

Home Farm 'Hillfort' 400m south of Home Farm, Denny Lodge, Hampshire Scheduled Monument No.1017019

Archaeological Trench Investigation and Restoration Project Final Report



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Prepared on behalf of:

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Executive Summary

Project Name: Home Farm 'Hillfort'

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SUMMARY

Bournemouth University's Archaeological Research Consultancy (BUARC), was appointed by the Forestry Commission to undertake a limited invasive excavation and restoration project on the western side of Scheduled Monument 1017019. The monument is poorly understood and comprises a circular ditch and shallow bank earthwork, enclosing an area of approximately 0.3ha. It is listed as a 'slight univallete hillfort' and was believed to date from between the Late Bronze Age and Early Iron Age (eighth – fifth centuries BC).

This project of investigation and restoration was devised to further our understanding of the monument and follows a geophysical survey of the wider landscape undertaken by BUARC in 2017. The project was carried out in accordance with a Written Scheme of Investigation (WSI) (Report Reference: BUARC/2018/0211.1) and aimed to excavate a section across the bank and ditch, recover archaeological artefacts and ecofacts, assess and record the character and extent of the features and restore the trench as well as areas of damage adjacent to this location.

The excavation trench incorporated two areas of localised damage and provided a complete profile through the rampart. The project has revealed that the ditch is a substantial feature, much greater in scale than the shallow earthwork it is preserved as. The fill sequence of the ditch was complex with distinct phases of activity represented. Deposits relating to the bank were recorded on the inner side of the ditch. No diagnostically datable artefacts were recovered although a sample of charcoal from the basal fill of the ditch was submitted for radiocarbon dating. This procedure was successful and the charcoal was dated, with a probability of 95% to 3347 – 3097 BC. This date bracket falls at the end of the Earlier Neolithic period (4000 – 3000 BC), which implies the monument is considerably older than it was believed to be.

As the monument appears therefore to date to the Earlier Neolithic period the current theory concerning settlement and land-use within Hampshire may need further study and revising. The current corpus of evidence of the Neolithic period within the New Forest is synonymous with seasonal exploitation of heathland resources with no settlement or occupation beyond temporary camp-sites. The presence of this large earthwork enclosure in the New Forest is intriguing and suggestive of a more complex relationship with the landscape, which will only be understood through further research and archaeological investigation.

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1 INTRODUCTION

1.1 Project Background

- 1.1.1 Bournemouth University's Archaeological Research Consultancy (BUARC), was appointed by the Forestry Commission to undertake a limited invasive excavation and restoration project on the western side of Scheduled Monument 1017019.
- 1.1.2 The monument has been added to the Historic England Monuments at Risk Register due to its condition which is characterised as satisfactory but with significant disturbance from burrowing animals, bracken growth and tree re-generation, as well as erosion of one of the banks by grazing livestock.
- 1.1.3 Discussions between the Forestry Commission (FC) (land manager), the New Forest National Park Authority (NFNPA), Historic England (HE), the Verderers of the New Forest and Natural England (NE) have subsequently led to a coordinated effort to undertake a number of initiatives in order to remove the monument from the Register, including management strategies to reduce the impacts caused by these influences on the scheduled monument.
- 1.1.4 This project has focussed on repairing an area of damage on the western side of a monument where in recent years livestock have caused erosion of two adjacent areas of the bank (Plates 1-3).
- 1.1.5 The opportunity to investigate and form a better understanding of the monument was taken and a Written Scheme of Investigation (WSI) for a programme of works comprising archaeological excavation, recording, restoration, post excavation assessments and report production was produced by BUARC (2018).
- 1.1.6 The WSI document was prepared in accordance with the Chartered Institute for Archaeologists standard and guidance for archaeological field evaluation (ClfA, 2014) and Management of Research Projects in the Historic Environment (Historic England, 2015) and was approved by the Forestry Commission, the New Forest National Park Authority, Historic England and Natural England in advance of the project commencing.
- 1.1.7 The grey literature related to this project will be submitted in an OASIS database record (OASIS ID bournemo1-343824), and a copy of the survey report will be lodged with the Hampshire Historic Environment Record.

1.2 Scope of document

1.2.1 This document provides a final report on the results of the project. In consideration of the significance of the results a supplementary paper may also be submitted to a relevant archaeological journal, such as Hampshire Studies: Proceedings of the Hampshire Field Club and Archaeological Society or Proceedings of the Prehistoric Society.

1.3 Site Description

- 1.3.1 Scheduled site 1017019, located approximately 400m south of Home Farm, is in the civil parish of Denny Lodge, Hampshire and is described in the listing details as a slight univallete hillfort situated on the top of a sandy knoll immediately south of a stream within the New Forest.
- 1.3.2 The monument is accessed from the north via a road off of the A35 towards the Wessex Institute at Ashurst Lodge, Ashurst, and then following a Forestry Commission track towards Matley Heath. From the south the site is accessible on foot from Matley Heath campsite, off the B3056 Beaulieu Road.
- 1.3.3 Within the area of the monument livestock grazing has caused significant negative impacts on one of the banks on the western side of the site and there are two erosion scars measuring 2m long, 1.7m wide and 0.65m deep (westernmost) and 2.8m long, 2.1m wide

and 0.4m (easternmost) (Figure 2).

1.4 Archaeological Background

- 1.4.1 The monument (Monument Ref: 1017019) is defined as a slight univallete hillfort and this categorisation defines 'enclosures of various shapes, generally between 1ha and 10ha in size, situated on or close to hilltops and defined by a single line of earthworks, the scale of which is relatively small." (Historic England, 2017). The site is comparable to other known Hillforts in the New Forest such as Castle Piece, which is another univallete hillfort enclosing an area of c.2ha., approximately 13km away to the west. There is also the much larger site of Frankenbury Hillfort in Godshill, another univallete hillfort, enclosing an area of c.4.5ha. Traces of round houses, compounds, granaries, pits and outbuildings are expected to survive within the interior of the hillfort (Historic England 2017).
- 1.4.2 The site was originally scheduled in 1963 and revised in 1999. The reasons for designation of the Hillfort 400m south of Home Farm are:

"In view of the rarity of slight univallete hillforts (only 150 examples recorded nationally) and their importance in understanding the transition between Bronze Age and Iron Age communities, all examples which survive comparatively well and have potential for the recovery of further archaeological remains are believed to be of national importance (Historic England 2017)."

- 1.4.3 This area is a sub-circular earthwork including an earthen bank with external ditch. The banks measure approximately 1m in height and 3m in width. There is a marked contrast between the northern and southern sides, with a much sharper profile of the ramparts to the south, with the bank gradually diminishing towards the northern side of the feature. Likewise, the surrounding ditch is much better defined in the south; suggesting possible modification to the original entrenchment (Donachie 1996). Internally the diameter measures 66m, enclosing an area of approximately 0.3ha (Donachie 1996). The ground encircled by the rampart is uneven and includes a mound 11m in diameter and 0.9m in height situated against the southern bank (Historic England 2017), which although of a comparable size to a bowl barrow, it cannot be ruled out that the mound is a spoil heap from an excavation (Donachie, 1996).
- 1.4.4 A break of slope in the outer face of the bank on the southern side suggests there has been an episode of re-cutting, possibly resulting from military use during World War I when a trench mortar school and artillery range were located nearby (Passmore 1977).
- 1.4.5 There is a break in the east of the feature, which could indicate an entrance. An access track also cuts through the northern section of the feature bisecting it east to west (Historic England 2017). Donachie (1996) has argued the current interpretation of this site as a hillfort, and while its size, shape and position on defensible ground would indicate this function, it is widely agreed that the site would benefit from further investigation to support this interpretation.
- 1.4.6 The geophysical survey of the monument and wider area undertaken by BUARC (Bournemouth University, 2018) included a magnetometer and ground penetrating radar survey. The magnetometer survey recorded a positive curvilinear response correlating with a ditch surrounding the monument which is also visible on the surface of the site. The survey identified two probable breaks in this feature which may be indicative of entrance features, as well as a slightly out-turned bank on the eastern side. The break on the eastern side has been interpreted a representing the original entrance where the bank is slightly more substantial (Smith, 1999). A strong dipolar response was recorded towards the centre of the monument which is indicative of ferrous material or an area of burning of possible archaeological origin.
- 1.4.7 The ground penetrating radar survey recorded a sub-rectangular, high amplitude response within the central area of the monument and correlated with a group of strong dipolar responses, indicative of ferrous material or burning, recorded in the magnetometer data for

this area. These responses may relate to features of archaeological origin and may be the result of localised burning potentially from occupation activity.

1.4.8 Ground penetrating radar also identified non-discrete low amplitude responses interpreted as being the result of animal burrowing or tree root growth.

1.5 Aims and objectives

- 1.5.1 The general aims of the project were to:
 - Identify the location, extent, date and significance of any archaeological finds or features within the trench:
 - Assess the character and extent of any archaeological features located:
 - Preserve any archaeological remains present by the most appropriate method according to their significance;
 - Assess the level of damage sustained by the monument in the location of the trench by livestock;
 - Reinstate the excavated trench and restore the damaged areas in this location;
 - Produce an archive and report on the results of the site based investigations;
 - Publish and disseminate the results of the project.

2 METHODOLOGY

2.1 Fieldwork Methodology

- 2.1.1 The archaeological investigation was carried out in accordance with a Written Scheme of investigation (WSI), which was prepared by BUARC following consultation with the Forestry Commission and their NFNPA archaeological advisor, Historic England and Natural England.
- 2.1.2 Prior to the project commencing an OASIS online record http://ads.ahds.ac.uk/project/oasis/ was initiated by Bournemouth Archaeology and key fields completed on Details, Location, and Creators forms.
- 2.1.3 A single 16m long trench was excavated by hand across the ditch and bank earthworks (Plates 5-10). The trench was positioned to achieve a continuous section across the rampart and also incorporate some of the two damaged areas, the restoration of which, being one of the project aims. The trench location is shown on Figures 1 and 3. The pre-excavation and post excavation topography of the site, following reinstatement and restoration is shown on Figure 2.
- 2.1.4 The project archive includes a digital and printed 35mm black and white photographic record and scale drawings upon polyester-based drawing film. Archaeological records were made using BUARC's pro forma recording system.
- 2.1.5 Topographical mapping and location of the trench and archaeological deposits was undertaken using GPS survey apparatus with an accuracy of +/-3mm over 25m. All survey data presented in the figures is in relation to the Ordnance Survey National Grid and Ordnance Datum.

2.2 Reinstatement Methodology

- 2.2.1 Backfilling of the archaeological trench and restoration of the areas of damage also conformed to methodology defined in the project WSI (BUARC 2018).
- 2.2.2 The excavated natural and archaeological deposits were returned to their respective source locations to maintain the stratigraphic integrity of the excavation area. Approximately four tonnes of locally sourced archaeologically sterile soil and sand was used to reconstruct the

- damaged areas, which were profiled to match the shapes and slopes of the undamaged topography (Plates 11-12).
- 2.2.3 A 20mm layer of locally sourced sand, to act as an indicator of erosion, was placed beneath the reinstated turf, within the damaged areas and bank area of the trench (Plate 12). Approximately one tonne of sand was used for this purpose.
- 2.2.4 The soil material was sourced and provided by the Forestry Commission and originated from within the National Park. The sand was quarried from a quarry site at Corfe Mullen, Dorset (NGR: SY 9632 9752).
- 2.2.5 All materials were supplied under contract approved by Natural England. The source and supply of the material was also agreed with Historic England's Assistant Inspector of Ancient Monuments and Heritage at Risk Principal in advance of the project commencing in accordance with the approved WSI document.

2.3 Post excavation Methodology

- 2.3.1 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.
- 2.3.2 The final results of the assessment and analysis of the environmental samples and finds is presented in this version of the report.

3 RESULTS

3.1 Summary

3.1.1 The pre-excavation and post-excavation topography of the area of investigation is shown on Figure 2. This allows a comparison of the topography of the area before and after the completion of the project. The location and detail of the archaeological trench is shown on Figure 3, while Figure 4 shows the south facing sections and profiles of the bank and ditch within the excavated trench.

3.2 Geological deposits

- 3.2.1 Deposits pre-dating the rampart, comprising both sterile underlying geological deposits and apparent buried soil were encountered along the length of the trench.
- 3.2.2 The soil buried beneath the archaeological deposits was formed into a layered profile consistent with the distinct podzol soil type found on this type of heathland. The evidence indicates that on the west side of the ditch layer 104 could be attributed to a buried topsoil; with layer 103 representing a leached eluviated (E) horizon and the very dark-coloured layer at the base of the trench 101 representing panning of leached metal oxides and translocated organic matter.
- 3.2.3 Deposits beneath the bank, on the east side of the trench layers appeared to be equivalent buried soil deposits. Layers 125, 126, 127, 134, 135 and 136 are considered to be banded former topsoil layers over 137 which represents an underlying leached E-horizon.
- 3.2.4 All archaeological deposits were sealed beneath topsoil between 0.21m and 0.35m deep, including approximately 0.08m thick humic turf at the surface.
- 3.2.5 It was observed that the pre-monument ground surface fell 0.9m over the 16m distance between the east and west ends of the trench. An estimation of the slope of the pre-monument ground surface is shown on Figure 4, Profile 1.

3.3 Rampart Ditch

- 3.3.1 The rampart ditch was located to the western end of the trench and was fully excavated (Plate 6). Extensive close inspection of the basal deposits of the ditch was challenging due to the confines of the trench and weather conditions however all layers were recorded in detail and soil samples were recovered for the assessment of potential dating evidence, dicussed below.
- 3.3.2 The outer (western) edge of the ditch cut maintained a flat gradual slope from the surface for a distance of approximately 2m. At this point this side of the ditch adopts a much steeper and slightly convex shape. The opposing eastern slope was a more consistent, approximately 45° gradient, the lower two-thirds of the slope being slightly convex and the upper one third being slightly concave. Both sides turned guite abruptly into a narrow concave shaped base.
- 3.3.3 The width of the cut, including the western 'upper step' was measured at 6.1m. The ditch was backfilled to a depth of 1.65m (between the base and the surface of the present earthwork), but would have been approximately 2.15m deep, if measured from the base to the level of the former ground surface.
- 3.3.4 A total of 17 different fills were identified within the ditch cut (Figure 1, Section 1: Plate 6). The six earliest fills: 119, 120, 121, 122, 123 and 124 represented a primary phase of deposition interpreted as being derived from erosion of the exposed sides of the ditch cut, and potentially surface run-off and erosion form the surrounding area soon after its initial excavation. These deposits comprised sandy silts varying in colour between mid brown and mid greyish brown and they were only subtly differentiated from each other in terms of colour and very slight variations in composition, was most likely due to mineral leaching rather than definition of separate depositional episodes.
- 3.3.5 The depositional sequence then appears to represent a period of stability of sufficient duration to allow the formation of a thick soil within the ditch, layer 118, preserved as a very dark grey-brown sandy silt which effectively sealed the primary erosion-related deposits. At this stage in the evolution of the feature the ditch in this area of the monument may still have functioned as an enclosing and defensive feature to a central area but was significantly shallower than originally created.
- 3.3.6 The next group of fills in the sequence: 115, 116 and 117 are considered to be the product of a partial 'demolition' or decommissioning of the bank as these layers are concentrated towards the eastern side of the feature having entering the ditch from this direction. Fill 117 is substantially sized deposit and very similar to bank deposit 130, believed to have derived from one of the distinct underlying geological layers (discussed below). Deposits 115 and 116 are similar grey sandy silt to 128, another of the major bank deposits. This sequence may represent a deliberate back-filling event perhaps signalling the end of use of the monument or a redesign that impacted the shape of the rampart in this area.
- 3.3.7 Subsequent to this apparent phase of deliberate backfilling a series of banded deposits were recorded, two of which have been interpreted as representing at least two further occasions when a soil-layer developed within the ditch (114 and 112). Layer 111 was recorded as a thin, localised lens of 'clean' sterile sand and has been interpreted as representing a probable wind-blown deposit. Deposit 107, recorded on the western side of the cut, comprised a very light brown sandy silt and appears to have gradually accumulated on the gradual sloping upper slope on the west side of the ditch, potentially as a result of vegetation colonising the sides and base of the backfilled feature.

3.4 Rampart Bank

3.4.1 Deposits related to the rampart bank were found to the east of the ditch within the enclosed area of the monument. These deposits were collectively 7.2m wide and up to 0.43m deep (Plates 7-9). As the bank would of have been created from up-cast material generated from the initial excavation of the ditch it is coherent that bank deposits shared characteristics with the underlying geology.

- 3.4.2 Deposit 128, the stratigraphically earliest bank deposit, appeared to be largely derived from the leached 'E' horizon which occurs beneath the topsoil locally. Deposit 130 was recorded as a very dark brown, compact layer similar to geological layers found at a lower depth where humic and metal oxides have collected. These deposits could be clearly seen on either side of the ditch.
- 3.4.3 Deposit 131 comprised a more mixed, dark brown deposit and the orangey-brown mottled soil component within this material is consistent with the natural geological deposits cut by the ditch. The uppermost preserved bank deposit, 132, was recorded as a very light coloured eluviated soil although it was not possible to discern whether it was deposited in this state or had leached while *in situ* as part of the bank.
- 3.4.4 In this location all archaeological deposits are sealed beneath topsoil between 0.21m and 0.35m deep. The topsoil depth includes an approximately 0.08m thick humic turf at the surface, which was restored during the backfilling.

4 ARTEFACTS

4.1.1 The only artefacts recovered from the excavation where a (modern) partial, corroded iron horseshoe that was found with a metal detector within the humic turf layer and a single flint flake recovered from one of the underlying soil deposits. Both of these artefacts have been retained as part of the project archive along with an unstratified piece of burnt flint collected during the backfilling.

4.2 Flint

- 4.2.1 A single flint flake was recovered from context 103, believed to be a buried soil deposit on the west side of the ditch and potentially stratigraphically pre-dating the monument. The flint is a broad hard-hammer struck flake with a well-defined striking platform and bulb of percussion and a dorsal surface that is almost entirely covered in cortex. The flint is highly patinated but undiagnostic in terms of date and industry type, beyond being representative of the earliest stage of core preparation or tool manufacture and probably Neolithic or Bronze Age in date.
- 4.2.2 The unstratified burnt flint fragment is also undiagnostic and can only be used as generic evidence of prehistoric settlement or occupation in the general area.

5 ENVIRONMENTAL EVIDENCE

5.1.1 Two soil samples (Table 1) were recovered from fills within the ditch backfill sequence targeting the lowest substantial primary fill 124, and layer 117 which has been interpreted as representing the re-deposition of the bank feature. The samples were processed using a flotation tank with the flot and residue fractions in order to separate charred material from stony residues.

Sample	Context	Cut	Description	Pre-processed Volume (Itr)	Flot weight (g)	Residue weight (g)
1	117	110	Possible redeposited bank material. Mottled orange-dark brown sandy silt.	40	<1	178.4
2	124	110	Primary fill of ditch. Mid grey brown silty sand.	30	<1	1250

Table 1: Summary of environmental samples

5.1.2 An assessment was carried out to determine the significance and potential of the plant macro-remains in the samples and consider their use in providing information about diet,

- craft, medicine, crop-husbandry, feature function, environment and their potential to provide radiocarbon dates. The charred material was scanned under a low-powered stereo-microscope with a magnification range of 10 to 40x. The abundance, diversity and state of preservation of ecofacts and artefacts in each flot were recorded and a magnet was passed across each flot to record the presence or absence of magnetised material or hammerscale.
- 5.1.3 Identifications were made using uncharred reference material (Northern European Seed Reference Collection at the Institute of Archaeology, University College London) and reference manuals (such as Beijerinck 1947; Cappers et al. 2006; Charles 1984; Fuller 2007; Jacomet 2006). Nomenclature for plants is taken from Stace (Stace 2010). Latin names are given once and the common names used thereafter. Low numbers of non-charcoal charred plant macro-remains were counted. Uncharred plant remains, fauna and magnetic fragments were given estimated levels of abundance unless, in the case of seeds, numbers are very low in which case they were counted.
- 5.1.4 Both samples were very unproductive with only low numbers of charcoal flecks present in both samples (Table 2).

Sample	Context	Cut		Charcoal Identification		
ē	Χt		Description	Hardwood- ring porous	Hardwood – diffuse porous	Root fragment?
			Possible redeposited bank material.			
1	117	110	Mottled orange-dark brown sandy silt	3	-	1
2	124	110	Primary fill of ditch. Mid grey brown silty sand	5	3	-

Table 2: Charcoal Identifications

- 5.1.5 For this analysis of the material fragments larger than 2mm in size were separated and identification was attempted using epi-luminating microscopy. Where fragments have been broken to reveal anatomy they have been wrapped in foil to keep those fragments intact so they can be counted. Charcoal identifications were made using modern reference slides and anatomical guides (Schoch et al. 2004; Hather 2000).
- 5.1.6 In total across both samples twelve fragments of charcoal larger than 2mm in size were identified.
- 5.1.7 All fragments, other than a single root fragment from Sample 1, were hardwood types. Eight fragments had a ring porous vessel distribution. This type of porosity is found in wood such as oak (Quercus sp.), elm (Ulmus sp.), ash (Fraxinus excelsior) and sweet chestnut (Castenea sativa). It was not possible to get a clear identification because no rays or other anatomical features were clearly present in such small fragments. The ring porous woods tend to come from very long-lived trees that are not suitable for radiocarbon dating.
- 5.1.8 Three fragments of diffuse porous wood with fragments of spiral thickenings or sclariform plates and narrow rays were found in Sample 2. It was not possible to secure any clear identifications but wood with this type of anatomy come from taxa such as cherry/plum (Prunus sp.), hazel (Corylus avellana), alder (Alnus glutinosa) and birch (Betula sp.) that are relatively short-lived trees more suitable to radiocarbon dating.
- 5.1.9 The only faunal remains seen were low numbers of insect fragments in Sample 2. Each sample contained microscopic fragments of material that might be crushed mollusc shell but it was impossible to be sure that these fragments were not geological.
- 5.1.10 A sample of the diffuse porous fragments identified in Sample 2 from the primary fill of the ditch was dispatched to Beta Analytic's AMS Dating Laboratory for high precision radiocarbon dating in an attempt to get a date for the initial filling event of the ditch. This radiocarbon

analysis was successful and a 95.4% probability date range between 3347 – 3097 cal BC was provided for the sample. This date range strongly suggests the monument was constructed within a 250 year window at the end of the Earlier Neolithic period.

6 DISCUSSION

- 6.1.1 The archaeological investigation project has provided a detailed record of the character of both the bank and ditch components of the rampart and their associated deposits on the western side of the monument. While the extent, nature and localised depositional sequences are likely to vary across the length of the feature this investigation has provided significant information on the form, evolution and date of the ditch.
- 6.1.2 The ditch is a substantial feature with fill deposits spanning a depth of 1.65m in this location. The fill sequence was continuous and not interrupted by any obvious evidence of re-cuts. The fills themselves represent distinct phases, gradual siltation of the lower 1/3 of the feature followed by a period of probable stability represented by the formation of thick soil which lined the profile of the ditch.
- 6.1.3 The formal abandonment of the monument seems to have been marked by an event that involved re-deposition of some of the bank material back into the ditch. Beyond this event the much shallower remains of the ditch were again subject to a more gradual accumulation of naturally forming deposits culminating in the profile of the pre-investigation ground surface.
- 6.1.4 The remains of the bank are preserved as a distinct low mound buried and obscured by modern soil deposits. The deposits contributing to the make-up of the bank share similar characteristics with the underlying natural geology, thus suggesting the bank was formed from the up-cast generated from the construction of the ditch and therefore part of the original design of the monument.
- 6.1.5 The most significant outcome of the project is the date provided by the radiocarbon analysis of charcoal recovered from the basal fill of the ditch and the subsequent interpretation of the monument as a much earlier feature. The date range of the sample (3347 3097 at 95.4% probability) places the monument at the end of the Earlier Neolithic period (4000 3000 BC), a period which, to date, has only been represented in the New Forest through isolated finds. Beyond the New Forest the Hampshire HER holds only a few records of settlement and occupation, exclusively located on the chalk downland and more fertile areas found in the northern area of the county. Evidence of Neolithic activity is, in fact, rarely recored in any area and confirmed sites of this date tend to fall within the category of 'nationally important'.
- 6.1.6 Importantly the revised date for this monument creates an anomaly within the current model of known settlement and landscape use within the region during the Neolithic period. The Neolithic period demarcates the advent of widespread farming activity in the UK and a movement away from a nomadic lifestyle towards a more sedentary existence. Currently, the extent of the Neolithic archaeological evidence for Hampshire suggests occupation and settlement was restricted to the downlands to the north side of the county with evidence found on marginal heathland, woodland and coastal habitats being representative of seasonal exploitation of resources (Atlas of Hamshire Archaeology). The seasonal, temporary occupation theory is sound as the distribution of Neolithic evidence in the New Forest overlaps with the same pattern of Mesolithic hunter gatherer camp sites, which are clustered in the river valleys (*ibid*).
- 6.1.7 However the character of the Home Farm monument and the extent of the rampart represents a massive investment of labour which does not fit the profile of a seasonally used camp site and is suggestive of an alternative function for the monument. Two classifications of Neolithic monument, causewayed enclosures and henges, feature extensive excavations of ring ditches however to date no confirmed and securely dated examples of either of these monuments have been confirmed in the region.

- 6.1.8 Causewayed enclosures are a poorly understood Earlier Neolithic monument type of considerable diversity which often features one or more concentric rings of segmented ditches, providing multiple points of access to an internal area (Oswald *et al.* 2001). Towards the end of the Earlier Neolithic period, around the time of the new proposed date of the Home Farm monument, the evidence suggests that causewayed enclosures were in decline, being slowly replaced by new enclosure forms, including henges.
- 6.1.9 Some of the earliest henges, which represented a new concept of enclosure, share more characteristics with the Home Farm monument than causewayed enclosures. Both the bank and ditch circuit representing the earliest phase of Stonehenge and the Flagstones Enclosure on the outskirts of Dorchester, Dorset are near circular in plan similar to the Home Farm monument (Oswald et al. 2001). Also in terms of date, Stonehenge I at around 2,950 BC and Flagstones at c. 3,100 BC are also both much closer in date to the proposed date for the Home Farm monument.
- 6.1.10 It is clear that the current extent of information relating to the Home Farm monument is not enough to provide a solid interpretation of the function of the monument. Any opportunities to learn more about the monument should be taken in the future and be undertaken in accordance with specific research questions.
- 6.1.11 In terms of long term management, the pre- and post-project topographical surveys (Figure 2) and Plate 1 clearly demonstrate the level of damage that livestock can cause on such soils which left unchecked may develop to cause considerable damage to archaeological layers. In the two locations where such damage had been caused in the area of this investigation it was severe and pronounced enough to negatively impact on archaeological deposits relating to the bank.
- 6.1.12 The use of sterile sand within the restoration of these areas will betray the presence of any future erosion of these areas, however, it is clear that such localised areas of erosion from livestock could be eradicated if grazing levels were reduced or controlled.

7 CONCLUSION

- 7.1.1 The project has been successful in addressing the main aims of the project, providing an opportunity to learn about the character of the rampart on this side of the monument and find either artefactual or environmental evidence to allow for either a validation or revision of the listing information.
- 7.1.2 The aim of restoring the two areas of damage was also successfully accomplished and the south facing bank having been left in a more stable condition following its re-profiling. Fencing was retained around the area of the investigation both during and after the reinstatement for a period of five months to allow for regrowth of the reinstated turf and recolonization of native grasses to foster stability and reduce impact from grazing livestock.

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9 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.
- Bournemouth Unversity, 2018, Hillfort 400m south of Home Farm, Home Farm, Hampshire, Scheduled Monument No.1017019; Archaeological Trench Investigation and Restoration Project Written Scheme of Investigation. Unpublished document ref: BUARC/2018/0211.1
- Chartered Institute of Field Archaeologists, 2008, Standard and Guidance for Archaeological Field Evaluation
- Donachie, J, D., 1996. New Forest Project: Matley Heath Survey, produced for Royal Commission on the Historical Monuments of England. Swindon: National Monuments Record English Heritage, 1992, Management of Archaeological Projects (2nd Edition).
- Gray L. 2019. Hill fort 400m South of Home Farm, Denny Lodge, Hampshire, Scheduled Monument no. 1017019: Assessment of Environmental Samples from deposits provisionally dated as late Prehistoric. Unpublished Archive Report for Bournemouth University Archaeological Research Consultancy.
- Hather, J., 2000, *The Identification of the Northern European Woods: A guide for archaeologists and conservators*, London: Archetype Publications Ltd.
- Oswald, A., Dyer, C., Barber, M., 2001, *The Creation of Monuments, Neolithic Enclosures in the British Isles*, English Heritage Publications Department
- Pasmore, A., 1977, Verderers of the New Forest A History of the New Forest 1877-1977, Old Woking: Pioneer Publications Limited
- Schoch, W, Heller, I, Schweingruber, FH, Kienast F, 2004, 'Wood Anatomy of Central European Species.' Retrieved 8th April 2019 from the World Wide Web:http://www.woodanatomy.ch/
- 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.
- Smith, N. 1999. *The earthwork remains of enclosure in the New Forest*. Proceedings of the Hampshire Field Club Archaeological Society, vol. 54, 1-56.

'The Atlas of Hampshire's Archaeology' Retrieved on 1st May 2019 from the World Wide Web. Available from: http://documents.hants.gov.uk/archaeology/TheAtlasofHampshiresArchaeology.pdf [Accessed 04/04/2019]

PLATES



Plate 1 – View of damaged areas prior to reinstatement. Facing N, scale = 2x2m.



Plate 2 – View of area of investigation prior to project commencing. Facing SE, scale = 2x2m.



Plate 3 - View of western area of damage after being prepared for archaeological recording. Facing N, scale = 2x1m



Plate 4 – View of excavation trench. Facing W, scale =2x2m.



Plate 5 – South facing section at west end of trench. Facing N, Scale = 2m.



Plate 6 – South facing section at west end of trench, showing ditch 110. Facing N, Scale = 2m.



Plate 7 – South facing section showing west end of bank deposits. Facing N, scale = 2m.



Plate 8 – South facing section showing middle section of bank deposits. Facing N, scale = 1x2m.



Plate 9 – South facing section showing east end of bank deposits. Facing N, scale = 1x2m.



Plate 10 – South facing section at East end of trench. Facing N, scale = 1x2m.



Plate 11 – Working shot showing re-profiling of western damaged area. Facing NE.



Plate 12 – Working shot showing re-profiling of eastern damaged area. Facing NE.



Plate 13 – General view of East end of site following backfilling and reinstatement of damaged areas. Facing West.



Plate 14 – General view of West end of site following backfilling and reinstatement of damaged areas. Facing SW.

APPENDIX 1 – CONTEXT INFORMATION

Context number	Description	Dimensions
100	Unstratified finds from site.	1
101	Underlying geological deposit on west side of ditch. Dark brown colour and compact from panning of leaching of metal oxides and translocated organic matter	>1.2m (L), 1.02m (W), 0.12m (D)
102	Topsoil. Comprises mottled mid grey-brown sandy silt. Quite diffuse boundary with deposits it is sealing. Equivalent to 109 and 129 elsewhere.	>1.2 m (L), 3.36m (W), 0.26m (D)
103	Eluviated soil layer on W side of ditch. Quite mottled mid grey silty sand. Cohesive composition. Well defined boundaries with adjacent layers.	>1.89m (L), >1.2m (W), 0.3m (D)
104	?Buried topsoil. Dark grey-brown sandy silt. Quite diffuse boundaries with adjacent layers.	>1.82m (L), >1.2m (W), 0.24m (D)
105	Eluviated soil layer on W side of ditch. Mid grey-brown silty sand. Quite diffuse boundaries with adjacent layers.	>1.28m (L), >1.2m (W), 0.15m (D)
106	Fill of ditch 110. Quite mottled mid grey silty sand with well-defined boundaries with adjacent deposits.	c.1.76m (L), >1.2m (W), 0.33m (D)
107	Fill of ditch 110. Large deposit of light brown coloured silty sand on the upper W side of the ditch cut.	1.49m (L), >1.2m (W), 0.69m (D)
108	Fill of ditch 110. Mid grey sandy silt. Quite diffuse boundaries with adjacent deposits.	>1.2m (L), 0.45m (W), 0.29m (D)
109	Topsoil over ditch. Equivalent to 102 and 129 elsewhere. Comprises mottled mid grey-brown sandy silt.	>1.2m (L), 2.67m (W), 0.85m (D)
110	Ditch cut. The outer (western) edge of the cut maintained a flat gradual slope from the surface for a distance of approximately 2m. At this point this side of the ditch adopts a much steeper and slightly convex shape. The opposing eastern slope was a more consistent, approximately 45° gradient, the lower two-thirds of the slope being slightly convex and the upper one third being slightly concave. Both sides turned quite abruptly into a narrow concave shaped base.	>1.2m (L), 5.07m (W), 2.17m (D)
111	Fill of ditch 110. Very mottled, mainly mid-brown sand. Well defined boundaries with adjacent deposits. Possibly wind-blown deposit.	>1.2m (L), 0.7m (W), 0.17m (D)
112	Fill of ditch 110. Comprises mottled very dark grey brown/mid grey sandy silt with quite well defined boundaries with adjacent deposits. 112 merges with and is indistinguishable from 114 at its easternmost extent.	>1.2m (L), 2.92m (W), 1.19m (D)
113	Fill of ditch 110. Mid grey sandy silt with well-defined boundaries with adjacent deposits. Deposit biased towards W side of ditch suggesting this was the side it derived from.	>1.2m (L), 2.1m (W), 0.81m (D)
114	Fill of ditch 110. Very dark grey-brown sandy silt with well-defined boundaries with adjacent deposits. 114 merges with and is indistinguishable from 112 on its eastern side. Deposit	>1.2m (L), 2.4m (W), 0.91m (D)

interpreted as representing a period of relative stability allowing for the formation of a soil within the partially backfilled ditch.	
Fill of ditch 110. Slightly mottled mid grey sandy silt with well-defined boundaries with adjacent 'darker' deposits. More diffuse boundary with 116 and 117. Deposit believed to have derived from deliberate partial demolition of the bank towards the end of the monuments life.	>1.2m (L), 1.7m (W), 0.66m (D)
Fill of ditch 110. Mid grey sandy silt with well-defined boundary with 'darker' deposits above but more diffuse boundary with 117, below.	>1.2m (L), 2.47m (W), 1.15m (D)
Fill of ditch 110. Mottled orangey/dark-brown sandy silt with quite well defined boundaries with adjacent deposits.	>1.2m (L), 2.46m (W), 1.13m (D)
Fill of ditch 110. Very dark grey-brown sandy silt with well-defined boundaries with adjacent contexts. Occasional small <30mm sized flints present.	>1.2m (L), 3.18m (W), 1.3m (D)
Fill of ditch 110. Large well-defined deposit comprising slightly mottled mid grey/brown sandy silt.	>1.2m (L), 2.92m (W), 1.11m (D)
Fill of ditch 110. Mid-brown silty sand with reasonably well defined boundaries with adjacent deposits.	>1.2(L), 0.46m (W), 0.3m (D)
Fill of ditch 110. Dark grey-brown sandy silt. Clear boundary with 122, below. More diffuse boundary with 119, above. Occasional small sub-angular flints present.	>1.2m (L), 1.19m (W), 0.25m (D)
Fill of ditch 110. Comprises mid-grey silty sand with well-defined boundaries with adjacent deposits.	>1.2m (L), c. 0.55m (W), 0.11m (D)
Fill of ditch 110. Mid grey-brown silty sand, very similar but slightly different hue to 124, below. Very diffuse boundary between 123 and 124. This deposit may be a product of mineral leaching rather than a stratigraphic event.	>1.2m (L), 0.99m (W), 0.17m (D)
Basal fill of ditch 110. Mid grey brown silty sand with occasional small (20-40mm) sized sub rounded flints concentrated towards centre of deposit. Deposit not observed closely <i>in situ</i> due to volume of water ingress.	>1.2m (L), 0.81m (W), 0.26m (D)
Buried soil layer beneath mound deposits. Very dark brown sandy silt. Quite diffuse boundaries with adjacent deposits above and below.	>1.2m (L), 3.96m (W), 0.28m (D)
Buried soil layer beneath mound deposits. Dark grey brown sandy silt. Only subtly different from 127 and 125 above and below respectively.	>1.2m (L), 2.74m (W), 0.26m (D)
Buried soil layer beneath mound deposits. Very dark brown sandy silt. Clear horizon boundary with 128, above. Merges with and is indistinguishable from 125 at its eastern extent.	>1.2m (L), 3.98m (W), 0.22m (D)
Bank deposit derived from eluviated 'E'-horizon. Very mottled mid grey-dark brown silty sand. Deposit heavily disturbed by historic badger burrowing. Clear boundary with 127, below. More diffuse boundary with deposits above.	>1.2m (L), 3.47m (W), 0.43m (D)
Topsoil over bank. Equivalent to 102 and 109 elsewhere. Comprises mottled mid grey-brown sandy silt. Quite diffuse	1.2m (L), 8.6m (W), 0.76m
	for the formation of a soil within the partially backfilled ditch. Fill of ditch 110. Slightly mottled mid grey sandy silt with well-defined boundaries with adjacent 'darker' deposits. More diffuse boundary with 116 and 117. Deposit believed to have derived from deliberate partial demolition of the bank towards the end of the monuments life. Fill of ditch 110. Mid grey sandy silt with well-defined boundary with 'darker' deposits above but more diffuse boundary with 117, below. Fill of ditch 110. Mottled orangey/dark-brown sandy silt with quite well defined boundaries with adjacent deposits. Fill of ditch 110. Very dark grey-brown sandy silt with well-defined boundaries with adjacent contexts. Occasional small ≤30mm sized flints present. Fill of ditch 110. Large well-defined deposit comprising slightly mottled mid grey/brown sandy silt. Fill of ditch 110. Mid-brown silty sand with reasonably well defined boundaries with adjacent deposits. Fill of ditch 110. Dark grey-brown sandy silt. Clear boundary with 122, below. More diffuse boundary with 119, above. Occasional small sub-angular flints present. Fill of ditch 110. Comprises mid-grey silty sand with well-defined boundaries with adjacent deposits. Fill of ditch 110. Mid grey-brown silty sand, very similar but slightly different hue to 124, below. Very diffuse boundary between 123 and 124. This deposit may be a product of mineral leaching rather than a stratigraphic event. Basal fill of ditch 110. Mid grey brown silty sand with occasional small (20-40mm) sized sub rounded flints concentrated towards centre of deposit. Deposit not observed closely <i>in situ</i> due to volume of water ingress. Buried soil layer beneath mound deposits. Very dark brown sandy silt. Only subtly different from 127 and 125 above and below respectively. Buried soil layer beneath mound deposits. Very dark brown sandy silt. Clear horizon boundary with 128, above. Merges with and is indistinguishable from 125 at its eastern extent. Bank deposit derived from eluviated 'E'-horizon. V

	boundary with deposits it is sealing.	(D)
130	Bank deposit. Very dark-brown and compact sandy silt, similar to geological layers found at a lower depth where humic and metal oxides have collected.	>1.2m (L), 1.63m (W), 0.37m (D)
131	Bank deposit. Comprised a dark brown sandy silt mixed with and an orangey brown mottled soil component. Quite diffuse boundaries with adjacent deposits.	1.2m (L), 1.64m (W), 0.27m (D)
132	Bank deposit. Light grey-brown sandy silt. Derived from redeposition of natural eluviated soil during initial construction of ditch. Clear boundaries with adjacent deposits.	>1.2m (L), 4.58m (W), 0.41m (D)
133	Post-monument soil deposit. Dark grey-brown sandy silt. Clear horizon boundary with 132, below. More diffuse boundary with 129, above.	>2.5m (L), >1.2m (W), 0.22m (D)
134	Buried soil deposit. Very dark grey-brown sandy silt. Clear horizon boundary with deposits above, diffuse boundary with 135, below. Merges with and is indistinguishable from 136 at its eastern extent.	2.51m (L), >1.2m (W), 0.18m (D)
135	Buried soil deposit. Mottled light – dark grey brown sandy silt. Very diffuse boundaries with adjacent deposits.	1.3m (L), >1.2m (W), 0.11m (D)
136	Buried soil deposit. Very dark grey-brown sandy silt. Merges with and is indistinguishable from 134 at its eastern extent. Diffuse boundaries with adjacent deposits.	>2.38m (L), >1.2m (W), 0.31m (D)
137	Underlying eluviated geological layer. Mid grey silty sand with occasional small gravels.	>1.2m (L), >8.5m (W), >0.88m (D)
138	Buried soil deposit. Dark grey-brown sandy silt. Quite diffuse boundary with deposits above.	>1.2m (L), >1.3m (W), 0.21m (D)
139	Bank deposit exposed in westernmost area of damage. Mottled light grey brown/dark grey brown. Occasional fine-small scale flint gravels present. Probably equivalent to deposit 128 in main section.	>2.47m (L), >1.81m (W), 0.38m (D)

APPENDIX 2 - RESULTS OF RADIOCARBON ANALYSIS

BetaCal 3.21

Calibration of Radiocarbon Age to Calendar Years

(High Probability Density Range Method (HPD): INTCAL13)

(Variables: d13C = -24.8 o/oo)

Laboratory number Beta-523378

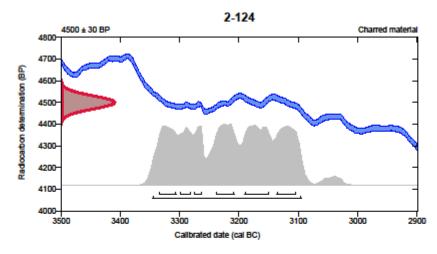
Conventional radiocarbon age 4500 ± 30 BP

95.4% probability

(95.4%) 3347 - 3097 cal BC (5296 - 5046 cal BP)

68.2% probability

(17.3%)	3192 - 3152 cal BO	C (5141 - 5	101 cal	BP)
(13.5%)	3138 - 3106 cal BO	C (5087 - 5	055 cal	BP)
(13.2%)	3240 - 3210 cal B0	C (5189 - 5	159 cal	BP)
(11.6%)	3336 - 3308 cal B(C (5285 - 5	257 cal	BP)
(7.3%)	3301 - 3283 cal BO	C (5250 - 5	232 cal	BP)
(5.3%)	3277 - 3265 cal B0	C (5226 - 5	214 cal	BP)



Database used INTCAL13

References

References to Probability Method Bronk Ramsey, C. (2009). Bayesian analysis of radiocarbon dates. Radiocarbon, 51(1), 337-360.

References to Database INTCAL13

Reimer, et.al., 2013, Radiocarbon55(4).

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