

Land off Derby Road, Doveridge, Derbyshire

Post-excavation Assessment and Updated Project Design



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wessex archaeology



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Summary

Wessex Archaeology was commissioned by Lanpro Services Ltd., on behalf of Bellway Homes, to undertake archaeological mitigation works comprising a strip, map and record excavation on land off Derby Road, Doveridge, Derbyshire, DE6 5LA (NGR 412290 334030). The work was carried out as a condition of planning permission granted by Derbyshire Dales District Council for residential development.

Three separate areas occupying 0.15 hectares in total were excavated. Area 1 contained the remains of a barrow. A complete ring ditch (1163) enclosed a 22 m diameter area that contained: the poorly preserved remains of the barrow mound (1166); an off-centre inner ring ditch that cut the barrow mound (1164); seven cremation burials (two urned and five unurned, spread across six graves) and a deposit of cremation-related debris. One of the cremation graves contained a complete inverted Early Bronze Age Collared Urn containing the remains of two children (<15 years old). There was also an east–west ditch (1165) alongside a scatter of undated discrete pits/postholes within the enclosed area. External to the complete ring ditch lay further pits and postholes, and field boundary ditches. Some of these appear post-medieval in date.

Within Area 2 lay a large sub-circular feature of uncertain date that contained fragments of worked wood. The area also contained the probable continuation of a post-medieval ditch seen in Area 1, and the edge of an infilled pond shown on historic mapping.

A circular large pit/small pond was exposed in Area 3; within its upper fill were quantities of slag alongside post-medieval pot.

The finds assemblage comprises pottery, slag, wood, glass, clay tobacco pipe, worked flint and other stone objects. The near-pristine Bronze Age Collared Urn found with two undisturbed cremation burials is a rare find. Within the human remains from the site as a whole there is a high proportion of immature individuals to the near exclusion of adults. Further analysis of the human bone will provide more detailed demographic data and further information related to the mortuary rites.

Numerous environmental samples were collected from a range of features; few charred plant remains were recovered from the grave deposits and other features of probable Bronze Age date. One sample could shed light on local plant processing activities, although some of the crop species from it suggest a medieval date. Further analysis of the wood charcoal from the cremation-related features could provide information on woodland management and species selection for funerary practices in the prehistoric period.

This post-excavation assessment describes the archaeological results and discusses the remains in their local context. Updated questions to guide ongoing analysis are identified; recommendations for further work are presented, leading to the publication of the Site, and deposition of the archive at Derby Museum.



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Wessex Archaeology would like to thank Lanpro Services Ltd for commissioning the archaeological mitigation works, in particular Paul Gajos. Wessex Archaeology is also grateful for the advice of Steve Baker, County Archaeologist, who monitored the project for Derbyshire Dales District Council, and that of Matt Nicholas, Science Advisor to Historic England who commented on a draft of the report. Thanks are also due to Bellway Homes for their cooperation and help on site.

The fieldwork was directed by Simon R Brown, with the assistance of Amy Derrick, Adam Fraser, Alex Pinfold, Otis Gilbert, Owen Jenkins, Justyna Dekiert, Jon Whitmore, Hans Whitfield, Gwen Naylor and Jack Peverell.

The environmental samples were processed by Fiona Eaglesham, Liz Foulston, Jenny Giddins, Samantha Rogerson and Morgan Windle. The flots were sorted by Nicki Mulhall, Fiona Eaglesham and Liz Chambers and assessed by Inés López-Dóriga. The sediments were described by Liz Chambers. The environmental report was written by Liz Chambers and Inés López-Dóriga. Jacqueline I McKinley assessed the human bone and Erica Macey-Bracken assessed the wood, with conservation work undertaken by Lynn Wootten. All other finds were assessed by Lorraine Mepham. Wessex Archaeology would also like to thank the staff of the radiography department at Salisbury Hospital, who carried out the CT scan of the urn, and James Dilley (@ancientcraftUK) for identifying the function of the potential pommel.



Land off Derby Road, Doveridge, Mitigation

Post-excavation Assessment and Updated Project Design

1 INTRODUCTION

1.1 **Project and planning background**

- 1.1.1 Wessex Archaeology was commissioned by Lanpro Services Ltd., on behalf of Bellway Homes, to undertake archaeological mitigation works comprising a strip map record excavation centred on NGR 412290 334030, at land off Derby Road, Doveridge, Derbyshire, DE6 5LA (Fig. 1).
- 1.1.2 The work was carried out as a condition of planning permission, granted by Derbyshire Dales District Council (ref. 15/00389/OUT) for residential development. Condition 22 relates to the archaeological implications of the development of the Site:

a) No development shall take place until a Written Scheme of Investigation for archaeological work has been submitted to and approved by the Local Planning Authority in writing, and any pre-start element of the approved scheme has been completed to the written satisfaction of the Local Planning Authority. The scheme shall include an assessment of significance and research questions; and

- 1. The programme and methodology of site investigation and recording
- 2. The programme for post investigation assessment
- 3. Provision to be made for analysis of the site investigation and recording

4. Provision to be made for publication and dissemination of the analysis and records of the site investigation

5. Provision to be made for archive deposition of the analysis and records of the site investigation

6. Nomination of a competent person or persons/organisation to undertake the works set out in the Written Scheme of Investigation. The initial trial trenching stage of the scheme shall take place before submission of the reserved matters with regard to layout

b) No development shall take place other than in accordance with the archaeological Written Scheme of Investigation approved under condition (a)

c) The development shall not be occupied until the site investigation and post investigation assessment has been completed in accordance with the programme set out in the archaeological Written Scheme of Investigation approved under condition (a) and the provision to be made for analysis, publication and dissemination of results and archive deposition has been secured.



- 1.1.3 The excavation was the final stage in a programme of archaeological works that had comprised a desk based assessment (ARS 2015a), a geophysical survey (ARS 2015b) and an archaeological evaluation (Wessex Archaeology 2018), and which identified three areas of archaeological potential.
- 1.1.4 The excavation was undertaken in accordance with a written scheme of investigation (WSI) that detailed the aims, methodologies and standards to be employed for both the fieldwork and the post-excavation work (Lanpro 2018). Steve Baker, County Archaeologist approved the WSI, on behalf of the Local Planning Authority (LPA), prior to fieldwork commencing.
- 1.1.5 Three areas occupying some 0.15 hectares in total were excavated; fieldwork commenced on 22/10/2018 and concluded on 23/11/2018.

1.2 Scope of the report

1.2.1 The purpose of this report is to provide the provisional results of the excavation, and the preceding evaluation, to assess the potential of the results to address the research aims outlined in the WSI. Where appropriate, to recommend a programme of further analysis work, and outline the resources needed, to achieve the aims (including the revised research aims arising from this assessment), leading to dissemination of the archaeological results via publication and the curation of the archive.

1.3 Location, topography and geology

- 1.3.1 The development area is located on the eastern edge of Doveridge, centred on NGR 412290 334030. The development area's northern and eastern boundaries are delineated by Derby Road; its western boundary follows Bakers Lane and properties along Chapel Green. The excavated area (hereafter 'Site') lay in the central/western part of the development area (Fig 1).
- 1.3.2 Existing ground levels are 90 m OD in the northern part of the Site, descending gently to approximately 88 m OD in the south, with a slight fall from west to east also.
- 1.3.3 Doveridge lies at the southern tail of the Pennines, just to the north of the Middle Trent Valley. As the place-name evidence implies, it occupies relatively high ground overlooking the River Dove, which lies at *c*. 70 m OD hereabouts. Passing Doveridge, the River Dove meanders towards its confluence with the Trent, some 17 km to the south-east. The topographic setting of the Site may thus be described as occupying flattish ground at the very southern limit of the Pennines, overlooking a river valley that leads from the Trent to the heart of the White Peak.
- 1.3.4 The underlying geology is mapped as bedrock of the Mercia Mudstone Group overlain by superficial glaciofluvial deposits (British Geological Survey online viewer).

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Introduction

2.1.1 The following section is drawn from the WSI (Lanpro Services 2018).

2.2 Previous works related to the development

Desk-based assessment (ARS 2015a)

2.2.1 Desk based assessment of the development area identified two historic assets within it: a demolished early 19th-century building and medieval ridge and furrow (ARS 2015a). The structure was considered to be of negligible archaeological significance as the structure has been demolished and little is likely to survive below ground. The fossilised remains of medieval ridge and furrow visible in the fields (Fig. 3) of the development area are part of an extensive swathe of similar earthworks within the wider study area.

Geophysical survey (ARS 2015b)

2.2.1 Geophysical survey of the Site did not reveal any definite evidence for any previously unknown significant sub-surface archaeological remains, although a small number of anomalies of possible archaeological origin were identified (ARS 2015b and Fig. 3).

Archaeological evaluation (Wessex Archaeology 2018)

2.2.2 The evaluation comprised six trial trenches, measuring between 25 m in length and 40 m in length, targeted on known geophysical anomalies.

One trench exposed three pits containing cremated bone (identifiable as human in two of the features) with one of the deposits representing the remains of an unurned burial. No datable material was found in any of the deposits, but their form is prehistoric in nature. The features correlated with a partial/irregular ring-shaped geophysical anomaly and a circular mound discernible within the LiDAR data, and would appear to indicate a small (c. 10 m-diameter) round barrow or other similar prehistoric funerary ringwork monument in this part of the Site. A linear cut feature lying to the south of the pits was examined, although due to the confines of the evaluation trench it was not possible to establish whether it formed part of ditch of the potential barrow, or merely a section of furrow base.

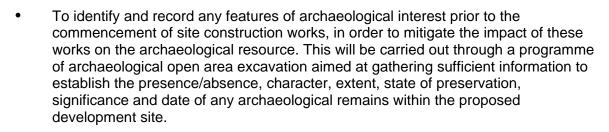
Two large pits were also revealed. One contained medieval pottery and slag, and the other contained timbers and cattle remains. The pit with the medieval pottery and slag correlated with a pond-like anomaly detected by the geophysical survey, with the other pit lying approximately 5 m south of another pond-like anomaly, in this instance corroborated by historic mapping.

A small assemblage of finds was recovered from the evaluation; six small, abraded sherds of medieval pottery (c. 12th–15th-century) were the earliest easily datable artefacts and were found alongside 3.7 kg of slag characteristic of iron smithing, although these finds appeared to represent a dump of redeposited debris rather than *in situ* activity. There was little indication within the evaluation results that the Site contained deposits of high palaeoenvironmental significance, although it was thought that the wood charcoal from the cremation pits could provide information on aspects of the funerary rite. Waterlogged remains were found in the samples from the pit in trench 2, although their significance is reduced, as the date of that feature is not well understood.

3 AIMS AND OBJECTIVES

3.1 Aims

3.1.1 The general aims of the excavation, as stated in the WSI (Lanpro 2018) and in compliance with the CIfA's *Standard and guidance for archaeological excavation* (CIfA 2014a), were:



3.2 Research objectives

- 3.2.1 Following consideration of the archaeological potential of the Site and the regional research framework (Knight *et al.* 2012), the research objectives of the excavation defined in the WSI (Lanpro 2018) were:
 - To establish the spatial extent date, character, condition and significance of the archaeological activity in the excavation area;
 - To recover information relating to the nature and function of past human activity represented by the surviving archaeological remains;
 - To excavate and record identified archaeological features and deposits to a level appropriate to their extent and significance;
 - To interpret the nature of human activity at the site and to place the site within its local, regional and national context as appropriate;
 - To assess the site formation processes and the effects that these may have had on the survival and integrity of the archaeological features and deposits;
 - To undertake sufficient post-excavation assessment to confidently interpret identified archaeological features;
 - To undertake sufficient post-excavation assessment and analysis of artefacts and environmental samples to interpret their significance;
 - To report and publish the results of the excavation and post-excavation assessment and analysis, and place them within their local and regional context;
 - To compile and deposit a site archive at a suitable repository and to provide information for the Derbyshire HER to ensure the long-term survival of the excavated data.
- 3.2.2 The WSI acknowledged that whilst the cremation burials identified on the Site during its evaluation were undated, they were of likely prehistoric date and therefore have particular potential to add to regional research objective 3H; '*recover and analyse human remains*' (Knight *et al.* 2012, 55).

4 METHODS

4.1 Introduction

4.1.1 All works were undertaken in accordance with the detailed methods set out within the WSI (Lanpro 2018) and in general compliance with the standards outlined in CIfA guidance (CIfA 2014a). The methods employed are summarised below.



4.1.2 Three areas were excavated: Area 1 measured 20 x 20 m, Area 2 measured 10 x 10 m and Area 3 measured 10 x 10 m. Area 1 was extended with the agreement of the client to follow the outer ring ditch and then extended again to achieve a 5 m exclusion zone around the ring ditch with the agreement of the client and the County Archaeologist.

4.2 Fieldwork methods

General

- 4.2.1 The excavation areas were set out using a Leica GNSS connected to Leica's SmartNet service, in the same positions as that proposed in the WSI (Fig. 1). The topsoil/overburden was removed in level spits using a 360° excavator equipped with a toothless bucket, under the constant supervision and instruction of the monitoring archaeologist. Machine excavation proceeded in level spits until the archaeological horizon or the natural geology was exposed.
- 4.2.2 Where necessary, the surface of archaeological deposits were cleaned by hand to aid visual definition. A sample of archaeological features and deposits identified was hand-excavated, sufficient to address the aims of the excavation. A sample of natural features such as tree-throw holes were also investigated.
- 4.2.3 Spoil derived from both machine stripping and hand-excavated archaeological features were visually scanned for the purposes of finds retrieval. A metal detector was also used to scan the spoil.
- 4.2.4 The Collared Urn, which was found inverted, was lifted intact and subjected to a CT scan (computed tomography), before being turned upright and micro-excavated under laboratory conditions by Jacqueline McKinley (see below).

Recording

- 4.2.5 All archaeological features and deposits were recorded using Wessex Archaeology's *pro forma* recording system. A complete drawn record of excavated features and deposits was made including both plans and sections drawn to appropriate scales (generally 1:20 or 1:50 for plans and 1:10 for sections) and tied to the Ordnance Survey (OS) National Grid. The Ordnance Datum (OD: Newlyn) heights of all principal features were calculated, and levels added to plans and section drawings.
- 4.2.6 The Leica GNSS surveyed the location of archaeological features. All survey data is recorded in OS National Grid coordinates and heights above OD (Newlyn), as defined by OSGM15 and OSTN15, with a three-dimensional accuracy of at least 50 mm.
- 4.2.7 A full photographic record was made using digital cameras equipped with an image sensor of not less than 10 megapixels. Digital images have been subject to managed quality control and curation processes, which have embedded appropriate metadata within the image and will ensure long term accessibility of the image set.

4.3 Artefactual and environmental strategies

General

4.3.1 Appropriate strategies for the recovery, processing and assessment of artefacts and environmental samples were in line with those detailed in the WSI (Lanpro 2018). The treatment of artefacts and environmental remains was in general accordance with: *Guidance for the collection, documentation, conservation and research of archaeological materials* (CIfA 2014b) and *Environmental Archaeology: A Guide to the Theory and*



Practice of Methods, from Sampling and Recovery to Post-excavation (English Heritage 2011).

Human remains

4.3.2 The human remains were removed under the terms of a Licence for the Removal of Human Remains held by Wessex Archaeology (Ref: 18-0292 dated 30 October 2018). The excavation and post-excavation assessment of human remains was in accordance with Wessex Archaeology protocols and undertaken in-line with current guidance documents (eg, McKinley 2013) and the standards set out in ClfA Technical Paper 13 (McKinley and Roberts 1993).

4.4 Monitoring

4.4.1 Steve Baker, County Archaeologist working on behalf of the LPA, monitored the works. Any variations to the WSI, if required to better address the project aims, were agreed in advance with both the client and the County Archaeologist.

5 STRATIGRAPHIC RESULTS

5.1 Introduction

Methods of stratigraphic assessment and quantity of data

- 5.1.1 All hand written and drawn records from the excavation have been collated, checked for consistency and stratigraphic relationships. Key data has been transcribed into an Access database for assessment, which can be updated during any further analysis.
- 5.1.2 A preliminary phasing of the excavated remains has been carried out using, where available, stratigraphic relationships and the spot dating from artefacts, particularly pottery.
- 5.1.3 Table 1 (below) provides a quantification of the records from the excavation.

Туре	Quantity
Context records	184
Context registers	8
Graphics (A4 and A3)	63
Graphics (A1)	0
Graphics registers	5
Environmental sample registers	6
Object registers	1
Digital photographs	425

Table 1 Quantification of excavation records

Summary of archaeological features and deposits

5.1.4 Three separate areas were excavated (Fig. 2). Area 1 contained the remains of a barrow. A complete ring ditch (1163) enclosed an area of *c*. 22 m diameter. Within the enclosed area lay: the poorly preserved remains of the barrow mound (1166); an off-centre and partial inner ring ditch that cut the barrow mound (1164); seven cremation burials (two urned and five unurned, spread across six graves) and a deposit of cremation-related debris. One of the cremation graves contained a complete inverted Early Bronze Age Collared Urn. There was also an east–west ditch (1165) alongside a scatter of undated discrete pits/postholes within the area enclosed by the complete ring ditch



- 5.1.5 External to the complete ring ditch lay further pits and postholes, and field boundary ditches. Some contained post-medieval finds; others were undated.
- 5.1.6 Area 2 contained an undated large sub-circular feature that contained a fragment of grindstone of uncertain date and fragments of worked wood. The area also contained a north-east to south-west linear feature that is thought to represent the continuation of a post-medieval ditch seen in Area 1, and the edge of an infilled pond shown on historic mapping.
- 5.1.7 Area 3 contained a circular large pit/small pond; within its upper fill were quantities of slag, and medieval and post-medieval pot.

5.2 Soil sequence and natural deposits

- 5.2.1 The soil sequence was consistent across the Site with a dark greyish brown sandy loam topsoil containing 10% rounded stones with a thickness of roughly 0.25 m. The subsoil consisted of a mid-orangey brown silty sand containing common rounded stones towards the base of the deposit with a thickness of roughly 0.25 m. The underlying geology consisted of a mid to light greyish orange glacial till with common rounded stone of mixed sizes. The only exception to this was in the north-east corner of Area 2, where there was a layer of red clay to a thickness of 0.2 m capping the pond below the topsoil.
- 5.2.2 Natural depressions across the Site had silted up with very fine light yellowish-brown sandy silt. These were irregular in shape, variable in size although consistently shallow, except for a deep tree-throw hole in the north-west corner of Area 1.

5.3 Prehistoric

5.3.1 The prehistoric features were found within Area 1, where a barrow was located. The monument comprised an outer ring ditch, a barrow mound, an internal east-west ditch, seven cremation burials (two urned and five unurned, spread across six graves). The dating of an inner ring ditch cutting the barrow mound, respecting the burials and containing prehistoric finds and medieval plant remains has not been established, but it will be discussed in this section as it appears focussed on the barrow.

The outer ring ditch

5.3.2 The circular outer ring ditch, 1163, enclosed an area with an approximately 22 m diameter and had no visible entrance (Fig. 2; Pl. 1). The width and depth of the ring ditch varied around its circumference, but this was mostly due to truncation and damage by subsequent land use; it was less well-preserved on the eastern and western sides. The ditch had a maximum width of 2.3 m and depth of 0.50 m (Fig. 4.1–4; Pl. 2–3). The final fill of the ditch consistently had a higher concentration of large (c. 100 to 250 mm) subrounded cobbles indicating the barrow mound may have originally been clad in these cobbles to replicate the appearance of a cairn, or which had formed an accompanying cobble bank. In four of the seven interventions there appears to have been earlier elongated pits following the circumference of the ring ditch, suggesting an earlier phase to the monument, *ie*, a possible causewayed or segmented ring ditch. In two places the outer ring ditch had been cut by small shallow ovoid pits of unknown function or date. The outer ring ditch wholly contained the other prehistoric features within Area 1, however, there is no direct stratigraphic link with any other prehistoric feature.

The inner ring ditch

5.3.3 The inner ring ditch, 1164, was penannular and offset to the south-east of the outer ring ditch; it appeared to cut through the mound deposits and is likely to be a later phase of the



barrow. The feature was up to 1.7 m wide by just, on average 0.12 m deep, with a shallow, dish-shaped profile (Fig. 4.5–6; Pl. 4). Its termini were shallow and diffuse, and it is unclear if the feature originally formed a complete circle. Worked flint waste and two conjoining sherds of grog-tempered prehistoric pottery (possible Collard Urn fragments) were recovered from slot 1030. Postholes 1024 and 1032 respected the inner ring ditch and are thought to be possibly associated with this feature, due to the similarity of fills. Of these, posthole 1024 cut the urned cremation burial 1050. One of the samples from the inner ring ditch contained an assemblage of charred plant remains, which includes types of plant of medieval or later date (free-threshing wheat and broad bean). The assemblage was relatively well preserved and rich, and is judged unlikely to be intrusive (see below). It is therefore possible that, despite the presence of flint and grog-tempered ware and the fact that it appears to focus on the area where most of the cremated human bone was deposited, the feature belongs to a much later phase.

The barrow mound

5.3.4 The barrow mound, 1166, consisted of eight distinct surviving deposits, these varied only slightly in colour but more so in the density and size of their coarse components, which ranged from > 10% inclusions to *c*. 50%. The deposits with the finer less frequent inclusions seemed to be stratigraphically earlier in the sequence than the coarser deposits. The fragmentary nature of the layers due to truncation by later ploughing prevented identification of stratigraphic relationships between most of the layers. However, some stratigraphic relationships between different layers were identified preserved in a baulk section of mound material intentionally retained during the excavation.

The internal east-west ditch

5.3.5 The internal east-west ditch, 1165, was an irregular linear feature running from inside the western edge of the outer ring ditch to the western terminus of the inner ring ditch. The feature's irregular appearance in plan is due to it being made up of several shallow ovoid pits and a shallow gully (PI. 5). The stratigraphic relationships between the components of the feature were unclear. There was no stratigraphic relationship between the feature and the other components of the barrow.

Cremation burials

5.3.6 Six cremation graves were exposed (Fig. 2 & 5.1–6; Pl. 6–10). Grave 1050 contained a complete, inverted, Early Bronze Age Collared Urn of tripartite form (Object No. 1001: see cover and Pl. 6–7). Grave 1127 contained a fragmented and incomplete urn, as well as an unurned burial (Pl. 8). Grave 1127 lay in the centre of the area enclosed by the outer ring ditch 1163. A further four unurned burials (1005, 1008, 1010 and 1109) were located within the area enclosed by the outer ring ditch, along with a cremation-related deposit whose formation process is uncertain (1018). There were no direct stratigraphic relationships between the deposits containing human bone. Some graves were found beneath barrow mound deposits with others visible on the surface following machine stripping, however, poor resolution of the mound deposits and their fragmentary nature due to plough damage prevents stratigraphic phasing of the features. The cremation graves are tabulated below.

Cut	L. m	W. m	D. m	Fills	Finds	Bone Weight	Age/Sex	Environmental remains
1005	0.38	0.38	0.29	1006 mid orangey brown; 1007 unurned burial		314.7 g (combined total 664.7 g)	subadult 14–18 yr	charcoal/bone
1008	0.41	0.41	0.19	1009 unurned burial and redeposited pyre debris		3.9 g	Neonate/young infant<2 yr	charcoal <i>Triticum</i> sp. (inc. <i>aes-</i> <i>tivum/turgidum</i>)
1010	0.35	0.35	0.17	1011 unurned burial and redeposited pyre debris		1.4 g (combined total 4.4 g)	Neonate/young infant<2 yr	charcoal ; bone
1018	0.28	0.28	0.21	1019?crd – inc. fuel ash		0.9 g	?human ?infant	charcoal; bone <i>Hordeum vul-</i> <i>gare</i> and Trit- iceae
1109	0.64	0.64	0.19	1110 1011	Flint	887 g	MNI 2 infant 0-5 yr juvenile/subadult 6–18 yr	charcoal
1050	0.5	0.5	0.35	1051 mid orange brown silty sand grave fill 1167 urned burial inc. fuel ash	Collared urn 1001; worked bone pommel/toggle	1051 5.4g 1167 1574.3 g	1051 juvenile/subadult 6–16 yr 1167 1) juvenile 10–12 yr 2) subadult 12–14 yr	charcoal Triticum aes- tivum/turgidum, Hordeum vul- gare, Triticeae
1127	0.47	0.47	0.19	1128 unurned burial inc. fuel ash 1129 ?memento mori /urned burial	Pottery	1128 1645.8 g 1129 1.9g	1128 adult > 23 yr ??male 1129 neonate/young infant	charcoal Triticeae

 Table 2
 Summary of cremation graves

5.4 Post-medieval/modern

Ditch 1016

5.4.1 Ditch 1016 traversed Area 1 on a roughly east-west axis and cut the southern part of the outer ring ditch (Pl. 11). A re-cut (1014) was evident in the eastern intervention. Both ditch 1014 and re-cut 1016 contained post-medieval pottery and pipe stems. This boundary aligns with an unexcavated linear feature leading to a clay-capped pond in Area 2. The pond is shown on 19th-century Ordnance Survey maps.

Posthole 1032

5.4.2 Posthole 1032 in Area 1 (Dia. 0.58 x 43 m) produced a high number of modern seeds, indicating either contamination from later intrusions or that it is of modern date.

Pit or well 1115

5.4.3 A pit or well (1115; ? x 1.8 x 1 m+; Pl. 13) was located on the eastern edge of Area 1. It contained heavily rusted iron containers and stamped glass bottles (Gartons HP sauce) in its lower fill 1116, clearly dating the feature to the modern period. The feature merged in plan with ditch 1016, which may have drained into feature 1115.

Feature 3003

5.4.4 The large pit/small pond feature 3003 within Area 3 had a diameter of roughly 6 m; a quadrant was dug to a depth of 0.6 m before it rapidly filled with water (Fig. 5.7; Pl. 14). The lower fills were sterile gleyed sandy silts, while the uppermost fill contained a quantity



of slag of a type characteristic of iron smithing, which appeared to be redeposited waste material from elsewhere rather than deposits produced on site. Posthole 3008 lay on the western edge of the feature and may have been part of an associated superstructure.

5.4.5 Feature 3003 had been investigated during the evaluation, when it was numbered 404 and found to contain medieval pot (possible Burley Hill type wares) and slag. During the mitigation, a sherd of Midlands Purple ware (16th–17th century date) was recovered from the same deposit, potentially clarifying the date of the feature.

5.5 Uncertain date

Ditches 1132 and 1130

5.5.1 Two ditches in the north-west corner of Area 1 respect the outer ring ditch, possibly indicating the barrow was still visible when the ditches were set out (Fig. 2; Pl. 12). They contained no datable material.

Other features in Area 1

- 5.5.2 A scatter of small circular *maculae* (1104, 1123, 1125 and 1144) and more amorphous features (1136/1140, 1138 and 1141) was exposed in Area 1. All were artefactually sterile and most were interpreted as potentially natural in origin when excavated. Their archaeological provenance remains unproven.
- 5.5.3 Pit 1152 was seen in the south-eastern corner of Area 1, where it extended beyond the limit of excavation. With a depth of over 0.7 m and dark brown and grey fills, pit 1152 is clearly anthropogenic, and resembles pit/well 1115 or feature 2003, but unlike those features this example returned no artefacts. It had visible dimensions of 2.8 x 1.7 m+ and its fills were distinctly darker than the orange substrate, perhaps indicating a relatively recent date for the feature.

Sub-circular feature 2003

- 5.5.4 Area 2 contained a large sub-circular feature (2003: 3 m dia. x 2 m+). This feature had been partially excavated during the evaluation stage (Wessex Archaeology 2018) when evaluation trench 2 was dug across it on an east–west axis (PI. 15). At the mitigation stage, an attempt was made to extend the evaluation sondage with a machine-cut slot. However, the excavation was very deep (2 m+) and unstable, and safety considerations prevented formal recording of the feature. Finds from the feature included part of a circular grindstone of uncertain date and further waterlogged wood (PI. 16) to that recovered at the evaluation stage (Wessex Archaeology 2018). The form of the feature and its depth in relation to the water table suggest it might represent a chased spring with a wooden wellhead. There was no stratigraphic relationship between this feature and any other.
- 5.5.5 Due to the excavation constraints, environmental samples were not collected from this feature during the excavation. The feature was sampled when it was exposed during the evaluation, however, with environmental remains preserved by waterlogging (including wood, leaves, seeds from wetland and nitrophilous plants and invertebrate remains) recorded (Wessex Archaeology 2018). The plant remains from the evaluation sample were restricted to wild native taxa, with no chronologically distinctive material present (I López-Dóriga pers. comm. May 2019).



6 ARTEFACTUAL EVIDENCE

6.1 Introduction

- 6.1.1 This section discusses the finds recovered from the Site. The assemblage consists primarily of pottery and includes a complete Bronze Age cremation vessel as well as a small group of medieval to post-medieval/modern date. This augments material previously recovered from the Site during earlier evaluation, which has already been reported on (Wessex Archaeology 2018).
- 6.1.2 All finds have been quantified by material type within each context, and the results for the current strip, map and record excavation (project code 205731) are presented in Table 3, with summary quantities for the evaluation project code 205730). Only the excavation finds will be discussed in any detail here, although cross-reference will be made here where relevant to finds from the evaluation, and it is on the total assemblage that statements of potential and recommendations for further analysis and publication will be made.

Context	СВМ	Pottery	Slag (Wt)	Other finds
				10 animal bone; 352 g human
Evaluation		40/472	3662g	bone; 1 clay pipe; 2 glass; 5 wood
1013		1/1		
1015		2/7		1 clay pipe
1017	9/1547	48/399		1 animal bone; 1 clay pipe; 14 metal
1023	1/27	4/49		
1027				2 flint
1031		2/9		1 flint
1073			97g	1 flint
1088		1/6		
1108				1 flint; 1 stone obj
1116	1/33	1/6	88g	12 glass
1118	8/82	2/5		9 metal
1128		8/183		
1167		1/1*		
2004			82g	1 stone; 15 wood
3010		2/131	13,867g	
Total	19/1689	112/1269	17,796g	

Table 3 All finds by context (number / weight in grammes)

CBM = ceramic building material; *cremation vessel, no quantification

6.2 Pottery

6.2.1 The pottery assemblage amounts to 71 sherds, weighing 796 g, as well as one complete vessel. This includes material of prehistoric, medieval and post-medieval/modern date. Condition ranges from poor to good; apart from the complete vessel, the assemblage is fragmentary and sherds are relatively small, although levels of surface and edge abrasion are variable. Excluding the complete vessel, mean sherd weight is 11.2 g, and this breaks down as 17.5 g for prehistoric, 3.8 g for medieval and 10.5 g for post-medieval/modern.



- 6.2.2 For the purposes of this assessment, the pottery has been quantified (sherd count and weight) by ware type within each context, and the presence of diagnostic forms noted. Detailed fabric analysis has not been taken at this stage, but the level of recording corresponds to the recommendations for pottery assessment (Prehistoric Ceramics Research Group *et al.* 2016, section 2.3).
- 6.2.3 The post-medieval/modern material falls into known ware types; earlier material has been subdivided into more generic groups, eg, sandy ware, whiteware, etc, on the understanding that further analysis will refine this preliminary identification. The presence of diagnostic vessel forms and other features (eg, decoration) has been noted. Table 4 gives a list of the pottery by context.

Context	Ware	No. sherds	Wt. (g)	Comments	Spot date
1013	?Grog-tempered	1	1	tiny crumb	?EBA
1015	Medieval whiteware	2	7	conjoining, glazed	Medieval
1017	Redware	48	399	sherds prob from just 2 vessels: (a) thin-walled, convex jar with rolled over rim; (b) no rim, thicker-walled. Both glazed over red slip	Post-medieval
1023	Midlands Purple	1	12		C16/C17
1023	Staffs-type feathered slipware	1	8	open form	LC17/C18
1023	Redware	2	29	1 bowl rim; black-glazed	Post-medieval
1031	Grog-tempered	2	9	conjoining	EBA
1088	Medieval sandy ware	1	6		Medieval
1116	Redware	1	6	Unglazed, flowerpot	C19/C20
1118	Redware	1	3	black glazed	Post-medieval
1118	Medieval sandy ware	1	2	jug rim	Medieval
1128	Grog-tempered ware	8	183		EBA
1167	Collared Urn	1	1	cremation vessel (not weighed)	EBA
3010	Midlands Purple	1	34		C16/C17
3010	Redware	1	97	External sooting around basal angle	Post-medieval

Table 4	Pottery by context

Prehistoric

- 6.2.4 An Early Bronze Age Collared Urn was recovered virtually intact from cut 1050, the only damage being a small hole piercing the vessel just above the basal angle (height 280 mm; rim diameter 190–205 mm). The vessel was found inverted (see cover and Pl. 6–7). It is a tripartite form, with impressed decoration covering the collar and neck zone. It was recovered with contents presumed to be intact, and these have been excavated under controlled conditions (see Human bone, below). The fabric is grog-tempered.
- 6.2.5 Further grog-tempered sherds were recovered from cremation-related deposits 1127 (eight conjoining sherds forming the base of a vessel surviving to a height of only 50 mm, presumed to be another Collared Urn although this cannot be ascertained from the base alone) and 1012 (a tiny crumb), and from inner ring ditch 1164 (fill 1031, two conjoining plain body sherds, again probably Collared Urn).

Medieval

- 6.2.6 Four sherds were dated as medieval. All are sandy/gritty wares, ranging in firing colour from off-white to pale orange; two sherds are glazed. None are diagnostic. Their source(s) is uncertain; the closest known production centre within Derbyshire is at Duffield (Burley Hill), some 24 km to the north-east (Cumberpatch 2002/2003). A date range of 13th–15th century is suggested.
- 6.2.7 One sherd (small and abraded) provides the only dating evidence for ditch 1165, but this single sherd is almost certainly residual in this context. Other sherds were clearly residual in features otherwise dated by post-medieval finds: ditch 1014 (possibly a recut of post-medieval ditch 1016) and pit/well 1115.
- 6.2.8 Six further medieval sherds, also in sandy wares, were found during the evaluation, all from one pit where they formed the only dating evidence although again unlikely to represent a primary deposit.

Post-medieval/modern

- 6.2.9 The remaining 56 sherds are post-medieval. All but one of the sherds are coarsewares, which include Midlands Purple ware as well as redwares (some black-glazed); these have a potential date range from 16th/17th century onwards, and there is one sherd from a flowerpot of 19th-/20th-century date. Alongside these is one sherd of feathered slipware (late 17th or 18th century).
- 6.2.10 Most of the post-medieval sherds came from two ditches in Area 1. Forty-eight were from ditch 1016; these comprised sherds from two vessels in glazed redwares, one of them a small, convex jar with rolled over rim, possibly a chamberpot. Ditch 1022 produced another four sherds. These two features probably date to the 17th or 18th century. Other sherds came from pit/well 1115 (three sherds, including the flowerpot), and there were also two sherds from pit 3003 in Area 3 (perhaps 16th/17th century).
- 6.2.11 A further 34 sherds came from the evaluation, and these cover a slightly wider range extending into the modern period (19th/20th century), including, as well as the coarsewares, a few sherds of refined wares from the 18th century or later. Only three of these sherds were stratified, the remainder coming from topsoil or subsoil contexts.

6.3 Ceramic building material (CBM)

6.3.1 Nineteen fragments of CBM were recovered. Eight are from post-medieval bricks, although no measurable dimensions survive. The other 11 are roof tile fragments, broadly dated as medieval/post-medieval. No further fragments of CBM were found during the evaluation.

6.4 Clay pipe

6.4.1 Both of the clay pipe fragments found during the excavation, and all fragments from the evaluation, are plain stems, which can be dated broadly as 17th-century or later.

6.5 Stone

6.5.1 Part of a circular grindstone was recovered from feature 2003. Just under half of the stone survives (original diameter *c*. 400 mm); the edge is slightly bevelled. There is a possible trace of a central (partial) perforation, and the surfaces are partially covered by a thin layer of a black pitch-like substance, but have not entirely obscured concentric grinding marks on one surface. The date of this object is uncertain; there are no other datable artefacts



from pit 2003. It is assumed to be of relatively recent date (post-medieval/modern), although an alternative identification as a Romano-British rotary quern cannot be entirely ruled out, in which case the piece is likely to have been introduced to the Site from elsewhere as building material.

6.5.2 In addition, a small annular stone bead was retrieved from a soil sample taken from pit 1108. This is of uncertain date; the only other finds from the feature were two pieces of worked flint debitage.

6.6 Worked flint

6.6.1 Five pieces of worked flint were recovered. All are waste flakes and none are chronologically distinctive – they are dated here broadly as Neolithic/Bronze Age. Two came from the inner barrow ring ditch 1164, one from posthole 1024, and one from pit 1107, cutting cremation grave 1109.

6.7 Glass

- 6.7.1 The fragmentary remains of two modern bottles were found in pit/well 1115. Both are of the same type: clear, rectangular sauce bottles, embossed with the mark GARTONS HP SAUCE. The sauce was invented in Nottingham in the 1890s by Frederick Gibson Garton, and named after the Houses of Parliament, but Garton was forced to sell the recipe and HP brand to Edwin Samson Moore of the Midlands Vinegar Company due to unpaid bills. Moore launched HP sauce in 1903 (<u>https://en.wikipedia.org/wiki/HP_Sauce</u>).
- 6.7.2 Two other fragments of modern glass (one bottle/jar and one window) were found during the evaluation.

6.8 Slag

- 6.8.1 Just over 6 kg of ironworking slag was found, most of it deriving from a single context (dump layer 3010 in pit 3003). The slag was subjected to a visual scan, and quantified by type, an approach consistent with recommended guidelines for the assessment of archaeometallurgical remains (Historic England 2015, 13–14), although most could only be classified as 'non-diagnostic slag' due in part to its abraded condition (this was characteristic of the whole assemblage, although particularly marked in the material from pit 3003). It can be described as vesicular and relatively friable.
- 6.8.2 Associated pottery suggests a post-medieval date (?16th/17th century), but the condition of the slag indicates that it did not represent *in situ* metalworking evidence but had been redeposited in this feature.
- 6.8.3 The evaluation yielded a further 3.7 kg of iron slag from a single pit (404), possibly of medieval date, from which a very small amount (<5 g) of possible hammerscale was also identified, in the residue from a sieved soil sample.
- 6.8.4 Although undiagnostic of any specific ironworking process, the slag has been tentatively identified as having resulted from iron smithing, on the basis of the presence of possible hammerscale, and the absence of any diagnostic smelting slags. No smithing hearth bottoms could be identified.

6.9 Worked bone

6.9.1 Two fragments of worked bone were recovered from the fill of the Collared Urn amongst the cremated human remains; the two fragments clearly belong to a single object, but do



not quite conjoin cleanly (PI. 18). This object also shows signs of having been burnt on the pyre, and the two parts were found separately in the vessel (spit 89, quadrant D and spit 10, quadrant C), suggesting that the object was broken before being mixed with the human remains for deposition in the urn.

6.9.2 The object is ovoid (28 x 12 mm) with a central raised and hollow section (15 x 8 mm); there are two small transverse perforations running slightly obliquely across this central section. It is uncertain, due to damage/distortion through burning, whether the object was also perforated vertically. It has been tentatively identified as a knife pommel, or alternatively, a 'toggle', although not matching any of the known forms of Early Bronze Age bone toggles (Hunter and Woodward 2014, 121–2, fig. 4.11.1).

6.10 Human bone

Introduction

- 6.10.1 Cremated human bone was recovered from nine contexts, all associated with the ring ditches 1163 and 1164. Most deposits derived from features lying within the approximately 7 m diameter area described by the inner ring ditch 1164 including the remains of four unurned and one urned burial (Table 5). One other unurned burial lay between the two ditches, in the northern part of the approximately 22.4 m diameter area described by the outer ditch 1163.
- 6.10.2 The nature of two other deposits is currently unclear. A small quantity of bone was recovered from a vessel placed in the upper levels of grave 1127, this might represent the remains of an urned burial but could also comprise a *memento mori* deposit or 'token' (McKinley 2013) incorporated into the grave as an accompaniment to the unurned burial made within it. The charcoal-rich deposit made in feature 1018 is probably related to the mortuary rite but its nature is uncertain.
- 6.10.3 An Early Bronze Age date for the roughly centrally (to ring ditch 1163) located urned burial (grave 1050) is indicated by the vessel ON 1001. This and two other graves lay on the projected line of the inner ring ditch 1164 and are unlikely to be of a commensurate date to it. The date of the other mortuary deposits, from which no datable or closely datable finds were recovered, whilst likely to be similar to that of the urned burial, cannot be confirmed at this stage.

Methods

- 6.10.4 The remains of the inverted urned burial were recovered intact save for a small crack in the base, and a small hole probably made during the site investigations at one side of the base. The vessel was block lifted on site for micro-excavation under laboratory conditions by the writer, enabling details of the burial formation processes to be deduced. Given the pristine condition of the vessel and its contents, and the need to set the vessel buried inverted upright for excavation, a CT scan (computed tomography) was undertaken to gain a visual record of the contents in advance of further work (Pl. 17).
- 6.10.5 After processing, the cremated remains were subject to a rapid scan to assess the condition of the bone, demographic data, the potential presence of pathological lesions and information related to the mortuary rites. Assessments were based on standard ageing and sexing methods (Bass 1987; Buikstra and Ubelaker 1994; Scheuer and Black 2000). The smaller fraction residues have been retained for scanning at analysis stage. The deposit types were assessed from the combined osteological and excavation context data.

6.10.6 Three graves (1005, 1008 and 1010) were investigated by half section during the evaluation stage of the project (Wessex Archaeology 2018); the weights of bone recovered at that stage are added to give a total in parentheses in Table 5.



Context	Cut	Deposit type	Bone weight	Age/sex	Comment
1007	1005	unurned burial	314.7 g (combined total 664.7 g)	subadult 14–18 yr	\$= evaluation [106] (107/108) 350 g bone, excellent bone, common trab.; very little fuel ash
1009	1008	unurned burial + rpd	3.9 g	neonate/young infant <2 yr	= evaluation [109] scrap only; degraded/chalky appearance, adhering material; exc. quads & spits, most NE quad lower spit, lower spit NE Q (none in S)
1011*	1010	unurned burial + rpd	1.4 g (combined total 4.4 g)	neonate/young infant <2 yr	\$= evaluation [111] (112) 3 g bone (E 'half – just over); W half excavated at this stage, SW Q most, some NW quad. Fuel ash above & below conc. of bone visible 40–50 mm below surface level.
1019	1018	?crd – inc. fuel ash	0.9g	?human ?infant	1 bag NW quad, comminuted frags. much trab. could be human;
1051	1050	grave fill	5.4 g	juvenile/subadult 6–16 yr	W half & 2 NE quads (2 spits); degraded/chalky appearance with adhering material
1110*	1109	unurned burial + rpd	887.9 g	MNI 2 infant 0-5 yr juvenile/subadult 6–18 yr	quads, 2 spits all except NE (upper only), most SW (& S half); several gps. 'glued' together in matrix; compact layer of bone 'sandwiched' between deposits of pyre debris; common trab., but eroded/chalky appearance
1128*	1127	unurned burial inc. fuel ash	1645.8 g	adult > 23 yr ??male	mostly outside vessel, quads., most in N half; heavy coating of precipitated masking bone, effectively 'glued' together with small fuel ash, much of surface simply not visible; needs extra hand cleaning & sorting; trab. & compact bone common; eroded with chalky appearance. Most of unurned bone in lower fill to one side
1129		?memento mori/urned burial	1.9 g	neonate/young infant	inside vessel; delicate scraps only inc. long bone, rib & vault
1167*	1050	urned burial inc. fuel ash	1574.3 g	1) juvenile 10–12 yr 2) subadult 12–14 yr	pyre goods – elements of min. 1 elderly animal with (1); joining fragments worked bone pommel/ 'toggle' from spits 9D (1 g) &10C (0.8g); dark brown/black staining to much of bone; adhering precipitate? (masking some of bone); 433 g small fraction material, bone dust & fine particle fuel ash

 Table 5
 Summary of results from scan of human bone

KEY: *undisturbed; crd – cremation-related deposit; rpd – redeposited pyre debris



Results

- 6.10.7 The features containing cremated bone had all survived to a relatively substantial depth (0.17–0.35 m) and in at least four cases (graves 1010, 1109, 1127 and 1050) the burial remains were fully intact. Cremated bone was evident at surface level in at least one case (grave 1005; although the cut apparently extended to a depth of 0.29 m, the majority of the cremated bone was recovered from the upper 0.13 m) indicating horizontal truncation, and a later feature had cut through the deposit in pit 1018. In both of the latter cases some bone is likely to have been removed due to the disturbance but none will have been lost via this mechanism from the other deposits.
- 6.10.8 The condition of the bone is variable. In most cases much is slightly eroded with a chalky appearance, but both compact and the less robust trabecular bone (often the subject to preferential destruction in an aggressive burial environment) are well represented (Table 5). Each of these deposits also feature a hard precipitate adhering to much of the bone, frequently 'gluing' several bone fragments together. All those affected in this way derived from the area described by the inner ring ditch 1164. The bone from the northernmost outlier grave (1005) is devoid of any precipitate and in good visual condition. This suggests a subtly different burial environment affecting the deposits in these two areas.
- 6.10.9 A minimum of eight individuals (MNI) is represented, with a marked presence of immature individuals including at least two neonates/young infants, one infant, one juvenile, one juvenile/subadult and two subadults. The remains of only one adult were identified, from grave 1127; the neonatal/young infant remains recovered from the same grave have not been included amongst the MNI since the very small quantity of bone found might represent a *memento mori* deposit and have derived from the cremation of one of the individuals of commensurate age represented elsewhere within the assemblage.
- 6.10.10 No pathological lesions were observed in any of the bone.
- 6.10.11 All the bone is well oxidised being almost universally white in colour. Pyre goods in the form of a worked bone pommel or toggle (two joining fragments; Pl. 17 and 18) and several fragments of at least one elderly animal were noted amongst the remains from the urned burial made in grave 1150. This burial included the remains of two individuals - a juvenile and a subadult – as did the unurned burial made in the adjacent grave 1109 (also two immature individuals). The formation process of the latter has not yet been investigated, though the burial appears to have been made - probably in an organic container - in the southern part of the grave over a primary deposit of pyre debris with a further deposit of fuel ash made above the bone (PI.10). Initial information pertaining to the formation process of the urned burial - taken from the CT scan, micro-excavation and the osteological scan - suggests the 'bagged' remains of the subadult (inclusive of the bone object) were placed in the vessel first, and a second 'bag' containing the remains of the juvenile together with bone fragments from the elderly animal were inserted above it before the vessel was 'sealed' and inverted for burial (Pl. 17). There is also some evidence pertaining to the procedure employed to collect the bone from the pyre site for burial, suggesting the cremated bone and underlying matrix (fuel ash and pyre site base) were raked-off together, with limited separation of the bone from the other components prior to burial.

6.11 Wood

6.11.1 A small amount of wood was recovered from feature 2003 (PI. 16). Most of this is undiagnostic, consisting of a mixture of eleven fragments of unworked narrow roundwood,



and three scraps of wood that had broken off from larger timbers. One of these fragments has a possible engineered groove on one side.

- 6.11.2 The most interesting item is a curved fragment with a sawn flat facet at one end. A joining dowel (1½ inch diameter) was set into this face. The other face has broken off to expose a through tenon on the other side. The inner face has a slightly chamfered edge. This may have been part of a wheel mechanism, in which case the through tenon would have acted as part of a spoke; the feature has been tentatively interpreted as a wellhead over a spring. A similar fragment was found in the same feature during the evaluation. The date of these items is uncertain, but presumed to be medieval or later.
- 6.11.3 A condition assessment of the wood is presented below (Appendix 5).

6.12 Other finds

6.12.1 Other finds comprise a single very abraded fragment of animal bone (cattle distal tibia, 1017), and 23 fragments of sheet iron, probably representing modern containers (ditches 1016 and 1115).

7 ENVIRONMENTAL EVIDENCE

7.1 Introduction

- 7.1.1 One hundred and forty-two bulk sediment samples were taken from a range of possibly prehistoric, medieval and post-medieval features such as urned and unurned cremation burials and other cremation-related deposits, along with ditches, pits, postholes and a barrow. One hundred and twelve were processed for the recovery and assessment of the environmental evidence. Subsamples for chemical and other palaeoenvironmental analyses (phytoliths, pollen and pollen DNA) were taken from the samples from an inverted cremation urn. One sample, from a pond, was processed for the recovery of industrial material, as well as environmental. One monolith sample, taken through a barrow/burial mound, was described and assessed for microfossil potential.
- 7.1.2 The bulk and monolith samples break down into the following groups:

	Monolith samples	No. of bulk samples taken	Bulk samples processed	Volume (litres)	Feature types
1	1	139	111	550.2	Urned and unurned cremation burials and other cremation-related deposits, ditches, pits, postholes, burial mound
2	-	-	-	-	
3	-	3	1	36	Pond, posthole
Totals	1	142	112	586.2	

Table 6 Sample provenance summary

7.2 Aims and methods

7.2.1 The purpose of this assessment is to determine the potential of the environmental remains preserved at the Site to address project aims and to provide data valuable for wider research frameworks.

Macrofossils

7.2.2 Although over one hundred samples were taken on site, sample processing was targeted. Bulk sediment samples were split into high priority and lower priority. High priority samples



include all cremation grave (and possible cremation grave) deposits, pits/postholes related to cremation graves and well-preserved deposits from the ring ditches. Following on from the assessment of the high priority samples, recommendations to process low priority samples will be made, if suitable.

7.2.3 The size of the processed bulk sediment samples varied between 0.02 and 55 litres, and on average was around 9 litres. The samples were processed by standard flotation methods on a Syraf-type flotation tank and by bucket flotation (<10-litre samples); the flot retained on a 0.25 mm mesh, residues fractionated into 5.6/4 mm and 1 mm fractions. Due to the heavy encrustation of sediment on the human bone, the cremation-related samples had to be soaked in peroxide solution twice to help break up the soil matrix and allow the bone to be examined. The industrial sample was processed by tank flotation on a 0.5mm size mesh. The coarse fractions (>5.6/4 mm) were sorted by eye and discarded. Large flots were split into smaller flot subsamples when appropriate. The flots were scanned using a stereo incident light microscopy (Leica MS5 microscope) at magnifications of up to x40 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 (eg, Cenococcum geophilum) and animal remains, such as earthworm eggs and insects, which would not be preserved unless anoxic conditions prevailed on site. The preservation and nature of the charred plant and wood charcoal remains, as well as the presence of other environmental remains such as terrestrial and aquatic molluscs and animal bone was recorded. 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, $C = \langle 5 \rangle$ as an estimation of the minimum number of individuals and not the number of remains per taxa.

Sediments

7.2.4 The monolith sample was cleaned prior to recording and standard descriptions were used (following Hodgson 1997 and Troels-Smith 1955), including Munsell colour, texture, structure and nature of boundaries.

7.3 Results

Macrofossils

The flots from possible Early Bronze Age ditches, and possibly associated pits and 7.3.1 posthole samples are of varying volumes with varying amounts of roots and modern seeds. One sample, from posthole 1032, produced a high number of modern seeds, indicating a high possibility of contamination from later intrusions. The charred material from these samples is of variable preservation. Wood charcoal was noted in variable quantities and includes both roundwood and mature fragments. The flots are dominated by cereals but also include the remains of wild plant seeds, seeds from possibly cultivated plants and the remains of potentially exploitable plant resources. The cereal taxa include Triticum aestivum/turgidum, Hordeum vulgare, Triticum sp., Secale cereale? (rye?), and Triticeae. The wild plant taxa include Poaceae (Avena sp., Avena/Bromus) (oat, Prunus spinosa (blackthorn), Galium sp. (cleavers or bedstraw), oat/brome). Arrhenatherum elatius subsp. bulbosum tubers, Vicieae and indeterminate parenchymatic tissue, roots and stems. The seeds from possibly cultivated plants are Vicieae (inc. large seeded and cf. Vicia faba (broad bean)). The remains of potentially exploitable plant resources are represented by Corylus avellana (hazel) shell.

- 7.3.2 The flots (Appendix 2) from the Bronze Age urned and unurned cremation burials and other cremation-related deposit bulk sediment samples are generally large, and there are generally low numbers of roots and modern seeds that may be indicative of some stratigraphic movement and the low possibility of contamination by later intrusive elements. The exceptions are three samples from cremation graves 1005, 1127 and 1150), with small flots (100ml or less). The sample from cremation grave 1150 has a high number of roots and modern seeds, while the sample from cremation grave 1127 (context 1129) has a high number of roots and a low number of modern seeds. These samples also indicate a high possibility of contamination from later intrusive elements. The sample from cremation grave 1005 (context 1006) has a low number of roots and no modern seeds. This suggests that the sample is less contaminated by later intrusions. The charred material from these samples shows a varying degree of preservation. Wood charcoal was noted in large quantities (over 100ml), except for the three samples mentioned above, which contain wood charcoal in small amounts. The charcoal includes both roundwood and mature fragments, with one example exhibiting a phytophagous hole. The flots are dominated by the remains of wild plants but also include remains of cereal crops. The wild plant taxa include mostly tubers, roots, stems, buds and parenchymatic tissue of indeterminate taxa, Arrhenatherum elatius subsp. bulbosum (false oat-grass), Cerastium sp. (mouse-ear), Ranunculus sp. (buttercup), Plantago sp. (plantain), Vicieae (vetches), Poaceae (meadow grasses) and Cyperaceae (sedges) tubers. The cereal taxa include Triticum aestivum/turgidum (bread wheat/rivet wheat), Hordeum vulgare (six-rowed barley), Triticum sp. (indeterminate wheat) and Triticeae (indeterminate cereal). The samples from cremation urn deposit 1167 had virtually no bioturbation indicators, but no charred plant remains other than wood charcoal.
- 7.3.3 The flot from the bulk sediment sample of the pond in Area 3 is large. The subsample has a very small number of roots and no modern seeds, indicating a low possibility of stratigraphic movement and contamination by later intrusive elements. Mature wood charcoal was noted in large quantities, much of which is heavily mineral-coated. No charred or waterlogged plant remains were present in this sample.
- 7.3.4 No other environmental evidence is preserved in the bulk sediment samples. However, several samples included fragments of artefactual remains. The cremation grave samples produced bone and coal, one posthole sample produced a small amount (<5 small fragments) of coal (1024), and a small amount of fuel-ash slag (again <5 small fragments) is present in samples from all types of feature.

Sediments

7.3.5 Monolith sample 87 was taken through what was characterised on-site as the remains of a Bronze Age burial mound. It shows episodes of high energy deposition and some erosion of sediments (Appendix 3).

7.4 Discussion

Macrofossils

- 7.4.1 The significance of the environmental evidence is difficult to assess at this stage due to the possible presence of material from residual or intrusive origin, which is relatively frequent in small archaeobotanical assemblages (eg, Pelling *et al.* 2015), and might compromise the consistency of the environmental evidence.
- 7.4.2 The inner and outer ring ditches and possibly associated Early Bronze Age features, including pits and postholes, provided small assemblages of charred plant remains. The small numbers of cereal grains, including naked wheat and possible rye, suggest intrusion

with recent (medieval or later) agricultural material, as these crops only become generalised then. It is, however, possible that the preliminary phasing of those features, based on a small number of pottery sherds that may be residual, is incorrect. In fact, one of the samples from the inner ring ditch (context 1073), provided a relatively wellpreserved and rich (unlikely to be residual or intrusive) assemblage of charred plant remains. This assemblage, however, comprised crops such as free-threshing wheat and broad bean which again suggest a dump of material from medieval or later activity in light of the crop species.

7.4.3 The charred plant remain assemblages from the Bronze Age cremation and related deposits were generally dominated by underground and other vegetative plant parts, which could be representative of plant material deliberately selected for use as fuel or natural grassland vegetation accidentally carbonised. A small amount of cereal remains were also present in some of the samples, but there is not necessarily an association with the funerary deposit, as the small numbers and taxa suggest they may be intrusive from later activities.

Sediments

7.4.4 The deposits in monolith 87 represent the earliest barrow construction phase(s). A variety of different types of barrow have been recorded in this country and it is recognised that they are not single-phase creations. Therefore, the lower deposit within the monolith sample is evidence of the earliest stage of this earthwork. The inclusions suggest that this feature was formed deliberately, using upcast from the surrounding outer ring ditch (group 1163). There is evidence of erosion between the deposits, suggesting that they represent construction phases with a more prolonged time period between them (confirming the above-mentioned interpretation of the creation of burial mounds).

8 STATEMENT OF POTENTIAL

8.1 Summary of potential

- 8.1.1 The Site contains evidence of barrow construction and the deposition of cremated human remains, as carried out on the southern edge of the Pennines in the second millennium BC. Elements of the recorded stratigraphy and environmental and artefactual assemblages cast light onto the nature and use of the local landscape during the Bronze Age. The examined deposits and features have provided complementary, and at times relatively rich, suites of data. The Bronze Age remains and a few of the charcoal assemblages hold the highest potential to understand the nature of the Site and its role within its contemporary landscape. The discovery and controlled excavation of the inverted Collared Urn, itself almost perfectly preserved, represents an unusually valuable resource for studying Bronze Age mortuary rites. The recovery of a grave good (the bone knife pommel/toggle) from a cremation is an unusual find (Barnatt and Smith 2004, 35), as is the high proportion of immature individuals interred at the Site. The human remains in general preserve demographic information relating to this tranche of the past population.
- 8.1.2 Barrows are numerous across Derbyshire, with Barnatt's 1980s Peak District survey identifying around 400 examples (Barnatt 1990). However the majority of excavated data relates to often poorly documented 19th-century work, and few monuments have been dug under modern conditions (Barnatt and Smith 1991, 25). Although numerous on the limestone plateau of the White Peak, 'few barrows survive on the lowland fringes' (*ibid.*), which increases the significance of the current Site.
- 8.1.3 Based on the foregoing, the Site may be considered to be of regional importance.



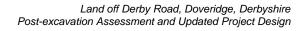
8.2 Stratigraphic potential

8.2.1 Features were generally discrete with few instances of intercutting and little stratification of deposits. The intercutting features with a higher concentration of anthropogenic material were relatively easy to distinguish from the natural substrate, while the features with the sterile sandy silt fills were more difficult to distinguish, the varying concentrations of stony inclusions were more diagnostic than colour. Difficulties in differentiating between the barrow mound material (which comprised redeposited natural substrate) from the natural ground surface (which comprised superficial glaciofluvial deposits - themselves essentially redeposited) mean that the extent and evidence for the construction and use of the barrow could only be dimly perceived. None of the cremation burials intercut, so their relative sequence cannot be established using direct stratigraphic relationships. Although the heterogeneous nature of the barrow deposits may relate to its reconsolidation, which would have sealed earlier horizons, the original sequence has been obscured and largely erased by plough-truncation. Although the barrow is likely to have been a multi-phase monument, the original sequence cannot be confidently reconstructed due to the issues outlined above. Therefore, the stratigraphic potential of the Site in clarifying the chronology of the archaeological activity it hosted is not thought to be high.

8.3 Finds potential

Cremation vessel and contents

- 8.3.1 Of highest potential amongst the finds assemblage are the pottery vessels and human remains from the small cremation cemetery in Area 1. The good survival of the complete Early Bronze Age Collared Urn from cut 1050 should allow some discussion of this vessel within its context in this ceramic tradition. The vessel base from 1127 is far less well preserved and is unlikely to add much to the discussion, as is the case with the other three small sherds.
- 8.3.2 Full analysis of the human bone will provide more detailed demographic data, confirming the minimum number of individuals (MNI), refining their age and making further assessment of sex. Although no pathological lesions were observed in the scan some might be revealed in the more detailed analysis and a full record and study of such changes could contribute towards a broad assessment of the health status of at least some of the individuals.
- 8.3.3 Data derived from the laboratory micro-excavation of the urned burial remains, incorporating the evidence from the CT scan, will enhance our understanding and interpretation of the mortuary rite. There are several unusual aspects to the burial, accessible due to its exceptional preservation and the evidence from the CT scan, which will make an important contribution to our understanding of the mortuary rite including how the bone was recovered from the pyre site, the length of time between cremation and burial, curation of remains and the potential relationships between individuals buried together in this way.
- 8.3.4 The demographic make-up of the assemblage is intriguing. The high proportion of immature individuals to the near exclusion of adults in such a location (ie, within the confines of a ring ditch) is unusual, though similarly discrete concentrations of the graves of young children predominantly involving inhumation of the unburnt corpse have been observed elsewhere in the Early Bronze Age (eg, McKinley forthcoming). Why a community would choose to bury (some of) its young in this way is a point of interest that would benefit from further exploration once the temporal sequence and the relationship between the two ring ditches has been more clearly established.



- 8.3.5 Understanding of the burial formation processes will also be well served by analysis of the site and osteological data for most of the unurned burial deposits, all of which were excavated on site by quadrant and, where pertinent, spit.
- 8.3.6 More detailed exploration of the precipitate adhering to the bone might illuminate currently inaccessible aspects of the mortuary rite: eg, did it comprise a deliberate additive such as a resin or does it reflect a taphonomic process.
- 8.3.7 The bone object is also of significance, being of an unusual type, and also adding to an understanding of pyre technology and burial rites. The prehistoric pottery and bone object should be retained for long-term curation.

Worked flint

8.3.8 The worked flint has already been recorded to an appropriate archive level, and further analysis is not recommended. A descriptive summary of the information presented in this report will be incorporated in the publication report as appropriate. The worked flint should be retained for long-term curation.

Slag

8.3.9 Also of interest is the small amount of evidence for medieval ironworking in Area 3, although probably not representing *in situ* deposits. It is unlikely that further analysis of the iron slag will enable any very detailed discussion of the processes involved beyond what has been reported here, due to its abraded condition and lack of material diagnostic of any specific ironworking process, but it would be useful to comment briefly on the functional and economic implications for the Site. It is recommended that a small sample of the slag from each of the two features (pit 404 and 3003), including the hammerscale from pit 404, is retained as a representative sample. Retention of the whole assemblage is not considered necessary on grounds of the repetitive nature of the material.

Wood

8.3.10 Waterlogged wood is a comparatively rare class of artefact (English Heritage 2010b) and the fragments in feature 2003 (= evaluation feature 204) may provide information on species selection, timberworking techniques/technology and potential activities undertaken within the vicinity of the Site. However, the feature is currently undated, and so the archaeological potential of these fragments is uncertain. Therefore, a fragment of worked wood from this feature has been despatched for radiocarbon dating (see below).

Medieval pottery

8.3.11 Medieval pottery should be identified to type as far as possible; any refinement in dating may inform the site chronology, although most if not all sherds are likely to have been redeposited. The medieval pottery industry of Derbyshire is as yet imperfectly understood (Cumberpatch 2004), and the identification of even small groups from consumer sites will add to the evidence for the distribution of pottery from production sites, particularly as very few other consumer sites are known in south-west Derbyshire. The medieval sherds should be retained for long-term curation.

Other finds

8.3.12 The potential of all other finds is severely limited by the small quantities recovered. Most appear to be of relatively recent date; material culture, apart from pottery (90 sherds from a maximum of 44 separate vessels, most vessels represented by single sherds), is limited to two clay pipe stems, two glass bottles and at least two metal containers. It is unlikely that the early post-medieval pottery, for example, can provide any further details to help



contextualise questions relating to the medieval pottery, as the quantities are too small to sustain a discussion of sources or pottery use.

- 8.3.13 There is also a partial grindstone from feature 2003, which is also assumed to be of postmedieval/modern date.
- 8.3.14 None of the 19th-/20th-century material warrants retention for long-term curation, on the grounds of date, small quantities, and lack of items of intrinsic interest. This could also apply to the earlier post-medieval material, although this will be confirmed with the Museum.

8.4 Environmental potential

Charred plant remains

8.4.1 The analysis of the charred plant samples has in general little potential, unless radiocarbon dating is undertaken, as intrusion with recent material seems to be widespread. Even then, there are no assemblages suggestive of local plant processing activities, other than the one in the inner ring ditch.

Wood charcoal

8.4.2 The analysis of the wood charcoal from cremation-related features could provide information on the species composition, management and selection for funerary practices in the prehistoric period, however, the results from this analysis would be compromised due to the probable existence of taphonomic issues, ie, any samples with suspected intrusive cereals are excluded from this recommendation. A 19th-century feature provided a large amount of wood charcoal and industrial debris which could inform about species selection for industrial activities, however, given the recent nature of the deposit and the poor preservation of the charcoal (mostly being mineral coated), there is little potential in this latter work.

Sediments

8.4.3 The deposits are minerogenic and are, therefore, unlikely to yield meaningful microfossil results, due to the nature of preservation in such sediment. The presence of charcoal, in a deposit related to burial mound creation, should not be interpreted as evidence of *in situ* carbonisation. Rather, it derives from the sediment used to build the barrow. As such, a radiocarbon date from charcoal in the upper deposit would give a *terminus post quem* for that deposit and would give only a relative chronology for the construction of the earthwork therefore subsampling for radiocarbon dating is not recommended.

Pollen and phytoliths

8.4.4 The retained samples taken from the contents of the urn may contain phytoliths and palynological (pollen) evidence. Analysis of these remains can be useful in understanding funerary taphonomy at the Site. Are phytolith and pollen remains, where preserved, derived from the environment or indicative of human activities? What is the evidence for the presence of useful food and non-food plants and how do these relate to the cremation process (eg, fuel, food, ritual)? How does this data contribute to our understanding of the rituals and processes associated with cremation and prehistoric plant and food production/processing?



8.5 Overall research potential

Reappraisal of the project objectives

- 8.5.1 The general aims of the excavation, as stated in the WSI (Lanpro 2018) and in compliance with the CIfA's *Standard and guidance for archaeological excavation* (CIfA 2014a), were:
 - To identify and record any features of archaeological interest prior to the commencement of site construction works, in order to mitigate the impact of these works on the archaeological resource. This will be carried out through a programme of archaeological open area excavation aimed at gathering sufficient information to establish the presence/absence, character, extent, state of preservation, significance and date of any archaeological remains within the proposed development site.
- 8.5.2 This general aim has been met, as evidenced by the project archive and this report.

Reappraisal of the research objectives

- 8.5.3 Following consideration of the archaeological potential of the Site and the regional research framework (Knight *et al.* 2012), the research objectives of the excavation defined in the WSI (Lanpro 2018) were:
 - To establish the spatial extent, date, character, condition and significance of the archaeological activity in the excavation area;
 - To recover information relating to the nature and function of past human activity represented by the surviving archaeological remains;
 - To excavate and record identified archaeological features and deposits to a level appropriate to their extent and significance;
 - To interpret the nature of human activity at the site and to place the site within its local, regional and national context as appropriate;
 - To assess the site formation processes and the effects that these may have had on the survival and integrity of the archaeological features and deposits;
 - To undertake sufficient post-excavation assessment to confidently interpret identified archaeological features;
 - To undertake sufficient post-excavation assessment and analysis of artefacts and environmental samples to interpret their significance;
 - To report and publish the results of the excavation and post-excavation assessment and analysis, and place them within their local and regional context;
 - To compile and deposit a site archive at a suitable repository and to provide information for the Derbyshire HER to ensure the long-term survival of the excavated data.
 - 8.5.4 It has been possible to fulfil most of these research objectives. The majority of the identified archaeological features and deposits were excavated and recorded to a level appropriate to their extent and significance, although safety considerations prevented



the full excavation and formal recording of feature 2003, with pit 1152 also not bottomed for the same reason. The spatial extent of the barrow mound was somewhat unclear due to the plough-levelling of the Site and the difficulty in distinguishing the mound material from *in situ* superficial natural deposits.

- 8.5.5 It has been possible to date only a few of the features on artefactual or stratigraphic grounds. There is uncertainty over the date of the unurned cremations, which currently prevents their significance from being fully understood. These are assumed to be contemporary with the Bronze Age phase of the Site, but this requires confirmation, especially in light of the inner ring ditch potentially 'targeting' the barrow in the post-Roman (?early medieval) period. Was the monument revisited and reused at this time?
- 8.5.6 Overall, the further work detailed below will improve the interpretation of the Site and allow it to be better placed within its local, regional and national context.

Updated project aims

- 8.5.7 The significance and potential of the archaeology of Derbyshire were appraised in a resource assessment and research agenda (Cooper 2006). This was updated some six years later (Knight *et al.* 2012), and the regional research framework is currently being further revised by means of an open access 'wiki' document (http://tinyurl.com/EMHERF; EMHERF n.d.). Other documents identify research priorities for the chronological periods relating to the Site at the national level (eg, English Heritage 2010a). These have been used to update the project aims in light of the archaeological and palaeoenvironmental remains encountered.
- 8.5.8 The results of the archaeological fieldwork at the Doveridge site have the potential to contribute to the following research objectives:
 - to establish the chronology and components of monument complexes, locational preferences and intra-regional variability in monument associations (EMHERF n.d., Research Objective 3F);
 - to recover and analyse human remains (EMHERF n.d., Research Objective 3H);
 - what can we deduce about changes in woodland management and... crop husbandry, including new crops? (EMHERF n.d., Research Agenda 7.7.3);
 - what can environmental remains teach us about diet and living conditions in rural communities? (EMHERF n.d., Research Agenda 7.7.4);
 - to understand prehistoric perceptions of landscapes and natural places (English Heritage 2010a, 28);
 - to understand monument complexes, their environs and 'catchments' (English Heritage 2010a, 28);
 - to investigate lithic, groundstone and pottery production, use and exchange (English Heritage 2010a, 29);
 - to interpret human remains as symbolic resources (English Heritage 2010a, 30);
 - to understand human diets and mobility through stable isotopes (English Heritage 2010a, 31);



• to understand manufacture and trade through petrography and chemical analysis (English Heritage 2010a, 31).

9 UPDATED PROJECT DESIGN AND RECOMMENDATIONS

9.1 Introduction

9.1.1 Further work is required to better place the archaeology of the Site within its local, regional and national context. A stage of analysis and publication will allow the results of the fieldwork to contribute to the relevant established research aims and questions.

9.2 Recommendations and proposed methodologies for analysis

Stratigraphy

- 9.2.1 The stratigraphic sequence of the archaeological remains is as well understood as possible and further analysis is not recommended.
- 9.2.2 The publication arising from the project (see below) will, however, contain a set of phased plans depicting the chronological development of the Site, as far as it can be discerned.

Finds

Human bone

- 9.2.3 Analysis of the cremated bone will follow standard procedures (McKinley 1994, 5–6; 2004). The unsorted <4 mm residues will be subject to a rapid scan at this stage to extract any identifiable material, osseous or artefactual.
- 9.2.4 Taphonomic factors potentially affecting differential bone preservation will be assessed in collaboration with other specialists. The age and for the adult at least sex of individuals will be further considered using standard methodologies (Beek 1983; Buikstra and Ubelaker 1994; Gejvall 1981; Scheuer and Black 2000).
- 9.2.5 The form and nature of the deposits will be further considered in light of the osteological and other finds information together with the context data. Aspects of pyre technology and the cremation mortuary rite will be discussed in their temporal, regional and, if appropriate, national context.
- 9.2.6 To facilitate the latter and enable the longevity of the monument's mortuary use to be established including the potential relationship between the two ring ditches it is recommended that bone samples from four of the graves (1005, 1050, 1109 and 1127) be submitted for radiocarbon dating.

Pottery

- 9.2.7 The prehistoric pottery assemblage should be subjected to full fabric and form analysis, following nationally recommended standards for the analysis of pottery (Prehistoric Ceramics Research Group *et al.* 2016, section 2.4). The complete Collared Urn, and the remains of other vessels from the barrow, will be described and discussed; the vessels will be placed as far as possible within the development of this ceramic tradition, and any chronological implications highlighted. The complete Collared Urn will be illustrated, and also the base from 1127.
- 9.2.8 Medieval pottery will be submitted for identification, in order to place these few sherds in their ceramic context. No further work is proposed for the post-medieval pottery; this has already been recorded to an appropriate archive level.



<u>Slag</u>

9.2.9 A brief commentary on the slag will be prepared, discussing its functional and economic discussion of its significance to the Site.

<u>Stone</u>

9.2.10 The possible quern from feature 2003 should be submitted to Ruth Shaffrey to clarify its function and likely period of manufacture.

<u>Wood</u>

9.2.11 A brief comment on the possible wooden wheel fragments will be prepared, for inclusion in the stratigraphic text.

Environmental remains

Charred plant remains

9.2.12 The assemblage sample 58 from inner ring 1164 is recommended for analysis if its problematic chronology is solved by radiocarbon dating: whilst the feature is might appear to be Early Bronze Age due to its association with the barrow mound, the archaeobotanical assemblage suggests medieval or later. There is potential in the charred plant remains for radiocarbon dating of short-lived specimens to ascertain the chronology of this (and other) deposit. Processing of low priority samples is not recommended due to the poor results obtained so far. In spite of the poor results, a brief summary should be included in prospective reports and publications, incorporating the radiocarbon dating results. The sorted environmental material is recommended for retention in the archive.

Wood charcoal

9.2.13 The samples proposed for charcoal analysis are indicated with a "C" in the analysis column in Appendix 2. Identifiable charcoal will be extracted from the 2mm residue together and the flot (>2mm). Larger richer samples will be sub-sampled. Fragments will be prepared for identification according to the standard methodology of Leney and Casteel (1975). Charcoal pieces will be fractured with a razor blade so that three planes can be seen: transverse section (TS), radial longitudinal section (RL) and tangential longitudinal section (TL). They will then be examined under bi-focal epi-illuminated microscopy at magnifications of x50, x100 and x40. Identification will be undertaken according to the anatomical characteristics described by Schweingruber (1990) and Butterfield and Meylan (1980). Identification will be to the lowest taxonomic level possible, usually that of genus and nomenclature according to Stace (1997), individual taxon (mature and twig) will be separated, quantified, and the results tabulated.

Worked wood

9.2.14 Further examination of the two possible wheel mechanism fragments may help to determine their function, and so the production of a combined report on the wood recovered from feature 2003 (= evaluation feature 204) at both stages of investigation is recommended. Dependent on the wood radiocarbon dating results (see below), further specialist analysis to determine the wood species present and the possible function of the worked pieces will be undertaken. Conservation and museum deposition of some of the worked fragments will be considered, dependent on the radiocarbon results, current research priorities (EMHERF n.d) and the collecting policy of Derby Museum. None of the unworked wood fragments requires any further work, and none should be retained. The further analysis and curation of the waterlogged wood will be carried out according to relevant English Heritage/Historic England guidance (2010b and 2018).



9.2.15 A condition assessment of the wood is presented below (Appendix 5).

Sediments

9.2.16 As the sediments in the monolith sample have been fully described, it has no further potential. The monolith sample is, therefore, recommended for discard.

Pollen and phytoliths

9.2.17 Pollen/pollenDNA and phytolith assessment/analysis is recommended for the retained samples taken from the contents of the urn. Assessment will determine the level of pollen preservation and species present. with anv further work reflecting the palaeoenvironmental potential of the results of the assessment. Samples will be processed using standard procedures (Moore et al. 1991; Piperno 2006). Microscopybased pollen work will be undertaken in-house; it is anticipated that the phytolith samples will be submitted to QUEST/University of Reading.

Radiocarbon dating

- 9.2.18 Up to eight radiocarbon dates are proposed.
- 9.2.19 Two radiocarbon samples of short-lived samples from slot 1072 (ditch 1164) are recommended for submission to the ¹⁴CHRONO Centre, Queen's University, Belfast.
- 9.2.20 Five samples of human bone (from graves 1005, 1050, 1109 and 1127) are recommended for submission to the Scottish Universities Environmental Research Centre. With regard to the selection of human bone, particular care will be taken to avoid sampling the same individual where the human remains could occur in more than one discrete deposit and/or feature.
- 9.2.21 A fragment of worked wood from feature 2003 has been despatched for radiocarbon dating, in order to clarify the chronology of the artefact, guide further work on other material from the feature, provide *a terminus post quem* for its infilling and gain a better understanding of the activities carried out in the vicinity of the burial monument. At the time of writing (May 2019), the results were not available.
- 9.2.22 The dates will be calculated using the IntCal13 calibration curve (Reimer *et al.* 2013) and the computer program OxCal (v4.2.3) (Bronk Ramsey and Lee 2013) and cited at 95% confidence. The degree of reliability of the radiocarbon date and the event which is aimed to be dated will be assessed following Waterbolk (1971) and Pelling *et al.* (2015).

Sample	Context	Feature	Group	Material	Rational
58	1073	1072	1164	Charred plant remains: free threshing wheat	Crop-husbandry chronology; ?date of feature
58	1073	1072	1164	Charred plant remains: bean	Crop-husbandry chronology; ?date of feature
SS1	1007	1005		Human bone	Better understanding of the chronology of the funerary activity (outlier)
SS11	1110	1109		Human bone	Better understanding of the chronology of the funerary activity
SS37	1128/1129	1127		Human bone	Better understanding of the chronology of the funerary activity (central – primary burial?)
N/A	1167	1050		Human bone	Better understanding of the chronology of the human

 Table 7
 Proposed radiocarbon dates

Sample	Context	Feature	Group	Material	Rational
				from Individual 1	remains/nature of funerary activity - were these two individuals alive at the same time? NB date dependent on sufficient remains indicative of MNI across both deposits
N/A	1167	1050		Human bone from Individual 2	Better understanding of the chronology of the human remains/nature of funerary activity - were these two individuals alive at the same time? NB date dependent on sufficient surplus remains indicative of MNI across both deposits
N/A	2004	2003		Worked wood	Chronology of artefact/assoc activity/curation

KEY: SS – sample series

Context

- 9.2.23 To better understand the context of the Site, both in terms of its physical location within the ancient landscape and against the backdrop of the latest understanding of Romano-British Derbyshire, it is recommended that a project specific GIS be created, incorporating the results of:
 - a literature review and updated HER search (within both Staffordshire and Derbyshire), and
 - the sourcing of existing LiDAR data to enable production of a digital model of the Site landscape.
- 9.2.24 A literature review will also be carried out in order to better understand the Site in its local, regional and national context. The following, typically somewhat dated, local/regional sources have been identified, but more will be consulted as they are identified during the course of the literature review:
 - Barnatt, J 1990 *The Henges, Stone Circles and Ringcairns of the Peak District.* Sheffield, Department of Archaeology and Prehistory, University of Sheffield
 - Barnatt, J, and Collis, J 1996 *Barrows in the Peak District: recent research. Sheffield.* Sheffield, Sheffield Academic Press
 - Garwood, P 2007 Regions, Cultural Identity and Social Change, *c*.4500–1500 BC: the West Midlands in Context, in P Garwood (ed) *The Undiscovered Country: the Earlier Prehistory of the West Midlands*, 194–215. Oxford, Oxbow Books
 - Gunstone, A 1965 An archaeological gazetteer of Staffordshire: Part 2: The Barrows, *North Staffordshire Journal of Field Studies* 5, 20–63
 - Hawke-Smith, C F, 1979 Man-land relations in prehistoric Britain: the Dove-Derwent Interfluve, Derbyshire: a study in human ecology. BAR Brit Ser 64
- 9.2.25 Grey literature of local comparator sites identified following the HER search will also be consulted, with the following report, which concerns barrows excavated 3.5 km to the north-west of Doveridge, already flagged:
 - Richmond, A (Phoenix Consulting Archaeological Consultancy) 2012 Archaeological Investigations at Uttoxeter Quarry, the North West (Cricket Pitch) Extension. Unpubl



10.2.3 Some rationalisation of the finds/environmental boxes is likely during analysis, and following the proposed selection policy (see below), leading to the deposition of perhaps three archive boxes.

Digital archive

10.2.4 The digital archive generated by the project, which will include born-digital data (survey data, databases and spreadsheets, photographs and reports) as well as a scanned security copy of the physical records (see below), will be deposited with the Archaeology Data Service (ADS) to ensure its long-term curation. Digital data will be prepared following ADS guidelines (ADS 2013 and online guidance) and accompanied by full metadata.

10.3 Selection policy

- 10.3.1 Wessex Archaeology follows national guidelines on selection and retention (SMA 1993; Brown 2011, section 4), with the aim of retaining only those finds with further research potential, or which fulfil other criteria within the Museum's collecting policy.
- 10.3.2 In this instance, finds categories which will be targeted for selective retention include the animal bone (one fragment only) and post-medieval/modern artefacts (pottery, glass, clay pipes, glass, metal), all of which occurred in negligible quantities, and have no further archaeological potential. The slag should also be sampled for retention. Details of the policy for individual material types are given above.
- 10.3.3 The selection policy will be agreed with the Museum and County Archaeologist and will be fully documented in the project archive.

10.4 Security copy

10.4.1 In line with current best practice (eg, 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.

10.5 OASIS

10.5.1 An OASIS online record (http://oasis.ac.uk/pages/wiki/Main) has been initiated, with key fields and a .pdf version of the final report submitted. Subject to any contractual requirements on confidentiality, copies of the OASIS record will be integrated into the relevant local and national records and published through the Archaeology Data Service ArchSearch catalogue.

11 COPYRIGHT

11.1 Archive and report copyright

11.1.1 The full copyright of the written/illustrative/digital archive relating to the project will be retained by Wessex Archaeology under the *Copyright, Designs and Patents Act* 1988 with all rights reserved. The client will be licenced to use each report for the purposes that it was produced in relation to the project as described in the specification. The museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use conforms to the *Copyright and Related Rights Regulations* 2003. In some instances, certain regional museums may require absolute transfer of copyright, rather than a licence; this should be dealt with on a case-by-case basis.



11.1.2 Information relating to the project will be deposited with the Historic Environment Record (HER) where it can be freely copied without reference to Wessex Archaeology for the purposes of archaeological research or development control within the planning process.

11.2 Third party data copyright

11.2.1 This document and the project archive may contain material that is non-Wessex Archaeology copyright (eg, Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which Wessex Archaeology are able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferable by Wessex Archaeology. Users remain bound by the conditions of *the Copyright, Designs and Patents Act* 1988 with regard to multiple copying and electronic dissemination of such material



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APPENDICES

APPENDIX 1 CONTEXT SUMMARY TABLE

Deposit	Deposit interp	Deposit description	In cut	Cut interp	Cut description	Group	Group interp	Area
101	Topsoil	Mid greyish brown silty clay with abundant rooting and rare 3% stone inclusions.	N/A	N/A	N/A	N/A	N/A	Eval Tr 1
102	Subsoil	Mid orangish brown silty clay with 65% subangular and subrounded stones <120mm	N/A	N/A	N/A	N/A	N/A	Eval Tr 1
103	Natural	Light greyish orange mottled silty sand with very common subrounded and subangular stones <150mm.	N/A	N/A	N/A	N/A	N/A	Eval Tr 1
105	Seconda ry Fill	Mid brownish grey silty clay with 35% very common subrounded, poorly sorted stones <180mm. Moderate compaction. Fill of 104.	104	Cut	E-W feature with flat base and straight, moderate sides. 2.3 m wide and 0.38 m deep.	N/A	N/A	Eval Tr 1
107	Seconda ry Fill	Mid orangish brown silty clay with subrounded stones <50mm and charcoal flecking. Moderate compaction. 0.19 m deep. Fill of 106.	106	Pit	Circular pit with steep, straight sides and irregular base. 0.39 m diameter and 0.29 deep. Filled with 107 and 108.	N/A	N/A	Eval Tr 1
108	Deliberat e Backfill	Light greyish brown silty sand with 5% subrounded stone, charcoal flecking and animal bone. 0.13 deep. Fill of 106.	106	Pit	Circular pit with steep, straight sides and irregular base. 0.39 m diameter and 0.29 deep. Filled with 107 and 108.	N/A	N/A	Eval Tr 1
110	Deliberat e Backfill	Mid greyish brown silty sand, charcoal rich with 3% subrounded stones <20mm. Friable. 0.22 m deep. Fill of 109.	109	Pit	Subcircular pit with straight, irregular sides and concave base. 0.47 m in diameter and 0.22 deep.	N/A	N/A	Eval Tr 1
112	Deliberat e Backfill	Mid brownish grey silty sand with 3% subrounded stones <50 mm. Charcoal rich. Friable. 0.14 deep. Fill of 111.	111	Pit	Subcircular pit with moderate, concave sides and a flat base. 0.36 m in diameter and 0.14 m deep.	N/A	N/A	Eval Tr 1
114	Deliberat e Backfill	= Mid brownish grey silty clay with 35% very common subrounded, poorly sorted stones <180mm. Moderate compaction	113	Linear	Linear feature/area of disturbance	N/A	N/A	Eval Tr 1
201	Topsoil	Mid greyish brown silty clay with 3% subangular and subrounded stones <20 mm and rooting. Friable.	N/A	N/A	N/A	N/A	N/A	Eval Tr 2
202	Subsoil	Mid brownish grey silty clay with orange mottle and 35% subrounded stones. Friable.	N/A	N/A	N/A	N/A	N/A	Eval Tr 2
203	Natural	Light orangish grey silty sandy clay with sand and gravel patches and 75% subangular and subrounded stones. Moderate compaction.	N/A	N/A	N/A	N/A	N/A	Eval Tr 2
206	Deliberat e Backfill	Dark blackish grey silty clay with 40% abundant, subrounded stones <180mm. 0.2 m deep. Fill of 205.	205	Pit	Large pit with irregular, steep sides and flat base. 3.46 m wide, 1.04 m deep and exceeding 1.6 m in length.	N/A	N/A	Eval Tr 2
207	Seconda ry Fill	Dark brownish grey silty clay with 40% abundant, subrounded poorly sorted stones <180mm. 0.84 m. Fill of 205.	205	Pit	Large pit with irregular, steep sides and flat base. 3.46 m wide, 1.04 m deep and exceeding 1.6 m in length.	N/A	N/A	Eval Tr 2
301	Topsoil	Mid greyish brown silty clay with abundant rooting and 5% subrounded stones <80mm. Friable.	N/A	N/A	N/A	N/A	N/A	Eval Tr 3
302	Subsoil	Mid greyish brown silty clay with orange mottle and common subrounded and subangular stones <100mm. Friable.	N/A	N/A	N/A	N/A	N/A	Eval Tr 3
303	Natural	Light greyish orange silty-sandy clay with 60% subangular and subrounded stones <100mm. Moderate compaction.	N/A	N/A	N/A	N/A	N/A	Eval Tr 3

Deposit	Deposit interp	Deposit description	In cut	Cut interp	Cut description	Group	Group interp	Area
401	Topsoil	Mid greyish brown silty clay with rare 3% subangular stones and rooting. Friable.	N/A	N/A	N/A	N/A	N/A	Eval Tr 4
402	Subsoil	Mid greyish brown with orange mottle silty gravelly clay with common rounded and subrounded stones <100mm. Friable.	N/A	N/A	N/A	N/A	N/A	Eval Tr 4
403	Natural	Mid brown orange silty sand with gravel and common subrounded stones in some areas patches. Moderate compaction.	N/A	N/A	N/A	N/A	N/A	Eval Tr 4
405	Deliberat e Backfill	Mid brownish grey silty clay with subangular and subrounded, poorly sorted <80mm. Moderately compact. 0.28 m deep. Fill of 404.	404	Pit	Large pit with concave base and sides of moderate slope. 0.28 m deep and exceeding 3.86 m in length and 1.12 m in width.	N/A	N/A	Eval Tr 4
406	Seconda ry Fill	Dark blackish grey silty clay. 0.05 m deep. Friable. Fill of 404.	404	Pit	Large pit with concave base and sides of moderate slope. 0.28 m deep and exceeding 3.86 m in length and 1.12 m in width.	N/A	N/A	Eval Tr 4
501	Topsoil	Mid brownish grey silty clay with 10% common subrounded stones and rooting. Moderate compaction.	N/A	N/A	N/A	N/A	N/A	Eval Tr 5
502	Subsoil	Light yellowish brown with grey hue silty clay with 20% common subrounded stones. High compaction.	N/A	N/A	N/A	N/A	N/A	Eval Tr 5
503	Natural	Mixed grey and orange sandy silty clay with sand and gravel patches and 40% subrounded stones. High compaction.	N/A	N/A	N/A	N/A	N/A	Eval Tr 5
601	Topsoil	Mid greyish brown silty with 5% sparse subrounded stones <150mm and rooting. Moderate compaction.	N/A	N/A	N/A	N/A	N/A	Eval Tr 6
602	Subsoil	Mid yellowish brown silty clay with 5% sparse subrounded stones <150mm. Highly compacted.	N/A	N/A	N/A	N/A	N/A	Eval Tr 6
603	Natural	Natural: mixed orangish brown and grey silty sandy clay with 30% abundant subrounded stones <170mm. Highly compacted.	N/A	N/A	N/A	N/A	N/A	Eval Tr 6
1000	topsoil	Greyish Brown sandy loam	N/A	N/A	N/A	N/A	N/A	Area 1
1001	Subsoil	orange brown silty sand	N/A	N/A	N/A	N/A	N/A	Area 1
1002	Natural	grey orange silty sand	N/A	N/A	N/A	N/A	N/A	Area 1
1004	Fill	greyish brown silty sand	1003	Cut	outer ring ditch filled with 1003 secondary fill	1163	Outer Ring Ditch	Area 1
1006	Fill	orange brown sandy with bone fragments and possible pyre debris	1005	Cut	small circular cut for cremation	N/A	N/A	Area 1
1007	Fill	grey brown sandy cremation remains	1005	Cut	small circular cut for cremation	N/A	N/A	Area 1
1009	Fill	orange brown sandy with sparse bone fragments	1008	Cut	small circular cut for cremation cut through a layer of made ground 1106	N/A	N/A	Area 1
1011	Fill	brown sandy with cremated bone fragment more towards base	1010	Cut	small subcircular cut for cremation cuts made ground 1106	N/A	N/A	Area 1



Deposit	Deposit interp	Deposit description	In cut	Cut interp	Cut description	Group	Group interp	Area
1013	Fill	brown sandy with high charcoal content. Cremated bone not immediately evident	1012	Cut	small sub circular cut for cremation cuts made ground 1106	N/A	N/A	Area 1
1015	Fill	greyish brown sandy silt pottery more abundant than earlier fill in original cut1016	1014	Cut	possible recut of ditch 1016 running EW cutting through southern sector of outer ring ditch	N/A	N/A	Area 1
1017	Fill	greyish brown sandy silt larger stones more common than 1015	1016	Cut	EW linear ditch cutting through southern sector of ring ditch with recut 1014	N/A	N/A	Area 1
1019	Fill	brown sandy possible cremation fill	1018	Cut	small sub circular cut for possible cremation cuts into natural 1002	N/A	N/A	Area 1
1021	Fill	grey yellow brown silty sand	1020	Cut	cut of Ring ditch	1163	Outer Ring Ditch	Area 1
1023	Fill	greyish brown sandy silt finds closer to surface	1022	Cut	EW aligned ditch cutting through southern sector of ring ditch	N/A	N/A	Area 1
1025	Fill	brown silty sand with abundant charcoal	1024	Cut	posthole with ramp on southern side cuts 1046 redeposited natural covering cremation with urn	N/A	N/A	Area 1
1026	Fill	brown orange sand rare charcoal	1024	Cut	posthole with ramp on southern side cuts 1046 redeposited natural covering cremation with urn	N/A	N/A	Area 1
1027	Fill	brown sandy with common charcoal intentional backfill	1024	Cut	posthole with ramp on southern side cuts 1046 redeposited natural covering cremation with urn	N/A	N/A	Area 1
1029	Fill	grey brown sand very friable secondary fill	1028	Cut	unclear sub circular possible recut of pit 1024	N/A	N/A	Area 1
1031	Fill	grey brown sandy silt boundary diffuse pottery at top flint at base	1030	Cut	inner ring ditch offset to se of centre very shallow	1164	Inner Ring Ditch	Area 1
1033	Fill	grey brown sand secondary fill	1032	Cut	sub circular posthole southern edge slightly more shallow	N/A	N/A	Area 1
1035	Fill	yellowish brown silty sand	1034	Cut	cut of ring ditch on western side	1163	Outer Ring Ditch	Area 1
1037	Fill	brown silty loam	1036	Cut	shallow oval pit cuts outer ring ditch	N/A	N/A	Area 1
1039	Fill	grey brown sandy secondary fill	1038	Cut	shallow circular cut possible posthole	N/A	N/A	Area 1
1041	Fill	orange brown silty sand secondary fill	1040	Cut	poss. recut of outer ring ditch	1163	Outer Ring Ditch	Area 1
1043	Fill	reddish brown sandy silt primary fill on exterior side of ring ditch	1042	Cut	outer ring ditch intervention on southern side clearest in plan of entire ring ditch	1163	Outer Ring Ditch	Area 1
1044	Fill	primary fill on interior side of ring ditch finer inclusions than fill 1043	1042	Cut	outer ring ditch intervention on southern side clearest in plan of entire ring ditch	1163	Outer Ring Ditch	Area 1



Deposit	Deposit interp	Deposit description	In cut	Cut interp	Cut description	Group	Group interp	Area
1045	Fill	greyish brown sandy silt	1042	Cut	outer ring ditch intervention on southern side clearest in plan of entire ring ditch	1163	Outer Ring Ditch	Area 1
1046	redeposi ted natural	greyish yellow sandy silt in indiscrete patches in centre of ring ditch				1166	Barrow Material	Area 1
1048	Primary fill	yellowish brown sandy silt	1047	Cut	outer ring ditch	1163	Outer Ring Ditch	Area 1
1049	Seconda ry fill	greyish brown sandy silt	1047	Cut	outer ring ditch	1163	Outer Ring Ditch	Area 1
1051	crematio n burial (urned)	orange brown silty sand	1050	cremati on grave	pit for urned cremation burial cut into redeposited natural	N/A	N/A	Area 1
1053	Primary fill	yellow orange sandy silt	1052	Cut	outer ring ditch	1163	Outer Ring Ditch	Area 1
1054	Seconda ry fill	yellow sandy silt	1052	Cut	outer ring ditch	1163	Outer Ring Ditch	Area 1
1056	Seconda ry fill	pinkish brown fine silt	1055	Cut	circular shallow pit cut into redeposited natural(mound material)	N/A	N/A	Area 1
1058	Seconda ry fill	pinkish brown fine silt	1057	Cut	shallow circular pit cut into mound material smaller than 1055	N/A	N/A	Area 1
1060	crematio n-related deposit	grey	1059	Cut	circular poss. cremation cut	N/A	N/A	Area 1
1061	redeposi ted natural	redeposited natural barrow mound material				1166	Barrow Material	Area 1
1063	Fill	yellowish brown silty sand	1062	Cut	shallow oval pit	1165	Internal e-w linear	Area 1
1065	Seconda ry fill	yellowish brown silty sand	1064	Cut	EW aligned gully irregular sides	1165	Internal e-w linear	Area 1
1067	Primary fill	orange sandy silt	1066	Cut	outer ring ditch	1163	Outer Ring Ditch	Area 1
1068	Seconda ry fill	yellow silty sand	1066	Cut	outer ring ditch	1163	Outer Ring	Area 1



Deposit	Deposit interp	Deposit description	In cut	Cut interp	Cut description	Group	Group interp	Area
							Ditch	
1069	Seconda ry fill	yellow brown sandy silt	1066	Cut	outer ring ditch	1163	Outer Ring Ditch	Area 1
1071	Fill	yellowish brown silty sand	1070	Cut	terminus of EW aligned irregular gully	1165	Internal e-w linear	Area 1
1073	Seconda ry fill	greyish brown silty clay	1072	Cut	shallow cut of inner ring ditch	1164	Inner Ring Ditch	Area 1
1075	Seconda ry fill	yellow sandy silt	1074	Cut	sub oval shallow pit	N/A	N/A	Area 1
1076	Seconda ry fill	orange brown sandy silt	1074	Cut	sub oval shallow pit	N/A	N/A	Area 1
1078	Seconda ry fill	yellowish brown sandy silt	1077	Cut	sub circular shallow pit cuts 1080	N/A	N/A	Area 1
1080	Seconda ry fill	yellowish brown sandy silt	1079	Cut	shallow pit	N/A	N/A	Area 1
1082	Seconda ry fill	mottled brown to yellow sandy silt	1081	Cut	sub oval irregularly based shallow pit	N/A	N/A	Area 1
1084	Seconda ry fill	greyish brown silty clay	1083	Cut	inner ring ditch cuts possible posthole underneath 1085 southern edge damaged by machine	1164	Inner Ring Ditch	Area 1
1086	Seconda ry fill	greyish brown yellow silty clay	1085	Cut	small circular possible posthole below inner ring ditch	N/A	N/A	Area 1
1088	Seconda ry fill	yellowish brown silty sand	1087	Cut	terminus of EW aligned irregular gully	1165	Internal e-w linear	Area 1
1090	Seconda ry fill	yellowish brown sandy silt	1089	Cut	terminus of inner ring ditch very shallow	1164	Inner Ring Ditch	Area 1
1092	Seconda ry fill	yellowish brown sandy silt small flecks of charcoal near surface	1091	Cut	small shallow pit near centre of barrow	N/A	N/A	Area 1
1094	Seconda ry fill	yellowish brown sandy silt cut by 1095	1093	Cut	oval/kidney shaped pit possibly part of causewayed ring ditch	1163	Outer Ring Ditch	Area 1
1096	Seconda ry fill	greyish brown sandy silt	1095	Cut	outer ring ditch	1163	Outer Ring Ditch	Area 1
1098	Fill	greyish brown sandy silt	1097	Cut	shallow pit cutting outer ring ditch 1049	N/A	N/A	Area 1



Deposit	Deposit interp	Deposit description	In cut	Cut interp	Cut description	Group	Group interp	Area
1100	Seconda ry fill	yellowish brown sandy silt	1099	Cut	terminus of inner ring ditch	1164	Inner Ring Ditch	Area 1
1101	Layer	orangey brown sandy silt spread near terminus possibly remains of 1099 extending	N/A	N/A	N/A	N/A	N/A	Area 1
1102	Fill	orangey brown silty sand	1103	Cut	EW running irregular ditch within ring ditch on western side	1165	Internal e-w linear	Area 1
1105	Seconda ry fill	orangey brown silty sand	1104	Cut	shallow pit /shrub bowl to the N W exterior of outer ring ditch	N/A	N/A	Area 1
1106	Layer	orangey brown silty sand possibly made ground or barrow mound material				1166	Barrow Material	Area 1
1108	Seconda ry fill	grey brown silty sand with rare charcoal flecks	1107	Cut	irregular sub oval pit which cuts cremation 1109	N/A	N/A	Area 1
1110	crematio n burial (unurned)	grey brown sandy silt abundant cremated bone	1109	cremati on grave	subcircular flat bottomed cut for deposition of cremation material	N/A	N/A	Area 1
1112	Seconda ry fill	orangey brown silty sand very rare small charcoal flecks	1111	Cut	small shallow subcircular pit within outer ring ditch	N/A	N/A	Area 1
1114	Seconda ry fill	yellowish brown sandy silt	1113	Cut	curvilinear shallow ditch cut into 1118	N/A	N/A	Area 1
1116	Backfill	greyish brown silty sand	1115	Cut	steep sided deep cut of pit possibly well not bottomed max safe depth reached	N/A	N/A	Area 1
1117	Backfill	orangey brown silty sand	1115	Cut	steep sided deep cut of pit possibly well not bottomed max safe depth reached	N/A	N/A	Area 1
1118	Backfill	grey brown silty sand	1115	Cut	steep sided deep cut of pit possibly well not bottomed max safe depth reached	N/A	N/A	Area 1
1120	Primary fill	orangey brown silty sandy clay	1119	Cut	small shallow sub oval pit	N/A	N/A	Area 1
1121	Fill	yellowish brown sandy clay	1119	Cut	small shallow sub oval pit	N/A	N/A	Area 1
1122	Fill	greyish brown silty sandy clay	1119	Cut	small shallow sub oval pit	N/A	N/A	Area 1
1124	Seconda ry fill	greyish brown silty sand	1123	Cut	small subcircular pit or shrub bowl	N/A	N/A	Area 1
1126	Seconda ry fill	greyish brown silty sand	1125	Cut	shallow circular pit or shrub bowl	N/A	N/A	Area 1
1128	crematio n burial (urned)	greyish brown silty sand bottom of urn and some cremated bone mostly outside of vessel	1127	Cut	small sub circular cut for deposition of urned cremation cut into redeposited mound barrow mound material	N/A	N/A	Area 1



Deposit	Deposit interp	Deposit description	In cut	Cut interp	Cut description	Group	Group interp	Area
1129	Fill	mid greyish brown silty sand fill of urn	1127	Cut	small sub circular cut for deposition of urned cremation cut into redeposited mound barrow mound material	N/A	N/A	Area 1
1131	Fill	mid brown sandy loam	1130	Cut	ESE WNW running ditch cuts pit 1134 and ditch1132	N/A	N/A	Area 1
1133	Seconda ry fill	yellowish brown sandy silt	1132	Cut	NE SW running shallow ditch turning 90 deg. To NW at S W end	N/A	N/A	Area 1
1135	Seconda ry fill	yellowish brown sandy silt mottled with reddish brown sand	1134	Cut	irregular sub oval pit. Probably tree throw cut by ditch 1132	N/A	N/A	Area 1
1137	Seconda ry fill	greyish brown sandy silt	1136	Cut	shallow NE SW gully	N/A	N/A	Area 1
1139	Seconda ry fill	greyish orange brown sandy silt	1138	Cut	meandering roughly EW wide shallow gully possibly geology irregular sides and base	N/A	N/A	Area 1
1142	Seconda ry fill	light grey sand	1141	Cut	subcircular flat bottomed shallow pit possibly geology	N/A	N/A	Area 1
1143	Layer	orangey brown silty sand with common rounded and subrounded stones	N/A	N/A	N/A	N/A	N/A	Area 1
1145	Fill	greyish brown silty sand	1144	Cut	shallow possible posthole	N/A	N/A	Area 1
1147	Seconda ry fill	yellowish brown silty sand some charcoal	1146	Cut	sub circular pit with stakehole 11480 cutting it	N/A	N/A	Area 1
1149	Fill	blackish brown silt loam with wood fragments	1148	Cut	stakehole	N/A	N/A	Area 1
1151	crematio n-related deposit	greyish brown sandy silt. No bone evident however due to location treated as cremation	1150	Cut	small circular feature 1m NW of centre of barrow sides stepped cut below mound material	N/A	N/A	Area 1
1153	Seconda ry fill	orange brown sandy silt	1152	Cut	steep sided circular pit not bottomed as max depth reached full size unknown as on edge of excavation	N/A	N/A	Area 1
1154	Backfill	grey brown sandy silt common charcoal	1152	Cut	steep sided circular pit not bottomed as max depth reached full size unknown as on edge of excavation	N/A	N/A	Area 1
1155	Layer	grey orange sandy silt common small rounded stones layer of barrow mound				1166	Barrow Material	Area 1
1156	Layer	brown silt uncommon small rounded stones layer of barrow mound				1166	Barrow Material	Area 1
1157	Layer	grey sandy silt rare very small stones layer of barrow material				1166	Barrow Material	Area 1
1158	Layer	grey brown sandy silt layer of barrow material				1166	Barrow Material	Area 1
1159	Layer	brown silt abundant small rounded stones layer of barrow material				1166	Barrow Material	Area 1
1161	Seconda ry fill	orangey brown sandy silt	1160	Cut	subcircular shallow pit	N/A	N/A	Area 1



Deposit	Deposit interp	Deposit description	In cut	Cut interp	Cut description	Group	Group interp	Area
1162	Seconda ry fill	greyish brown sandy silt	1140	Cut	shallow wide depression	N/A	N/A	Area 1
1167	crematio n burial (urned)		1050	cremati on grave	pit for urned cremation burial cut into redeposited natural	N/A	N/A	Area 1
2000	topsoil	brown sandy loam	N/A	N/A	N/A	N/A	N/A	Area 2
2001	Subsoil	yellowish brown sandy silt with 20cm red clay capping in NW of Excavation Area	N/A	N/A	N/A	N/A	N/A	Area 2
2002	Natural	Orange brown sandy glacial till	N/A	N/A	N/A	N/A	N/A	Area 2
2004	Backfill	orangey brown sandy silt with signs of gleying at @1m deposit darkens below this.	2003	Cut	sub circular steep sided pit possibly chased spring cut by evaluation trench very little of feature intact	N/A	N/A	Area 2
3000	topsoil	brown sandy silt loam	N/A	N/A	N/A	N/A	N/A	Area 3
3001	Subsoil	yellowish brown sandy silt	N/A	N/A	N/A	N/A	N/A	Area 3
3002	Natural	orange sandy gravel	N/A	N/A	N/A	N/A	N/A	Area 3
3004	Primary fill	brownish grey sandy clay gleyed deposit	3003	Cut	sub circular moderately steep sided waterlogged feature	N/A	N/A	Area 3
3005	Seconda ry fill	grey silty sand loam	3003	Cut	sub circular moderately steep sided waterlogged feature	N/A	N/A	Area 3
3006	Seconda ry fill	pinkish brown sandy gravel	3003	Cut	sub circular moderately steep sided waterlogged feature	N/A	N/A	Area 3
3007	tertiary deposit	grey silty clay	3003	Cut	sub circular moderately steep sided waterlogged feature	N/A	N/A	Area 3
3009	Seconda ry fill	greyish brown sandy gravel loam	3008	Cut	step sided with concave sides and base, possible posthole	N/A	N/A	Area 3
3010	Dump layer	black sandy with high concentration of redeposited slag/high temperature activity deposits	3003	Cut	sub circular moderately steep sided waterlogged feature	N/A	N/A	Area 3

APPENDIX 2 ASSESSMENT OF THE ENVIRONMENTAL EVIDENCE

Featur e	Conte xt	Grou p	Sampl e	Vol (l)	Flot (ml)	Sub- sampl e	Bioturbati on proxies	Grai n	Chaf f	Cereal Notes	Charre d Other	Charred Other Notes	Charco al >2mm (ml)	Charcoal	Other	Analysi s	Comments (Preservatio n)
Cremati	on related	l deposit	s										(111)				
1005	1006	0	1	1.8	50		20%	-	-	-	A	Stems and roots <i>Ranunculus</i> sp., seed,	26	Mature	Bone (A)	С	Fair
1005	1007	0	5	5	350		5%, B	-		-	A	Arrhenatheru m elatius subsp. bulbosum and Cyperaceae tubers, stems and roots	170	Mature	Bone (A*), coal (C)	С	Fair
1008	1009	0	6	12. 5	137 5	25%	5%, A, F, E, I	С	-	<i>Triticum</i> sp. (inc. aestivum/turgidu m)	С	Stems	150	Mature + roundwood	-	С	Fair
1010	1011	0	11	4	575		1%, C	-	-	-	A*	Stems and roots Stems and roots,	220	Mature	Bone (C)	С	Fair
1012	1013	0	14	17	470 0	25%	1%, B, F, E, I	С	-	Triticeae	A	Arrhenatheru m elatius subsp. bulbosum tubers, bud Arrhenatheru	700	Roundwood + mature	-	С	Poor
1018	1019	0	25	11. 7	155 0		5%, B, E, I	A	-	<i>Hordeum vulgare</i> and Triticeae	A*	<i>m elatius</i> subsp. <i>bulbosum</i> tuber, parenchymatic tissue, stems	290	Mature	Bone (A)	С	Heterogeneo us
1050	1051	0	43	75. 1	315 0	25%	1%, B, F, E, I	A	В	Triticum aestivum/turgidu m, Triticeae	В	and roots, bud Poaceae, <i>Plantago</i> sp., Vicieae, stems	400	Roundwood + mature	Slag (C)	С	Poor

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Featur e	Conte xt	Grou p	Sampl e	Vol (l)	Flot (ml)	Sub- sampl e	Bioturbati on proxies	Grai n	Chaf f	Cereal Notes	Charre d Other	Charred Other Notes	Charco al >2mm (ml)	Charcoal	Other	Analysi s	Comments (Preservatio n)
				43			_					and roots				_	
1059	1060	0	49	4.3 5	165		30%, C	-	-	-	-	-	165	Mature	-	С	-
1109	1110	0	61	48	215 0	25%	1%, B, F, E, I	-	-	-	A*	<i>Cerastium</i> sp., indet. seed, stems, tubers and roots	280	Mature + roundwood	-	С	Poor
1127	1128	0	72	53	614		40%, A, E, I	С	-	Triticeae	-	Vicieae, Poaceae, indet. stems, roots and tubers	300	Roundwood + mature (including phytophago us hole)	-	С	Poor
1127	1129	0	80	0.0 2	3		50%, C, E, I	-	-	-	С	Poaceae grain fragments	1	Mature	-		Poor
1150	1151	0	82 120	16	100		90%, A*, F, E, i	В	-	Triticum aestivum/turgidu m, Hordeum vulgare, Triticeae	С	Vicieae, Poaceae	12	Roundwood + mature	-		Poor
Ditches	1167		(series)	6.8 6	358		<1%, C, I	-	-	-	-	-	221	Mature	-	Cx2	1167
0	1048	1163	100	10	70		90%, B, F, E, I	В	-	<i>Hordeum vulgare</i> , Triticeae	С	<i>Corylus avellana</i> shell, Poaceae	5	Mature	Slag (C)		Fair
0	1049	1163	101	10	22		90%, C, E, I	В	-	Hordeum vulgare, Triticum cf. aestivum/turgidu m, Triticeae	С	<i>Avena</i> sp.	4	Roundwood + mature	-		Poor
0	1094	1163	102	10	20		85%, C, E, I	с	-	-	С	Arrenathrum elatius subsp. bulbosum tuber, cf. Avena sp.	4	Roundwood + mature	-		Poor
0	1096	1163	103	10	15		75%, C, E, I	В	-	Hordeum vulgare, Triticum aestivum/turgidu m Tritiaaaa	С	Vicieae	3	Roundwood + mature	-		Poor
1072	1073	1164	58	32	100		60%, A, E, I	A*	-	m, Triticeae Triticum sp. (inc. aestivum/turgidu	A	Poaceae <i>(Avena</i> sp.,	15	Mature	Slag		Heterogenou s

Т

Featur e	Conte xt	Grou p	Sampl e	Vol (I)	Flot (ml)	Sub- sampl e	Bioturbati on proxies	Grai n	Chaf f	Cereal Notes m) (A*), Hordeum vulgare (C), Triticeae	Charre d Other	Charred Other Notes Avena/Bromu s) Galium sp., Vicieae (inc. large seeded and cf. Vicia faba), Corylus avellana shell.	Charco al >2mm (ml)	Charcoal	Other	Analysi s	Comments (Preservatio n)
Pits												parenchymatic tissue					
1028	1029	0	37	42	500		5%, B, E, I	С	-	Hordeum vulgare,	С	Prunus spinosa,	300	Mature + roundwood	-		Heterogenou s
1107	1108	0	60	34	50		15%, A, E, F	в	-	Triticeae <i>Triticum</i> sp., Triticeae	С	Vicieae Vicieae, Poaceae (<i>Avena</i> sp.)	20	Mature + roundwood	-		s Heterogenou s
1146	1147	0	81	40	125		20%, A, E, I	В	-	Triticum aestivum/turgidu m, Hordeum vulgare, cf. Secale cereale, Triticeae	В	Corylus avellana shell, Avena sp., Arrhenatheru m elatius ssp. bulbosum tubers, Vicieae (large seeded)	40	Mature	Slag		Poor, very small shell fragments
Posthol	es									Triticum sp. (inc.					Slag		
1024	1025	0	34	10	550		5%, A, F, E, I	В	-	aestivum/turgidu m), Hordeum vulgare	С	Vicieae, stems and roots	350	Mature	(C), coal (C)		Fair
1024	1026	0	35	10	325		25%, A, E, I	A	-	Triticum sp. (inc. aestivum/turgidu m), Hordeum vulgare Triticum	С	Vicieae, roots	170	Roundwood + mature	-		Fair
1024	1027	0	36	32	600		15%, C, E	В	-	aestivum/turgidu m, Hordeum vulgare, Secale cereale?, Triticeae	С	Vicieae, Poaceae	300	Mature + roundwood	-		Poor
1032	1033	0	38	55	150		60%, A**, E, I	С	-	Triticum sp.	В	Viciaeae (inc. <i>Vicia faba</i>),	35	Mature	-		Poor

Featur e	Conte xt	Grou p	Sampl e	Vol (l)	Flot (ml)	Sub- sampl e	Bioturbati on proxies	Grai n	Chaf f	Cereal Notes	Charre d Other	Charred Other Notes	Charco al >2mm (ml)	Charcoal	Other	Analysi s	Comments (Preservatio n)
												Poaceae (<i>Avena/Bromu</i> s),	()				
C10 in d		4										parenchymatic tissue					
C19 Indi	ustrial fea	ture			670									Mature,			
3003	3010	0	40	36	0	5%	<1%	-	-	-	-	-	475	heavily mineral coated	Slag		-

Key: Scale of abundance: 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/c = small animal/fish bones/charred faecal pellets, Moll-t = terrestrial molluscs, Moll-f = aquatic molluscs, Moll-m = marine molluscs; Analysis: C = charcoal, P = plant, M = molluscs, C14 = radiocarbon

APPENDIX 3 DESCRIPTION OF SEDIMENTS IN MONOLITH 87

Location: Sa barrow depo		Monolith sample: 87	Comments: 205731 Doveridge				
		Drawing: 1055					
Depth	Context	Sediment description	Interpretation	Interpretation			
0-0.32m	-	VOID					
0.32-0.45m	1156/1157	Friable 10YR 4/3 brown clay silt. Very occasional charcoal fragments. Moderate-frequent small-large rounded, subrounded and subangular flint pebbles, occasional small-large rounded, subrounded and subangular flint stones. Coatings on stones. Gradual lower boundary. Troels-Smith classification: Ag3, As1 Nig.2 Str.0 Elas.0 Sicc.4	Coatings could be wetting/drying or illuviation. Translocation of minerals Frequency and size of inclusions indicates high energy deposition, probably deliberate	Barrow construction layers. Layers probably not separated grea temporally. Probably derived from ditch material (group 1163)			
0.45-0.50m	1155	Friable 10YR 4/4 dark yellowish-brown silt. Moderate-frequent small-large rounded, subrounded and subangular flint pebbles, occasional small-large rounded, subrounded and subangular flint stones. Troels-Smith classification: Ag4, As+ Nig.2 Str.0 Elas.0 Sicc.4 Lim.4	Frequency and size of inclusions indicates high energy deposition, probably deliberate Boundary indicates mixing/differential erosion	Layers probably not separated greatly ved from ditch material (group 1163)			

Troels-Smith (1955) classification: Argilla steatodes (As), Argilla granosa (Ag), Grana minora (Gmin), Grana majora (Gmaj) - 0=absence of, 4=maximum; Nigror (Nig.), Stratificatio (Str.), Elasticitas (Elas.), Siccitas (Sicc.), Limes superior (Lim.); Nig. 0=white, 4=black; Str. 0=homogeneous, 4=strong laminations; Elas. 0=clay, 4=peat, Sicc. 0=water, 4=dry; Lim. 0=>1cm, 1=<1cm and >2mm, 2=<2mm and >1mm, 3=<1mm and >0.5mm, 4=<0.5mm.

APPENDIX 4 OASIS FORM

OASIS ID: wessexar1-349682

Project details	
Project name	Land off Derby Road, Doveridge, Derbyshire (mitigation)
Short description of the project	Wessex Archaeology was commissioned to carry out strip, map and record excavation on land off Derby Road, Doveridge, Derbyshire in advance of residential development. Three separate areas occupying 0.15 hectares in total were excavated. Area 1 contained the remains of a barrow. A complete ring ditch enclosed an area of <i>c</i> . 22 m diameter containing: the poorly preserved remains of the barrow mound; an off-centre inner ring ditch that cut the barrow mound; seven cremation burials (two urned and five unurned, spread across six graves) and a deposit of cremation-related debris. One of the cremation graves contained a complete inverted Early Bronze Age Collared Urn containing the remains of two children (<15 years old). There was also an east-west ditch alongside a scatter of undated discrete pits/postholes within the enclosed area. Areas 2 and 3 contained pond-like features, one was post-medieval, and the other was undated The finds assemblage comprises pottery, slag, wood, glass, clay tobacco pipe, worked flint and other stone objects. Within the finds assemblage, the near- pristine Bronze Age Collared Urn found with two undisturbed cremation burials is a remarkable item. Within the human remains as a whole there is a high proportion of immature individuals to the near exclusion of adults. Numerous environmental samples were collected; few charred plant remains were recovered from the grave deposits and other features of probable Bronze Age date. One sample is potentially informative re. local plant processing activities, although some of the crop species from it suggest a medieval date.
Project dates	Start: 22-10-2018 End: 23-11-2018
Previous/future work	Yes / No
Any associated project reference codes	wessexar1-323063 - OASIS form ID
Any associated project reference codes	205730 - Contracting Unit No.
Any associated project reference codes	15/00389/OUT - Planning Application No.
Type of project	Recording project
Site status	None
Current Land use	Grassland Heathland 3 - Disturbed
Monument type	ROUND BARROW Early Bronze Age
Monument type	DITCH Uncertain
Monument type	DITCH Post Medieval
Monument type	CREMATION GRAVE Early Bronze Age
Monument type	CREMATION GRAVE Uncertain
Significant Finds	CINERARY URN Early Bronze Age
Significant Finds	POT Post Medieval



Significant Finds	DEBITAGE Late Prehistoric
Significant Finds	POT Medieval
Significant Finds	POT Bronze Age
Investigation type	"Open-area excavation"
Prompt	Direction from Local Planning Authority - PPS

Project location

Country	England
Site location	DERBYSHIRE DERBYSHIRE DALES DOVERIDGE Land off Derby Road
Postcode	DE6 5LA
Study area	0.15 Hectares
Site coordinates	SK 12290 34030 52.903246735361 -1.817259374152 52 54 11 N 001 49 02 W Point
Height OD / Depth	Min: 88m Max: 90m

Project creators

Project creators	
Name of Organisation	Wessex Archaeology
Project brief originator	with advice from County Archaeologist
Project design originator	Landpro Services Ltd
Project director/manager	Andrew Norton
Project supervisor	Simon Brown
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Bellway Homes
Project archives	
-	
Physical Archive recipient	Derby Museum and Art Gallery
Physical Contents	"Ceramics"
Digital Archive recipient	ADS
Digital Contents	"Environmental","Stratigraphic"
Digital Media available	"Database","GIS","Images raster / digital photography","Spreadsheets","Survey"
Paper Archive recipient	Derby Museum and Art Gallery



Paper Media available	"Context sheet","Drawing","Photograph","Plan","Report","Section"
Project bibliography 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	Land off Derby Road, Doveridge, Derbyshire: Post-excavation Assessment and Updated Project Design
Author(s)/Editor(s)	Brown, S and Daniel P
Other bibliographic details	205731.2
Date	2019
Issuer or publisher	Wessex Archaeology
Place of issue or publication	Sheffield
Description	A4 comb-bound report, c. 70 pages, with colour plates and figs
Entered by Entered on	Patrick Daniel (p.daniel@wessexarch.co.uk) 23 April 2019



APPENDIX 5 CONDITION ASSESSMENT OF WORKED WOOD

205730, context 205

Through tenon on inside curve; adjoining dowel embedded in one end. Smaller end damaged and includes remains of hole for another dowel. Damage to outside curve, covering approximately 20% of surface to approximately 20% of depth. Some loose fragments. All surfaces are soft and the wood waterlogged; small patches of mould growth present.

Proposed treatment would comprise:

- Removal of loose fragments
- Surface cleaning and removal of mould
- Impregnation with PEG
- Freeze drying

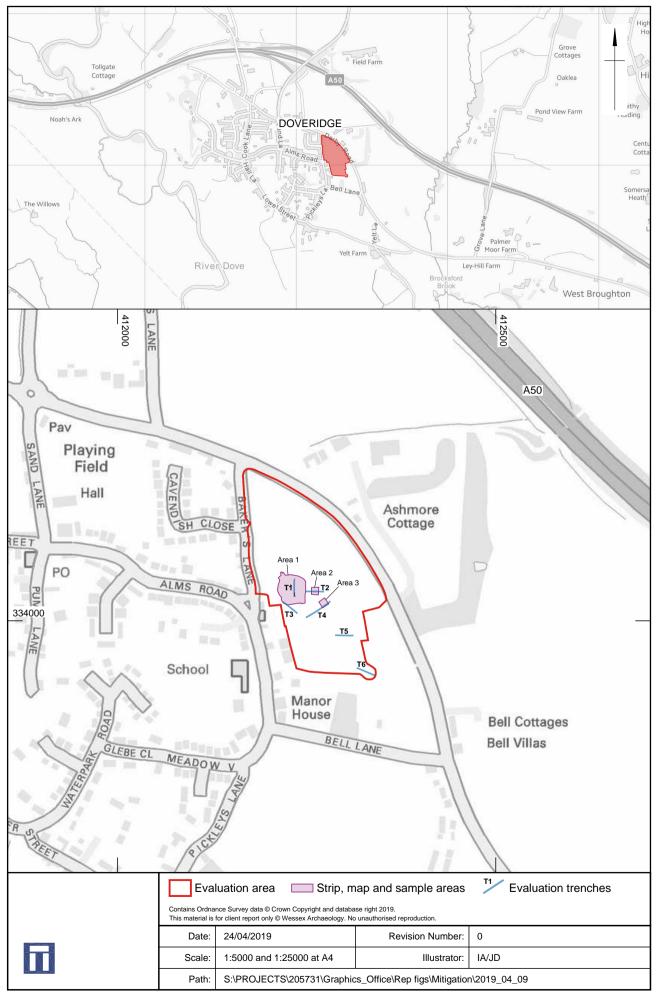
205731, context 2004

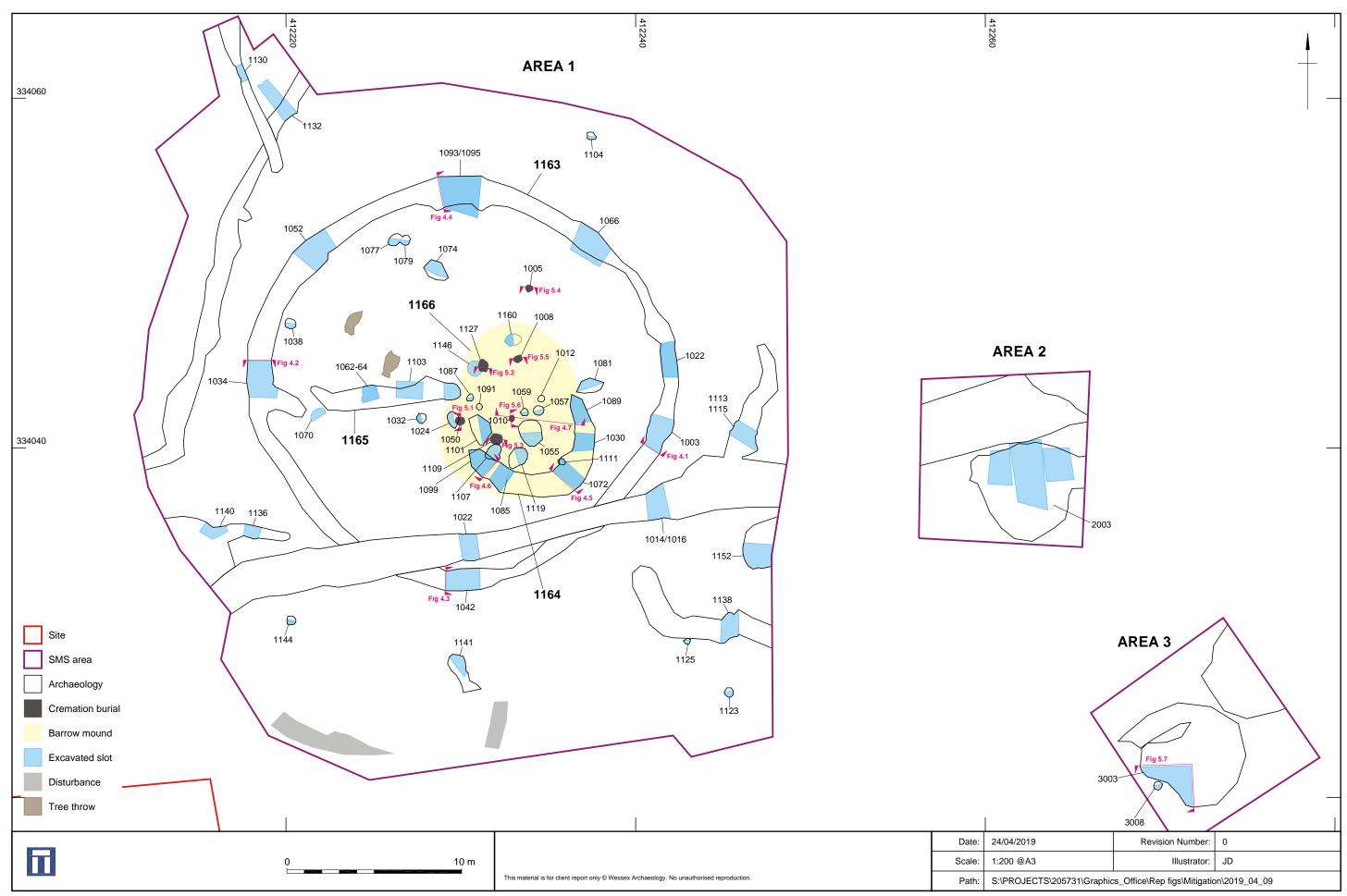
Through tenon at one end that has now become detached; adjoining dowel embedded in one end. Sample taken from end near tenon for radiocarbon dating. All surfaces are soft and the wood waterlogged; extensive mould growth present around area where sample was taken.

Proposed treatment would comprise:

- Surface cleaning and removal of mould
- Impregnation with PEG
- Freeze drying

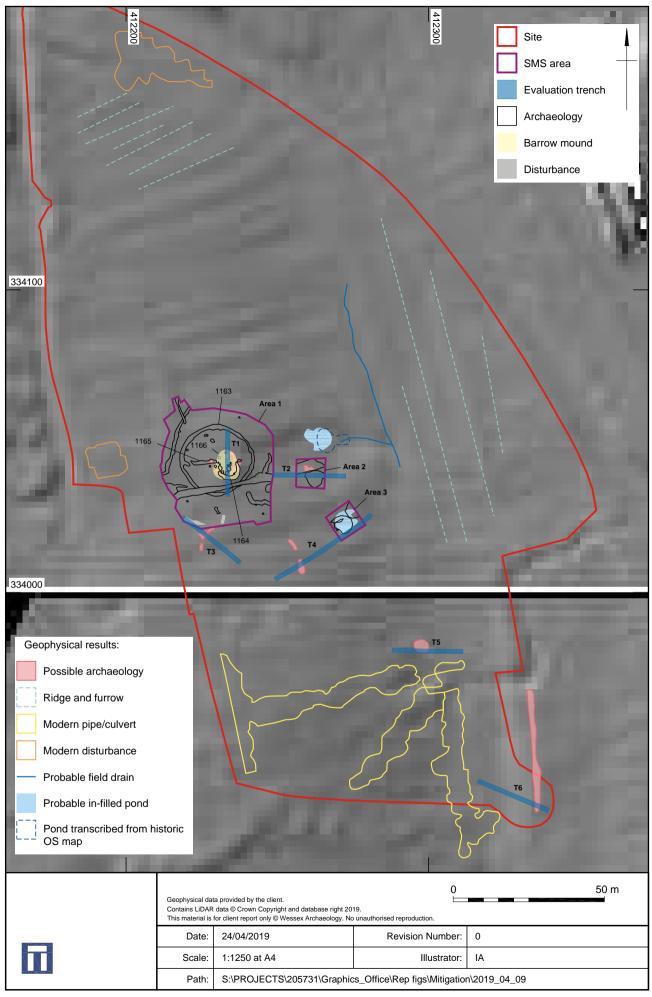
Lynn Wootten 22/05/2019

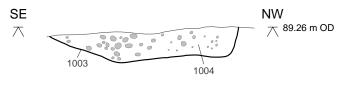




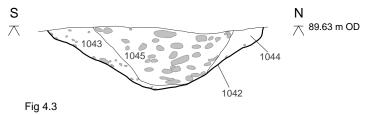
Strip, map and sample areas

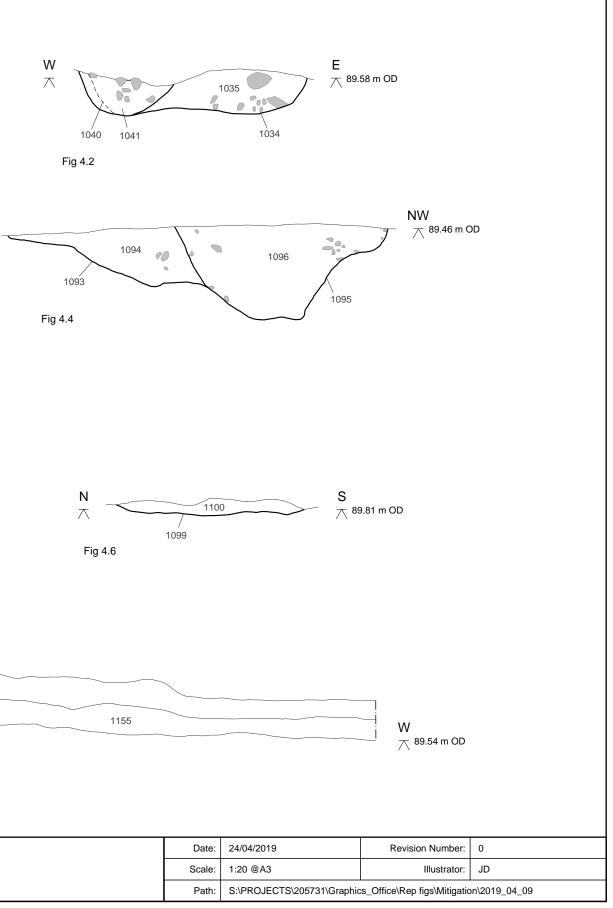
Figure 2

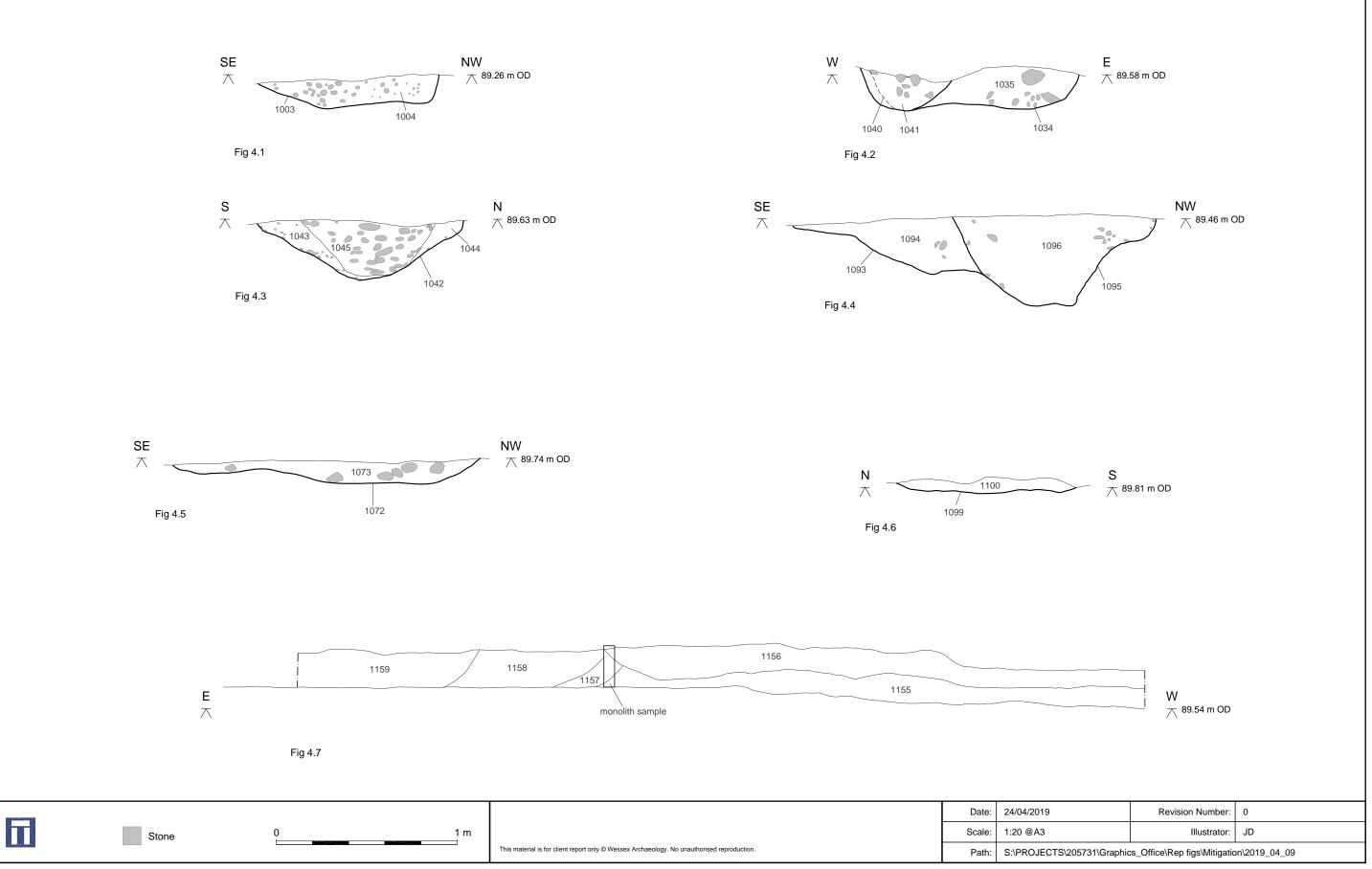




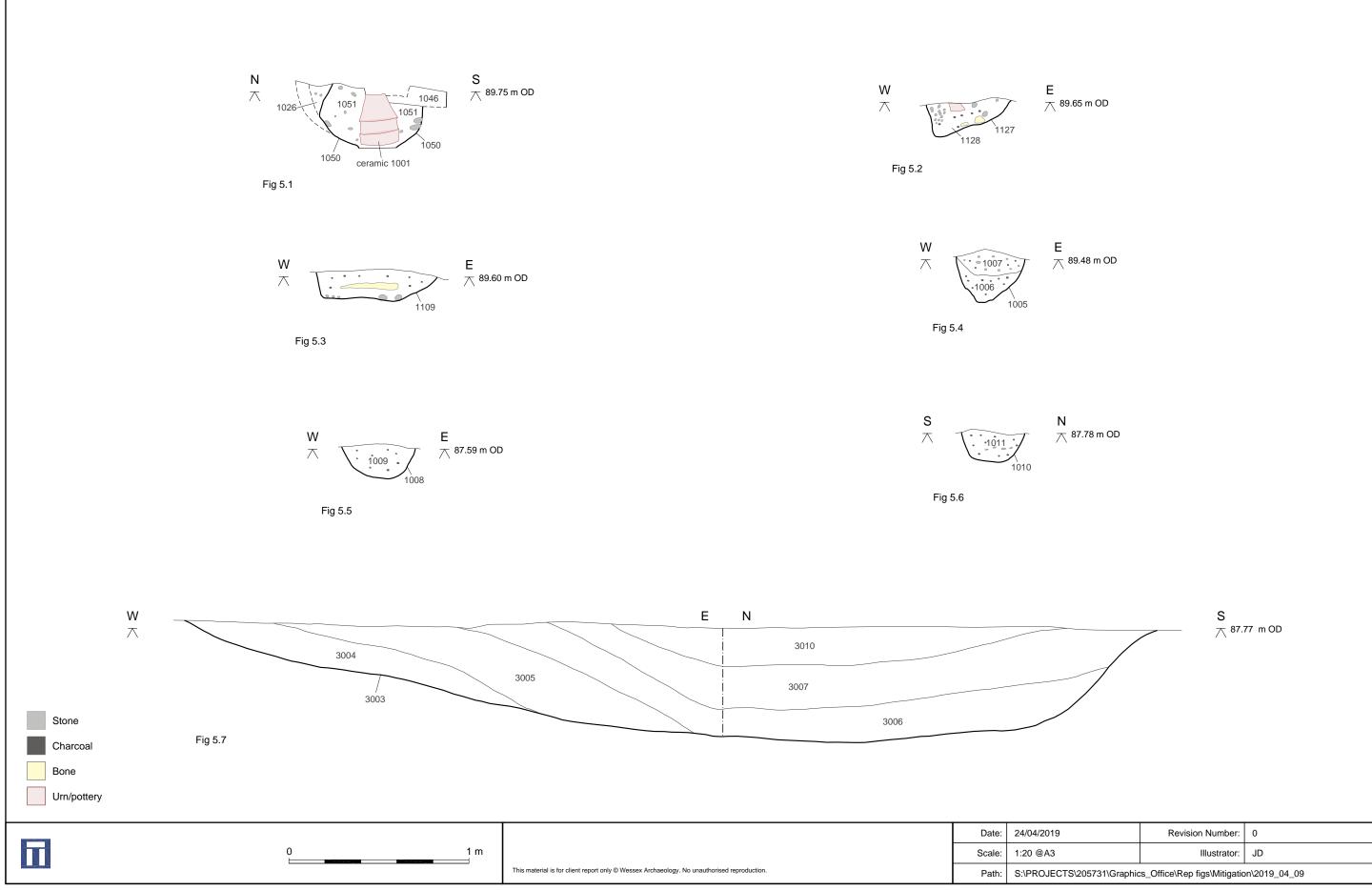








Sections



Sections



Plate 1: General view of ring ditch 1163 in Area 1, camera facing south-west



Plate 2: Outer ring ditch 1163, slot 1052, north-east facing section (1 m scale)

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Plate 3: Outer ring ditch 1163, slot 1042, east facing section (1 m scale)



Plate 4: Inner ring ditch 1164, slot 1030, north facing section (1 m scale)

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Plate 5: Internal east-west ditch 1165, terminal 1087, east-facing section (1 m scale)



Plate 6: Working shot: Amy Derrick excavating grave 1050

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Plate 7: Urn 1001 in grave 1050, camera facing north (0.2 m scale)



Plate 8: Grave 1127, south-facing section (0.4 m scale)

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Plate 9: Grave 1010, north to top of page (0.3 m scale)



Plate 10: Grave 1109, south-facing section (0.4 m scale)

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Plate 11: Ditch 1016, west facing section (1 m scale)



Plate 12: Ditch 1132, north-east facing section (2 m scale)

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Plate 13: Feature 1115, north-east facing section (1 m scale)



Plate 14: Pond 3003, camera facing north (2 m scale)

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	Scale:	N/A	Illustrator:	JD
	Path:	S:\PROJECTS\205731\Graphics_Office\Rep figs\Mitigation\2019_04_09		2019_04_09



Plate 15: Feature 2003 as seen in the evaluation, south facing section (2 x 1 m & 1 x 2 m scale)



Plate 16: Wood from feature 2003 (0.2 m scale)

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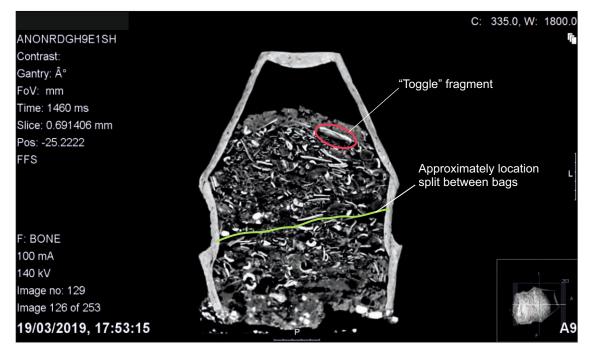


Plate 17: CT scan of urn 1001/urned burial 1167



Plate 18: The bone pommel/toggle from urn 1001/ urned burial 1167

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