of the horse teeth appear to be from adult animals.

All six (2.1%) of the bones from the entire assemblage that exhibited butchery marks were from medieval contexts. This included a cattle scapula and first phalanx with cut marks and a sheep first phalanx with cut marks. All of these are from pit fill (4073). One unidentified fragment has undergone calcination, from fill (2024) in the sunken-featured building. The average preservation score from medieval contexts is 2.8, or 'fair' on Harland's (2003) four point scale. Gnawing marks were not traced on any of the specimens. Pathological marks were not observed.

Late medieval to post-medieval

The small late medieval to post-medieval assemblage comprised 75% cattle and 25% horse. One cattle bone is from an animal at least 10 months old and one is from an animal at least 30 months old. Two cattle pelvis fragments and twelve unidentified fragments from ditch fill (2037) have undergone calcination. The average preservation score from late medieval to post-medieval contexts is 3.1, or 'fair' on Harland's (2003) four point scale. Gnawing marks or pathological marks were not traced on any of the specimens.

7.4.4 Summary

Early Bronze Age

The presence of a single cattle molar does not allow any conclusions regarding Bronze Age domestic activity to be made. However, it may be significant in other ways. The tooth derives from the material that has been used to backfill pit [4066], around vessel (4067). The deposition of this fill is therefore a deliberate event and it is possible that the inclusion of the tooth within this fill is also deliberate.

Evidence of cattle remains deposited in association with human burials is not frequently identified during the Bronze Age, although parallels can be drawn. For example, 98% of the animal bones – including many teeth – found overlaying the barrow burial of a Bronze Age man in Irthlingborough, Northamptonshire, were cattle (Davis and Payne 1993). In addition, as Davis and Payne note (1993, 20), several 19th century antiquaries report that cattle skulls were sometimes found with the human remains uncovered in barrows; the heads of two oxen were found laid five feet above the burial of an adult human in a barrow near Silbury in Wiltshire. More recently, the remains of 300 cattle were found in a ring ditch surrounding barrow 2 at Gayhurst in Buckinghamshire (Towers *et al* 2010).

These examples support Grant's (1991) suggestion that, in addition to the Neolithic period, cattle in Bronze Age Britain had a symbolic importance which was as great as, or even greater than, their economic importance. It has certainly been recognised that cattle are most often given special treatment over other domestic animals (Serjeantson 2011, 78). The single tooth found here should not necessarily be used to corroborate this suggestion, though within the context of a single pit containing a cremation deposit inside a food vessel urn it can be viewed as possible evidence of ritual activity.

Medieval

Although within the centre of the town, the only nearby medieval animal bone assemblage of comparable size was recovered during excavations at Barker Street in Shrewsbury (Cotswold Archaeology 2008). Domestic activity there included a waste pit containing medieval pottery along with 74 animal bone fragments. Dating from the 12th to 15th century, these animal bones were from cattle, sheep/goat, pig, chicken, cow sized, and sheep-sized animals (Cotswold Archaeology 2008, 15). A small number of animal bones as part of domestic waste have also been recovered during the excavation of medieval (12th to 13th century) contexts at St Austin's Friars in Shrewsbury (Hannaford 2007).

The pig present at Barker Street emphasises the absence of this animal in the Mytton Oak medieval assemblage. As omnivores, pigs were numerous throughout medieval England and Europe, easily able to survive in woodland, farm and urban environments. However, medieval pigs are often associated with woodland environments and less affluent communities; this contrasts

with cattle which were more expensive to produce and sustain and required more open pasture. Therefore, the absence of pig compared to the dominance of cattle bones may provide indications as to the nature of the medieval activity at Mytton Oak, although the size of the assemblage may limit such conclusions.

The absence of gnawing marks and fair preservation score indicates that the specimens were deposited and covered up rapidly within their individual contexts, and thus not left exposed to scavengers.

Late medieval to post-medieval

The late medieval and post-medieval animal bone assemblage is too small to draw any reliable conclusions regarding practices during this period and therefore do not warrant comparison with other contemporary assemblages.

8 Discussion and conclusions

Multiple phases of activity were in evidence across the site, and much of this corresponded with the known cropmarks and the features identified during the preceding geophysical survey (Stratascan 2013; see Figures 2 and 3). Activity of medieval and later date was the most prominent and appeared to be broadly related to agricultural and small-scale industrial use across the plateau, probably representing the existence of a small farmstead from at least the 12th century onwards, possibly even earlier. This comprised varying elements of extraction, drainage, the remnants of arable farming, crop processing and iron smelting, all within or around a defined enclosure that demarcated the higher ground in this landscape. It is possible that this earlier activity represents the forerunner to the current Crowmeole Farm, which exists just to the north of the site.

The medieval and later agricultural activity had supplanted remains of prehistoric activity, dating to the Early Bronze Age. The presence of an urn inverted over a cremation deposit was of particular significance, and likely demonstrates the role of this area as a funerary landscape in this period. The absence of demonstrable later Bronze Age, Iron Age, Roman and post-Roman activity suggests that there was no continuity of activity between the early prehistoric and medieval periods.

8.1 Prehistoric

Overall, the evidence for prehistoric activity was limited in scale, but comprised rare and important archaeological remains of regional significance. The most significant, the 'flat' grave containing the cremation deposit and urn, is rather unusual in its isolation; although the diversity of Early Bronze Age funerary practice has long been recognised nationally and in the west midlands (e.g. Parker Pearson 1999, 86-87; Garwood 2011, 71), these features are normally found as satellite burials in association with a nearby round barrow, or as part of enclosed/unenclosed urn cemeteries. It is possible, therefore, that this is a single outlier and that further remains of similar date are beyond the areas of excavation, perhaps beneath Crowmeole Farm on slightly higher ground to the north.

The cremation deposit included the remains of an individual adult, probably a female who died at an age of around 30-40 years old. There were a number of indications of a strenuous lifestyle for this otherwise gracile person. The deposit mainly comprised bone, rather than pyre material, suggestive of carefully managed collection (perhaps even 'winnowing') before burial and hinting at the process of the funerary ritual. The large amount of bone present also suggests that considerable effort had gone into gathering up this material and it is important to note, as discussed above (section 7.3), that the weight of bone is amongst the highest for a single cremation burial from Britain for any period. The successive symbolic steps involved in this collection and burial may have been particularly distinct and loaded with meaning, perhaps part of socially cohesive traditions or regional ideas that are rarely visible in the archaeological record (see Barclay and Hinton 1999, 318). Of especial interest in this regard was the inclusion within the cremation deposit of a heavily burnt and fractured worked stone knife, probably having been

included on the funeral pyre and representing a status object deliberately removed from use (Plate 16). It is possible that copper alloy objects and some small mammal bones were also included in the cremation rite, but only selectively collected (see section 7.3 above). In the wider midlands area, a burnt knife (although of a slightly different type) was recovered from a cremation burial at Radley, Oxfordshire, and these items are recognised to be associated with the Early Bronze Age urn/food vessel tradition (Bradley 1999, 224). Similar deposition of burnt flints occurred on a large scale within a late Neolithic Grooved Ware pit at Clifton Quarry in Worcestershire (Mann and Jackson forthcoming), suggesting that this transformative process, perhaps analogous to the alteration of bone through cremation, was a long-standing prehistoric regional custom. The environmental evidence also suggested some selective, structured deposition within the backfill of the pit through the presence of a single cattle tooth. It may be that this is residual, but given the lack of earlier activity on site this would be unusual. As an element that is not associated with meat and therefore nourishment, it is possible that this represents a token representation of a significant part of, or a particular moment, in the life of the deceased. It may also demonstrate continuity of traditions from earlier Neolithic practices; animal remains, particularly cattle, form a significant part of mortuary assemblages in Neolithic Britain (see Bishop 2013 for a summary).

The inclusion of small finds alongside the urn means that the burial is regionally unusual; it is noted that west midland burial assemblages of Early Bronze Age date rarely contain artefacts, more often including no grave goods at all (Garwood 2011, 72). In Shropshire in particular, beyond a limited number of urns or fragmentary pottery inclusions, no additional artefacts were recovered in association with the numerous burial features in the Sharpstones Hill Bronze Age cremation cemetery (Barker *et al* 1991), 3km to the south-east, or in the cremation cemetery at Bromfield, 32km to the south (Hughes *et al* 1995). Both of these cemeteries appear to have contained burials of a slightly later date than that at Mytton Oak however, so may demonstrate changing practices over time.

Additionally, the Early Bronze Age Food Vessel Urn/Collared Urn hybrid is itself an unusual and important find, adding significant new information to the small corpus of finds of this type in the region, and nationally. The burial has further significance in a regional context, being one of the few cremation deposits that is well-recorded and has had the enclosing vessel independently dated, enhancing the value of this find further. This was undertaken through radiocarbon dating of burnt residues alongside the associated human bone; the vessel was dated as 2140–1920calBC and the bone 2030-1880calBC. As of 2011, only 11 Early Bronze Age cremation burials had been scientifically dated in the west midlands region, one of which was associated with a collared urn (Garwood 2011, 72). As such, the west midlands regional research frameworks highlight the need for scientific dating of artefacts associated with funerary remains (Garwood 2007, 148; Garwood 2011, 80) and, likewise, the research agenda for the Bronze Age in Britain also notes the importance of radiocarbon dating of burnt residues and cremated human remains (Woodward 2008). The dating of the *in situ* urn from Mytton Oak, therefore, makes an important contribution to this area of study. The Bronze Age research agenda also refers to the need for petrological analysis of fabrics, to identify sources (Woodward 2008). This would be necessary should the finds be published in a period/county archaeological journal.

Places of burial in the Early Bronze Age are normally devoid of contemporary permanent settlement, although by their very existence burials can demonstrate at least some level of occupation in the wider landscape. Arguments have even been put forward for a considerable degree of residential mobility with little distinction between ritual and secular activity in the same location; this may leave little trace of obvious settlement (e.g. Brück 1999, 68). In line with the general pattern the excavation did not identify any clear occupation-related prehistoric features on the site. This is not unusual in Shropshire, the west midlands, and indeed Britain overall, as Early Bronze Age settlement sites are particularly rare (Halstead 2007, 169; Garwood 2011, 73). However, there were a limited number of other Early Bronze Age features found, not directly associated with, but slightly to the west and south-west of the urn burial. These comprised a large v-shaped ditch and two wide but shallow pit features, all of which contained fragmentary Early

Bronze Age pottery, as well as a flint knife in one of the pits. The substantial size of the ditch could suggest significant activity. Comparison with the geophysical evidence shows that this formed a parallel ditched, bounded routeway, aligned north-north-east to south-south-west. This potentially relates to a further parallel ditched feature, located to the south of the excavation areas, which continued broadly north-north-west to south-south-east (see Figure 2). The morphology of this ditch is more indicative of a trackway used to link locations, as opposed to part of a field system or a settlement enclosure, and would have involved considerable effort to construct. The possibility exists that this was a component of a wider funerary landscape, perhaps connecting a nearby settlement with a ceremonial site to the north.

It could be the case that the pits are related to more transient use, potentially of similar date to the burial activity. Like the ditch, the dating of the pottery fragments from the pits is comparable with the urn, although as one of the pits cut the ditch they cannot all have been contemporary as a group. There was little indication of a domestic origin for the features, but the ceramic and flint inclusions could signify that there was an Early Bronze Age community in the vicinity producing this material. The prehistoric saddle quern found on the site is also of note, despite being residual in the medieval sunken-featured building. It has been suggested by some authors that objects representing domestic activities, such as quern stones, reflect periodic settlement activity at funerary or ceremonial sites at specific times of the year (Brück 1999, 68).

8.2 Medieval and later

Of importance on a local and regional level were the partial remains of a small medieval farmstead that may have originated during the late Saxon-Norman period. This was defined by a large ditch enclosing the higher ground, probably once trapezoidal in shape (based on the cropmark and geophysical evidence). Disuse of this was dated to the 13th or 14th century by a small amount of pottery from the upper fills of the ditch. There was some suggestion from the angle of the infilling that this enclosure was further demarcated by an internal bank which, alongside the substantial size of the ditch, would have presented a formidable obstacle to anyone positioned below the plateau. This hints at a defensive purpose in addition to the clear physical statement of ownership that this represents, although the lack of finds and obvious settlement features is slightly problematic in this regard. The medieval archaeology was more suggestive of a mixed-use agricultural site encompassing arable crop production, pastoralism, quarrying, processing and industrial working, so it may be that there was some wealth attached to this complex considered worth the effort of construction. This could potentially be illustrated in the number of cattle bones from the site compared to the absence of pig, which may denote a more affluent community. It is possible that the main area of occupation was further to the north, beneath the current farm buildings. Although this remains unclear, it can be supported by the amount of pottery recovered from the large pit, possibly a well, in Area 4 to the north of the site. This included the largest assemblage of artefacts from any feature and was more domestic in character, potentially relating to deposition from nearby structures. It is possible that there were the remains of beam slots representing two sides of a slight timber construction in this area, but this was ill-defined and difficult to securely identify.

The environmental evidence points towards a Welsh or western British Isles cultural influence for the farmstead (as could be expected given its location), with a dominance of oat crops characteristic of early medieval and medieval agricultural sites in the Marches area. The identification of a corn drier for the processing of oat cereals may also be of relevance regarding the location of further settlement features; the research framework for the archaeology of Wales recognises that corn driers are often located towards the fringes of settlements (Edwards *et al* 2011, 3). Here, the drier was clearly associated with a timber built sunken-featured building of some size that appeared to create a sheltered working hollow to enable access whilst also protecting the drier from inclement weather. Some indication for the construction of the superstructure of the drier itself was provided by the large sandstone blocks, which may have formed an arched entrance, and the wattle-impressed fired clay. The material from within was fully processed (or cleaned) cereal grain that was probably grown locally alongside peas and beans as

part of a crop rotation (see Section 7.1). The indication is that processing is taking place in a central area within a landscape defined by an arable regime which had a reliance on oat as the principal cereal crop (perhaps grown for fodder in addition to human consumption). The animal bone assemblage also hints at a pastoral economy in the medieval and later periods dominated by cattle however, which is again suggestive of a mixed-use site. The exact arrangement of the surrounding medieval field system was not determined but several ditches pre-dating the present fields were found inside the enclosure and, whilst not always securely dated, appeared to indicate a broad north-south or north-east to south-west layout across the area. This was also mirrored in the orientation of the late medieval/post-medieval furrows in Area 4 which correlate with the overall pattern visible on Rocque's Map of Shropshire dating to 1752 (CgMs 2010, revised 2013; Figure 2).

Beyond a clearly agricultural use, the suggestion of more industrial-type activity in the area was identified through features demonstrating quarrying and iron working. The large quarry pit in the central part of the site was irregular and comprised multiple intrusions. These appeared to be related to extraction of natural clay following various seams in numerous directions, perhaps being removed for use in building structures (such as the corn drier and sunken-featured building) or for the improvement of the sandy, poor quality agricultural soils in the surrounding area. External to the enclosure, to the south-east, was a focus of iron working industrial waste in a number of pit features and a drainage ditch, mainly comprising smelting slag but also including tap slag, hearth base and fired clay. These pits were not securely dated but as the slag recovered was of a high density, typical of an inefficient bloomery process, and was found in other medieval contexts across the site, they are interpreted as being connected to the activity inside the enclosed area. It is likely that the industrial working, undoubtedly involving the smelting of iron, was deliberately located away from the main area of settlement due to the risk of fire; the presence of lower lying waterlogged and boggy ground in the vicinity of the brook to the south of the site was probably also a major factor in this location. The 'L'-shaped beam slot feature adjacent to this could have been a small temporary wooden building for storage of material, although this interpretation is very tentative due to the diffuse and shallow nature of the remains. There are indications that deliberate selection of wood for charcoal took place; this was dominated by oak (which burns well and at a high temperature; see Taylor 1981, 52-3) and there were roundwood fragments that suggested that coppiced wood was used. This woodland may have been locally managed for efficiency, and it is considered that medieval iron production was undertaken in woodland setting, at dispersed rural sites, so this site could potentially fit the pre-existing model (Hurst 2003). Evidence relating to rural industry is not regularly identified in the west midlands however, so the discovery of industrial waste related to iron smelting of probable medieval date is significant (Hunt 2011, 190-192). Even though this is only the disposal of the by-product and not the production features themselves, by its very presence the iron slag suggests that the smelting was taking place in the vicinity; it is unlikely to have been transported a long distance for disposal. The iron industry was a notable wider regional activity, and especially in Shropshire, a county central to the later intensive industrialisation of the region and the country, any remains of this nature have a particular importance.

The dating evidence from the features internal to the enclosure, mainly comprising pottery and ceramic building material, but also supported by scientific dating, indicates activity from at least the 12th century, through to the 13th before possible abandonment in the 14th century. Overall, securely dated medieval rural sites are unusual in Shropshire and in the wider region generally, with few excavated and many more remaining poorly defined in spatial terms (Stamper 2003; Hunt 2011, 174-179). There is recognition that the lack of work on rural settlements is particularly acute in Shropshire (Hunt 2011, 176) and therefore this site represents an important example of working life in the medieval countryside. It is perhaps of particular interest that the radiocarbon dating from the corn drier and the sunken-featured building associated with it suggested an earlier or prolonged use for the drier. It is possible that occupation and use of the site spanned the era of the Norman conquest, bridging to the earlier medieval period, and that a 'cultural inheritance' of late Anglo-Saxon settlement patterns defined the original siting and use of the farmstead, as has been argued

for Herefordshire (Hunt 2011, 174). This may be echoed in the predominance of oats from the medieval features; oats are often noted as key charred plant remains in late Saxon contexts, appearing consistently in assemblages of this date (Moffett 1994, 63) and have been recognised in 10th to 11th century assemblages from pits in Shrewsbury itself (e.g. Colledge 1979). Furthermore, the pottery dating for the medieval features mainly came from the uppermost contexts (particularly the enclosure ditch, the sunken-featured building and the large pit in Area 4), suggesting that these deposits relate to disuse at this time. It is possible that this infilling represents closure of the site during a period of great social and economic upheaval associated with civil war and plagues, leading to subsequent changing ownership of lands and desertion of settlements (Hunt 2011, 174). The overlying late medieval/post-medieval furrows in the northern part of the site suggest that activity within the enclosed plateau had long been absent by the point at which these were formed, the enclosure being succeeded by an arable field. This could perhaps demonstrate a contraction from a larger mixed-use settlement and farming landscape to what is now only represented by the current Crowmeole Farm buildings, effectively being an example of the classic shrunken medieval settlement.

9 Publication summary

Worcestershire Archaeology has a professional obligation to publish the results of archaeological projects within a reasonable period of time. To this end, Worcestershire Archaeology intends to use this summary as the basis for publication through local or regional journals. The client is requested to consider the content of this section as being acceptable for such publication:

Two phases of archaeological investigation were undertaken from late May until July 2015 on land to the south of Mytton Oak Road, on the west side of Shrewsbury, Shropshire (NGR: 346540 312030). The work was commissioned by CgMs Consulting on behalf of their clients, Bovis Homes Limited and Barratt Homes West Midlands, who are undertaking residential development with associated access roads and utilities on the site. The overall site incorporates a wide area, but archaeological mitigation was focussed immediately to the south of Crowmeole Farm, within the south-eastern corner of the development.

The site was known to contain cropmarks considered to represent a series of rectilinear enclosures to the north of a possible trackway which had previously been subject to a desk-based assessment, geophysical survey and archaeological evaluation. The latter work confirmed the presence of archaeological remains that closely corresponded with the cropmarks, as well as the presence of additional geophysical anomalies. Therefore, a subsequent mitigation strategy was produced which detailed a programme of archaeological investigation across the site area.

Four separate areas were investigated, revealing multiple phases of activity across the site. Activity of medieval and later date was the most prominent, probably representing the remains of a small farmstead dating from at least the 12th century onwards, if not earlier. This comprised varying elements of drainage, extraction of clay, the remnants of arable farming, crop processing and iron smelting, all within or around a defined enclosure that demarcated the higher ground in this landscape. There was a corn-drier associated with a timber built building and a rich assemblage of burnt but well-preserved cultivated oat grains that suggest an arable regime which had a reliance on oat as the principal cereal crop. The farmstead appears to have become disused by the 13th or 14th century, and it is possible that this represents the forerunner to the current Crowmeole Farm, which exists just to the north of the site.

The medieval and later agricultural activity had succeeded remains of earlier prehistoric activity, dating to the Early Bronze Age. The presence of an urn inverted over a cremation deposit was of particular significance, and suggests that this area had a role as part of a funerary landscape in this period. Independent scientific dating of the in situ urn, as well as the cremated bone within, suggested that the burial took place around 2000BC. This is of high significance in a regional context, being one of the few cremation deposits that is well-recorded and has had the enclosing vessel independently dated. The absence of demonstrable activity during the intervening timespan suggests that there was no continuity of activity from the early prehistoric to the medieval period.

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11 Bibliography

Barclay, A, and Halpin, C, 1999 Excavations at Barrow Hills, Radley, Oxfordshire. Volume 1: The Neolithic and Bronze Age Monument Complex, Oxford Archaeological Unit Thames Valley Landscapes Volume 11, Oxbow

Barker, P A, 1970 *The medieval pottery of Shropshire from the conquest to 1400*, Shropshire Archaeological Society

Barker, P A, Haldon, R, and Jenks, W E, 1991, Excavations at Sharpstones Hill near Shrewsbury, 1965-71, in Carver (ed), Prehistory in lowland Shropshire, 15–57

Bell, L S, 1988 'Appendix II: Report on the human remains from barrows G12, G13, G38, G39 and G50' 68–75 in C Gingell 'Twelve Wiltshire Round Barrows. Excavations in 1959 and 1961 by F de M and H L Vatcher', *WAM* 82, 19-76

BGS 2015 *Geology of Britain Viewer*, http://mapapps.bgs.ac.uk/geologyofbritain/home.html, British Geological Survey, accessed 24th August 2015

Bishop, L, 2013 Walking with cows: human-animal relationships in early Neolithic Britain, in M Larsson and J Debert (eds) *NW Europe in Transition: the early Neolithic in Britain and South Sweden,* BAR International Series **2475**, 75-82

Boessneck, J 1969 Osteological differences between sheep (*Ovis aries* Linné) and goat (*Capra hircus* Linné), in D R Brothwell and E S Higgs, *Science in Archaeology*, Thames and Hudson, 331-358

Boyle, A, and Harman, M, 1999 'Human remains' in A Barclay and C Halpin *Excavations at Barrow Hills, Radley, Oxfordshire. Volume I: The Neolithic and Bronze Age monument complex* Oxford Archaeological Init. Thames Valley landscapes Volume 11 (Oxford), 25, 29, 33, 37, 45, 49, 53, 56, 59, 60, 89, 102, 122–3, 131, 138, 143, 149, 153, 154, 156, 159, 160, 161, 164, 171–183

Bradley, P, 1999 Worked Flint, in A Barclay and C Halpin, *Excavations at Barrow Hills, Radley, Oxfordshire. Volume 1: The Neolithic and Bronze Age Monument Complex*

Britnell, W, 1982 The excavation of two round barrows at Trelystan, Powys, *Proc Prehist Soc,* **48**, 133–201

Brück, J, 1999 What's in a settlement? Domestic practice and residential mobility in Early Bronze Age Southern England, in J Brück and M Goodman (eds), *Making Places in the Prehistoric World: themes in settlement archaeology*, London, 52-75

Bryant, V, 2002 The pottery from the Queen Anne House site, in N Baker (ed), *Shrewsbury Abbey: studies in the archaeology and history of an urban abbey*, Shropshire Archaeological and Historical Society Monograph Series, **2**, 87–111

Bryant, V, 2004 Medieval and early post-medieval pottery, in H Dalwood and R Edwards 2004 *Excavations at Deansway, Worcester, 1988-89, Romano-British small town to late medieval city*, CBA Research Report, **139**, 281-339. York: Council for British Archaeology

Buikstra, J E, and Ubelaker, D H, 1994 *Standards for data collection from human skeletal remains* Arkansas Archaeological Survey Research Series 44

Cappers, R T G, Bekker, R M , 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

Carruthers, W, 1994 Charred plant remains, in J M Lewis, Excavations at Loughor Castle, West Glamorgan 1969-73. *Arch Cambrensis*, **C XLI I**, 173-7

Carver, M O H (ed), 1991, Prehistory in lowland Shropshire, *Trans Shropshire Archaeol Hist Soc*, **67**

Caseldine, A, 1990 *Environmental Archaeology in Wales*, Department of Archaeology, Saint David's University College Lampeter

CgMs Consulting Ltd 2010 *Heritage Assessment, land south of Mytton Oak Road, Shrewsbury*, unpublished document **CP/12375**, dated December 2010, revised May 2013

CgMs Consulting Ltd 2014 *Archaeological Mitigation Strategy in respect of Land at Mytton Oak Road, Shrewsbury,* unpublished document **CP/12375**, dated January 2014

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

Colledge, S M, 1979 A report on the plant remains from Riggs Hall, Shrewsbury, *Ancient Monuments Laboratory Report* **2982**

Cotswold Archaeology 2008 *Land at Barker Street/Claremont Street, Shrewsbury, Shropshire*, Cotswold Archaeology Report **08140**

Cowie, T G, 1978 *Bronze Age food vessel urns*, British Archaeological Reports (British Series), **55**

Davis, S J M 1980 Late Pleistocene and Holocene equid remains from Israel, *Zoological Journal of the Linnean Society*, Vol **70***,* 289-313

Davis, S J M 1992 *Rapid Method for Recording Information about Mammal Bones from Archaeological Sites,* Ancient Monuments Laboratory Research Report 19/92

Davis, S and Payne, S 1993 A barrow full of cattle skulls, *Antiquity,* Vol **67**, 12-22

DCLG 2012 *National Planning Policy Framework*, Department for Communities and Local Government

DCLG/DCMS/EH 2010 *PPS5 Planning for the historic environment: historic environment planning practice guide*, Department for Communities and Local Government/Department for Culture, Media and Sport/English Heritage

Driesch, A von den 1976 *A Guide to the Measurement of Animal Bones from Archaeological Sites*, Peabody Museum Bulletin **1**, Harvard University

Edwards, N, Lane, A, and Redknap, M, 2011 *Early medieval Wales: an updated framework for archaeological research*, A Research Framework for the Archaeology of Wales, Final Paper February 2011

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

Garwood, P, 2007 Late Neolithic and Early Bronze Age funerary monuments and burial traditions in the west midlands, in P Garwood (ed), *The undiscovered country. The earlier prehistory of the west midlands*, Oxford: Oxbow, 134-65

Garwood, P, 2011 The earlier prehistory of the west midlands, in Watt, S (ed) *The Archaeology of the west midlands: A Framework for Research,* Oxford: Oxbow Books, 9-99

Gejvall, N G, 1981 'Determination of burned bones from prehistoric graves: Observations on the cremated bones from the graves at Horn' *OSSA Letters:* 2

Gelling, P S and Peacock, D P S, 1966 The pottery from Caynham Camp, near Ludlow, *Trans Shropshire Archaeol Soc,* **58**, 96–100

Grant, A 1991 Economic or symbolic? Animals and ritual behaviour, in P Garwood, D Jennings and J Toms (eds), *Sacred and profane: archaeology, ritual and religion*, Oxford University Committee for Archaeology, 109-14

Grant, A 1982 The use of tooth wear as a guide to the ageing of domestic ungulates, in B Wilson, C Grigson, and S Payne, *Ageing and Sexing Animal Bones from Archaeological Sites*, BAR British Series **109**, 91-108

Grant, A 1984 Animal Husbandry in Wessex and the Thames Valley, in B Cunliffe and D Miles, *Aspects of the Iron Age in Central Southern Britain*, Oxford University Committee for Archaeology

Green, F, 1980 *Grain deposits from the 12th century granary*, Lydford, Devon, AML report, Old Series, **3108**

Halstead, J, 2007 Bronze Age Settlement in Shropshire: research potential and frameworks for settlement studies in the west midlands, in P Garwood (ed), *The undiscovered country. The earlier prehistory of the west midlands*, Oxford: Oxbow, 166-181

Hannaford, HR 2007 *Archaeological Investigations at St Austin's Friars and Bridge Street, Shrewsbury, Shropshire*, Shropshire County Council Archaeology Service, Report Number **252**

Harland, J F, Barrett, J H, Carrott, J, Dodney, K and Jaques, D 2003 *The York System: an Integrated Zooarchaeological Database for Research and Teaching* http://intarch.ac.uk/journal/issue13/harland_index.html

Hillson, S 2005 *Teeth,* Cambridge University Press

Holden, J L, Phakley, P P, and Clement, J G, 1995a 'Scanning electron microscope observations of incinerated human femoral bone: a case study', *Forensic Science International* 74, 17–28

Holden, J L, Phakley, P P, and Clement, J G, 1995b 'Scanning electron microscope observations of heat-treated human bone', *Forensic Science International* 74, 29–45

Hughes, G, Leach, P, and Stanford, S C, 1995 Excavations at Bromfield, Shropshire 1981-91: Part 2, *Transactions of the Shropshire Archaeological and Historical Society* **LXX**, Stroud, 23-94

Hunt, J, 2011 The medieval period, in Watt, S (ed.) *The Archaeology of the West Midlands: A Framework for Research,* Oxford, 173-209

Hurst, J D, 2003 Medieval Industry in the west midlands, *West Midlands Regional Research Frramework* (Seminar 5)

Jones, G E M and Milles, A, 1984 Charred plant remains, in W Britnell, (ed), A 15th century corn drying kiln from Collfryn, Llansantffraid, Deuddr, Powys, *Medieval Archaeology*, **28**, 192-3

Kratochvil, Z 1969 Species criteria on the distal section of the tibia in *Ovis ammon R. aries* L. and *Capra* aegagrus F. *hircus* L., *Acta Veterinaria,* Vol **38**, 482-490

Lauwerier, R C G M 1988 *Animals in Roman Times in the Dutch Eastern River Area,* Amersfoort: ROB

Lowe, V P W 1967 Teeth as indicators of age with special reference to Red Deer *(Cervus elaphus)* of known age from Rhum, *Journal of Zoology,* Vol **152**, Issue 2, 137-153

Mann, A and Jackson, R, forthcoming *Clifton Quarry, Worcestershire (2006-09), Pits, pots and cereals: The archaeology of the central Severn Valley*, Oxbow Books

McKenna, R, 2013 Charcoal and other charred plant remains, in J Kenney and L W Parry, *Ysgol yr Hendre Llanbeblig, Caernarfon: Report on archaeological excavations*, Gwynnedd Archaeological Trust report, **1103**

McKinley, J I, 1993 'Bone fragment size and weights of bone from modern British cremations and its implications for the interpretation of archaeological cremations', *International Journal of Osteoarchaeology* 3: 283–287

McKinley, J I, 1994a *The Anglo-Saxon cemetery at Spong Hill, North Elmham Part VIII: The Cremations*, East Anglian Archaeology No. 69

McKinley, J I, 1994b 'Bone fragment size in British cremation burials and its implications for pyre technology and ritual', *Journal of Archaeological Sciences* 21: 339–342

McKinley, J I, 1997a 'The cremated human bone from burial and cremation-related contexts', in A P Fitzpatrick, 1997 *Archaeological Excavations on the Route of the A27 Westhampnett Bypass, West Sussex, 1992 Volume 2,* Wessex Archaeology Report No. 12, 55–72

McKinley, J I, 1997b 'Bronze Age 'barrows' and funerary rites and rituals of cremation'. *Proceedings of the Prehistoric Society* 63, 129–145.

McKinley, J I, 2004a 'Compiling a skeletal inventory: cremated human bone' in M Brickley and J I McKinley (eds) *Guidelines to the Standards for Recording Human Remains* British Association for Biological Anthropology and Osteoarchaeology and Institute for Field Archaeology, 9–12

McKinley, J I, 2004b 'The human remains and aspects of pyre technology and cremation rituals', H E M Cool, *The Roman Cemetery at Brougham Cumbria: Excavations 1966–67*, Britannia Monograph 21, 283–309

McKinley, J I, 2004c 'Cremated human bone' 54-58 in S Coles 'Three Bronze Age barrows at Mockbeggar Lane, Ibsley, Hampshire' *Hampshire Field Club* 59, 31–64

McKinley, J I, 2008 'In the heat of the pyre: efficiency of oxidation in Romano-British cremations – did it really matter?' In C A Schmidt and S Sims (eds) *Beyond recognition: the analysis of burned human remains* Levier, Oxford, 163–184

McKinley, J I, 2013a 'Cremation: Excavation, analysis and interpretation of material from cremation-related contexts', in L Nilsson Stutz and S Tarlow (eds) *Handbook on the Archaeology of Death and Burial* Oxford University Press, 147–171

McKinley, J I, 2015a 'Section II: Cremated Bone', 406–429 in J I McKinley and K Egging Dinwiddy, 'Human Bone', in P Andrews, P Booth, A P Fitzpatrick and K Welsh, *Digging at the Gateway, Archaeology landscapes of south Thanet: The Archaeology of East Kent Access Phase II. Volume 2: The Finds and Environmental Reports,* Oxford Wessex Archaeology Monogr No. 8, Oxford and Salisbury, 325–429

McKinley, J I, 2015b DSTL magazine site, Porton Down, Wiltshire (72832): Cremated Bone and Aspects of the Mortuary Rites. Unpublished report for Wessex Archaeology

McKinley, J I, forthcoming 'Human Bone and Mortuary Deposits' in A Powell and A Barclay *Between and beyond the monuments: prehistoric activity on the downlands south-east of Amesbury,* Wessex Archaeology Monograph

Moffett, L, 1992 Assessment of botanical samples from the Owen Owen site, Shrewsbury, Shropshire, in I Ferris, V Buteux, S Pinter-Bellows and L Moffett, *Former Owen Owen Store, Shrewsbury: A post-excavation assessment*, Birmingham University Field Archaeology Unit report **22**

Moffet, L, 1994 Charred cereals from some ovens/kilns in late Saxon Stafford and the botanical evidence for the pre- *burh* economy, in J Rackham (ed.) *Environment and Economy in Anglo-Saxon England*, CBA Research Report **89**, York, 55-64

Moffett, L, 1996 *Plant remains from Flaxengate, Lincoln*, Heritage England Research Report, **50/96**

Moffett, L, 2007 The prehistoric use of plant resources, in A Barclay and C Halpin, *Excavations at Barrow Hills, Radley, Oxfordshire. Volume 1: The Neolithic and Bronze Age Monument Complex*

Nielsen-Marsh, C, Gernaey, A, Turner-Walker, G, Hedges, R, Pike, A and Collins, M, 2000 'The chemical degradation of bone' in M Cox, and S Mays (eds) *Human Osteology in Archaeology and Forensic Science* GMM London, 439–454

O'Connor, T 2000 *The Archaeology of Animal Bone,* Sutton

Parker-Pearson, M, 1999 The Earlier Bronze Age, in J Hunter and I Ralston (eds), *The Archaeology of Britain: An introduction from the Upper Palaeolithic to the Industrial Revolution*, London and New York, 77-94

Payne, S 1985 Morphological distinctions between the mandibular teeth of young sheep, *Ovis,* and goats, *Capra*, *Journal of Archaeological Science,* Vol **12**, Issue 2, 139-147

Payne, S 1973 Kill-off patterns in sheep and goats: the mandibles from Asvan Kale, *Anatolian Studies,* Vol **23**, 281-303

Payne, S 1987 Reference codes for ware stages in the mandibular cheek teeth of sheep and goats, *Journal of Archaeological Science,* Vol **14**, 609-614

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**

Reitz, E and Wing, E S 2008 *Zooarchaeology (Second Edition),* Cambridge University Press

Rogers, J, and Waldron, T, 1995 *A field guide to Joint Disease in Archaeology,* Chichester

Rogers, T 2013 *Archaeological evaluation of land south of Mytton Oak Road, Shrewbury, Shropshire*, Worcestershire Archaeology, Worcestershire County Council report **2026**, P4152

de Rouffignac, C, 1995 The plant remains, in G Hughes and A Woodward, Excavations at Meole Brace 1990 and at Bromfield 1981 – 1991*, Transactions of the Shropshire Archaeological and Historical Society* **70**

Savory, H N, 1980 *Guide Catalogue of the Bronze Age Collections*, National Museum of Wales

Scheuer, L, and Black, S, 2000 *Developmental Juvenile Osteology,* Academic Press, London

Schmid, E, 1972 *Atlas of animal bones for prehistorians, archaeologists and Quaternary geologists*, Amsterdam, London & New York: Elsevier

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

Serjeantson, D 1996 The animal bones, in S Needham and T Spence, *Runnymede Bridge Research Excavations, Volume 2, Refuse and Disposal at Area 16 East, Runnymede*, British Museum Press, 94-201

Serjeantson, D 2011 *Review of animal remains from the Neolithic and Early Bronze Age of southern Britain (4000BC – 1500 BC),* English Heritage, Research Department Report Series no. 29-2011

Serjeantson, D 2009 *Birds,* Cambridge University Press

Sisson, S 1930 *The Anatomy of the Domestic Animals,* W B Saunders Company

Soil Survey of England and Wales, 1983 *Midland and Western England*, sheet 3, scale 1:250,000 + Legend for the 1:250,000 Soil Map of England and Wales (A brief explanation of the constituent soil associations)

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

Stamper, P, 2003 Medieval Shropshire: Research Priorities, *West Midlands Regional Research Frramework* (Seminar 5)

Stanes, R, 1969 Devon Agriculture in the mid-18th century: the evidence of the Milles enquires, in M Havinden, C M King and R Stanes, *The southwest and the land, Exeter papers in economic history*, **2**, Exeter, Exeter University, 43 - 65

Stanford, S C, 1974 Croft Ambrey: excavations carried out for the Woolhope Naturalists' Field Club (Herefordshire) 1960-1966

Stanford, S C, 1982 Bromfield, Shropshire: Neolithic, Beaker and Bronze Age sites, 1966-79, *Proc Prehist Soc,* **48**, 279–320

Stanford, S C, 1995 A Cornovian farm and Saxon cemetery at Bromfield, *Shropshire, Shropshire Archaeol Hist Soc* **70**, 95-141

Stratascan Ltd 2013 *Geophysical Survey Report – Land at Mytton Oak Road, Shrewsbury*, unpublished report **J3327**, dated May 2013

Straker, V, 1979 *Some Late Saxon plant remains from Marefair, Northampton*, English Heritage Research Report, **2867**

Sykes, N 2007 *The Norman Conquest: a Zooarchaeological Perspective*, BAR British Series **1656**

Taylor, M, 1981 *Wood in Archaeology,* Princes Risborough

Towers, J, Montgomery, J, Evans, J, Jay, M and Pearson, M P 2010 An investigation of the origins of cattle and aurochs deposited in the Early Bronze Age barrows at Gayhurst and Irthlingborough, *Journal of Archaeological Science*, Vol **37 (3)**, 508-515

Tomek, T and Bochénski, Z M 2009 *A Key for the Identification of Domestic Birds in Europe: Galliformes and Columbiformes*, Kraków, Institute of Systematic and Evolution of Animals, Polish Academy of Sciences

Vancouver, C, 1808 *General view of the agriculture of the county of Devon*. London, Board of agriculture

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

WA 2015 *Written Scheme of Investigation for archaeological excavation at land off Mytton Oak Road, Shrewsbury, Shropshire,* Worcestershire Archaeology, Worcestershire County Council, unpublished document dated 20th May 2015, P4576

Wahl, J, 1982 Leichenbranduntersuchungen. Ein Überblick über die Bearbeitungs- und Aussagemöglichkeiten von Brandgräbern, *Praehistorische Zeitschrift 57 (i),* 1–125

Wessex Archaeology 2013a *Hanwood Road, Shrewsbury, Shropshire: detailed gradiometer survey report*, Wessex Archaeology Report **102070.01**

Wessex Archaeology 2013b *Hanwood Road, Shrewsbury, Shropshire: archaeological evaluation*, Wessex Archaeology Report **102071.01**

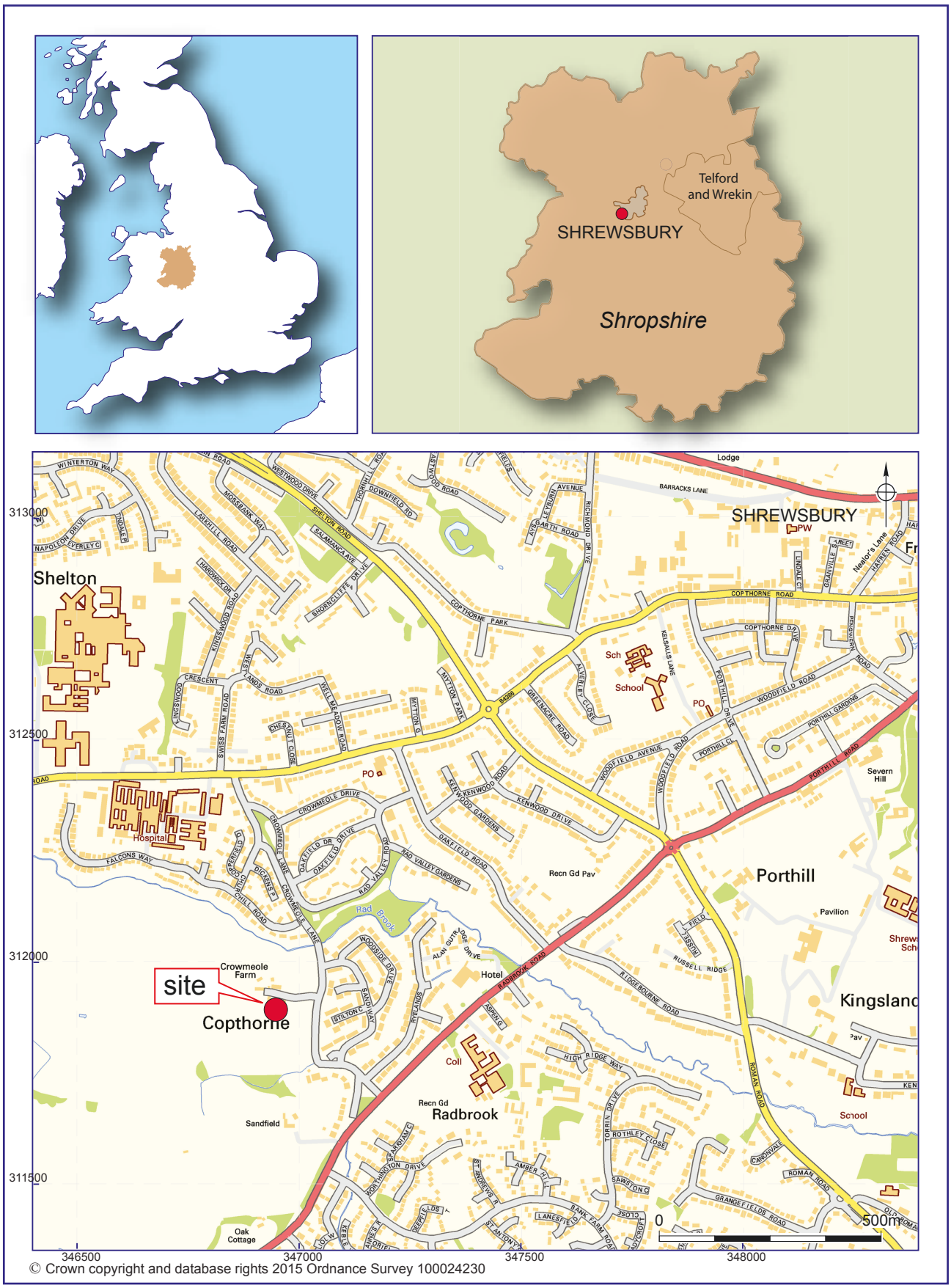
Wilkin, N C A, 2013 *Food vessel pottery from Early Bronze Age funerary contexts in northern England: a typological and contextual study*, PhD Thesis, Institute of Archaeology and Antiquity, University of Birmingham

Williams, D, 2013 Artefact analysis, in T Rogers, *Archaeological evaluation of land south of Mytton Oak Road, Shrewsbury, Shropshire*, Worcestershire Archaeology Report **2026**, 5–6

Woodward, A, 2008 Bronze Age pottery and settlements in southern England, in B Roberts (ed), *Creating a research agenda for the Bronze Age in Britain, Bronze Age Review, The international*

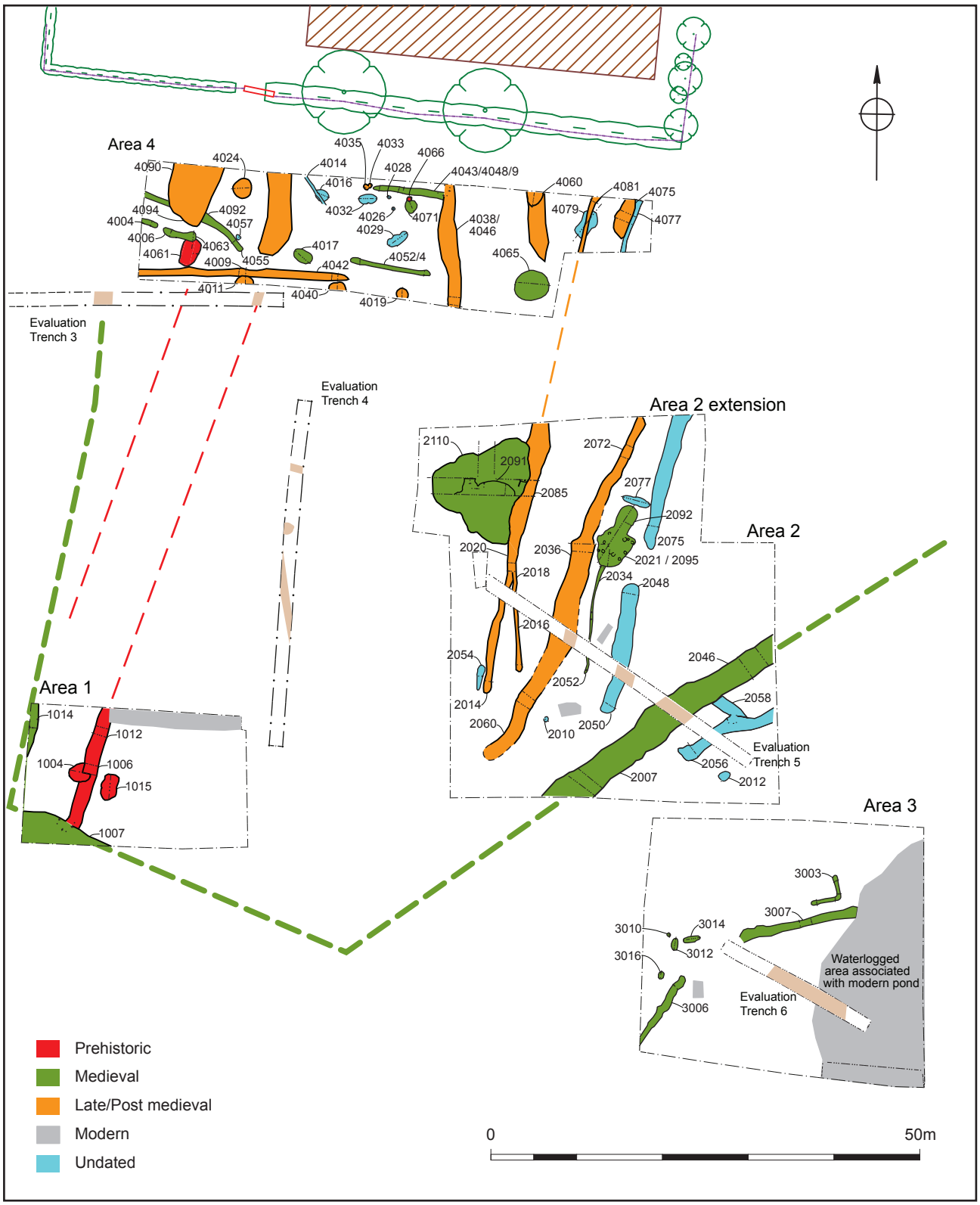
journal of research into the archaeology of the British and European Bronze Age, volume **1**, Nov 2008, The British Museum, 79–96

Figures

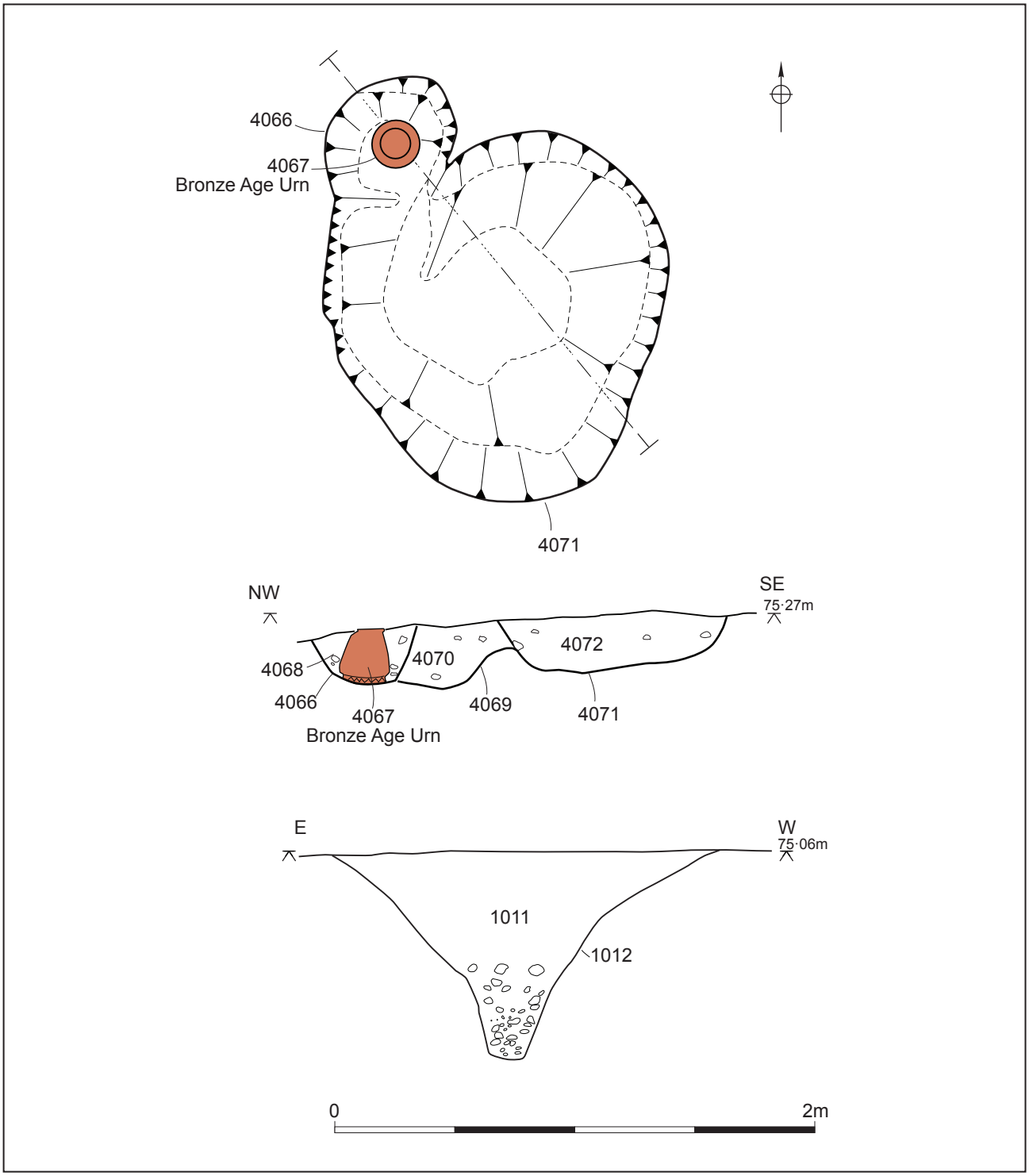


Location of the site *Figure 1*

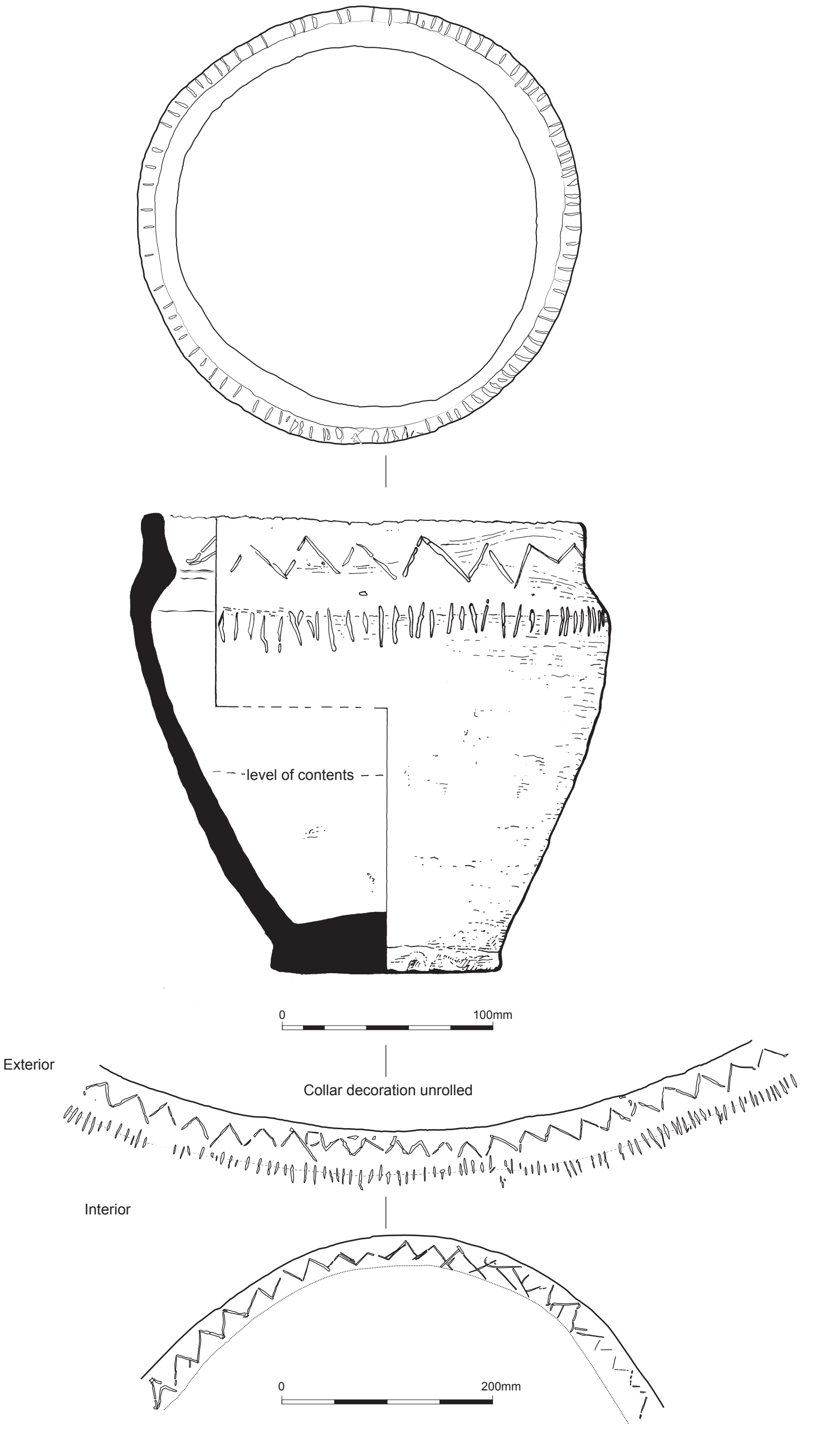
Excavation areas located onto geophysics interpretation *Figure 2*



Archaeological features *Figure 3*

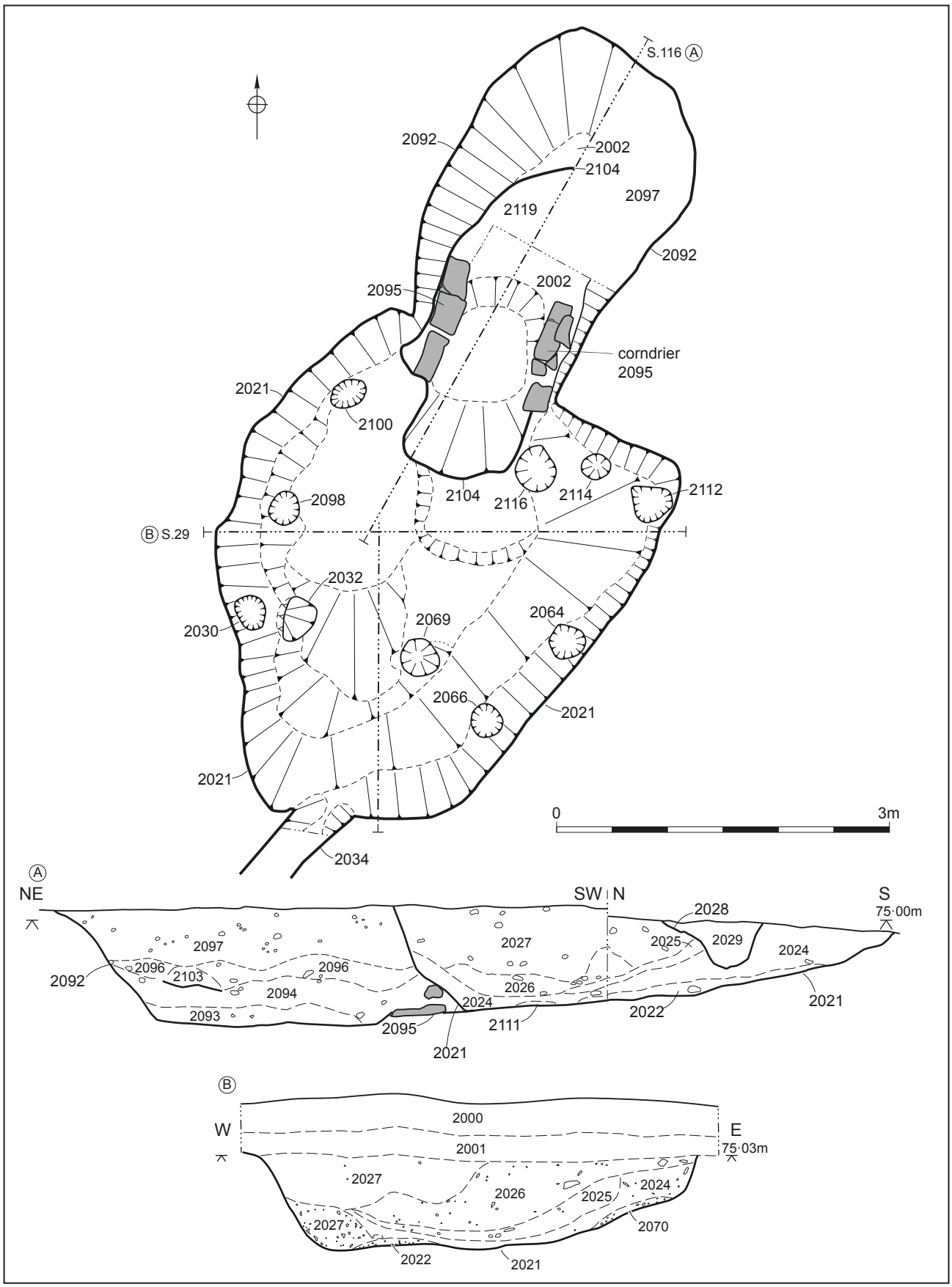


Plan and section of pits 4066 and 4071 , and section of Bronze Age ditch 1012 *Figure 4*

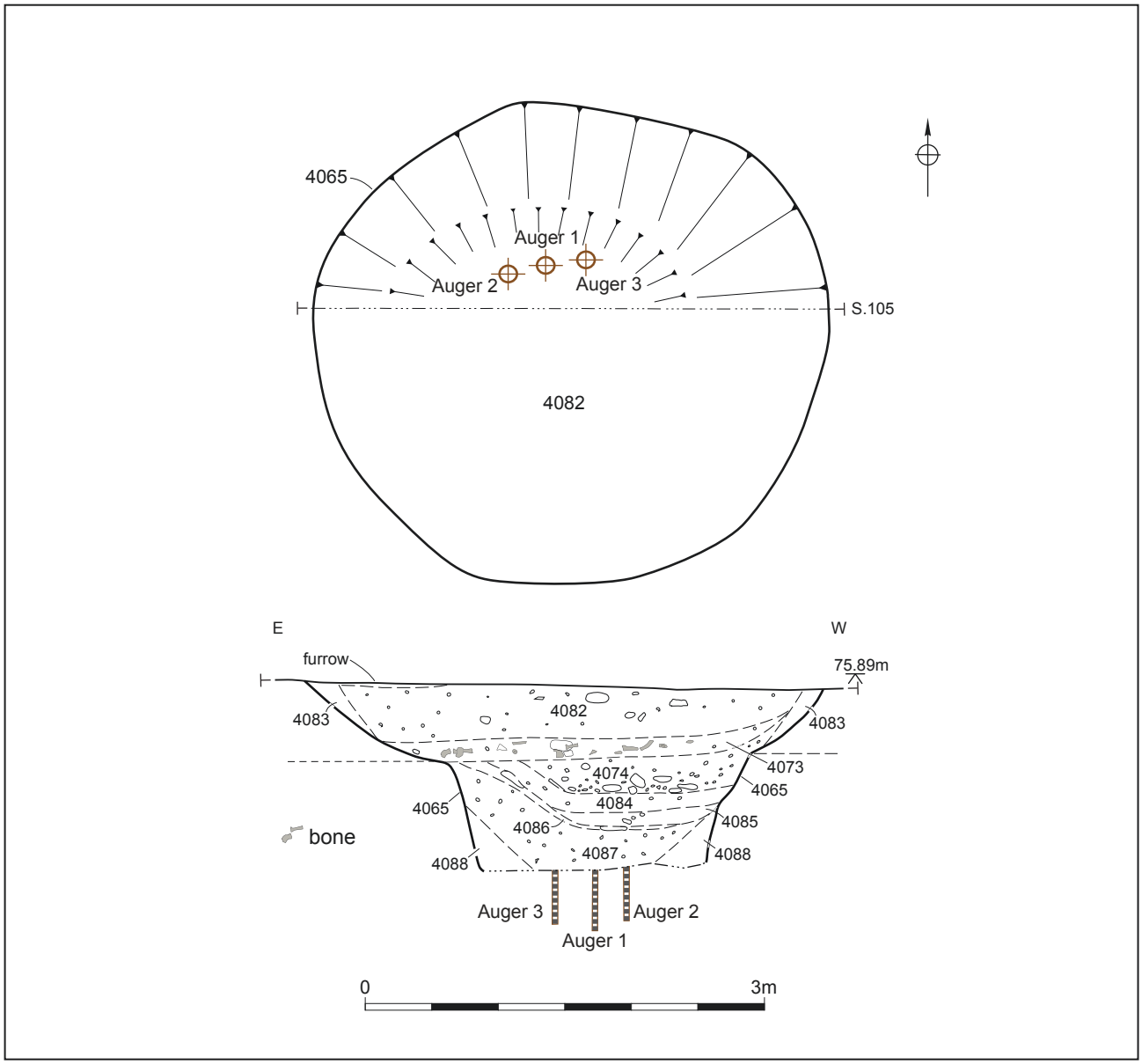


Early Bronze Age Urn

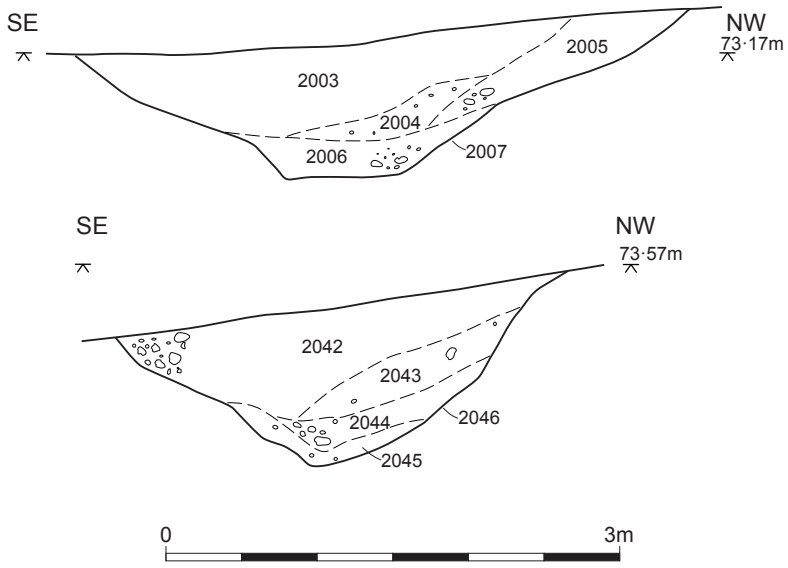
Figure 5



Plan of sunken building 2021and additional features, including corndrier 2095 *Figure 6*



Plan and section of pit 4065 *Figure 7*



Sections of medieval enclosure ditch 2007 and 2046 *Figure 8*

Plates

Plate 1: The site during excavation, facing south-west (Area 2 in the foreground)

Plate 2: Bronze Age pit 1015 in Area 1, facing east

Plate 3: Bronze Age ditch 1006 and pit 1004, facing south

Plate 4: Bronze Age pit 4066, with pot 4067, and medieval pit 4071 in Area 4 (1m scale)

Plate 5: Detail of Bronze Age pot 4067 in situ (0.20m scale)

Plate 6: Bronze Age pot 4067 from above, showing damage (0.20m scale)

Plate 7: Oblique view of medieval enclosure ditch 2007, Area 2

Plate 8: Oblique view of sunken-featured building 2021, prior to Area 2 extension

Plate 9: Postholes 2030 (top with 0.20m scale) and 2034, west side of building 2021

Plate 10: Sunken-featured building 2021 with drier 2095, facing north-east

Plate 11: Rubble of corn drier structure 2095

Plate 12: Corn drier 2095 with clay lining 2119

Plate 13: Large medieval pit 4065

Plate 14: The Bronze Age pot prior to removal of contents

Plate 15: Set-up for excavation of Bronze Age pot contents

Plate 16: Re-fitted worked stone from within the Bronze Age pot

Plate 17: Flint knife from pit 1015

Appendix 1 Technical information

The archive

The archive consists of:

249	Context records AS1
12	Field progress reports AS2
13	Photographic records AS3
2	Black and white photographic films
444	Digital photographs
4	Drawing number catalogues AS4
131	Scale drawings
8	Context number catalogues AS5
1	Recorded finds records AS13
1	Sample number catalogues AS18
2	Box of finds
1	Box of sorted remains from flots and residues
5	Boxes of scanned residues
1	CD-Rom/DVDs
1	Copy of this report (bound hard copy)

The project archive is intended to be placed with Shropshire Museums Service.

Appendix 2 Radiocarbon Dating

Scottish Universities Environmental Research Centre

Rankine Avenue, Scottish Enterprise Technology Park, East Kilbride, Glasgow G75 0QF, Scotland, UK
Director: Professor R M Ellam Tel: +44 (0)1355 223332 Fax: +44 (0)1355 229898 www.glasgow.ac.uk/suerc

RADIOCARBON DATING CERTIFICATE

06 January 2016

Laboratory Code	SUERC-64464 (GU39352)
Submitter	Suzi Richer Worcestershire Archaeology The Hive, Sawmill Walk, The Butts, Worcester,, WR1 3PB
Site Reference	Mytton Oak, Shropshire
Context Reference	4097
Sample Reference	P4576/4097/20
Material	Carbonised residue Bronze Age vessel
$\delta^{13}C$ relative to VPDB	-26.9 ‰
Radiocarbon Age BP	3655 ± 37

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

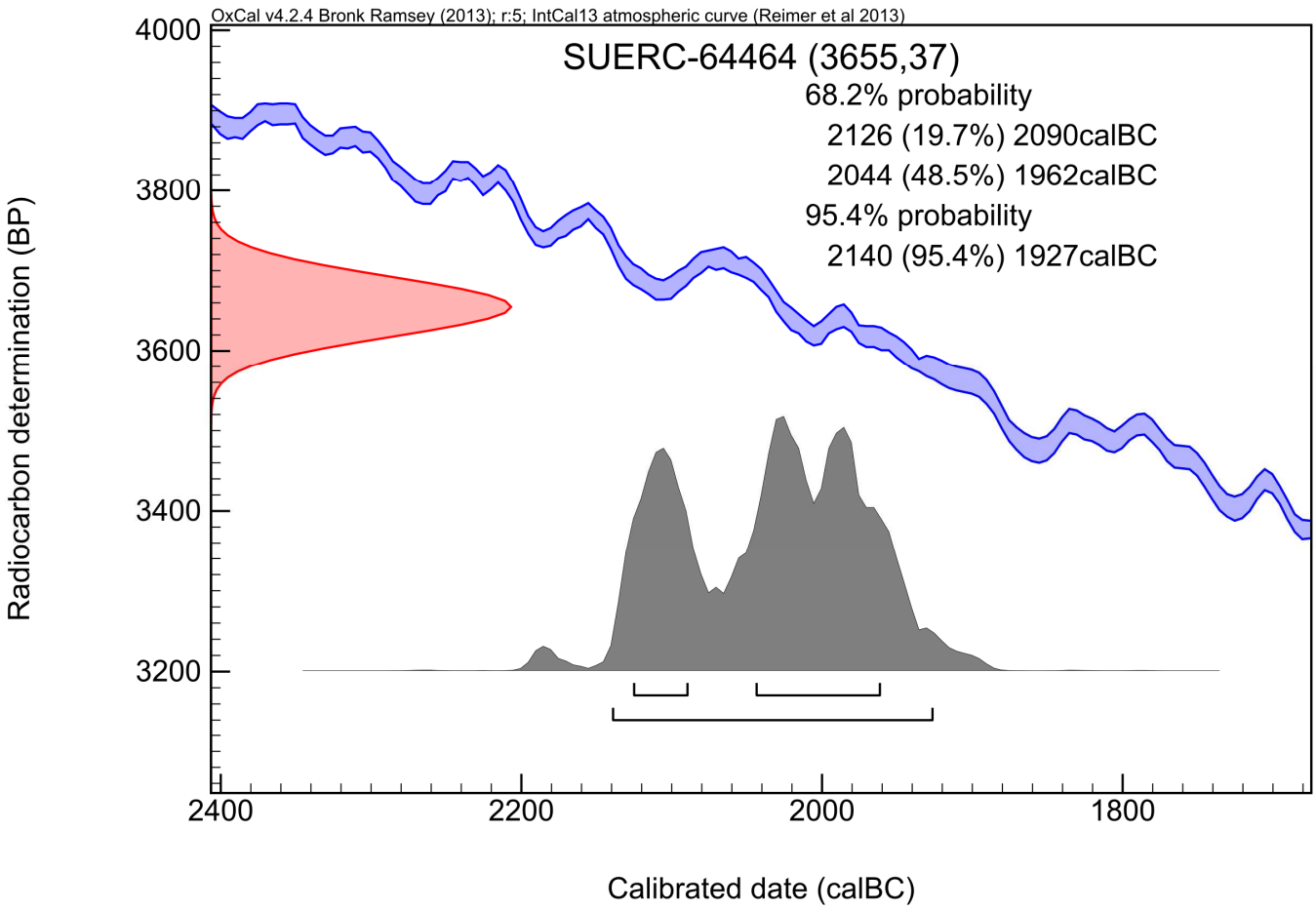
The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email Gordon.Cook@glasgow.ac.uk or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- E. Dunbar Date :- 06/01/2016

Checked and signed off by :- P. Naysmith Date :- 06/01/2016

Calibration Plot



Scottish Universities Environmental Research Centre

Rankine Avenue, Scottish Enterprise Technology Park, East Kilbride, Glasgow G75 0QF, Scotland, UK
Director: Professor R M Ellam Tel: +44 (0)1355 223332 Fax: +44 (0)1355 229898 www.glasgow.ac.uk/suerc

RADIOCARBON DATING CERTIFICATE

22 February 2016

Laboratory Code	SUERC-65619 (GU39882)
Submitter	Suzi Richer and Liz Pearson Worcestershire Archaeology The Hive Sawmill Walk The Butts Worcester WR1 3PD
Site Reference	Mytton Oak, Shropshire
Context Reference	4096
Sample Reference	P4576/4096
Material	Cremated bone from Bronze Age vessel : Human
$\delta^{13}C$ relative to VPDB	-25.4 ‰
Radiocarbon Age BP	3594 ± 30

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

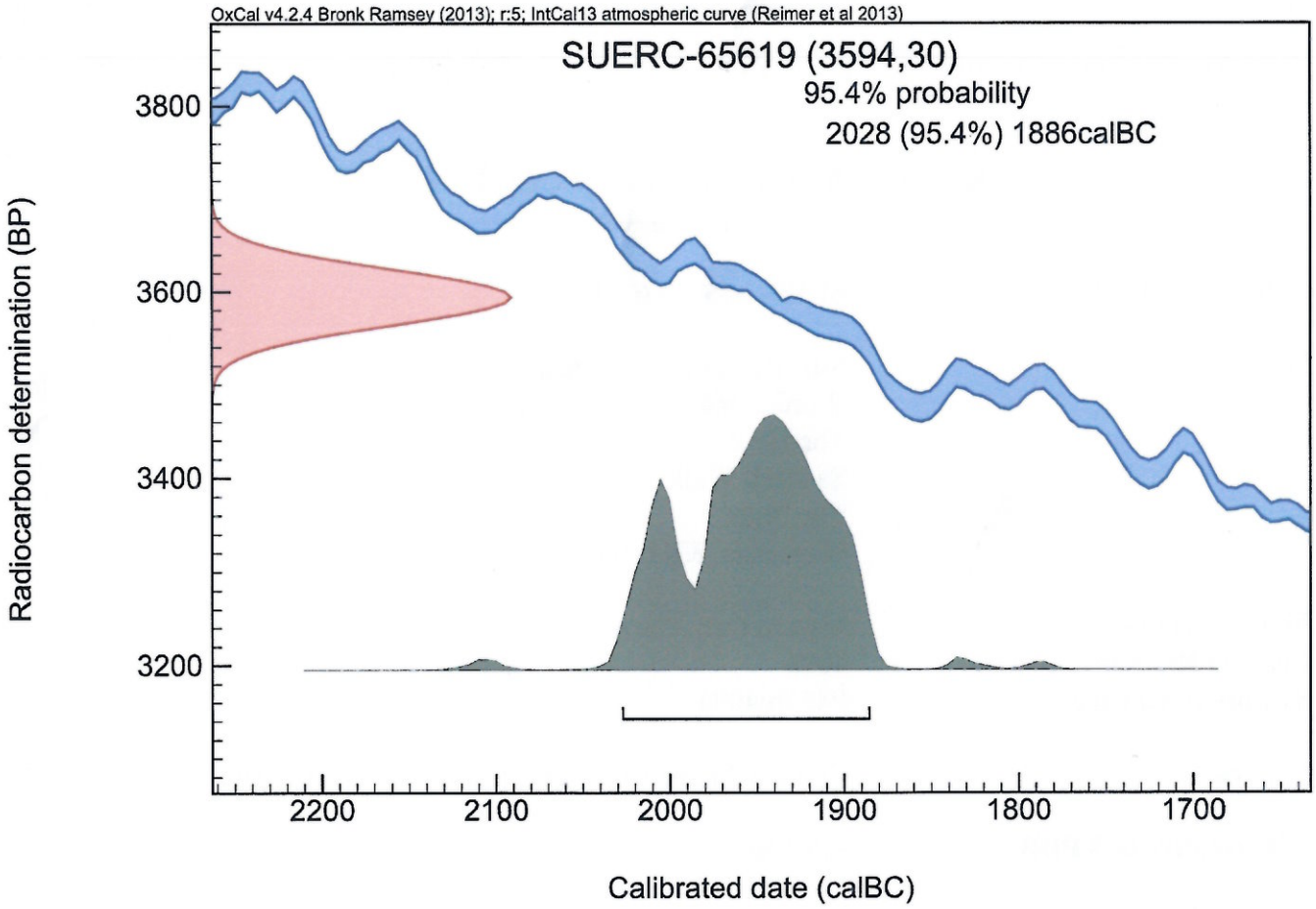
The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email Gordon.Cook@glasgow.ac.uk or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- E. Dunbar Date :- 22/2/16

Checked and signed off by :- B Taggart Date :- 23/2/16

Calibration Plot



Scottish Universities Environmental Research Centre

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Director: Professor R M Ellam Tel: +44 (0)1355 223332 Fax: +44 (0)1355 229898 www.glasgow.ac.uk/suerc

RADIOCARBON DATING CERTIFICATE

14 December 2015

Laboratory Code	SUERC-64312 (GU39245)
Submitter	Suzi Richer and Liz Pearson Worcestershire Archaeology The Hive Sawmill Walk The Butts Worcester WR1 3PD
Site Reference	Mytton Oak, Shropshire
Context Reference	2118
Sample Reference	P4576/2118/19
Material	Charred plant remains : Avena sativa grain
$\delta^{13}C$ relative to VPDB	-22.1 ‰
Radiocarbon Age BP	849 ± 38

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

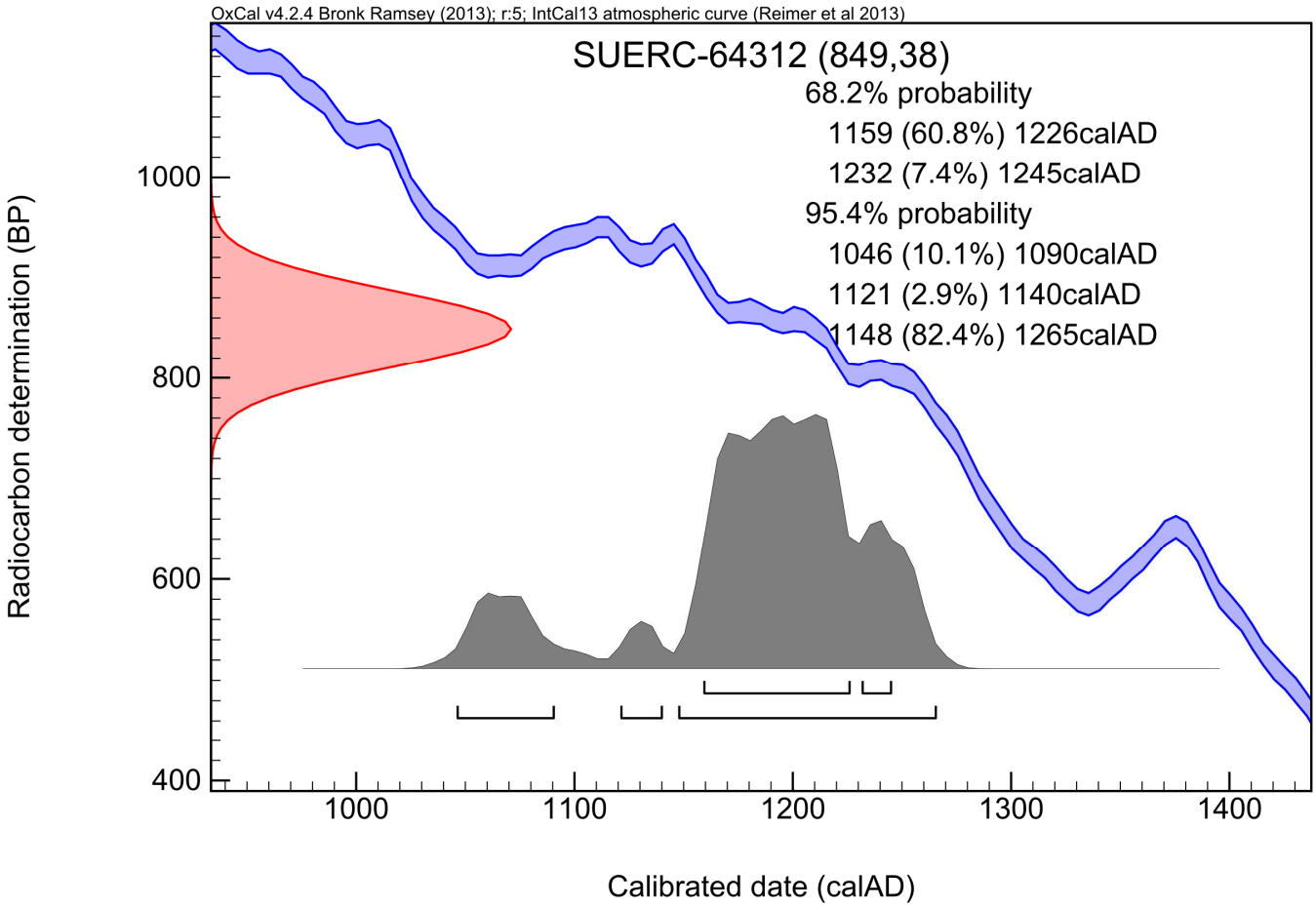
The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email Gordon.Cook@glasgow.ac.uk or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- P. Naysmith Date :- 14/12/2015

Checked and signed off by :- E. Dunbar Date :- 14/12/2015

Calibration Plot



Scottish Universities Environmental Research Centre

Rankine Avenue, Scottish Enterprise Technology Park, East Kilbride, Glasgow G75 0QF, Scotland, UK
Director: Professor R M Ellam Tel: +44 (0)1355 223332 Fax: +44 (0)1355 229898 www.glasgow.ac.uk/suerc

RADIOCARBON DATING CERTIFICATE

14 December 2015

Laboratory Code	SUERC-64313 (GU39246)
Submitter	Suzi Richer and Liz Pearson Worcestershire Archaeology The Hive Sawmill Walk The Butts Worcester WR1 3PD
Site Reference	Mytton Oak, Shropshire
Context Reference	2025
Sample Reference	P4576/2025/9
Material	Charred plant remains : Avena sp. grain
$\delta^{13}C$ relative to VPDB	-24.6 ‰
Radiocarbon Age BP	907 ± 38

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

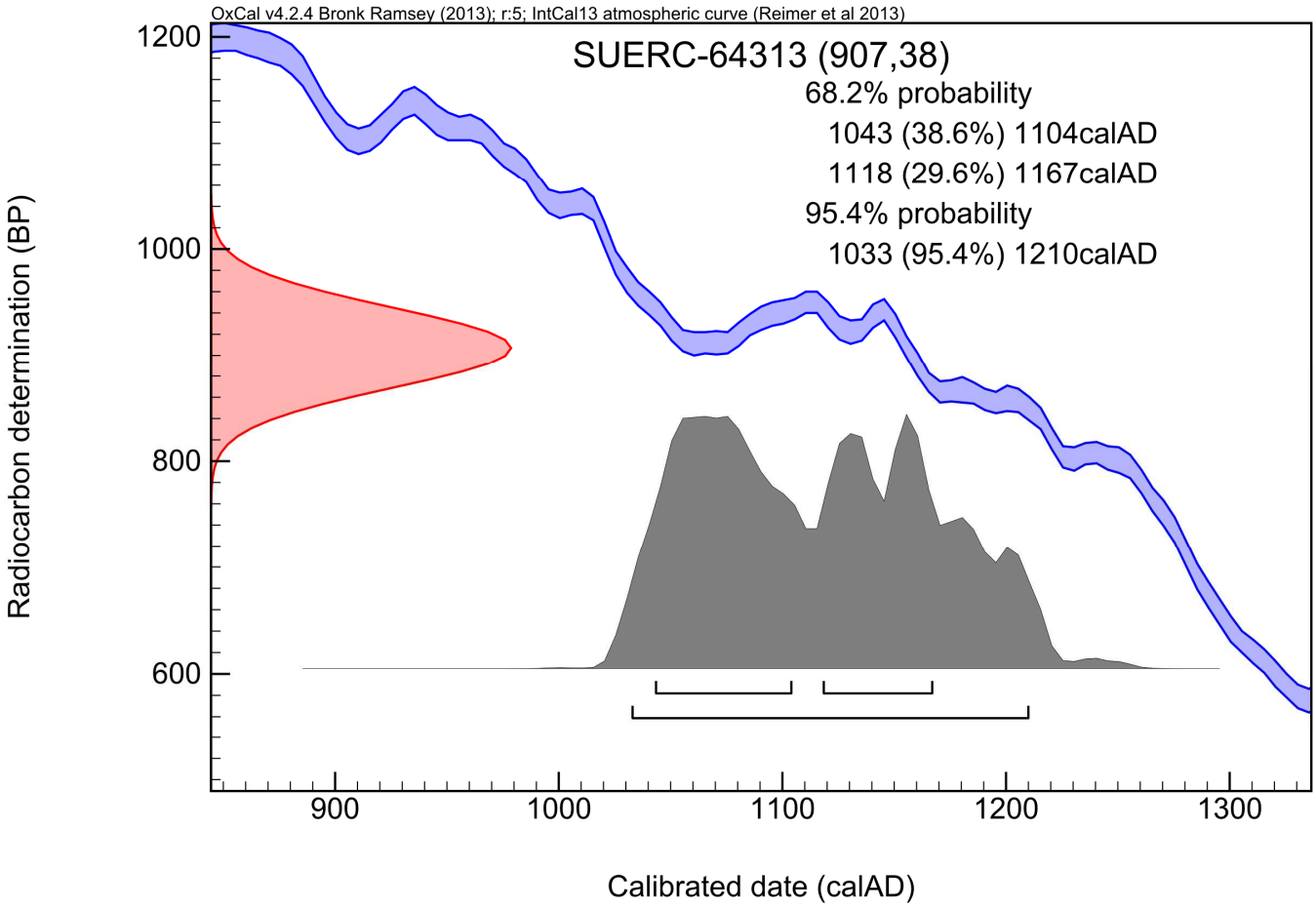
The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email Gordon.Cook@glasgow.ac.uk or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- P. Naysmith Date :- 14/12/2015

Checked and signed off by :- E. Dunbar Date :- 14/12/2015

Calibration Plot



Appendix 3 Cremated bone archive report

Jacqueline I. McKinley April 2016

See Archive Table for record of bone weights and percentage distributions by sieve fraction and identified skeletal elements by spit and quads., and maximum fragment sizes.

Context 4095

Early Bronze Age (C14 dated) urned burial remains within grave 4066; vessel inverted, small area base removed in machine stripping – no soil infill. Excavated in 10mm spits and quadrants in controlled conditions at the Worcestershire Archaeology offices (would normally have combined to give advised 20mm spits but analysis undertaken before info. received).

Bone commenced within 88 mm of inverted base; most of bone fragments appear to be laid relatively horizontally. Spits 5-11 included a very large 'dust' & <2mm fraction (from photographs). Spit 9 corresponds with shoulder level of vessel. Material denoted spit 12 by the writer comprised burial remains from 'final quads' some of which appears to have been protruding slightly below the level of the vessel rim (up to 40mm depth); some from 'interface' with underlying natural or excavation 'spill' recovered on site.

Some fine fuel ash throughout – rare. Fragments of worked stone tool (pyre good).

Spit 1:

QA:

SKULL: Vault – 2 small fragments.

AXIAL SKELETON: T - articular process fragment.

Innominate; acetabulum fragment.

UPPER LIMB: Humerus; shaft fragment with b/g spot staining.

LOWER LIMB: Fragments femur & tibia shaft.

1st MtT base fragment.

Q B:

SKULL: Fragments min. 1 maxillary molar root.

Mandible – fragment gracile left condyle neck & dorsal border fragment.

Right lateral supra-orbital – medium margin, very slight ridge medial (2). Small fragment articular tubercle.

Vault; 6 small fragments, + small occipital fragment.

AXIAL SKELETON: T/L articular process fragment.

S: fragment auricular surface, no pattern but also no marked modifications.

Rib; 9 small fragments shaft.

Innominate; small fragment auricular surface.

UPPER LIMB: Fragments humerus (3) & ?radius (3, one with small b/g spot stains) shaft.

LOWER LIMB: Fragments femur (5) & fibula (1) shaft.

Proximal P shaft fragment.

Q C:

AXIAL SKELETON: Rib shaft fragment.

LOWER LIMB: Tibia prox. condyle fragment – **joins fragment in Spit 6A**.
Fibula; 4 fragments shaft.
Q D:
AXIAL SKELETON: ??Axis – small fragment articular surface & articular process (not conclusive)with slight pitting in articular surface.
T/L articular process fragment.
Rib; 3 small fragments shaft.
UPPER LIMB: Cervical; medial articular surface fragment, very slight central pitting.
Humerus; 2 fragments shaft.
MtC shaft fragment (5^{th}) & one other fragment.
LOWER LIMB: Fragments femur (5) & fibula (1) shat.
MISC: 2 fragments ??animal ... unrecognisable fragments bit should be!

Spit 2:
QA:
SKULL: Mandible – right labial distal with min. 2 molar sockets (slightly grey) – **joins anterior fragment in spit 5B**.
Vault; 5 small fragments.
AXIAL SKELETON: T/L body fragment; articular process fragment.
S: small fragment auricular surface.
Rib; shaft fragment.
Innominate: fragment acetabulum with ischial tuberosity. Fragment acetabulum.
UPPER LIMB: Humerus; head fragment. Shaft fragment.
Ulna; shaft fragment.
MtC head fragment.
LOWER LIMB: Fragments femur (2), tibia (1) & fibula (1) shaft.
?Navicular , 1^{st} MtT base with shaft fragment.
MISC: 2 small fragment poss. animal.
QB:
SKULL: Vault; 5 small fragments.
AXIAL SKELETON: Rib; 3 small fragment.
Acetabulum fragment.
UPPER LIMB: Scapula; small fragment spine.
Humerus; 2 fragments shaft. Distal articular surface fragment.
Fragments radius (3) & ulna (1) shaft.
MtC shaft fragment. Prox Phal b&s fragment (slightly grey).

LOWER LIMB: Femur; 7 fragments shaft (one slightly blue inside).
Cuboid fragment. Fragments min. 1 1st MtT head & shaft fragments; MtT b&s fragment (?5th).
MISC: ?animal
QC:
SKULL: Fragments small Max. molar root.
Vault; 3 small fragments.
AXIAL SKELETON: Rib; 6 small fragments shaft.
UPPER LIMB: Fragments humerus (2), radius (1) & ulna (1) shaft.
MtC shaft fragment. P/M phal h&s fragment.
LOWER LIMB: Femur; 8 fragments shaft (one with moderate linea aspera).
Cuboid fragment. MtT shaft fragment.
QD:
SKULL: Small fragment sphenoid. Fragment articular tubercle. Fragment upper mastoid.
Vault; 6 small fragments.
AXIAL SKELETON: Rib; 3 small fragments shaft.
UPPER LIMB: Humerus shaft fragment.
Radius; distal shaft & articular surface fragment (?left).
Middle phal h&s fragment.
LOWER LIMB: Femur; 4 fragments shaft.
Tibia; fragment proximal condyle.
Prox. phal base fragment.

Spit 3:
QA:
SKULL: Right nasal process, short & gracile.
Vault; 4 small fragments.
AXIAL SKELETON: Fragments of C (2), T (1) & L (1) articular processes.
UPPER LIMB: Radius; fragment head & neck (med-large; **see join below**); 2 fragments shaft.
LOWER LIMB: Fragments femur (4) & tibia (1, robust) shaft.
QB:
SKULL: Vault; 9 small fragments.
AXIAL SKELETON: L; articular process L; articular process fragment; transverse process fragment.
S: fragments auricular surface.
Rib; 6 small fragments shaft.

Innominate; fragment ischial crest.

UPPER LIMB: Scapula; fragment left acromion neck.

Fragment humerus (1) & radius (2, 1 with b/g spot staining) shaft.

LOWER LIMB: Femur; 2 fragments shaft. Distal articular surface fragment.

Tibia; fragment robust shaft.

Fragments talus & cuboid. MtT shaft fragment.

QC:

SKULL: Mandible – labial fragment left distal body with min. 2 molar sockets (slightly grey).

Vault; 5 small fragments.

AXIAL SKELETON: Rib; 5 small fragments shaft.

UPPER LIMB: Radius; 3 fragments shaft.

LOWER LIMB: Fragments femur (3) & tibia (1)shaft.

MtT b&s fragment

QD:

SKULL: Max. P1 root fragment.

Fragment supra-orbital with foramen & narrow margin **joins right fragment in Spit 1B**. Fragment lateral right frontal also **joins that in Spit 1B**.

Mastoid fragment.

Vault; 7 small fragments thin.

AXIAL SKELETON: T/L body fragment.

T articular process fragment.

Rib; 3 small fragment shaft.

UPPER LIMB: Radius; 2 fragments shaft.

Med-large right pisiform fragment. MtC head fragment.

LOWER LIMB: Femur; 4 fragments shaft.

Tibia; fragment proximal condyle.

Fibula; shaft .

Prox phal h&s fragment.

Spit 4:

QA:

SKULL: Vault; 8 small fragments. 1a = 3.9mm

AXIAL SKELETON: Atlas; small anterior arch with small facet,. slight marginal osteophytes (grey).

Innominate; fragment iliac crest. Acetabulum fragment.

UPPER LIMB: Clavicle; small fragment medial articular surface, some slight

pitting/modification.

Scapula; very small fragment acromion neck.

Ulna; shaft fragment.

Middle phalanx h&s fragment.

LOWER LIMB: Femur; 4 fragments shaft. Distal articular surface fragment.

Fragments tibia & fibula shaft.

QB:

SKULL: Mandible – right anterior ramus fragment with foramen (one b/g spot stain).

Superior portion right malar process (medium). Styloid process. Mastoid fragment.

Vault; 3 small fragments.

AXIAL SKELETON: T articular process fragment.

L; articular process . Lamina fragment.

Rib; 2 fragments shaft.

Innominate; acetabulum fragment.

UPPER LIMB: Humerus; 4 fragments shaft.

Fragment large right trapezoid. 1st MtC h&s fragment. P/M phal h&s fragment.

LOWER LIMB: Fragments femur (2) & fibula (1) shaft.

Prox. phalanx base (?1st).

QC:

SKULL: Vault; 7 small thin fragment.

AXIAL SKELETON: Rib; 2 small fragments.

UPPER LIMB: Distal phalanx

LOWER LIMB: Fragment femur (10) & fibula (2) shaft.

MtT shaft fragment (1st).

QD:

SKULL: Tooth root fragment.

9 fragments vault;

AXIAL SKELETON: C; small fragment body & articular process.

Rib; 6 small fragment shaft.

UPPER LIMB: Ulna; prox articular surface fragment.

Fragment large rigth scaphoid.

2 fragments MtC shaft. Prox phal shaft fragment. Middle phal h&s fragment.

LOWER LIMB: Femur; 2 fragments shaft.

MtT b&s fragment. Prox phal h&s fragment.

Spit 5

QA:

SKULL: Maxilla – fragment with min. 2 sockets.

Spheroid fragment. Frontal fragment with sinuses & crest.

Vault; 8 small fragments.

AXIAL SKELETON: C – linea fragment.

T' articular process fragment.

Rib; 3 small fragments shaft.

UPPER LIMB: Humerus; fragment head. 3 fragments shaft. Distal articular surface fragment.

MtC head . Distal phal h&s fragment,

LOWER LIMB: Femur; 10 fragments shaft, rugged linea aspera on one.

Tibia shaft fragment.

Fragment ?cuboid. MtT shaft fragment. Prox phalanx shaft fragment.

QB:

SKULL: Very small ?3rd man. molar root.

Mandible – anterior right body fragment with spine, I1-P2 sockets (**joins above**; slightly grey). Fragment narrow ?posterior ramus border.

Volmer.

Vault; 11 fragments, sutures fused (?coronal)

AXIAL SKELETON: Sacrum; foramen & lower auricular surface fragment.

Rib; 4 small fragments shaft.

UPPER LIMB: Humerus; 2 fragments shaft.

Fragment large right lunate. 1st MtC head fragment; shaft fragment. Middle phal shaft fragment.

LOWER LIMB: Femur; 5 fragments shaft inc. right neck & one with robust/rugged linea aspera.

Tibia; small fragment proximal condyle **?joins 7C**

QC:

SKULL: mandibular ?P root. Fragment root apices.

Mandible – short, blunt right coronoid process **joins 12A**.

Vault; 8 small fragments.

AXIAL SKELETON: C; body fragment with articular process pair.

T; articular process fragment.

Rib; 4 small fragments shaft.

UPPER LIMB: Clavicle; gracile shaft fragment. ?medial articular surface fragment.

Scapula; glenoid fragment.

Humerus; shaft fragment (distal). Distal articular surface fragment.

Radius; shaft fragment.

MtC shaft fragment. 2 distal phalanges b&s fragments(inc. 1st?).

LOWER LIMB: Femur; 3 fragments shaft. Distal articular surface fragments.
QD:
SKULL: Root fragment
Vault; 2 fragments.
AXIAL SKELETON: ?L/S articular process fragment.
UPPER LIMB: Fragments humerus & radius shaft (blue inside).
Ulna fragment ?right sigmoid surface.
LOWER LIMB: Femur shaft fragment.
MtT b&s fragment.

Spit 6
QA:
SKULL: Tooth root fragment.
Vault 6 fragments.
AXIAL SKELETON: Atlas; fragment right articular surfaces (small). Axis; odontoid process (slight osteophytes facet margins).
L: articular process fragment.
Rib; 3 fragments shaft.
Innominate; acetabulum fragment,.
UPPER LIMB: Humerus; shaft fragment. Distal articular surface fragment.
Fragments radius & ulna shaft.
LOWER LIMB: Fragments femur (4) & fibula (2) shaft.
Tibia; fragment proximal condyle.
MtT b& s fragment.
QB:
SKULL: Tooth root fragment.
Fragment basal occipital. Mastoid fragment.
Vault; 3 small fragments.
AXIAL SKELETON: C; spine fragment.
Rib; 4 small fragments shaft.
UPPER LIMB: Humerus 3 fragments shaft. Distal articular surface fragment.
Radius; 4 fragments shaft.
MtC shaft fragments (2). head fragment.
LOWER LIMB: Fragments femur (3) & fibula (1) shaft.
QC:
SKULL: Sphenoid fragment.
Vault; 5 fragments.

AXIAL SKELETON: T; articular process.

T/L; body fragment.

L; spinal process fragment.

Rib; shaft fragment.

UPPER LIMB: Humerus; 6 fragments shaft. Distal epicondyle fragment.

MtC head.

LOWER LIMB: Femur; 6 fragments shaft.

Tibia; condyle fragment. Shaft fragment (slightly grey inside).

2 MtT b&s fragments (inc. 1st).

QD:

SKULL: Maxillary right M2/3 root (small). C/P root fragment.

Mandible – labial inferior anterior border. Left bucco distal body fragment with min. 1 socket. Left condyle & neck? ... gracile appearance with deep central groove in anterior aspect creating appearance of double facet.

Fragment mastoid process.

Vault; 2 fragments.

AXIAL SKELETON: Innominate; fragment iliac crest.

UPPER LIMB: Fragments radius (2) & ulna (1) shaft.

1st proximal phalanx h&s fragment.

LOWER LIMB: Femur; 4 fragments shaft.

Tibia' condyle fragment.

Spit 7:

QA:

SKULL: Vault 9 fragments, sutures fused. 1a =3.3mm

AXIAL SKELETON: Rib; 5 small fragments shaft.

UPPER LIMB: Humerus; 3 fragment shaft. Distal articular surface fragment.

Radius; small fragment head (**joins 3A**).

Trapezoid fragment.

LOWER LIMB: Fragments femur (2) & tibia (1) shaft.

Small fragment navicular. 1st MtT head fragment.

QB:

SKULL: Tooth root fragment.

AXIAL SKELETON: Rib; 2 small fragments shaft.

LOWER LIMB: Fragments femur (2)& fibula (1) shaft.

1st distal phalanx h&s fragment; ?left 5th h&s fragment.

QC:

SKULL: tooth root fragment.
Vault; 5 small thin fragment.
AXIAL SKELETON: C; articular process C; articular process fragment.
Rib; 7 small fragment shaft.
UPPER LIMB: Scapula; spine fragment.
Humerus; head fragment. 4 fragments shaft.
Ulna; shaft fragment.
MtC base fragment.
LOWER LIMB: Femur; 3 fragments shaft. Distal articular surface fragment.
Tibia; condyle fragment.
1st MtT b&s fragment. 1st prox phalanx. Proximal phalanx h&s fragment.
QD:
SKULL: root fragment.
Vault; 5 small fragments.
AXIAL SKELETON: C/T; body fragment.
L; articular process fragment.
Rib; 6 fragments shaft.
UPPER LIMB: Fragments radius (2) & MtC (1) shaft.
LOWER LIMB: Fragments femur (3,one with b/g spot stain) & fibula (3, one with slight enthesophytes one side) shaft.
Fragments left calcaneum & navicular (med/large). Prox phalanx h&s fragment.

Spit 8;
QA:
SKULL: Fragment petrous temporal (dorsal ...?left).
Vault fragment.
AXIAL SKELETON: C/T body fragment. Fragment articular process.
Rib; 2 fragments shaft.
UPPER LIMB: Fragments humerus, radius, ulna & MtC shaft.
LOWER LIMB: Fragments femur (3) & tibia (1)shaft.
1st MtT h&s fragment.
QB:
SKULL: Root fragment.
Fragment mastoid process. Vault fragment.
AXIAL SKELETON: Rib shaft fragment.
Innominate; greater sciatic notch fragment – angle unclear.
UPPER LIMB: Radius shaft fragment.

Fragment left scaphoid. MtC shaft fragment. Middle phalanx h&s fragment.
LOWER LIMB: femur; 5 fragments shaft.
Talus fragment. MtT shaft fragment.
QC:
SKULL: Mandible – fragment anterior/inferior ramus border (narrow).
Vault; 5 fragments.
AXIAL SKELETON: Rib; shaft fragment.
UPPER LIMB: Scapula; right acromion neck fragment (most but parts absent)
Humerus; distal articular surface fragment.
Radius; fragment distal articular surface. 3 fragments shaft.
Proximal phalanx h&s fragment.
LOWER LIMB: Femur; 6 fragments shaft. Distal articular surface fragment.
Patella; medial portion right, Vastus notch, slight enthesophytes.
Tibia; small fragment condyle.
Fragment right navicular; 1st MtT h&s fragment. Sesamoid bone.
QD:
SKULL: small fragment ?mandibular P crown with flat occlusal polish (no dentine).
P root fragment. Root apices fragments.
Vault; 7 small fragments.
AXIAL SKELETON: C articular process fragment.
T; spinal process.
Rib; 7 fragments shaft.
UPPER LIMB: Scapula; glenoid fragments.
Humerus; head fragment. 2 fragments shaft.
Distal phalanx h&s fragment; shaft fragment; 2 b&s fragments.
LOWER LIMB: Femur; shaft fragment.
Fibula; shaft fragment. fragment large/medium left distal h&s.
MtT shaft fragment. Prox phalanx b&s fragment. Sesamoid bone.

Spit 9:
QA:
SKULL: 2 fragments vault.
AXIAL SKELETON: C articular process fragment,
Rib; 2 fragments shaft
UPPER LIMB: Femur; head fragment.
Fragments tibia & fibula shaft.
QB:

SKULL: Small left max. M3 root.
Small fragment dorsal portion petrous temporal.
Vault; 4 fragments.
AXIAL SKELETON: Rib; 3 small fragments shaft.
UPPER LIMB: fragments humerus (3, 1 grey) & radius (2) shaft.
LOWER LIMB: Femur; fragment distal articular surface.
Fibula; shaft fragment.
QC:
SKULL: Fragments tooth root.
Vault; 2 fragments (thin).
AXIAL SKELETON: Atlas = dorsal arch fragment. C - articular process fragment.
Rib; 2 fragments shaft.
UPPER LIMB: Fragments humerus (2) & radius (1, b/g spot staining) shaft.
Small fragment capitate. MtC b&s fragments; shaft fragment.
LOWER LIMB: Femur; 4 fragments shaft.
Prox phalanx b&s fragment.
QD:
SKULL: Small fragment enamel – flat occlusal wear. P root fragment.
Large part left petrous temporal & fragment (W1 = 12.8mm).
Vault; 5 fragments, sutures min. half fused.
AXIAL SKELETON: T – articular process fragment.
UPPER LIMB: Clavicle shaft fragment.
Humerus; 4 fragments shaft. Distal articular surface fragment.
Radius; shaft fragment. Distal articular surface fragment.
Ulna shaft fragment.
Carpal fragment – hamate or lunate? MtC shaft fragment.
LOWER LIMB: Femur; 3 fragments shaft, one with marked linea aspera.
MtT b&s fragments(inc. part 1st) & shaft fragment.

Spit 10:
QA:
UPPER LIMB: Prox phalanx h&s fragment.
LOWER LIMB: Femur; shaft fragment.
QB:
AXIAL SKELETON: Axis dorsal arch.
UPPER LIMB: Humerus; distal articular surface fragment.
LOWER LIMB: Femur; shaft fragment.

Patella; lateral surface
QC:
SKULL: Styloid process.
Vault; 2 small fragments.
AXIAL SKELETON: Atlas; dorsal arch fragment.
Rib; 4 small fragments shaft.
UPPER LIMB: Clavicle; shaft fragment (robust).
Ulna; small right olecranon & sigmoid surface. Shaft fragment.
LOWER LIMB: Femur; 3 fragments robust shaft.
MtT h&s fragment.
QD:
SKULL: molar root fragments.
AXIAL SKELETON: Fragments T & L spinal processes.
S: auricular surface fragment.
Rib: 3 small fragments shaft.
UPPER LIMB: Humerus; head fragment. Distal articular surface fragment.
Radius 3 fragments shaft.
LOWER LIMB: Femur; 3 robust shaft fragments.
Patella anterior surface fragment.

Spit 11:
QB:
SKULL: 2 small fragments vault.
AXIAL SKELETON: Rib; small fragment shaft.
UPPER LIMB: Distal phalanx minus base.
LOWER LIMB: Robust femur shaft fragment.
QC:
SKULL: Maxilla – right anterior palate with I1-M1 sockets.
Most left supra-orbital with narrow margins & slight medial ridge (2).
Vault 2 small fragments.
AXIAL SKELETON: C articular process fragment.
Rib; 3 fragments shaft.
LOWER LIMB: Femur; 3 fragments shaft one with marked linea aspera with moderate enthesophytes. Fragment greater trochanter.
MtT shaft fragment. Distal phal (?1st) h fragment.
QD:
SKULL: small root fragment.

Fragment right malar body.

2 fragments vault.

AXIAL SKELETON: Rib; 2 small fragments shaft.

UPPER LIMB: Humerus; 3 fragments shaft.

Ulna; fragment large distal head with slightly modified styloid process (bit flattened but no eburnation/pitting/osteophytes).

LOWER LIMB: Femur; 2 fragments shaft.

Small fragment ?navicular.

Spit 12

QA:

SKULL: 2 I/P root & fragment maxillary molar root.

Mandible – right distal body with 2 molar sockets & part of coronoid process **(joins 5C)**.

Small fragment glabella. Fragment articular tubercle – could = that in 1B

Vault; 11 fragments.

AXIAL SKELETON: Fragments C,T & L articular processes. T spinal process.

Rib; 6 fragments shaft.

UPPER LIMB: Fragments humerus (4), radius (2) & ulna (1) shaft.

MtC head fragment. 3 prox phalanges h&s fragments & 1 middle.

LOWER LIMB: Femur; 12 fragments shaft, one with marked linea aspera. Distal articular surfaces.

Patella; fragment left lateral.

Fragments tibia (1) & fibula (3) shaft.

Fragments intermediate cuneiform. 2 MtT b&s fragments.

QB:

SKULL: Maxillary molar root fragment.

Mandible – fragment right condyle & neck.

Left zygomatic tubercle. Right petrous temporal & superior mastoid area; W1 = 10.0mm. Fragment occipital condyle.

Vault;12 fragments, 1a = 4.3mm

AXIAL SKELETON: Atlas; posterior arch fragment. Axis; rigth superior articular surface fragment. C – fragment body & articular process pair.

T; articular process fragment.

T/L body fragment.

L; articular process fragment.

S; 1st articular process fragment.

Rib; 10 fragments shaft inc. one with facet – slight pitting in surface.

UPPER LIMB: Fragments humerus (4) & radius shaft.
Ulna; 2 fragments shaft. medium distal h &s fragment.
Large right hamate hook. ?triquetral fragment. Prox & M phalanges shaft fragment. Distal phalanx.
LOWER LIMB: Femur; 9 fragments shaft,. one with mod. marked linea aspera. Distal articular surface fragment.
Patella; central portion
Fragments tibia (2), fibula (2) & MtT shaft.
QC:
SKULL: Mandible – small fragment anterior right lingual body with min. 3 sockets **joins fragment in spit 3C** (differential oxidations).
Short left malar process. Right external auditory meatus margin & postglenoid tubercle.
Vault fragment.
AXIAL SKELETON:C fragment left half small body with mild marginal osteophytes & articular process. Spinal process. Fragment articular process.
Rib; 5 fragments shaft.
UPPER LIMB: Humerus; 5 fragments shaft. Distal articular surface fragment.
Radius; 3 fragments shaft.
Ulna; fragment left sigmoid surface.
MtC shaft fragment.
LOWER LIMB: Femur; 6 fragments shaft.
Fibula; fragment large left distal head. Shaft fragment.
Lateral cuneiform fragment.
QD:
SKULL: Small fragment malar body. Small fragments from petrous temporal/mastoid area.
Vault; 7 fragments.
AXIAL SKELETON: Fragments C & T articular processes.
Rib; 3 fragments shaft, one with facet.
Innominate; acetabulum fragment.
UPPER LIMB: fragments humerus (6), radius (3) & ulna (2) shaft.
?small fragment distal ulna head & shaft.
Distal phalanx base fragment.
LOWER LIMB: Femur; 9 fragments shaft (one with marked linea aspera).
Tibia; condyle fragment. Shaft fragment.
Fibula; shaft fragment.
MISC: small fragment? Small animal bone; with poss. degraded cut mark? 0.3g

Quads A/C

SKULL: Vault 2 small fragments.

AXIAL SKELETON: C/T body fragment.

S – 1st articular process fragment.

Rib; 4 fragments shaft.

UPPER LIMB: M phalanx head.

Quads B/D

SKULL: Vault fragment, mastoid area.

'General debris' (loose material from site – i.e. spillage from neck area)

AXIAL SKELETON: Rib; 2 small fragments shaft.

UPPER LIMB: Radius shaft fragment.

'loose in tray'

SKULL: Vault fragment.

AGE: adult 30-40 yr.

SEX: contradictory traits … ??female