



Moorsholm North York Moors National Park

2022 Updated Project Design for a Community
Archaeology Excavation

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Moorsholm, North York Moors National Park

2022 Updated Project Design for a Community Archaeology Excavation

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Purpose of document

This document has been prepared as an Updated Project Design for continuing community-based research excavations on a site at Smeathorns, Moorsholm in the North York Moors National Park. The purpose of the document is to provide an outline of planned fieldwork for 2023, outlining the aims and objectives of the work and methodology to be employed.

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We would also like to thank those at the Anglo-American Lockwood Beck and Lady Cross site for their generous assistance with the parking and welfare location for our staff during our 2022 investigations.

The Project Executive for DigVentures is Lisa Westcott Wilkins, with Manda Forster as Project Manager and Brendon Wilkins as Projects Director. The project will be managed by Kimberley Teale, Programme Manager, along with Stephanie Duensing, Programme Manager, Nat Jackson as Site Director, Ben Swain and Freddy Wannop in the field, and Maiya Pina-Dacier organising the Dig Programme and recruitment with Ginny Cole managing the social media content and bookings.

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Executive summary

This document has been compiled in support of further archaeological investigation at a site on Smeathorns Road in Moorsholm, in the North York Moors National Park (NZ 67260 13602). In 2022 an initial season of archaeological evaluation was undertaken which focused on clarifying, dating and characterising the key aspects of possible settlement remains discovered during an earlier phase of works in 2021 (Brightman, 2021). This Updated Project Design supports a second season of fieldwork, 3D photogrammetry survey and trenching in order to better understand the discoveries made during the evaluation phase of the project. The approach to this work is evidenced through this MoRPHE / PRINCE2 compliant document, outlining key archaeological research questions, roles, procedures, stages and outputs.

The overarching aim of this fieldwork is to provide baseline information to contribute to the future management and research of the site, creating multiple educational and participatory learning experiences for community participants. This will be achieved through a community-based archaeological research project designed to understand:

- the extent of the surviving archaeological remains found in 2022
- further ground-truthing of earthworks characterised through a landscape survey in 2021
- the nature, date and survival of archaeology at the site
- the relationship of these remains in a wider landscape setting and their relationship to the prehistoric history of the North York Moors National Park.

This Updated Project Design provides an outline of methodology and planned intervention to complete:

Targeted excavation It is proposed that three trenches are opened during this stage of works. One trench will aim to chase the remains discovered in Trench 3 in 2022. This trench yielded a high concentration of archaeology, with two probable early Bronze Age ditches as well as layers of colluvial deposits including finds such as a Levallois-type core and a thumbnail scraper. The second trench will investigate Trench 6 which remained unexcavated during the 2022 fieldwork. The third trench will investigate one of two possible barrows within the site, and aim to obtain dating evidence to understand if it is contemporary with the remains investigated during the 2022 fieldwork. A number of contingency trenches will also be planned, in consultation with the NYMNPA, in the case of sterile trenches. These will investigate possible housing platforms, as well as clarifying Romano-British remains.

Public engagement The excavation will aim to include up to 16 volunteers a day, encapsulating between 60-70 people on average throughout the two-week excavation. The project is supported by a comprehensive learning, engagement and activity plan which aims to both raise awareness to the site and provide tangible learning outcomes. An innovative digital recording system will enable volunteers to record and publish results from the field, with a dedicated project website, underpinned by a digital and audience building strategy, aiming to engage the local community and a global audience in the project.



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1 INTRODUCTION

1.1 Project background

- 1.1.1 DigVentures are embarking the second stage of a multi-phased research project investigating prehistoric features on land at Smeathorns, Moorsholm in the North York Moors National Park (hereafter 'the Site, NZ 67260 13602, see [Figure 1](#)). Following analysis of LIDAR data in 2021, the North York Moors National Park Authority (hereafter the NYMNPA) commissioned this community-led archaeological investigation to further inspect through trial trenching some possible prehistoric features discovered through LIDAR and a landscape survey (Brightman 2020). The overarching aim of the fieldwork is to help date and characterise aspects of these possible prehistoric features and to understand their relationship with one another.
- 1.1.2 The rich archaeological heritage of the site has not been subject to targeted archaeological investigation before our community project in 2022. The community-based research investigation will provide new knowledge about the site and contribute to the better management of the archaeology as a result.
- 1.1.3 This document provides an Updated Project Design for the delivery of a community-based archaeological investigation of the site at Smeathorns. It defines how DigVentures intends to deliver this phase of the project, and outlines how research aims and participation targets will be met. The project is being managed according to Historic England's MoRPHE project model (Management of Archaeological Research Projects in the Historic Environment).
- 1.1.4 This Updated Project Design is presented in two parts; *Part 1: Description of the project* provides the project context, including a summary of proposed methodology, key sources and activities required to support the delivery of the proposal's outcomes. *Part 2: Resources and programming* identifies responsibilities of individual project staff members and outlines the tasks and programme.

Part 1: Description of the project

2 BACKGROUND

2.1 Project context

2.1.1 Following analysis of LIDAR data, the NYMNPA identified a number of potential archaeological features on a site located at Smeathorns in Moorsholm in the North York Moors National Park (NZ 67260 13602). The site is located on an area of open moorland, directly to the west of Smeathorns Road and to the east of Lockwood Beck Reservoir, approximately five miles east of the town of Guisborough, in Redcar and Cleveland, North Yorkshire (Figure 1).

2.1.2 The site comprises moorland heather and tussocky grass with nesting birds and grazing sheep, and the topography of the site slopes gently down towards the north-west creating excellent visibility, ranging from approximately 225m above Ordnance Datum (aOD) to 200m aOD. The bedrock of the site is listed as Jurassic sandstone of the Osgodby member, with a thin band of Jurassic limestone and mudstone of the Cornbrash Formation in the very east of the site, with no recorded superficial deposits (British Geological Survey, 2022).

2.1.3 The site is located within a designated Site of Special Scientific Interest (SSSi) as the North York Moors contains the largest continuous tract of heather moorland in England, and is of a national importance due to its mire and heather moorland vegetation communities and its breeding bird populations, in particular the merlin and golden plover. The site also forms part of the North York Moors Special Areas of Conservation (SAC) due to recovering areas of heath and blanket bogs, and part of the North York Moors Special Protection Areas (SPA) due to the presence of nesting merlin and golden plover. Due to this, an ecological walkover will be undertaken before the excavations begin to approve the proposed trench locations, and special care will be taken during excavation and reinstatement of turf and heather, including maintenance of the removed turf throughout the excavations.

2.1.4 A detailed walkover survey and earthwork survey, undertaken by Solstice Heritage (Brightman 2019, Brightman 2020) confirmed the presence of earthworks suggestive of the presence of archaeological remains, including possible barrows, late prehistoric enclosures and settlements including platforms and lynchets, and field systems. This work led to the NYMNPA commissioning an archaeological investigation in 2022 to better understand the nature of the remains.

2.2 2022 fieldwork

2.2.1 Fieldwork was undertaken in April 2022 to address a series of research questions which focused on the extant earthworks at Smeathorns discovered in LIDAR data and recorded during a subsequent walkover survey (Brightman 2020). The area investigated was located to the west of Smeathorns road, and comprised of a series of earthworks, ditches and banks, and enclosures. The investigations involved a programme of targeted excavation and revealed a potentially important early Bronze Age settlement on the edge of the North York Moors National Park.



- 2.2.2 In total, five trenches were opened over the course of the excavation, each investigating specific targets determined by the NYMNPA (Figure 2). Trench 1, measuring 2m by 6m, focused on a hollow that had been determined as the most likely place for occupation at the site. Excavation revealed a large pit in the southern end of the trench, likely to be a watering hole. Trench 1 recovered Roman mortaria and late 3rd century Crambeck ware, as well as fragments of probable early prehistoric pottery and some flints. Trench 2 (2m by 4m), Trench 3 (2m by 6m) and Trench 5 (2m by 4m) investigated a series of small, banked enclosures at the west of the site. Trench 2 was located inside one of these enclosures and no features were revealed, however several lithic finds were discovered including a Sutton type arrowhead.
- 2.2.3 Trench 3, in contrast, recorded a higher concentration of archaeology, with layers of colluvial deposits including finds such as a Levallois-type core and a thumbnail scraper. The colluvial deposits were removed and two probable early Bronze Age ditches were discovered. Excavation of Trench 5 targeted a substantial ditch and bank which, although from which few finds were recovered, seems likely to date to the early Bronze Age. In the easternmost corner of the trench, a post hole provided a tantalising suggestion of structures on site. Trench 4 was the southernmost intervention on the site, and it explored the relationship between two larger enclosures at the top of the hill. In this trench a large shallow ditch was observed, as was a post hole, again indicating the possibility of structures or a fence line. This suggests that the larger enclosures were for livestock.

2.3 2022 Fieldwork proposals

- 2.3.1 Recommendations made as part of the archaeological assessment stage (Jackson et al. 2022) suggested that future archaeological fieldwork should involve opening larger trenches over the known enclosures to find more evidence pointing towards a settlement rather than a transient camp. It also recommended investigation of the potential round barrows on the site, to investigate whether they could be related to the settlement, and to attempt to date the features. The archaeological assessment assumed that the barrows were of the same the date as the enclosures, given that other round barrows in the area are from the Neolithic or early Bronze Age, and any evidence to confirm this theory would prove beneficial. It is proposed that three trenches are opened, with a number of contingency options available should the trenches turn out to be archaeologically sterile.
- 2.3.2 An extension to Trench 3 is proposed, which will measure 6m by 6m and target the probable Bronze Age ditches discovered during the 2022 evaluations. It is hoped that this trench will clarify the ditches and illuminate what type of feature they would have once related to.
- 2.3.3 The second trench is proposed to open up Trench 6 which remained unexcavated during the 2022 fieldwork. Measuring 4m by 4m, it would aim to investigate the internal space of enclosure D6, the northern most enclosure seen on the site, in order to characterise the function of the enclosure and understand if it was for habitation or enclosing livestock.
- 2.3.4 The third trench is proposed to investigate one of several barrows within the north of the site, and to obtain dating evidence to understand if it is contemporary with the

remains investigated during the 2022 fieldwork. Trench 7 will either be 'L' shaped and measure 4m by 4m across a quadrant of the easternmost barrow, or alternatively will measure 2m by 4m across the easternmost barrow. The best preserved and most favoured barrow will be selected in the field at the time of the dig.

- 2.3.5 Contingency trenches will also be planned for, with the aim of investigating other earthworks identified during the landscape survey to better understand the nature of the archaeological remains. All measuring 2m by 4m; Trench A and Trench B would investigate two possible housing platforms, and Trench C would extend 2022's Trench 1 to clarify the nature of Romano-British remains discovered during the test pitting.

3 RESEARCH AIMS AND OBJECTIVES

3.1 Project model

- 3.1.1 The overarching aim of the project is to define and characterise the physical extent of the site through a programme of non-intrusive investigations and intrusive excavation, obtaining baseline data that will facilitate its future management. This project model is framed as overarching aims and key questions/objectives that provide a framework for the methods, stages, products and tasks set out in Part 2 of the Updated Project Design below.

3.2 Research aims

Aim 1 – Establish a date and sequence for the enclosure complex

- 3.2.1 A series of possible Bronze Age enclosures were identified during the 2021 and 2022 investigations. A new programme of targeted trenching will address the following questions:

- Q1: Can the nature of the enclosures be established?
- Q2: Can a chronological sequence and stratigraphic phasing for the enclosures' archaeological evidence be established (assisted by investigating Aim 2)?
- Q3: Is there any further evidence for multi-period occupation of the site and can it be established if this was transient?
- Q4: To what do the archaeological remains at the Site survive, and what is the potential of the site to inform a greater understanding of the surrounding prehistoric funerary landscape.

Aim 2 – Investigate the Bronze Age ditches in Trench 3 and establish whether evidence of a structure exists

- 3.2.2 Within the settlement complex, a set of earthworks indicate a series of roughly linked small enclosures, platforms and lynchets with evidence of phased development. A hollow in one of the earlier phases suggests the presence of a structure within the complex, and the discovery of two ditches along with worked flints dating to the



Bronze Age suggests the presence of a structure nearby. Targeted trenching will address the following questions:

- Q5: Are the Bronze Age ditches discovered during the 2022 investigations related to a structure?
- Q6: Can further dating evidence be gained through excavation?

Aim 3 – Understand the Site’s archaeological and palaeoenvironmental conditions

3.2.3 This aim will be achieved with an assessment of the artefacts and samples recovered as defined and collected in Aim 2, using appropriate palaeoenvironmental and archaeological techniques to establish preservation and significance.

- Q7: What is the current state of the archaeological and palaeoenvironmental material across the site?
- Q8: How well do deposits and artefacts survive, and how deeply are they buried?
- Q9: What is the range and spatial patterning of artefacts recovered from the moated site, and can this inform our understanding of the use of the landscape and utilisation of wider resources?
- Q10: Can we increase our understanding of the structures and environment of the site?

Aim 4 – Making recommendations, undertaking analysis and publication

3.2.4 This aim will require all data from Aims 1-3 to be collated, with an integrated analysis of the archaeological and palaeoenvironmental resource recovered from the site in order to make recommendations to conserve, enhance and interpret the heritage significance of the site.

- Q11: What can an integrated synthesis of the results of this work with previous studies of contemporary regional sites tell us about the site and its setting?
- Q12: Considering evidence recovered from this and previous work, can we articulate the multi-phased use of the site and its immediate environs?
- Q13: Can we formulate recommendations for further archaeological and palaeoenvironmental analysis at the Site based on Aims 1-3, and implement a programme to publish and disseminate the results or continue fieldwork?

Aim 5 – Creating opportunities for people and communities

3.2.5 This aim runs throughout the whole programme, from the initial project set up through to dissemination and beyond. The project will offer a range of opportunities for local community members, students, school children and visitors to the area to get involved and learn more about the archaeology of the North York Moors National Park. Working closely with the wider project team and the NYMNPA staff, participation opportunities



will include excavation, photogrammetry and virtual guided visits. Our programme of participation will include:

- training between 60 – 70 community volunteers and students in excavation and post excavation tasks
- engaging children and young people with our education sessions
- hosting a 'Live' site tour from the trench side, guiding virtual visitors around the archaeological trenches and introducing the importance of the site
- co-producing a digital archive and resource for the project website with community participants
- posting updates about the archaeology and our finds on social media so everyone can follow the excavations as they progress

3.2.6 16 volunteers a day will be invited to join the excavations and will be trained in archaeological skills, co-producing the archaeological archive using DigVentures' unique Digital Dig Team software. Results will be recorded directly onto the project microsite, providing live updates of both technical data and social media via the microsite Timeline. Reports produced following the excavations will be hosted on the website, providing a research resource for anyone interested in the region's prehistoric archaeology.

4 BUSINESS CASE

4.1 The North York Moors National Park Authority Historic Environment Strategy

4.1.1 The site at Moorsholm forms one of 20,000 sites of archaeological or historic interest within the National Park, and investigation at the site will contribute significantly to research and knowledge of prehistoric activities across the North York Moors. The Historic Environment Strategy is divided into four themes, which DigVentures will aim to address as follows;

- **Research and Understanding** – the archaeological investigations and report will feed directly into the North York Moors HER database, helping the authority to make sound evidence-based decisions for future conservation works. The data from the site will also feed into the development and implementation of the new Research Framework for the moors, to better inform the next theme.
- **Conservation and Management** – the archaeological investigations will help to understand the state of preservation for the supposed archaeological remains which will in turn help to understand the conservation and management needs of the site and its immediate environs.
- **Education and Engagement** – a key part of DigVentures' ethos is education and engagement for all in archaeology. We actively seek to include local communities from all backgrounds and abilities in our excavations to help them discover and engage with their local heritage. Our excavation would strengthen participatory engagement and involvement for the NYMNP and encourage new visitors and new audiences to engage with the conservation of the park and its heritage.
- **Delivery** – the project will not only collaborate closely with the project managers and park rangers, but relationships with other stakeholders and associated



projects within the NYMNPA will be sought so as best to fulfil the project brief and aims and to satisfy the nature of the investigations as thoroughly as possible.

- 4.1.2 The archaeological project at Moorsholm has the capacity to contribute to all the above objectives. Our proposed public engagement programme will raise awareness to the area, in terms of destination experience and utilising heritage as a draw for physical visitors and online tourists. The works will provide detailed information about the nature and character of the archaeological site, adding to our understanding of the remains and aiding ongoing management of the monument. The research findings will be evaluated within the broader context of other upland moor-based sites, as well as period-based comparators. Understanding how sites related to one another and providing easily accessible information about the archaeology, will help increase knowledge of the historic environment. Finally, our full site archive will be available online once we have excavated the site, and our work is very much undertaken in the spirit of open access and FAIR principles. On completion, our data archive will be prepared and deposited in full with the NYMNPA HER, and signposted from the site's OASIS record and our own website.

5 INTERFACES

This project will interface with a series of other projects, stakeholders, and initiatives, summarised in the table below:

Interfaces	Description
<i>Core Project Team</i>	The core project team and specialist staff have consulted widely during the project planning and will continue to build on this as the project develops, forging strong links with local, national and international professionals and institutions actively engaged in a broad range of multi-period sites. In particular, we have engaged with archaeologists who have specialisms in prehistoric lithic technology to provide us with the best analysis for our lithic assemblages across the site.
<i>NYMNPA Project Team</i>	The project will be led and managed by Miles Johnson, the Head of Historic Environment for the NYMNPA. The project will showcase the archaeology from the NYMNP, and offer skills-based learning opportunities to engage as broad a group as possible in the local heritage. A recent survey undertaken by DigVentures has identified that key issues preventing people engaging with their local heritage are based on access and financial concerns. Thanks to the generous funding from the NYMNPA, the project will offer free enjoyable learning opportunities, both online and across multiple accessible locations, to help address the strong social and educational needs of the surrounding communities.

Table 1: Project interfaces

6 COMMUNICATIONS

6.1 Project team

- 6.1.1 The following section details specific staff responsibilities, drawing on terminology devised by Historic England for the MoRPHE project management framework. The overarching project has been funded by the NYMNPA and will be and managed by DigVentures. The project will be overseen by the NYMNPA Project Team. Project Assurance will be undertaken by co-CEO's Lisa Westcott Wilkins and Brendon Wilkins, who will monitor compliance against the deliverables detailed in this document. Kimberley Teale (Programme Manager) will project manage and act as the primary contact point and ensure that stakeholders are regularly updated as to progress. Stephanie Duensing (Programme Manager) will oversee the archaeological strategy and delivery, with Nat Jackson (Project Officer) as Site Director. Maiya Pina-Dacier will organise the Dig Programme and recruitment with Ginny Cole managing the social media content and bookings.
- 6.1.2 The project team have all worked closely together over a number of research projects, including Moorsholm's first season, Caerfai Camp (prehistoric promontory fort, 2021 – present), Leiston Abbey (2013-2016), Lindisfarne (a joint project with the University of Durham, 2016 - present) and Barrowed Time (community investigation of a Bronze Age hoard site, 2016). All core staff are employed in line with ClfA guidelines and are practicing field archaeologists at PCIfA level or above. Senior project staff are Members of ClfA in good standing.

6.2 Project management

- 6.2.1 The Project Manager will provide update reports for the NYMNPA lead throughout this Execution Stage up to the review of the Assessment Report/UPD. This will present an overview of progress, list tasks completed or part completed, including any on-going work and issues affecting progress. The Project Manager will also be responsible for ensuring that the project runs to schedule, and ensure that all major tasks are briefed/debriefed as necessary. Provision will be made for the project in 'Basecamp', which is a web-based project communication package used by DigVentures, enabling project participants to generate and record notes, tasks, milestones and other project-related communication.
- 6.2.2 DigVentures operates a computer-assisted project management system. Projects are undertaken under the direction of the Project Director who is responsible for the successful completion of all aspects of the project. All work is monitored and checked whilst in progress on a regular basis, and the Project Director/Managing Director checks all reports and other documents before being issued. A series of guideline documents or manuals form the basis for all work.
- 6.2.3 The Project Manager, Kimberley Teale, is a full member of the Institute for Archaeologists (ACIfA). DigVentures is a ClfA Registered Organisation (No. 102), and fully endorses the Code of Conduct, the Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology, and the Standards and Guidance documents of the Institute for Archaeologists. All DigVentures staff are employed in line with the Institute's Codes and will usually be members of the Institute.



6.3 Outreach and engagement

- 6.3.1 As a social business every aspect of the DigVentures approach is cognisant of a wider outreach agenda. Running alongside the Moorsholm community archaeology project, DigVentures will include a dedicated engagement programme for volunteers offering opportunities for individuals to get involved. The programme will increase local awareness of the area's archaeology and heritage, bearing in mind the sensitive location embargo, and amplify this with a coordinated digital and social media strategy. All major social media channels will be used to promote daily blog content.
- 6.3.2 The impact of this outreach work will be measured with a quantitative and qualitative evaluation of all participants to establish baseline audience awareness data and assist with future management strategies and promotion. This will be undertaken with a visitor survey conducted throughout the field season, targeting both excavation participants and casual visitors, and critically assessing the breadth, depth and diversity of engagement.

6.4 Dissemination and reporting

- 6.4.1 Rapid dissemination of the results to, and involvement of, stakeholders of the project is vital throughout. This will take place through multiple channels, addressing a multitude of established and new audiences. Dissemination outlined below will all be undertaken during 2023, and will include, but not be limited to;
- dedicated project timeline with daily news updates on a blog and all major social media channels (Facebook, Twitter, Google+, Flickr and Instagram) amplified through third-party coverage by the networked blogging community
 - dedicated interactive digital archive of the excavation data
 - wide circulation of the Post-Excavation Assessments, Final Report, Updated Project Design and links to the OASIS and the final report
 - site publication in an appropriate local/national journal commensurate with the results
 - deposition of the Post-Excavation Assessment and Final Report with the NYMNPA Historic Environment Record.

6.5 Project archive

- 6.5.1 The project archive will be prepared in accordance DigVentures guidelines for Archive Preparation, following Appendix 1, P1 of MoRPHE PPN 3 (English Heritage 2011), fulfilling the Guidelines for the preparation of excavation archives for long term storage (UKIC 1990). All reports produced by the project will be openly and freely disseminated through Historic Environment Record, Archaeological Data Service, OASIS portal and DigVentures website. Copyright on all reports submitted will reside with DigVentures, although a third party in-perpetuity licence will automatically be given for reproduction of the works by the originator, subject to agreement in writing with DigVentures.

7 PROJECT REVIEW

7.1.1 The project will be continually reviewed by the Project Executive and Project Manager, with a formal review undertaken at the end of each Stage as follows:

Stage	Description	Review Point	Completion Date
Initiation	Consideration of Project Proposal	RV1 – Assemble Project Team and liaise with NYMNPA	Completed Autumn 2022
Stage 1	Project Start-up, finalizing Project Design and definition of scope	RV2 – Sign-off on MoRPHE Project Design, and liaison with NYMNPA	Winter 2022
Stage 2	Archaeological Fieldwork – First Season	RV3 – assemble site archive and distribute pertinent data to specialists	Completed April 2022
Stage 3	Public engagement and communication – First Season	RV4 – Host online event	Completed April 2022
Stage 4	Assessment Report	RV5 - critically review findings, making recommendations for further work	Completed Autumn 2022
Stage 5	Updated Project Design	RV6 – Sign-off on MoRPHE Updated Project Design, and liaison with NYMNPA	Winter 2022
Stage 6	Archaeological Fieldwork – Second Season	RV7 – assemble site archive and distribute pertinent data to specialists	Proposed March 2023
Stage 7	Assessment Report	RV8 – critically review findings, making recommendations for further work or closure	Proposed Autumn 2023
Stage 8	Analysis & Publication (where no further execution stage is undertaken)	RV9 – final publication sign-off, and prepare archive for accession	Proposed Autumn - Winter 2023
Closure			Winter 2023

Table 2: Project review stages

HEALTH AND SAFETY

7.1.2 DigVentures will undertake the works in accordance with Health and Safety requirements and a Health and Safety Plan. This document will take account of any design information pertaining to above and below ground hazards. DigVentures will ensure that all work is carried out in accordance with its company Health and Safety Policy, to standards defined in *The Health and Safety at Work etc. Act 1974*, and *The Management of Health and Safety Regulations 1992*, and in accordance with the SCAUM (Standing Conference of Archaeological Unit Managers) health and safety manual *Health and Safety in Field Archaeology* (1996).



PART TWO: RESOURCES AND PROGRAMMING

8 PROJECT TEAM STRUCTURE

8.1 Team and responsibilities

8.1.1 DigVentures' Project Team is presented in Table 3.

Name	Initials	Project Role	Key Responsibility
Lisa Westcott Wilkins	LWW	Project Executive	Overall project responsibility, budget responsibility and project assurance, liaison with project team, partners and Stakeholders
Brendon Wilkins	BW	Projects Director	Oversight of archaeological strategy and quality assurance
Kimberley Teale	KT	Project Manager	Archaeological co-direction (on and off-site), liaison with project team & partners
Stephanie Duensing	SD	Project Manager	Archaeological co-direction (on and off-site), coordination of programme, post-excavation assessment and reporting
Maiya Pina-Dacier	MPD	Head of Community	Community development, bookings and engagement
Nat Jackson	NJ	Site Director	Excavation strategy and site direction, day to day management of field team and quality assurance of site archive
Jodie Hannis	JH	Community Archaeologist	On-site fieldwork, responsible for supporting participant field training
Freddy Wannop	FW	Community Archaeologist	On-site fieldwork, responsible for supporting participant field training
Ginny Cole	GC	Community Archaeologist	Community bookings and engagement

Table 3: Core team and responsibilities

9 METHODOLOGY

9.1 Introduction

9.1.1 The methods reflect the Project Stages set out in Section 7 above. A task list, with allocation of staff time and team members in Section 12 below. Detailed method statements relating the specific techniques or approaches included below can be found in Appendix 1 at the end of this document. The second stage of the project will be initiated by the completion of Stage 5 – the Updated Project Design.

9.2 Stage 6 – Archaeological fieldwork – Second season

9.2.1 A second season of project fieldwork (scheduled to run in March 2023) will comprise of archaeological trenching at the site in order to meet aspects of Aims 1 and 2 (see Section 7 above). It will aim to inform the following research questions:



- Q1: Can the nature of the enclosures be established?
- Q2: Can a chronological sequence and stratigraphic phasing for the enclosures' archaeological evidence be established (assisted by investigating Aim 2)?
- Q3: Is there any further evidence for multi-period occupation of the site and can it be established if this was transient?
- Q4: To what extent do the archaeological remains at the Site survive, and what is the potential of the site to inform a greater understanding of the surrounding prehistoric funerary landscape.
- Q5: Are the Bronze Age ditches discovered during the 2022 investigations related to a structure?
- Q6: Can further dating evidence be gained through excavation?

9.2.2 Specific archaeological interventions will include three trenches over extent earthworks and known features discovered during 2022's interventions (Figure 2). Trench locations have been designed to target Bronze Age ditches, earthworks and a possible barrow within the site. The nature and targets for evaluation trenches are further detailed in the methodological statements included in Appendix 1 (see Table 7).

9.3 Stage 7 – Assessment report and updated project design

9.3.1 This Stage will address Aim 3, focusing on answering the following research questions:

- Q7: What is the current state of the archaeological and palaeoenvironmental material across the site?
- Q8: How well do deposits and artefacts survive, and how deeply are they buried?
- Q9: What is the range and spatial patterning of artefacts recovered from the moated site, and can this inform our understanding of the use of the landscape and utilisation of wider resources?
- Q10: Can we increase our understanding of the structures and environment of the site?

9.4 Stage 8 – Further work, analysis and publication

9.4.1 Addressing Aim 4, this is the main reporting and recommendation stage of the project, focusing on the following research questions.

- Q11: What can an integrated synthesis of the results of this work with previous studies of contemporary regional sites tell us about the site and its setting?
- Q12: Considering evidence recovered from this and previous work, can we articulate the multi-phased use of the site and its immediate environs?



- Q13: Can we formulate recommendations for further archaeological and palaeoenvironmental analysis at the Site based on Aims 1-3, and implement a programme to publish and disseminate the results or continue fieldwork?

10 STAGES, PRODUCTS AND TASKS

10.1 Methodological Linkages

10.1.1 It is anticipated that the 2023 work will be undertaken in four stages (see Table 2 and Appendix 1). These are set out in the table below and are set against the project aims and questions that will be met at each stage, the products that will be produced and the tasks undertaken.

Stage	Description	Project Aims/ Questions	Products	Task & ID Number
Stage 5	Updated Project Design	Aim 1-4 Q1-13	12. Updated Project Design 13. Risk Assessment	10. Consult with wider project team and client to define delivery timetable
Stage 6	Archaeological Fieldwork – second season	Aim 1 Q1-4 Aim 2 Q5-6 Aim 5	14. Field Archive 15. Survey Archive 16. 3D Survey Archive	11. Site Preparation 12. Fieldwork (excavation) 13. Social media posts and online event 14. Assemble site archive & distribute to specialists
Stage 7	Assessment Report & Updated Project Design	Aim 3 Q7-10	17. Stratigraphic & Assessment Report	15. Specialist finds and palaeoenvironmental assessments 16. Integrated assessment report 17. Recommendations for further work
Stage 8	Analysis and Publication (<i>where no further execution stage is undertaken</i>)	Aim 1-4 Q1-13	18. Final report 19. Publication 20. Completed and accessioned archive	18. Specialist analysis 19. Finalise report and publication 20. Prepare data and archive for deposition 21. Final sign-off 22. Closure

Table 4: Stages, Products and Tasks

10.2 Task list by person days and team member

10.2.1 DigVentures projects are managed according to Historic England's MoRPHE project model (Management of Archaeological Research Projects in the Historic Environment) based on a PRINCE2 framework.



Task ID Number	Aims	Task Description	Performed by:	Start (no later than)
Stage 5: Updated Project Design				
10	1 - 4	Create UPD and consult with wider project team and client	KT, SD, NJ, MPD, IJ, BS	November 2022
Stage 6: Archaeological Fieldwork – Second Season				
11	1, 2 &5	Site Preparation	KT, SD, NJ, MPD, IJ, BS	December 2022 – February 2023
12	1, 2 &5	Fieldwork (trenches)	Project Team	March 2023
13	1, 2 &5	Social media posts and online event	Project Team	March 2023
14	1, 2 &5	Assemble site archive & distribute to specialists	Project Team	May 2023
Stage 7: Assessment Report				
15	3	Specialist assessments	Expert Team	May 2023
16	3	Integrated assessment report	Project Team	September 2023
17	3	Recommendations for further work	Project Team	September 2023
Stage 8: Analysis and publication (<i>where no further execution stage is undertaken</i>)				
18	1 - 4	Specialist finds and palaeoenvironmental analysis	Expert Team	September 2023
19	1 - 4	Finalise report and publication	Project Team	September 2023
20	1 - 4	Prepare data and archive for deposition.	Project Team	September 2023
21	1 - 4	Final sign-off	KT, SD	October 2023
22	1 - 4	Closure of project	KT, SD	October 2023

Table 5: Project Task List

11 OWNERSHIP

11.1.1 The Copyright on all reports submitted will reside with DigVentures and the NYMNPA. The original copyright holder will retain copyright in pre-existing data.

12 RISK LOG

Risk	Description	Probability	Impact	Counter measures	Estimated time/cost	Owner
1	Inclement weather - prolonged periods of rain	Medium	Delay work programme	Provision of site hut, and planned indoor archiving tasks with flexible programme	3 Days	SD/NJ
2	Exceptional weather (drying exposed archaeology)	Medium-Low	Slow progress	Provision of water bowser + spray	None	SD/NJ



3	Absence of core team member	Low	Delay work programme	Reallocate responsibilities or appointment of alternative	Minimal if done by adjustment	KT/SD
4	Absence of specialist team member	Low	Delay work programme	Reallocate responsibilities or appointment of alternative	Minimal if done by adjustment	KT/SD
5	Equipment theft/breakages	Medium	Delay work programme	Removal of finds material and digital equipment from site	3 days	SD/NJ
6	Serious site injury	Medium	Delay work programme	Detailed H&S Risk Assessment + daily safety briefing	3 days	SD/NJ
7	COVID-19	Medium	Delay work programme	Reallocate responsibilities or appointment of alternative	Minimal if done by adjustment	SD/NJ

13 BIBLIOGRAPHY

Atkyns, R. 1712 The Ancient and Present State of Glostershire. Robert Gosling: London.

British Geological Survey, 1978 1: 50,000 Series (map) England and Wales Sheet 152, Shrewsbury, Solid and Drift Geology. Southampton, Ordnance Survey.

Dobney, K. and Rielly, K. 1988 A method for recording archaeological animal bones: the use of diagnostic zones. *Circaea* 5: 79–96.

Dungworth D. (Ed.) 2015 Archaeometallurgy Guidelines for Best Practice. Historic England (www.HistoricEngland.org.uk/advice/)

Hillson, S. 2003. Mammal Bones and Teeth. An introductory guide to methods of identification. London: Institute of Archaeology, University College London.

Historic England, 2017 The Research Strategy and Agenda for Historic England <https://historicengland.org.uk/images-books/publications/he-research-agenda/researchagenda/>

Historic England, 2018 Historic England Corporate Plan (2018-21) <https://historicengland.org.uk/images-books/publications/he-corp-plan-2018-21/three-yearcorp-plan-2018-21>

McDonnell J.G. 2001 "Pyrotechnology" in Brothwell, D. and Pollard A.M.P. (eds) Handbook of Archaeological Sciences, John Wiley & Sons, London pp. 493-506.

NYMNPA - Brief for archaeological trial trench investigation (2022)

Standing Conference of Archaeological Unit Managers, (1991 rev. 1997) Health and Safety in Field Archaeology Manual 'Transactions of Shropshire Archaeological Society 3rd Series' in Transactions of Shropshire Archaeological Society 3rd Series, Vol. 4, (1904), XIX



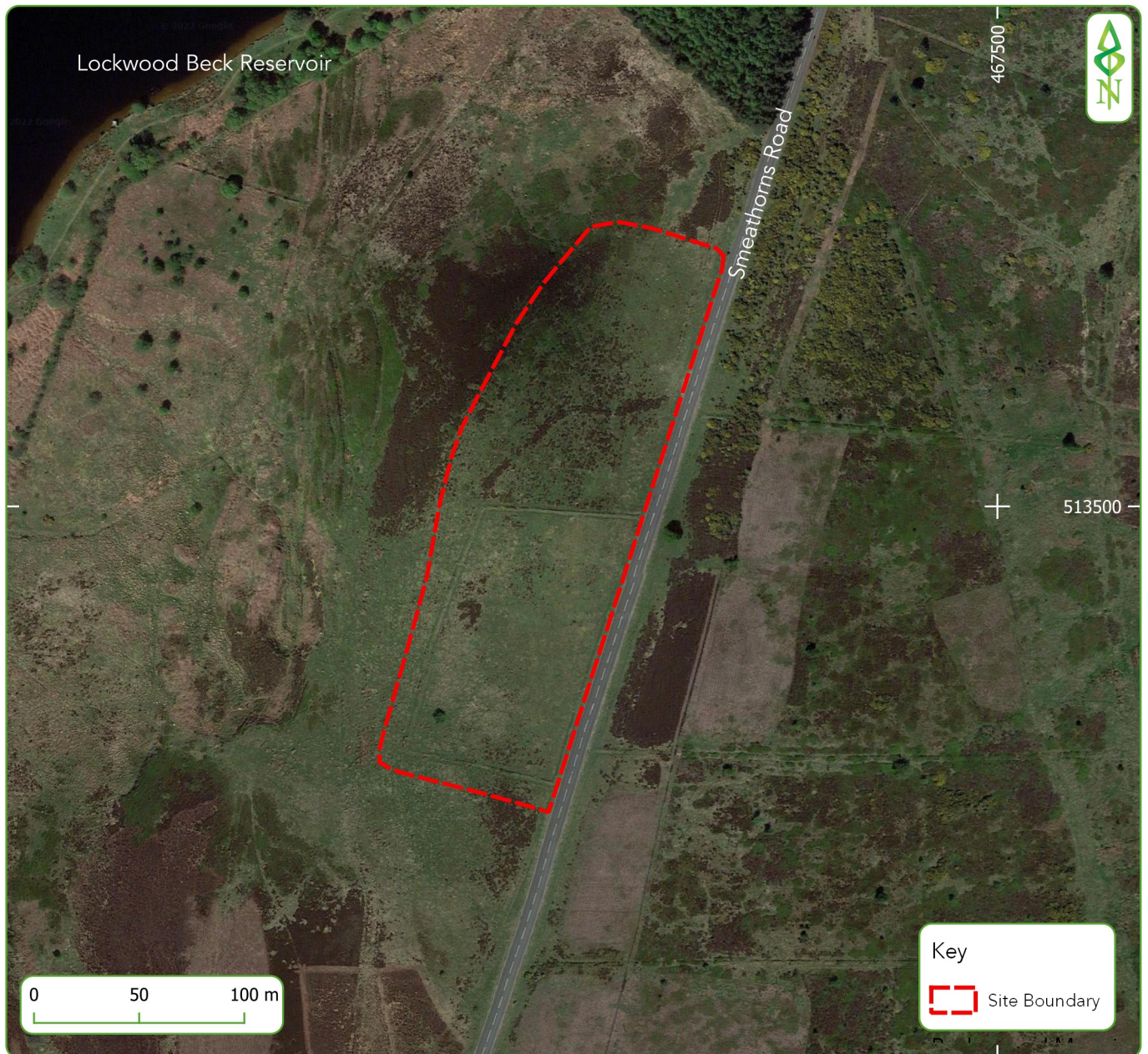
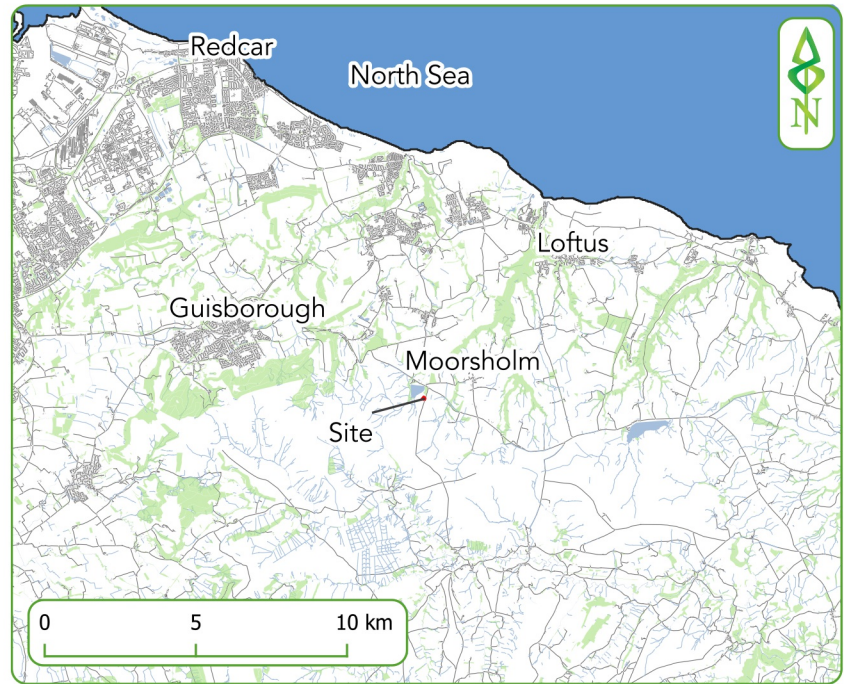


Figure 1. Site location



Figure 2. Trench Locations over targeted earthworks (Earthwork survey taken from (Brightman 2020))

Appendices

Appendix 1 Programme

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Appendix 2 Method statements

The methods for the proposed project cover all stages of work and may involve a combination of GIS modelling, archaeological excavation, sampling, palaeoenvironmental sampling and assessment. The methods are linked directly to the project aims and objectives (see Table 1) and detailed below.

Key Questions and Objectives	Archaeological Excavation	Photogrammetry	Sampling	Environmental Assessment	Finds Assessment	Synthesis and Data integration
Q1	✓	✓	✓	✓	✓	
Q2	✓		✓	✓	✓	
Q3	✓		✓	✓	✓	
Q4	✓	✓	✓	✓	✓	
Q5	✓	✓				
Q6	✓		✓	✓	✓	
Q7	✓		✓	✓	✓	
Q8	✓		✓	✓	✓	
Q9	✓		✓	✓	✓	
Q10	✓	✓	✓	✓	✓	
Q11						✓
Q12	✓	✓	✓	✓	✓	✓
Q13						✓

Table 6: Linking methods with objectives

Archaeological excavation (trenches)

At least three trenches will be excavated during the 2023 season of investigations at Moorsholm (Table 7).

The extension to Trench 3 will measure 6m by 6m and target the probable Bronze Age ditches discovered during the 2022 evaluations. It is hoped that this trench will clarify the ditches and illuminate what type of feature they would have once related to.

The second trench will open up Trench 6 which remained unexcavated during the 2022 fieldwork. Measuring 2 x 4m, it would aim to investigate the internal space of enclosure D6, the northern most enclosure seen on the site, in order to characterise the function of the enclosure and understand if it was for habitation or enclosing livestock.

The third trench will investigate one of several barrows within the site, and to obtain dating evidence to understand if it is contemporary with the remains investigated during the 2022 fieldwork.

Contingency trenches will also be planned for, with the aim of investigating other earthworks identified during the landscape survey to understand the nature of the archaeological remains.

Trench	Dimensions	Target	Description
3 (extension)	6 x 6m	Two probable Bronze Age ditches discovered in the 2022 excavations	Trench 3 extension, following the two possible Bronze Age ditches to ascertain enough evidence to understand their intention and purpose, and to obtain useful dating evidence.
6	4 x 4m	Area in the north of the site where enclosure D6 is located	Trench 6 from the 2022 PD. Will focus over enclosure feature D6, looking at its internal space to characterize the function and obtain dating evidence.
7	L-shaped 4 x 4m	Bronze Age Barrow	Trench 7 will investigate the eastern barrow. It will aim to confirm the nature of the mound, if it is a barrow, and if it contains any evidence to date and characterize the feature.
Alt Trench 7	2 x 4m	Bronze Age Barrow	Alternative trench will investigate the western barrow, to confirm if it is a barrow, and if it contains any evidence to date and characterize the feature.
Contingency trenches A, B & C	2 x 4m	Earthworks as detailed during previous works (housing platforms, and Romano-British remains)	Three contingency trenches will be planned, investigating features of interest as identified during the 2019 & 2020 works.

Table 7: Trench targets, locations and descriptions

Interventions

Topsoil will then be removed by machine and all trenches will then be cleaned by hand, planned and photographed prior to any further excavation. A representative section, not less than 1m in width, of the entire deposit sequence encountered will be recorded. If complex stratigraphy and/or significant remains (e.g. structural remains, artefact scatters, remains clearly of a funerary nature etc.) are encountered, these may only be excavated to the minimum requirement in order to satisfy the project objective, to avoid compromising the integrity of remains that may be either (a) preserved in situ, or (b) excavated in detail during any next phase of research excavation. Interventions will focus on feature intersections in order to establish relative chronologies, and 'clean' sections to maximise retrieval of stratigraphically secure dating evidence and environmental samples.

Full written, drawn and photographic records will be made of each trench even where no archaeological remains are identified. A plan at an appropriate scale (1:50 or 1:100) will be prepared, showing the areas investigated and their relation to more permanent topographical features, and the location of contexts observed and recorded in the course of the investigation. Plans, sections and elevations of archaeological features and deposits will be drawn as necessary at an appropriate scale (normally 1:20, or 1:10 for complex features). Drawings will be made in pencil on permanent drafting film.

Each trench, will be recorded using a Digital format created for Digital Dig Team, following the DigVentures single context recording system. Digital photography will be used for all photography of significant features, finds, deposits and general site working. The photographic record will illustrate both the detail and the general context of the principal features and finds excavated, and the Site as a whole.

Backfilling and reinstatement

Where turf is removed it will be stacked away from the trench edge, maintaining their integrity by ensuring that the turves are placed in a correct position (turf side up) and are watered frequently and monitored daily. Topsoil and subsoil will be removed and retained separately for reinstatement.

Photogrammetry survey

Photogrammetry survey will utilise Agisoft PhotoScan 3D Modelling software to detect the feature points of the structure, and match these in different images to create a point cloud. The camera positions will be calculated automatically by the software and a dense reconstruction or geometric model will be built to create a DSM and orthomosaic plans.

Images will be captured perpendicular to the recorded areas using telescopic mounted cameras, to deliver optimum results requiring little or no rectification. All images are taken with DSLR camera with a variety of standard and other lenses, captured in RAW format for later processing into high resolution JPG and TIF files.

Where vehicular access is possible Aerial-Cam can be used to record the larger areas of a structure using perpendicular positioning, as well as going to a greater height to provide general overview and context aerial perspectives. Surface boards will be laid down where necessary to minimise surface impact. Where access is restricted the Pole-Cam operated in the space of a single person, can be used for perpendicular positioning and for close up detailed images of masonry features etc. The methods used to generate raw data in advance of DSM processing are detailed below.



Palaeoenvironmental sampling

All deposits with good palaeoenvironmental potential will be sampled; bulk samples shall be taken from the section as appropriate, under advisement from the project specialist. Context specific samples will be taken by the most appropriate means (kubiena tins, contiguous columns, incremental block, bulk etc.) for multi-disciplinary analysis. All aspects of the collection, selection, processing, assessment and reporting on the environmental archaeology component of the evaluation shall be undertaken in accordance with the principles set out in *Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation* (English Heritage 2011) and with reference to the *Association for Environmental Archaeology's Working Paper No. 2, Environmental Archaeology and Archaeological Evaluations* (1995).

Metal working debris sampling

If significant quantities of metalworking debris are encountered, an on-site reference collection will be assemblage under the supervision of an experienced archeometallurgist. This will provide on-site monitoring of the metalworking debris recovered to flag up if evidence for processes other than iron smithing was emerging and the excavation strategy adapted to optimise the recovery of the evidence. It would facilitate post-excavation processing and also provide a training and information resource for volunteers and visitors. Magnets will be available on-site to assess the presence of hammerscale and other micro-residues in contexts containing slag or other evidence for ironworking.

Bulk sampling strategy

Bulk samples will usually be 40-60 litres in size, depending on the likely density of macrofossils. Ten litre samples will only be used for the recovery of plant macrofossils from waterlogged contexts. Samples will be stored in ten litre plastic buckets with lids and handles. A waterproof label will be fixed to the bucket and will record site code, context number and sample number and number of buckets in comprising the sample. A duplicate label will be retained inside the bucket. Samples will be protected from temperatures below 5° and above 25° Celsius and will be prevented from either wetting or drying out.

- Bulk samples selected for processing shall be wet-sieved/floated and washed over a mesh size of 250 microns for the recovery of palaeobotanical and other organic remains, and refloated to maximise recovery;
- Non-organic residues shall be washed through a nest of sieves of 10mm, 5mm, 2mm, 1mm and 250 micron mesh to maximise finds recovery;
- Both organic and non-organic residues shall be dried under controlled conditions;
- The dried inorganic fractions shall be sorted for small finds or any non- buoyant palaeoenvironmental remains, and scanned with a magnet to pick up ferrous debris such as hammerscale;
- The dried organic fractions shall be sorted under a light microscope to identify the range of species or other material on a presence/absence basis, the degree of preservation of the bio-archaeological material and the rough proportions of different categories of material present;
- In the event that waterlogged deposits are identified and sampled, further processing shall be undertaken as appropriate and agreed, including paraffin flotation to recover insect remains. Any such remains shall be scanned to identify and assess their potential;



- Selection of other types of sample for processing and the methods to be used for processing and assessment shall be undertaken on the advice of the relevant specialist and shall be agreed with the Consultant before implementation.

Contexts that are well stratified and potentially datable are all of value, so a systematic approach to selecting samples for processing and assessment will be taken. These will be divided into three categories:

- Category A (always sampled): contexts where the composition of the sediments are likely to inform us of the use of a particular structure or feature or if the deposits are waterlogged. These will include: *in situ* occupation deposits and fills/layers associated with particular activities; hearths; destruction deposits; basal pit/slot trench fills; waterlogged deposits, cesspits or latrines.
- Category B (always sampled, though discretion should be exercised): deposits identified as containing material that could yield information regarding their origin or the process that produced them. These will include: dumps, middens, upper pit fills with evidence for charred material, shell, bone and industrial waste.
- Category C: deposits containing material which is not necessarily related to the function of the feature to which they are related, but which can characterise deposits from different areas of the site. These will include: secondary and tertiary fills, postholes, levelling deposits, spreads etc.

Category A and B deposits should always be sampled, and Category C deposits sampled on a random basis (such as 1 in 5). These samples can help to characterise the background noise of a site, so as to highlight spatial or temporal trends and provide material that can be directly compared with those from Category A and B. All samples will be taken in large white 10 litre tubs, with labels placed inside with the deposit and attached to the bucket. All samples will be processed on site in a dedicated floatation and wet sieving area.

Zooarchaeology

If large deposits of bone or marine shell are encountered advice of the project zooarchaeologist (Matilda Holmes) will be sought as regards further sampling. If large deposits of bone or marine shell are encountered the project zooarchaeologist advice will be sought as regards further sampling. If articulated groups of bones are encountered, they will be surveyed, recorded *in situ*, (including digital photography and planning), and then excavated to retain the group's integrity. Bones from each articulated limb will be bagged separately. If inhumations or cremation burials are encountered and excavated the surrounding soil will be sampled to retrieve any loose teeth or bone fragments.

All hand collected animal bones and bones from processed samples will be assessed, following English Heritage Environmental Archaeology guidelines (2002). If warranted by the size of the recovered assemblage, it will be assessed using two different quantification methods to determine the most suitable for full analysis, taking into account methods used in comparative assemblages. The assessment will not distinguish between certain taxonomic groups, for example equids (horse and donkey); full speciation should be carried out as part of any recommended analysis, using a vertebrate comparative collection. In addition to quantification of domestic species and occurrence of wild species, the assessment will consider the number of articulated bone groups, and the prevalence of aging, sexing and osteometric data available for full analysis, following standard published conventions. The assessment report will comment on the potential of the assemblage, particularly in the context of the excavation's



research questions and current understanding of comparative assemblages. It will also provide recommendations for any necessary future analysis.

Human osteoarchaeology

In the event of the discovery of human remains (inhumations, cremations and disarticulated fragments) they should be left in situ, covered and protected, until the English Heritage Inspector of Ancient Monuments has been informed. If a decision is taken to remove them, they will be fully recorded and excavated in compliance with the relevant Ministry of Justice Licence. The excavation of human remains will be carried out in accordance with the procedures detailed in the document Excavation and post-excavation treatment of cremated and inhumed human remains (McKinley and Roberts 1993, IFA Technical Paper 13). Significant assemblages of human remains will be subject to an assessment of DNA preservation to establish potential familial relationships.

Inhumations will be scanned with a metal detector prior to excavation, and the position of possible metallic grave goods will be noted. Wherever possible, each burial will be excavated within a single working day, particularly with regard to visible grave goods. To minimise unauthorised disturbance of human remains, partially exposed remains will be covered overnight, though in such a way as to not draw undue attention, using loose excavated spoil.

Excavation of inhumations will be undertaken using a trowel, plasterer's leaf, plastic spoon and paintbrush as appropriate depending on the condition of the bones. When lifted the bones will be bagged by skeletal area (skull, axial, upper and lower limbs) with separate bags for the left and right side. A standard series of samples will be taken from each inhumation burial to ensure full recovery of any remaining osseous tissues or small artefacts. Once human remains are removed from inhumation graves, any soil residue remaining at the base of the grave will be retrieved for bulk processing.

Inhumations and cremations will be drawn at a scale of 1:10 and photographed prior to lifting. They will be recorded on Skeleton Record Sheets that form an integral part of the site pro forma recording system. The recording will include condition, completeness, articulation, orientation and posture. Fragile objects found within graves will be lifted with appropriate care and handling to minimise breakage. This may include subsequent controlled excavation under laboratory conditions. A trained conservator will be employed on the site if necessary.

All cremation burials and cremation-related contexts will be excavated and sampled in quadrants to ascertain the distribution of any archaeological components within the fills, with division into spit also if appropriate. Cremation-related features other than burials may be subject to more detailed sub-divisions, the appropriate strategy being developed by a specialist as the size and nature of the remains becomes clear. Undisturbed and slightly disturbed, but largely intact, urned cremation burials will be lifted *en masse* for excavation under laboratory conditions. The urns will be wrapped in crepe bandages and securely boxed for transportation. Where a vessel has been crushed, thereby disrupting any original internal deposition of the cremated remains, it will be lifted *en masse* after separate recovery of displaced sherds. All cremation-related contexts will be subject to whole-earth recovery from the point at which any cremated bone or other pyre debris is observed. If deposits of placed human bone are encountered in features, these may be excavated in spits if appropriate. The soils from these features will be bulk sampled.

Finds

Finds will be treated in accordance with the relevant guidance given in the *Chartered Institute for Archaeologist's Standard and Guidance for Archaeological Evaluation* (2008), excepting where statements made below supersede them. All artefacts will be retained from excavated contexts, except features or deposits undoubtedly of modern date. In these circumstances sufficient artefacts will only be retained to elucidate the date and function of the feature or deposit. All artefacts from the evaluation works will, as a minimum, be washed, marked, counted, weighed and identified.

Conservation

Artefacts will be recovered as a matter of routine during the excavation. When retrieved from the ground finds will be kept in a finds tray or appropriate bags in accordance with *First Aid for Finds* (Walker 1990). Where necessary, a conservator may be required to recover fragile finds from the ground depending upon circumstances.

After the completion of the fieldwork stage, a conservation assessment will be undertaken which will include the X-radiography of all the ironwork (after initial screening to separate obviously modern debris), and a selection of the non-ferrous finds (including all coins). A sample of slag may also be X-rayed to assist with identification and interpretation. Wet-packed material, including glass, bone and leather will be stabilised and consolidated to ensure their long-term preservation. All finds will be stored in optimum conditions in accordance with *First Aid for Finds and Guidelines for the Preparation of Excavation Archives for Long-Term Storage* (Walker, 1990).

The conservation assessment report will include statements on condition, stability and potential for further investigation (with conservation costs) for all material groups. The conservation report will be included in the updated project design prepared for the analysis stage of the project.

Scientific dating

Where uncontaminated deposits are recorded which are able to inform understanding of the research aims (in particular, relating to the construction of the banks and ditches), appropriate samples will be taken. Radiocarbon dating will be appropriate for clarifying and linking aspects of archaeological and environmental chronologies, and a strategy for this will be agreed following discussion with HE Science Advisor and the relevant specialists.

Synthesis and data integration

The results of the project will be integrated and synthesised with those from the previous investigations and other relevant work within the region and further afield (see Section 1 and 2 above). This will include a literature review of other pertinent sites.

Survey and GIS modelling

All survey work recording archaeological features, interventions and find spots, will be undertaken using a Trimble Real Time Differential GPS survey system. The Trimble VRS system is used in conjunction with a GPS Rover unit. It allows for surveying without the use of a site specific fixed base station. This is achieved by connecting to Trimble's network of fixed base stations by means of mobile phone communication. This method is highly efficient and accurate (+/- 2cm) when good signal is available. The survey data is exported from the data



logger as a comma delimited file (csv) and a Trimble data collector file (dc). Either of these files can be imported into Trimble GeoSite Communicator, which recognises the feature code library and plots all strings, polygons and labels as intended. All survey and excavation data will be stored within a GIS environment, which will remain the principle conduit for all spatial data throughout the project. Survey will be undertaken to standards identified in best practice guidance, including HE Traversing the Past 2016 and HE Understanding the archaeology of landscapes 2017.