Flowers Barrow
Lulworth
Dorset

Post-excavation Assessment and Updated Project Design

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Summary

Wessex Archaeology was commissioned by Defence Infrastructure Organisation (DIO) to undertake the excavation of three trenches, centred on NGR 386455 80595, at the Iron Age hillfort known as Flowers Barrow, Lulworth, Dorset, a Scheduled Monument lying within the South Dorset Coast Site of Special Scientific Interest (SSSI). The works were designed to preserve by record some of the remains of the monument to mitigate unavoidable loss due to coastal erosion, with approximately a third of the hillfort already lost and erosion ongoing. The work was also designed to gain an insight into what might already have been lost through the investigation of interior features of the monument.

Trench 1 was targeted on an active 'tear' in the earthwork defences caused by cliff slippage. The excavation here revealed the presence of two large postholes that could relate to entrance/gatehouse structures or the revetment of the internal bank, as well as a series of deposits deriving from erosion of the bank. These might have been associated with multiple phases of occupation. A possible buried soil was identified within the sequence of deposits and sampled for further environmental analysis. Although the trench was comparatively narrow, it has shown that there is significant archaeological potential in this area of the monument for the survival of features and deposits relating to the inner defences.

Trench 2 investigated two possible roundhouse platforms. These platforms comprised shallow sub-circular depressions surrounded by low gravel banks, but lacked associated cut features such as postholes, hearths and clear floor surfaces. They were largely devoid of finds but have been sampled for further environmental analysis.

Trench 3 aimed to characterise and record the preservation of a very small area of the interior of the hillfort on part of the cliff face already subject to slippage and likely to be lost to cliff erosion in the near future. No evidence of stratified archaeological deposits or features was present, but it is uncertain if these were sparse within the interior or (less likely) lay at a greater depth sealed by more recently eroded deposits.

This document includes an assessment of the archaeological deposits, finds and environmental remains recorded during the excavation. It also provides an updated project design for any further post-excavation analysis required, as well recommending publication of a summary of the results in the county archaeological journal.

Acknowledgements

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Flowers Barrow, Lulworth, Dorset

Post-excavation Assessment and Updated Project Design

1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology was commissioned by Defence Infrastructure Organisation (DIO) to undertake archaeological works, centred on NGR 386455 080595, at the Iron Age hillfort known as Flowers Barrow, Lulworth, Dorset, a Scheduled Monument lying within the South Dorset Coast Site of Special Scientific Interest (SSSI) and adjacent to the Dorset and East Devon Coast World Heritage Site (NHLE 1000101) (**Fig. 1**).

1.1.2 The investigation comprised the hand excavation of three trenches targeting the most at-risk areas of Flowers Barrow, a multivallate hillfort and associated outwork on Rings Hill (NHLE 1008141), which is currently on the Heritage at Risk (2022) Register (Historic England 2023). The works were designed to preserve by record parts of the monument to mitigate unavoidable loss due to coastal erosion, with approximately a third of the hillfort already lost and erosion ongoing. The work was also designed to gain an insight into what might already have been lost through the investigation of interior features of the monument.

1.1.3 The investigation followed earlier archaeological works, comprising limited excavation (Calkin 1948), as well as a magnetometer survey undertaken by Bournemouth University (Stewart 2014). The investigations are designed to contribute towards the removal of the monument from the Heritage at Risk Register.

1.1.4 The work in 2022 followed on from the previous year, when de-turfing of two of the three trenches took place. These excavations were not completed due to site constraints and health and safety concerns, however the work helped shape how the 2022 phase of work would be undertaken.

1.1.5 The excavations were carried out in conjunction with the DIO as part of Operation Nightingale, with logistical and other support from Breaking Ground Heritage (BGH). In addition to serving and military veterans, volunteers and students from Bournemouth University Department of Archaeology and Anthropology were also involved.

1.1.6 Due to the works location within a Scheduled Monument, Scheduled Monument Clearance (SMC) was obtained prior to the start of works (SMC Reference S00241662). A Written Scheme of Investigation (WSI) (Wessex Archaeology 2022) was submitted in support of the application for SMC, and all works undertaken followed the procedures set out in these documents. A derogation from Natural England for work within the SSSI was also obtained prior to commencement of works.

1.2 Scope of the report

1.2.1 This report provides the provisional results of the excavation and assesses the potential to address the research aims outlined in the WSI. Where appropriate, it includes recommendations for further analysis, outlining the resources needed to achieve the aims (including the revised research aims arising from this assessment), leading to dissemination of the archaeological results via publication and the curation of the archive.

1.3 Location, topography and geology

1.3.1 The excavation trenches were located within the most at-risk areas of the small multivallate hillfort and associated outwork on Rings Hill known as Flowers Barrow, at the extreme western end of the Purbeck Hills, within the Lulworth Army Ranges, and overlooking Worbarrow Bay. The site lies within the South Dorset Coast SSSI, adjacent to the Dorset and East Devon Coast World Heritage Site (NHLE 1000101), between Tyneham (2 km to the east) and West Lulworth (3 km to the west). The Dorset Coast Path extends through the monument, with the cliff edge providing the southern boundary. Halcombe Vale, an area of grassland, lies to the immediate west.

1.3.2 Located on the southern side of Rings Hill, ground levels across the site are recorded between 150 m and 170 m above Ordnance Datum (aOD), with the ground sloping down sharply to the west, north and south-east and more gently to the east.

1.3.3 The underlying geology is mapped as undifferentiated chalk of the Seaford, Newhaven and Culver Chalk Formations, a sedimentary bedrock formed 72 – 90 million years ago in the Cretaceous Period. For the most part, no superficial deposits are recorded across the site, though a narrow band of clay, silt, sand and gravel of the Clay-with-Flints Formation is recorded in the east. Further south, narrow bands of chalk of the Lewes and Holywell Nodular Chalk Formations and Zag Chalk Formations are present, before bands of sandstone of the Upper Greensand Formation and mudstone of the Gault Formation are encountered (British Geological Survey 2023).

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Introduction

2.1.1 The information presented below is taken from the WSI (Wessex Archaeology 2022).

2.1.2 The Dorset Historic Environment Record (DHER) and the National Heritage List for England (NHLE) online have been consulted to provide details of the archaeological and historical background relevant to the site. A 500 m radius was selected for the purposes of the search, though some details are included for records up to 1 km from the site. Additional references are included, as appropriate.

2.2 Archaeological and historical background

Prehistoric

2.2.1 Early landscape use in the vicinity of the site is largely characterised by bowl barrows and round barrows, indicators of Bronze Age activity (DHER – MDO7643-4, 7648, MWX582; NHLE 1008028-9, 1008455). These monuments, with their longevity and variation in form, comprising earthen or rubble mounds and occasionally ditched, often covered multiple or single burials. They sometimes became focal points for burials in later periods, highlighting the cultural significance of the landscapes in which they were constructed.

2.2.2 An extensive field system stretching from Rings Hill to Povington Hill also attests to early use of the wider landscape from the Late Neolithic to the Late Bronze Age (DHER - MDO7657).

2.2.3 Later prehistoric activity is also well attested, including the multivallate hillfort of Flowers Barrow itself (DHER – MDO7654; NHLE 1008141). The southern third of this hillfort has been lost to ongoing coastal erosion, but what survives has an internal area of 2.64 ha surrounded on the landward side by two banks and associated ditches, each with a counterscarp beyond. Elliptical platforms thought to represent house platforms can be seen

within the interior, particularly within the north-east quadrant, and the original entrance lies in the south-east corner of the monument. On the northern side of the hillfort, the ramparts are all adjacent and run parallel, however to the west and east the two ramparts separate to create annexes, with the eastern annexe also containing a linear earthwork which follows the alignment of the rampart. It is thought that these areas may have been utilised for stock control. Limited investigations in the early 19th century recorded a human skeleton beneath the inner rampart. A pit located within the entrance was investigated in 1939 and was found to contain bone refuse, sling stones and sherds of Iron Age pottery (Calkin 1948).

2.2.4 To the east of the hillfort, and also included in the scheduling, is an outwork comprising an earthen bank and ditch which is believed to be associated with the hillfort's defences (DHER – MDO7655; NHLE 10081410). However, it is also possible that this represents an earlier Bronze Age cross-dyke which was later re-used to strengthen the defence of the more vulnerable eastern side of the hillfort.

2.2.5 Broadly dated late prehistoric activity is also indicated by the presence of a possible ring ditch evident as a cropmark on aerial photographs of Halcombe Vale (DHER – MDO29424). Its proximity to Flowers Barrow hillfort may indicate that the ring ditch represents the remains of an associated hut circle, though more likely it comprises the remains of an additional barrow. An undated enclosure with associated trackways (DHER – MDO29423), also shown on aerial photographs of Halcombe Vale, may be associated with the hillfort given their proximity. However, the earthworks may also pertain to military activity within the area (DHER – MDO29420).

2.2.6 More conclusive evidence for Late Iron Age occupation of the area is located further afield at Tyneham Gwyle to the east of the site (DHER – MDO8093-4). Inhumations, briquetage and pottery dating to the 1st through to 4th century indicate the presence of a shale working site, occupied into the Late Romano-British period. No further evidence of Romano-British activity within the immediate environs of the site is recorded within the DHER.

Letters of John Pennie (1827)

2.2.7 Pennie's letters recount his visit to Lulworth and illustrates the archaeological landscape surrounding the area. He describes the arrangement of the hillfort: '*The ascent on the north and west is very steep, and on the south the camp is defended by the ocean and inaccessible cliffs; while its entrance is judiciously placed in the south-west angle near a very steep acclivity where an army could not possible be drawn up to an assault*' (Pennie 1827, 85–86).

2.2.8 Pennie describes the finding of a skeleton by a shepherd boy within the inner rampart of the hillfort, placed with its head to the west, although the skull was seemingly out of alignment as if decapitated (*ibid,* 85). Numerous barrows to the west of the hillfort were excavated and Pennie describes the finding of vaulted tombs containing human remains both urned and un-urned (*ibid*, 75–79).

Medieval

2.2.9 Medieval remains within the environs of the site are consistent with agricultural activity, with areas of ridge and furrow to the south of Boat Knoll (DHER – MDO31707) and around Battington where strip lynchets are also visible (DHER – MDO29436). Field boundaries to the north of Monastery Farm are also recorded as medieval (DHER – MDO31706).

2.2.10 A medieval beacon is also believed to have been positioned within the vicinity. Borough records dating to 1462 suggest that the Borough of Poole maintained the beacon which is

thought to have either existed at Rings Hill or Whiteway Hill to the north-east (DHER – MWX593).

Post-medieval

2.2.11 Post-medieval land use within the immediate environs of the site is indicative of chalk extraction, with quarry pits shown on historic mapping and aerial photographs (DHER – MWX3993, MDO29426-7, MDO29431).

2.2.12 A series of trackways visible as earthworks in LiDAR imagery traverse the northern edge of Rings Hill. Despite their proximity to the hillfort, these features appear to respect the modern field pattern of the area, suggesting an historic date (DHER – MDO29425). Though it remains unclear whether these originated within the medieval period, it is believed likely they continued in use into the post-medieval period.

2.2.13 To the north of the site, an 18th century monastery with associated cemetery was located on the site of Monastery Farm (DHER – MDO32441). The farmhouse (DHER – MWX596) is recorded as originating in the latter half of the 18th century to house refugee Trappist monks before being modified in 1817 for use as a farmhouse.

Modern

2.2.14 Modern use of the site's environs is dominated by military activity. Activity pertaining to the Second World War is evident through remains including, but not limited to, a Type 25 pillbox to the south-east of the hillfort (DHER – MWX1441) and two observation posts (DHER – MDO29435, MWX1437), with military use of the surrounding landscape continuing to the present day. The site lies within the Lulworth Army Ranges and is used for artillery practice, as it has been for over 70 years.

Earthwork and magnetometer surveys

2.2.15 An earthwork survey of Flowers Barrow was undertaken by the Royal Commission on Ancient and Historical Monuments England (RCAHME) more than half a century ago, this work providing details of the defences and indicating the presence of hut platforms within the interior (RCAHME 1970).

2.2.16 A magnetometer survey has been undertaken by Bournemouth University of the hillfort's interior, the results somewhat inconclusive, though several areas of potential interest were noted (Stewart 2014; Stewart and Russell 2017, 77–81).

3 AIMS AND OBJECTIVES

3.1 Aims

3.1.1 The general aims of the excavation, as stated in the WSI (Wessex Archaeology 2022) and in compliance with the Chartered Institute for Archaeologists' *Standard and guidance for archaeological excavation* (CIfA 2014a), were to:

- examine the archaeological resource within a given area or site within a framework of defined research objectives;
- seek a better understanding of the resource;
- compile a lasting record of the resource; and
- analyse and interpret the results of the excavation and disseminate them.

3.2 Research objectives

3.2.1 Following consideration of the archaeological potential of the site, the research objectives of the excavation defined in the WSI (Wessex Archaeology 2022), and with due reference to the relevant research framework (South West Archaeological Research Framework; Grove and Croft 2012), were to:

- characterise the interior of the hillfort in the areas most likely to be subject to loss in the near future (Trenches 1 and 3);
- provide insights into the development, preservation, and character of the monument; and
- support this understanding by excavation of a sample of the hut platforms preserved in the north-east corner of the monument (Trench 2).

3.2.2 This was to be achieved through the excavation of three trenches (**Fig. 1**):

Trench 1 (= 2021 trench B)

3.2.3 This allowed for the excavation and recording of a section of the interior and eastern inner rampart of the hillfort, currently partially exposed by an active 'tear' in the earthworks caused by cliff slippage. This will provide insights into the construction, chronology, sequence, character, and significance of this major element of the monument.

Trench 2 (= 2021 trench C)

3.2.4 To investigate two of the hut platforms surveyed by the RCAHME (1970) which broadly correspond with geophysical anomalies reported by Stewart (2014, 5, anomalies A and B). This will allow characterisation of the known area of settlement structures within the hillfort, providing significant insights into their preservation, chronology, sequence, character and significance.

Trench 3 (trench A)

3.2.5 To characterise the interior of the hillfort in the area most likely to be subject to loss in the near future – i.e. the area of slippage in the south-centre of the hillfort. This will expose a sample of the interior, providing insights into the extent, preservation and character of the monument by determining if any features are present in this area. If they are, this trench will also improve our understanding of their chronology, sequence, character and significance. The nature of the historic slippage here may mean that there is more overburden to remove than in other areas.

3.3 General

3.3.1 The project also provided a further important opportunity for Operation Nightingale, with the support of Breaking Ground Heritage and volunteers from Bournemouth University, to involve injured service personnel in a professional archaeological project.

3.3.2 More generally the work will, along with any future intrusive/non-intrusive investigations, attempt to mitigate unavoidable loss of the monument due to ongoing coastal erosion. The work is also hoped to contribute towards removing Flowers Barrow from the Heritage at Risk Register.

4 METHODS

4.1 Introduction

4.1.1 All works were undertaken in accordance with the detailed methods set out within the WSI (Wessex Archaeology 2022), all conditions set out within SMC (2022) – which was received prior to commencement of works, and in general compliance with the standards outlined in CIfA guidance (CIfA 2014a). Any significant variations to these methods were agreed in advance with the Historic England Inspector of Ancient Monuments and the DIO Archaeologist prior to being implemented. The post-excavation assessment and reporting follows advice issued by the Association of Local Government Archaeological Officers (ALGAO 2015). The methods employed are summarised below.

4.2 Fieldwork methods

4.2.1 The excavation comprised the hand excavation, investigation and recording of three trenches as described below. All trenches are shown on Figure 1. The trench locations were set out using a Global Navigation Satellite System (GNSS), in the positions proposed in the WSI.

4.2.2 Trench 1 was de-turfed by hand in the same location as trench B during the 2021 excavation. A slot was then excavated along the southern edge of the trench, adjacent to a 'tear' on the southern cliff edge where the monument is being damaged by coastal erosion.

4.2.3 Trench 2 was excavated on a north–south alignment and targeted two possible hut platforms, visible on the ground and recorded in a previous earthwork survey of the site. The location of this trench was rotated slightly counter-clockwise to the position of trench C de-turfed in the 2021 excavation.

4.2.4 Trench 3 was located within a relatively level area of historic slippage immediately north of the cliff edge fence and south of a slippage 'tear'. The completed trench was smaller than proposed, measuring 5 m long and 1 m wide, as its proximity to the cliff edge fence made it impossible to scan for possible unexploded ordnance.

4.2.5 Spoil from hand-excavated archaeological deposits was visually scanned for the purposes of finds retrieval. Artefacts were collected and bagged by context. All artefacts from excavated contexts were retained, although those from features of modern date (19th century or later) were recorded on site and not retained.

4.2.6 Trenches completed to the satisfaction of the Inspector of Ancient Monuments – South West and the DIO were backfilled by hand using excavated materials in the order in which they were excavated, and left level on completion. No other reinstatement or surface treatment was undertaken.

Recording

4.2.7 All exposed archaeological deposits and features were recorded using Wessex Archaeology's pro forma recording system. A complete record of excavated features and deposits was made, including plans and sections drawn to appropriate scales (generally 1:20 or 1:50 for plans and 1:10 for sections) and tied to the Ordnance Survey (OS) National Grid.

4.2.8 A Leica GNSS connected to Leica's SmartNet service surveyed the location of archaeological features. All survey data is recorded in OS National Grid coordinates and

heights above OD (Newlyn), as defined by OSTN15 and OSGM15, with a three-dimensional accuracy of at least 50 mm.

4.2.9 A full photographic record was made using digital cameras equipped with an image sensor of not less than 16 megapixels. Digital images have been subject to managed quality control and curation processes, which has embedded appropriate metadata within the image and will ensure long term accessibility of the image set.

4.3 Finds and environmental strategies

General

4.3.1 Strategies for the recovery, processing and assessment of finds and environmental samples were in line with those detailed in the WSI (Wessex Archaeology 2022). The treatment of artefacts and environmental remains was in general accordance with: *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (CIfA 2014b), *Environmental Archaeology. A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* (English Heritage 2011) and CIfA's *Toolkit for Specialist Reporting* (Type 2: Appraisal).

4.4 Monitoring

4.4.1 The Assistant Inspector of Ancient Monuments monitored the excavation on behalf of Historic England. Any variations to the WSI, if required to better address the project aims, were agreed in advance with the client and the Assistant Inspector of Ancient Monuments.

5 STRATIGRAPHIC EVIDENCE

5.1 Introduction

5.1.1 The main archaeological features and deposits were concentrated in Trench 1, while the possible house platforms in Trench 2 were partly exposed. With the exception of a small fragment of pottery, no surviving archaeological remains were recorded in Trench 3.

5.1.2 The following section presents the results of the excavation with archaeological features and deposits discussed by trench.

5.1.3 Descriptions of individual contexts are provided in the trench summary tables (**Appendix 1**). Figure 1 shows the overall trench layout. Figure 2 shows the Trench 1 sections while Figure 3 provides detail of the possible house platform deposits within Trench 2. The grid layout used to sample house platform deposit (206) is also shown on Figure 3 and the section of Trench 3 is shown on Figure 4.

5.2 Trench 1

5.2.1 The de-turfing of this trench followed the original position of trench B, which was de-turfed with no further excavation during 2021. Once the turf was removed the area was cleaned to reveal layers 102 and 104 immediately below the topsoil. A 1 m wide slot was then excavated along the southern edge of the trench, adjacent to a 'tear' that runs along the southern limit of the monument (**Figs 5** and **6**).

5.2.2 Over half of the slot contained a sequence of three similar deposits overlaying a formation of natural yellowish-brown clay with flints (109) (**Figs 2** and **5**). Above the clay with flints, a very stony horizon (113) of mid brownish grey sandy clay silt with abundant flints was recorded to a thickness of around 0.30 m. The formation process of this deposit is likely to be somewhat similar to the weathered gravels encountered in Trench 2 (207) and was

possibly formed through a combination of colluvial soil movement, weathering of the natural horizon and historic ploughing.

5.2.3 Above layer 113 was a consistent and finer grained deposit of subsoil (102), which was formed of a mid-brown sandy silt loam and contained some clay pipe and rare pottery sherds. Above this was topsoil 101 around 0.20 m thick, comprising a very dark brown sandy silt loam. A small collection of modern finds relating to the military history of the area were recorded and discarded on site, including several lumps of scrap iron and two .303 rounds dated to 1928 and 1942 respectively. Pottery was also recovered from the boundary of layers 102 and 113, which was recorded as context 103 to delineate the spatial relationship of the pottery and the base of the eroded rampart (104).

5.2.4 Layers making up the eroded rampart were recorded to the east of the level ground (**Figs 2, 6** and **7**) formed by 102 and 113. The bulk of this material (104) was a mix of chalk and flint within a mid-brown sandy silt loam matrix of soil and was 0.60 m thick. This deposit appears to have been formed through erosion or collapse of the internal bank of the hillfort.

5.2.5 Below eroded rampart material 104 was a mid-brown sandy silt loam layer 105, considered to be a potential buried soil (**Fig. 2**). Bulk and kubiena samples were taken from this deposit (**Fig. 8**) but contained abundant evidence of disturbance. It seems likely that this layer was preserved as a result of being buried by the collapse or erosion of 104.

5.2.6 Stratigraphically below 105 was a layer of large flint cobbles (106) within a mid-brown sandy silt loam. This overlay a fairly humic but very gravelly deposit (107) that continued to the base of the trench at its eastern end. With the exception of the humic content of 107, it was quite similar to layer 113 and was found at a similar depth, with the boundary between the two being indistinct. The humic content may be the result of water collecting and pooling in a slightly deeper section behind the bank.

5.2.7 Although deposit 107 could be natural in origin, the small assemblage of pottery recovered from this layer could suggest a natural or treethrow hollow existed just beyond the rear of the internal bank of the hillfort, with material collecting within it during the occupation and use of the monument.

5.2.8 The west facing section of the trench revealed the presence of at least one posthole (112) (**Figs 2** and **9**), with a second possible posthole (114) recorded in the base of the excavation in the south facing section (**Fig. 10**). Posthole 112 appeared to cut through the layer of collapsed or eroded bank material 104. The lower of the two fills in 112 was notable for its very loosely compacted soil of mid greyish brown clayey silt. Above this a more gravely deposit of similarly loose material 110 was recorded. It was also notable that the topsoil was much thicker around this posthole, with 0.30 m infilling the area immediately above fill 110 – a total of 0.10 m more than the average recorded across the trench. The northern edge of posthole 112 physically cut the natural, along with a gravel deposit recorded as layer 108, which was of similar material to 113.

5.2.9 The second posthole 114 was much less clear, with further excavation impossible due to its location at the edge of the trench. The interpretation is not certain, with further excavation needed to clarify its stratigraphic relationship with layer 107 as well as to define the exact nature of the feature. Despite this, it appeared approximately subcircular in plan and was stratigraphically earlier than both the eroded/collapsed bank material 104 and posthole 112. The fill of 115 was similar to those within posthole 112, a light brownish grey, slightly gravely clayey silt of very loose compaction. There was a slight indication that posthole 114 was cut through layer 107, but the boundary here was particularly unclear.

5.2.10 Alternative interpretations of 114 could be suggested, with animal burrowing a possibility given the very loose nature of the soil matrix and the looser patches of material above and within overlaying deposits 107 and 104. This could also suggest that the presence of the pottery in layer 107 is intrusive, although this is a difficult conclusion to back up with the limited evidence available.

5.2.11 Natural deposits (109) were seen across the length of the trench, with the exception of the area adjacent to the base along the eastern extent, which included the surface of the possible posthole 114. Here the deposits became too thick to safely excavate further. No other cut features were seen within the natural, although irregular, north to south aligned linear striations were present in the western half of the trench. These could potentially be related to plough marks/scars or are simply differences in the natural geology.

5.3 Trench 2

5.3.1 Trench 2 revealed two similar areas of interest at the northern and southern ends of the trench that both relate to the features identified as potential house platforms. These were investigated using different methods, with a slot excavated through deposit (204) at the southern end of the trench and a grid sampling pattern used at the northern end (206) (**Fig. 3**). No features were identified between the two, but a small test pit was excavated (**Fig. 11**) to investigate the underlying deposits and a flint scraper (**ON 1**) was found on the surface of the gravel (207) following the hand de-turfing of the trench (**Fig. 12**).

5.3.2 The slot through feature/deposit (204) identified at the southern end of the trench revealed possible upcast/dump deposits of yellowish sandy gravel that define the sub-circular depressions recorded in the previous earthwork survey. This and other depressions are also visible to the eye, with some (including the area recorded as 204) much more prominent than others. The loose nature of the gravel deposits combined with bioturbation from surface vegetation made the boundaries between these gravel layers quite diffuse, while the presence of worked flint within layer 202 demonstrates that they were not undisturbed natural deposits.

5.3.3 In the south a layer of compacted yellowish sandy clay (204) around 3 m in diameter lay within the shallow hollow defined by the sub-circular gravel deposits (202 and 203) (**Fig. 13**). Layer 204 was around 0.10 m thick and contained flecks of chalky material, sparse flint gravel and a single sherd of pottery. A kubiena sample was taken from this layer and the underlying gravel (207) (**Fig. 14**) to help clarify whether the deposit represented a floor surface.

5.3.4 A further layer of yellowish loamy gravel (207) was recorded immediately below similar gravel layers 202 and 203 and continued along the trench to the north, where it was found below the topsoil. This material was very similar to both 202 and 203, with the boundaries between them only clearly visible in section (**Fig. 3**). Deposit (207) could potentially have obscured cut features present at greater depth, though this is considered unlikely.

5.3.5 The stratigraphically earliest layer recorded within the slot at the southern end of the trench was a bright yellowish sandy clay loam with abundant flint cobbles (208), found at a depth of around 0.4 – 0.5 m below ground level (**Figs 3** and **13**). The clean, bright colour and stiff nature of this material suggests it was likely to be the undisturbed natural horizon through which any early cut features would be clearly visible.

5.3.6 The grid pattern of excavation (**Fig. 3**) employed on the possible house platform at the northern end of the trench (**Fig. 15**) revealed similar deposits to the those surrounding 204 to the south. However, there was no clear boundary differentiating the surrounding banks

of gravel from layer 207, probably as the nature of this material means it could only be clearly seen in deeper sections and not in the bioturbated deposits exposed in plan. The gravel layer 205 was recorded as a separate layer that continued beyond the limits of the trench to the north of 206 and might represent a similar bank of gravel to 202 and 203 at the southern end.

5.3.7 Layer 206 was a yellowish-brown sandy clay that sat within the hollow at the northern end of the trench (**Fig. 16**) and appeared very similar to layer 204 to the south. A single, small sherd of pottery was recovered from this layer during the bulk and geochemical sampling process. A total of eight 1 m grid squares were sampled with 1.10 litres of material removed from each. Layer 206 was slightly larger than 204 and measured around 4 m in diameter.

5.4 Trench 3

5.4.1 A dark brown sandy clay topsoil (301) was consistent across the 5 m long trench to a depth of 0.22 m (**Fig. 17**). After the surface of this layer had been cleaned a 1 m wide test pit was excavated at both the east (**Fig. 18**) and west (**Fig. 19**) ends to assess the underlying deposits. This demonstrated that a mix of different gravels existed within the material that makes up the cliff slippage at this location.

5.4.2 In the eastern test pit (**Fig. 4**) a 0.70 m thick deposit of dark brown sandy clay with common chalk and flint inclusions (302) was recorded immediately below the topsoil. At the base of the trench the surface of a layer (304) was revealed, which was recorded as a mid-reddish brown sandy clay with abundant flint and chalk inclusions; this was seen in the eastern test pit only.

5.4.3 The western test pit (**Fig. 4**) also contained layer 302, but it was only 0.20 m thick at this location. A slightly different deposit (303) of light reddish brown sandy clay with sparse flint inclusions was recorded below layer (302) and made up the bulk of the excavated material at this end of the trench. Finally, below 303 a layer (305) of light reddish brown sandy clay with sparse chalk and flint inclusions was recorded.

6 FINDS EVIDENCE

6.1 Introduction

6.1.1 A small quantity (approximately 1.2 kg) of finds was recovered, ranging in date from prehistoric to post-medieval with a focus on the Late Iron Age to Romano-British period. The finds have been cleaned and quantified by material type within each context and scanned to assess their nature, condition and potential date range. Totals by material type are given in **Table 1**.

Table 1 Quantification of finds by material type, number and weight

Material	**No.**	**Wt. (g)**
Clay pipe	4	8
Fired clay	1	4
Worked flint	2	38
Pottery	114	1005
Shale	12	135
Total	**133**	**1190**

6.2 Pottery

6.2.1 The pottery (**Table 2**) was recovered from seven layers, with the majority (108 sherds, 960 g) found in Trench 1. Material of Latest Iron Age to Romano-British date dominates the assemblage, with smaller quantities dating to the Late Iron Age, late prehistoric and medieval periods. Sherds from each context have been quantified (number and weight of pieces) by broad ware group (e.g., flint-tempered ware; South-east Dorset Black Burnished ware); detailed fabric descriptions for the later prehistoric sherds are retained in the archive. Where possible, details of vessel form and other diagnostic features have been noted and a spot date for each context has been assigned. However, precise dating is hindered by the abraded nature of many sherds and the use of coarse, quartz-tempered fabrics within the region over long periods of time, extending from the late prehistoric through to medieval periods. The poor condition is reflected in a mean sherd weight of 8.8 g.

6.2.2 The level of recording is consistent with the 'basic record' advocated for the rapid characterisation of pottery assemblages (Barclay *et al.* 2016, Section 2.4.5). Estimated Vessel Equivalents (EVEs) have not been used due to the absence of any measurable rims. A breakdown of the sherds by chronological period and ware type is presented in **Table 2**.

Table 2 Pottery by chronological period and ware type

Period	Code*	Ware	No.	Wt. (g)
Late prehistoric	-	Mixed-tempered ware	4	6
	-	Gritty sandy ware	3	34
	-	Flint-tempered ware	3	31
Late preh. sub-total			*10*	*71*
Late Iron Age	-	Poole Harbour sandy ware	4	33
Latest Iron Age to Romano-British	DOR BB1	SE Dorset Black Burnished ware	85	792
	-	Gritty sandy ware	9	50
	-	Grog-tempered ware	3	11
	-	Sand and grog-tempered	1	5
LIA–RB sub-total			*98*	*858*
Medieval	-	Wessex coarseware	2	40
Total			114	1002

*National Roman Fabric Reference Collection (Tomber and Dore 1998)

Late prehistoric

6.2.3 A small quantity of sherds could only be broadly dated to the late prehistoric period. Three joining sherds from a thin walled, flared rim in a coarse, mixed-tempered fabric (layer 107) are of possible Iron Age date. A similar date could also be suggested for a flared, slightly cupped rim in a gritty sandy ware (topsoil 101). Three featureless body sherds in a moderately coarse flint-tempered fabric were found in subsoil 102 (two sherds, 25 g) and layer 107 (one sherd, 6 g). Sherds in similarly coarse, flint-tempered fabrics were identified amongst the pottery assemblage from Rope Lake Hole (Davies 1987, 151, fabrics 3 and 8) located 7 km to the south-east where they did not appear to extend beyond Period 1 (Early Iron Age). However, given the absence of any diagnostic or datable features, a broader late prehistoric date has been assigned to these pieces. The remaining fragments comprise a flake in mixed-tempered ware from subsoil 103 and two undiagnostic sherds in gritty sandy wares from topsoil 101.

Late Iron Age

6.2.4 Four sherds in a coarse Poole Harbour sandy ware were found in Trench 2 (layer 204). They include a flattened bead rim from a high, round shouldered jar characteristic of Late Iron Age Durotrigian-style ceramics such as those from Hengistbury Head (Brown 1987, 209, JC4.1/2) and Bestwall Quarry (Lyne 2012, 205, fig. 140, 5–6).

Latest Iron Age to Romano-British

6.2.5 The majority of sherds date to this period (**Table 2**) and collectively span the 1st–4th centuries AD. They comprise unoxidized coarsewares in a range of sandy and grog-tempered fabrics, dominated by Black Burnished wares from the local Wareham/Poole Harbour area. Diagnostic pieces are limited to two bead rim fragments (one each from layer 107 and colluvium 302), a beaded rim from a straight sided dish (Lyne 2012, 213, Class 8; Seager Smith and Davies 1993, 233, Type 20) and a fragment from a late Romano-British everted rim jar (Seager Smith and Davies 1993, 231, Type 3) all from topsoil 101.

6.2.6 The largest quantity came from subsoil 103 (72 sherds, 727 g) and includes body and base fragments from the lower part of a vessel in a South-east Dorset Black Burnished ware. Given the coarseness of the fabric it is likely that this belongs to the earlier part of the period. This deposit also contained a sherd from an everted rim jar (Seager Smith and Davies 1993, Type 3) with coarse wiping on its interior surface. Such surface treatments are indicative of the late Romano-British period (*ibid*., 257). The only other featured sherds comprise two joining body sherds in a grog-tempered fabric (layer 107) with a single tooled line on the exterior surface.

Medieval

6.2.7 Two sherds of medieval Wessex coarsewares were found (**Table 2**). They include a dish with a flattened rim and an abraded body sherd, both from topsoil 101.

6.3 Worked flint

6.3.1 Two pieces of worked flint were found, both from within Trench 2. One of these, recovered from redeposited layer 203 forming a probable roundhouse platform, is an undiagnostic flake. This is difficult to date but almost certainly represents an older, residual find. The other artefact, a side scraper (ON 1), came from subsoil 207 and is a rather battered example with a well-developed bluish patina. There appears to be a retouched notch on the opposing edge, but this might be the result of damage. It is made on a relatively robust flake with a broad butt and characteristics of hard hammer percussion, and as such it is perhaps more typical of later Neolithic or Bronze Age technology. However, scrapers are generally rather poor chronological indicators, particularly when viewed (essentially) in isolation, and this must remain a tentative suggestion.

6.3.2 Although flint was worked during the Iron Age, it tends to be limited to very specific tasks (for example shale working) and as a result is rather distinctive, or it is extremely opportunistic in its methodology. The material found here, and particularly the scraper, is unlikely to post-date the Bronze Age and therefore represents a human presence predating the construction of the hillfort.

6.4 Shale

6.4.1 Twelve fragments of shale were found within Trench 1. Two pieces came from subsoil 102, whilst the remaining 10 fragments came from layer 107. They are all laminar flakes with no obvious signs of working. However, evidence for shale working on Purbeck is common (e.g., Cox 1987, 106; Cox and Woodward 1987, 165) owing to the readily available resources

around Kimmeridge and practices reached their height during the Iron Age and Romano-British periods. Shale may also have been used as a fuel. Such fragments of raw 'unworked' material are typically found amongst other shale assemblages within the region (e.g., Cox 2012).

6.5 Other finds

6.5.1 A single, undatable, featureless fragment of fired clay in a predominantly oxidised, slightly sandy fabric came from subsoil 103 whilst four plain stem fragments of post-medieval clay tobacco pipe were found in topsoil and subsoil (101 and 102). All are from Trench 1.

6.6 Conservation

6.6.1 No immediate conservation requirements were noted in the field. Finds which have been identified as of unstable condition and therefore potentially in need of further conservation treatment, comprise the shale. As a potentially unstable material type, these fragments are currently stored in a cool, wet environment. The condition of these pieces is frequently monitored.

7 ENVIRONMENTAL EVIDENCE

7.1 Introduction

7.1.1 Nine bulk sediment samples were taken from a hillfort rampart and a possible house platform and were processed for the recovery and assessment of the environmental evidence. The charred and uncharred plant remains recovered from the samples have been assessed, and the volume of wood charcoal has been recorded. In addition to the bulk samples, two Kubiena tins for micromorphology and eight small bulk samples (small bags) for geochemical analysis were taken. These have not been assessed here, however their potential for future analysis has been considered. The samples break down into the following feature groups (**Table 3**):

Table 3 Sample provenance summary

Feature	No. of Kubiena samples	No. of geochemical samples	No. of bulk samples	Volume (litres)
Hillfort rampart	1	-	1	7
House platforms	1	8	8	74
Totals	**2**	**8**	**9**	**81**

7.2 Aims

7.2.1 The aim of this assessment is to determine the nature and significance of the environmental remains preserved at the site and their potential to address the project aims (charcoal, charred plant remains, uncharred plant remains, molluscs). In addition, following consideration of the potential of relevant specialist samples (for micromorphological and geochemical soil analyses, etc), appropriate recommendations for further work are provided. This assessment has been undertaken in accordance with Historic England's guidelines outlined in *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-Excavation* (English Heritage 2011).

7.2.2 The sampling strategy was primarily informed by Wessex Archaeology's in-house guidance, which adheres to Historic England's guidance (English Heritage 2011). Further advice was obtained from environmental and geoarchaeological specialists during the excavation. The revised sampling strategy included the collection of two Kubiena samples for micromorphological analysis: one from a possible buried soil within the (eroded) rampart in

Trench 1 (see **Figs 2** and **8**), and one from one of the possible house platforms in Trench 2, across the interface of a possible floor layer and the underlying deposit (see **Figs 3** and **14**). Bulk samples on a grid (approximately 1m squares, with a 10l. sample from each) over the second possible house platform floor in Trench 2 were also taken. Additionally, on the same grid pattern, small bulk samples (100g) were collected, intended for geochemical analysis.

7.3 Methods

Bulk samples

7.3.1 The size of the bulk sediment samples varied between 7 and 10 litres, with an average volume of approximately 9 litres. The samples were processed by standard flotation methods with manual bucket flotation. The flots were retained on a 0.25 mm mesh, and the residues were fractionated into 4 mm and 1 mm fractions. The coarse fractions of the residues (>4 mm) were sorted by eye and the finer fractions (>2mm) were sorted with the aid of a x3 magnifying lens for artefactual and environmental remains and discarded. The environmental material extracted from the residues was added to the flots. The fine residue fractions and the flots were scanned and sorted using a Leica MS5 stereomicroscope at magnifications of up to x40.

7.3.2 The presence of recent material within the flots was noted where present, including modern roots, modern seeds, earthworm eggs, soil fungal sclerotia, and shells of the burrowing blind snail (*Cecilioides acicula*), which was introduced in Britain in the medieval period. The volume of wood charcoal (>2 mm) was estimated. Plant remains were identified through comparison with modern reference material held by Wessex Archaeology and relevant literature (Cappers *et al.* 2006). Nomenclature follows Stace (1997).

7.3.3 Abundance of remains is recorded semi-quantitively on an abundance scale: C = <5 ('Trace'), B = 5–10 ('Rare'), A = 10–30 ('Occasional'), A* = 30–100 ('Common'), A** = 100–500 ('Abundant'), A*** = >500 ('Very abundant'/Exceptional').

Specialist samples

Micromorphology samples

7.3.4 Kubiena samples for micromorphological analysis were taken through possible buried soil layer 105 within the 'tail' of the (eroded) rampart in Trench 1 and from possible house platform floor layer 204 in Trench 2. These samples have not been processed at this stage, but their potential has been assessed.

Small bulk sediment samples

7.3.5 A series of small bulk sediment samples for soil geochemistry analysis were taken from possible house platform floor layer 206 in Trench 2. These samples have not been processed at this stage, but their potential has been assessed.

7.4 Results

Bulk samples

7.4.1 The results are presented in Appendix 2. The flots from the bulk sediment samples were generally of varying volumes. Potential indicators of bioturbation were very abundant, indicating the high possibility of contamination from later intrusive material. Bioturbation proxies present include very abundant modern roots, uncharred seeds, soil fungal sclerotia (e.g., *Cenococcum geophilum*), modern insects and earthworm eggs.

7.4.2 Environmental evidence comprised charred plant remains preserved by charring, and small, poorly preserved, scraps of wood charcoal present in very small or trace quantities. The remains of terrestrial molluscs were noted. No other environmental evidence was preserved in the bulk sediment samples.

Trench 1

7.4.3 The single sample taken from possible buried soil layer 105 within the (eroded) rampart contained a small number of charred tubers/rhizomes/roots, a single charred dock (*Rumex* sp.) seed, small fragments of wood charcoal, and some terrestrial molluscs, alongside abundant indicators of bioturbation.

Trench 2

7.4.4 The series of bulk samples taken from possible house platform floor layer 206 are all homogeneous in composition and indicate no spatial variation across the layer. The samples were predominantly composed of modern root material, likely deriving from grasses, and uncharred modern seeds, alongside small fragments of wood charcoal present in very small (<1 ml) or trace quantities. A single fragment of coal was noted in one of the samples.

7.5 Discussion

Bulk samples

7.5.1 An extremely small and largely insignificant assemblage of charred plant remains, uncharred modern plant remains and wood charcoal has been retrieved from the bulk samples. No evidence for charred plant remains or wood charcoal indicative of any particular period or activity was recovered.

7.5.2 There is no environmental evidence suggestive of domestic processing activities. However, this could be due to poor preservation conditions, given the shallowness of the deposits. It is evident from the very abundant indicators of bioturbation that the archaeological deposits preserved on site have undergone significant disturbance through natural processes, for example the bioturbation of layers through earthworm activity, and modern vegetation growth. Charred plant material is also negatively affected by repeated wetting and drying cycles and can degrade in erosive alkaline environments (e.g., Braadbaart *et al.* 2009).

8 STATEMENT OF POTENTIAL

8.1 Stratigraphic potential

Trench 1

8.1.1 Recording a section of the eastern inner rampart has been achieved through the excavation of Trench 1. This was located a short distance to the north of an active ‘tear’ on the edge of the cliff caused by the slippage of the face. Trench 1 has provided insights into the construction, chronology, sequence and character of this element of the monument, with the presence of postholes of particular interest.

8.1.2 The deposits at the east end of Trench 1 were all consistent with what would be expected from erosion or collapse of the inner rampart, while the postholes provide a glimpse into the use and structure of this part of the monument. The presence of two large postholes in the vicinity of the eastern entrance could be interpreted in a variety of ways. A possible gatehouse arrangement, with a good parallel at, for example, Hembury hillfort in Devon (Liddell 1935, plate 25 and figure 11) is a possibility. Postholes in this area could also relate to inner revetment structures forming part of the hillfort’s bank and ditch defences.

8.1.3 Furthermore, there appears to be two distinct phases of postholes, with the stratigraphic relationship of 112 and 114 seemingly separated by an episode of erosion or collapse, represented by chalky gravel deposit 104. The later posthole, 112, could post-date the use of the hillfort, but if both were contemporary with the monument then multiple phases of construction are indicated. The difficulty of interpreting some of these contexts is to some extent compounded by the limitations of the size of the trench, which a more complete, wider section through the bank (and ditches) might clarify, though this is not currently a practical possibility.

Trench 2

8.1.4 The stratigraphic evidence recorded in Trench 2 proved to be somewhat inconclusive in terms of clarifying the use of the two possible roundhouse platforms in this area and the environmental samples from this layer were all homogenous in composition. The presence of worked flint within gravel deposit 203 below them does support the suggestion that these shallow subcircular features (recorded by earthwork and geophysical surveys across the hillfort) are of deliberate, later construction, the worked flints most likely to be residual. The nature and regular shape and size of the platforms is also an indication of their artificial origin, with surrounding small, low banks of gravel and overall diameters of approximately 5–8 m. However, the paucity of finds and lack of cut features (e.g. postholes) and related deposits is perhaps surprising. Layers 204 and 206 may provide evidence of occupation associated with the house platforms, but the environmental samples recovered from layer 206 did not provide any evidence suggestive of domestic processing activities. It therefore remains a possibility that the deposits are the result of natural silting of the hollows rather than, for example, beaten earth floors.

8.1.5 This lack of structural evidence could suggest a variety of things, including a method of construction that has left little archaeological trace. It can be noted that settlement within hillforts varies from extensive multi-phase sites to places that show no sign of occupation (Historic England 2018), and Flowers Barrow falls somewhere within this range. However, the earthwork survey indicates at least 50 examples of potential house platforms within the interior of the hillfort.

Trench 3

8.1.6 Trench 3 was the smallest of the three trenches but was important as its purpose was to investigate a part of the hillfort interior that has slipped downslope and will be next to be lost to coastal erosion. No features were present below the topsoil and the test pits excavated at each end of the trench demonstrated that this area of slippage appears to have a low potential for archaeological deposits and features to survive. However, the small size of the test pits means this is not conclusive.

8.1.7 The mix of gravels in Trench 3 differed from one end to the other (a distance of 3 m), and comprised a variety of poorly sorted components with no evidence of surviving bedrock geology encountered at an excavated depth of just under 1 m. No buried soil horizons were identified, but it is not clear what period of time has passed since the cliff here collapsed. There remains a possibility that gravel has eroded from the upper cliff face after the slippage and buried any surviving archaeological features or deposits at depth.

Summary

8.1.8 Overall, the stratigraphy within the trenches is well understood, even if some details of their interpretation is uncertain. It is considered that any further analysis of the stratigraphic record would be of limited value.

8.2 Finds potential

8.2.1 Limited chronological evidence indicates activity dating from the prehistoric to post-medieval periods. The preservation of artefacts across the site is poor with only the pottery occurring in any quantity.

8.2.2 The pottery has already provided a chronological framework for the site through the spot dating of contexts. Given the low numbers of diagnostic vessel forms, further analysis will be of very limited or no help in refining this sequence further. The small quantities of worked flint, fired clay and shale have no potential to provide further information beyond that presented above.

8.3 Environmental potential

Bulk samples

8.3.1 No further analysis is required for these samples due to the very low numbers and poor preservation of charred plant remains. The charcoal assemblage is of extremely limited interpretative value.

8.3.2 The results of the assessment should be updated following any further analysis on the micromorphology samples.

8.3.3 A summary of the results should be included in any future publications.

Specialist samples

Micromorphology samples

8.3.4 Due to the abundant evidence of disturbance (e.g., bioturbation indicated by earthworm eggs and modern seeds), any micromorphological work undertaken on the Kubiena sample taken from possible buried soil layer 105 within the (eroded) rampart would be of little significance as any inclusions may be intrusive and bioturbation is likely to have removed any evidence for specific soil horizons.

8.3.5 Abundant evidence of recent disturbance was also recovered in the bulk samples from possible house platform floor layer 206. However, due to the possibility of surviving *in situ* floor surfaces, there may be some potential for micromorphological analysis of possible floor layer 204. The bioturbation of the deposit may lead to poor results, nevertheless there is the possibility that thin section analysis will provide detailed information on formation processes.

Small bulk samples

8.3.6 Following the proposed soil micromorphological analysis from possible house platform floor layer 204, further work on the small bulk specialist samples taken for geochemical analysis (from possible floor layer 206) may be undertaken, after careful consideration of the micromorphological results, and taking into account the very abundant indicators of bioturbation highlighted in the assessment of the associated 10l samples.

8.4 Radiocarbon dating

8.4.1 Unfortunately, none of the limited charred plant remains or very small fragments of wood charcoal recorded in the bulk sediment samples would be suitable for radiocarbon dating.

8.5 Summary of potential

8.5.1 Although relatively small, the investigations at Flowers Barrow in 2022 have provided an insight into the monument's preservation, character and date using modern excavation techniques, and have tested some of the results from previous non-intrusive work, including geophysical survey (Stewart 2014).

8.5.2 A further valuable aspect of the 2022 investigations is to inform any future work through the information gained during its undertaking, with special consideration to the challenges posed by working in an active military training area that is being lost to coastal erosion.

8.5.3 In this respect it should be noted that Trench 3 only covered a very small fraction of the total area at risk, making it impossible to state with confidence that there is little or no chance of there being preserved archaeology at different points along the cliff edge where slippage has occurred. However, further excavation in this area would be very difficult to undertake in a safe and controlled way, the small excavation in 2022 having been located on the most open and flat area of ground available, where safe access and egress was possible. Nevertheless, evidence from other places, such as Great Castle Head in Wales (Crane 1999), suggests some preservation might be possible under such circumstances. Recent work undertaken at Dinas Dinlle, Gwynedd, by the Royal Commission on Ancient and Historical Monuments Wales (RCAHMW), also provides another example of the approaches to the challenges related to coastal erosion of Iron Age hillforts.

8.5.4 Despite the equivocal evidence from Trench 3, the area surrounding Trench 1, particularly the east end, has identified features and deposits of interest though these, given their proximity to the cliff edge, will be at risk in the near future. The deposits and features within Trench 1 demonstrate significant potential for surviving evidence of gateway/entrance structures or revetment construction, the nature of the inner bank and, perhaps, buried soil horizons. However, the chronology and nature of the final Iron Age and any subsequent Romano-British use of the monument is still unclear.

8.5.5 The results of the excavations are certainly of local and possibly regional significance, with Trench 1 across part of the eastern inner rampart providing insights into the nature of the bank material and possible structures associated with the hillfort defences. The evidence relating to the possible roundhouse platforms is harder to assess, but it has provided information on two of those previously recorded, none of which (as far as is known) has been subject to any previous archaeological investigations.

8.5.6 Beyond Flowers Barrow, links might be made with Binden Hill approximately 5 km to the west, but the limited chronological evidence provided by the finds assemblage from Flowers Barrow makes it impossible to further contextualise their relationship.

9 UPDATED PROJECT DESIGN

9.1 Stratigraphic evidence – recommendations for analysis

9.1.1 It is considered there is no further informative work that can be done with the site archive. A summary of the results presented here will be produced for publication, illustrated with a site plan, trench plans and section drawings, accompanied by relevant photographs. A plan including the geophysical survey (Stewart 2014), the LiDAR data and the excavation areas would also be useful to compare the results of all three together.

9.2 Finds evidence – recommendations for analysis

9.2.1 The pottery has already been recorded to an appropriate level, equating to a 'basic record' as outlined by the national guidelines (Barclay *et al*. 2016, Section 2.4.5). A summary report based on the completed assessment will be integrated into the overall publication/dissemination of the results.

9.2.2 No further work is recommended for the worked flint, shale, fired clay and clay pipe but as a minimum the report here should be adapted for inclusion in the dissemination of the results.

9.3 Environmental evidence – recommendations for analysis

Specialist samples

9.3.1 A staged approach to the analysis of the specialist samples is proposed. The first stage should focus on the soil micromorphological analysis of the Kubiena sample taken from possible house platform floor layer 204 in Trench 2.

9.3.2 The preparation and analysis of the soil micromorphology block will be undertaken externally. The samples will be processed at a thin section laboratory following standard soil thin section processing procedures (Murphy 1986). The thin sections will be analysed using a petrological microscope with plane polarised, crossed polarised and oblique incident light, at magnifications of 40x, 100x and 400x. Descriptions will follow the International System for soil thin section description (Bullock *et al.* 1985; Kemp 1985) and quantifications will be made by reference to abundance charts (Bullock *et al.* 1985).

9.3.3 Following the results of the micromorphological analysis, a second stage of works may be proposed. This would be put together considering the results of micromorphological work, as these may indicate that geochemical analyses of the samples from possible floor layer 206 might (or might not) be informative.

9.4 Proposals for publication

9.4.1 A short report summarising the results set out in this assessment is proposed for publication in the *Proceedings of the Dorset Natural History and Archaeological Society.*

Provisional synopsis of Journal Article

Working title: *Flowers Barrow, Lulworth, Dorset 2022: investigations of an eroding coastal hillfort*

by Tom Dawkins, with specialist contributions

Introduction	500 words
Results	1500 words
Finds reports	700 words
Environmental reports	800 words
Discussion	500 words
Bibliography	500 words

Total: approximately 4500 words, 6 figures, 2 tables (10 pages)

its long-term curation. Digital data will be prepared following ADS guidelines (ADS 2013 and online guidance) and accompanied by metadata. Full details of the collection, processing and documentation of digital data are given in the project Data Management Plan (available on request).

10.3 Selection strategy

10.3.1 It is widely accepted that not all the records and materials (artefacts and ecofacts) collected or created during the course of an archaeological project require preservation in perpetuity. These records and materials will be subject to selection in order to establish what will be retained for long-term curation, with the aim of ensuring that all elements selected to be retained are appropriate to establish the significance of the project and support future research, outreach, engagement, display and learning activities, i.e., the retained archive should fulfil the requirements of both future researchers and the receiving Museum.

10.3.2 The selection strategy, which details the project-specific selection process, is underpinned by national guidelines on selection and retention (Brown 2011, section 4) and generic selection policies (SMA 1993; Wessex Archaeology's internal selection policy: available on request) and follows CIfA's *Toolkit for Selecting Archaeological Archives*. It should be agreed by all stakeholders (Wessex Archaeology's internal specialists, external specialists, local authority, museum) and fully documented in the project archive.

10.3.3 Detailed selection proposals for the complete project archive comprising finds, environmental material and site records (analogue and digital), will be made in the site-specific Selection Strategy (**Appendix 3**). The proposals are summarised below.

Finds

10.3.4 All finds have been recorded to an appropriate level prior to any selection proposals being implemented, and the selection process will be fully documented in the project archive. Any material not selected for retention may be used for teaching or reference collections by Wessex Archaeology.

- Clay pipe (4 pieces): negligible quantity, no further research potential; recommend discard.
- Fired clay (1 fragment): featureless fragment; limited archaeological significance and no further research potential; recommend discard.
- Worked flint (2 pieces): prehistoric date, small quantity; some limited further research potential; retain.
- Pottery (114 fragments): late prehistoric, Late Iron Age–Romano-British and medieval sherds of local significance with some further research potential. Retain all.
- Shale (12 pieces): unworked fragments from topsoil and subsoil; limited further research potential; recommend discard.

Environmental material

10.3.5 Some of the material retrieved from environmental samples merit retention with the site archive for future access. This is a summary of proposals for a site-specific Selection Strategy (**Appendix 3**):

- Assessed flots from the bulk samples have no potential for further work and should be discarded. The residues were discarded after sorting.

- The Kubiena samples taken for soil micromorphological work should remain in the site archive.

- The small bulk specialist samples taken for geochemical analysis should be retained in the site archive until further analysis work on the micromorphological samples is completed.

- All analysed materials (the processed and analysed micromorphological samples) will be retained.

Documentary records

10.3.6 Paper records comprise site registers (other pro-forma site records are digital), drawings and reports (written scheme of investigation, client report). All will be retained and deposited with the project archive.

Digital data

10.3.7 The digital data comprise site records (tablet-recorded on site) in spreadsheet format; finds records in spreadsheet format; survey data; photographs; reports. All will be deposited, although site photographs will be subject to selection to eliminate poor quality and duplicated images, and any others not considered directly relevant to the archaeology of the site.

10.4 Security copy

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

10.5 OASIS

10.5.1 An OASIS (online access to the index of archaeological investigations) record (http://oasis.ac.uk) has been initiated, with key fields completed (**Appendix 4**). A .pdf version of the final report will be submitted following approval by Historic England. Subject to any contractual requirements on confidentiality, copies of the OASIS record will be integrated into the relevant local and national records and published through the Archaeology Data Service (ADS) ArchSearch catalogue.

11 COPYRIGHT

11.1 Archive and report copyright

11.1.1 The full copyright of the written/illustrative/digital archive relating to the project will be retained by Wessex Archaeology under the *Copyright, Designs and Patents Act 1988* with all rights reserved. The client will be licenced to use each report for the purposes that it was produced in relation to the project as described in the specification. The museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use conforms to the *Copyright and Related Rights Regulations 2003*.

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

11.2 Third party data copyright

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

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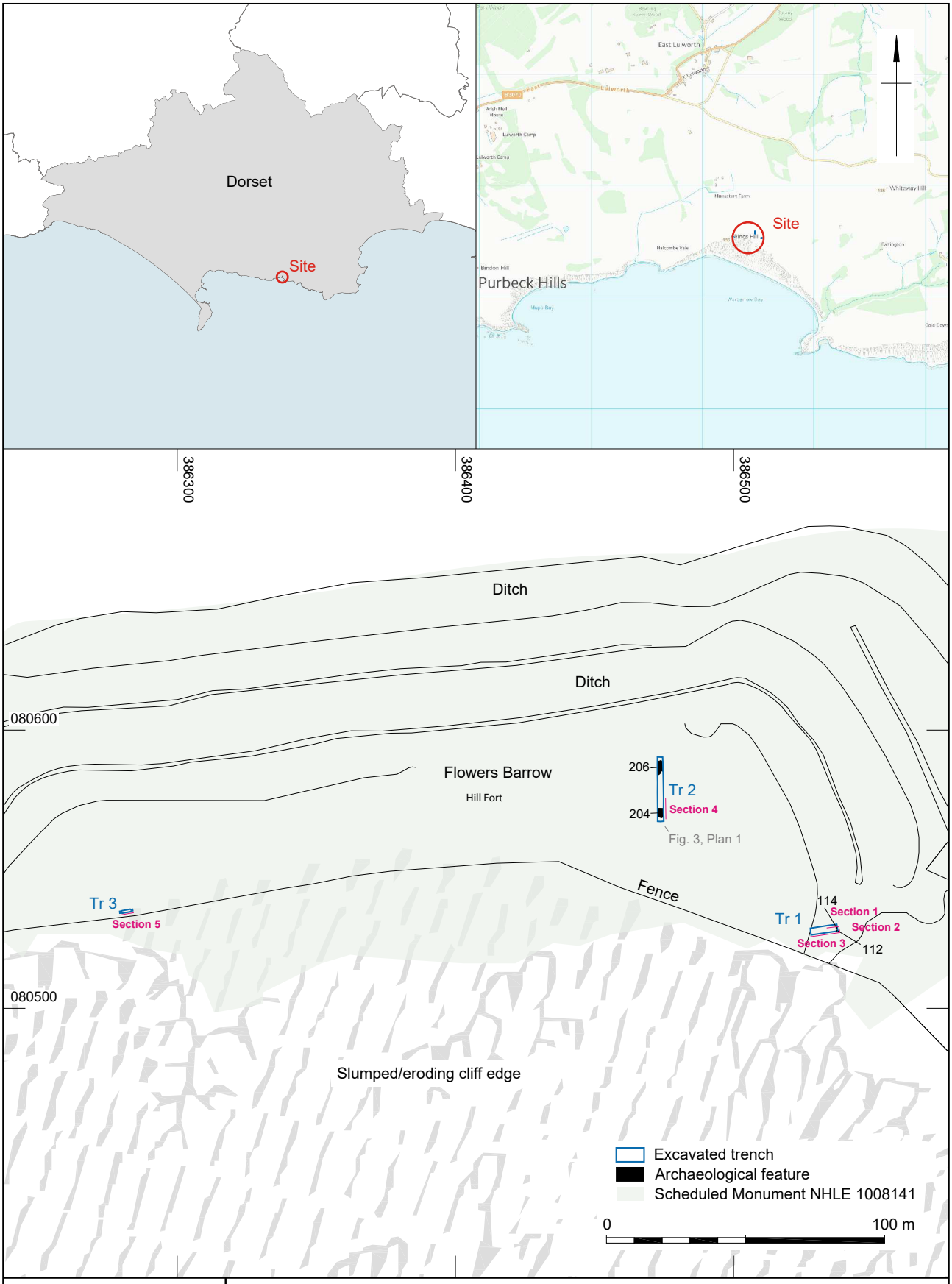

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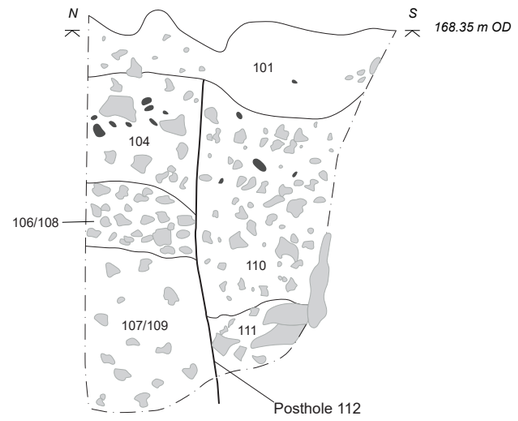
Location of site and Trenches 1-3

Figure 1

Section 1, South facing section of Tr 1

Section 2, West facing section of Tr 1



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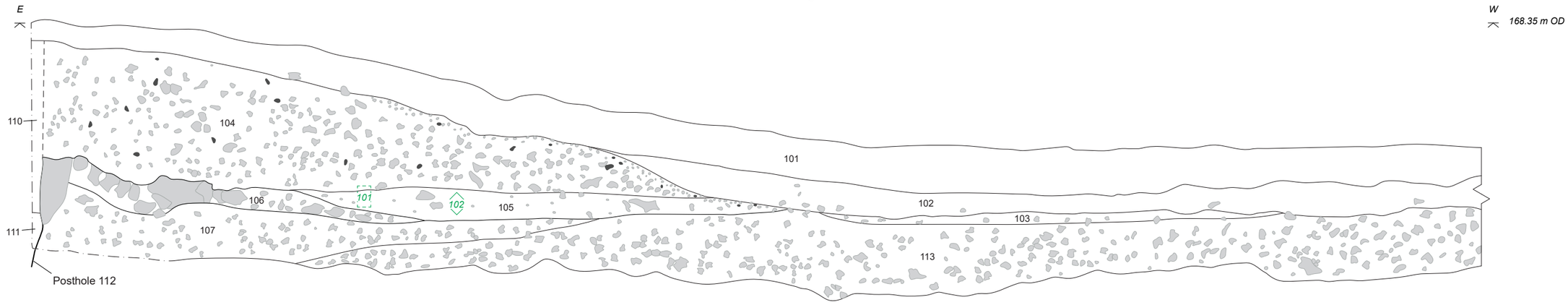

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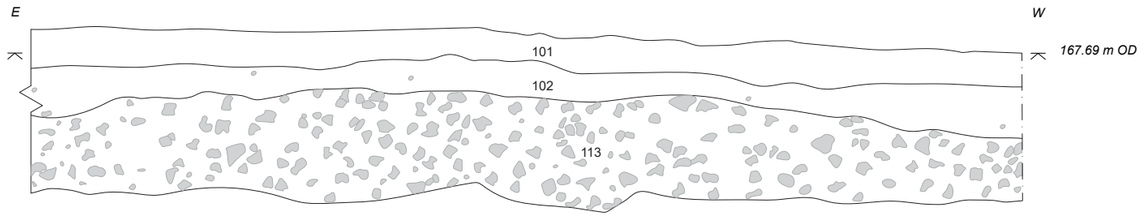

0 1 m

102 Sample location

101 Kubiena sample location

Chalk

Flint

Date: 06/02/2023	Created by: JD	Revision: 0	Scale: 1:20 at A3

Figure 2: Trench 1 sections

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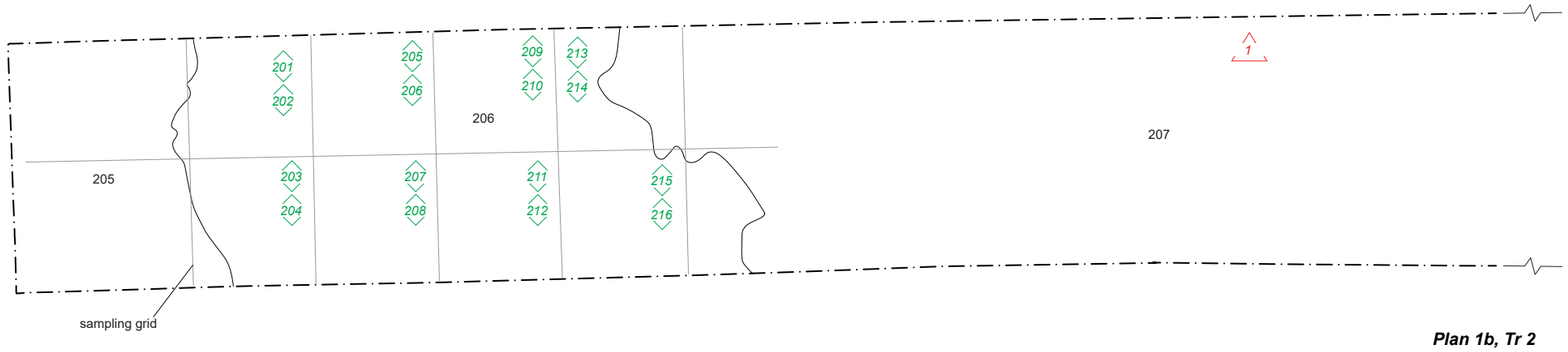
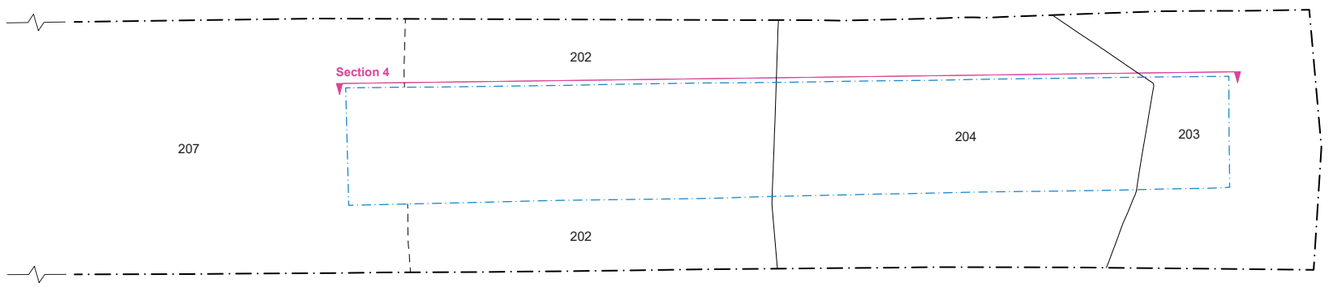
Plan 1a, Tr 2



Plan 1b, Tr 2

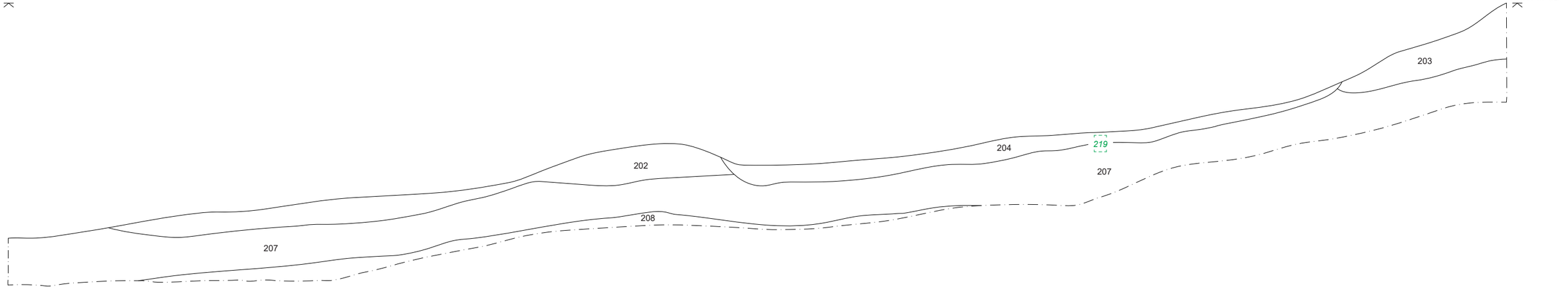


0 2 m

N

Section 4, West facing section of slot through possible hut platform floor 204

S
164.17 m OD



0 1 m

201 Sample location

219 Kubiena sample location

1 Small find

Date: 06/02/2023	Created by: JD	Revision: 0	Scale: 1:50 (plan) and 1:20 (section) at A3

Figure 3: Plan and section of Trench 2

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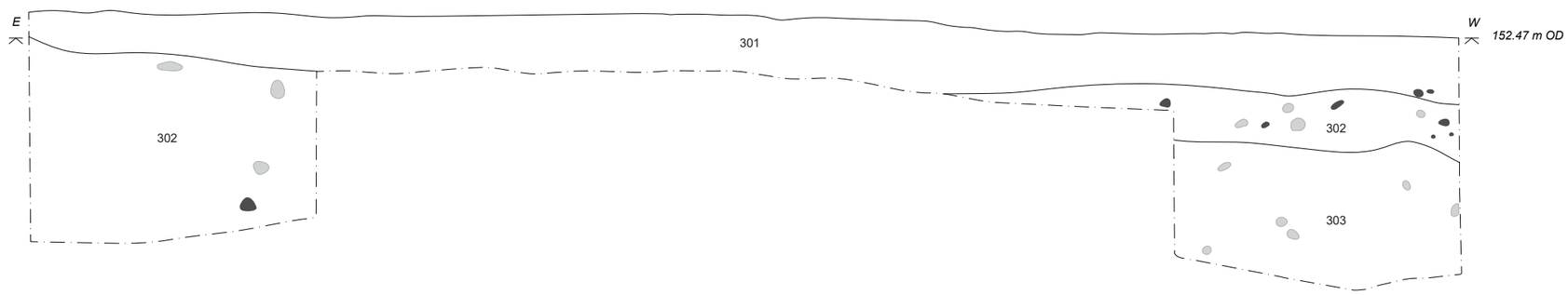
Section 5, North facing section of Tr 3



0 1 m

Chalk

Flint

Date: 06/02/2023	Created by: JD	Revision: 0	Scale: 1:20 at A3

Figure 4: Section of Trench 3

Figure 5: Oblique shot of north facing section of Trench 1. View from north-west. 2 m scale

Figure 6: Oblique shot of north facing section of Trench 1. View from north-east. 2 m scale

Figure 7: North facing section of Trench 1 (towards east end). View from north. 2 m scale

Figure 8: Shot showing Kubiena sampling of layer 105 in Trench 1. View from north. 0.5 m scale

Figure 9: Oblique shot of west facing section of Trench 1 showing posthole 112. View from west. 0.5 m scale

Figure 10: Oblique shot of south facing section of Trench 1. View from south-east. 2 m scale

Figure 11: Working shot of test pit through centre of Trench 2 with deposit 206 in background. View from south-west. 1 m scale

Figure 12: Pre-excavation shot of possible house platform floor 204 in Trench 2. View from south. 2 m and 1 m scales

Figure 13: Oblique shot of west facing section through possible house platform floor 204 in Trench 2. View from south-west. 2 m scale

Figure 14: Shot showing Kubiena sampling of layer 204 in Trench 2. View from north-west

Figure 15:Working shot showing sampling and recording of possible house platform floor 206 in Trench 2. View from south-west

Figure 16: Pre-excavation shot of possible house platform floor 206 in Trench 2. View from south. 2 m and 1 m scales

Figure 17: General shot of Trench 3. View from north-west. 2 m scale

Figure 18: Test pit at eastern end of Trench 3. View from north. 1 m scale

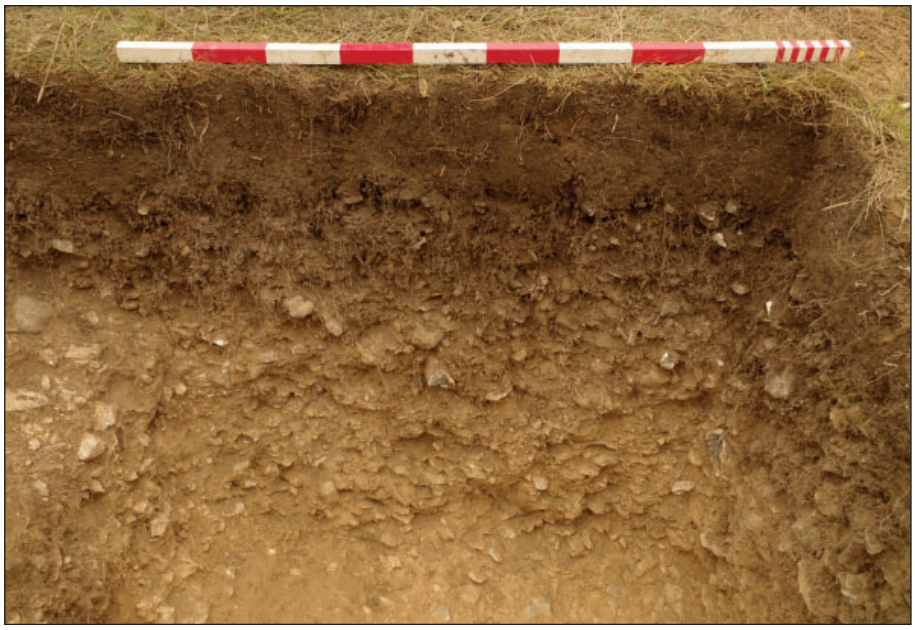


Figure 19: Test pit at western end of Trench 3. View from north. 1 m scale

Figure 20: Team photo

APPENDICES

Appendix 1 Trench summaries

Trench No 1	Length 10 m	Width 1.10 m	Depth 1.25 m

Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth (m) BGL
101		Topsoil	Very dark brown sandy silt loam	0–0.20
102		Subsoil	Mid brown sandy silt loam	0.20–0.36
103		Subsoil	Mid brown with yellowish hues sandy clay silt with flints, sub-rounded to very angular. poorly sorted	0.36–0.46
104		Rampart collapse/erosion	Mid brown sandy silt loam with mix of chalk and flint (0.01-0.09, sub-angular - very angular, poorly sorted	0.1–0.68
105		Buried soil	Mid brown sandy silt loam with flint (0.08), sparse throughout layer	0.53–0.67
106		Rampart collapse/ erosion	Mid brown sandy silt loam with chalk and flint (0.05-0.15) sub-angular to very angular	0.59–0.72
107		Rampart erosion or possible natural hollow	Mid-dark brown sandy clay loam with very common flint gravel less than 0.07m in size, unclear boundary with 113 to west	0.72–1.06
108		Flint layer	Mid brownish grey clay silt with fine to coarse gravel sized flint and chalk	0.60–0.8
109		Natural	Light whitish grey sandy silt - occasionally clay with 20% fine to coarse gravel sized sub-angular chalk and flint (occasional coarse sized flints	0.80+
110	112	Secondary fill	Mid greyish brown clay silt with 60% coarse gravel sized angular chalk	0.25–0.90
111	112	Secondary fill	Mid greyish brown clay silt with 25% fine to medium gravel sized sub-angular chalk	0.90–1.15
112	110, 111	Posthole	Sub-circular posthole with steep, straight sides. Width: 0.45 m. Depth: 0.95 m.	0.25–1.15
113		Subsoil	Mid brownish grey sandy clay silt with 50% abundant fine to coarse gravel sized angular flint	0.33–0.71
114	115	Posthole	Sub-circular posthole	1.24+
115	114	Secondary fill	Light brownish grey clay silt with 10% fine to medium gravel sized sub-rounded chalk	1.24+

Trench No 2	**Length 25 m**	**Width 2.30 m**	**Depth 0.47 m**

Context Number	**Fill Of/Filled With**	**Interpretative Category**	**Description**	**Depth (m) BGL**
201		Topsoil	Dark brown sandy silt loam with rare small flints and moderate rooting	0–0.18
202		Redeposited gravel	Light yellowish grey loamy sand with abundant flint gravel	0.1–0.28
203		Redeposited gravel	Dark yellow grey loamy sand with abundant 40% gravel	0.1–0.28
204		House platform/surface?	Lightish yellow compacted sandy clay with sparse 5% flints	0.18–0.29
205		Redeposited gravel	Brown loamy sand with abundant flint gravel	0.18+
206		House platform/surface?	Yellowish brown sandy clay with rare flints less than 0.95m in size	0.18–0.48
207		Subsoil	Light yellowish grey loamy sand with large abundant 30% gravel	0.18–0.27
208		Natural	Bright yellow sandy clay loam with large, abundant flints	0.48+

Trench No 3	**Length 5 m**	**Width 1 m**	**Depth 0.95 m**

Context Number	**Fill Of/Filled With**	**Interpretative Category**	**Description**	**Depth (m) BGL**
301		Topsoil	Dark brown sandy clay with sparse chalk and flint, rooting throughout	0–0.22
302		Layer	Dark brown sandy clay with very loose, common chalk and flint inclusions	0.09–0.78
303		Layer	Yellowish white chalk layer with common flint inclusions	0.4–0.9
304		Layer	Mid reddish brown sandy clay with abundant flint and chalk inclusions. Seen in eastern test pit only	0.78+
305		Layer	Light reddish brown sandy clay, sterile with sparse chalk and flint inclusions. Western test pit only	0.95+

Appendix 2 Assessment of the environmental evidence from bulk samples

Area	Feature Type	Context	Series	Sample Code	Sample Vol. (l)	Flot vol. (ml)	Bioturbation proxies	Charred plant remains	Charcoal >2mm (ml)	Other	Preservation
Tr1	Layer - Hillfort ramparts	105	-	266780_102	7	40	90%, B (incl. Asteraceae, Poaceae), I, F	C - Tubers/rhizomes/roots, *Rumex* sp.	<1	Moll-t (B)	Poor
Tr2	House platform	206	217	266780_201	9	200	99%, C (incl. *Ranunculus* subg. *Ranunculus*), I, F, E	-	Trace	-	-
Tr2	House platform	206	217	266780_203	9	100	99%, C (incl. *Ranunculus* subg. *Ranunculus, Plantago lanceolata*), F	-	Trace	-	-
Tr2	House platform	206	217	266780_205	9	170	99% (incl. large uncharred roots, and small fragments of uncharred wood), B (incl. Trifoilieae), I, E, F	-	<1	-	-
Tr2	House platform	206	217	266780_207	10	200	99%, B (incl. *Potentilla* sp. (one germinated), Cyperaceae), I, E, F	-	<1	-	-
Tr2	House platform	206	217	266780_209	10	100	99% (incl. large uncharred roots, and small fragments of uncharred wood), B (incl. *Potentilla* sp. and *Rubus* sp.), I, F	-	Trace	-	-
Tr2	House platform	206	217	266780_211	10	90	99% (incl. large uncharred roots, and a small scrap of uncharred wood), B (incl. *Potentilla* sp.), E, F	-	Trace	-	-
Tr2	House platform	206	217	266780_213	8	110	99% (incl. large uncharred roots), C (incl. Trifoileae, *Viola* sp.), I, E, F	-	<1	-	-
Tr2	House platform	206	217	266780_215	9	90	99% (incl. large uncharred roots), C (incl. *Viola* sp.), I, E, F	-	<1	Coal (C)	-

Scale of abundance: C = <5, B = 5–10, A = 10–30, A* = 30–100, A** = 100–500, A*** = >500; Bioturbation proxies: Roots (%), Uncharred seeds (scale of abundance), F = mycorrhizal fungi sclerotia, E = earthworm eggs, I = insects, Moll-t = terrestrial molluscs.

Appendix 3 Selection strategy

266780
Flowers Barrow, Lulworth
version 2, May 2023

Selection Strategy

Project Information

Project Management		
Project Manager	Bill Moffat	
Archaeological Archive Manager	Moira Taylor and Jessica Irwin	
Organisation	Wessex Archaeology (WA)	
Stakeholders		**Date Contacted**
Collecting Institution(s)	Dorset County Museum (contact Liz Selby) Archaeology Data Service	
Project Lead / Project Assurance	Lead: Tom Dawkins Assurance: Bill Moffat	N/A
Landowner / Developer	Defence Infrastructure Organisation (DIO)	
Other (external)	Senior Archaeologist, Dorset Council (Steve Wallis) MOD Archaeologist (Richard Osgood) Historic England (Scheduled site)	
Other (internal)	WA Finds Manager (Rachael Seager Smith) WA Environmental Manager (Sander Aerts) WA Geomatics & BIM Manager (Chris Breeden) WA internal finds & environmental specialists (see WSI)	N/A; briefed as part of standard project process
Resources		
Resources required	WA Finds and Environmental specialists; WA archives team	

Context

This overarching selection strategy document is based on the CIfA Archives Selection Toolkit (2019) and relates to archaeological project work being undertaken by Wessex Archaeology as defined in the WSIs.

Relevant standards, policies and guidelines consulted include:

General

- *Selection, Retention and Dispersal of Archaeological Collections* (Society of Museum Archaeologists, 1993)
- *Archaeological archives: a guide to best practice in creation, compilation, transfer and curation* (AAF, revised edition 2011, section 4)
- *Dorset Museum: Deposition of Archaeological Archives* (draft, effective from September 2021)

Relevant research agendas

- *South West Archaeological Research Framework: Research Strategy 2012–2017* (Grove and Croft 2012)

Finds

- *Standard Guidance for the collection, documentation, conservation & research of archaeological materials* (CIFA, 2014)
- *A Standard for Pottery Studies in Archaeology* (Prehistoric Ceramics Research Group, Study Group for Roman Pottery, Medieval Pottery Research Group 2016)

Environmental

- *Environmental Archaeology: A Guide to the Theory, Practice of Methods, from Sampling and Recovery to Post-excavation* (English Heritage 2011)
- *Geoarchaeology: Using Earth Sciences to Understand the Archaeological Record* (Historic England 2015)
- *Guidelines for the Curation of Waterlogged Macroscopic Plant and Invertebrate Remains* (English Heritage 2008)
- *Waterlogged Wood: Guidelines on the Recording, Sampling, Conservation and Curation of Waterlogged Wood* (English Heritage 2010)
- *Waterlogged Organic Artefacts: Guidelines on their Recovery, Analysis and Conservation* (Historic England 2018)

Research objectives of the project

Following consideration of the archaeological potential of the site the research objectives of the excavation are to:

- Determine the extent, preservation, chronology, sequence, character and significance of archaeological remains;
- Assess the potential for the recovery of artefacts to assist in the development of type series within the region.

REVIEW POINTS

Consultation with all Stakeholders regarding project-specific selection decisions will be undertaken at a maximum of three project review points:

1. Data gathering: on site, if any unforeseen discovery necessitates an amendment to the proposed collection strategy, or if adjustments are made to any sampling strategy
2. End of data gathering (assessment stage)
3. Archive compilation

1 – Digital Data

Stakeholders

WA Project Manager; WA Archives Manager; WA Geomatics & BIM Manager; Senior Archaeologist, Dorset Council; Historic England; ADS

Selection

Location of Data Management Plan (DMP)

This document is designed to link to the project Data Management Plan (DMP), which can be supplied on request.

To promote long-term future reuse deposition file formats will be of archival standard, open source and accessible in nature following national guidance from ADS 2013, CIfA 2014c and the requirements of the digital repository.

Any sensitive data to be handled according to Wessex Archaeology data policy to ensure it is stored and transferred securely. The identity of individuals will be protected in line with GDPR. If required, data will be anonymised and redacted. Selection and retention of sensitive data for archival purposes will occur in consultation with the client and relevant stakeholders. Confidential data will not be selected for archiving and will be handled as per contractual obligation.

Document type	Selection Strategy	Review Points
Site records	Most records will be completed digitally on site (with the exception of registers). All will be selected for deposition.	3
Reports	To include WSIs, Interim reports, post-excavation assessment reports, publication reports. Final versions only will be selected for deposition.	2, 3
Specialist reports	Specialist reports will generally be incorporated in other documents with only minimal editing (reformatting, etc), and will be selected only if the original differs significantly from the incorporated version.	2, 3
Photographic media (site recording)	Substandard and duplicate images will be eliminated; pre-excavation images may not be selected where duplicated by post-excavation shots; working shots will be very rigorously selected to include only good quality images with potential for reuse and those integral to understanding features, their inter-relationships and location on site; site condition and reinstatement photos will not be selected.	2, 3
Photographic media (objects)	Images of individual or groups of objects, to include those of significance selected for publication and reporting. Substandard and duplicate images will be eliminated; all others will be selected.	3

Photographic media (photogrammetry)	All terrestrial photogrammetry recording will generate orthographic photos. For those features or finds which are particularly archaeological significant, 3D models will be generated and deposited but raw photos will only be selected where models have been selected and OBJs are to be deposited, where re-processing may have some archaeological value (eg very significant features, or where the model is less accurate than the surveyed georeference targets or of lower quality and the quality of the original photos is good enough to represent a reasonable chance of better future outcomes). Aerial photogrammetry topographic surveys will generate 3D models and orthographic photos, and the final outputs in the form of the report. These will all be selected, but not the raw photos from aerial surveys.	2, 3
Photographic media (community engagement and other activities)	General shots, promotional videos, etc. None will be selected, unless images are generated that are not duplicated in the main site record, but which have specific archaeological value.	3
Survey data	Site survey data will be used to generate CAD/GIS files for use in post-excavation activities. Shapefiles of both the original tidied survey data, and the final phased drawings will be selected.	2, 3
Databases and spreadsheets	Context, finds and environmental data in linked databases. Final versions will be selected. Any specialist data submitted separately will also be selected.	2, 3
Geophysical data	RAW data and Interpretation Geo-tiffs	2, 3
Administrative records	Includes invoices, receipts, timesheets, financial information, email correspondence. None will be selected, with the exception of any correspondence relating directly to the archaeology.	3

De-Selected Digital Data

De-selected data will be stored on WA secured servers on offsite storage locations. The WA IT department has a backup strategy and policies that involves daily, weekly and monthly and annual backups of data as stated in the DMP. This strategy is non-migratory, and original files will be held at WA under their unique project identifier, as long as they remain useful and usable in their final version format. This data may also be used for teaching or reference collections by the museum, or by WA unless otherwise required by contractual or copyright obligations.

Amendments

Date	Amendment	Rationale	Stakeholders

2 – Documents

Stakeholders

WA Project Manager; WA Archives Manager; Dorset County Museum; Senior Archaeologist, Dorset Council

Selection

Following their revised guidelines (2021), Dorset County Museum no longer accepts hard copy site records. All hard copy records generated will be scanned to form part of the digital archive.

A security copy of all paper/drawn records is a requirement of CIfA guidelines. This will be prepared on completion of the project, in the form of a digital PDF/A file. If the security copy is not required for deposition by Stakeholders, it will be retained on backed-up servers belonging to Wessex Archaeology.

Note that some information may be redacted to comply with GDPR legislation (personal data).

Document type	Selection Strategy	Review Points
Site records	Selected records only will be completed in hard copy on site (registers, some graphics). All will be selected and scanned.	3
Photographic media	X-radiographic plates: all will be selected and scanned.	3
Working notes	Rough working notes, annotated plans, preliminary versions of matrices etc, will not be selected.	3
Administrative records	Invoices, receipts, timesheets, financial information, hard copy correspondence. None will be selected, with the exception of any hard copy correspondence relating directly to the archaeology which will be scanned.	3

De-Selected Documents

De-selected sensitive analogue data will be destroyed (shredded) subject to final checking by the WA Archives team with the remainder recycled. Possible exceptions include records retained for business purposes, including promotional material, teaching and internal WA library copies of reports.

Amendments

Date	Amendment	Rationale	Stakeholders

3 – Materials

Material type	Artefacts (bulk and registered finds)	Section 3.	3.1

Stakeholders

WA Archives Manager; WA Finds Manager; WA internal specialists; Dorset County Museum; Senior Archaeologist, Dorset Council; Historic England; landowner (DIO)

Selection

Note that human remains are not included in this selection strategy; their recovery and subsequent treatment and curation will be governed by a Ministry of Justice licence(s).

These proposals have been made by WA's internal specialists, based on observations made during the assessment stage. They may be modified during or after analysis, although this is unlikely to necessitate significant amendments.

Find Type	Selection Strategy	Review Points
Clay tobacco pipes (4 pieces)	Negligible quantity, no further research potential; recommend discard.	2, 3
Fired clay (1 fragment)	Featureless fragment; limited archaeological significance and no further research potential; recommend discard.	2, 3
Pottery (114 fragments)	Late prehistoric, Late Iron Age–Romano-British and medieval sherds of local significance with some further research potential. Retain all.	2, 3
Shale (12 pieces)	Unworked fragments from topsoil and subsoil; limited further research potential; recommend discard.	2, 3
Worked flint (2 pieces)	Prehistoric date, small quantity; some limited further research potential; retain.	2, 3

Uncollected Material

Finds which fall outside the categories proposed for on-site collection will not normally be recorded beyond a general comment on site recording sheets on the presence and nature of large concentrations (eg building materials, modern debris), but if specific sampling strategies are employed to deal with, for example, production waste, then a more accurate guide to the actual size of the parent assemblage (and thus the sample percentage) will be given.

Any uncollected material will be left *in situ* or (if collected and then de-selected), re-incorporated into the site.

De-Selected Material

Consideration will be given to the suitability for use for handling or teaching collections by the museum or Wessex Archaeology, or whether they are of particular interest to the local

community. De-selected material will either be returned to the landowner or disposed of. All will be adequately recorded to the appropriate level before de-selection.

Amendments

Date	Amendment	Rationale	Stakeholders

3 – Materials

Material type	Palaeoenvironmental material	Section 3.	3.2

Stakeholders

WA Archives Manager; WA Environmental Officer; WA internal specialists; Dorset County Museum; Senior Archaeologist, Dorset Council; Historic England

Selection

All environmental sampling has been undertaken following Wessex Archaeology's in-house guidance, which adheres to the principles outlined in Historic England's guidance (English Heritage 2011 and Historic England 2015a) and as stated in the relevant WSI. All environmental samples collected and suitable to address project aims and research objectives, as deemed by Wessex Archaeology's Environmental team, have been processed and assessed.

Env Material Type	Selection Strategy	Review Points
Assessed flots	The assessed flots from the bulk sediment samples have no potential for further work and should be discarded. The residues were discarded after sorting.	2, 3
Unassessed specialist samples	All specialist samples should be retained in the site archive until further analysis work is completed.	2, 3
Analysed materials	All analysed materials will be retained.	2, 3

De-Selected Material

De-selected material and finds from samples will be responsibly disposed of after processing and post-ex recording.

Amendments

Date	Amendment	Rationale	Stakeholders

Appendix 4 OASIS summary

Summary for wessexar1-515592

OASIS ID (UID)	wessexar1-515592
Project Name	Excavation at Flowers Barrow, Lulworth, Dorset
Sitename	Flowers Barrow, Lulworth, Dorset
Activity type	Excavation
Project Identifier(s)	266780
Planning Id	
Reason For Investigation	Scheduled monument consent
Organisation Responsible for work	Wessex Archaeology
Project Dates	15-Aug-2022 - 26-Aug-2022
Location	Flowers Barrow, Lulworth, Dorset NGR : SY 86455 80595 LL : 50.62489757374567, -2.192847991761022 12 Fig : 386455,80595
Administrative Areas	Country : England County : Dorset District : Dorset Parish : East Lulworth
Project Methodology	Wessex Archaeology was commissioned by Defence Infrastructure Organisation (DIO) to undertake the excavation of three trenches, centred on NGR 386455 80595, at the Iron Age hillfort known as Flowers Barrow, Lulworth, Dorset, a Scheduled Monument lying within the South Dorset Coast Site of Special Scientific Interest (SSSI). The works were designed to preserve by record some of the remains of the monument to mitigate unavoidable loss due to coastal erosion, with approximately a third of the hillfort already lost and erosion ongoing. The work was also designed to gain an insight into what might already have been lost through the investigation of interior features of the monument.
Project Results	Trench 1 was targeted on an active ‘tear’ in the earthwork defences caused by cliff slippage. The excavation here revealed the presence of two large postholes that could relate to entrance/gatehouse structures or the revetment of the internal bank, as well as a series of deposits deriving from erosion of the bank. These might have been associated with multiple phases of occupation. A possible buried soil was identified within the sequence of deposits and sampled for further environmental analysis. Although the trench was comparatively narrow, it has shown that there is significant archaeological potential in this area of the monument for the survival of features and deposits relating to the inner defences. Trench 2 investigated two possible roundhouse platforms. These platforms comprised shallow sub-circular depressions surrounded by low gravel banks, but lacked associated cut features such as postholes, hearths and clear floor surfaces. They were largely devoid of finds but have been sampled for further environmental analysis. Trench 3 aimed to characterise and record the preservation of a very small area of the interior of the hillfort on part of the cliff face already subject to slippage and likely to be lost to cliff erosion in the near future. No evidence of stratified archaeological deposits or features was present, but it is uncertain if these were sparse within the interior or (less likely) lay at a greater depth sealed by more recently eroded deposits.

Keywords	Rampart - IRON AGE - FISH Thesaurus of Monument Types Sherd - LATE IRON AGE - FISH Archaeological Objects Thesaurus Sherd - ROMAN - FISH Archaeological Objects Thesaurus Sherd - MEDIEVAL - FISH Archaeological Objects Thesaurus Lithic Implement - UNCERTAIN - FISH Archaeological Objects Thesaurus
Funder	
HER	Dorset HER - unRev - STANDARD Historic England review - unRev - STANDARD
Person Responsible for work	
HER Identifiers	
Archives	Digital Archive - to be deposited with Archaeology Data Service Archive; Physical Archive, Documentary Archive - to be deposited with Dorset County Museum;

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