East Chisenbury Midden
Salisbury Plain, Wiltshire

Archaeological Evaluation Report

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wessexarchaeology

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Summary

Wessex Archaeology was commissioned by Defence Infrastructure Organisation to undertake a trial trench evaluation at East Chisenbury midden, Salisbury Plain, Wiltshire, centred on National Grid Reference (NGR) 414600 153250. Evaluations in September 2016, comprising approximately 100 m of trenching and two test-pits, have added significantly to our understanding of this enigmatic Late Bronze Age/Early Iron Age site, particularly when considered alongside the results of earlier fieldwork.

The preceding gradiometer survey confirmed the existence of a large, roughly oval-shaped enclosure, approximately 7 ha in extent, its precise limits to the south-west unclear. In this area the presence of tree and scrub cover restricted the survey, though it appears that the formation of later, substantial lynchets on the west side may have obliterated all traces of the enclosure ditch here. The midden, as visible in the field and defined in extent by earlier augering, appears to lie within the enclosure, but this was not demonstrated by the gradiometer survey, which did not show the midden material with any clarity.

The enclosure ditch was shown to be a substantial feature up to 11 m wide (including the shallow step or berm on the inside) and 1.8 m deep. There were few finds from the ditch, but late Romano-British pottery came from a probable turf line near the top of the ditch. The inner bank was still visible in places as a very slight earthwork, particularly to the north where its presence was also confirmed by excavation.

In addition to the enclosure ditch, the other principal discovery in 2016 was the evidence for contemporary settlement within the enclosure but beyond the limits of the midden, represented by approximately 30 post-holes, many relatively substantial and some with flint post-packing. Although no coherent building plans were apparent within the narrow trench, it is clear that more than a single phase of possibly multiple structures was represented. A discrete deposit of animal bone and several fragments of human skull lay adjacent to one post-hole, and a small pit containing the base of a pottery vessel was found in the same area. At least two other areas of enhanced magnetic response evident on the gradiometer survey may also represent foci of settlement, and investigation of one of these revealed a spread of occupation debris but no certainly contemporary structural features.

Very limited investigation on the north side of the midden itself produced fewer finds than anticipated from the metre or so depth of deposits present, and there were no chalk surfaces within it or structural features beneath, though the significance of this is uncertain. This contrasts with the quantity of finds from the south side, both from badger upcast and previous investigations, where structural remains were also encountered within and beneath the midden.

Overall, the range of artefactual material was consistent with previous work, with important assemblages of pottery and animal bone, and smaller but significant groups of worked flint and stone, human bone and worked bone. A small, possibly anthropomorphic copper alloy ‘pendant’ from the base of the midden is currently without parallel. Contrary to previous evidence, the animal bone from 2016 suggests that cattle were intensively managed and that the animals were

slaughtered on rather than off site, perhaps reflecting different activities in the different parts of the enclosure investigated. The charred plant remains are consistent with the Late Bronze Age/Early Iron Age chronology of the site, though mineralised remains survived relatively poorly.

Together, the size and extent of the ditch and associated bank, combined with the topographically prominent location of the Late Bronze Age/Early Iron Age enclosure, confirm the East Chisenbury midden site as a significant monument within the landscape. With views into and beyond the Avon valley to the west, and into the more distant Vale of Pewsey to the north-west, the enclosure could have been utilised for defence as well as serving as a tribal centre, meeting and feasting place, with evidence for broadly contemporary settlement extending beyond the limits of the midden within the enclosure.

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Acknowledgements

We would principally like to thank all the ex-servicemen and servicewomen who took part in the East Chisenbury midden investigation and made it such a success. In particular, Richard ('Dickie') Bennett of Breaking Ground Heritage, who provided much logistical support throughout the two weeks on site, Jason Butler, Steuart Bowman, Chris Boyd, Tim Darch, Matthew Dight, Nick George, Joanne Good, Stuart Grey, Kevin Holmes, Owen Hughes, Phil Kimber, Rachel Malatacca, Matt Smith, Rob Steel and Rachel Willis.

The Ministry of Defence granted permission for the excavation to take place, and the programme of archaeological work was generously supported through Conservation Stewardship funds obtained by Richard Osgood (Senior Archaeologist, Defence Infrastructure Organisation). Landmarc administered the funds for the excavation and post-excavation work and Tom Theed and Clare Rayward helped with several matters in this and other respects.

The fieldwork strategy was developed by Richard Osgood, who obtained all the necessary consents, Phil Andrews and Dave Norcott (Wessex Archaeology), whilst Melanie Pomeroy-Kellinger approved the work on behalf of Wiltshire Council.

The excavation was directed by Phil Andrews, with invaluable assistance from Dave Murdie and Briony Lalor, whilst Dave Norcott and Inès Lopez-Doriga led the digging of the test pits on the midden itself, as well as co-ordinating the environmental sampling. We are also very grateful to Richard Madgwick (Cardiff University) for helping with the midden work and advising on the animal bone, and Wendy Carruthers and Ruth Pelling for advice on the charred and mineralised plant remains.

In addition, a number of people gave freely of their time, including Kathy Garland, Jayne O'Connell, Neil Reading, Lisa Miller, Jan Oke, Carlos Rocha, Janine Peck, Dudley Staniforth and Jamie Wright, and together they helped us achieve somewhat more than originally anticipated, and we are especially grateful for their support. Last but not least, the constant flow of finds was looked after by Briony Lalor and Katie Marsden, who ensured that everything was bagged, labelled and didn't go astray.

During the course of the fieldwork useful discussions were had with Dave McOmish, Paul Tubb and Giles Woodhouse on a variety of midden-related and other matters. Briony Storm's pottery making sessions provided a popular and instructive attraction, and the blacksmithing and Iron Age food demonstrations were much appreciated by all.

The geophysical survey was carried out by Diana Chard, Nicholas Crabb, Rebecca Hall, Elizabeth Richley, Alistair Salisbury and Jennifer Smith, the report prepared by Nicholas Crabb and the survey managed by Lucy Learmouth.

The finds were dealt with subsequently at the offices of Wessex Archaeology by a dedicated team of volunteers, and we are grateful for all their help in this respect. Rachel Brown (Wessex Archaeology) set up and looked after this part of post-excavation work, as well as helping with

publicity for the project. The bulk samples were processed by Tony Scothern, Richard Scurr, Inés López-Dóriga and Janet Oke, and the flots sorted by Nicki Mulhall.

This report has been prepared by Phil Andrews and Dave Norcott, incorporating contributions by Phil Harding (worked flint), Matt Leivers (prehistoric pottery), Rachael Seager Smith (Romano-British pottery and other finds), Lorraine Mepham (other finds), Kirsten Egging Dinwiddy (human bone), Lorrain Higbee (animal bone) and Inés Lopez-Doriga (plant remains). The illustrations are by S E James. The project was managed on behalf of Wessex Archaeology by Phil Andrews.

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1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology (WA) was commissioned by Defence Infrastructure Organisation (DIO) to undertake archaeological investigations on a large Late Bronze Age/Early Iron Age midden site at East Chisenbury, Wiltshire. The midden is centred at National Grid Reference (NGR) 414600 153250 on the Salisbury Plain Training Area (SPTA) and is hereafter referred to as 'the Site' (**Figure 1**). The investigations comprised targeted excavation of several elements of the Site beyond the defined limits of the midden, limited excavations on the midden itself, and finds recovery from midden material unearthed by badgers. In addition and prior to the excavations, geophysical (gradiometer) survey of the midden and its immediate surroundings was undertaken.

1.1.2 The excavations were carried out in conjunction with the DIO as part of Operation Nightingale with logistical and other support from Breaking Ground Heritage [BGH].

1.1.3 The fieldwork was undertaken from 19th to 30th September 2016.

1.2 The Site

1.2.1 The site of East Chisenbury midden is located towards the northern limits of Salisbury Plain, at a height of 143 m aOD, some 600 m north-east of the village of East Chisenbury and 12 km north of Amesbury (**Figure 1**).

1.2.2 The midden mound itself is monumental in scale, and forms a noticeable hill at the end of the chalk spur upon which it sits. It has been shown to be up to 3 m deep and covers an area approximately 150 m in diameter (Wessex Archaeology 2008).

1.2.3 The western side of the site is defined by a complex of lynchet features, thought to post-date the midden (McOmish 1996).

Location and geology

1.2.4 The monument sits on a spur of Upper Chalk geology which protrudes on a north-east to south-west alignment into the valley of the River Avon, some 3 km south of and providing panoramic views over the Vale of Pewsey.

1.2.5 Clay-with-Flints has been recorded beneath the monument in previous investigations (McOmish 1996; Norcott 2006) but is not mapped in the immediate area by the British Geological Survey (sheet 266). The area generally supports thin calcareous rendzina soils.

1.3 Archaeological background

Late Bronze Age/ Early Iron Age middens

1.3.1 In relatively recent years a number of sites of a previously unrecognised type have been discovered in and around the Vale of Pewsey, Wiltshire, of which that at East Chisenbury is one of the best examples.

1.3.2 These sites have been referred to as 'middens', which archaeologically speaking isn't precisely accurate (as pointed out by, for example, Needham and Spence 1996), but which seems to have become a commonly used descriptive term so will be used here also.

1.3.3 These sites all share similar characteristics: they date from the Late Bronze Age/Early Iron Age; are composed of dark, seemingly organic deposits; and are extremely rich in artefacts. These deposits are generally very extensive – for example here at East Chisenbury the deposits were found to be up to 2.7 m deep, covering several hectares and with a remaining volume of approximately 50,000 cubic metres (Norcott in McOmish *et al.* 2010).

1.3.4 They seem to represent a chronologically and functionally discrete phenomenon in later prehistoric society, but despite some detailed analyses, they are still poorly understood in terms of formation processes and function.

1.3.5 The sites also share similarities with others throughout southern England; broadly contemporary extensive 'dark earth' type deposits have been investigated at Runnymede Bridge, Berkshire (Needham and Spence 1996) and Brean Down, on the Somerset coast of the Severn Estuary (Bell 1990). Very recently potentially similar sites have been discovered even further afield, at Llanmaes in Glamorgan and Whitchurch in Warwickshire.

1.3.6 Although work on these sites is by no means extensive, results from Potterne (Lawson 2000), East Chisenbury (McOmish *et al.* 2010), All Cannings Cross and Stanton St Bernard (Barrett and McOmish forthcoming) suggests that the Wessex midden sites (and potentially similar sites further afield) share a common factor in the package of activities which lead to the build-up of large quantities of material. These activities certainly included animal husbandry (likely very intensive in nature), and conspicuous consumption/feasting on a grand scale.

1.3.7 Small-scale excavations carried out in the southern part of the midden at East Chisenbury revealed chalk 'floors' within and hearths and a series of post- and stake-holes at the base of the deposit. The evidence suggests that the midden is likely to have accumulated between 850–600 BC and that a substantial component of the site comprised disposed domestic rubbish (McOmish 1996; McOmish *et al*. 2002, 68; McOmish *et al*. 2010).

1.3.8 No subsequent excavation has been undertaken at East Chisenbury, in part because of the very large number of finds likely to be recovered and, therefore, the time and cost required to process and report on them. However, on several occasions since 2010 small-scale finds recovery exercises have been undertaken, under the aegis of Operation Nightingale and JET (the John Egging Trust), to recover finds from the upcast created by badgers burrowing in the midden. In addition, several test pits dug in the woodland immediately to the south-west in 2015 produced later prehistoric material as well as some Roman finds.

1.3.9 A study of these midden sites conducted as part of a post-graduate dissertation (Norcott 2006) suggested that geophysical survey of them (and possible subsequent targeted excavation) would be a useful first step in understanding the middens in their immediate context.

1.3.10 A large sub-circular or oval enclosure immediately surrounds − and is possibly partially overlain by – the midden itself, although no formal investigation has previously been carried out upon the generally slight earthwork that survives (McOmish *et al*. 2002, fig. 3.8). The absolute chronological relationship between this enclosure and the midden remains unresolved (McOmish *et al*. 2010), however, it is possible that this embanked enclosure may also be associated with a settlement. A contemporary adjacent settlement does seem to have existed at the considerably smaller midden site at Westbury (Wessex Archaeology 2004).

1.3.11 Located to the north-west of the midden are a number of well-preserved strip lynchets (Monument No. 220476). It has also been suggested that six linear ditches and a pit alignment converge on the midden itself (McOmish *et al*. 2002, 58).

Geophysical survey

1.3.12 A gradiometer survey was undertaken between December 2015 and January 2016, the results of which are summarised below. The principal aim of this was to establish the presence, or otherwise, of detectable archaeological features on and around the site of East Chisenbury midden

1.4 Research questions

1.4.1 There is a great deal left to learn about these enigmatic sites, but examples of some of the main questions to address at East Chisenbury are:

- Was the midden built up *in situ* by occupation/animal husbandry or other activity, or does it represent transported and dumped deposits?
- What activities are indicated by the artefactual and environmental evidence from the deposits?
- What is the relationship of the midden to the enclosure shown in the previous earthwork and geophysical surveys?
- Is there evidence for contemporary archaeological activity away from the midden itself, either internally or externally to the enclosure ditch?
- Is there evidence of exploitation of the midden as a horticultural resource?
- Are the deposits revealed in the previous small-scale excavations typical of the midden as a whole?
- Are there archaeological settlement features within or below the midden, as suggested by previous excavations?
- What is the distribution and function of the ‘chalk floors’ thought to be present within the midden?
- What is the geographical origin of the livestock remains at the site? Are there indications of non-local animals being brought to the site?

1.4.2 This list is by no means exhaustive, but is intended to provide an indicative framework. It is anticipated that the proposed works will address some of these questions, and allow others to be refined.

2 AIMS AND OBJECTIVES

2.1 General aims and objectives

2.1.1 The Site is under consideration for designation by Historic England. As such, there is a requirement to establish the nature of surviving deposits and provide the DIO with cultural heritage data on the Site which will enable them to consider any designation aspirations and facilitate future required management regimes of the area.

2.1.2 The investigations are also to provide an important opportunity for Breaking Ground Heritage to involve injured service personnel and oversee associated logistics in a professional archaeological project.

2.1.3 The general aims of the investigations are thus listed as follows;

- To determine the presence or absence of archaeological remains, and ensure their preservation by record to the highest possible standard;
- To confirm the approximate date or date range of the remains, by means of artefactual or other evidence;
- To determine the condition and state of preservation of the remains;
- To determine the degree of complexity of the horizontal and/or vertical stratigraphy present;
- To prepare an excavation report on the archaeological investigations;
- To relate the archaeological results to their local, county and regional context; and
- Provide a suitable project for Breaking Ground Heritage, in that the technical and social skills involved in field archaeology are similar in various ways to those required by the modern soldier, and involvement in the East Chisenbury midden project can help in the recovery and skill development (through the Archaeology Skills Passport) of service personnel injured in conflict.

3 METHODOLOGY

3.1 Health and Safety

3.1.1 Health and Safety considerations were of paramount importance in conducting all fieldwork. Safe working practices overrode archaeological considerations at all times.

3.1.2 The Site was never a live firing template, and no ordnance was found during the course of the excavations.

3.1.3 Appropriately trained first-aid and mental health staff were present on Site.

3.1.4 All work was carried out in accordance with the Health and Safety at Work etc. Act 1974 and the Management of Health and Safety Regulations 1992, and all other relevant Health and Safety legislation, regulations and codes of practice in force at the time.

3.2 Geophysical survey

3.2.1 No specific area was designated for geophysical survey, but in the winter of 2015 members of the WA geophysics team undertook a gradiometer survey which covered the midden itself and a significant area around and beyond it. In total the survey covered approximately 13.91 ha, extending across various areas of what is now rough open pasture but avoiding several tracks, fences and scrub or woodland (**Figure 1**). Full details of the survey, including methods, results and interpretation, can be found in a separate report on this work (WA 2016b).

3.2.2 The anomalies identified as being of archaeological interest were primarily ditch- and pit-features. The most notable feature was a large curvilinear ditch that encompasses the midden, though the full circuit could not be determined due to the presence of areas of trees and scrub, and no entrances were apparent. There was also evidence for at least one Wessex Linear ditch as well as several complex areas of possible archaeological responses, both within and beyond the probable enclosure ditch, perhaps reflecting settlement activity. Areas of increased magnetic response may also be indicative of areas of archaeological activity.

3.2.3 The midden 'mound' area was also surveyed but the results are notable for the absence of definable archaeological features (two partially complete concentric circles of discrete anomalies reflect modern posts defining and protecting it). Given the nature of the deposits that form the midden, rubbish deposition over a number of years to a height of approximately 3 m, and the nature of the archaeological features underlying the midden − scatters of post-holes and hearths, it is not surprising to see little in the gradiometer results. The range of a gradiometer is between 2−3 m in ideal conditions and, therefore, it is likely that archaeological remains are present in this area but lie beyond the detection range of the gradiometer.

3.2.4 Approximately 150 m north-west of the midden were two parallel linear ditch-like features, tentatively suggested to be part of a larger 'Wessex Linear' system probably dating to the Late Bronze Age–Early Iron Age. Their alignment corresponds with pit and ditch features recorded approximately 100 m to the south-east during a watching brief some years ago when the hard track on the west side of the midden was constructed.

3.2.5 In addition to this, several anomalies identified as being of possible archaeological interest were revealed, these most likely representing former field boundaries as well as evidence for historic cultivation.

3.3 Excavation

3.3.1 The methodology for excavation is set out in more detail in the WSI (WA 2016a), and all works were carried out in accordance with the CIfA's *Standard and guidance: archaeological excavations* (CIfA 2014a), except where superseded by statements made below.

3.3.2 Excavations were supervised by professional archaeologists and undertaken by a team comprising serving or ex-military personnel as well as members of the local community.

3.3.3 The proposed investigations comprised five excavation areas, four of them trenches 1.8 m wide opened by machine, trench 1 at 60 m long, trench 2 at 35 m long and trenches 3 and 4 both at 15 m long. In addition, one hand-dug test pit measuring up to 2 x 1 m was proposed for the north-east side of the midden (WA 2016a, fig. 1). The precise locations were determined by the results of the geophysical survey and visual inspection of the ground conditions.

3.3.4 All of the proposed trenches were excavated as set out in the WSI (WA 2016a), the only variation being that the hand-dug test pit on the midden was dug as two separate 1 x 1 m test pits, within 10 m of each other (trenches 5 and 7) (**Figure 1**). In addition, three discrete areas of relatively recent badger-excavated spoil on the west side of the midden were excavated to recover finds (trench 6, contexts 601−603 respectively). The locations of these were tied in to the Ordnance Survey British National Grid coordinate system using Global Navigation Satellite System (GNSS) equipment working to a 3D accuracy of below 3 mm.

3.3.5 In trenches 1−4, topsoil and subsoil were mechanically excavated in 0.1 m spits using a tracked 360° excavator equipped with a toothless ditching bucket, to a depth at which the top of archaeological levels were exposed, or the level of the natural Chalk / Clay-with-Flints which generally lay at shallow depth. Machine excavation was under constant archaeological supervision by trained WA personnel.

3.3.6 The exposed surface of each spit and all spoil was scanned with a metal detector for archaeological finds, and all spoil was visually inspected for the recovery of finds.

3.3.7 Once the level of archaeological deposits had been exposed, cleaning of the excavation areas was undertaken by hand. Appropriate excavation of all archaeological features identified was carried out by hand.

3.3.8 Following completion of the excavations, trenches 1−4 were backfilled and levelled with soil by machine, replacing the material in the reverse order to which it was removed.

3.3.9 Trenches 5 and 7 were hand-dug and the excavated material replaced by hand on completion of recording. The badger spoil from the three interventions comprising trench 6 was simply levelled and left following the recovery of finds.

3.4 Recording

3.4.1 All exposed archaeological deposits were recorded using WA's pro forma recording system.

3.4.2 A complete written, drawn and photographic record of all excavated archaeological features and deposits was compiled, as set out in the WSI (WA 2016a).

4 ARCHAEOLOGICAL RESULTS

4.1 Natural deposits and soil sequences

4.1.1 Natural Clay-with-Flints was encountered in all but trench 4, between 144 m above Ordnance Datum (aOD) in trenches 1 and 2 in the east and north of the Site respectively and 146 m aOD in trenches 5 and 7 towards the centre of the midden. Where penetrated by archaeological features this reddish orange superficial deposit was seen to be approximately 0.1−0.3 m thick and overlay Chalk. In the south of the Site natural Chalk was exposed at 141.50 m aOD in trench 4. Overall, natural deposits were located at a depth of between around 0.2 m (trench 2) and 0.9 m (trench 4) below the current ground surface.

4.1.2 The natural stratigraphic sequence of the Site was seen to vary somewhat, particularly between midden and off-midden areas. On the midden, the topsoil was typically a dark greyish brown or dark brown silty loam up to 0.3 m thick which overlay what has been interpreted as colluviated midden material. Off midden, the topsoil was a mid-greyish brown silty clay loam 0.1−0.4 m thick, with subsoil (where present, in trenches 1 and 4) 0.3−0.5 m in depth. The subsoil towards the north-west end of trench 1 was a dark greyish brown silty clay loam and contained a notable quantity of finds, reflecting material eroded from the adjacent midden, whereas in trench 4 it was a mid-yellowish brown silty clay loam with relatively abundant chalk small fragments and largely devoid of finds.

4.2 Trench 1

4.2.1 This trench, the longest at just over 60 m, was primarily intended to investigate a section of the presumed Late Bronze Age/Early Iron Age enclosure ditch, which appeared from the results of the gradiometer survey to be slightly narrower here than elsewhere.

Furthermore, between the ditch and the edge of the midden was an area of increased magnetic response indicated by the geophysical survey, thought possibly to represent an area of occupation, and so trench 1 was also positioned to cross this area (**Figures 1** and **2**).

4.2.2 The earliest material present was a small but moderately dense assemblage of struck flint of probable Late Bronze Age date, from layer (**110**) towards the south-east end of the trench. This reddish brown clayey silt deposit, limited in extent, formed part of the uppermost fill of a fairly substantial, undated tree-throw hole [**151**] which, though not fully exposed, measured 4.40 m by at least 1.90 m and was approximately 1 m deep (**Figure 2; Plate 1**). Tree-throw hole [**151**] was probably oval in plan, with somewhat irregular sides and a rounded base, and was largely filled with fragmentary chalk containing lenses of brown loamy soil, the upper deposit being particularly compact.

4.2.3 The final fill of tree-throw hole [**151**] on the north-west side, a compact bioturbated chalk (**109**), was cut by what may have been a NNW−SSE alignment of three or more small post-holes, two of which [**162** and **164**] were excavated (**Figure 2**; **Plate 1**). The date and function of these post-holes are unclear, but it is thought most likely that they pre-dated the enclosure bank (see below). They could have been related to it, but their alignment is at variance to its projected course, and there is nothing that would suggest they are later.

4.2.4 Late prehistoric enclosure ditch [**149**] was exposed at the south-eastern end of the trench, where the ground surface began to drop away slightly (**Back Cover)**. The trench was widened here in advance of hand-excavation to allow stepping of the sides as necessary and, although a complete ditch section was not achieved, the base was reached in two places allowing a complete profile across the feature to be reconstructed (**Figure 2**).

4.2.5 Enclosure ditch [**149**] was approximately 6.5 m wide, with an additional 2.5 m wide shallow step on the inside (**Plate 2)**. The purpose of this 0.3 m deep step is unclear, though it may have functioned as a berm, the material from it being used to increase the height of the bank. The ditch itself was 1.80 m deep, the base projected to have a slightly rounded profile, with the sides fairly steeply sloping, that on the outside (to the south-east) flaring slightly towards the top.

4.2.6 The ditch fills comprised a fairly straightforward sequence (**Figure 2**), though only a very limited quantity of finds was recovered to help date this, the majority comprising fragments of animal bone with most layers containing no pottery or only occasional small abraded sherds. At the base of ditch [**149**] was a layer of chalk (**180**) up to 0.20 m thick which represented material eroded from the ditch sides. Above this was a distinctive, homogeneous deposit of grey loamy clay (**131**), 0.40 m thick, which contained very little chalk and may have accumulated in wet conditions, though no lamination was apparent (**Plate 3)**. The middle fills of the ditch (**128**, **129**, **130**) may all represent slumped or levelled bank material, layer (**130**) mainly comprising loose small−medium sized chalk (<100 mm), whilst (**128**) and (**129**) were yellowish brown/grey brown clay loams containing relatively little chalk, the three layers together up to 0.85 m thick (**Plate 4)**. These were sealed by a noticeably darker deposit (**127**) which contained abundant small chalk fragments, and though undated it was directly overlain by a similar very dark greyish brown silty clay loam (**111**), again with common small chalk inclusions, which produced a small assemblage of Late Romano-British pottery. The presence of this material provides a clearly dated horizon within the uppermost part of the ditch, showing this section at least to have become largely infilled by the 3rd−4th centuries AD. The final fills comprised a relatively substantial layer of pale brown silty loam (**182**) up to 0.50 m thick which extended across virtually all of the ditch, interpreted as a medieval or later deposit,

possibly colluvial in origin and deriving from agricultural activity, and (**181**), on the inside of the ditch, perhaps the last remnant of a levelled bank.

4.2.7 Although the earlier English Heritage earthwork survey identified vestiges of a bank in this area (McOmish *et al*. 2002, fig. 3.8), none was visible in 2016, though this may in part have been due to the height of the vegetation. Certainly, no earthwork or related deposits were apparent in the section exposed in trench 2. However, that there was a bank here was indicated by a band of 'clean' natural Clay-with-Flints which extended from the north-western edge of ditch [**149**] to just beyond tree-throw hole [**151**], a distance of a little over 10 m. Here it can be surmised that the presence of the bank inhibited bioturbation, which to the north-west of this 'clean' zone was reflected in the slightly darker colour of the surface of the natural with noticeably more root and worm holes. A similar pattern was noted on the inside of the ditch in trench 2, where some bank material also survived (see below).

4.2.8 Some 30 post-holes, one or two of the larger examples perhaps small pits, lay to the north-west of ditch [**149**] in trench 1, approximately 20 m from the postulated inside edge of the bank (**Figures 2** and **3**; **Plates 5** and **6**). Of these, 21 were excavated and the remaining dozen or so planned but not further investigated. Due to the narrow nature of the trench it was not possible to define any coherent structural plans amongst this group of post-holes, more than two-thirds of which were concentrated within a 10 m long area just over 10 m from the north-west end of the trench. However, a number of observations can be made on their shape and size, and it is clear from several intercutting examples that a sequence of structures is represented.

4.2.9 Of the excavated post-holes, 12 were sub-circular, four sub-oval and two irregular in plan, with single circular, oval and sub-rectangular examples. The smallest measured 0.30 m by 0.25 m and the largest [**143**] 1.18 m by 0.98 m in size; they ranged from 0.16 m to 0.50 m in depth, with an average of 0.32 m. Several, particularly the larger examples, had flint packing, and [**143**] also had evidence for having held at least two posts, perhaps one a replacement of the other.

4.2.10 Other than this group, there was one relatively large feature [**169**] a few metres to the south-east which from its profile is interpreted as a small pit, whilst within a group was a shallow scoop [**153**] containing the truncated remains of a pot (**Figure 3**). One other feature worthy of note was a small but discrete deposit of animal bone [**152**] immediately to the north-west of post-hole [**159**] (**Figure 3**; **Plate 7**). This deposit was approximately 0.40 m in diameter and 0.10−0.15 m high, seemingly having been placed on the ground rather than in a small pit; although it rested directly on the surface of the natural, no trace of a cut could be identified. If deposit [**152**] had been placed on the ground rather than in a small pit or post-hole, then no contemporary or other surfaces were apparent. Deposit [**152**] comprised largely cattle bone, but amongst it were three fragments of human skull, two with evidence for injury.

4.3 Trench 2

4.3.1 This trench was positioned across the enclosure boundary ditch clearly visible in the gradiometer survey (**Figure 1**), where the earlier English Heritage had recorded low, but clear earthworks in their survey (McOmish *et al*. 2002, fig 3.8). However, because of the height of the grass these earthworks were difficult to make out at the time of the 2016 excavation, though they may have suffered further denudation by ploughing during the intervening 25 years or so.

4.3.2 At the north end of the trench was ditch [**207**], a substantial feature which formed part of the enclosure recorded in trench 1 and trench 4 (**Figure 4**). Ditch [**207**] was not excavated but was up to 8.75 m wide with evidence for a bank on the inside (**Plate 8**). The principal fills (**211** and **212**) were pale reddish brown silty clay loams with moderate flint and some small chalk inclusions, but on the inside (south) was a similar layer, 2 m wide, that contained abundant chalk fragments (**210**), possibly levelled or eroded bank material, or a shallow step or berm as recorded on the inside of the enclosure ditch in trench 1.

4.3.3 The location of an internal bank up to 11 m wide was indicated by a combination of a relatively 'clean' zone of natural Clay-with-Flints, where it had been protected by the bank, and some surviving bank material (**Figure 4**). A thin patch of yellowish brown silt (**206**) may have been the remnant of a buried soil, and this was overlain by (**204**/**205**), a dark greyish brown soil with a band of reddish chalky silt with some gravel, which in turn was sealed by a layer of redeposited chalk (**203**) 1.80 m wide and 0.15 m thick. Both (**203**) and (**204**/**205**), together up to 0.25 m thick, are thought to be the last vestiges of the remaining bank.

4.3.4 Immediately to the south of the bank was layer (**202**), overlying natural and up to 0.1 m thick, which is interpreted as an 'occupation deposit' that built up against the bank (**Figure 4**). It contained a moderate quantity of late prehistoric pottery, animal bone and a limited range of other finds. Layer (**201**) at the south end of the trench was probably part of the same deposit as (**202**) and contained a similar assemblage of material though in slightly larger quantity. The removal of layers (**201**) and (**202**) revealed only one feature, a small square post-hole (**208**), but it was not certain whether it was sealed or cut layer (**202**); also, its form did not closely resemble any of the late prehistoric post-holes recorded in trench 1 and, therefore, it is possible that it was a relatively modern feature.

4.4 Trench 3

4.4.1 This small trench, just 15 m long, was located in the centre towards the north-east end of the enclosure, just north of a modern track, in an area where no geophysical anomalies were apparent (**Figure 1**). The aim was to confirm whether this area was devoid of archaeological features as the gradiometer suggested, or whether small, undetectable features such as post-holes were present.

4.4.2 Topsoil was very thin, no more than 0.3 m thick, and it was clear that the area had suffered some truncation from ploughing in the past. A few sherds of late prehistoric pottery were recovered from the topsoil but only three small possible features were present (**Figure 5**). Two of these were probably [**303**] or possibly [**305**] the result of animal burrowing, while a shallow post-hole [**301**] partly exposed on the east side of the trench is undated (**Plate 9**).

4.5 Trench 4

4.5.1 This trench to the south of the midden was targeted on a substantial and very clear ditch-like geophysical anomaly, only traceable for 25 m or so because of woodland to the north-west and a track and a shed ('Archie's shed') to the south-east (**Figure 1**). It was thought that the size and alignment (north-west to south-east) could make it part of the enclosure ditch recorded in trenches 1 and 2, but the possibility that it was a modern, military feature was also considered. No earthworks were recorded here in the earlier English Heritage earthwork survey (McOmish *et al*. 2002, fig 3.8).

4.5.2 Excavation of a trench across the anomaly confirmed that it was a large ditch and though there was very little dating evidence, the profile and fills make it likely that it was part of the late prehistoric enclosure.

4.5.3 Ditch [**412**] was not fully excavated but was demonstrated to be approximately 10 m wide, with straight sides sloping at approximately 45°, and at least 1.8 m deep (**Figure 6**; **Plate 10**). Unlike the ditch in trench 1, and possibly that in trench 2, there was no shallow step or berm on the inside to the north-east.

4.5.4 The lowest fills and base were not reached, but layer (**411**) on the south-west side represented an accumulation of weathered and eroded chalk. Above this was a succession of secondary and tertiary deposits which contained very sparse finds, mainly fragments of animal bone with virtually no pottery (**Plate 11**). These layers mostly comprised a very similar sequence of deposits, generally dark greyish brown clay loams with variable but low quantities of small chalk fragments, none of which clearly represented redeposited or levelled bank material. Also, there was no evidence for a Romano-British horizon as was clearly identified towards the top of the fill sequence in the ditch in trench 1

4.6 Trench 5

4.6.1 This hand-dug 1 x 1 m test pit was targeted on an area approximately half-way between the deepest parts of the midden and its edge (**Figure 1**), as estimated by the 2008 auger survey (Wessex Archaeology 2008), and on a side of the site not previously explored. Its precise location was adjusted after exploratory auger investigation, primarily on the basis of selecting a substantial but manageable (within the two-week excavation period) deposit depth of around 1m.

4.6.2 The main aims of the test pit were to see whether 'intact', finely layered, artefact-rich midden deposits similar to those recorded by McOmish *et al.* (2010) were present in this part of the monument, and to determine the presence or absence of cut features below the midden material.

4.6.3 After turf removal, the test pit was dug in spits of 100 mm, in anticipation of the need to three-dimensionally record the expected large numbers of archaeological finds. In the event however, artefacts were relatively sparse.

4.6.4 As expected from the initial auger probe, deposits overlying geology were just over 1m in depth (**Figure 7, Plate 12**). The uppermost deposit was a former (modern) ploughsoil (**501**), overlying largely homogeneous dark greyish brown silt loams with bands of worm-sorted inclusions and artefacts (**502−505**), interpreted as probable colluviated midden material with worm-sorting. This overlay Clay-with-Flints (**506**) and Chalk geology. Detailed descriptions are presented below in **Table 1**.

4.6.5 There were two apparent phases of accumulation and subsequent long periods of stabilisation, as indicated by the worm-sorting of material. This would normally be taken to indicate two widely spaced phases of ploughing activity. However, given the known badger activity on the site, and the lack of two deposition episodes in Trench 7 (see below), it is quite possible that the uppermost of these accumulation phases is actually a result of badger upcast,

4.6.6 Whilst the wider context of the deposits recorded here remains speculative, it can be said with some confidence that the deposits within the midden extents are more heterogeneous than previously suspected.

4.6.7 No cut features were present in the test pit base.

4.7 Trench 6

4.7.1 Trench 6 comprised two discrete areas (numbered **601** and **602** respectively) of relatively recent upcast from badger burrowing on the west side of the midden (**Figure 1**). A further number (**603**) was allocated to finds from the surface between and in the immediate vicinity of these two areas that lay approximately 7.5 m apart, and which appeared to be the only currently active areas of animal disturbance.

4.7.2 It was clear from the surface that they each contained a moderately large quantity of finds and, therefore, as in previous seasons, the spoil was excavated by hand and sieved, where necessary, to recover finds.

4.8 Trench 7

4.8.1 This second 1 x 1 m hand-dug test pit was undertaken following completion of trench 5, in order to test whether the results there might or might not be typical of this (eastern) side of the midden mound. It was located 15 m to the NNE of trench 5, at approximately the same distance between the highpoint and edge of the midden (**Figure 1)**.

4.8.2 The results were very similar to those from trench 5, with a modern former ploughsoil (**713**) overlying largely homogeneous dark greyish brown silt loams with coarser material worm-sorted down profile (**714−711**), the latter interpreted as probable colluviated midden material (**Figure 7**; **Plate 13**). Again, this overlay Clay-with-Flints (**712**) and Chalk geology. Detailed descriptions are presented below in **Table 2**.

4.8.3 Unlike the sequence recorded in trench 5, there was no evidence for separate phases of ploughing and subsequent stabilisation here. However, apart from that, the sequences were very similar and do seem to indicate that this area of the monument is significantly different to those previously explored.

4.8.4 No cut features were present in the test pit base.

5 ARTEFACTUAL EVIDENCE

5.1 Worked flint

5.1.1 The worked flint assemblage is quantified in **Table 3**, ordered by artefact type and by trench. The results show that artefact density is relatively low, with most material recovered from features in trench 1. The largest individual totals were collected from context 110, which represented the upper fill of a tree-throw hole pre-dating the enclosure bank. The remaining material was collected predominantly from post-holes. Artefacts were relatively rare in midden trenches 5 and 7, with increased quantities from the badger scrapes (trench 6).

5.1.2 The assemblage is dominated by flakes, often primary or secondary pieces. Removal was by hard hammer percussion with no clear emphasis of refined platform preparation. Only one flake core was found. Artefacts are mostly in mint condition, unpatinated or only lightly patinated.

5.1.3 Retouched material comprises three end scrapers from tree-throw hole [**110**], with two flakes with miscellaneous retouch. This catalogue of technological features and retouch forms is characteristic of Late Bronze Age assemblages, a conclusion substantiated by the associated Late Bronze Age−Early Iron Age artefact assemblages.

5.1.4 None of the individual groups are of sufficient size to justify further detailed analysis, nevertheless the entire collection is of considerable interest as one representing a worked flint assemblage of relatively late date that is in a mint, unpatinated condition.

5.2 Pottery

Introduction

5.2.1 The assemblage consists of 2,769 sherds weighing 23.371 kg, giving an average sherd weight of only 8.44 g (**Table 4**). Pottery was recovered from the Late Bronze Age–Early Iron Age midden and related deposits, the enclosure ditch and bank, and a number of post-holes and a tree-throw hole within the enclosure's interior. Additional material (quantified but not assessed) was also recovered from badger scrapes (trench 6).

5.2.2 The material includes sherds of Late Bronze Age, Early Iron Age, Romano-British, medieval and post-medieval date, with the majority belonging to the earliest Iron Age (**Table 5**).

5.2.3 The condition of the assemblage varied. The average sherd weight masks a significant difference between the material recovered from layers and archaeological features on the fringes of and beyond the midden (6.81 g) and that disturbed by badgers from within it (11.29 g).

Late Bronze Age/Early Iron Age

5.2.4 Approximately 97.6% (by weight) of the assemblage belongs to the Late Bronze Age and Early Iron Age, with an apparent focus towards the end of the period in the earliest Iron Age. Decorated vessels (or at least sherds with decoration) are not common, but vessels forms (especially rims and shoulders) are more akin to fully Early Iron Age traditions than to Post-Deverel-Rimbury plain wares.

5.2.5 The assemblage is highly fragmentary. No vessel profiles could be reconstructed and, therefore, assigning individual sherds or groups of sherds to type was not possible. In general, there appears to be a range of coarser and finer bowls and jars, with a very small number of very thin-walled small-diameter vessels that were perhaps cups. The types cannot be quantified.

5.2.6 Fabrics break down into a basic division of flint-tempered, sandy, and shell-tempered, with some combination (particularly of the first two). Additionally there are a very small number of vesicular sherds (probably burnt-out organics). Although the fabric types have not been quantified at this stage, flint-tempered sherds were predominant in trench 1, with sand being the most common temper elsewhere. This may be a result of differing assemblage size between trenches, although it may have some chronological significance.

5.2.7 Surface treatments vary. Many sherds are in poor condition, with abraded surfaces, but the better-preserved examples have rustication, wiping and burnish. Both rustication and burnish vary in degree: some rustication is a mere roughening of the surface, while in some instances it consists of a thick application of slurry; likewise, burnish ranges from smoothing of the surface to a high polish. There is no particular relationship between wall thickness and surface treatment. Only two instances of gritted bases were observed (although bases are notably under-represented). Red finish (probably haematite coating) was relatively common, and often (although not always) associated with fine burnish.

5.2.8 Decoration is not common. One sherd from layer (**101**) has an incised geometric motif immediately below the rim. A single sherd from (**102**) has raised finger-tip crescents. A sherd from (**103**) has diverging diagonal incised lines and a second has horizontal lines

above and below the shoulder. An out-turned flat rim from (**118**) has fingertip and nail decoration immediately below it, a second has wide cabling on the outer edge; while another body sherd has a single incised line. One sherd from post-hole [**125**] has finger pinching. Post-hole [**137**] contained a single highly-burnished sherd with incised lines and impressed dots. Scoop [**153**] contained a sherd with an applied horizontal cordon. Layer (**201**) had two sherds with applied horizontal cordons and one 'T'-shaped rim has cabling on the top. A sherd from (**205**) has a pinched-up cordon with fingertip and nail impressions. Post-hole [**301**] contained a cabled rim. Layer (**501**) contained a rim sherd with a horizontal groove beneath the rim and a lightly incised geometric pattern. Layer (**505**) had a sherd from a highly burnished red finished bowl with a horizontal cordon and incised lines. Trench 7 contained sherds from at least four red finished Furrowed Bowls; none were seen elsewhere.

5.2.9 Rim forms were varied, and are quantified in **Table 6**.

Romano-British

5.2.10 The bulk of the Romano-British material came from the upper fills of the enclosure ditch, primarily from trench 1. There, the material comprised 77 sherds (425 g) of greyware, probably relatively local, deriving from five or six everted-rim jars; 12 sherds (40 g) of oxidised ware probable flagons, one of which was white-slipped and probably a north Wiltshire/south Gloucestershire product; seven sherds (42 g) of Wareham−Poole Harbour Black Burnished Ware (including a drop-flanged bowl and an everted-rim jar); and one sherd (16 g) from a New Forest Parchment Ware jar. The assemblage dates to the late Roman period.

5.2.11 Elsewhere, two joining sherds (22 g) of a Whiteware flagon rim and two sherds (3 g) of oxidised ware came from the enclosure ditch in trench 4.

Medieval and post-medieval

5.2.12 Medieval ceramics were limited to one sherd (4 g) of Kennett Valley ware from fill (**402**) of the enclosure ditch in trench 4 and one sherd (1 g) of Laverstock-type fineware from the topsoil in trench 7.

5.2.13 One sherd (2 g) of post-medieval redware was recovered from layer (**106**) in trench 1.

Discussion

5.2.14 The Late Bronze Age/Early Iron Age assemblage is of interest, particularly as it relates both to the practices which resulted in the accumulation of the midden itself and to activity going on in its immediate vicinity. These need not be the same, either in terms of date or type. Differences in the ceramics (already visible to some degree in the broad observations on the distributions of fabrics and types – especially the Furrowed Bowls in trench 7) may help to elucidate this further. Organic residues on sherds in from layers (**101**), (**102**) and (**118** would allow for the analysis of absorbed lipids, and also enable radiocarbon dating.

5.2.15 Further analysis of the material would be productive. The unstratified material from trench 6 (badger scrapes) should be quantified and compared to the material recovered from trenches 1−5 and 7. Fabrics should be quantified in order to test the assertion that there are meaningful differences in distribution and date. Analysis should follow the recommendations of the Prehistoric Ceramics Research Group. The data would form the basis for a publication report in which comparisons could be made with assemblages from similar deposits elsewhere and also from earlier excavations at Chisenbury (McOmish *et al*. 2010).

5.2.16 Ideally, a representative sample of the rim forms and decoration should be illustrated, along with a selection of the larger pieces from trench 6, in total no more than 30 vessels.

5.3 Metalwork

5.3.1 The most significant find is a small, possibly anthropomorphic, copper alloy 'pendant' (ON 14; **Plates 14** and **15**) from trench 7, one of the test pits in the midden (from layer **707**, near the base). As yet, no parallels have been found for this object which weighs just 4 g, has a looped suspension ring forming part of the casting, a bulbous 'body' and two slender 'legs'.

5.3.2 A small fragment of copper alloy sheet came from the occupation deposit in trench 2 (ON 7; **201**) and an unidentified Roman coin from the ploughsoil in trench 5 (ON 8; **501**); the latter has a relatively large flan and is likely to be of 1st−2nd century AD date.

5.4 Worked bone

5.4.1 Eight worked bone objects were recovered, four of these comprising broken points (ONs 3−5, from **101** and **102**; and another from **601**) (cf Lawson 2000, figs 89−90), one a broken pin or needle (ON 9, from **505**), and one part of a perforated strip of uncertain date and function (ON 10, from **600**).

5.4.2 The other two objects, both from trench 1 and possibly associated with textile working, comprise a fragment of probable weaving comb handle (ON 1, from **118**) and two joining fragments of a 'blade', the latter made from a rib bone and decorated with incised lozenge patterns (ON 6 from **101**) (cf Lawson 2000, figs 91−92).

5.5 Worked stone

5.5.1 A rubber/grinding stone came from post-hole [**124**] in trench 1; it is made of siliceous sandstone and is a flattened hemisphere in shape, worn smooth on the grinding face and with battered edges (cf Lawson 2000, fig. 84). A fragment of a rectangular-section whetstone was recovered from the subsoil in trench 1 (ON 2; **118**), and is also made of sandstone, with quite heavy wear evident on two faces (cf Lawson 2000, fig. 85).

5.5.2 A small fragment of shale bracelet, of square or quadrant section, came from one of the badger scrapes in trench 6 (ON 13; **603**) (cf Lawson 2000, fig. 80).

5.6 Fired clay

5.6.1 An almost complete cylindrical spindle whorl was recovered from one of the badger scrapes in trench 6 (ON 12; **601**). Weighing 33 g and hard fired, it is decorated around the outer edge with three central, slightly irregular, circular grooves, and with bands of finer, parallel slash marks above and below these; the ends are plain.

5.7 Human bone

5.7.1 Redeposited human bone came from eight contexts across the Site. The material, mostly extracted from the animal bone assemblage, was recovered from four features and deposits associated with the Late Bronze Age to Early Iron Age enclosure, midden and settlement. A few pieces were also found in the overlying subsoil and upcast spoil from badger scrapes.

Methods

5.7.2 The bone was subject to a rapid scan to assess its condition, calculate the minimum number of individuals, estimate the age and sex of the individuals, determine the potential for indices and note the presence of pathological lesions. Assessment of age and sex was

based on standard methodologies (Buikstra and Ubelaker 1994; Scheuer and Black 2000). Grading for bone condition followed McKinley (2004, fig. 6).

Results

5.7.3 A summary of the results is presented in **Table 7**.

5.7.4 The material was found in the fills of several features in trench 1 (the enclosure ditch, a post-hole, a discrete deposit that included animal bone and the subsoil), an occupation deposit in trench 2 and soils disturbed by badgers in trench 6.

5.7.5 Most of the bone is in excellent condition with only minimal erosion and/or etching (grades 0–2); some from the ditch was slightly less well-preserved (grade 2–3). Most damage had occurred in antiquity, frequently when the bone was still green or semi-green, ie, relatively plastic due to high levels of the protein collagen. Usually this suggests that the damage occurred around or shortly after death, though the rate at which collagen is lost can be affected by the *post-mortem* treatment, eg, particular burial conditions, manipulation and curation. Most damage, however, appears to have been incidental, associated with post-depositional trampling and re-working.

5.7.6 The colour and texture of bone can be affected by the burial environment and various mortuary treatments. In this assemblage the bone ranges from very light–mid greyish-buff to yellowish/reddish brown; some is particularly smooth and shiny. Longitudinal fissuring and apparent bleaching, as well as an example of canid gnawing, suggests that some of the bone (eg, contexts **128** and **140**) had been exposed to scavengers and the elements.

5.7.7 The assemblage includes the remains of a minimum of two adults (at least one female *c* 18–30 yr.), a juvenile and possibly an infant/juvenile (**Table 7**). Pathological changes and morphological variations were noted, the most interesting being two injuries to the skull of an adult female (context **152**). A small conical depression on the fragment of parietal is consistent with a long-healed wound inflicted by a pointed implement. An adjacent oval aperture with endocranial bevelling indicates a direct blow from a small-tipped/pointed implement or projectile around the time of death or not long after.

Discussion

5.7.8 The assemblage provides evidence for mortuary treatment including the manipulation and curation of human remains, themes which have been recorded in material from across the temporal range including the Late Bronze Age and Early Iron Age (Keith 1923, 41; Whimster 1981, 189; Brück 1995; McKinley 2000, 100; Aldhouse-Green 2001, 97–109; Egging Dinwiddy and McKinley 2014, 152–3, fig. 4.58–4.59; Armit 2012). It adds to the small assemblage previously found on the site (McOmish 1996, 73), whilst further human bone is certain to be present in the extensive unexcavated parts of the site, and possibly also within the (yet to be analysed) material recovered during more recent small-scale investigations (confined to finds from badger scrapes).

5.7.9 The evidence from the midden site at Potterne, Wiltshire, was consistent with the deliberate selection of certain elements and defleshing of the skulls, whilst surface polish was indicative of repeated handling (McKinley 2000, 96). At Battlesbury Bowl, near Warminster, Late Bronze Age and Iron Age contexts, including midden deposits from pits and post-holes, held disarticulated human bone exhibiting signs of exposure (gnaw marks, fissuring, abrasion, trampling and curation), possibly excarnation, which led to discussions on the transformation of the corpse, fertility and regeneration (McKinley 2008, 71–6). Further afield, at Runnymede Bridge, Surrey, fragments of human bone were found scattered over the Late Bronze Age living floors; some showed evidence for canid gnawing (Longley 1980, 79).

5.7.10 Full recording and analysis of the human remains would enhance the understanding of the Late Bronze Age and Early Iron Age treatment of the dead, and aid the broader interpretations for sites of this type. It is unlikely that measurements for the calculation of skeletal indices will be possible, and there is little potential for the observation of non-metric traits – the relevant parts being absent.

5.7.11 It is recommended that samples of appropriately selected material from the discrete deposits and features be considered for radiocarbon dating.

5.7.12 It would be beneficial to subject the frontal bone fragment (as a minimum; context **600**) to Reflectance Transformation Imaging (RTI) in order to identify, record and illustrate subtle or otherwise difficult to capture surface markings. Scanning Electron Microscopy (SEM) would be particularly useful for the clarification of subtle cut marks and/or modifications.

5.8 Animal bone

5.8.1 The assemblage comprises 3308 fragments (or 25.457 kg) of animal bone. Once conjoins are taken into account the total count falls to 2910 fragments. Bone was recovered from the Late Bronze Age–Early Iron Age midden and related deposits, the enclosure ditch and bank, and a number of post-holes within the interior of the enclosure. Additional material was recovered from badger scrapes and topsoil.

Methods

5.8.2 The following information was recorded where applicable: species, skeletal element, preservation condition, fusion and tooth ageing data, butchery marks, metrical data, gnawing, burning, surface condition, pathology and non-metric traits. This information was directly recorded into a relational database (in MS Access) and cross-referenced with relevant contextual information. The assemblage has been quantified in terms of the number of identified specimens present (or NISP) by feature or deposit type (see **Table 8**).

Results

5.8.3 Bone preservation is generally good, however some cut features, such as the enclosure ditch, clearly include redeposited material from the adjacent midden deposit. These redeposited bones have eroded cortical surfaces and abraded edges in comparison to the un-abraded appearance of other bones. Gnaw marks were noted on a large number of fragments and this indicates that scavenging carnivores had open access to the midden material accumulating inside the enclosure.

5.8.4 The bones of larger animals such as cattle, and to a lesser degree horse, are quite fragmented having been extensively exploited for meat and marrow, and this has affected identification and probably over-inflated the significance of sheep in the assemblage. It is, however, worth mentioning that regardless of this, cattle by virtue of their greater size would have provided the bulk of the meat consumed in the enclosure during the Late Bronze Age–Early Iron Age.

<u>Midden deposit</u>

5.8.5 Animal bone was recovered from the probably *in situ* midden deposits in trenches 5 and 7, related deposits in trenches 1 and 2, and from areas of badger disturbance to the midden in trench 6. As a result of the fragmented nature of the assemblage only 18% of the 1787 fragments recovered from these deposits can be identified to species.

5.8.6 Sheep bones dominate, accounting for 49% NISP, followed by cattle (41%) and then pig (5%). All parts of the mutton and beef carcass are present, and this indicates that animals

were brought to the enclosure on the hoof to be slaughtered and butchered for local consumption. The range of pig body parts suggests a similar scenario, however this is based on limited data. Age information from epiphyseal fusion and tooth eruption and wear indicates that sheep and cattle of prime meat age were selected for slaughter, and in addition there is evidence that significant numbers of lambs and calves were also slaughtered for meat. Detailed analysis of livestock slaughter patterns is outside the scope of this report, however the preliminary results indicate that the husbandry regime was intensively geared towards meat and secondary products.

5.8.7 The dominance of sheep bones in the midden assemblage is potentially misleading because it is clear from the butchery evidence that cattle carcasses were more extensively exploited than other livestock, and this has resulted in higher rates of fragmentation and, therefore, few positively identified cattle bones. The evidence indicates that cattle bones were systematically processed for marrow and some bones, notably the astragalus, show signs of charring consistent with direct exposure to fire such as might occur when dressed joints are cooked over an open flame.

5.8.8 A discrete deposit of animal bones and human cranial fragments was identified in trench 1 adjacent to post-holes [**119**] and [**159**]. The deposit included 33 cattle bones, mostly from the fore- and hindquarters, a sheep horn core and metatarsal, and a horse humerus. A number of the cattle bones had been processed for marrow.

5.8.9 Eight horse bones were also recovered from the midden deposit. They include fragments of humerus, radius, pelvis, 1st and 2nd phalanx, astragalus and a few loose teeth. Other less common species include dog, red deer, roe deer, duck and corvid. Both deer species are represented by fragments of antler thought to represent off-cuts from object manufacture.

5.8.10 The animal bone assemblage recovered from the badger disturbed areas of the midden deposit (trench 6) is broadly similar to the material from the *in situ* deposit. Sheep bones dominate, followed by cattle and then pig, and less common species include horse, dog and red deer (antler). This part of the assemblage also includes a few intrusive rabbit bones.

Enclosure ditch and bank

5.8.11 A total of 271 fragments came from the enclosure ditch and bank investigated in trenches 1, 2 and 4. The composition of the assemblage is similar to the midden deposit. Sheep and cattle bones dominate, and there are also a few pig and horse bones. Differences in preservation state indicate that the ditch assemblage includes residual material that is likely to have been redeposited from surface accumulations of midden material.

Internal post-holes

5.8.12 A further 272 fragments of animal bone came from internal features, mostly post-holes, located in trenches 1 and 3. This material is also broadly similar to the assemblage from the midden deposit. Again sheep and cattle bones dominate, followed by pig, horse and deer (antler). A few neonatal lamb bones came from post-holes [**116**], [**119**] and [**121**], and a piece of coprolite came from post-hole [**155**].

Discussion

5.8.13 The animal bone assemblage recovered from the 2016 season of excavation is largely comparable to the material recorded by Serjeantson *et a.l* (2010). This showed that the local livestock economy was primarily geared towards sheep- and cattle-farming, that sheep were butchered on site and that sheep flocks were intensively managed for meat and secondary products. The main evidence for this was the high kill-off rate amongst

lamb and under-representation of old adult sheep. The opposite scenario was suggested for cattle, which were considered to have been butchered off site due the lack of skeletal elements from butchery waste. It was also suggested that cattle herds were not intensively managed, however the new evidence suggests that this was not the case. The range of cattle body parts indicates the presence of whole carcasses, most probably of animals driven into the enclosure to be slaughtered. The provisional results also indicate the presence of calves and mostly young adult cattle in their prime, which suggests that these herds were also intensively managed for meat and probably secondary products. It is, however, worth emphasising that the animal bones recovered from the midden deposit at East Chisenbury need not necessarily be indicative of the livestock economy of the local area. The enclosure was clearly the focus for community gatherings and feasting on a large scale, and certain aspects of this are likely to have been ceremonial in nature.

5.8.14 Further analysis of the material is required in order to record age information based on the epiphyseal fusion state of post-cranial bones and tooth eruption and wear. This will clarify the nature of the livestock economy, particularly with regard to cattle. A closer examination of the butchery evidence would also help clarify the extent to which cattle carcasses were exploited for meat and marrow. The data could form the basis for a publication report in which comparisons can be made with assemblages from similar deposits such as Potterne (Locker 2000), Runnymede Bridge (Serjeantson 1996) and Brean Down (Levitan 1990), as well as with contemporary settlement sites in the local area.

6 ENVIRONMENTAL EVIDENCE

6.1 Charred and mineralised plant remains

6.1.1 Twenty-seven bulk samples were taken from a range of features and deposits across the Site. Whilst five samples remain unprocessed and a further five unassessed, 17 of the samples have been processed for the recovery and assessment of environmental remains. Most of the samples come from trench 1, where the majority of the archaeological features were identified. The size of the assessed samples varied between 2 and 38 litres, and on average was around 17 litres.

6.1.2 The bulk samples are broken down by phase in **Table 9**.

Aims and methods

6.1.3 The purpose of this assessment is to evaluate the quality of plant remains preserved at the Site and their potential for further analysis to address specific site archaeological issues, and also to provide archaeobotanical data for wider research frameworks.

6.1.4 The bulk samples were processed by standard flotation methods; the flot retained on a 0.25 mm mesh, residues fractionated into 4 mm, 2 mm and 1 mm fractions and dried. The coarse fractions (>5.6 mm) were sorted, weighed and discarded. The flots were scanned using a stereo incident light microscopy at magnifications of up to x40 using a Leica MS5 microscope for the identification of environmental remains. Different bioturbation indicators were considered, including the percentage of roots, the abundance of modern seeds and the presence of mycorrhizal fungi sclerotia (e.g. *Cenococcum geophilum*) and animal remains which would not be preserved unless anoxic conditions were detected, such as earthworm eggs and insects. The preservation and nature of the charred plant and wood charcoal remains, as well as the presence/absence of other environmental remains such as molluscs, animal bone and insects (if anoxic conditions for their preservation are present), is recorded in **Table 10**.

6.1.5 Preliminary identifications of dominant or important taxa are noted below, following the nomenclature of Stace (1997) for wild plants, and traditional nomenclature, as provided by Zohary and Hopf (2000, tables 3, page 28 and 5, page 65), for cereals. Abundance of remains is qualitatively quantified (A*** = exceptional, A** = 100+, A* = 30−99, A = >10, B = 9−5, C = <5) as an estimation of the minimum number of individuals and not the number of remains per taxa.

Results

6.1.6 The flots were of variable volumes. There were variable numbers of roots and modern seeds that may be indicative of stratigraphic movement and the possibility of contamination by later intrusive elements. A range of environmental remains were recorded (**Table 10**). The preservation of plant remains was by charring and mineralisation, although the extent of the latter was much more restricted than expected in comparison to other similar sites in the region, for example at Potterne (McCobb *et al*. 2003).

Charred plant remains

6.1.7 Charred material showed varying degrees of preservation but was relatively similar in composition, with differences in the proportions of the items. They included by-products of crop processing activities, such as cereal grains, chaff and seeds of wild plants which were probably weeds, and in some instances, remains of wild fruits.

6.1.8 The assemblages were dominated by barley (*Hordeum vulgare*) grains, sometimes within the spikelet, and of the hulled variety, when determinable. Wheat (*Triticum*) grains were also abundant, but preservation was poorer and identification to species or group level was not always possible. Most wheat grains belonged to hulled species, and both emmer (*T. dicoccum*) and spelt (*T. spelta*) were present. Cereal chaff was also present in many assemblages, but rarely in large numbers. Most of the chaff were glume bases and spikelet forks from hulled wheats, most frequently of spelt, but also with some emmer.

6.1.9 The seeds of wild plants included field madder (*Sherardia arvensis*), ivy-leaved speedwell (*Veronica hederifolia*), bedstraw (*Galium* sp., Rubiaceae), henbane (*Hyoscyamus niger*), docks (*Rumex* sp., *Polygonum* sp.), sedges (Cyperaceae), grasses (*Bromus* sp., *Avena/Bromus*, *Poa/Phleum*), vetches (Vicieae), the trefoil tribe (Trifoliae), composites (Asteraceae), a possible crucifer (Brassicaceae?) and indeterminates.

6.1.10 Remains of wild plants of probable economic interest were limited to hazel (*Corylus avellana*) nutshell fragments and hawthorn (*Crataegus monogyna*). .

Mineralised plant remains

6.1.11 Mineralised plant remains and phosphatic nodules were identified in some of the flots. One of the most frequent was nettle (*Urtica urens*), as at Potterne (McCobb *et al*. 2003). The mineralised remains also included plums (*Prunus* sp.) and poppy (*Papaver* sp.) seeds.

6.1.12 In addition, uncharred plant remains, possibly partly mineralised, were recorded in some of the assemblages. They included gromwell (*Lithospermum* sp.), buttercups (*Ranunculus* sp.), sedges, ivy-leaved speedwell, and unidentified seeds and roots.

Other environmental remains

6.1.13 Wood charcoal was noted in all the flots of the bulk samples and all belonged to mature wood. Terrestrial molluscs were also observed in all flots. Skeletal remains from small animals or fish were preserved in some of the assemblages.

Discussion

6.1.14 The assemblages recovered are consistent with a Late Bronze Age/Early Iron Age chronology. The undated ditch fills in trench 4 have provided assemblages comparable to those from well-dated features from other areas of the site, suggesting they probably belong to the same, late prehistoric phase.

6.1.15 Samples proposed for possible analysis and the types of analyses to be undertaken (see **Table 10**) should be reconsidered after the final stage of fieldwork has taken place. The analysis of some of the charred plant assemblages has the potential to provide information on the nature of the settlement, the local environment, local agricultural practices and crop husbandry techniques. The results of this analysis would provide a comparison with the data from other sites in the local area, such as Potterne (Carruthers 2000; Straker 2000). The analysis of the wood charcoal from one of the samples could provide information on the species composition, management and exploitation of the local woodland resource on the site.

7 DISCUSSION

7.1.1 Archaeological evaluation at East Chisenbury midden in 2016, though small-scale, has added significantly to our understanding of this enigmatic Late Bronze Age/Early Iron Age site, particularly when considered alongside the results of the preceding gradiometer survey (Wessex Archaeology 2016) and earlier fieldwork (McOmish *et al.* 2010).

7.1.2 The gradiometer survey confirmed the existence of a large, roughly oval-shaped enclosure, approximately 7 ha in extent, its precise limits to the south-west unclear (WA 2016b). In this area the presence of tree and scrub cover restricted the survey, though it appears that the formation of later, substantial lynchets on the west side may have obliterated all traces of the ditch here. It can be noted that no entrances could be distinguished in the otherwise clear length of enclosure ditch recorded to the north and east. The midden, as visible in the field and defined in extent by earlier augering, appears to lie within the enclosure, although this was not apparent from the results of the gradiometer survey, which did not show the midden material with any clarity. On balance, however, it does seem most likely that the enclosure ditch and midden were broadly contemporary, the midden coming to cover a large part of the interior in the north-east of the enclosure.

7.1.3 The enclosure ditch was revealed in three places on the east (trench 1), north (trench 2) and south (trench 4) sides respectively, and was shown, as the gradiometer survey indicated, to be a substantial feature. Time did not allow excavation of all three sections, and only in that to the east was the ditch bottomed, showing it to be approximately 8 m wide (including the shallow step or berm on the inside) and 1.8 m deep with moderately steeply sloping sides and a very slightly rounded bottom. The gradiometer survey suggested that the ditch was up to 3 m narrower here than to the north and south, which excavation confirmed, whilst the paler ‘shadow’ along the inner edge of the ditch anomaly appears, on the east side at least, to reflect the presence of the step or berm, as also revealed here in the excavation.

7.1.4 There were few finds from the ditch in trench 1 and trench 4, the fills probably representing a combination of natural silting and deliberate later levelling of the bank. That very little of late prehistoric date found its way into the ditch perhaps in part reflects the barrier provided by the bank, best illustrated in trench 2 where a thin spread of presumed settlement debris within the enclosure extended up to the inner edge of the bank but not beyond. Late Romano-British pottery from a probable turf line near the top of the ditch in trench 1 clearly shows that at least this part of the ditch had become largely infilled by the

time that Romano-British farming activity and related settlement was established in the area, the nature and scale of which is currently unknown.

7.1.5 The inner bank, recorded more than two decades ago by English Heritage (McOmish *et al*. 2002, fig. 3.8), was still visible in places as a very slight earthwork, particularly to the north where its presence was also confirmed by excavation. Remnants of bank material were identified in trench 2, though not elsewhere, but both here and in trench 1 the former extent of the bank was indicated by a 10−11 m wide zone of 'clean' natural. In trench 1 the bank sealed a small assemblage of probable Late Bronze Age worked flint in mint condition.

7.1.6 In addition to the enclosure ditch, the other principal discovery in 2016 was the evidence for contemporary settlement within the enclosure but beyond the limits of the midden. In the western half of trench 1 was a cluster of approximately 30 post-holes, many relatively substantial and some with flint post-packing. Although no coherent building plans were apparent within the 1.8 m wide trench, it is clear that more than a single phase of possibly multiple structures was represented. More extensive excavation would be likely to resolve this, as well as clarifying the form of the structures which may include, for example, both roundhouses and four-post structures. No horizontal stratigraphy such as floor surfaces survived within the area investigated, but a discrete deposit of animal bone adjacent to a post-hole had somehow survived *in situ*, apparently undisturbed. The precise nature of this deposit is unclear, but it did not appear to be contained within an otherwise unidentified small pit, as was the base of a pottery vessel in the same area; perhaps some features and colour changes have been removed by subsequent soil formation. The presence of three fragments of human skull (two with evidence of injuries) amongst the animal bone hints that it was not simply a deposit of domestic refuse.

7.1.7 Although more extensive excavation would provide more complete plans of the structures, it may prove difficult to determine more accurately the date and time-span of the occupation, certainly on the basis of ceramics alone, though radiocarbon dating may be able to provide some resolution in these respects.

7.1.8 The structural evidence in trench 1 corresponded, perhaps coincidentally, with an area of enhanced magnetic response evident on the gradiometer survey, the latter probably in part reflecting a spread of midden material from immediately to the west. At least two other areas of enhanced magnetic response were indicated within the enclosure, in the north-west and north-east areas respectively, adjacent to the ditch and bank, and these may also indicate foci of settlement. Excavation in trench 2 investigated one of these, revealing a spread of occupation debris but no certainly contemporary structural features. The spread of debris lay almost 150 m from the midden, too far to have been derived from it, and is more likely to represent a discrete deposit in the lee of the bank and possibly associated with a nearby group of structures.

7.1.9 Very limited investigation on the eastern side of the midden itself (in trenches 5 and 7) produced fewer finds than anticipated from the metre or so depth of deposits present, and there were no certainly intact midden layers or chalk surfaces within it. This contrasts with the quantity of finds from the south side (trench 6 – badger upcast, and previous investigations (McOmish *et al*. 2012)), where structural remains were also encountered within and beneath the midden, which were absent from the (admittedly small) test pits.

7.1.10 Geoarchaeological interpretation tentatively suggests a colluvial origin for the deposits in trenches 5 and 7, which – from appearance, character and components − are almost undoubtedly derived from midden material. However, the evidence also fits well with the possibility that this area of the midden is actually largely intact, but was subject to different

contemporary use and a much slower rate of deposition. Rather than the finely-layered stratigraphy produced by the rapid accumulation of stabling waste, a peripheral location to the core activities may have resulted in a reduced - or less intensive - rate of deposition, leading to the incorporation of the material into an enriched, thickened anthropogenic soil (plaggen), which is effectively what is recorded here.

7.1.11 Although there were fewer finds than expected from the controlled excavation on the midden (trenches 5 and 7), overall the range of artefactual material was consistent with previous work, with significant assemblages of pottery and animal bone from a variety of contexts, only the ditch fills proving notably lacking. The significance (if any) of the red finished Furrowed Bowls coming only from the midden itself is unclear but, along with the remainder of the ceramic assemblage, it may reflect in some way both the practices which resulted in the accumulation of the midden itself and to activity going on in the immediate vicinity within the enclosure. Contrary to previous evidence, the animal bone from 2016 suggests that cattle were intensively managed and that the animals were slaughtered on rather than off site, perhaps reflecting different activities in the different parts of the enclosure investigated. The charred plant remains are consistent with the Late Bronze Age/Early Iron Age chronology of the site, though mineralised remains survived relatively poorly.

7.1.12 Several bone points and a pin or needle were recovered, along with what may have been part of a weaving comb and a 'blade', both probably associated with textile working. Stone objects comprised a rubber or grinder, a whetstone and fragment of shale bracelet. However, it is the small copper alloy 'pendant' from the base of the midden that stands out. This possibly anthropomorphic object, currently without parallel, is of uncertain function but there is no reason to doubt a Late Bronze Age/Early Iron Age date. Fragments of human bone have been found before within the midden material but, as noted above, the three small fragments of human skull (two exhibiting injuries) amongst the small animal bone deposit adjacent to one of the post-holes is perhaps of a more unusual nature.

7.1.13 Together, the size and extent of the ditch and associated bank, combined with the topographically prominent location of the Late Bronze Age/Early Iron Age enclosure, confirms the East Chisenbury midden site as a significant monument within the landscape. With views into and beyond the Avon valley to the west, and into the more distant Vale of Pewsey to the north-west, the enclosure could have been utilised for defence as well as serving as a tribal centre, meeting and feasting place. What the geophysics has not demonstrated however, is that the enclosure lay at the focus of several linear ditches, though it did confirm the presence of a single pair of linear ditches/pit alignment approaching from the north-west seen during earlier monitoring work. In addition, the work in 2016 has corroborated the earlier evidence for broadly contemporary settlement and shown, significantly, that this extends beyond the limits of the midden within the enclosure.

7.1.14 Finally, it can be noted that following completion of the excavation in 2016, the badger fencing was repaired and re-instated where necessary, excluding the badgers from the midden and preventing further damage to the monument.

8 STORAGE AND CURATION

8.1 Museum

8.1.1 It is recommended that the project archive resulting from the excavation be deposited with Wiltshire Museum, Devizes on completion of the project.

8.1.2 Deposition of any finds with the Museum will only be carried out with the full agreement of the landowner.

8.1.3 Details of the archaeological evaluation will also be entered into the online "OASIS" database maintained by the Archaeological Data Service (ADS).

8.2 Preparation of archive

8.2.1 The complete archaeological evaluation archive, which will include paper records, photographic records, graphics and digital data, will be prepared in accordance with Wessex Archaeology's *Guidelines for Archive Preparation,* and in general following nationally recommended guidelines (SMA 1995; CIfA 2014b; Brown 2011; ADS 2013).

8.2.2 All archive elements will be marked with the site code **70241**, and a full index will be prepared. The physical archive comprises the following:

- *1 file/document case of paper records & A3/A4 graphics;*
- *2 A1 graphics;*
- *Digital data (site photographs, drawings, Word and pdf files);*
- *15 cardboard or airtight plastic boxes of artefacts, ordered by material type.*

8.3 Conservation

8.3.1 No immediate conservation requirements were noted in the field. Finds which have been identified as of unstable condition and therefore potentially in need of further conservation treatment comprise the metal objects and shale fragment.

8.3.2 Only the shale bracelet fragment is considered to warrant further conservation treatment. All objects will be packaged securely for stable long-term curation (in airtight plastic tubs with drying agent, where appropriate).

8.4 Discard policy

8.4.1 Wessex Archaeology follows the guidelines set out in *Selection, Retention and Dispersal* (Society of Museum Archaeologists 1993), which allows for the discard of selected artefact and ecofact categories which are not considered to warrant any future analysis. In this instance, the following categories have been subject to selective retention:

- *Metalwork:* selected items will be retained, following discussion with DIO and Devizes Museum; this is likely to some/most of the nails and other demonstrably modern iron (commonly occurring and well documented types);
- *Clay pipes:* plain stem fragments only recovered, which will be discarded (no research potential for plain stem fragments);
- *Glass:* all demonstrably modern glass will be discarded (commonly occurring and well documented types);
- *Shell:* no shell will be retained (no research potential for small context groups).

8.4.2 The selection/retention policy will be fully documented in the project archive.

8.4.3 The discard of environmental remains and samples follows nationally recommended guidelines (SMA 1993; 1995; English Heritage 2002).

8.5 Copyright

8.5.1 The full copyright of the written/illustrative archive relating to the Site will be retained by Wessex Archaeology Ltd under the Copyright, Designs and Patents Act 1988 with all rights reserved. The recipient museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use shall be non-profitmaking, and conforms with the Copyright and Related Rights regulations 2003.

8.6 Security copy

8.6.1 In line with current best practice (e.g. Brown 2011), on completion of the project a security copy of the written records will be prepared, in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

9 REFERENCES

ADS 2013, *Caring for Digital Data in Archaeology: a guide to good practice*, Archaeology Data Service & Digital Antiquity Guides to Good Practice

Aldhouse-Green, M.J., 2001, *Dying for the Gods: human sacrifice in Iron Age and Roman Europe*, Stroud, Tempus

Armit, I., 2012, *Headhunting and the Body in Iron Age Europe*, Cambridge, Cambridge University Press

Barrett, J. and McOmish, D., 2009, 'The Early Iron Age in Southern Britain: Recent Work at All Cannings Cross, Stanton St Bernard and East Chisenbury, Wiltshire', in M-J RoulièreLambert 2009, *De l'âge du Bronze a l'âge du Fer en France et en Europe occidentale XeViie siècle avant J.C. − La Moyenne vallée du Rhône aux âges du Fer*, Revue archaéoloqique de L'Est.

Bradley, R., Entwistle, R. and Raymond, F., 1994, *Prehistoric Land Divisions on Salisbury Plain: The work of the Wessex Linear Ditches Project*, English Heritage Archaeol. Rep. 2, Swindon

British Geological Survey, Geology of Britain on-line Viewer (accessed August 2016))

Brown, D.H., 2011, *Archaeological archives; a guide to best practice in creation, compilation, transfer and curation*, Archaeological Archives Forum (revised edition)

Brück, J., 1995, A place for the dead: the role of human remains in Late Bronze Age Britain, *Proc. Prehist. Soc.* 61, 245–78

Buikstra, J.E. and Ubelaker, D.H. (eds), 1994 *Standards for data collection from human skeletal remains. Proceedings of a seminar at the Field Museum of Natural History organised by Jonathan Haas*, Arkansas Archaeol. Survey Res. Ser. 44. Fayetteville, Arkansas, USA

Carruthers, W., 2000, Mineralised plant remains, in A.J. Lawson, *Potterne 1982–5: animal husbandry in later prehistoric Wiltshire*, Wessex Archaeol. Rep. 17, Salisbury, 72–83

CIfA 2014a, *Standards and Guidance for Archaeological Excavation*, Chartered Institute for Archaeologists

CIfA 2014b, *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives*, Chartered Institute for Archaeologists

Egging Dinwiddy, K. and McKinley, J.I., 2014, Unburnt human bone, in N. Cooke and A. Mudd, *A46 Nottinghamshire: the archaeology of the Newark to Widmerpool Improvement Scheme, 2009*, Cotswold Archaeology Monograph 7 and Wessex Archaeology Monograph 34, Cirencester and Salisbury, Cotswold Wessex Archaeology, 148–58

English Heritage 2002, *Environmental Archaeology, a guide to theory and practice of methods, from sampling and recovery to post-excavation*, Swindon, Centre for Archaeology Guidelines

English Heritage 2009, *Management of Research Projects in the Historic Environment*, Swindon

English Heritage. 2011. *Introduction to Heritage Assets: Prehistoric Linear Boundary Earthworks*, Swindon

Keith, A., 1923, Notes on fragments of human skulls from All Cannings Cross, in M.E. Cunnington, *The Early Iron Age Inhabited Site at All Cannings Cross Farm, Wiltshire. A Description of the Excavations, and Objects found, by Mr and Mrs B H Cunnington, 1911–1922*, Devizes, Simpson & Co, 33–41

Lawson, A.J., 2000, *Potterne 1982–5: animal husbandry in later prehistoric Wiltshire*, Wessex Archaeol. Rep. 17, Salisbury

Levitan, B., 1990, The vertebrate remains, in M. Bell (ed.), *Brean Down Excavations 1983–1987*, English Heritage Archaeol. Rep. 15, 220–41

Locker, A., 2000. Animal bone, in A.J. Lawson (ed.), *Potterne 1982–5: animal husbandry in later prehistoric Wiltshire*, Wessex Archaeol. Rep. 17, Salisbury, 101–19

Longley, D., 1980, *Runnymede Bridge 1976: excavations on the site of a Late Bronze Age settlement*, Research Vol. of the Surrey Archaeol. Soc. 6. Guildford, Surrey Archaeological Society

McCobb, L.M., Briggs, D.E., Carruthers, W.J. and Evershed, R.P., 2003, Phosphatisation of seeds and roots in a Late Bronze Age deposit at Potterne, Wiltshire, UK, *J. Archaeol. Sci.* 30, 1269−81

McKinley, J.I., 2000, Human bone, in A.J. Lawson, *Potterne 1982−5: animal husbandry in later prehistoric Wiltshire*, Wessex Archaeol. Rep. 17, Salisbury, 95–101

McKinley, J.I., 2004, Compiling a skeletal inventory: disarticulated and co-mingled remains, in M. Brickley and J.I. McKinley (eds), *Guidelines to the Standards for Recording Human Remains,* Brit. Assoc. for Biological Anthropol. and Osteoarchaeol. and Institute for Field Archaeology [now Chartered], 13–16

McKinley, J.I., 2008, Human remains, in C. Ellis and A.B. Powell, *An Iron Age settlement outside Battlesbury Hillfort, Warminster and sites along the Southern Range Road,* Wessex Archaeol. Rep. 22, Salisbury, Wessex Archaeology and Defence Estates, 71–84

McOmish, D., 1996, East Chisenbury: Ritual and rubbish at the British Bronze Age−Iron Age transition, *Antiquity* 267, 68−76

McOmish, D., Field, D. and Brown, G., 2002, *The Field Archaeology of the Salisbury Plain Training Area*, Swindon: English Heritage

McOmish, D., Field, D. and Brown G., 2010, 'The Bronze Age and Early Iron Age Midden Site at East Chisenbury, Wiltshire', *Wilts Archaeol. Nat. Hist. Mag.* 103, 35−101

Norcott, D., 2006, Later Prehistoric Midden Sites in the Vale of Pewsey, unpubl. MSc thesis, Univ of Reading

Ordnance Survey 1983, *Soil Survey of England and Wales Sheet 3, Soils of the Midlands and Western England*, Southampton

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

Serjeantson, D., 1996, The animal bones, in S. Needham and T. Spence (eds), *Refuse and Disposal at Area 16 East Runnymede: Runnymede Bridge Research Excavations, Vol. 2*, British Museum, 194–223

Serjeantson, D., Bagust, J. and Jenkins, C., 2010, Animal bone, in McOmish *et al*. 2010, 62–5

SMA 1993, *Selection, Retention and Dispersal of Archaeological Collections*, Society of Museum Archaeologists

SMA 1995, *Towards an Accessible Archaeological Archive*, Society of Museum Archaeologists

Stace, C., 1997, *New flora of the British Isles* (2nd edition), Cambridge, Cambridge University Press

Straker, V., 2000 Charred plant remains, in A.J. Lawson, *Potterne 1982–5: animal husbandry in later prehistoric Wiltshire*, Wessex Archaeol. Rep. 17, Salisbury, 84–91

Wessex Archaeology 2004, *Westbury Proposed Eastern By-pass, Wiltshire,* unpubl. client report 66130

Wessex Archaeology 2005, *Salisbury Plain training Area: Archaeological Monuments Condition Survey*, unpubl. client report 58940.01

Wessex Archaeology 2008, *East Chisenbury Midden, DTE Salisbury Plain, Wiltshire: Auger Survey,* unpublished client report 70240.01

Wessex Archaeology 2016a, *East Chisenbury Midden Excavation, Salisbury Plain: Method Statement for Archaeological Investigations,* unpubl. client report T22291.01

Wessex Archaeology 2016b, *East Chisenbury Midden Excavation, Salisbury Plain, Wiltshire: Detailed Gradiometer Survey Report,* unpubl. client report 15009.01

Whimster, R., 1981, *Burial Practices in Iron Age Britain*, Oxford, Brit. Archaeol. Rep. 90 (i and ii)

Zohary, D. and Hopf, M., 2000, *Domestication of plants in the Old World: the origin and spread of cultivated plants in West Asia, Europe, and the Nile Valley*, 3rd edition, Oxford, Clarendon Press

APPENDIX 1 – TRENCH TABLES

TRENCH 1			**Machine excavated**
Dimensions: 60 m x 1.8 m	**Max. depth:** 1.80 m	**Ground level:** 144.60 m aOD	
Co-ordinates: NW**:** 414710E 153182N SE: 414757E 153150N			
Context	**Description**		**Depth (m)**
100	Layer	**Subsoil**: Dark greyish brown silty clay loam (= 106). Context no allocated for finds collection from 0−5 m from west end of trench	0.1−0.4
101	Layer	**Subsoil**: Dark greyish brown silty clay loam (= 106). Context no allocated for finds collection from 5−10 m from west end of trench	0.1−0.4
102	Layer	**Subsoil**: Dark greyish brown silty clay loam (= 106). Context no allocated for finds collection from 10−15 m from west end of trench	0.1−0.4
103	Layer	**Subsoil**: Dark greyish brown silty clay loam (= 106). Context no allocated for finds collection from 15−20 m from west end of trench	0.1−0.4
104	Layer	**Subsoil**: Dark greyish brown silty clay loam (= 106). Context no allocated for finds collection from 20−25 m from west end of trench	0.1−0.4
105	Layer	**Subsoil**: Dark greyish brown silty clay loam (= 106). Context no allocated for finds collection from 25−30 m from west end of trench	0.1−0.4
106	Layer	**Subsoil**: Dark greyish brown silty clay loam. Context no covers finds collection units 100−105 from 0−30m from west end of trench	0.1−0.4
107	Layer	**Turf + Topsoil**: Dark/greyish brown silty clay loam	0−0.1
108	Natural	**Natural**: Clay-with-Flints	0.4+
109	Layer	**Fill**: Compacted chalk. Fill of [151]	0.07+
110	Layer	**Fill**: Mid reddish brown clayey silt. Fill of [151]	0.2
111	Layer	**Fill**: Very dark greyish brown silty loam with common small chalk frags. RB 'horizon'. Fill of [149]	0.2
112	Cut	**Post-hole**: Irregular, 0.41 x 0.26 m. Filled with (113)	0.31
113	Layer	**Fill**: Mid greyish brown silty clay loam. Fill of [112]	0.31
114	Cut	**Post-hole**: Sub-rectangular, 0.48 x 0.42 m. Filled with (115)	0.24
115	Layer	**Fill**: Mid greyish brown silty clay loam. Fill of [114]	0.24
116	Cut	**Post-hole**: Sub-circular? 0.70 x 0.46+ m. Filled with (117)	0.46
117	Layer	**Fill**: Light greyish brown clayey silt. Fill of [116]	0.46
118	Layer	**Subsoil**: Mid greyish brown silty clay loam, covering features approx. 5−10 m from west end of trench	0.1
119	Cut	**Post-hole**: Circular? 0.40 m diam. Filled with (120)	0.80
120	Layer	**Fill**: Light greyish brown clayey silt. Fill of [116]	0.80
121	Cut	**Post-hole**: Duplicate no., see [169]	-
122	Layer	**Post-hole**: Duplicate no., see (170)	-
123	Cut	**Post-hole**: Sub-circular, 0.84 x 0.70 m. Post-pipe with flint packing Filled with (124)	0.37
124	Layer	**Fill**: Mid orange brown clayey silt. Fill of [123]	0.37
125	Cut	**Post-hole**: Sub-circular, 0.47 x 0.46 m. Filled with (126)	0.31
126	Layer	**Fill**: Mid orange brown clayey silt. Fill of [125]	0.31
127	Layer	**Fill**: Greyish brown/dark greyish brown silty clay loam. Fill of [149]	0.30
128	Layer	**Fill**: Yellowish brown clay loam. Fill of [149]	0.30
129	Layer	**Fill**: Pale brown clay loam/silty clay loam. Fill of [149]	0.28
130	Layer	**Fill**: White/ greyish white loose chalk lumps, most <50 mm. Slumped/levelled bank material? Fill of [149]	0.30
131	Layer	**Fill**: Mid grey clay loam/loamy clay. Fill of [149]	0.40
132	Natural	**Natural:** Chalk	
133	Cut	**Post-hole**: Sub-circular, 0.58 m diam. Filled with (134)	0.44
134	Layer	**Fill**:Mid greyish brown clayey silt. Fill of [133]	0.44
135	Cut	**Post-hole**: Irregular, 0.52 x 0.38 m. Filled with (136)	0.32
136	Layer	**Fill**: Mid greyish brown clayey silt. Fill of [135]	0.32
137	Cut	**Post-hole**: Sub-oval, 0.94 x 0.65 m. Filled with (138)	0.42
138	Layer	**Fill**: Yellowish brown clayey silt. Fill of [137]	0.42

139	Cut	**Post-hole**: Sub-oval, 0.47 x 0.38 m. Filled with (140)	0.36
140	Layer	**Fill**: Mid greyish brown clayey silt. Fill of [139]	0.36
141	Cut	**Post-hole**: Sub-circular, 0.30 x 0.28 m. Filled with (142)	0.16
142	Layer	**Fill**: Mid greyish brown clayey silt. Fill of [141]	0.16
143	Cut	**Post-hole**: Sub-oval, 1.18 x 0.98 m. Contains three sub-circular post-settings, two with flint post-packing. Filled with (144)	0.33
144	Layer	**Fill**: Mid orange brown clayey silt. Fill of [144]	0.33
145	Cut	**Post-hole**: Sub-circular, 0.36 x 0.30 m. Filled with (146)	0.30
146	Layer	**Fill**: Mid greyish brown clayey silt. Fill of [145]	0.30
147	Cut	**Post-hole**: Sub-circular, 0.42 x 0.31 m. Filled with (148)	0.16
148	Layer	**Fill**: Mid yellowish brown clayey silt. Fill of [147]	0.16
149	Cut	**Ditch**: Enclosure ditch. Linear, with straight sides at 45° and rounded base, Min 6 m wide, with additional 2.5 m wide shallow step on the inside (E side). Filled with (111) (127−131) (180−182)	1.80
150	Layer	**Fill**: V light reddish brown clayey silt. Fill of [151]	0.20
151	Cut	**Tree-throw**: Oval? (not fully exposed), 4.40 x 1.90+ m. Filled with (109−110) (150) (172)	0.32
152	Layer	**Deposit**: Deliberate deposit of animal bone + three human skull frags (see also layer 118 for other associated finds); adjacent to post-hole [159]. Covers area of 0.40 x 0.35 m	0.09
153	Cut	**Scoop**: Circular, 0.42 m diam. Filled with (154)	0.05
154	Layer	**Fill**: Mid blackish brown clayey silt. Contains (remains of) *in situ* pot. Fill of [153]	0.32
155	Cut	**Post-hole**: Sub-oval, 0.71 x 0.53 m. Filled with (156)	0.38
156	Layer	**Fill**: Mid greyish brown clayey silt, with flint packing. Fill of [156]	0.38
157	Cut	**Post-hole**: Sub-circular, 0.46 x 0.23+m. Filled with (158)	0.26
158	Layer	**Fill**: Dark greyish brown clayey silt. Fill of [157]	0.26
159	Cut	**Post-hole**: Sub-circular, 0.66 x 0.64 m. Filled with (160)	0.26
160	Layer	**Fill**: Mid greyish brown clayey silt. Fill of [159]	0.26
161	Layer	**Fill**: Dark greyish brown clayey silt. Fill of [162]	0.25
162	Cut	**Post-hole**: Circular, 0.30 m diam. Filled with (161)	0.25
163	Layer	**Fill**: Dark greyish brown clayey silt. Fill of [164]	0.13
164	Cut	**Post-hole**: Circular, 0.28 m diam. Filled with (163)	0.13
165	Cut	**Post-hole**: Sub-circular, 0.30 x 0.25 m. Filled with (166)	0.12
166	Layer	**Fill**: Mid greyish brown clayey silt. Fill of [165]	0.12
167	Cut	**Post-hole**: Oval, 0.30 x 0.25 m. Filled with (166). Not excavated	-
168	Layer	**Fill**: Mid greyish brown clayey silt. Fill of [165]. Not excavated	-
169	Cut	**Pit/post-hole**: Sub-circular, 0.82 x 0.80 m. Filled with (170)	0.17
170	Layer	**Fill**: Mid greyish brown clayey silt. Fill of [169]	0.17
171	Layer	**Layer**: White/very light grey silty clay, abundant small chalk frags	0.13
172	Layer	**Fill**: White/very light grey compact chalky silt, abundant small chalk frags. Fill of [151]	1.20
173	Layer	**Layer**: Very dark grey silty clay. Ploughsoil	0.20
174	Layer	**Layer**: Light greyish brown silty clay. Bioturbated surface of natural Clay-with-Flints	0.15
175	Layer	**Layer**: Light greyish brown silty clay. Worm-sorted ploughsoil	0.03+
176	Cut	**Post-hole**: Sub-circular, 0.60 x 0.50 m. Filled with (177)	0.50
177	Layer	**Fill**: Mid greyish brown clayey silt, with flint and chalk packing. Fill of [176]	0.50
178	Cut	**Post-hole**: Sub-circular, 0.34 x 0.30 m. Filled with (179)	0.22
179	Layer	**Fill**: Mid greyish brown clayey silt. Fill of [178]	0.22
180	Layer	**Fill**: White/greyish white chalk, relatively loose. Basal fill of [149]	0.20
181	Layer	**Fill**: Grey brown silty clay loam, abundant small chalk frags. Levelled bank? Fill of [149]	0.35
182	Layer	**Fill**: Pale brown silty clay loam. Post-Roman infill of [149]	0.50

TRENCH 2			**Machine excavated**
Dimensions: 36 m x 1.8 m	**Max. depth:** 0.50 m	**Ground level:** 144.70 m aOD	
Co-ordinates: N**:** 414732E 153440N S: 414737E 153412N			
Context	**Description**		**Depth (m)**
201	Layer	**Occupation deposit**: Mid/dark reddish brown silty loam, at south end of trench (see also 202)	0.1
202	Layer	**Occupation deposit**: Mid reddish brown silty loam, in south half of trench (see also 201)	0.1
203	Layer	**Layer**: White chalk. Bank material	0.15
204	Layer	**Layer**: Dark greyish brown silty loam. Bank material	0.1
205	Layer	**Layer**: Dark greyish brown silty clay loam. Bank material	0.1
206	Layer	**Subsoil**: Yellowish brown clayey silt	0.05
207	Cut	**Ditch**: Enclosure ditch. Linear, up to 8.75 m wide, not excavated. Filled with (210−212)	Not exc
208	Cut	**Post-hole**: Sub-rectangular, 0.24 x 0.22 m. Filled with (209)	0.24
209	Layer	**Fill**: Reddish grey brown sandy silt loam. Fill of [208]	0.24
210	Layer	**Fill**: Very pale reddish brown silty clay loam. Abundant small chalk frags. Not excavated. Fill (shallow berm area?) of [207]	Not exc.
211	Layer	**Fill**: Pale reddish brown silty clay loam. Some small chalk frags. Not excavated. Fill (levelled bank material?) of [207]	Not exc.
212	Layer	**Fill**: Reddish brown silty clay loam. Some small chalk frags. Not excavated. Fill of [207]	Not exc.

TRENCH 3			**Machine excavated**
Dimensions: 15 m x 1.8 m	**Max. depth:** 0.35 m	**Ground level:** 144.65 m aOD	
Co-ordinates: N**:** 414740E 153333N S: 414750E 153318N			
Context	**Description**		**Depth (m)**
301	Cut	**Post-hole**: Circular, 0.50 m diam. Filled with (302)	0.08
302	Layer	**Fill**: Reddish brown sandy silt loam. Fill of [301]	0.08
303	Cut	**Animal burrow?**: Irregular linear, 1.30 x 0.50 m. Filled with (304)	0.25
304	Layer	**Fill**: Dark greyish brown/reddish brown silty loam. Fill of [303]	0.25
305	Cut	**Slot**: Elongated oval, 1.25 x 0.50 m. Filled with (306)	0.15
306	Layer	**Fill**: Mid brown/brownish red silty clay loam. Fill of [305]	0.15

TRENCH 4			**Machine excavated**
Dimensions: 15 m x 1.8 m	**Max. depth:** 2.75 m	**Ground level:** 141.90 m aOD	
Co-ordinates: SW**:** 414625E 153055N NE: 414640E 153068N			
Context	**Description**		**Depth (m)**
400	Layer	**Topsoil**: Mid greyish brown silty clay loam with sparse small chalk frags	0−0.40
401	Layer	**Subsoil**: Mid yellowish brown silty clay loam with common small chalk frags	0.40−0.90
402	Layer	**Fill**: Dark greyish brown silty loam. Fill of [412]	0.15
403	Layer	**Fill**: Orange brown silty loam with abundant small chalk frags. Fill of [412]	0.35
404	Layer	**Fill**: Dark greyish brown silty clay loam. Fill of [412]	0.10
405	Layer	**Fill**: Dark greyish brown clay loam. Fill of [412]	0.50
406	Layer	**Fill**: Dark greyish brown clay loam with some small chalk frags. Fill of [412]	0.18
407	Layer	**Fill**: Dark greyish brown clay loam. Fill of [412]	0.35
408	Layer	**Fill**: Dark greyish brown clay loam with some small chalk frags. Fill of [412]	0.15
409	Layer	**Fill**: Dark greyish brown clay loam. Fill of [412]	0.70
410	Layer	**Fill**: Dark greyish brown silty loam with some small chalk frags. Fill of [412]	0.20
411	Layer	**Fill**: Greyish brown silty loam with abundant small/medium chalk frags. Fill of [412]	0.25
412	Cut	**Ditch**: Enclosure ditch. Linear, with straight sides at approx 45°; not bottomed in this section, Approx 10 m wide. Filled with (401−402) (410−411)	2.25+
413	Layer	**Fill**: Dark greyish brown silty clay loam. Fill of [412]	0.60

TRENCH 5			**Hand excavated**
Dimensions: 1 m x 1 m	**Max. depth:** 1.05 m	**Ground level:** 147.05 m aOD	
Co-ordinates: Centre: 414675E 153255N			
Context	**Description**		**Depth (m)**
501	Layer	**Topsoil**: Dark greyish brown silty loam with common small chalk frags	0−0.30
502	Layer	**Layer**: Brown silty loam with sparse small chalk frags. Colluviated midden material + topsoil	0.30−0.60
503	Layer	**Layer**: Brown silty loam with sparse small chalk frags. Colluviated midden material	0.6−0.75
504	Layer	**Layer**: Greyish brown silty loam with common pea grit. Colluviated midden material	0.75−0.95
505	Layer	**Layer**: Brown silty loam with common/abundant flint. Colluviated basal worm-sorted layer above natural	0.95−1.05

TRENCH 6			**Machine excavated**
Dimensions: N/A	**Max. depth:** 0.40 m	**Ground level:** 145.5 m aOD	
Co-ordinates: Centre: 414600E 153180N			
Context	**Description**		**Depth (m)**
600	Unstratified	Casual surface collection	
601	Layer	**Deposit**: Discrete deposit of badger spoil excavated for finds retrieval	-
602	Layer	**Deposit**: Discrete deposit of badger spoil excavated for finds retrieval	-
603	Layer	**Deposit**: General spread of badger spoil from which finds were retrieved	-

TRENCH 7			**Hand excavated**
Dimensions: 1 m x 1 m	**Max. depth:** 0.85 m	**Ground level:** 147.15 m aOD	
Co-ordinates: Centre: 414670E 153265N			
Context	**Description**		**Depth (m)**
701	Layer	**Topsoil**: Dark brown silty loam.	0−0.05
702	Layer	**Topsoil**: Dark brown silty loam. Topsoil + colluviated midden material. Part of group [713]	0.05−0.10
703	Layer	**Layer**: Dark brown silty loam. Colluviated midden material + topsoil. Part of group [713]	0.10−0.25
704	Layer	**Layer**: Dark brown silty loam. Colluviated midden material? Part of group [714]	0.25−0.35
705	Layer	**Layer**: Dark brown silty loam. Colluviated midden material? Part of group [714]	0.35−0.45
706	Layer	**Layer**: Dark brown silty loam. Colluviated midden material? Part of group [714]	0.45−0.55
707	Layer	**Layer**: Dark brown silty loam. Colluviated midden material? Part of group [714]	0.55−0.65
708	Layer	**Layer**: Dark brown silty loam. Colluviated midden material? Part of group [714]	0.65−0.75
709	Layer	**Layer**: Dark brown silty loam. *In situ* midden? Part of group [715]	0.75−0.85
710	Layer	**Layer**: Dark brown silty loam. *In situ* midden? Part of group [715]	0.85−0.90
711	Layer	**Layer**: Brown clay loam with common/abundant flint. Top of natural	0.90−0.95
712	Natural	**Natural**: Orange Clay-with-Flints	0.95+
713	Layers	**Group**: Topsoil and colluvial midden material. Comprises layers (702−703)	0.05−0.25
714	Layers	**Group**: Colluvial midden material? Comprises layers (704−708)	0.25−0.75
715	Layers	**Group**: *In situ* midden?. Comprises layers (709−710)	0.75−0.90

APPENDIX 2 – GEOARCHAEOLOGICAL, FINDS AND ENVIRONMENTAL TABLES

Table 1: Geoarchaeological sediment descriptions − Trench 5

Area	Trench 5	**Feature:**	/	**Comments:** Finds are generally small and abraded from this test pit, except the animal bone, some of which is quite large and in good condition. Worked bone pin/needle fragment at base (505; ON 9).
Level (top):	147.05m aOD	**Drg:**	501	

Depth (m)	**Context**	**Sediment description**	**Interpretation**
0−0.30	501	10YR4/1 dark grey; in the clay loam−silty clay-silt loam range (texture difficult to establish probably due to fine ashy content in parent material – no sand, little clay, but not slippy) Upper 100 mm is stone-free (except for very small chalk fragments <1 mm), worm-sorted Ah horizon, very common fine fleshy rootlets, well developed medium crumb to blocky structure, common fine macropores, Below 100 mm common small chalk <20 mm, occasional flint <60 mm, occasional archaeological components incl. pottery, bone, quite common burnt flint. Boundary indistinct/clear.	Turf & topsoil The zone of mixed small chalk fragments below 100 mm indicates that this has previously been a ploughsoil, but left fallow for some time (probably decades)
0.30−0.60	502	10YR 4/2−3/2 dark to very dark greyish brown friable silt loam, medium blocky structure, common fine fleshy rootlets, sparse chalk flecks. Clear boundary.	?Colluviated or upcast midden material, worm-sorted. Banding of inclusions may indicate at least a couple of chronologically discrete episodes of ploughing / colluviation – but badger upcast cannot be ruled out
0.6−0.75	503	As above, but with more and larger inclusions, mostly archaeological (animal bone, charcoal, burnt flint). Possibly moved down-profile from / through 502. NB – pig-skull parts were semi-articulated, unlikely to have been disturbed significantly since deposition or to have been moved colluvially (R Madgwick pers comm during excvation)	
0.75−0.95	504	10YR 5/2 greyish brown silt loam, very common small chalk <2 mm (pea grit), especially to base and within worm burrows. Sharp uneven boundary to flinty layer below. Paler, friable, pea-grit rich.	
0.95−1.05	505	Flint and pea grit, occasional burnt flint and bone. Very little sediment matrix. Very likely moved down profile by worm-driven translocation. Overlies the clay-with-flint geology.	
1.05+	506	10YR 5/6 yellowish brown clay loam, large flint nodules, calcareous patches protruding through in places.	Clay-with-Flints geology

Table 2: Geoarchaeological sediment descriptions − Trench 7

Area of site	Trench 7	**Feature:**	/	**Comments:** Very similar to Tr 5, although lacking the additional horizon of inclusions and artefacts (503). May indicate that the possible phased ploughing postulated for Tr 5 is more likely to be material deposited by badger upcast & subsequently worm sorted. Copper alloy 'pendant' from near base (708; ON 14).
Level (top):	147.15m aOD	**Drg:**	701	

Depth (m)	**Context**	**Sediment description**	**Interpretation**
0-0.26	713	10YR 3/2 very dark greyish brown clay loam to silty clay loam, quite common shall shalk (most <10 mm), occasional flint inclusions & artefacts. As with Tr 5, upper 100 mm is stone-free (except for very small chalk fragments <1 mm), worm-sorted Ah horizon, very common fine fleshy rootlets, well developed medium crumb to blocky structure, common fine macropores. Clear boundary.	Turf & topsoil The zone of mixed small chalk fragments below 10cm indicates that this has previously been a ploughsoil, but left fallow for quite a while (probably decades)
0.26-0.72	714	10YR3/2 very dark greyish brown silty clay loam to silt loam. Fine fleshy rootlets throughout, medium blocky structure, rare chalk and flint inclusions, occasional finds	?Colluviated midden material, worm-sorted.
0.72-0.90	715	10YR 4/2 to 5/2 dark to greyish brown silt loam, very common small chalk <2 mm (pea grit), especially to base and within worm burrows. Sharp uneven boundary to flinty layer below. Paler, calcareous, friable, pea-grit rich.	
0.90-0.95	711	Flint and pea grit, occasional artefact. Very little sediment matrix. Very likely moved down profile by worm-driven translocation. Overlies the clay-with-flint geology.	
0.95+	712	10YR 5/6 yellowish brown clay loam, large flint nodules, calcareous patches protruding through in places.	Clay-with-Flints geology

Table 3: Worked flint by artefact type and trench

Trench	No of contexts	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	**Total**
1	24	-	3	1	4	91	51	1	-	3	1	2	1	158
2	3	-	3	1	1	33	47	-	3	-	-	9	-	97
3	3	-	-	-	-	12	6	-	-	-	-	-	-	18
4	5	-	-	-	-	17	5	-	-	-	-	-	1	23
5	4	-	-	-	-	4	2	-	-	-	-	2	-	8
6	4	-	1	-	-	20	17	-	-	-	1	1	-	40
7	7	1	-	-	-	9	2	-	-	-	-	-	-	12
Unstrat	1	-	-	-	-	1	-	-	-	-	-	-	-	1
Total	51	1	7	2	5	187	130	1	3	3	2	14	2	**357**

Key:
1) Cores 2) Blades 3) Broken blades 4) Bladelets 5) Flakes 6) Broken flakes
7) Rejuvenation flakes 8) Chips 9) Scrapers 10) Other tools 11) Debitage 12) Misc retouch

Table 4: Pottery by trench

Trench	*No of contexts*	*No*	*Weight (g)*	*ASW (g)*
1	33	821	5,669	6.90
2	5	534	3,955	7.41
3	3	80	335	4.19
4	4	8	57	7.12
5	5	78	456	5.85
6	4	1006	11,359	11.29
7	10	242	1,540	6.36
Total		*2769*	*23,371*	*8.44*

Table 5: Pottery by date

Date	*No*	*Weight (g)*	*ASW (g)*
Late Bronze Age / Early Iron Age	2,665	22,816	8.56
Romano-British	101	548	5.43
Medieval	2	5	2.5
Post-medieval	1	2	2
Total	*2,769*	*23,371*	*8.44*

Table 6: Pottery rim forms

Form	*No*
Out-turned, round	14
Out-turned, flat	7
Out-turned, 'T'-shaped	1
Out-turned, pointed	2
Out-turned, externally-thickened	1
Everted, pointed	1
Everted, flat	1
Everted, rounded	4
Everted, rounded, bevel	2
Upright, externally thickened	1
Upright, flat	16
Upright, pointed	4
Upright, round	22
Upright, 'T'-shaped	8
Upright, expanded	4
Upright, internally-thickened	1
Hooked	1
Total	*90*

Table 7: Human bone

Context	feature	quantification	age/sex	pathology	comment
102	subsoil	a) 1 frag. s. b) 1 frag. l.	a) ?infant/juvenile 1–5 yr. b) adult >18 yr	a) endocranial vessel impressions	a) 0–1, old and fresh breaks (dry); light grey/buff; thin vault fragment 20 x 20 mm b) 1–2, old & new breaks (dry); very light buff; posterior femur fragment
128	149 (ditch)	a) 1 bone u. b) 1 frag. l.	a) juvenile 8–12 yr b) adult >18 yr		a) 1; old breaks (dry), faint longitudinal fissuring, bleached very light buff (exposed); left ulna shaft b) 2–3; old damage (dry); light grey/buff; fragment distal ?left femur
140	139 (post-hole)	1 bone u.	adult >18 yr		0-1; old breaks (splintered & snapped; semi-green) & canid gnawing (end), yellowish buff; right radius mid-shaft
152	deposit	3 frags s. ? = 600, 601	adult 18–30 yr ?female	penetrating trauma – healed and *?peri-mortem*	1–2; slight erosion, old & fresh breaks (dry, green/semi-green), light/mod red/yellow brown; thin left parietal fragments (refitting)
201	occupation deposit	4 frags s. l. ? = 602	adult 18–30 yr ?female		1–2; slight erosion/root etching, old breaks (?semi-green & dry), light buff; right posterior parietal (refitting), small, narrow right tibia (no refit), ?same individual
600	?badger spoil	1 frag. s.	adult 18–30 yr	mv – supra-orbital foramina	0–1; breaks & scratches (green/semi-green); stained grey/brown, shiny; thin right frontal including orbit & glabella
601	badger spoil	1 frag. s. ?=152, 600	adult 18–30 yr ??female		0–2; old breaks (dry), some erosion, red/yellow brown (*cf* 152), ?fungal stains; left parietal (temporo-mastoid & occipital sutures); larger & more robust than 201
602	badger spoil	2 frags s.	adult >25 yr	striated endocranial; Pacchonion depressions	0–1; old breaks (?semi-green & dry), pale buff & mid grey/buff (mottled); skull base/temporal & parietal (bregma right or lambda left); sutures closing; thicker & heavier than 152

Table 8: Animal bone − number of identified specimens present (or NISP) by feature/deposit

Species	*midden*	*enclosure bank and ditch*	*internal post-holes*	*badger disturbance*	*topsoil and US*	*Total*
cattle	134	20	30	41	3	228
sheep/goat	160	26	34	84	9	313
pig	17	9	6	14	1	47
horse	8	3	2	3	-	16
dog	1	-	-	1	-	2
red deer	1	-	-	1	-	2
roe deer	1	-	-	-	-	1
deer	-	-	1	-	-	1
rabbit	-	-	-	1	-	
duck	1	-	-	-	-	1
corvid	1	-	-	-	-	1
Total identified	*324*	*58*	*73*	*145*	*13*	*612*
Total unidentifiable	*1463*	*213*	*199*	*387*	*35*	*2297*
Overall total	**1787**	**271**	**272**	**532**	**48**	**2910**
Overall percentage	**61**	**9.5**	**9.5**	**18**	**2**	**100**

Table 9: Bulk sample provenance summary

Phase	*No of samples*	*Volume (litres)*	*Feature types*
LBA/EIA	13 (out of 23)	219	Pits, post-holes, ditches, layers
RB	1	27	Ditch
Undated	3	52	Ditch
Totals	**17 (out of 27)**	**330**	

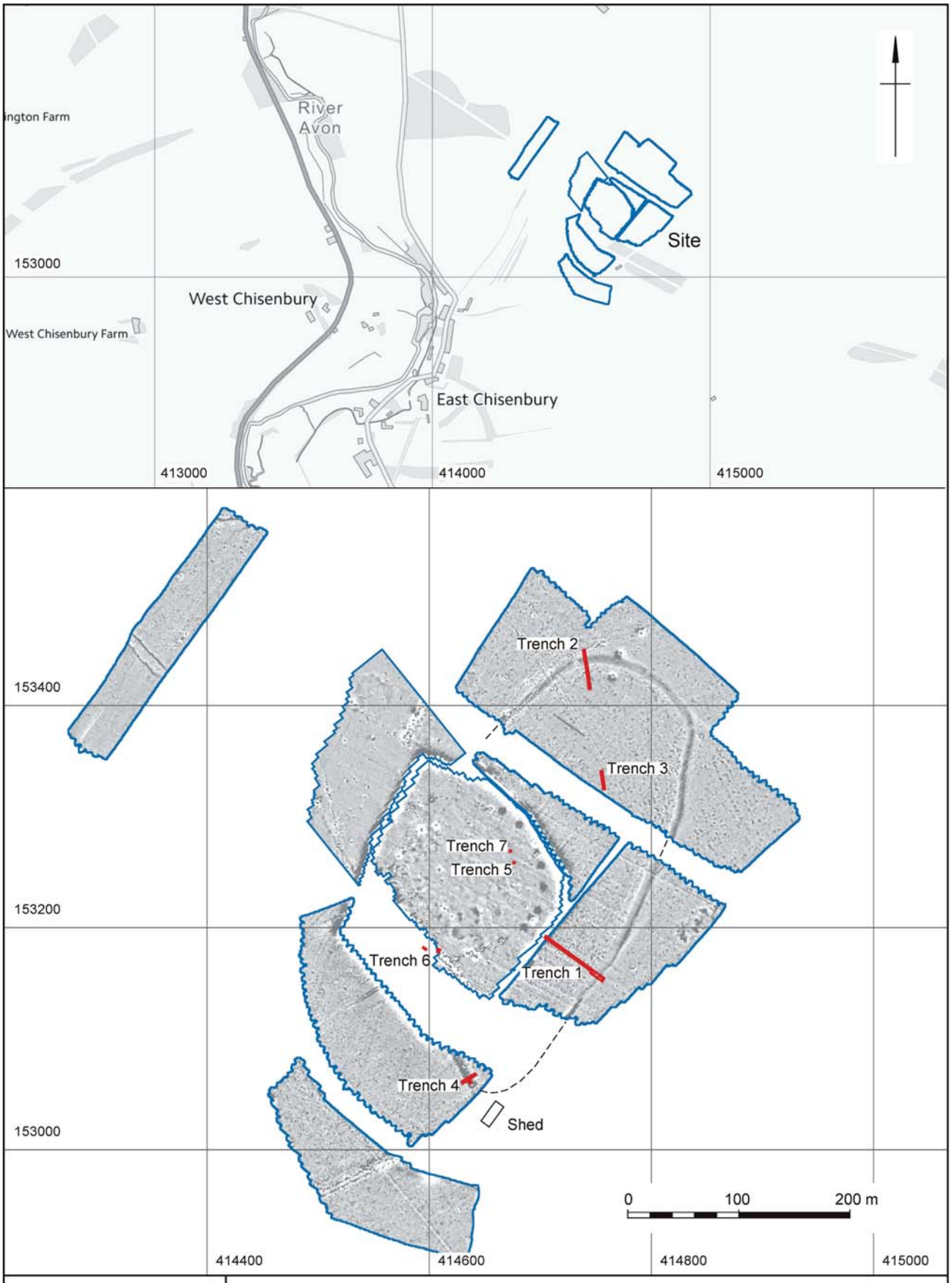
Table 10: Assessment of the environmental remains

Feature	Context	Sample	Vol (L)	Flot (ml)	Bioturbation proxies	Grain	Chaff	Cereal notes	Charred other	Charred other notes	Charcoal > 4/2mm	Other	Analysis	Comments (preservation)
Trench 1 – Romano-British ditch fill														
149	111	1	27	60	85%, B, I, E	C	-	Hordeum vulgare grain fragment	C	Veronica hederifolia	2ml/2ml	Moll-t		Poor
Late Bronze Age / Early Iron Age														
Trench 1 – post-holes and pits														
119	120	5	9	100	80%, C, E, I	A	-	Hordeum vulgare and Triticum sp. grains	C	Chenopodiaceae, indet fruit endocarp frag, Vicieae	2ml/2ml	Moll-t, Sab/f, Phosphate nodule		Poor
121	122	8	10	250	60%, A, E, I,	A**	A**	Hordeum vulgare and Triticum spp. (inc. dicoccum and spelta) grains (one sprouted). Triticum spp. chaff (dicoccum and spelta glume bases and spikelet forks)	A	Asteraceae, Chenopodiaceae, Poaceae (Panicoideae, Bromus sp., Avena/Bromus. Lolium/Festuca), Vicieae, Veronica hederifolia, Cyperaceae, Corylus avellana, Sherardia arvensis, Indet.	30ml/40ml	Moll-t, Sab/f	CPR, C	Fair
133	134	10	12	40	80%, C, E, I	A	C	Hordeum vulgare and Triticum sp. grains, Triticum sp. chaff (inc. T. spelta glumes)	C	Veronica hederifolia, Hyoscyamus niger	2ml/1ml	Moll-t		Fair
137	138	12	11	50	75%, A, E, F, I	C	A	Triticum sp. glume bases, Hordeum vulgare grain and Triticeae grains	C	Mineralised: Papaver sp., indets	2ml	Sab/f (A**), Moll-t (A***), Foraminifera, Phosphate nodules	MPR, Sab/f	Poor

139	140	13	12	100	75%, B, E, I, F	A*	B	Hordeum vulgare (inc. var. vulgare) and Triticum sp. grains and chaff (glume bases)	C	Gallium sp., (Poa/Phleum), Brassicaceae?, Indet seed frag.	1ml/3ml	Moll-t		Fair
155	156	16	10	60	90%, B, E	C	C	Hordeum vulgare grains, Triticum sp. chaff (glume bases)	C	Uncharred, possibly partly mineralised: Indet seed	<1ml	Moll-t		Poor
Trench 1 − ditch fill														
	131	9	20	20	50%, C, I	A*	C	Hordeum vulgare and Triticum sp. grains, Triticum sp. chaff (glumes, inc. spelta)	C	Parenchymatic tissue, Galium sp., Trifoliaeae	2ml/3ml	Moll-t		Poor
149	131	22	27	10	5%, C, I	A*	B	Hordeum vulgare (var. vulgare) and Triticum sp. grains and chaff (glume bases)	C	Hyoscyamus niger, Galium sp., Parenchymatic tissue, Trifolium sp.	2ml/4ml	Moll-t, Sab/f		Fair
Trench 1 and 2 − layers														
-	118=106	19	38	175	80%, A*, E	A*	C	Hordeum vulgare (inc. var. vulgare) and Triticum sp. grains and chaff	C, A (mineralised)	Parenchymatic tissue, Veronica hederifolia, Galium sp. Uncharred, possibly partly mineralised: Cyperaceae, Plantago lanceolata, Trifolium sp., Apiaceae	1ml/2ml	Moll-t, Sab/f, Phosphat nodules	CPR, MPR, Sab/f	Fair
	152	27	2	30	70%, B, E	B	-	Hordeum vulgare grains and Triticum sp. grain and chaff (glume base)	-	-	<1ml/2ml	Moll-t, bone frags		Poor

-	201	21	17	120	90%, A, I, E, F	A	C	Hordeum vulgare and Triticum sp. grains, Triticum sp. chaff (glume bases)	C , A (mineralised)	Uncharred, possibly partly mineralised: Ranunculus sp., Plantago lanceolata, Cyperaceae, Trifoliae	1ml/1ml	Moll-t	CPR, MPR	Poor
Trenches 5 and 7 − colluvial midden layers														
-	504	14	24	80	40%, C, E, I	C	A*	Triticum sp. (inc. spelta) and Hordeum vulgare (inc. var. vulgare) grains, Triticum spelta chaff (glume bases)	A, B (mineralised)	Viciae, Veronica hederifolia, Galium sp.,Poaceae (Poa/Phleum), Chenopodiaceae, Cyperaceae, Indet parenchymatic tissue. Partly mineralised: Lithospermum sp., Veronica hederifolia, Urtica urens, root	1ml/3ml	Moll-t, Sab/f, Phosphate nodules	CPR, MPR, Sab/f	Heterogenous
-	709	15	27	100	40%, B, I, E	A	A	Hordeum vulgare and Triticum sp. grains and chaff (glume bases, inc. spelta)	A, C (mineralised)	Poaceae (Bromus, Poa/Phleum), Veronica hederifolia, Galium sp., Rumex sp., Crataegus monogyna, Vicia, Chenopodiaceae, indet fruit endocarp. Mineralised: Urtica sp., Ranunculus sp. and indet	1ml/2ml	Moll-t, Sab/f	CPR, MPR, Sab/f	Poor
Trench 4 − undated ditch fills														
	409	24	17	20	1%, B, E, I	B	-	Hordeum vulgare grains (two in their spikelets)	C	Galium sp., Rumex sp.	<1ml/1ml	Moll-t		Heterogenous
	410	25	8	10	10%, C, I	A*	C	Hordeum vulgare and Triticum sp. grains and chaff (glume bases)	A	Galium sp., Sherardia arvensis, Polygonum sp., Rumex sp., Poaceae (Poa/Phleum, Bromus sp.), indet.	1ml/1ml	Moll-t		Poor
	413	26	27	10	1%, C, E, I	C	-	Triticum sp. grain fragments	C	Rubiaceae seed fragment	<1ml	Moll-t		Poor

Key: A*** = exceptional, A** = 100+, A* = 30-99, A = >10, B = 9-5, C = <5; Bioturbation proxies: Roots (%), Uncharred seeds (scale of abundance), F = mycorrhyzal fungi sclerotia, E = earthworm eggs, I = insects; Sab/f = small animal/fish bones/charred faecal pellets, Moll-t = terrestrial molluscs; Analysis: C = charcoal, CRP/MPR = charred/mineralised plant remains.



Geophysical survey

Evaluation trench

Coordinate system: OSGB36 (OSTN15/OSGM15)

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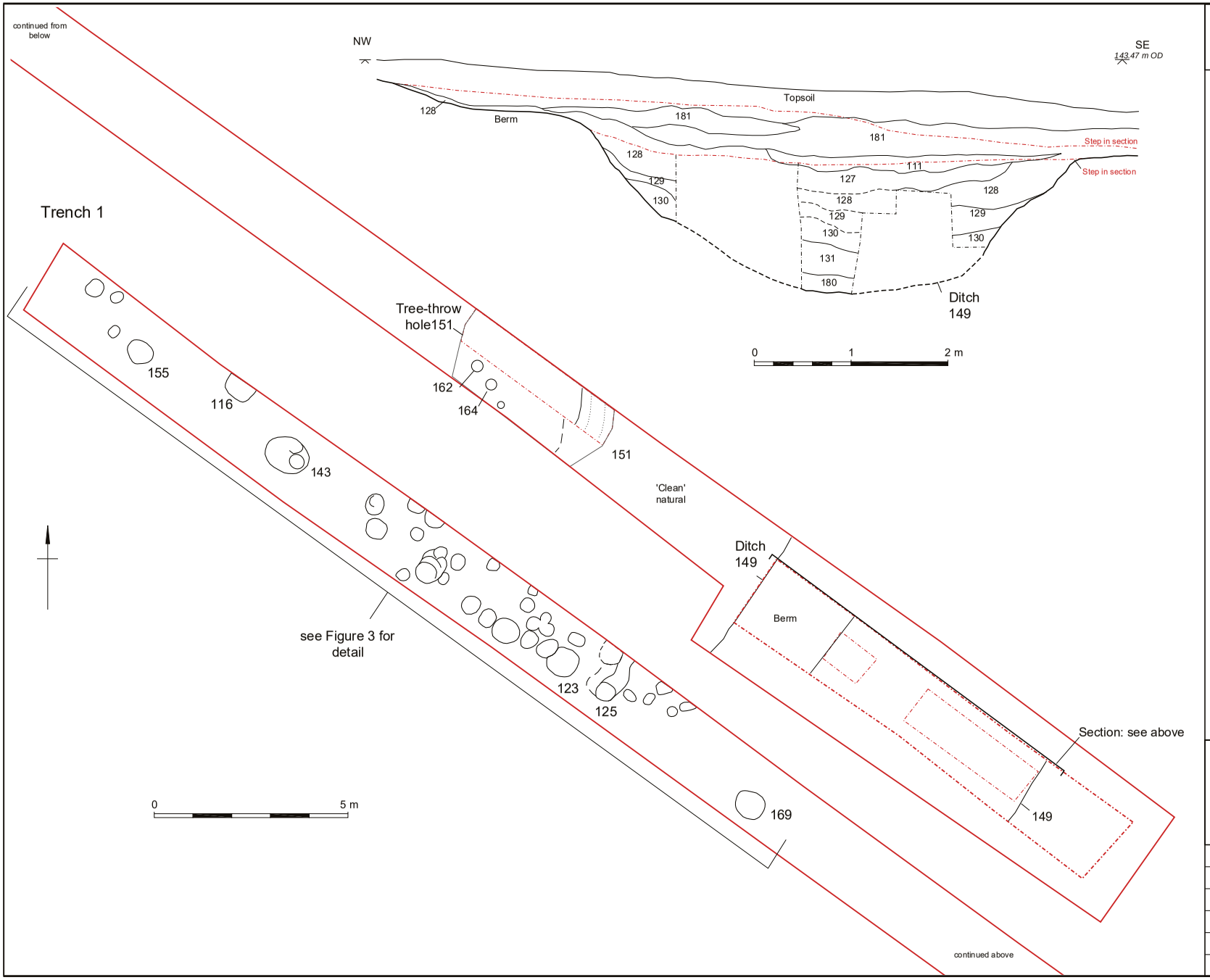
Scale:	1:20,000 and 1:5000 at A4	Illustrator:	KMN/SEJ
Path:	X:\PROJECTS\70241\Graphics_Office\Rep figs\Eval\2017_01_12\70241_pub.dwg		

Site location showing evaluation trenches overlaid on geophysical plot

Figure 1



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OSGB36 (OSTN15/OSGM15)

Date:	12/01/2017
Revision Number:	0
Scale:	Plan1:100, section 1:50
Illustrator:	SEJ
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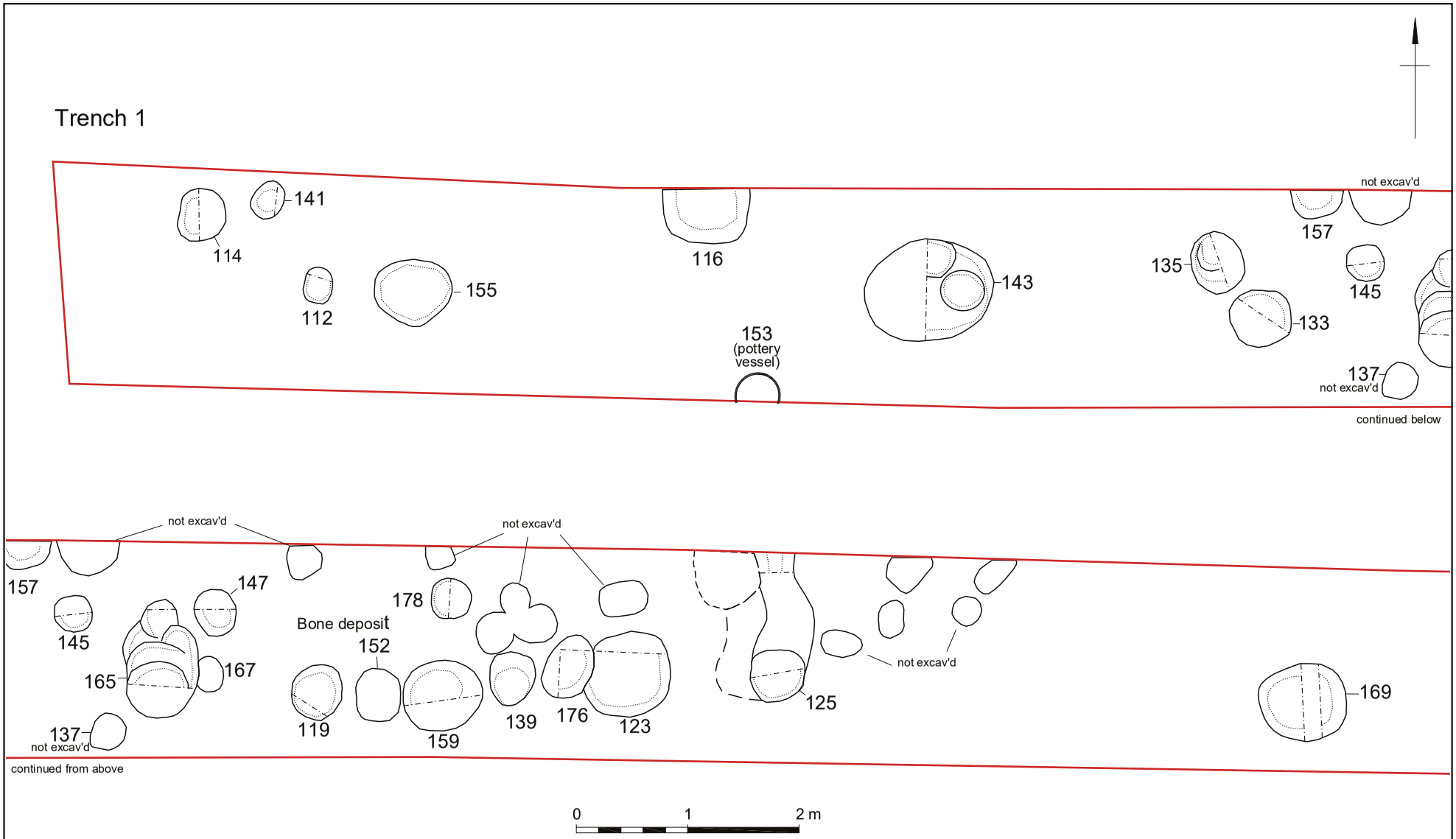
Trench 1 plan and section

Figure 2



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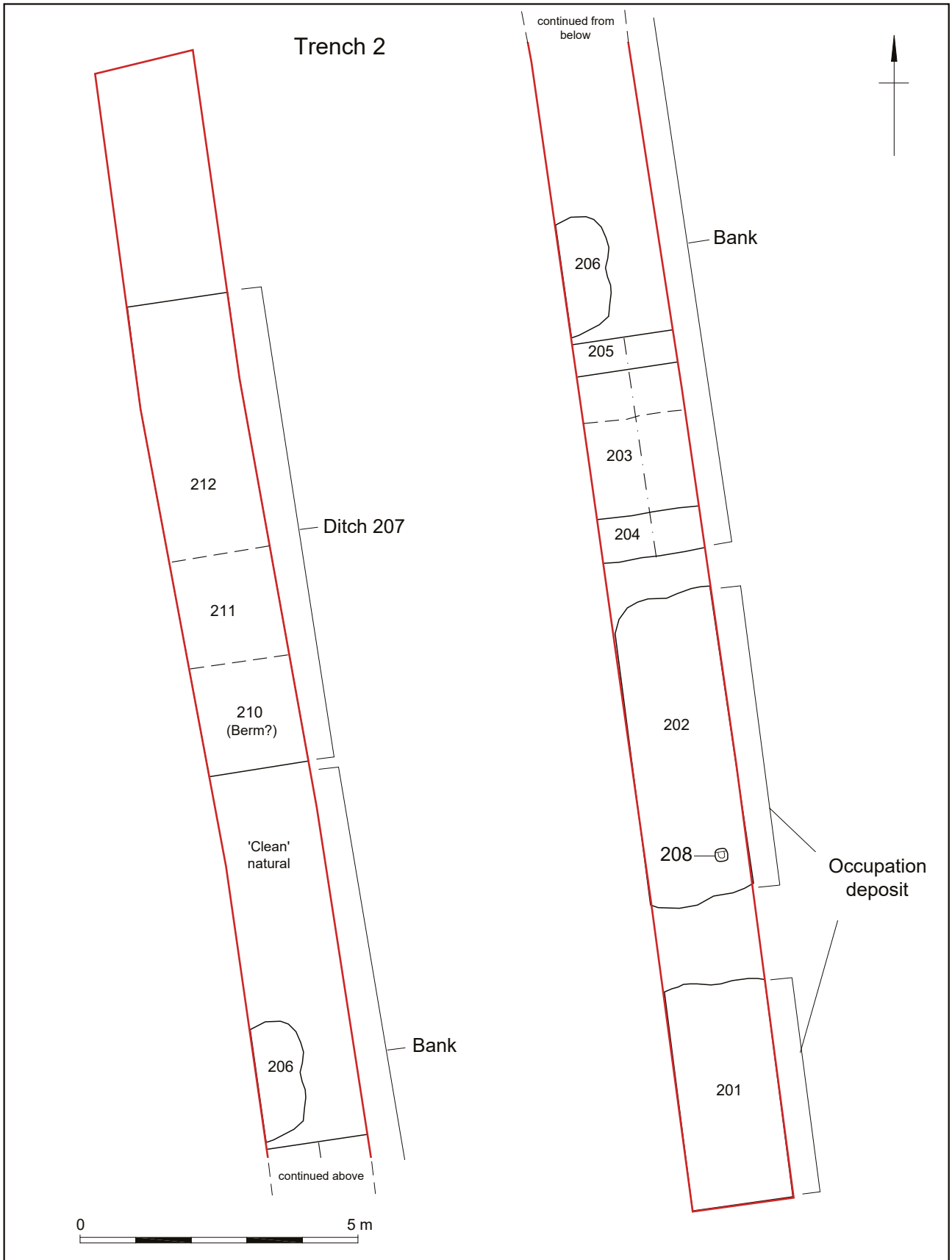
Detailed plan of post-holes in Trench 1

Figure 3



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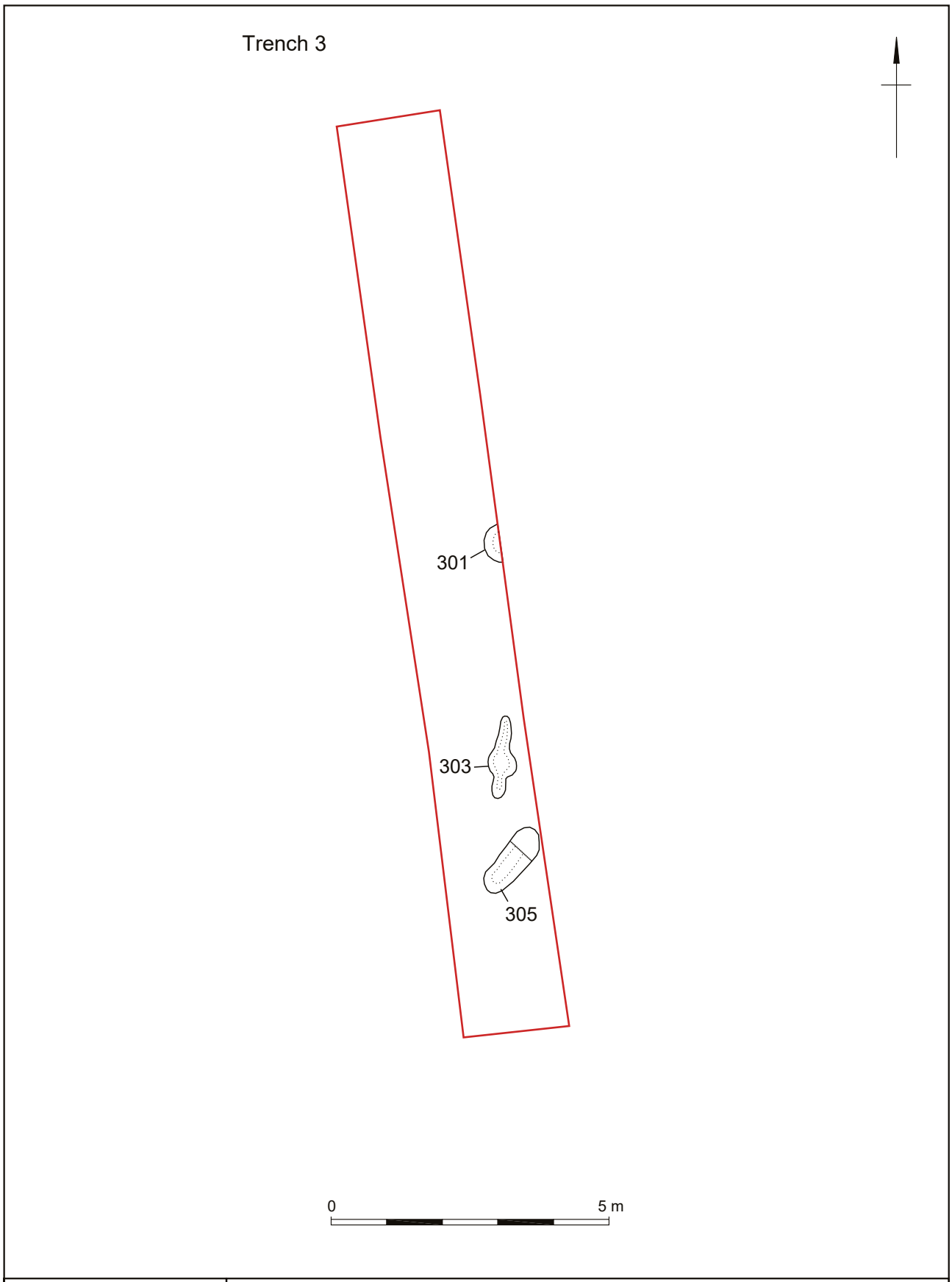
Coordinate system: OSGB36 (OSTN15/OSGM15)

Trench 2 plan

Figure 4



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Scale:	Plan1:100	Illustrator:	SEJ
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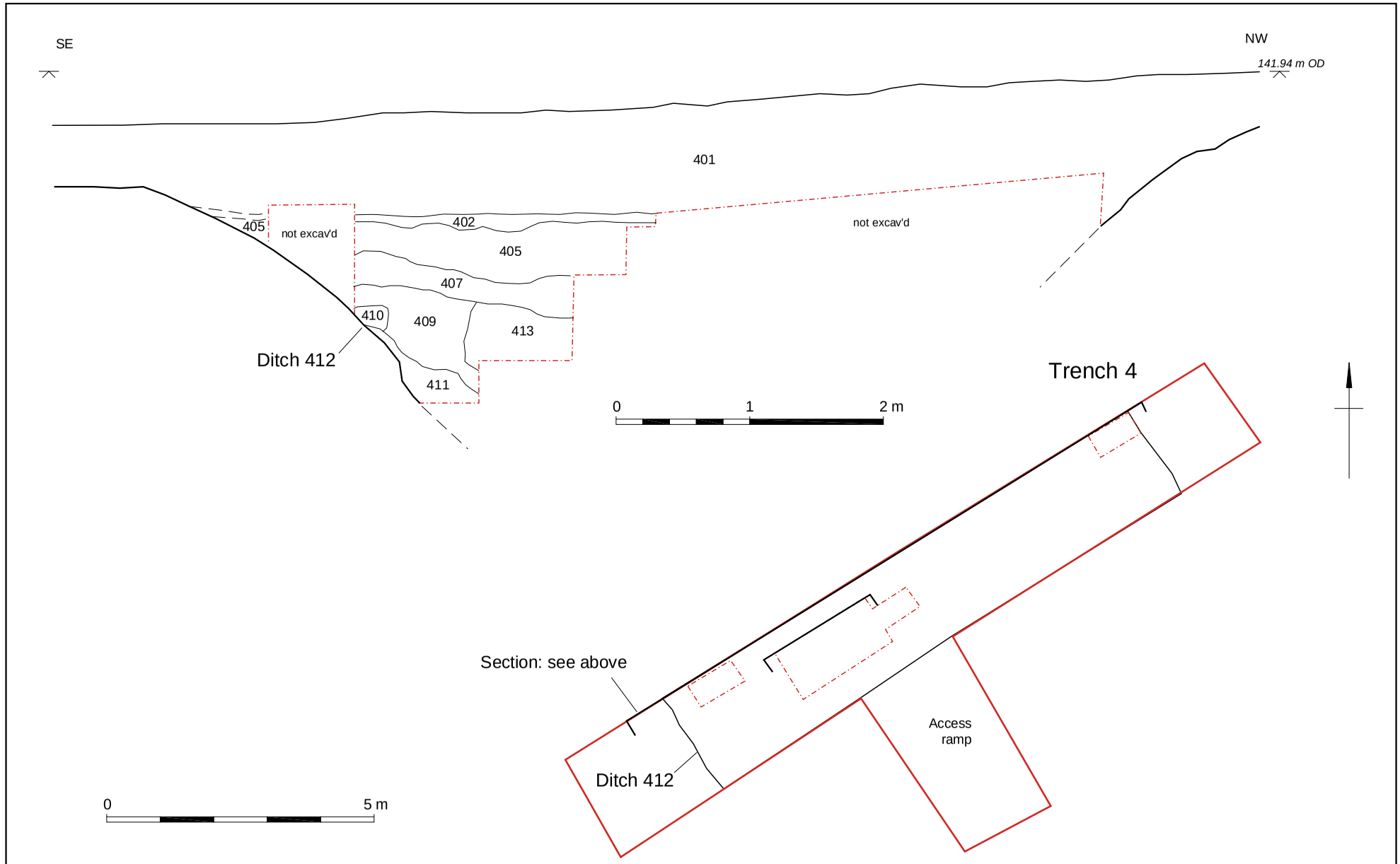
Trench 3 plan

Figure 5



Coordinate system: OOSGB36 (OSTN15/OSGM15)	Contains Ordnance Survey data © Crown Copyright and database right 2016. This material is for client report only © Wessex Archaeology. No unauthorised reproduction.	Date: 22/03/2017	Revision Number: 0
		Scale: Plan 1:100, section 1:50	Illustrator: SEJ
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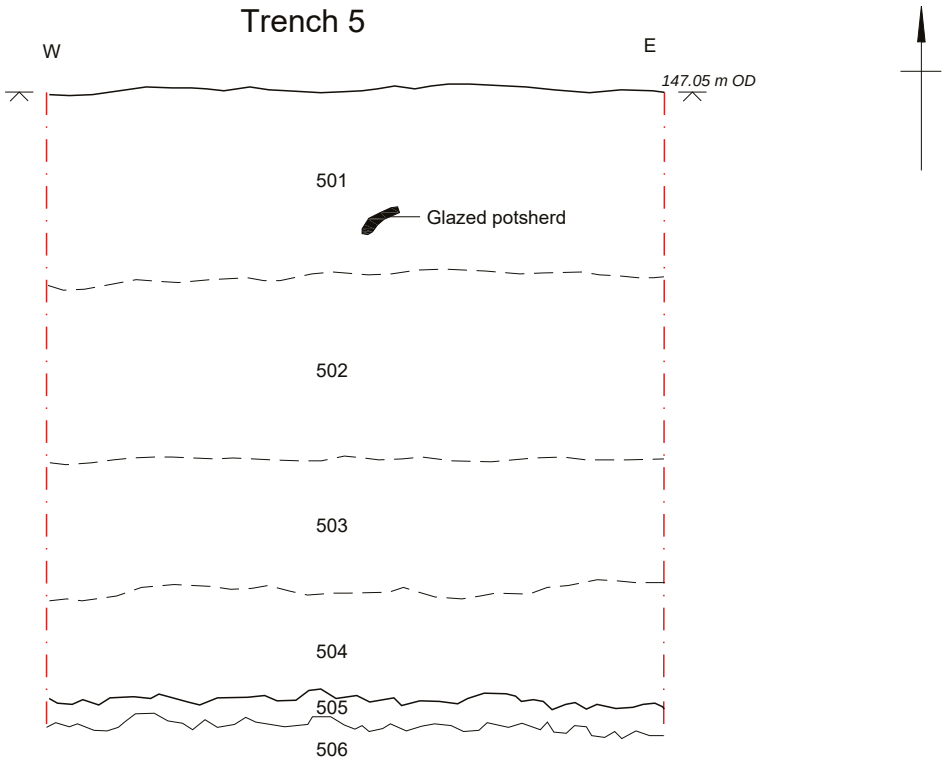
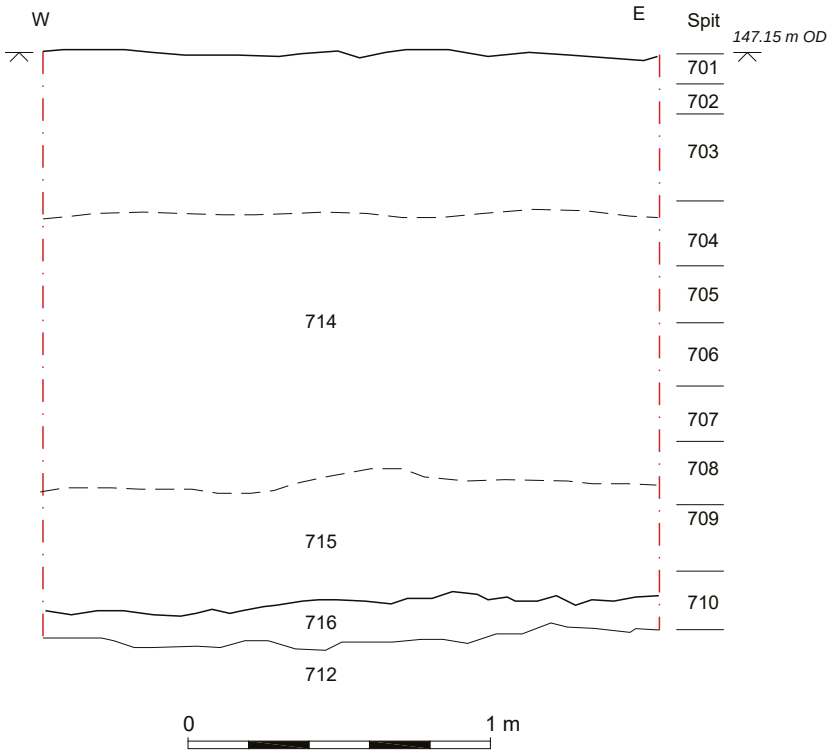
Trench 4 plan and section

Figure 6

Trench 5



Trench 7



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Coordinate system: OSGB36 (OSTN15/OSGM15)

Trenches 5 and 7 sections

Figure 7

Plate 1: trench 1, tree-throw 151, view from west (scale = 2m)

Plate 2: Trench 1, ditch 149, view from north (scale = 2m)

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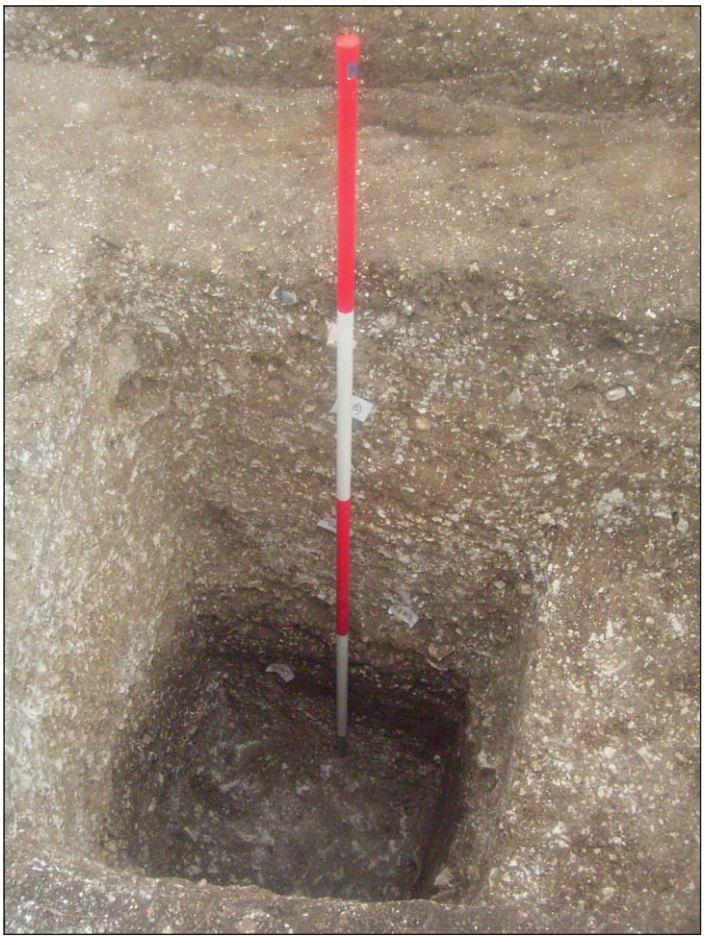

Plate 3: Trench 1, ditch 149, lower fills in central section, view from south-west (scale = 2m)

Plate 4: Trench 1, ditch 149, fills in central and south-east sections, view from south-west (scale = 2m)

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Plate 5: Trench 1, post-holes at north-west end, view from north-west

Plate 6: Trench 1, excavated post-holes at north-west end, view from north-west

Plate 7: Trench 1, animal bone deposit 152, view from south-west (scale=0.5m)

Date:	22/03/2017	Revision Number:	0
Scale:	N/A	Illustrator:	SEJ/ND
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Plate 8: Trench 2, ditch 207 and associated bank deposits (foreground), view from south-east (scale=0.2m)

Plate 9: Trench 3, general view from north-east, with midden in upper right background (scale=0.2m)

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Scale:	N/A	Illustrator:	SEJ/ND
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Plate 10: Trench 4, ditch 412 looking towards the Avon valley, view from north-east

Plate 11: Trench 4, ditch 412 fills in south-west section, view from south-east (scale=2m)

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Scale:	N/A	Illustrator:	SEJ/ND
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Plate 12: Trench 5, midden deposits, view from south (scale=1m)

Plate 13: Trench 7, midden deposits, view from south (scale=1m)

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Scale:	N/A	Illustrator:	SEJ/ND
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Plate 14: Object no. 14 obverse view

Plate 15: Object no. 14 reverse view

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wessex archaeology

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