

Park Farm Prehistoric Monument, Beaulieu, New Forest National Park

Combined Results of Archaeological Excavations Undertaken in 2018 and 2019



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Combined Results of Archaeological Excavations Undertaken in 2018 and 2019

Prepared on behalf of: The New Forest National Park Authority, Lymington Town Hall, Avenue Road, Lymington SO41 9ZG

By:

Jon Milward BUARC – Bournemouth University Archaeological Research Consultancy C113A Christchurch House Fern Barrow Poole Dorset BH12 5BB

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Bournemouth University BUARC, Centre for Archaeology, Anthropology and Heritage, School of Applied Sciences, Talbot Campus, Fern Barrow, Poole. BH12 5BB Tel. 01202 965295 Fax. 01202 965255 Email:heritage@bmth.ac.uk

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Documentation summary

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Author(s):	Jon Milward (BUARC Project Officer) jmilward@bournemouth.ac.uk (main text and illustrations) Dr Imogen Wood – Pottery Assessment Dr Kath Walker – Flint Assessment Lisa Gray – Phase 1 Environmental assessment and Phase 1&2 charcoal identification Kath Hunter Dowse – Phase 2 Environmental assessment Gabrielle Delbarre, Valentina Perrone and Damian Evans – Human Remains Assessment
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Executive Summary

Project Name:	Park Farm Prehistoric Monument
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NGR:	NGR SZ 39580 97615
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SUMMARY

This report presents the results of an archaeological investigation of a ring ditch monument located at Park Farm on the Beaulieu Estate in the New Forest. The investigation was undertaken over two seasons in 2018 and 2019 and was a community engagement project established and funded by the New Forest National Park Authority through Our Past, Our Present, Our Future, a Heritage Lottery supported Landscape Partnership Scheme.

The project was designed to explore the character and confirm the date of the monument which resides within a landscape with a high density of both potentially prehistoric and WW2 related features.

The 2018 season was a week long and involved both geophysical survey and partial excavation of the ring ditch monument. The monument was confirmed to be prehistoric and multi-phase, with at least two phases of ring ditch, and a small cluster of Middle Bronze Age cremation urns at the end of the stratigraphic sequence. The magnetometry survey placed the monument within a wider landscape setting and highlighted the presence of other potential prehistoric activity.

As it was clear there was still a great deal to learn about this monument, a second phase of work was designed and implemented over a two week period in 2019. The ring ditch monument was re-investigated in two trenches which had specific aims including further investigation of the morphology of the ring ditches, exploring the presence of a potential entrance gap on the north-west side of the monument and recovery of evidence to date and better understand the full chronology of activity that occurred on the site. This phase of the project also took the opportunity to test some of the features in the wider landscape that featured in the results of the 2018 magnetometer survey and a third trench excavated in 2019 which was located over geophysical anomalies 90m to the west of the ring ditch monument, confirmed the presence of a potential prehistoric ditch.

After the 2019 excavation extensive post-excavation work was undertaken, including specialist assessment of the flint and ceramic assemblages, micro-excavation of recovered cremation urns and human bone analysis and palaeoenvironmental assessment, analysis and radiocarbon dating.

The collective results of both seasons of fieldwork and post excavation phases of the project allow for a detailed description of the character and chronology of the activity undertaken on the site to be presented.

The earliest activity detected on the site dates to the Mesolithic period, although residually interred within later deposits, flint and radiocarbon dated organic material from this period of prehistory suggests deposits and perhaps features related to a Mesolithic campsite were truncated during initial stages of the construction of the ring ditch monument. The first ring ditch was constructed during the Early Bronze Age, probably within the last century of the third millennium BC and was therefore probably conceived as a type of barrow. After sufficient time had passed for this first ditch to predominantly silt up naturally another ditch was cut around 2000 BC. This was a bigger ditch, on a different alignment which increased the size of the monument in plan and also provided an 'entrance' on its northwest side. The second Phase of ring ditch was in use for a long time and was re-cut on at least three occasions over the next 150 years.

The archaeological evidence suggests there is then a hiatus in activity of up to five centuries at the site before it is selected for use as a cremation cemetery in the Middle Bronze Age, around 1,300 BC. The monument would have

continued to gradually erode over the following centuries but it is suspected that any remaining above ground earthworks were removed when the surrounding land became part of the modern agricultural landscape.

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1 INTRODUCTION

1.1 Project Background

- 1.1.1 Bournemouth University's Archaeology Consultancy (BUARC) was appointed by The New Forest National Park Authority (NFNPA) to design and implement two phases of archaeological investigation of a prehistoric monument located at Park Farm, near Beaulieu (hereafter, 'the site').
- 1.1.2 The monument presents as a circular cropmark and geophysical anomaly and was presumed to be a ploughed-out round Bronze Age round barrow. The monument was chosen as a suitable candidate for a community excavation in 2018 under the Our Past, Our Present, Our Future project and a successful week of excavation and geophysics was undertaken between 17th and 21st September of that year. As it was clear that the 2018 excavation was of insufficient scale and scope to allow a clear understanding of the character and chronology of the monument to be presented, a second phase of work, with a two week schedule was planned for September 2019.
- 1.1.3 BUARC was pleased to be commissioned by NFNPA for the second phase of the project and designed a Written Scheme of Investigation (WSI) in consideration of the results of the 2018 excavation and New Forest research strategies, with clear research objectives, and this was accepted by all stakeholders prior to the start of the work (BUARCH 2019b).
- 1.1.4 The second phase of excavation occurred between 16th and 27th September 2019 and like the first phase was also largely undertaken by volunteers under the supervision of professional archaeologists from BUARC and NFNPA.

1.2 Scope of Document

1.2.1 This report describes the combined results of the 2018 and 2019 seasons of work. In light of the results from the 2019 excavation some reinterpretation of the 2018 results has been required. There is therefore some difference between the results of the 2018 phase of excavation presented in the 2018 interim report (BUARC 2019a) and this text.

1.3 Site Description

1.3.1 The Site is located at National Grid Reference SZ 39580 97615, towards the north east corner of an approximately 9ha flat arable field; to the south of and accessed from St Leonards Road (Figure 1). The site is within the New Forest National Park and part of the Beaulieu Estate. Park Farm is currently managed by tenant farmer, Arthur Rolf.

1.4 Geology and Topography

1.4.1 In this location the underlying geology can be expected to be Quaternary period sand and gravel river terrace deposits (British Geological Survey 2011).

1.5 Archaeological Background

- 1.5.1 Park Farm is within the Beaulieu Estate which has been an entity since King John granted land to the Cistercian monks who founded Beaulieu Abbey in 1204.
- 1.5.2 Hampshire Historic Environment Record (HER) records the site as a probable barrow (ref:63617) and one of over 400 similar features, preserved in varying states of condition within the New Forest. Other cropmarks in the vicinity of the site attest to further potential Bronze Age activity. A square shaped enclosure in an adjacent field was targeted by trial trenches in 2013 and appears to date to the Roman period or later (Bournemouth Archaeology 2013). Despite the investigation the function of this feature remains enigmatic. Before the investigation and based upon the form of the cropmarks it was suggested that the feature might be a Roman temple and until further evidence to the contrary is presented, this is still a valid interpretation.

- 1.5.3 During World War 2 numerous parts of the New Forest, including land within the Beaulieu Estate, were requisitioned by the War office for various purposes. At this time farmland at Park Farm was converted to accommodate an advance landing ground, named 'Needs Oar Point'. As a defensive measure the airfield was equipped with a battery of anti-aircraft guns that were manned by the Royal Artillery. The battery was located in the field to the immediate east of the site although there is no above ground evidence of it as it was demolished by bulldozer at the end of the war. The battery site was investigated by trial trenches in 2013 at the same time as the square shaped enclosure and this determined that the subterranean aspects of the facility are preserved in an excellent state of preservation (Bournemouth Archaeology 2013).
- 1.5.1 A magnetometer survey of the site was conducted in May 2018 by NFNPA volunteers and this identified a circular anomaly, roughly 18m in diameter which corresponded with cropmarks visible on modern aerial imagery (NFNPA 2018B). Historic mapping shows that the location of the circular monument becomes bisected by a former field boundary which can be seen as a double ditched boundary in aerial imagery and the results of the geophysical survey. In 2007, when the boundary was removed it was only represented by a fenceline (A Rolf pers comm).

2 AIMS AND OBJECTIVES

- 2.1.1 This project was established to seek a better understanding of the potential barrow monument at Park Farm, to inform wider research agenda relating to monuments of this type within the New Forest, with the secondary objective of providing a hands-on educational experience for volunteers engaged in NFNPA heritage programmes.
- 2.1.2 Specific objectives were listed in the WSI documents respective to each phase of the project (BUARC 2018, BUARC 2019b) and for both phases can be summarised as follows:
- Implement an excavation strategy that addresses the research questions and respects restrictions of timescale and resources.
- Provide training and instruction to volunteers engaged in the project.
- Produce an archaeological archive of the fieldwork undertaken.
- Produce an archaeological report for dissemination of project results.

2.2 Research Agenda

- 2.2.1 The research agenda for the first phase of work in 2018 was largely based upon the assumption that the monument was a round barrow and specific questions sought to establish the presence of a central burial and buried ground surface beneath mound material. When no evidence was found for either of these barrow related attributes, investigation of the character and chronology of the ring ditch became the main focus of the project.
- 2.2.2 The 2018 phase of work did not conclusively determine that the monument was a barrow and it was considered that it might, in fact be a different, earlier type of monument, possibly a mini-henge that was re-used as a cremation cemetery during the Middle Bronze Age. In light of these results the agenda for the 2019 phase of work sought to clarify the classification of the monument by testing the presence of an entrance gap in the ring ditch, suspected as being present on the north-west side of the monument; further investigate the character and chronology of the ring ditches; investigate the presence of internal features; further test the survival of mound or bank material within the overburden; obtain evidence to securely date each phase of the monument and test the presence of additional features in the landscape.
- 2.2.3 From the outset the project was aligned with the Draft Research Strategy for the Neolithic and Bronze Age periods in the New Forest National Park, and the research gaps and proposals it highlights directly influenced some of the research themes, methodology used

and the output and dissemination of results represented by this report (NFNPA 2017).

3 METHODOLOGIES

3.1 Excavation Methodology

- 3.1.1 Prior to the project commencing an OASIS online record http://ads.ahds.ac.uk/project/oasis/ was initiated by the Bournemouth Archaeology and key fields completed on Details, Location, and Creators forms (OASIS ID - bournemo1-384344).
- 3.1.2 Both phases of the project were carried out in respect of their respective WSIs (BUARC 2018, BUARC 2019b). These were circulated between and agreed by key stakeholders prior to the start of each phase of the project commencing.
- 3.1.3 During both phases of the excavation, the trenches were opened and backfilled with a mechanical excavator under the supervision of Bournemouth Archaeology staff. The mechanical excavator was used to remove top and subsoil overburden only, all excavation of archaeological deposits and features was undertaken by hand.
- 3.1.4 Records were made using BUARC's *pro forma* recording system and the archive includes scale drawings on polyester-based drawing film and a full digital photographic record.
- 3.1.5 The site was surveyed using total station and GPS survey apparatus with an accuracy of +3mm over 25m.
- 3.1.6 The fieldwork was carried out in accordance with the Chartered Institute for Archaeologists standard and guidance for archaeological field evaluation (CIfA 2014) and Management of Research Projects in the Historic Environment (Historic England 2015).

3.1 Geophysical Survey Methodology

Technical Description

- 3.1.1 Fluxgate gradiometer systems detect changes in a local magnetic field by measuring the gradient (difference) between two magnetometers spaced at least 0.5m apart vertically, of which the upper magnetometer serves to reduce the impact of any changes in or effects from the Earth's magnetic field. In many cases, archaeological features are only slightly more magnetic than the surrounding soil and their interpretation can be hindered by noise in the dataset. While magnetic techniques detect notable differences in the magnetic properties of a subsurface material, any modern ferrous objects near the survey area can interfere with results by introducing noise to the data.
- 3.1.2 Soil chemistry, the condition of the target object, ferrous objects, rubble, and the presence of subsurface obstacles such as tree roots, animal activity, and large stones, all affect data quality in geophysical surveys. As such, the data presented within this report are only representative of the ground conditions at the time of survey, data quality may change under various ground conditions.
- 3.1.3 For an object to be detected, it must differ from the surrounding material. During survey, the operator has control over the traverse spacing and sampling interval to acquire high-resolution data. The parameters for this survey follow or exceed Historic England's (formerly English Heritage) geophysical survey guidelines (David et al. 2008). Under optimal conditions, magnetic techniques are likely to detect a broad range of features including areas of burning, areas of industrial activity, geomorphological changes, structures (or their foundations), and ditches.

Survey Methodology

3.1.4 Magnetic surveys in the area surrounding the monument were conducted with a Bartington Grad601-2 dual fluxgate gradiometer. The area was divided into 20m x 20m reference grids and surveyed in a zig-zag traverse pattern using a 0.5m traverse interval and 0.25m sampling

interval. The grid points were located using an RTK Leica Viva GPS with 0.03m accuracy.

3.1.5 Magnetic surveys in the southern extent of the survey area were conducted with a Bartington Grad601-2 dual fluxgate gradiometer. The area was divided into 20m x 20m reference grids and surveyed in a zig-zag traverse pattern using a 1m traverse interval and 0.125m sampling interval. The grid points were located using an RTK Leica Viva GPS with 0.03m accuracy.

Data Processsing

3.1.6 Survey data were processed using TerraSurveyor[™] and presented using AutoCAD[™] software. Corrected data (presented in Figure 2) were de-staggered and displayed with a zero mean traverse function and display clipped to ±3 standard deviations. Processed data were interpolated to match the X and Y axes, for a 0.25m x 0.25m survey resolution, and display clipped to ± 3nT.

Statement of Indemnity

- 3.1.7 Geophysical survey is the collection of data that relate to subtle variations in the form and nature of soil. Surveys may not always detect sub-surface archaeological features. Interference from agricultural ploughing, agricultural drainage, deeper areas of topsoil from artificial build-up and varying soil conditions may affect the detection of features. This may also be true when dealing with earlier periods of human activity, for example those periods that are not characterised by sedentary social activity.
- 3.1.8 Where necessary additional data processing may be required to enhance the interpretation of the data, especially where a large number of strong, dipolar responses are recorded that can mask more subtle responses.

3.2 Post excavation Methodologies

- 3.2.1 The fieldwork archive has been consolidated, cross referenced and digitised. It includes all materials recovered and all written, drawn, and photographic records relating directly to the investigations. It has been quantified, ordered, and indexed, and forms the basis of this report.
- 3.2.2 The methodology used for the micro-excavation of the cremation urns recovered in 2018 is described in section 5.5.
- 3.2.3 All artefacts encountered at the site will be treated in a professional manner and will be recovered, marked, conserved and packaged as appropriate and in accordance with the following recognised guidelines:
 - Guidelines No.2: Packaging and Storage of Freshly Excavated Artefacts from Archaeological Sites (United Kingdom Institute for Conservation (UKIC), Archaeology Section, 1983)
 - 'First Aid for Finds' (UKIC, Archaeology Section and RESCUE 1998).
- 3.2.4 The environmental samples were processed by BUARC using a flotation technique recovering the flot to 500 µm and the residue to 500 µm. The residues were sorted by BUARC with charcoal and other plant remains extracted from the residues were combined with the flots.

4 RESULTS

4.1 Overview of 2018 results

4.1.1 A plan of the 2018 trench is presented on Figure 3. This trench was designed to fully expose around half of the ring ditch monument in two quadrants and provide running sections across it on two axes. Four complete slots through the ring ditch were excavated on the north, east,

south and west sides of the monument and in each slot an inner ditch was found to have been superseded and partially truncated by a larger outer ditch. The 2018 ring ditch section drawings are presented in this text as Sections 5, 7, 9 and 11. In light of the 2019 results some reinterpretation and modification of the 2018 ditch records has been undertaken. This has primarily involved accounting for the presence of re-cuts of the outer ditch, which although were suspected in 2018, could not be confidently defined until further investigation of the ditches was undertaken in 2019.

- 4.1.2 The trench edge sections that cut through the centre of the monument were closely inspected for any indication of remnant mound material, but no evidence of this could be seen. Similarly, the exposed area towards the centre of the monument was closely inspected for any evidence of a central burial and none was found.
- 4.1.3 Slots through the two modern field boundary ditches, which bisected the ring ditch on a northeast to south to south-west alignment, were both excavated in 2018.
- 4.1.4 In 2018 four cremation urns and a cremation related deposit were found in a loose cluster on the east side of the monument. These all cut the final fill of the outer ring ditch and collectively represented the latest phase of activity at the monument which has been confirmed through radiocarbon analysis to fall within the Middle Bronze Age.
- 4.1.5 Three of the urns were lifted while one urn was left in situ. The recovered urns were microexcavated under controlled conditions at Bournemouth University and the results of that phase of the project are presented in Section 5.5.

4.2 Overview of 2019 results

- 4.2.1 In 2019, two trenches (Trenches 1 & 2) were excavated on the site of the ring ditch monument and their locations are shown on Figure 4. An additional trench (Trench 3) was excavated 91m west of the ring ditch monument over geophysical responses considered to be other potentially prehistoric features (Figure 6).
- 4.2.2 Trench 1 was the larger of the two 2019 ring ditch trenches and it had a number of objectives, including providing an opportunity to inspect the soil overburden that covered the monument in section for any surviving evidence of bank or mound material. Evidence of neither of which could be identified. This trench also exposed a large area of the interior of the monument which was closely inspected for internal features and although a number of potential features were tested these were mostly sterile silt patches within the underlying gravel or old animal burrows. The exception was feature 212, a small amorphously shaped feature located towards the centre of the internal area. As Trench 1 extended beyond the area where the cremation burials were found in 2018 it was anticipated that additional cremation burials or related deposits might be found, providing a better understanding of the extent of the cemetery and the nature of this phase of the monument. Only one additional urn was found in Trench 1, which was recorded and left in situ.
- 4.2.3 Trench 1 also provided an opportunity to further investigate and confirm the classification and stratigraphic placement of feature 153, which was partially excavated in 2018. Further work on and around feature 153 in 2019 confirmed it was likely to be a post hole truncated by the outer ring ditch, no additional similar features were found in the immediate vicinity, however.
- 4.2.4 Trench 1 also allowed for three additional slots to be excavated through the ring ditch sequence on the north-east, south-east and south-west sides of the monument (Sections 6, 8 and 10 respectively). The outer and inner cuts and fill sequences recorded conformed to the records made of the 2018 ring ditch slots but very careful inspection allowed the presence of re-cuts to be confirmed and recorded and the additional physical and stratigraphic information has been added to the relevant aspects of the 2018 archive.
- 4.2.5 Trench 2 was the smaller of the two 2019 ring ditch trenches and it spanned an area previously exposed in 2018, specifically focussing on a part of the ring ditch on the north-west side of the monument where the geophysical survey suggested a gap might be found

through one or both phases of the ring ditch. Excavation within this trench confirmed a gap was present in the outer, later ditch but not the inner, earlier ditch. Both termini of the outer ditch were fully excavated along with a wide stretch of the inner ditch to confirm that it was unbroken in this location. Additionally, in Trench 2 three post holes, features 244, 284 and 324 were found cutting the backfilled inner ditch.

4.2.6 Trench 3 was excavated in 2019, to test some of the geophysical responses that might have been other prehistoric features in the vicinity of the ring ditch monument. The location chosen for trench 3 spanned multiple geophysical responses and two features were identified in the trench, a ditch and a wide amorphous feature, that was probably a palaeochannel.

4.3 Overview of Geophysical Survey Results

- 4.3.1 The combined results of the resistivity survey are presented on Figure 2. A circular positive response corresponding to the confirmed location of a multi-phase ring ditch monument is clearly visible in the magnetic data. A gap on the north-west side of the response was confirmed in 2019 to correlate with a break in the outer ditch in this location
- 4.3.2 Curvilinear and irregular positive responses were identified throughout the survey area. The morphology and magnitude of these responses, along with a comparison with aerial photographs, indicate they are likely caused by the increased magnetic material in palaeochannels.
- 4.3.3 Two NE-SW aligned linear positive responses that intersect with the ring ditch monument correspond with modern field boundary ditches, identified on aerial imagery and through excavation.
- 4.3.4 Isolated irregular dipolar responses were identified throughout the survey area. It is more likely that these responses are a result of modern or geological magnetic enhancing activity on the site, rather than archaeological anthropogenic activity.
- 4.3.5 There are not considered to be any responses with high archaeological potential outside of the circular monument although the ditch found on the west side of Trench 3 in 2019 does correspond with a faint circular anomaly with a diameter of 14m.

4.4 Metal detecting

4.4.1 In 2018, prior to any excavation being undertaken, a rapid metal detection survey was conducted over the site of the ring ditch monument. Five objects were found in the topsoil and these are listed in Table 3 in section 5.4. None of these finds related in any way to the buried prehistoric archaeological remains but some can be attributed to the WW2 diver battery that was located in an adjacent field. Objects 9 and 11 are identifiable as shrapnel from anti-aircraft shells, Object 8 is probably shrapnel and Object 11 is a large corroded adjustable wrench which may have been lost during the military occupation of the area. Object 10 is a large but amorphous shaped lump of lead.

4.5 Combined Results

- 4.5.1 This section describes the combined results of the 2018 and 2019 seasons of excavation at Park Farm by phase, in chronological order. Figure 5 is a plan of the total area of the ring ditch monument that has been excavated to date. The corresponding Sections are presented on Figures 7-9. A plan and trench edge section of 2019 Trench 3 is shown on Figure 6. Detailed context descriptions are presented in Appendix 1.
- 4.5.2 The periods of prehistory referred to in this section occupy the following timespans:
- Mesolithic 8,400 4,000 BC
- Later Neolithic 3,000 2,400 BC
- Early Bronze Age 2,500 1,600 BC

• Middle Bronze Age 1,600 – 1,100 BC

Overburden and geology

- 4.5.3 The depth of the soil overburden covering the ring ditches and associated features was between 0.25m and 0.42m. The agricultural topsoil was consistent across the site and comprised dark grey-brown silt between 0.25m and 0.32m deep. The presence of subsoil was not consistent across the site but where it did occur it was observed to be mid grey-brown silt with a moderate concentration of gravel type flints present and up to 0.12m deep (102).
- 4.5.4 The Underlying geology 'natural' was sand and gravel with orange, red and brown hues and intermittent and amorphous shaped mid-brown silt patches throughout (103). In some places clean natural was buried up to 0.23m deep beneath a 'dirtier' gravel deposit, 139. This deposit was extensively tested but it was archaeologically sterile and in no instance was found to overly archaeological deposits or features.
- 4.5.5 2019 Trench 3 contained topsoil, up to 0.32m deep but had no discernible subsoil. Natural deposits were variable, stone rich towards the surface and Light to orangey brown silty sand where greater depths were reached (Section 16). Dark brown sandy silt found at either end of the trench (280 and 281) was originally believed to be filling archaeological features although this interpretation was rejected after further investigation. On the east side of the trench the presence of deep dark brown sandy silt and silty sand (280) correlated with a broad geophysical anomaly and might be a palaeochannel, which has silted up with iron rich particles being responsible for the enhanced magnetism.

Mesolithic

4.5.6 The earliest phase of activity on the site, which is represented by diagnostic lithics and radiocarbon dated biological material, dates to the Mesolithic period. All of the Mesolithic evidence has been recovered from the fills of the Phase 1 ring ditch, which is the earliest phase of a sequence of activity that all other evidence comfortably places within the Early Bronze Age. The presence of Mesolithic material within Bronze Age features means there must have been Mesolithic features or deposits on the site that were truncated during the construction of the ring ditches and led to the redeposition of Mesolithic material within the much later features. The Mesolithic activity probably relates to a campsite and might have been very ephemeral, perhaps just a loose spread of material around a hearth upon the ground surface. The radiocarbon date, which has come from a piece of carbonised hazelnut shell that was found in association with oak charcoal (Sample 17 context 247, Section 9), places this activity with a 95.4% probability within the time bracket of 5736 - 5643 cal BC (Beta-550816). The lithic evidence comprises a Mesolithic tertiary blade from Phase 1 ring ditch fill 262 (Section 6) and a Late Mesolithic-early Neolithic blade from fill 124 of the same feature (Section 5).

Phase 1 – Ring ditch monument (Ditch cut 400)

- 4.5.7 The section specific cut numbers for this feature, which is described in the archive as the 'inner ditch' have been collectively grouped together under group cut number 400 (Sections 1-11, Plates 1-12). This ditch stratigraphically represents the earliest incarnation of the ring ditch monument which is hereafter referred to as the Phase 1 ring ditch.
- 4.5.8 Ditch 400 forms an oval shape, the widest axes aligned north-west to south-east. Although its outer edge has been truncated by the Phase 2 ring ditch it is estimated that the dimensions of the monument at this time, inclusive of the cut would have been 15m long and 14.2m wide. As the inner edge of ditch 400 was not impacted by later activity the dimensions of the oval-shaped interior area it enclosed can be documented as being 12m in length and 10.5m in width.
- 4.5.9 Although there would have presumably been a bank associated with ditch 400 and located within a short distance of it, no evidence of this feature was identified either internally or

external to the ditch. The most likely scenario it that this feature was external in respect of other monuments of this type but any remains of it were truncated away by the cut of the Phase 2 ring ditch.

- 4.5.10 The profile of ditch 400 was consistent along its length and it was recorded in each location as having steep sloping flat to slightly convex sides and a wide flat to slightly concave base, the only place it wasn't truncated by the Phase 2 ring ditch was a short stretch on the northwest side of the monument where a gap in the Phase 2 ring ditch occurred (Section 2, Plate 1). In this location the cut of ditch 400 measured 2.1m wide. Estimates of the pre-truncation width elsewhere along its circuit range between 1.6m and 1.9m. Depth measurements for the feature range between 0.7m and 0.92m and these are relative to the width so the wider sections are also the deepest.
- 4.5.11 The fill sequence of ditch 400 was largely consistent and synonymous with natural fill processes. In all of the places ditch 400 was investigated, with the exception of the location of section 7 on the east side of the monument (Plate 8), the basal fill and in some cases some of the subsequent fills were gravel rich and had accumulated from soon after the feature was created through erosion and stabilization of the freshly cut sides. These deposits lined the base of the feature and butted up against the lower or full slope of the sides. The absence of similar material in the location of Section 7 is intriguing. Due to the friable nature of the cut natural it is difficult to imagine there was no accumulation of similar material in this location, especially as it was so well defined elsewhere. It can be speculated that this material was removed from the ditch in this part of the monument was kept 'cleaner', for some reason.
- 4.5.12 The next clearly defined fill type in the backfill sequence of ditch 400 was a slower formed deposit representing gradual silting-up of the feature over a much longer period of time. This process was represented by silty mid-brown fill in each section location, apart from the location of Section 9 on the south side of the monument, where it appears to have been truncated away by later phases of ditch. In the instance of Section 7 (Plate 8), this was the earliest deposit within the ditch.
- 4.5.13 In the location of Section 10 bluish coloured staining within this gradual silt accumulation (227) may be representative of standing water; the underlying silt slowing the drainage process and possibly allowing water to pool in low points within the ditch.
- 4.5.14 It appears that for most of the Phase 1 ring ditch, gradual silt accumulation occurred over sufficient time to almost completely fill the ditch. In some locations, however, subsequent deposits were identified in the very top of the ditch. In the top of ditch 400 on the north-west side of the monument, shown on Sections 1, 3 and 4 (Plates 1, 4 & 5) there was a thin stone rich deposit (243), which might have derived from deliberate dismantling of the bank and levelling off of the ground surface as part of the construction process for the Phase 2 ring ditch monument. A similar scenario may have occurred on the east side of the monument in the location of Section 7 (Plate 8) where a similar although more substantially sized stone rich final fill was present (163).
- 4.5.15 Although there is evidence of some degree of maintenance of ditch 400, at least for a short while after it was created on the east side of the monument, it appears this ditch was allowed to gradually fill up during and beyond the time it was in use. Unlike the later Phase 2 ring ditch which has multiple re-cuts, no convincing re-cuts were recorded for ditch 400. Features that truncate ditch 400, in addition to the Phase 2 ring ditch (ditch 401) appear to be post holes associated with later phases of the monument, including feature 190, shown on Section 5, located on the north side of the monument (Plate 6). This feature was initially thought to be a re-cut when observed in 2018 but as it could not be accounted for in any of the other ditch sections it is now accepted that this was probably an early Phase 2 discrete feature that becomes redundant prior to the cutting of re-cut 403, which truncates it.
- 4.5.16 There was no preserved evidence of a bank in association with ditch 400. It is presumed that

in respect of similar monuments that the bank would have been external to the ditch and therefore its absence can be partially attributed to the presence of the Phase 2 ring ditch, which occupies the same area.

- 4.5.17 An attempt was made to establish a date for the construction of the Phase 1 ring ditch and carbonised material recovered from basal fill 221 (Section 8) was submitted for radiocarbon dating (Beta-550816). It was anticipated that a Late Neolithic or Early Bronze Age date would be achieved but the carbonised material was actually dated to the Mesolithic period (5736 5643 cal BC). Although the date of this sample is very interesting in its own right there is no feasible way it can be accepted as a foundation date for the monument.
- 4.5.18 It is believed that phases 1 and 2 of the ring ditch monument represent a continuous sequence of use that involved regular re-working and modification of the earthworks. Phase 2 has been securely dated through radiocarbon analysis and has an earliest proposed date of 2045 BC (radiocarbon sample Beta-550817) so it is reasonable to assume Phase 1 preceded this by at least a few decades. The recovery of a Late Neolithic Early Bronze Age knife from Phase 1 ditch fill 163 (Section 7) provides supporting evidence for this.

Phase 2 – Ring ditch monument (Ditch cut 401, its re-cuts and associated features)

- 4.5.19 Phase 2 represents the construction of a second ring ditch and associated features on the same site as and completely replacing the Phase 1 monument. The Phase 2 ring ditch follows and truncates the outer edge of the backfilled Phase 1 ring ditch, respecting the same alignment but increasing the size of the enclosed area.
- 4.5.20 A characteristic of the Phase 2 ring ditch is a gap on the north-west side of the monument that was indicated in the geophysical survey data gathered in 2018 and tested by excavation in 2019. The two termini, numbered 200 on the north-east side and 206 on the south-west side, both had a rounded shape in plan and were separated by a 0.7m wide gap (Plates 2 & 3). Although this may not have been the only entrance into the interior it is strongly believed that no other gaps occur within the combined excavation area shown on Figure 5.
- 4.5.21 The Phase 2 ring ditch monument maintains the same oval shape and alignment of its predecessor and had outer dimensions of 17.8m 19.1m. The size of the internal area reduces slightly over the duration of Phase 2 as the original cut (401) is widened by re-cuts that expand the width and mainly impact upon its inner edge. The internal area would have measured around 12.16m 14.17m towards the latter end of the phase.
- 4.5.22 Ditch 401, the initial Phase 2 ring ditch cut has greater width and depth dimensions than the Phase 1 ring ditch it replaced. It also had a more complex fill sequence with at least three recut events and a greater degree of variation in the shape of its profile around its circuit.
- 4.5.23 As the upper slopes of cut 401 had been impacted by later re-cuts no fully intact example of its profile shape was found. The location where it was least impacted by later re-cuts is in the vicinity of terminal 200 and shown on Section 4 (Plate 5). In this location cut 401 has steep, slightly irregularly shaped sides and a wide flat base. Elsewhere the sides are consistently steep but eroded into a range of shapes from irregular through to slightly concave or convex. This ditch also displays a range of base widths, best represented by comparing neighbouring Sections 8 and 9 (Plates 9 & 10), which respectively show the ditch with a narrow and wide base in each of these locations.
- 4.5.24 Pre re-cut estimates of the width of ditch 401 suggest this was reasonably consistent around the length of its circuit, in the vicinity of 2.1m and tapering into a slightly narrower 1.9m width towards its termini. There was also little difference in the depth of this ditch around its circuit and it measured between 1.28m in the location of Section 9 (Plate 10) and 1.55m in the location of Section 6 (Plate 7).
- 4.5.25 In each location the basal fills of ditch 401 are gravel rich, commensurate with steady erosion of the sides, with perhaps some erosion and inclusion of unstable bank material. In some cases this material was consistent and only attributed a single context number while in others

it was more variable and allocated multiple numbers, although it was unclear whether this variation was actually indicative of separate depositional events.

- 4.5.26 Radiocarbon dating of charcoal from the basal fill of ditch 401 in the location of Section 6 (context 264) has provided a date suggesting with an 86.5% probability that this ditch was built during the Early Bronze Age between 2045 and 1906 cal BC (Beta-550817). Other evidence supports this date, such as the Early Bronze Age flint cores from context 209, which is one of ditch 401's basal fills.
- 4.5.27 In three locations: Sections 6, 7 and 8 (Plates 7, 8 & 9) the initial sequences of rapidly deposited 'primary' material were interspersed with slow formed silt deposits suggesting erosion had paused or slowed, probably through floral colonisation and stabilization of the exposed natural surfaces.
- 4.5.28 Subsequent fast-formed gravel rich deposits can be seen in the sections that were less severely impacted by later re-cuts. In some cases this material is preserved to the top of the outer edge of cut 401, suggesting the ditch had been filled or at least had a lot of material piled against its outer edge prior to the first re-cut event.
- 4.5.29 After careful inspection of the ditch sections excavated during 2019 and retrospective assessment of the 2018 section records it has been determined that three re-cuts of ditch 400 can be discerned in each location. The cut sequences of the two termini are very similar to each other and it is believed that the same three cut events are represented in each terminus, shown on Sections 2-4 (Plates 4 & 5). The terminal sections are not similar enough to the other ditch sections to confidently trace the same cut sequence around the entire circuit of the ditch. The non-terminal ditch sections (Sections 5-11, Plates 6-12) do, however, appear to share the same sequence with each other so there are effectively two sequences for the terminal and non-terminal sections respectively. There is only one instance of a re-cut occurring in both of these sequences, meaning it can be traced through every section along the entire length of the ditch. This cut, 404 (highlighted red on the Sections 2-11) is the second re-cut in the terminal sequence.
- 4.5.30 The first re-cut of ditch 401's terminals has been recorded as 286/292 and this event is hilighted green on sections 2-4. In each terminal, this cut and its fills had been impacted by later cuts and it was only partially preserved. It was entirely contained within the cut of 401 but was a lot shallower, measuring 0.78m deep in the north-east terminus (Section 4, Plate 5) and 0.88m deep in the south-west terminus (Section 3, Plate 4). On both sides it has a distinctly grey-coloured silt basal fill, which would have been a slow formed and probably quite wet deposit. A truncated 'upper' fill, 287, a stonier and browner coloured deposit, was preserved within 286 in the north-east terminal.
- 4.5.31 The second re-cut in the terminal sequence, cut group 404, shown red on Sections 2-4, appears to expand the width of the original cut by truncating its upper inner edge and therefore slightly encroaching upon the monument's internal area. Within the south-west terminal cut 404 was recorded as being >2.13m wide and 0.64m deep. In the opposing north-west terminal it was 2.17m wide and 0.64m deep.
- 4.5.32 The second radiocarbon date for Phase 2 suggests with a 95.4% probability that the deposition of fill 209 within cut group 404 (Section 3), which is one of the final depositional events in the Phase 2 sequence, occurred between 1918 1748 cal BC (Beta-550818). The same fill also yielded an assortment of Bronze Age flint including characteristic Early Bronze Age pieces such as an arrowhead preform and a thumbnail scraper.
- 4.5.33 The collective fills of cut group 404 entirely filled each terminus and for the most part are slow formed silt deposits with very little stone incorporated. Very stone rich deposits that were identified towards the end of the fill sequence, 204 in the north-east terminal and 210 in the south-east terminal are synonymous with an event that occurs around the whole circuit of the ditch. This material has the traits of being rapidly deposited and may represent a deliberate demolition of the bank and backfill of the ditch as some sort of ceremonial decommissioning

event.

- 4.5.34 The last 're-cut' of both terminal sections was not well defined but its presence was indicated by the very abrupt termination and apparent truncation of the aforementioned distinct stone rich lenses 204 and 210 within the second re-cut (cut group 404). This final re-cut, highlighted blue on Sections 3 and 4 and recorded as 289 in the north-east terminal sequence and 296 in the south-west terminus sequence follows the outer edge of the original cut, 401 but as there is no evidence of it beyond the termini. It might be better described, therefore, not as a re-cut but as a pair of discrete features possibly dug to re-define the Phase 2 entranceway but not the full length of the ditch. Neither of these features are clearly distinguishable in section but it is estimated that cut 296 measures 1.29m wide and 0.45m deep and cut 289 measures 1.04m wide and 0.35m deep.
- 4.5.35 Within the non-terminal sections, the earliest Phase 2 ring ditch re-cut has been allocated the group cut number 402 and this is highlighted purple on Sections 5-11. Prior to this re-cut it appears the original cut of the Phase 2 ring ditch (401) was completely filled. Cut 402, not only re-defines the Phase 2 ring ditch it also presents it as a wider and shallower shape with a maximum width of 3.25m and depth of 1.04m. Cut 402 is respectful of the outer edge but impacts upon its inner edge of the preceding cut 401 and in some areas, the location of Section 9 (Plate 10), on the south side of the monument, for example, the backfilled remains of the Phase 1 ring ditch are almost entirely removed by Phase 2 re-cut 402.
- 4.5.36 The fills of Re-cut 402 largely represent a process of gradual siltation with gravel rich lenses present in some of the excavated locations being representative of localised erosion of the sides and/or bank.
- 4.5.37 The second re-cut in the non-terminal sequence has been allocated the group cut number 403 and this is highlighted blue on Sections 5-11. This cut respects the circuit but is centred more towards the inner edge of the previous cut. It is of a smaller scale than its predecessor, no deeper than 0.98m (Section 7, Plate 8) and although heavily truncated on its outer edge by the final re-cut event 404, it is estimated to have been in excess of 2m wide.
- 4.5.38 Cut 403 is distinct in the stratigraphic sequence as its fills are stone rich and appear to be the product of deliberate backfilling of the feature. Where two fills have been identified this is probably mineral movement and staining rather than separate stratigraphic events.
- 4.5.39 The third and final large scale re-cut, which is also the only one to be confidently identified in all sections around the entire circuit of the ditch including the terminals is numbered cut group 404 and this is highlighted red in Sections 2-11. This cut is characteristically wide, between 2.16m 2.95m and shallow, between 0.58m 0.73m deep with a generally flat gradual sloping inner edge, a wide shallow concave base and a moderately sloping outer edge that does not extend beyond the original cut of the Phase 2 monument (ditch group 401) and therefore reinforcing our understanding that the bank was located on the outside of the ring ditch, for the duration of Phase 2.
- 4.5.40 The sequence of fills identified within re-cut 404 was very consistent along its length and these generally represent three events. The earliest fill is representative of a long period of stability and gradual siltation. This is followed by an apparent deliberate deposition event, represented by the presence of gravel rich deposits in each section with a density/accumulation bias towards the interior. The final deposit in each section, which would have almost entirely filled the remainder of the ditch was another slow-formed silt episode, the development of which might have spanned a considerable period of time.
- 4.5.41 A group of three discreet features, potentially post holes were located during 2019 in Trench 2, cut into the Phase 1 ring ditch after it had been entirely backfilled. These three features were equidistant, similar in size to each other and almost certainly part of the same phase of activity. Stratigraphically that phase could have occurred any time after the Phase 1 ring-ditch had become derelict and before the third re-cut of the Phase 2 ring-ditch, which partially truncates post hole 324 (See Section 3).

- 4.5.42 All three of these features were steep sided with concave bases in profile. Feature 324 measured 0.61m wide and 0.39m deep; 284 measured 0.38m wide and 0.29m deep and 324 measured >0.53m wide and 0.29m deep. They were all filled with deposits similar to those they truncated and were therefore hard to discern in plan, there presence only confirmed once they could be carefully inspected in section. It was not clear whether these post holes were part of a larger pattern or structure within the ring ditch although other similar features found during the excavation are not stratigraphically contemporary and are part of other phases.
- 4.5.43 The location of posts directly opposite the entrance does appear to be deliberate and was perhaps designed to obscure the view of the interior upon approach, or influence the route into the monument, preventing it being straight and forcing a deviation in the path after passing between the two ditch termini.
- 4.5.44 The other Phase 2 associated feature was found on the north side of the monument in the location of Section 5. Feature 190 was a large >1.2m wide and 0.74m deep apparent discrete feature that cut through the Phase 1 ring ditch backfill deposits and stratigraphically preceded the Phase 2 ring ditches second re-cut event, (cut group 403). Whatever the purpose of this feature it was either unique or an uncommon type as no other similar features were discovered during the archaeological investigations.

Phase 3 - Middle Bronze Age Cremation Cemetery

- 4.5.45 In 2018 four cremation urns and an apparent cremation related deposit were found in a loose cluster on the east side of the monument (Figure 3, Plate 13). An additional urn was exposed in the same general area in 2019 (urn 327 shown on Figures 4 and 5). These deposits were all stratigraphically contemporary, having cut the final fill of the Phase 2 ring ditch and they would have been physically enclosed within whatever remained of the Phase 2 bank at this time.
- 4.5.46 In 2018 three of the four urns were lifted and were proven to be upturned vessels with absent bases. These three vessels were in varying states of collapse resulting in some of their contents becoming incorporated in the surrounding matrix. This mixed material was robustly sampled in order to recover as much of the cremation material as possible. The three excavated urns were subject to a process of analysis that included X-ray computer tomography (CT scanning) and were ultimately micro-excavated under laboratory conditions at Bournemouth University. A detailed bone report is presented in section 5.5, but in summary urn 117 did not contain any calcified human remains; urn 111 contained the remains of one pre-adolescent subadult and urn 114 contained the remains of two individuals, one late subadult or adult and one young child.
- 4.5.47 Urn 152 that was left *in situ* in 2018 and the additional urn that was exposed in 2019 and numbered 327, which was also left *in situ*, both also contained relatively large pieces of calcified bone, presumably human. It is apparent, therefore, that the known burials represent at least five individuals.
- 4.5.48 The burnt deposit contained within small pit 119, found to the immediate east of urn 117 is believed to be cremation related. Although the fill of this feature was fully retained as an environmental sample no further human remains were recovered from it. It did, however, contain ash and charcoal that may have derived from a pyre. The cut of feature 119 measured 0.3m x 0.24m in plan and 0.17m deep.
- 4.5.49 Features 256 and 258 which were found within close proximity to each other in the same area as the cremation urns (Section 6) and might have been post holes for post performing the function of grave marker, probably not at the same time but one being a replacement for the other.
- 4.5.50 Both of these features were only observed in section (Section 6). Feature 258 measured at 0.61m wide and 0.43m deep and feature 256 was 0.4m wide and 0.71m deep.

4.5.51 A secure Middle Bronze Age date for this phase of activity has been provided by specialist assessment of the cremation vessels (section 5.2) and a radiocarbon date from a bone sample from cremation 111, which places the activity with a 95% probability to the date range 1415 – 1260 cal BC (Beta-550815).

Other prehistoric features

- 4.5.52 This section describes the small group of ambiguous features that have been difficult to interpret in relation to the main three phases of the monument.
- 4.5.53 One of the aims of the 2019 excavation season was to explore the presence of features within the interior of the ring ditch monument. In 2019 all exposed areas of the monument's interior were carefully cleaned and inspected. Most potential feature' were confirmed through testing to be silt patches in the natural geology. The only feature that was considered to be archaeological, 212, was found near the centre of the interior and this was fully excavated and its fill was 100% retained as an environmental sample.
- 4.5.54 Feature 212 was not very big, only 1.52m by 0.75m in plan and 80mm deep and it was quite amorphous shaped (Section 9, Plate 17). This might have been another remnant of animal burrow like others observed elsewhere on the site, the charcoal in the fill deriving from the surrounding archaeological deposits.
- 4.5.55 One additional feature proved difficult to interpret in relation to the three main Phases. Feature 153 a probable large posthole with an approximate 0.8m width and similar depth was found in 2018 and despite reinvestigation in 2019, its stratigrapic relationship with the Phase 2 ditch could not be confirmed and efforts made to locate other similar features in the vicinity were in vain (Plate 18).

Modern field boundary ditches

- 4.5.56 Two parallel ditches, 108 and 109, that cut through the ring ditch monument on a north-east to south-west orientation were investigated in 2018. These ditches were expected to be present in the trench as they can be clearly seen in aerial imagery as cropmarks and as responses in geophysical survey data (Figure 2). It was correctly assumed that these were both modern features as they are located on the same alignment as a former field boundary. At the time this boundary was fully removed in 2007, it was demarcated by vegetation and a post and wire fence (A Rolf pers comm).
- 4.5.57 A slot through each ditch confirmed their dimensions and profile shapes. Both had moderately sloping sides and narrow concave bases. Ditch 108 measured 1.77m wide by 0.67m deep (Section 14, Plate 19). Ditch 109 measured 2m wide and 0.55m deep (Section 12, Plate 20). Ditch 108 yielded two conjoining sherds of white glazed 17th-18th century pottery that provides a convenient *terminus post quem* date for the boundary.

Wider landscape features.

- 4.5.58 An aim of the 2019 excavation season was to explore the presence of additional features that might have shared the same landscape as the ring ditch monument. The geophysical survey results were used to select a location for investigation and this became the site of Trench 3 (Figures 2 and 6). In Trench 3 one feature was confirmed to be present and this was a north-south orientated ditch, 279, that was located on the west side of the trench and is shown in plan and section on Figure 6 (Plates 21 & 22). This ditch had a wide concave profile 1.58m wide and 0.38m deep and two distinct fills. Deposit 282, the basal fill was stone rich and biased towards the west side of the feature suggesting it may have derived from erosion of a bank on this side. The presence of an enhanced density of stone within the topsoil on the west side of ditch 279 is further evidence that a bank was located here. The final fill, 283 was dark grey brown sandy silt and typical of long term silting-up of the ditch.
- 4.5.59 The only find from ditch 279 was a corroded fragment of an Iron object that was found in the upper fill, 283. This object is probably modern but it could potentially date from as early as the Iron Age.

4.5.60 Although the finds evidence suggests it is not a prehistoric feature, ditch 279 does correlate with a feint 14m wide circular geophysical response (Figure 2) and cropmark. In addition, its proximity to the ring ditch means that an association between ditch 279 and the prehistoric activity in the wider landscape cannot be ruled out at this stage.

5 THE FINDS

5.1 Summary

5.1.1 The combined archive from the 2018 and 2019 seasons of excavation contains assemblages of pottery, flint, metal and human bone. The human bone is described in Appendix 2 and the pottery, flint and metal assemblages are described below.

5.2 Prehistoric pottery – by Dr Imogen Wood

5.2.1 A total of around 300 sherds weighing 2939g from 9 different contexts were examined for an assessment of vessel types, forms and provisional date. The suggested dates given below are provisional. The condition of the assemblage is poor with only a few large diagnostic sherds present. The pottery assemblage is quantified in Table 1, below.

Cremation vessels

- 5.2.2 Vessel 1 (111) (112) is an almost complete vessel with a very fine plain straight-sided profile. The vessel has an undecorated applied cordon with one springing for a possible plain lug. Base, body, shoulder and rim sherds present and sherd thickness varies between 5-9mm. The rim diameter of this vessel measures 220mm and the body narrows to 200mm from below the cordon. Around 14 rim sherds are present with flattened externally expanded rim form, some of which conjoin. The vesicular fabric with flint inclusions in a non-calcareous clay matrix, it is variably reduced and oxidised. The expanded rim form and straight-sided vessel with cordon and possible lug would suggest a Middle Bronze Age date.
- 5.2.3 Vessel 2 (contexts and 114 and 115) is an incomplete vessel with straight sided or slack biconical profile. Only upper body and rim sherds are present. The vessel has a small applied raised cordon with finger impressions at a slightly diagonal angle and plain applied lugs. The 5 rim sherds some of which conjoin are flattened and slightly internally bevelled and the rim diameter is 200mm. The fabric is vesicular with flint inclusions in a non-calcareous clay matrix. The fabric is variably reduced and oxidised and sherd thickness measures 6-7mm. The bevelled rim, profile and decoration would indicate a possible Middle Bronze Age date for this vessel.
- 5.2.4 Vessel 3 (117) (118) is an Incomplete very fine straight sided/bucket form vessel. Body sherds with possible lower body sherds narrowing slightly towards a base. The rim diameter measures 220mm. The fabric is vesicular with flint inclusions in a non-calcareous clay matrix. Sherd thickness between 5-6mm in width. Oxidised exterior and reduced interior and exterior surface is polished from smoothing, but not burnishing. The lack of diagnostic features could suggest a Middle/Late Bronze Age date based on one very small (15mm) rim sherd, which has the appearance of a slight inward bevel possibly supporting this date, but by no means positive. Vesicular fabrics are more characteristic of Late Bronze Age pottery in neighbouring Dorset, but in Hampshire appears to be more common in the Middle Bronze Age.

Sherds by context

- 5.2.5 (177). Basal angle sherd, reduced throughout in a grog tempered fabric, abraded poor condition. Prehistoric in date, possibly Middle Bronze Age.
- 5.2.6 (152). One rim and five body sherds, variably oxidised and reduced, vesicular fabric, similar to cremation urns described above. Slightly everted plain rim with 220mm diameter with trace of cordon 7mm under the rim. This is broadly similar to the cremation vessel described above and most likely of the same Middle Bronze Age date.

- 5.2.7 (250). 3 body sherds; 1 body sherd has an oxidised exterior and core with reduced interior in an abraded condition. Vesicular with flint fabric, as described above. Sherd thickness is 11mm. Slight evidence of an applied cordon on the exterior, which could possibly suggest Deverel-Rimbury ware but not an absolute identification. 1 small body sherd reduced throughout with internal charring. Vesicular with flint fabric. Sherd thickness is 9mm. The form is undiagnostic. 1 undiagnostic possible body sherd in a very abraded condition.
- 5.2.8 (277). 1 rim sherd, internal and externally oxidised with reduced core. The rim is out turned and externally expanded with an internal bevel. Very abraded condition. Possible rim diameter is 300mm. Sherd thickness 8mm-11mm. Vesicular fabric with flint, Fe iron rich pellets and grog inclusions. This fabric is very similar to Vessels 1 and 2 discussed above.
- 5.2.9 (280). 3 pieces of amorphous burnt clay, oxidised throughout. There are no diagnostic elements to suggest their function. The clay fabric contains inclusions of well-rounded quartz.
- 5.2.10 1 possible body sherd, variably reduced and oxidised, very abraded condition. The sherd is only 4mm thick.
- 5.2.11 (263). 1 Rim sherd, reduced throughout, vesicular with flint fabric. Upright slightly in turned rim of bucket formed vessel with little abrasion, so in its primary context. Sherd thickness 9mm, possibly 380mm in diameter. Evidence of horizontal and diagonal wiping marks on surfaces. The form is suggestive of a MBA vessel, but the reduced firing is not, so can be broadly assigned to the Bronze Age.

Burnt Clay Objects

- 5.2.12 (209). Two circular burnt clay objects, both of which are oxidised and highly fired. Object 1 (larger object) has an external diameter of 37mm, with 21mm interior diameter. The fabric is poor quality mudstone clay with organic possibly grass temper. This is typically used for Daub, mould and items with no longer term use or function, which would require more investment in the clay production process. Object 2 (smaller object) has a reduced exterior and interior surface and the centre/core of the object if oxidised. It has a 21mm exterior diameter and 19mm internal diameter. Fabric is the same poor clay with grass temper. Object 2 is not as complete as Object 1.
- 5.2.13 Both of these objects are incomplete, especially so on one side, which seems to have been broken off either intentionally or not. Object 1 has almost all of it original external diameter on one side and in one area has a lip of clay that would have curled over what was surrounding the centre. There are no impressions visible macroscopically to suggest what object it was in contact with. The depressions on both sides of the objects suggest it was pushed in with a thumb to force the wet clay into a shape. These objects clearly had a temporary function for one specific purpose after which the edges on one side were broken off and it was removed. It is most likely that these objects where made to mould, retain or hold in place something circular during a period of firing or intense heating. High temperatures and poor quality clay objects are typically associated with creating ceramic or metal objects; I would suggest the latter the most likely, such as sword moulds etc.
- 5.2.14 There are two very small additional pieces of burnt clay in this context, which also appear to have been used in a similar way but in a different form. Their abraded condition precludes any further diagnostic comments.

Discussion

- 5.2.15 The vessel forms, type and fabric suggest a provisional Middle Bronze Age date for the cremation urns broadly between c 1500-1100 BC (Based on Ladle and Woodward 2009).
- 5.2.16 There are two similar cremation vessels associated with a barrow excavated at Whitsbury Road, Fordingbridge in the New Forest (Wood forthcoming). They also have a chert/flint tempered fabrics with limestone, some of which are vesicular. One vessel (SF1) is straight sided/bucket shaped with the same rim diameter 200mm, the other is a barrel form with finger-impressed cordons and much larger in diameter. As yet undated.

- 5.2.17 The majority of the pottery sherds recovered from the ring ditch fills, are most likely Bronze Age in date and are typical of this period for this region.
- 5.2.18 The clay objects from context (209) could be of some significance. If their function can be established and the suggested use in metal casting receives further research, these could be valuable in understanding a little understood practice in Prehistory. Ceramic moulds or metal production waste objects are rare due to their poor quality clay which often become abraded.

Context	Quantity (number of sherds)	Weight (g)	Description
(111)	183	1397.7	Vessel 1, an almost complete vessel. Base, body, shoulder and rim sherds present. Possibly Middle Bronze Age in date.
(112)	25	323.7	Parts of Vessel 1, found in the surrounding matrix. Rim, shoulder, body sherds and very small fragments present.
(114)	44	569.1	Vessel 2, incomplete vessel. Upper body and rim sherds present only. Possibly Middle Bronze Age in date.
(115)	-	33.7	Parts of Vessel 2, found in the surrounding matrix. Very small fragments in poor condition.
(117)	34	414.9	Vessel 3, incomplete vessel. Only body sherds present. Possibly Middle/Late Bronze Age in date
(118)	-	19.6	Parts of Vessel 3, found in the surrounding matrix. Very small fragments in poor condition.
(121)	2	152.1	2x conjoining base fragments. Crockerton type dated to late 17 th -18 th century.
(152)	6	16.2	1x rim and 5x body sherd. The rest of the vessel has been left in-situ. Possibly Middle Bronze Age in date.
(177)	1	12.2	1x basal angle sherd, abraded poor condition. Possibly Middle Bronze Age in date.
(209)	4	22.25	2x circular burnt clay objects, both of these objects are incomplete with depressions on both sides. Objects possibly had a temporary function for one specific purpose after which the edges on one side were broken off and it was removed. Possibly from some kind of mould. There are two very small additional pieces of burnt clay which were too abraded and small for any diagnostics.
(250)	3	7.76	2 x body sherds and an undiagnosed small fragment.
(263)	1	16.97	1x rim sherd from immediate vicinity of urn (327), which was left in-situ. Possibly Bronze Age.
(277)	1	6.76	1x rim sherd. This fabric is very similar to the Vessel 1 and 2.
(280)	3	1.7	3 pieces of amorphous burnt clay. There are no diagnostic elements to suggest their function.

Table 1 – Pottery by context

^{5.2.19} The only additional ceramic evidence from the excavation was two conjoining sherds from fill

121 within field boundary ditch 108. These sherds were heavily abraded and are a Crockerton type fabric with remnants of white internal glaze. The vessel would have been a vertical sided jar and dated to the late 17^{th} – early 18^{th} century (Dan Carter pers comm).

5.3 Flint – by Dr Katherine Walker

5.3.1 A total of 41 flint artefacts from 16 different contexts were examined for an assessment of raw material, technology, and dating (Table 2). Four pieces conform to classifiable tool types, four are cores, and the remaining 33 pieces are undiagnostic debitage comprising flakes and shatter. The largely unrolled state of the assemblage suggests that it has not been moved far by post-depositional processes.

Raw material

5.3.2 The raw material is largely a buff to mid-grey flint. Several pieces display some banding; others are almost translucent. The majority of pieces exhibit lustre, except the pale grey flint and a heavily corticated cream piece which are non-lustrous. Some raw material has been gathered from local gravel deposits whereas others is likely to have been collected from the chalk. Cortex, where present, ranges from a brownish white to orangey-brown colour. Almost all pieces have acquired an orange mineral staining characteristic of having lain in plateau or river terrace gravels.

Technology and implement forms

- 5.3.3 Of the pieces that conform to classifiable tool types, the earliest (Object number 4) is a tertiary blade of probable Late Mesolithic or Early Neolithic date (see Butler 2005, 121). Despite some damage to its proximal end, it appears to be soft hammer struck. It displays some evidence for minor use. This piece is made from the pale grey flint which is non-lustrous, a feature also observed by Rankine (1939, 237) for the Mesolithic items that he examined.
- 5.3.4 A knife (Object number 5) appears to have been deliberately 'backed' by snapping its proximal end. It also has a very shallow notch. It is of probable Late Neolithic or Early Bronze Age date. A flake from context 209 displays abrupt retouch down one edge and invasive retouch down the other. It is possible that this may be a broken barbed and tanged arrowhead preform, the abrupt retouch intended to reinforce the edge before invasive retouch was applied. However, in its condition, and in the absence of any other complete or incomplete arrowheads, this is simply a suggestion. Nevertheless, its form suggests it is likely to be Early Bronze Age in date. The same context also yielded a 'thumbnail' scraper of Early Bronze Age date.
- 5.3.5 The presence of four cores suggests flint working on the site. They have all had only primary flakes removed and still display considerable amounts of cortex so are not fully worked out. One from context 209 is a multiple-platform flake core. The pattern of flake removals suggests this likely to date from the Early Bronze Age (Butler 2005, 181). The other core from context 209 is a single platform example and is also likely to date from the Early Bronze Age. One of the cores from context 264 is a two-platform core and the other is a multiple-platform flake core. Both are broadly Bronze Age in date (Butler 2005, 157 and 181).
- 5.3.6 Most of the flakes are broad and can be classified as hard hammer struck. The presence of shatter pieces and broken flakes or flake fragments in the assemblage is also indicative of hard hammer use. Their presence in some number is a feature of assemblages dating from the Later Neolithic onwards (Butler 2005, 157). A flake, from context 101, appears to be utilised. A high number are also primary flakes displaying at least 50 per cent cortex on their dorsal surfaces. This is more typical of later prehistoric assemblages as fewer flakes tended to be removed from cores at this time (Butler 2005: 181). Exceptions are the blade discussed above, and a blade-like flake from context 262 which may be earlier.

Discussion

- 5.3.7 Based on raw material, core technology, and tool and debitage types, this assemblage is broadly Bronze Age in date (based on Butler 2005). Some of it, where specified, is categorically Early Bronze Age. An exception is the Late Mesolithic or Early Neolithic blade from context 262.
- 5.3.8 Other Bronze Age flint assemblages from the New Forest include that from Gorley Bushes (Moody 2010) and the Latchmore excavation (Moody 2012). The Mesolithic period is also well represented in the New Forest with numerous single finds and larger assemblages of flint (Moody 2018), as well as from sites known specifically from Beaulieu including Wrey's garden at Boarmans (Troubridge 1936; Rankine 1939)

Context	Quantity	Weight (g)	Description
(101)	3	14.14	3 x undiagnostic flakes. 2 are hard hammer struck and
			the third is missing its proximal end.
(112)	1	0.28	1 x undiagnostic flake. Tertiary. Soft hammer struck with
			small negative flake scars.
(124)	1	10.78	1 x blade. Probable slight utilisation, soft hammer struck,
			Late Mesolithic to Early Neolithic in date.
(163)	1	7.72	1 x knife. Deliberately snapped and removed distal end to
			create 'backing', evidence of use, small shallow notch of
			semi-abrupt retouch, probably Late Neolithic to early
			Bronze Age in date.
(201)	1	14.69	1 x undiagnostic flake. Hard hammer struck. Heavily
(000)	-		rolled and corticated.
(202)	1	9.67	1 x undiagnostic flake. Tertiary. Hard hammer struck,
			pale grey in colour, very slight orange staining, minor
(000)	-	70.04	damage post-staining.
(209)	1	72.91	2 x undiagnostic flakes. One secondary, one tertiary; 1 x
			piece of shatter; 2 x cores of Bronze Age date, 1 of which
			is a single platform, the other a multiple-platform, 1 x
			arrowhead proform of Early Pronze Age date: 1 x
			thumbhail scraper of Early Bronze Age date
(218)	2	27.20	2 y undiagnostic flakes Primary Hard hammer struck
(225)	1	4 07	1 x undiagnostic flake. Primary, Hard hammer struck
(223)	2	16.85	2 x undiagnostic flakes. Secondary, Hard hammer struck
(227)	<u></u> Δ	20.88	4 x undiagnostic flakes 3 are secondary 1 is tertiary
(2+3)	7	20.00	Hard hammer struck
(250)	1	0.70	1 x undiagnostic flake. Secondary
(252)	5	21.72	5 x undiagnostic flakes, 4 are secondary, 1 is tertiary.
(262)	1	0.87	1 x blade-like flake. Possible Late Mesolithic date.
(264)	8	120.28	4 x undiagnostic flakes; 2 x undiagnostic shatter: 2 x
	-		cores of Bronze Age date, one of which is a two-
			directional flake core, the other a multiple-direction flake
			core.
(271)	2	4.75	2 x undiagnostic flakes. Hard hammer struck. Secondary.

Table 2 – Flint by context

5.4 Metal

5.4.1 The metal archive consists of objects found with metal detector in the topsoil overlying the ring ditch monument (101) and one object recovered from ditch 279 in 2019 Trench 3. Identifiable objects date to WW2 activity, specifically the presence of an anti-aircraft diver battery in the field to the immediate east of the site.

Context	Quantity	Weight (g)	Description
(101)	1	1229.88	Object 7 – Corroded ferrous adjustable wrench. 20th century, possibly WW2.
(101)	1	9.98	Object 8 – Small solidified lump of molten Cu. Possibly WW2 shrapnel.
(101)	1	3.33	Object 9 – Piece of WW2 anti-aircraft shrapnel.
(101)	1	640.31	Object 10 – Large amorphous shaped lump of lead.
(101)	1	8.09	Object 11 – Probably piece of WW2 anti-aircraft shrapnel.
(283)	1	18.23	Unidentified ferrous object. Appears to be fragment of something larger.

Table 3 – Metalwork by context

5.5 Human Remains - Gabrielle Delbarre, Valentina Perrone and Damian Evans

5.5.1 The urns were CT-scanned at Salisbury District Hospital and bone inclusions (Plate 24) were observed in two of the three vessels: PF 2018, 111 <1> (10), thereafter Urn 1, and PF 2018, 114 <2> (11), thereafter Urn 2. Post-excavation at Bournemouth University confirmed that the same urns did contain cremated osseous material. The deposits had been disturbed by ploughing, thus resulting in a possibly substantial quantity of bone being lost.

Material and Methods

Urn 1

- 5.5.2 Urn 1 (PF 2018, 111 <1> (10) was excavated in 20 spits at 1cm intervals that started at 10cm from the top of the upturned urn (Plates 25-27). Bone and tooth material from each spit inside the urn was retrieved during the excavation and washed. The material retrieved from flotation of the soil from inside the urn is included.
- 5.5.3 Cremated osseous material was additionally recovered from the matrix in areas surrounding Urn 1. It is possible that this material might belong to the same burial act. However, as the urn was upturned *in situ* and there is a possibility that the same location might also have been used for different burials during the Bronze Age, it has been decided to consider this assemblage (PF2018, 112 <1> (1) as a separate act of deposition, due to the uncertainty about Urn 1 being potentially a later act of deposition.

Urn 2

5.5.4 Urn 2 (PF 2018, 114 <2> (11) was excavated in 20 spits at 1cm intervals that started at the top of the upturned urn, to which the osseous material and teeth recovered from flotation of the soil was added. The same excavation method as Urn 1 was applied. Cremated osseous material recovered from the matrix in areas surrounding Urn 2 (PF 2018, 115 <2> (2) is considered as a separate act of deposition.

Recording and analysis

- 5.5.5 Recording and analysis of the urns has been carried out following established guidelines adapted from McKinley and Roberts (1993), McKinley (2004) and Schmidt and Symes (2015). In both urns the remains are calcined. The bone having lost its organic contents, the remaining osseous material is composed of distorted and wrapped fragments, the vast majority of which do not allow for identification of individual bone elements. Typologies of bone morphology (long, flat or spongy), heat fractures (longitudinal, curved or transverse) and patina (mostly occurring on flat areas and epiphyseal ends) were used to correlate fragments to bone elements (Schmidt and Symes 2015). Age-at-death was estimated from the stage of skeletal development (Schaefer et al. 2008, Bass 1995) and degree of age-related changes to the bone (Buikstra and Ubelaker 1994). Sexually dimorphic traits of the skeleton were used to determine sex (Buikstra and Ubelaker 1994).
- 5.5.6 Colour changes were observed macroscopically. To infer the possible temperature of the cremation pyre, heat-related changes in the colour of the bones were recorded according to

their dominant colour ranging from pale yellow/pale brown (under 285°C), pink, brown and black (285°C to 645°C) blue and light grey (645°C to 940°C) and white (over 940°C) (adapted from Shipman et al. 1984, McKinley 2004 and Devlin and Herrmann 2015). Thermal exposure reflected in dental morphology and colour changes on the root surface were recorded following the protocols established by Sandholzer (2015).

Results

Urn 1 Contents

- 5.5.7 The total weight of cremated bone/tooth from inside Urn 1 is 241.38 g. The weight falls below the lower average weight (327-466g) that have been recorded in Bronze Age cremation cemeteries (McKinley 1997). It is likely that this low quantity of recovered cremated bone is at least partially, if not entirely, due to the poor condition of the collapsed Urn 1.
- 5.5.8 The assemblage is highly fragmented and consists of human bones. There are no complete bone elements or teeth. Two skeletal areas, skull (including dentition) and appendicular (upper and lower limbs) are represented. There are no identifiable elements from the axial skeleton. Although this might very tentatively suggest deliberate selection of bone elements for burial, the overwhelming majority of bone fragments are not identifiable to a particular zone (Chart 1). In light of the low amount of bone recovered which represents 14.84 % of the average weight of 1625.9 g for an adult cremation (McKinley 1993) and the incompleteness of this burial, deliberate selection remains hypothetical at best.
- 5.5.9 Five single-rooted teeth (out of a total of 20 in adults and 12 in subadults) and three double-rooted teeth (out of a total of 6 in adults and 4 in subadults) recovered in Urn 1 are consistent with a minimum number of one individual (Buikstra and Ubelaker 1994). Identified bone elements, femoral and humeral epiphyseal head unsided fragments are suggestive of a minimum number of one individual. The fragment of the femoral head epiphysis in spit 14 (Plate 28) corresponds to an estimated age of about 8 to 10 years old (Schaefer et al. 2008, Bass 1995) with a maximum age at epiphyseal fusion at 14-17 years old if female and 16-19 years old if male. The unsided humeral proximal epiphysis fragment in spit 19 (Plate 29) coincides with an estimated similar 8-10 years old with a maximum age at epiphyseal fusion of c. 14-19 for a female individual and of c. 16-21 years old for a male individual (Schaefer et al. 2008, Bass 1995). The observable presence of the formed anatomical neck on one of the humeral head fragments in spit 25 is consistent with the developmental maturity stage of a pre-adolescent individual (Schaefer et al. 2008). Sex could not be determined due to lack of diagnostic bone elements. No pathology and/or trauma were observed.



Chart 1 – Skeletal zones represented in Urn 1

Matrix Surrounding Urn 1

- 5.5.10 Highly fragmented and white coloured bone and tooth material (154.13 gr in total) were recovered from the matrix on the sides and under Urn 1. The fragments divide as 107.03 g human bones and 4.85 mammal bones of undetermined species. The majority of the skeletal material (103.48 g) is not identifiable to individual bone elements. From the identifiable fragments, the three skeletal zones are represented: skull and dentition (0.59 g), axial (rib and vertebral fragments 1.48 g) and appendicular (9.98 g).
- 5.5.11 On account that no duplicated bone elements nor tooth were identified, added to the impossibility to establish differentials in stages of development in the recovered material, it is suggested a minimum of one individual from this assemblage. However, none of the skeletal elements recovered is diagnostic enough to suggest a biological sex or age of the individual. No pathology or trauma were observed. The amount and poor condition of the skeletal and dental material recovered from each context prevents assessing with absolute certainty whether Urn 1 and the matrix form a single burial event.

Heat related changes in the colour of bones and teeth

5.5.12 The colour of the majority of the cremated bone and teeth from Urn 1 and surrounding matrix is white, which indicates full oxidation of the bone. Hues of blue and grey (incomplete oxidation) was observed on only a small proportion of fragments (Chart 2). This indicates a constant exposure to temperatures ranging at minima from 645°C to 940°C or above (Shipman et al 1984). Teeth are only represented by root (with no crown present) of a grey/white colour, which suggests exposure to heat of no less than 800°C up to 1000°C. (Sandholzer 2015). Volumetric shrinkage of both bone and teeth support the higher range of temperature at a minimum of 800°C and an elongating exposure time (Sandholzer 2015).





Urn 2

- 5.5.13 The total weight of cremated material from inside Urn 2 is 501.73 grams, which divides as (456.61 g.) human and faunal (45.12 g.) of undetermined mammal species. The weight falls below the normative quantity of bone recovered from Bronze Age primary burials which generally averages 1527 g (on a range from 902.3 g to 2747 g), but within cremated bones of lower average weight (327-466 g) that have been recorded in contemporaneous cremation cemeteries e.g. in Simon Grounds, Dorset (McKinley 1997).
- 5.5.14 The presence of animal bones in cremation urns has been documented as 'pyre debris' or post-cremation remains collected for burial. The discrepancies between the weight of human bones and that of mammal remains might suggest accidental inclusions (McKinley 1997).

There is no evidence to suggest the faunal remains originated from another cremation to that of the burial.

- 5.5.15 The human bone assemblage is highly fragmented. There are no complete bone elements or teeth. The burial includes fragments from each of the three skeletal zones (Chart 3), skull, axial and appendicular (upper and lower limbs). There is, however, no suggestion of selection of specific bone elements for burial. The inclusion of small bone fragments (e.g. tooth roots, hand or foot phalange) could suggest recovery from a pyre site as raking off fragments during mass collection seems more likely to result in gathering such small bones than recovery by hand of individual fragments (McKinley 1997). However, it cannot be ascertained conclusively whether these small amounts of specific elements were from amongst the pyre debris or within the burial.
- 5.5.16 Different stages of development observed in identifiable bone elements suggest a minimum number of two individuals, one possibly late subadult or adult and one young child (Table 4 and Plates 30-32). Sex could not be determined due to lack of diagnostic bone elements. No pathology and/or trauma were observed.



Chart 3 – Skeletal zones represented in Urn 2

Spit	Bone element	Developmental maturity stage
2 cm	Humerus	Late subadult or Adult
5 cm; 9 cm ; 10 cm, 13 cm	Radius	Young child
9 cm; 10 cm	Tibia	Young child
9 cm; 13 cm	Acetabulum	Young child
9 cm	Rib	Late subadult or Adult
10 cm; 15 cm	Cranium	Young child
11 cm	Radius	Late subadult or Adult
11 cm	Ulna	Late subadult or Adult
11 cm	Phalange	Late subadult or Adult
11 cm	llium	Young child
15 cm	Tibia	Late subadult or Adult

Table 4 – Maturity stages in Urn 2 contents

Matrix surrounding Urn 2

5.5.17 The total weight of bone recovered is of 114.56 g of which human bones account for 107.13

g and mammal bones of undetermined species amount to 7.43 g. The assemblage is highly fragmented which prevents assessment of sex. No pathology or trauma were observed. Cranial (1.38 g), axial (1.12 g) and appendicular (19.96 g) skeletal fragments are present. Identifiable individual bone elements consist of an unsided femoral shaft fragment (possibly adult) and one fragment of a sub-adult unsided radius shaft of a development stage consistent with that of the young child cremated remains from the contents of Urn 2. The latter raises the possibility that the matrix contents might actually originate from the same burial.

Heat related changes in the colour of bones and teeth

5.5.18 As in Urn 1 above, the colour of the majority of the cremated bone and teeth from Urn 2 and surrounding matrix is white, which indicates full oxidation of the bone (Chart 4) Hues of blue and grey (incomplete oxidation) was observed on only a small proportion of fragments. This also indicates a more likely constant exposure to temperatures ranging at minima from 800°C up to 1000°C and an elongating exposure time (Sandholzer 2015).





Summary

5.5.19 The scarcity, high degree of fragmentation and poor preservation of the skeletal material from Urn 1 and Urn 2 pre-empts conclusions beyond the estimation of the minimum number of individuals, respectively of one pre-adolescent subadult in Urn 1 and two (one late subadult or adult and one young child) in Urn 2. Heat-induced changes to bones and teeth in colour and volumetric shrinkage seems to indicate constant exposure to high temperatures (800°C-1000°C) over an elongated period of time. In the case of Urn 2, it is tentatively suggested that the deposit might be the result of a possible mass collection of cremation debris from a pyre site. Whether the two individuals were cremated as part of a single or more cremation events remains open to interpretation.

6 ENVIRONMENTAL EVIDENCE

6.1 Summary

6.1.1 Environmental samples were taken during both phases of the excavation. The samples were processed BUARC using a flotation technique recovering the flot to 500 μ m and the residue to 500 μ m. The residues were then sorted and charcoal and other plant remains extracted from them residues were combined with the flots. The 2018 and 2019 samples were

assessed separately by Lisa Gray and Kath Hunter-Dowse respectively.

6.2 Phase 1 Environmental Assessment

- 6.2.1 An assessment of the flot assemblage from the 2018 samples by Lisa Gray highlighted the presence of small quantities charred cereal grains and seeds and the presence of charcoal suitable for radiocarbon dating in the fills of the ring ditches and other features. Uncharred seeds were considered intrusive. Of note were the presence of one poorly preserved oat (Avena sp.) or indeterminate grass (Poaceae) grain in sample 3 context 118; a well-preserved free- threshing type wheat grain (Triticum aestivum/durum/turgidum) in sample 8 context 128; A very poorly preserved indeterminate grass seed in sample 5 context 125 and a fragment of large legume, probably broad bean (Vicia faba L.) in sample 8 context 128.
- 6.2.2 As an understanding of the phasing and fill sequences of the ring ditches was not fully formed by the end of the 2018 excavation and acknowledgement that there was a high potential for contamination between the cremation deposits and ditch fills, the 2018 samples were considered low potential and should not be subjected to further work (Gray 2019).

6.3 Phase 2 Environmental Assessment

- 6.3.1 A carefully considered and comprehensive sampling strategy was employed during the 2019 phase of excation. The samples from this year had a much better stratigraphic integrity and had the potential to provide a more accurate and fuller palaeoenvironmental representation of the site.
- 6.3.2 A total of 18 processed samples from the 2019 excavation were presented to Kath Hunter Dowse for assessment. The material was rapidly assessed using an MTL stereo microscope. The identification and frequency of environmental remains was recorded (in accordance with the nomenclatures of Zoharey et al. 2012 and Stace 2010), along with the potential for further analysis (based upon the criteria scheme developed by Wendy Caruthers). The results of this assessment have been tabulated and are presented in Appendix 2 and in this instance the term "seed" may include achene, fruit, nutlet etc.

Results and Recommendations

- 6.3.3 All of the samples contained charcoal and where possible this was differentiated as roundwood, heatwood, twig or root (Appendix 2). Further work, to be undertaken by a charcoal specialist was recommended for species identification and selection of potential radiocarbon samples.
- 6.3.4 Macrofossil identifications included a poorly preserved cereal grain retaining some characteristics of a barley type (cf. Hordeum sp.) from sample 2 context 209; Sample 5 context 227 yielded a single oak cotyledon (Quercus sp.) as well as several fragments of hazelnut shell (Corylus avellana); Sample 13 context 248 contained a single hazelnut shell fragment; and Sample 1 context 202 contained a very small fruit stone fragment possibly of a sloe/damson/plum type (cf. Prunus sp.) (Hunter Dowse 2019).

6.4 Charcoal Analysis

6.4.1 Charcoal recovered from the processed 2019 excation environmental samples was submitted to Lisa Gray to identify and recommendations of taxa suitable for radiocarbon dating.

Identification Methodology

6.4.2 Charcoal fragments larger than 4mm Ø in size were separated and identification was attempted using epi-luminating microscopy. It is difficult to make identifications of charcoal fragments that are smaller than 4mm Ø in size because the diagnostic features necessary for identification may not be visible in such small fragments (Asouti 2006, ¶ 31; Smart and Hoffman, 1988, 178-179). Fragments smaller than this size were scanned to find any twigs or

smaller roundwood fragments. When fragments have been broken to reveal anatomical features, they have been wrapped in foil to keep those fragments intact so they can be counted. Charcoal identifications were made using modern reference slides (author's own) and anatomical guides (Hather 2000 and Schoch et al. 2004).

Results

Sample	Context	Таха	Number of fragments	
2	209	Oak (Quercus sp.) -stem wood	2	
		Cherry/plum (Prunus sp.)	5	
4	208	Oak (Quercus sp.) -stem wood	10	
		Oak (Quercus sp.) -branch wood	1	
		Hazel (Corylus avellana L.)	1	
		Cherry/plum (Prunus sp.)	5	
5	277	Oak (Quercus sp.) -stem wood	60	
		Cherry/plum (Prunus sp.)	2	
7	250	Oak (Quercus sp.) -stem wood	12	
9	272	Oak (Quercus sp.) -stem wood	1	
11	264	Cherry/plum (Prunus sp.)	2	
13	248	Oak (Quercus sp.) -stem wood	5	
		Oak (Quercus sp.) - branch wood	1	
		Hazel (Corylus avellana L.)	1	
		Cherry/plum (Prunus sp.)	1	
15	259	Oak (Quercus sp.) -stem wood	6	
17	247	Oak (Quercus sp.) -stem wood	3	
18	280	Hazel (Corylus avellana L.) 1		

6.4.3 The following charcoal identifications were made (table 5):

Table 5 – Charcoal Identification and quantification by sample.

6.4.4 It is not possible to identify oak or cherry/plum wood beyond genus from microscopic wood anatomy alone (Hather, 2000, 12).

Recommendations

6.4.5 The hazel and cherry/plum fragments in samples <2>, <4>, <5>, <11>, <13> and <18> are short-lived taxa that may be suitable for radiocarbon dating. Other charred plant remains were found that may be suitable for dating. These were an acorn fruit fragment in sample <5>, hazelnut shell fragments in samples <5>, <13> and <17>, poorly preserved barley (Hordeum sp.) grains in samples <1> and <2>, false oat/onion couch grass (Arrhenatherum elatius (L.)P. Beauv.ex J. & C. Presl.) rhizome fragments in samples <1> and <13> and cleavers (Galium aparine L.) in samples <4> and <7>.

6.5 Radiocarbon Dating

6.5.1 Four samples were selected for radiocarbon dating, with the potential to represent the dates of key events in the chronology of the monument; the Construction of the Phase 1 ring ditch (PF2019:247:17), the construction and final use dates of the Phase 2 ditch (PF2019:265:11 and PF2019:209:2 respectively) and the internment of the cremation burials (PF2018:111:10). The radiocarbon analysis was undertaken by the Beta Analytic laboratory in Miami, USA (Calibration: HPD Method INTCAL13) and the results are presented in Table 6.

Lab & Sample	Context	Sample	IRMS	Conventional	Cal BC
No.		Details		Radiocarbon	Intersept
				Age (BP)	(% confidence)
Beta-550815	111	Cremated	δ13C: -21.5	3070 +/- 30	1415 -1260 (95)
PF2018:111:10		bone	δ18C: -16.8		1240 -1236 (0.7)
Beta-550816	247	Charcoal	δ13C: -27.5	6810 +/- 30	5736 - 5643 (95.4)
PF2019:247:17		Hazelnut shell			
Beta-550817	264	Charcoal	δ13C: -26.5	3630 +/- 30	2045 - 1906 (86.5)
PF2019:265:11		Cherry/plum			2127 - 2090 (8.9)
Beta-550818	209	Charcoal	δ13C: -25.9	3510 +/- 30	1918 – 1748 (95.4)
PF2019:209:2		Cherry/plum			

Table 6 – Radiocarbon determinations

7 DISCUSSION

- 7.1.1 The information provided by the project feeds directly into knowledge gaps highlighted in the NFNPA Neolithic and Bronze Age Research Strategy (2017), particularly in respect of improving our understanding of Bronze Age barrow building and funerary practices in the region.
- 7.1.2 Despite the collective Mesolithic evidence from the project being minimal it is still significant as archaeological evidence from this period is extremely rare under any circumstance. The Park Farm Mesolithic assemblage adds to the small corpus of other evidence from this period in the New Forest, which to date mainly comprises isolated find spots and flint scatters suggesting the presence of a small number of camps sites close to the Beaulieu River.
- 7.1.3 The archaeological investigation of the ring ditch monument has provided a great deal of information, particularly regarding its character and chronology. The earliest phase of the monument, represented by ditch 400 was probably built within the last century of the third millennium BC. This ditch was slightly sub-circular in plan and the ring would have been up to 15m wide. Unlike later phases, ditch 400 was not proven to be penannular and it may have been a continuous ring at this stage. The fill sequence suggests this ditch was allowed to gradually fill up for the most part, although some evidence of localised maintenance and of localised infilling and levelling off of the feature at the end of its life was recorded. This phase of the monument may have spanned a few decades but no other evidence relating to the form or function of the monument at this time was forthcoming.
- 7.1.4 The construction of Phase 2 ring ditch 401 represents a dramatic and labour intensive reconfiguration of the monument, although this does not necessarily represent a change of use. The Phase 2 monument is still slightly sub-circular but its size in plan is increased by at least 2m in each direction. This ditch is also larger than its predecessor and had the additional feature of a gap on its north-west side. This gap appears significant to the function of the monument and it is maintained throughout all re-cut episodes. At some point there was even an arrangement of posts set inside the entrance perhaps to either alter the view or influence the route into the interior space. There were at least three re-cuts of the Phase 2 ring ditch and these successively decreased its depth and increased its width over the duration of its life. As the re-cuts always encroached upon the internal edge of the ditch, this might suggest there was something external to the ditch, perhaps a bank that prohibited expansion in this direction.
- 7.1.5 A significant outcome of the post excavation phase of the project was the provision of radiocarbon dates for the start and end of the Phase 2 stratigraphic sequence. These dates suggest construction occurred around 2000 BC and that the duration Phase 2 was somewhere between 100 150 years. Finds and palaeoenvironmental evidence correlate with this dating but don't allude further to the function of the monument. The distinct but currently unidentified rough circular burnt clay objects from the end of the Phase 2 sequence are intriguing and their occurrence together in one of the ditch termini could be interpreted as

a ritual event.

- 7.1.6 Ring ditch monuments of this type and date would normally be confidently defined as remains of ploughed out round barrows, a class of funerary monument of the Early and Middle periods of the Bronze Age. The most common barrow type, the bowl barrow is characterised by a ditch surrounding a mound that would have been raised over a central burial. No surviving evidence of a mound or funerary activity associated with either phase could be found, however. Other far-less common barrow types have a bank earthwork, normally inside the ditch, but occasionally outside.
- 7.1.7 Although barrows with penannular ditches are quite rare it is interesting that other similar examples occur in the region. At least two early Bronze Age ring ditches with gaps on their north-west sides occurred in the funerary landscape at Heatherstone Grange, near Bransgore which was the focus of an excavation in 2015 (Massey and Morris 2018). Additionally, at South Baddesley 5km WSW of the site a 15m wide ring ditch, which appears to have breaks on its east and west sides can be seen in aerial imagery and the results of a recent geophysical survey (Shaw and Green 2019).
- 7.1.8 An extant fancy barrow can also be found within a five barrow group to the east of the site on Beauliea Heath. This monument is described in the listing details (1013123) as having a '3m wide and 0.2m high bank, with a small break in the north-western side and an outer quarry ditch 1.6m wide and 0.3m deep'.
- 7.1.9 The purpose of these Earl Bronze Age monuments with penannular ditches is unclear. Some of the smaller ones, like those found at Heatherstone Grange are discussed as being symbolic representations of the roundhouse tradition (Massey and Morris 2018) but it is reasonable to assume monuments with 'entrances' and apparent open interiors, like the one at Park Farm were meetings spaces and used to carry out rituals and ceremonies that were important to the local community. There is certainly evidence at Park Farm of regular modification and an apparent continuity of use between Phases 1 and 2 that might have spanned two centuries. This certainly implies that this monument was more than a burial place and played a significant role in the community for many generations.
- 7.1.10 Many similarities can be seen between monuments that fall within the mini-henge classification and some barrows and more and more evidence is coming to light that suggests some henges were still in use and even being built during the Early Bronze Age. The fact that the term 'henge' is applied to such a diverse range of monuments spanning the Middle Neolithic to Early Bronze is often cited as a reason to abandon the term (Gibson pers comm at Henges A Late Neolithic Conundrum, Oxford University Continuing Education conference, March 2012). A recently discovered example of an Early Bronze Age 'henge' dated by radiocarbon analysis to 2140-1950 cal BC was found in 2011 at Priors Hall, Corby in Northamptonshire (Chapman and Jones 2012).
- 7.1.11 The evidence for Phase 3 is entirely consistent with Middle Bronze Age Deverel Rimbury burial tradition and the use of earlier barrow monuments as cremation cemetery sites. The radiocarbon date for the Park Farm urns suggest there may have been a five century long period of disuse between the end of Phase 2 and the start of Phase 3. The archaeological evidence shows that by the advent of Phase 3 the ring ditches were almost entirely filled. The positive aspect of the earthwork must have been more in-tact for the site to be recognisable as a place of ritual significance many generations after it was last used. The five urns that were found during this project were all set within the former ring ditch on the east side of the monument. Further urns might exist beyond the excavation boundary or set deeper into the ditch within the areas already stripped but this number is probably not very large. A significantly larger quantity of urns may have been set into the remains of the bank/mound but these have been lost over time along with all traces of that feature.
- 7.1.12 The Park Farm cremation assemblage represents a significant addition to the record of Middle Bronze Age burial practices in the region, demonstrating important affinities with sites

of the Avon and Stour valleys which have been subjected to significantly more archaeological research. A direct comparison can be drawn between the Phase 3 activity at Park Farm and similar activity found during the excavation of part of a funerary landscape at Bransgore in 2015 where four ring ditches were found, two of which had a total of 32 Middle Bronze Age cremation burials or cremation-related deposits inserted into them (Massey and Morris 2018).

8 CONCLUSION

- 8.1.1 In conclusion, it can be stated that this project has been successful and stands as a good example of how quality archaeological research can be undertaken as part of a community-focussed project. The success can be partly attributed to the considerable effort that was put into the planning stage of the project, with well-considered research questions and proposed trench designs documented in both of the written schemes of investigation.
- 8.1.2 The collective enthusiasm, effort and mind-set of the volunteers and everyone else involved also enabled the project to be undertaken successfully. During both phases the proposed excavation strategies were effectively implemented and there is little that would have been done differently in retrospect.
- 8.1.3 The overall aims and objectives of this project as outlined in the Written Schemes of Investigation (BUARC 2018, BUARC 2019b) have all been met. The project has made significant contributions to our understanding of the prehistoric monument at Park Farm, particularly regarding its character and the dates of its principal phases. The implication that the monument might not be a barrow is intriguing but confirmation of its true function may require a significant amount of further research to be undertaken both of this monument or any of the other comparable examples which can be found in the region. Although no further work is scheduled to be undertaken at the Park Farm monument this project has by no means been comprehensive and further intrusive investigation might address some of the questions that are still outstanding. The planning of any such future project should be undertaken in consideration of the results of this project and the information presented in this document and contained in the project archive.
- 8.1.4 Research themes for future work on the site might include confirming whether the Phase 1 ring ditch is continuous or penannular like its successor. Further radiocarbon analysis of biological material recovered from the Phase 1 ditch might provide a definitive construction date for the monument which is still lacking. Further work might also consider exploring the Mesolithic Phase, which, to date is only represented by residual finds and palaeeoenvironmental material in the project archive.
- 8.1.5 Further work could also be undertaken to confirm the identity of the ambiguous circular burnt clay objects found in context 209, which radiocarbon dating has dated to the Early Bronze Age. The apparent association of these objects with an as yet unidentified industrial activity is intriguing and suggests there is still a lot more to be learnt about the prehistoric populations that used this monument and inhabited this landscape,

9 COPYRIGHT

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- 10.1.2 The project was managed for BUARC by Jonathan Monteith. The fieldwork was led by Jon Milward who also authored this report. Niomi Edwards assisted on site and with post excavation tasks. Ashely Green coordinated the geophysical survey and contributed towards that section of the report. Processing and analysis of the human remains was undertaken by Gabrielle Delbarre, Valentina Perrone and Damian Evans and they are responsible for Section 5.5 of this report.
- 10.1.3 Lisa Grey undertook the assessment of the 2018 palaeoenvironmental assemblage and charcoal analysis (Sections 6.2 and 6.4); Kath Hunter Dowse assessed the 2019 environmental assemblage (Section 6.3). Imogen Wood contributed the pottery assessment (Section 5.2) and Katherine Walker provided the flint assessment.
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REFERENCES

- Asouti, E., 2006, 'Factors affecting the formation of an archaeological wood charcoal assemblage.' Retrieved on 13th February 2015 from World Wide Web: http://pcwww.liv.ac.uk/~easouti/methodology_application.htm
- Bass, W. M., 1995, *Human Osteology, A Laboratory and Field Manual.* Missouri Archaeological Society Special Publication No. 2, USA Columbia (Missouri)
- Bournemouth University, 2013, Park Farm, Beaulieu, Results of an archaeological evaluation and excavation. Unpublished document ref: 0099/PFB13
- BUARC, 2018, Park Farm Beaulieu, New Forest National Park. Archaeological Trench Investigation Written Scheme of Investigation. Unpublished Document ref: BUARC/2018/0212.1
- BUARC, 2019A, Park Farm Prehistoric Monument, Beaulieu, New Forest National Park; Archaeological Excavation Interim Report. Unpublished document ref: BUARC/2018/0212.2
- BUARC, 2019B, Rediscovering and Conserving our Archaeological Heritage: Park Farm, Beaulieu, New Forest National Park Excavation 2019. Unpublished document ref: BUARC/2019/0226.01
- Buikstra, J. and Ubelaker, D., 1994, *Standards for data collection from human skeletal remains*. Arkansas Archaeological Survey Research Series No 44. USA. Fayetteville (Arkansas)
- Butler, C., 2005, Prehistoric Flintwork, Stroud: Tempus
- David, A., Linford, N., and Linford, P., 2008, *Geophysical Survey in Archaeological Field Evaluation*. English Heritage: Swindon, UK.
- Devlin, J. B. and Herrmann, N. P., 2015, Bone colour. In Schmidt, C. W. and Symes, S. A. (2015). *The analysis of burned human remains*, 119-138. USA. San Diego (California), Academic Press
- English Heritage, 1992, Management of Archaeological Projects (2nd Edition)
- Gray, L., 2019, Park Farm Prehistoric Monument, Beaulieu, New Forest National Park, Hampshire, NGR SZ 39580 97615: Assessment of Environmental Samples from Deposits Provisionally dated as Late Prehistoric. Unpublished specialist report.
- Hather, J., 2000, *The Identification of the Northern European Woods: A guide for archaeologists and conservators.* London: Archetype Publications Ltd.
- Hunter Dowse, K., 2019, The Assessment of Plant Remains from Park Farm Beaulieu, New Forest National Park, Hampshire. Unpublished specialist report
- Institute of Field Archaeologists, 2008, Standard and Guidance for Archaeological Field Evaluation

- Ladle, L. and Woodward A., 2009. *Excavations at Bestwall Quarry, Wareham 1992-2005. Volume 1: the prehistoric Landscape.* Dorset Natural history and archaeology Society Monograph Series: Number 19
- Massey, R. and Morris, E., 2018, Excavation of Four Barrows and A Middle Bronze Age Cremation Cemetery at Heaherstone Grange, Barnsgore, Hampshire. *Proc. Hampshire Field Club Archaeol. Soc.* 73, 11 – 89
- McKinley, J. and Roberts, C., 1993, *Excavation and post-excavation treatment of cremated and inhumed human remains.* Institute for Archaeologists Technical Paper No. 13, UK. Birmingham University
- McKinley, J., 1993., Bone fragment, size and weights of bone from modern british cremations and the implications for the interpretation of archaeological cremations. *International Journal of Osteoarchaeology* 3, 283-287
- McKinley, J., 1997, Bronze Age 'barrows' and the funerary rites and rituals of cremation. *Proceedings Prehistoric Society* 63, 129–45
- McKinley, J., 2004, Compiling a skeletal inventory: cremated human bones. In Brickley, M. and McKinley J. eds. *Guidelines to the Standards for Recording Human Remains*. Institute of Field Archaeologists Paper No 7. UK. Southampton, British Association for Biological Anthropology and Osteoarchaeology
- Moody, S., 2010, The flint finds from Gorley Bushes 2008/09, 33-35. *New Forest History and Archaeology Group*. Report no. 2
- Moody, S., 2012, Lithic assemblage from Latchmore excavation 2011, 11. *New Forest History and Archaeology Group*. Report no. 4
- Moody, S., 2018, Lithic assemblage from Ashurst Lodge excavations 2013 (SU 341085), 45-47. New Forest History and Archaeology Group. Report no. 10
- NFNPA, 2017, NFNPA: Neolithic and Bronze Age Draft Research Strategy (V1)
- Rankine, W.F., 1939, Mesolithic Sites in Hampshire. Some notes on flints from Beaulieu, 230-240. Proceedings of the Hampshire Field Club and Archaeological Society, Volume 14, Part 2.
- Sandholzer, M. (2015). Influence of heating regimes on dimensional and colorimetric changes of teeth. In Schmidt, C. W. and Symes, S. A. (2015). *The analysis of burned human remains*, 365-380. USA. San Diego (California), Academic Press
- Schaefer M., Black S. and Scheuer L., 2008, *Juvenile Osteology: A Laboratory and Field Manual*. USA. San Diego (California), Academic Press

- Schmidt, C. W. and Symes, S. A., 2015, *The analysis of burned human remains*. USA. San Diego (California), Academic Press
- Schoch, W., Heller, I., Schweingruber, FH., Kienast F., 2004, 'Wood Anatomy of Central European Species.' Retrieved 17th-18th December 2019 from the World Wide Web:http://www.woodanatomy.ch/
- Shaw, L. and Green, A., 2019, Land North of South Baddesley, Road, South Baddesley, Boldre, Hampshire. Geophysical Survey Report. NFNPA & Bournemouth University
- Shipman, P., Giraud, F. and Schoeninger, M. (1984). Burnt Bones and Teeth: an Experimental Study of Color, Morphology, Crystal Structure and Shrinkage. *Journal of Archaeological Science* 11, 301-325
- Smart TL., and Hoffman, ES., 1988, 'Environmental Interpretation of Archaeological Charcoal.' In Hastorf, C.A. and Popper, V.S. *Current Palaeobotany* Chicago and London. University of Chicago Press.
- Stace, C., 2010, New Flora of the British Isles. Cambridge
- UKIC, 1983, Packaging and Storage of Freshly-Excavated Artefacts from Archaeological Sites. Conservation Guidelines No. 2. Archaeology Section, United Kingdom Institute for Conservation
- UKIC, 1984, Environmental Standards for the Permanent Storage of Excavated Material from Archaeological Sites. Conservation Guidelines No. 3. Archaeology Section, United Kingdom Institute for Conservation
- UKIC, 1988, Excavated Artefacts and Conservation: UK sites Revised Edition. Conservation Guidelines No. 1. Archaeology Section, United Kingdom Institute for Conservation.
- Watkinson, D. and Neal, V., 2001, *First Aid for Finds.* Third Edition, revised. Rescue/UKIC Archaeology Section, London.
- Wood, I., Forthcoming . Prehistoric pottery, in (eds) Caine, C. and P. Rainbird. Land off Whitsbury Road, Fordingbridge (Centred on NGR SU 14602 15457) Results of an archaeological trench evaluation. AC Archaeology, Devon.
- Zohary, D, Hopf, M. and Weiss, E., 2012, *Domestication of Plants in the Old World*. Oxford University Press

PLATES



Plate 1 – Section through Phase 1 ditch 216, view from SW. Scale =2x1m.



Plate 2 – General view of Phase 1 ditch 216 and Phase 2 terminals 200 and 206, view from SE. Scale =1x2m, 1x1m.



Plate 3 – General view of Phase 1 ditch 216 and Phase 2 terminals 200 and 206, view from NW. Scale =1x2m, 1x1m.



Plate 4 – Section through Phase 1 ditch 216 (left) and Phase 2 ditch 206 (right), view from SSW. Scale =2m.



Plate 5 – Section through Phase 1 ditch 216 (right) and Phase 2 ditch 200 (left), view from NE. Scale =2m.



Plate 6 – Section through Phase 1 ditch 123 (right) and Phase 2 ditch 104 (left), view from W. Scale =2m.



Plate 7 – Section through Phase 1 ditch 223 (left) and Phase 2 ditch 224 (right), view from NW. Scale =2m.



Plate 8 – Section through Phase 1 ditch 137 (left) and Phase 2 ditch 105 (right), also showing cremation urn burial 152, view from S. Scale =2m.



Plate 9 – Section through Phase 1 ditch 221 (right) and Phase 2 ditch 222, view from NE. Scale =2m.



Plate 10 – Section through Phase 1 ditch 122 (right) and Phase 2 ditch 106 (left), view from E. Scale =2m.



Plate 11 – Section through Phase 1 ditch 219 (left) and Phase 2 ditch 220 (right), view from NW. Scale =2m.



Plate 12 – Section through Phase 1 ditch 136 (left) and Phase 2 ditch 107 (right), view from N. Scale =2m.



Plate 13 – View of cremation urn burials 111 (back left), 114 (back right), 117 (front right) and feature 119 (front left), view from S. Scale =2x1m.



Plate 14 – Cremation urn burial 111 (vessel 1), view from S. Scale =0.5m.



Plate 15 – Cremation urn burial 114 (vessel 2), view from S. Scale =0.3m.



Plate 16 – Cremation urn burial 117 (vessel 3), view from S. Scale = 0.5m.



Plate 17 – Section through feature 212, view from S. Scale =0.4m.



Plate 18 – Probable post-hole 153, view from W. Scale =0.4m.



Plate 19 – Section through ditch 108, view from NE. Scale =1m.



Plate 20 – Section through ditch 109, view from NE. Scale =2m.



Plate 21 – Pre excavation view of 2019 Trench 3, view from W. Scale =2x1m.



Plate 22 – Section through ditch 288, facing N. Scale =2m.



Plate 23 – General view excavation underway in 2019 Trenches 1 and 2, facing NW.



Plate 24 – CT-scan output showing bone inclusions.



Plate 25 – General shot of urn excavation process.



Plate 26 – Partial excavation view of Urn 1.



Plate 27 – Femoral head resting against wall of Urn 1 (spit 14).



Plate 28 – Femoral head fragment from Urn 1, spit 14.



Plate 29 – Humeral head fragment from Urn 1, spit 14.



Plate 30 – Humerus shaft fragment from Urn 2, spit 2.



Plate 31 – Child radius shaft fragment from Urn 2, spit 2.



Plate 32 – Child occipital fragment from Urn 2, spit 15.