



Archaeological trial trench investigations at
Smeathorns Road, Moorsholm, North York
Moors National Park

2023 Assessment Report

Nat Jackson

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Moorsholm, North York Moors National Park

Assessment Report

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Purpose of document

This document has been prepared as a Post-Excavation Assessment Report for Smeathorns, Moorsholm, North York Moors National Park and DigVentures' global community. The purpose of this document is to provide a comprehensive account of the excavation undertaken in 2023 at Smeathorns, Moorsholm, with specialist assessment of finds and samples, and recommendations for further investigations and analysis. It is supported by an archive of drawn, photographic and digital data, and includes recommendations for further analysis.

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Project summary

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The Project Executive for DigVentures is Lisa Westcott Wilkins, with Brendon Wilkins as Projects Director. The project was 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

DigVentures was invited by the North York Moors National Park Authority (NYMNPA) to undertake a community-based archaeological research project at Smeathorns, Moorsholm (hereafter 'the Site'), funded by the NYMNPA. This report details results of the investigations, providing a comprehensive assessment of the archive and highlighting its significance and potential for future research.

Fieldwork took place between the 10th and 23rd of March 2023, building on the excavations carried out in 2022, and acting on recommendations laid out in the assessment report from that year (Jackson et al, 2022). The targets for investigation were more of the visible earthworks at the site, including two potential round barrows. This assessment report provides the results of this first season of fieldwork, giving baseline information to contribute to the future management, research and presentation of the site, creating multiple educational and participatory learning experiences for community participants.

Results summary

Fieldwork undertaken in March 2023 built on the results of the first season of community excavation delivered in 2022 which examined earthworks identified as part of LIDAR assessment and walkover survey. Having previously established the presence and character of buried archaeology, the aim of the 2023 excavations was to determine a chronology and function of the site and assess its preservation. The excavations, delivered with community participants, have revealed evidence of occupation at the site from the Mesolithic through to the Roman period.

In total, four trenches were opened over the course of the excavation, each investigated a specific target related to the aims set out in the Updated Project Design (Teale 2022b). Trench 3 was the only target reopened from the earlier field season and aimed to further characterise and date the ditches that had been revealed. Within the newly opened area of the trench a series of pits and a ring gully were observed. The earliest feature in the trench was the ring gully. This feature was heavily truncated by later activity and, as such, difficult to fully characterise. Two ditches, both partially investigated in 2022, were re-excavated to recover datable material. The expanded excavation raised further questions regarding the earlier interpretation that the ditches are of Early Bronze Age date, this was due to the recovery of a small fragment of later Roman pottery from one of the fills. The latest evidence for activity in Trench 3 is Romano-British or Roman, comprising a series of pits in the southwest corner of the trench. These pits were relatively shallow, and all contained a similar silty fill. Pottery was recovered from the features predominantly dating to the 3rd and 4th centuries. The earliest Roman pottery was a sherd of Samian ware dating to between 120 and 250 AD. The majority of the lithics recovered on site were found in Trench 3, these mainly dated to the Late Neolithic and Early Bronze Age, however two were Mesolithic.

At the northern end of the site, Trench 8 was located to investigate a possible barrow. This was confirmed soon after opening the trench, with the feature initially sharing characteristics of a bell barrow. A ditch ran around the circumference of the feature and, with no evidence of the berm, following excavation it was determined to be a more common bowl barrow type. Whilst not fully excavated, it is possible to give an indication of the barrow's construction and dating. The mound was most likely constructed through the excavation of the exterior ditch, with material built up around a central chamber constructed from large unworked stones. The



monument was probably in use during the Early Bronze Age, dated by flints recovered within its fills.

Two additional trenches recorded very little archaeology. Trench 6 targeted the central area of the northern most enclosure on site (D6). Within the trench a single feature was revealed, this was a small pit containing no finds. Trench 7 targeted a potential barrow, and once opened revealed no archaeology.

In total, the project welcomed 41 participants who joined the archaeological team in the trenches. The project succeeded in attracting a new audience for archaeology, with 49% of participants and all of students in the school group having never taken part in archaeology activities before.



Contents

1	INTRODUCTION	10
1.1	Project background	10
1.2	The NYMNP Historic Environment Strategy	10
1.3	Location, topography, and geology	11
2	ARCHAEOLOGICAL BACKGROUND	12
2.1	Historic background	12
2.2	Previous fieldwork	12
3	PROJECT AIMS AND OBJECTIVES	14
3.1	Project model	14
3.2	Research aims	14
4	METHODOLOGY	16
4.1	Topographic survey and GIS modelling	16
4.2	Archaeological excavation	16
4.3	Paleoenvironmental sampling	17
4.4	Artefacts and ecofacts	17
5	EXCAVATION RESULTS	19
5.1	Introduction	19
5.2	Trench 3	19
5.3	Trench 6	20
5.4	Trench 7	21
5.5	Trench 8	21
6	ARTEFACTS	22
6.1	Summary	22
6.2	Pottery	22
6.3	Lithics	23
7	ECOFACTS	26
7.1	Introduction	26
7.2	Results	26
7.3	Discussion and conclusions	27
8	PUBLIC IMPACT	29
8.1	Introduction	29
8.2	Public programming	29
8.3	Evaluation methodology	30
8.4	Social impact – excavation participants	31
8.5	Conclusion	32
9	DISCUSSION AND CONCLUSIONS	33
9.2	Chronology	33
9.3	Function	33
9.4	Preservation	34
9.5	Conclusions	35
10	RECOMMENDATIONS	35
10.2	Excavation	35
10.3	Artefacts	35



10.4	Scientific Dating	35
11	BIBLIOGRAPHY.....	36

Tables

Table 1. Trench 3 context descriptions	60
Table 2. Trench 6 context descriptions	69
Table 3. Trench 7 context descriptions	70
Table 4. Trench 8 context descriptions	71
Table 5: Pottery dating summary	73
Table 6: Pottery fabric summary	74
Table 7: Pottery form summary	74
Table 8: Pottery sherd data	75
Table 9: Summary of lithic assemblage	76
Table 10: Quantification of unworked burnt material	76
Table 11: Quantification of naturally broken/unmodified material	76
Table 12: Archive catalogue of worked flint.....	77
Table 13: Summary of material extracts from heavy residues and flots from samples	79
Table 14: Summary of artefacts and ecofacts recovered from heavy residues.....	79
Table 15: Summary of remains recovered from flots by context	80
Table 16: Charred and untransformed fruits and seeds from flots, count.	81

Figures

Figure 1: Site location.....	40
Figure 2: Trench Locations over targeted earthworks (Earthwork survey taken from (Brightman 2020))	41
Figure 3: Scheduled monuments within 5km of site	42
Figure 4: Intervisibility between site and scheduled monuments.....	43
Figure 5: Barrows that are scheduled monuments within 5km of site	44
Figure 6: Trench 3 Post excavation plans.....	45
Figure 7: Trench 3 various sections	46
Figure 8: Trench 3 various sections.....	47
Figure 9: Trench 3 Matrix	48
Figure 10: Trench 6 plan and section.....	49
Figure 11: Trench 7 plan and sections	50
Figure 12: Trench 8 pre excavation plan (top) and post excavation plans (centre and bottom)	51
Figure 13: Trench 8 sections and matrix	52
Figure 14: Trench 3 record photographs.....	53
Figure 15: Trench 6 and 7 record photographs.....	54
Figure 16: Trench 8 record photographs.....	55
Figure 17: Socio-economic data and distance travelled	56
Figure 18: Community Photographs.....	57
Figure 19: Theory of Change	58
Figure 20: Standards of Evidence	59



Appendices

Appendix A: Context descriptions	60
Appendix B: Pottery catalogue	73
Appendix C: Lithics Catalogue	76
Appendix D: Environmental	79



1 INTRODUCTION

1.1 Project background

- 1.1.1 DigVentures was appointed by the North York Moors National Park Authority (NYMNPA) to undertake an archaeological trial trench investigation at Smeathorns, Moorsholm in the North York Moors National Park (NZ 67260 13602) (see Figure 1). The site was first identified in 2021 as part of LIDAR analysis and landscape survey (Brightman 2018, Brightman 2019, Brightman 2020), following which the NYMNPA commissioned a community-led archaeological investigation to inspect earthworks thought to be prehistoric through trial trenching.
- 1.1.2 The overarching aim of the fieldwork in 2022 was to examine the nature of the earthworks, investigating the date and character of possible prehistoric features and clarifying their relationship to one another. Following this, assessment of the site archive recommended an additional excavation season to further investigate the site and a second year of community excavation was commissioned. Delivered in March 2023, the overarching aim of the second season was to understand the extent of the surviving archaeological remains discovered in 2022, to further investigate earthworks seen in a landscape survey in 2021 and to understand the relationship between the site and the wider landscape of the North York Moors National Park.
- 1.1.3 Following consultation with NYMNPA, an Updated Project Design (Teale 2022b) was developed in line with the MoRPHE framework (Historic England 2015). This provided the research aims and methodology used to deliver a field research project, encompassing excavation and assessment stage.
- 1.1.4 This document provides an assessment of the second season of field investigations at Smeathorns, Moorsholm (hereafter 'the site'), which took place between the 10th and the 23rd of March 2023. This assessment report provides the results of the second season of fieldwork, giving baseline information to contribute to the future management, research, and presentation of the site, creating multiple educational and participatory learning experiences for community participants. It will set out the potential and significance of the site, and provides recommendations for further research.

1.2 The NYMNPA Historic Environment Strategy

- 1.2.1 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 NYMNPA 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.

1.2.2 The archaeological project at Moorsholm has the capacity to contribute to all the above objectives. The public engagement programme has raised awareness to the area, in terms of destination experience and utilising heritage as a draw for physical visitors and online tourists. The works provide detailed information about the nature and character of the archaeological site, adding to understanding of the remains and aiding ongoing management of the monument. Research findings are understood within the broader context of other upland moor-based sites, as well as period-based comparators. Understanding how each site relates to one another and providing easily accessible information about the archaeology, will increase access to knowledge of the historic environment. Finally, on completion, the site archive will be prepared and deposited in full with the NYMNPA HER and appropriate bodies, and signposted from the site’s OASIS record and our own website.

1.3 Location, topography, and geology

1.3.1 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 was undertaken prior to excavation and special care taken during excavation and reinstatement of turf and heather, including maintenance of the removed turf throughout the excavations.

1.3.2 The site is made up of 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 ARCHAEOLOGICAL BACKGROUND

2.1 Historic background

- 2.1.1 The North York Moors National Park (NYMNP) is an area of over 1400 square kilometres containing over 20,000 archaeological sites. The site at Moorsholm sits within an area particularly rich in prehistoric archaeology. Within a five-kilometre radius of the site there are 75 scheduled monuments with individual IDs (see Figure 3), of these most are noted as prehistoric and the vast majority are round barrows. Just over a kilometre away to the southwest is a Bronze Age round barrow sat on Quakers Causeway (SM No.1015447), and two kilometres to the southeast of site is Brown Hill, the location of Mesolithic flint scatters and several more Bronze Age round barrows. These barrows are visible all along the horizon when looking south from site. The site appears to sit on the edge of a funerary landscape, with Bronze Age barrows visible on the horizon (see Figure 4). This figure also shows how many of the scheduled monuments, predominantly round barrows have a view of the site. The prehistoric site of Danby Rigg (SM No.1018782) is located seven kilometres to the southeast of site, this is a similar prehistoric landscape made of field systems, enclosures, and funerary monuments from the Bronze Age.

2.2 Previous fieldwork

- 2.2.1 Prior to the work carried out by Solstice Heritage (Brightman 2018, 2019, 2020), limited investigation had been undertaken at the site. The site was included in the HER following assessment of the close spaced Sirius LiDAR and walkover survey which took place in advance of a moorland restoration programme including a part of the Smeathorns landscape (Brightman 2018). Following this survey, the landscape around site was prioritised for ground-truthing through walkover survey (Brightman 2019), it was this work that led to the site being a part of a more detailed measured earthwork survey (Brightman 2020).

2022 Excavation

- 2.2.2 Fieldwork was undertaken in April 2022 to address a series of research questions which focused on an extant series of earthworks observed in the LIDAR and 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.
- 2.2.3 In total, five trenches were opened over the course of the excavation, each investigated specific targets determined by the NYMNPA. Trench 1 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. Trenches 2, 3 and 5 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. It wasn't completely empty however and did yield several lithic finds, including a Sutton type arrowhead.



2.2.4 Trench 3, by 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 visible. Excavation of Trench 5 targeted a substantial ditch and bank which, although 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, 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. In summary, the excavation of the site has revealed a potentially important early Bronze Age settlement located at the edge of the present day North York Moors National Park.

3 PROJECT AIMS AND OBJECTIVES

3.1 Project model

- 3.1.1 The overarching aim of the project was 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 (Teale 2022b).

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. The new programme of targeted trenching addressed 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 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.

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 addressed 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 was 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 required 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 Public engagement opportunities run 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 included:

- training between 40 – 50 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 Participants were invited to join the excavations and trained in archaeological skills, co-producing the archaeological archive using the digital first format DiggIt, following the DigVentures single context recording system. Results were disseminated via the project microsite, providing live updates of both technical data and social media via



the microsite Timeline. All reports are hosted on the DigVentures' website, as well as submitted to the HER and OASIS, providing an accessible research resource for anyone interested in the region's prehistoric archaeology.

4 METHODOLOGY

4.1 Topographic survey and GIS modelling

- 4.1.1 Topographical survey work was carried out 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 was stored within a GIS environment, which will remain the principle conduit for all spatial data throughout the project. Survey was undertaken to standards identified in best practice guidance, including HE Traversing the Past 2016 and HE Understanding the archaeology of landscapes 2017.

4.2 Archaeological excavation

- 4.2.1 In total, four trenches were opened on the site (Figure 2). Trenches 6, 7 and 8 were excavated in the 2023 season, along with the reopening and extension of Trench 3. Trench 3, initially measuring 2 x 6m, was reopened as a 6m x 6m square. It continued the investigation of two ditches seen in the 2022 field season, and explored the possibility of further features being revealed that may assist in determining the function of the ditches. Trench 6, 2 x 4m, investigated 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. Trenches 7 and 8 looked at two potential barrows in the north of the site. Trench 7 was initially planned as an L-shaped trench, however on arrival to site it was decided to only open a 2m x 5m east to west aligned trench based on their being no obvious signs of a barrow being present. Trench 8, measuring 2m x 4m, was located over a potential barrow identified in the earthworks survey. The location of the trenches is shown in Figures 1 and 2.
- 4.2.2 Turf and topsoil were removed by hand and all trenches were then cleaned, planned and photographed prior to further excavation. All archaeological deposits were excavated and recorded using a single context recording system. A representative section of the entire deposit sequence encountered was recorded. Interventions focused on feature intersections in order to establish relative chronologies, and 'clean' sections to maximise retrieval of stratigraphically secure dating evidence and environmental samples.
- 4.2.3 A single context recording system was used to record the deposits, and a full list of all records is presented in Appendix A. Layers and fills were recorded (001), the cut of



the feature is shown [002]. Each number has been attributed to a specific trench with the primary number relating to that trench (i.e. Trench 1, 1001 +, Trench 2, 2001 +). Each feature excavated was given an individual F number, e.g. F101. Like the context numbers, each feature number has been attributed to a specific trench again with the primary number relating to that trench (i.e. Trench 1, F101 +, Trench 2, F201 +).

- 4.2.4 Full written, drawn and photographic records were made of each trench. Plans at a scale of 1:50 were prepared, showing the areas investigated and the location of contexts observed and recorded during the investigation. Sections and elevations of archaeological features and deposits were drawn as necessary at an appropriate scale (1:20 or 1:10). Drawings were made in pencil on permanent drafting film. Digital photography was used for all photography of significant features, finds, deposits and general site working. The photographic record illustrates both the detail and the general context of the principal features and finds excavated, and the Site as a whole. The drawn and photographic record was supported by 3D photogrammetric recording throughout the different stages of the excavation as required, producing orthorectified imagery of significant deposits and features, mid-excavation and post-excavation final trench plans.

4.3 Paleoenvironmental sampling

- 4.3.1 All deposits with good palaeoenvironmental potential were sampled; context specific bulk samples were taken as appropriate under advisement from the project specialists and in accordance with the selection and categorisation criteria detailed in Appendix 1 of the project design (Teale 2022a). All aspects of the collection, selection, processing, assessment and reporting on the environmental archaeology component of the evaluation was 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).

4.4 Artefacts and ecofacts

- 4.4.1 Finds were treated in accordance with the relevant guidance given in the Chartered Institute for Archaeologist's *Standard and guidance for archaeological field evaluation* (revised 2014), and the *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (2014), excepting where they were superseded by statements made below. Archaeological material was handled and sorted following advice in Watkinson and Neal (1998). All artefacts from excavated contexts were washed, counted, weighed, and identified. Finds recovered were assessed by appropriately qualified specialists, who examined the finds to provide an identification, date, and provenance of the material, and to also evaluate the significance of the assemblage.

Pottery

- 4.4.2 The pottery was recorded to comply with the requirements of the Study Group for Roman Pottery (Darling 2004) using codes and system developed by the City of Lincoln Archaeological Unit expanded to include local material (Darling and Precious



2014) The fabrics are further described below. Handmade feature sherds have also been recorded using the methodology developed by David Knight (1998). Vessels have been paralleled, where possible, to local publications. Tabulated dating summary, quantified lists of pottery by fabric and form and a full archive have been produced. The tabulated data is a key part of this report and is presented in Appendix B.

Lithics

- 4.4.3 The typo-technological classification follows standard recording procedures (Ballin 2021; Butler 2005; Inizan et al. 1999). A primary removal is a flake with at least half of the dorsal surface retaining cortex. A blade is a flake with length at least equal to twice its width; a bladelet is a small blade with a width less than 12 mm; and a blade-like flake is a flake exhibiting traits of a true blade (e.g. parallel margins, arises), but not fulfilling the metric criteria of a true blade. A chip refers to debitage or indeterminate fragments less than 10mm. A chunk is an indeterminate piece measuring equal or greater than 10mm (*cf.* Ballin 2000). All finds were quantified by count and weighed to the nearest 0.1g. Any metrical attributes were recorded after Saville (1980).

Environmental samples

- 4.4.4 The samples were processed using the Siraf method of flotation (Williams 1973) using a 1mm mesh to retain heavy fraction and a 250-micron mesh for the light fraction/float. The sample residues were assessed in accordance with Historic England guidelines for environmental archaeology (Campbell et al. 2011) and the ClfA toolkit for specialist reporting (ClfA 2021). Once dry, a magnet was run through the heavy residue to recover any magnetic material that may include hammerscale (Dungworth and Wilkes 2007). Magnetic material was quantified by weight only and was examined under x10 magnification to identify any hammerscale that might be present. The heavy fractions were then sieved at 4, 2 and 1mm, with the >4mm fraction sorted in full and the 2-4mm, 2-1mm and <1mm fractions scanned for any artefactual or environmental remains.
- 4.4.5 Light fractions/flots were sorted under a low power light microscope at 10x to 60x magnification, with any artefactual or environmental remains extracted for assessment. The presence of 'modern' material in the light fractions, such as root fragments and non-charred or non-mineralised plant remains, were recorded by weight and count.
- 4.4.6 Charred plant remains and untransformed seeds and plant material were identified under a low power light microscope at 10x to x60 magnification using the archaeology.biz reference collection and published guides (Digital Plant Atlas; Cappers et al. 2006; Jones et al. 2004; Delorit 1970). Plant nomenclature followed Stace (2019). Quantification was by count, where a grain/seed/fruit with 51-100% surviving quantified separately from fragments representing 50% or less of the complete grain/seed.
- 4.4.7 The sample residues were sorted and assessed in accordance with Historic England guidelines for environmental archaeology (Campbell et al. 2011) and the ClfA toolkit for specialist reporting (ClfA 2021), with reference to a UPD for the site (Teale 2022b) and the North-East Regional Research Framework (NERRF).

5 EXCAVATION RESULTS

Nat Jackson

5.1 Introduction

- 5.1.1 From the 10th to the 23rd of March 2023, DigVentures staff alongside a team of community participants excavated a site in the North York Moors National Park, near the village of Moorsholm (Figure 1). A total of four trenches were opened each targeting specific aims set out in the updated project design (Teale 2022b) (Figure 2). Full context records can be found in Tables 1 to 4 in Appendix A.

5.2 Trench 3

- 5.2.1 Trench 3 was the only trench to be reopened and expanded from the 2022 excavations. Measuring 6m x 6m, the turf and topsoil layers were removed by hand to reveal the archaeological layers beneath (Figures 6, 7, 8, 9 and 14). Trench 3 had been initiated to investigate the north-eastern bank between the two enclosures, D4 and D5. Following the excavation of the topsoil, subsoil, and upper silting layers two ditches were revealed. One of these respected the bank seen in the south of the trench F302, the other was running more from the NE to the SW and downslope, F301. Trench 3 was by far the most fruitful with regards to finds with over 120 lithics being recovered and a handful of pottery (six pieces). The pottery is likely residual and to have washed down slope. There were some lithics found within the ditch fills, one of which was given a special find number (SF26) due to it being at the very base of the ditch F302.
- 5.2.2 The earliest feature in the trench was a probable ring gully F303, this was ephemeral in nature, measuring a maximum of 0.21m in width and a maximum depth of 0.06m, it contained a single light grey-brown clayey silt fill throughout. The diameter of the ring gully can be estimated as around 4m. No internal structure was seen relating to the ring gully as it was all obscured or truncated away by later activity. The function of the ring gully is unknown.
- 5.2.3 The ring gully was cut by all other features in the trench including two ditches F301 and F302. One of the aims in reopening Trench 3 was to further characterise these features, it has been interpreted that F301 is likely later stratigraphically than F302 (Figure 7). The function of these ditches is not known; however they are likely to have been drainage and boundary ditches. Ditch F302 respects the bank seen in the south of the trench and is probably associated with that feature, ditch F301 was roughly NE to SW aligned and heading downslope.
- 5.2.4 Ditch F301 had a maximum width of 0.56m, a maximum depth of 0.25m and 3.26m of it was visible within the trench. The ditch contained a single fill, (3008), which was the same as (3013) and (3041). This fill was a moderately friable grey-brown clay-silt. Within the fill three small handmade Early Bronze Age sherds of pottery were found, along with 23 flints of the same period.
- 5.2.5 Ditch F302 had a maximum width of 0.63m, a maximum depth of 0.30m and 4.32m of it was visible within the trench. It contained two fills, the upper fill (3011) was a clayey



silt, and likely represented the silting up the ditch post abandonment. Within this fill a single small handmade sherd of pottery from the Early Bronze Age was recovered alongside 29 pieces of flint likely dating from Late Neolithic or Early Bronze Age. The lower fill was excavated in three places (3009), (3029) and (3039), this was a moderately compact dark grey brown clay-silt, and likely represents a buildup of silting whilst the feature was open and in use. Within the lower fill two fragments of pottery were recovered, one dating to the Iron Age or Roman period and the other is Early Bronze Age.

5.2.6 A post hole, F304, is potentially related to the earlier activity in the trench. It measured 0.70m long, 0.55m wide and 0.46m deep and contained a single moderately compact light yellowish brown silty clay fill (3018). Other post holes were seen in the north of the trench, however they are very different in character and so do not appear to be related. Post hole, F310, was initially thought to be truncated by a second ring gully, however after excavation it was seen to be a discrete lens of material (3021), it had no clear cut, and was a moderately compact, light greyish brown, silty clay fill with very regular charcoal flecks, and measured at least 0.36m long, 0.17m wide and 0.04m thick. The post hole, F310, was 0.40m in diameter and had a depth of 0.13m, it contained a single fill (3016) which was very charcoal rich, a sample was taken of this material (SAM10). Another post hole, F311, was seen in the northern corner of the trench, this was similar in character to F310, and so may be related. It was 0.50m long, 0.40m wide and 0.14m deep and contained a single fill (3023). The fill appeared to be heat affected, possibly indicating in situ burning as it permeated into the underlying natural in the area.

5.2.7 The latest features in the trench were a series of Roman pits. These features, F305, F306, F307, F308 and F309, were in the south of the trench. Of these only F305 was discrete, the others intercut. A shallow pit, F305, measured 1.10m long, at least 0.25m wide and 0.10m deep. It contained a single fill (3035), a moderately friable, dark grey-brown, clayey silt with very frequent charcoal flecks and chunks, and some large sub-angular/rounded flat stones placed within the fill. Within this fill two fragments of Roman pottery were recovered. Pits, F306, F307, F308 and F309 all had similar fills to F305, and three of these features (F306, F307 and F308) contained fragments of likely Roman pottery.

5.3 Trench 6

5.3.1 Trench 6 was a contingency trench for the 2022 excavation and was deemed worthy of investigation in 2023, the trench was initially planned to be 4m x 4m but was halved in size to 4m x 2m to make it manageable to excavate in the time available. Trench 6 targeted an area internal to enclosure D6, identified in the earthworks survey (Brightman 2020) (Figure 10 and 15). It was investigating the theory that they were stock enclosures as opposed to living spaces. After the removal of the turf and topsoil by hand and the trench was cleaned solitary potential feature, F601, was seen. This was observed in the south eastern corner of the trench against the baulk, it was sub-oval in shape, and had gradual sloping sides, the fill (6005) was a friable mid reddish-brown clay silt with some burnt material within it.



5.4 Trench 7

- 5.4.1 Trench 7 was investigating a potential barrow identified in the earthwork survey (Brightman 2020) (Figure 11 and 15). It was initially planned to be an L-shaped trench however upon arrival on site it was determined to excavate a north west – south east aligned trench measuring 2m x 5m. This was based on there being no obvious signs of a barrow being present. After the removal of the turf and topsoil a single feature was identified, F701. This was initially identified as a post hole but after excavation it was seen to be animal burrowing. Two sondages were placed at either end of the trench and excavated to the underlying natural geology. Three layers of colluvial deposit were seen. Under the topsoil (7001) was a subsoil (7002) likely accumulated through silting and hill wash and had a maximum thickness of 0.09m. After this was removed in the two sondages a second hill wash layer was removed this was (7005) in the NW and (7006) in the SE. They are likely the same deposit, both being a friable mid yellow brown sandy silt and a thickness of 0.04m, in the SE of the trench after (7005) was removed it revealed the underlying natural (7008). In the NW of the trench a final colluvial layer was observed, (7007) this was very similar to (7006) however it was more compact and contained more stone inclusions and was seen for 0.08m before the natural was reached.

5.5 Trench 8

- 5.5.1 Trench 8 (Figures 12, 13 and 16) was located over a potential barrow, again identified in the earthwork survey (Brightman 2020), the trench measured 2m x 4m and was NW-SE aligned with the aim of excavating a slot through the barrow from the centre to the outer limit. The turf and topsoil layer was removed by hand, revealing a series of large stones in the SE of the trench (Figure 12, top).
- 5.5.2 In the NW of the trench a layer (8004) was excavated, this layer was seen in patches throughout the trench but was most substantial in the north of the trench and is stratigraphically the latest layer. The context was a friable, dark greyish brown, clayey silt, and had a maximum depth of 0.18m. After the removal of (8004), other layers were observed throughout the trench, in the north was (8003), measuring at least 1.10m long and 0.50m wide, it had a thickness of 0.09m and was a friable mid-grey brown clay silt. This is likely material that slumped from the top of the mound. Two contexts (8002) and (8010) were then removed, these are likely the same but have been separated as they were seen in different areas of the trench. Once these contexts were removed the cut of a central pit was seen in the south of the trench. The pit appeared to have been stone lined (Figure 12, centre, and bottom), and contained at least two fills, due to space constraints and the size of the stones the base of the pit was not seen. The pit measured at least 0.95m long, 1.45m wide and 0.90m deep. The upper fill of the pit (8005) was a spongy, very dark blackish brown, peaty loam with frequent very large angular to sub-rounded stones, it was 0.50m thick. The lower fill in the pit (8006) was a firm dark orange brown clay silt with frequent large to very large stones, this fill was not fully removed and was at least 0.40m thick. Within this fill a single flint was found, finds within the trench were sparse, only seven pieces of flint were recovered.



- 5.5.3 In the north of the trench a further two layers of mound material were excavated in a sondage along the western baulk. The upper of these two layers was (8007), a friable mid grey yellow silty clay, and was 0.14m thick, the lower layer, and probably the lowest deposit in the mound make up, was a firm yellow orange silty sand, and it was 0.14m thick. This layer sat on top of the underlying natural.

6 ARTEFACTS

6.1 Summary

- 6.1.1 The excavations yielded an assemblage of 17 sherds of pottery (Appendix B) and 279 lithics and pieces of burnt flint (Appendix C) and recovered seven environmental samples (90 litres) (Appendix D), of which six were partially or fully processed.
- 6.1.2 The pottery is predominantly Roman, mostly dating to the late 3rd to 4th century, with a single earlier fragment of Samian ware dating to between 120 and 250 AD. The lithics dated from the Mesolithic through to the Early Bronze Age. Very few of the lithics were highly diagnostic, but they still can inform the archaeology. They showed little signs of having moved far, indicating flint knapping taking place in the vicinity of site.
- 6.1.3 The finds recovered from the excavations have greatly increased the understanding of the character of the site and provided preliminary dates to the occupation of the site and subsequent activity occurring there. The finds assemblage has been assessed by the appropriate specialists. The results are discussed below.

6.2 Pottery

Ian Rowlandson and Zs. Veres

Introduction

- 6.2.1 Seventeen sherds (0.045kg, 0 RE) from a maximum of 15 vessels were presented for study. The pottery was largely retrieved from features excavated in Trench 3. A small proportion of the pottery consisted of wheel made reduced ware, alongside a single sherd of samian ware and some handmade sherds. Some of the handmade material may have been of earlier Prehistoric or Iron Age date, perhaps relating to earlier features. The condition of the material, combined with the near complete absence of feature sherds, meant that a close date for the handmade sherds could not be ascertained. However, the assemblage does suggest the possibility of a Roman settlement in the area and indicates earlier prehistoric activity. The pottery catalogue, including form and fabric tables can be found in Appendix B.



Results

Samian

- 6.2.2 SAM - A small sherd of samian in poor condition possibly from Eastern Gaul was recovered from pit F307 fill 3020.

Reduced wares

- 6.2.3 GREY? - Miscellaneous quartz-gritted Roman grey wares. Two abraded body sherds of one vessel were found in pit F305 fill 3035. Three abraded body sherds from three vessels were found in pit F306 fill 3014 and further three abraded sherds were recovered from pit F308 fill 3015.

Coarse gritted handmade wares

- 6.2.4 CALG – Iron Age or Roman tradition calcareous-gritted fabric. One abraded handmade vesicular sherd (SF38) was recovered from the basal fill 3009 of ditch F302.
- 6.2.5 EP/EP? - Possible earlier Prehistoric material. Three small handmade irregularly fired, very abraded sherds from three vessels were found in ditch F301 fill 3008. The basal fill 3009 of ditch F302 contained a poorly mixed handmade, abraded sherd (SF34) and a further handmade abraded sherd (SF33) was recovered from the top fill 3011 of the same ditch. Close dating of this material was not possible due to the lack of feature sherds.

Miscellaneous

- 6.2.6 MISC - Sherds of uncertain type. Tiny ceramic fragments were recovered from layer 3004 of uncertain date.

Discussion

- 6.2.7 Little can be said about this small assemblage despite that the sherds appear to have been stratified in features and most were in poor condition and removed from pits and ditches. The range of material suggests some activity on the site in the Roman period with a small proportion of the pottery that suggests prehistoric activity on the site. This assemblage should be considered alongside the work from the previous season.

6.3 Lithics

Joshua Hogue

- 6.3.1 In total, 236 lithic artefacts, 43 burnt unworked flints, and 23 naturally broken/unmodified stone were recovered from the investigations. The assemblage is quantified by artefact type in Table 9, with an archive catalogue provided in Table 12 (Appendix C). The assemblage principally dates from the later Neolithic/early Bronze Age, but includes some evidence of earlier activity.



Results

- 6.3.2 The density of humanly struck or intentionally modified flints (n=236) is strong considering the relatively limited scope of interventions. Most of the finds were recovered from Trench 3 (n=205), with smaller frequencies from Trench 6, 7 and 8. None of the material has been from its primary context, nearly all recovered from topsoil, subsoil and colluvium, with only a small frequency recovered from features – all likely to date from the Iron Age/Roman onwards. That said, most of the worked flints had only slight edge damage, characterised by isolated or small discontinuous nicks, consequently indicating that assemblage may not have moved particularly far from its original place of discard and may represent a relatively complete assemblage. This is supported by the finds diversity which reflects an *in situ* knapping shatter with numerous debris (i.e. chips and chunks) alongside primary removals, flakes, cores and tools.
- 6.3.3 Many of the worked flints had no patina or only a lightly developed patina characterised by a dull film restricted to the edges and arises, or slight mottling of the surface. Many of the other flints have a more strongly developed patina covering most of the surfaces and obscuring the colour of the flint. There is not a clear correlation between the degree of patination and the age of the find, conversely the degree of patination appears largely to be related to the raw material on which the artefacts were manufactured and represents a continuum.
- 6.3.4 Many of the lithic artefacts were made on a light grey/mid grey flint with mottling and chalky inclusions, with a thin, heavily battered cortex, probably derived from locally available secondary sources such as boulder clay flint from Northeast Yorkshire. A range of other colours were also noted, including white, pale brown/yellow, and reddish brown/red, which is generally consistent with the diversity observed amongst secondary sources. A distinctive dark grey/black flint with a thick, buff coloured, cortex was also noted, which more likely derives from a primary source, possibly from bedrock sources much further afield.
- 6.3.5 Many of the worked flints had evidence of burning (n=50) and many other burnt flints were recovered but these lacked any clear signs of having been struck (n=43). The burnt flint was seemingly randomly distributed and was found alongside unburnt flint, additionally none of the deposits from which the burnt flint was recovered showed evidence of being heat affected. As such, burning likely occurred elsewhere with the artefacts subsequently deposited into the deposits from which they were recovered rather than being burnt *in situ*.

Mesolithic/Early Neolithic

- 6.3.6 There were a small number of blade and bladelets recovered that were generally consistent with the typo-technological strategies adopted during the later Mesolithic/early Neolithic. A retouched blade (SF32) was recovered from (3004) and a large proximal blade fragment with dihedral butt (SF) was recovered from (3008) of F302 in Trench 3. Notably, these were both made on a distinctive reddish brown/red flint that was otherwise extremely rare and may point towards the use of particularly raw materials during different episodes of activity. A blade (SF31) from (7006) and a bladelet fragment from (7007) were recovered from Trench 7.



Later Neolithic/Early Bronze Age

- 6.3.7 Most of the assemblage was characterised by flake technology which is more commonly associated with the later Neolithic and earlier Bronze Age (Butler 2005). All stages of the manufacturing sequence were observed (e.g. chips, chunks, flakes, cores) indicating that tools were manufactured in the vicinity. Most, if not all, of the retouched tools were not particularly diagnostic and could only be broadly dated to the Neolithic/earlier Bronze Age. A fragment with evidence of bifacial pressure-flaking was recovered from (7006) in Trench 7. It was too fragmentary to be allocated to type but was likely part of an arrowhead and consistent with dating from the Neolithic/Early Bronze Age. A denticulated scraper from subsoil (3002) was not particularly diagnostic but was generally consistent with dating to the later Neolithic/Early Bronze Age.

Discussion and conclusion

- 6.3.8 The above assessment indicates the presence of technology consistent with the Mesolithic and later Neolithic/Early Bronze Age was recovered from the 2023 excavations at Smeathorns (Moorsholm, North York Moors National Park, consistent with previous work (Jackson et al. 2022). None of the material is likely to have moved particularly far, most having been recovered in relatively good condition. There were few, if any, highly diagnostic finds recovered during the 2023 excavations, but the overall character of the assemblage was overwhelming consistent with dating to the later Neolithic/Early Bronze Age. This is consistent with the findings of the previous excavations from which a distinctive Levallois-style core and Sutton arrowhead, amongst other elements, provided clear evidence of later Neolithic/Early Bronze Age technological strategies (Jackson et al. 2022). There was also likely Mesolithic/earlier Neolithic activity in the vicinity, represented by a retouched blade, unretouched blades and bladelets, although these made up only a very small frequency of the overall assemblage. Evidence of knapping activity was recovered suggesting that the site was not only the focus of extractive activities (e.g. hunting) but also the manufacture of tools. Nearly all finds were recovered from Trench 3, indicating that the focus of activity was nearby.
- 6.3.9 The lithic assemblage and its assessment contribute towards the partial fulfilment of the project research aims (Teale, 2022b). It helps to develop understanding of the chronological narrative of the site and enhances the understanding of the current state of the archaeological record and survival of the earliest artefacts. Further study would help to better characterise the assemblage and offers an opportunity to better understanding the nature of later Neolithic/early Bronze Age occupation.



7 ECOFACTS

Emma Tong and Hannah Russ

7.1 Introduction

- 7.1.1 Seven bulk environmental samples (115 litres of sediment in total) were taken during the archaeological excavations. Six of these samples were selected to be processed, three of which were 50% subsampled (samples <9> (3015), <17> (8006) and <19> (8007)). All six samples/sub-samples yielded flots/light fractions, which were sorted and assessed in December 2023. This report presents the results of sample processing, including a list of items recovered from the heavy residues and an assessment of environmental remains recovered from the heavy residues and flots.

7.2 Results

- 7.2.1 A range of artefacts and ecofacts were extracted from the heavy residues (total weight = 7.912kg) and flots (total weight = 28.97g) during sorting (Tables 13 to 15). Artefactual remains included fired clay, which was extracted for reporting by a finds specialist, alongside any hand-collected remains if these existed. Magnetic matter was recovered from five samples, 61.35g in total, Table 13; no hammer scale was present in the magnetic matter.

- 7.2.2 Six bulk environmental samples yielded six flots weighing, 28.97g. The six flots contained a single fragment of bone, abundant charcoal, three charred cereal grains, two charred seeds, three untransformed seeds, untransformed plant remains, fragments of moss and insect egg capsules, Tables 13 and 15.

Bone

- 7.2.3 One fragment of bone was recovered from context (8006). The bone was not identifiable to even class level, but the size suggests microfauna, which may include micromammal, tiny birds, fish or amphibian.

Insect remains

- 7.2.4 Insect egg capsules were present in contexts (3017) and (8007), indicating disturbance of these contexts via bioturbation, Tables 13 and 15. The inclusion of modern roots are further indicative of soil disturbance and the presence of modern/recent contamination.

Charcoal

- 7.2.5 Comminuted and small fragments of charcoal were recovered from all six samples, Tables 13 to 15. The charcoal was in poor condition with abraded edges and no roundwood was observed. The small size and poor condition did not allow for surface breakage to consider species identification. The larger fragments recovered from the flots from contexts (3015) and (8006) and from the heavy residue from context (8006) would likely return a radiocarbon date, but the condition of the remains suggest there has been some post-depositional activity that might suggest that the date would not



relate to the features from which the charcoal was recovered. In addition to this, no roundwood fragments that are most appropriate for radiocarbon dating were observed.

Charred grain and seeds

- 7.2.6 Charred grain and seeds were recovered from two of the samples, six specimens in total (Table 16). The charred remains included wheat (*Triticum* sp.), hulled barley (*Hordeum vulgare*), one unidentified cereal grain, *Brassica/Sinapis* sp. (cabbage/mustard family) and *Galium* sp. (cleavers).
- 7.2.7 The charred cereal remains (including the wheat and barley) were all recovered from context 3015, sample 9, alongside a charred cleaver seed. Two charred seeds identified as *Brassica/Sinapis* sp. were recovered from context 3019, sample 12. The *Brassica/Sinapis* sp. seed has the potential to represent a wide range of cultivated or wild species within these two genre, which include (amongst others) cabbage (wild and cultivated), turnip (wild and cultivated), radish, rapeseed, black mustard and wild mustard.

Untransformed seeds/plant remains

- 7.2.8 Untransformed seeds (i.e. not charred, waterlogged or mineralised) usually represent those that have entered the deposit/sample in recent years, sometimes even between excavation and the sample being sealed on site. These remains represent the types of plants occurring at the site or close by in recent times, and while they do not indicate that the features from which they were recovered were recent in nature, they do attest to the potential for recent contamination within those contexts. Untransformed seeds can be especially prevalent in samples taken during excavations undertaken in the autumn in Britain when many plant species go to seed.
- 7.2.9 Untransformed seeds were recovered from three samples (Table 16) and were identified as blackberry/bramble (*Rubus fruticosus*) and a species of grass (Poaceae). Two stems/leaves of common heather (*Calluna vulgaris*) were recovered from contexts (8006) and (8007) (Table 16). All of these species are typical of those expected on moorland, scrub and undisturbed land.

7.3 Discussion and conclusions

- 7.3.1 The single bone from Smeathorns, Moorsholm, does not provide any information that can contribute to understanding people's lives, the natural environment or the relationships between people and animals in the past.
- 7.3.2 The charred plant remains provide some limited information regarding the past use of the site and human diet. The cultivated species, in this case wheat and barley, indicate that crop drying and/or cooking of cereals was taking place at or close to the site. The two species are common finds on British archaeological site dating from the Neolithic to Modern periods, being two of the main domestic crop species cultivated since their introduction in Britain around 6,000 years ago. The *Brassica/Sinapis* sp. seeds from sample 12 could not be identified at species level and as such could represent a wide range of wild or cultivated species which include (amongst others) cabbage (wild and



cultivated), turnip (wild and cultivated), radish, rapeseed, black mustard and wild mustard. It is possible that these represent weeds growing alongside cereal crops, cultivated plant remains or the accidental charring of wild species growing in the vicinity of the site. The charred cleaver seed may also represent a weed that grew amongst the cereals or other crops that were unintentionally included during the drying process and/or made it through to the dry grain used in cooking where it became accidentally charred.

- 7.3.3 The wood charcoal remains are of low local significance with limited potential to contribute to current understanding of past human activities or local environments and habitats. The small size of the surviving fragments of wood charcoal, along with an absence of morphological features that could distinguish species precludes any further discussion or confirmation of any specific interpretation. The charcoal from flots from contexts (3015) and (8006) and from the heavy residue (8006) may be suitable for radiocarbon dating.
- 7.3.4 Seeds of weeds and plant remains that were not charred, waterlogged or mineralised (untransformed) can only represent plants occurring in the vicinity of the site in recent times and in this case are indicative of moorland and/or undisturbed environments. These seeds and plant remains could have entered the samples/features via disturbance or during exposure of the context to the elements pre-sampling; this is especially common for samples taken during excavations undertaken in the autumn period when seeds are falling in abundance. The presence of the seeds and plant remains does not confirm/suggest that the features are recent, but that there is recent material within them that is intrusive in nature. The modern roots and insect egg capsules provided evidence for bioturbation and are indicative of potential soil disturbance; this evidence further supports the interpretation that the untransformed seeds are recent intrusive material in earlier features.
- 7.3.5 The magnetic material did not include any hammerscale, instead consisting of iron rich stones; this material has no potential to provide further information on past human interaction/activities such as metal working.



8 PUBLIC IMPACT

By Anna van Nostrand

8.1 Introduction

- 8.1.1 This section details a rapid assessment of the social impact of community excavations delivered in March 2023. DigVentures defines social impact as a measure of the positive and negative primary and secondary long-term effects produced by the programme, whether directly or indirectly, intended or unintended, over and above what would have happened in the absence of the project initiative. Results were analysed using a bespoke social impact methodology, drawing on DigVentures' Theory of Change and Standards of Evidence framework (Wilkins 2019, 77; Wilkins 2019, 30).
- 8.1.2 Public engagement was integral to the project design of the Moorsholm, North York Moors National Park community excavation as it was one of the project aims and objectives (Aim 5: Creating opportunities for people and communities). The project was designed to create 'multiple educational and participatory learning experiences for community participants.' Targets for engagement also included 'posting updates about the archaeology on social media so everyone can follow the excavations as they progress' (Teale 2022b, p12).

8.2 Public programming

- 8.2.1 A carefully designed community excavation was programmed for 10th – 22nd of March 2023 creating different levels of participation opportunities from a one day excavation taster session through to a 12 day fieldschool. The nature of training and learning provided, as well as the levels of participation, were designed to meet the ambitions of the NYMNP and the research aims of the project. This resulted in training of venturers in the trench to meet recognised vocational standards, including National Occupational Standards and the Archaeology Skills Passport:
- Excavation training for teenagers and adults aged 14+ (10th – 22nd March 2023) – 41 participants
 - Schools visit for students from Old Farm School – 6 Participants
- 8.2.2 The excavation was offered free of charge and 63 individuals signed up to attend. Despite inclement weather consisting of snow, wind, and rain over the days of the dig, 65% of registered participants attended which is a sign of how interested the Venturers were in participating. Most community excavations that offer dig spaces free of charge have a no-show rate of 10-20% regardless of weather.
- 8.2.3 Six pupils from Old Farm School, an independent specialist school for students with social emotional and mental health needs and moderate learning difficulties participated in the excavation for one day and all 6 students stated they had never had the opportunity to participate in archaeology before.
- 8.2.4 An online strategy was implemented to amplify the social footprint of the project. This included posting key developments on social media, to keep the primary audience of



dig participants, as well as the North York Moors National Park Authority and DigVentures followers informed. It did not include a 'full' online strategy aimed at achieving the widest possible local or national coverage as this was not within the remit of the project or available team resources. Over the course of the excavation, the Moorsholm, North York Moors National Park community excavation timeline on the DigVentures website was visited 14.2k times by 2.2k unique users, indicating that each user either viewed or visited the project an average of seven times during the dig. On social media a total of 30 posts were shared across Facebook, Instagram, and Twitter with 87k impressions during the dig. The excavation was further covered on BBC Radio Tees with Neil Green, and in an article by Duncan Atkins in The Scarborough News.

- 8.2.5 But any evaluation of social impact needs to go beyond a list of output numbers of participants and visitors (Gould 2016). DigVentures has developed a bespoke evaluation methodology for measuring the social impact of public archaeology programmes and this is discussed in specific relation to the Moorsholm, North York Moors National Park community excavation further below.

8.3 Evaluation methodology

- 8.3.1 The Moorsholm, North York Moors National Park community excavation audience comprised experienced and first-time participants, who joined the project through a formal booking process, with all opportunities delivered free of charge. DigVentures have developed a methodology for measuring the social impact of archaeology programmes for participants, pictured as a Theory of Change detailing outputs, outcomes and impacts (see Figure 19). In this framework, social impact can be conceived as the difference that activities make to people's lives over and above what would have happened in the absence of that initiative. Outputs are a measurable unit of product or service, such as a community excavation; outcomes are an observable change for individuals or communities, such as acquiring skills or knowledge. Impact is therefore the effect on outcomes attributable to the output, measured against two metrics: scale, or breadth of people reached; and depth, or the importance of this impact on their lives.
- 8.3.2 The credibility of a Theory of Change rests on the level of certainty that organisational activities are the cause of this change. For this certainty to be achieved, the correct data must be collected to isolate the impact to the intervention. The DV Theory of Change is therefore linked to a Standards of Evidence framework (see Figure 20) designed to articulate and highlight the causal links between activity and change. These tools are then used to create a bespoke, project specific evaluation table linking activities, outputs, outcomes and evidence base.
- 8.3.3 In support of this overarching methodology, a data collection strategy was undertaken for all excavation participants. They were interviewed before their experience (100% completion rate, or 41 in total) and about their post dig experience (80% or 33 in total). For analysis, the age and professional background of participants were classified using categories obtained from the Office for National Statistics. At this stage, the report only focuses on output numbers and socio-economic distribution of participants. The

final evaluation report will include a more in-depth analysis. The outputs numbers are discussed in turn below.

8.4 Social impact – excavation participants

- 8.4.1 To ensure that a wide range of people can get involved in archaeology, people were invited to actively participate in the excavation for as many days as they liked to help re-discover a missing piece of their local history while following DigVentures' ClfA-endorsed Field School curriculum.
- 8.4.2 The age of participants ranged from teenagers aged 17 to people in their mid 70s. Figure 17 illustrates that, apart from under 18s and ages 55-64, all age groups were presented fairly equally. The majority of people who took part in the excavation further preferred the pronouns she/her (68% or 28 in total).
- 8.4.3 According to the Office for National Statistics' census data from 2021, 96.7% of people living in North Yorkshire self-describe as belonging to a White ethnic group. This is in part reflected in the Moorsholm North York Moors National Park excavation community, where 95% of participants who provided their ethnic group, or 36 in total, described themselves as White. 2% or one respondent self-described as Dual-heritage – White and Black Caribbean and 2% or one respondent self-described as Arab or Arab British. (see Figure 17).
- 8.4.4 Participants represented a variety of full and part-time occupations (41%, or 17 in total) and retirees (27%, or 11 in total). The remainder were students, either of compulsory educational age or those attending university (20% or 8 in total), or people in unemployment, carers or homemakers (12%, or 5 in total). Those in employment were divided into categories based on the Office of National Statistics (ONS) classifications, the breakdown of which can be seen in Figure 17. Examples of professions included: artist, customer relations manager, flood risk manager, holistic therapist, laboratory technician, outdoor education teacher, pharmacist, post-graduate researcher. Although not all ONS categories were covered (there were no dig participants with routine, lower supervisory and technical occupations, or carers and homemakers), digging opportunities were taken up by a significant number of people with lower income. This illustrates that the free survey opportunities allowed participation by a range of people, and they were taken up by younger participants and people with different ethnic backgrounds, which is an improvement on existing community archaeology provision compared with the typically retired, over 65 local civic society groups (Wilkins 2020, 33).
- 8.4.5 Priority booking for dig spaces were offered to local residents, and participants joined the project mostly from the immediate locality with 60% of participants (n=24) living no further than 25 miles away from the site. Participants were also attracted from further afield with 10 (n=4) having travelled over 100 miles. All but one participant stated that they lived within the United Kingdom (see Figure 17). The international participant was a student from Canada who had just finished studying in the United Kingdom. In addition to widening the demographic and socioeconomic range of participation (when compared to existing community archaeology provision), the project attracted a considerably sized new audience for archaeology, with 49% of



participants (n=20) having never taken part in archaeology activities before (see Figure 17).

8.4.6 After their experience, participants were asked about what they liked and didn't like about their time on site. This is a selection of their highlights:

- "Learning about the history of the place in awesome surroundings with like-minded people. The knowledge that the team shares is really good." (Dawn, administrator, 35-44 years old)
- "Finding the massive chunk of flint that was ace." (Thom, commercial director, 35-44 years old)
- "Finding the burnt flint as it was my first time and I didn't expect to find anything." (Madeline, student, 17 years old)
- "Excited to find the flint and learning all the techniques with the lovely volunteers." (Emily, artist and researcher, 18-24 years old)
- "To learn and understand that there are different layers and to be able to see them." (Kat, unemployed, 45-54 years old)
- "Learning something new with a group of passionate people." (Denise, retired, 55-64 years old)
- "It was brilliant and DigVentures is brilliant. I really believe in community archaeology and sites like these are dug brilliantly whilst people learn so much and get a real feel for the soil in a single day." (Jan, retired teacher, 65-74 years old)
- "Improving archaeological skills like section drawing." (Peter, retired, 55-64 years old.)

8.5 Conclusion

8.5.1 As a community focussed project, public engagement was integral to the research aims and success of the Moorsholm, North York Moors National Park community excavation. Mainly local community members but also people from further away were offered a chance to explore the archaeology of the North York Moors National Park first hand. In total, the project welcomed 41 participants who joined the archaeological team in the trenches. The project succeeded in attracting a new audience for archaeology, with 49% of participants and 100% of students in the school group having never taken part in archaeology activities before. The project also attracted a diverse community of people from the local area as well as regionally. The Moorsholm, North York Moors National Park community excavation offered excavation training to teenagers and adults, and evidence was collected for all participants. Training activities were also independently endorsed through ClfA. The insights gained from this evaluation have established a clear community need and demand for more archaeological work at Moorsholm, North York Moors National Park and further evaluation will analyse the deeper motivations and impact of the public engagement programme.



9 DISCUSSION AND CONCLUSIONS

- 9.1.1 From the excavations it was hoped to determine a chronology and function of the site and to determine its preservation. The excavations have revealed evidence of occupation on site from the Mesolithic through to the Roman period.

9.2 Chronology

- 9.2.1 The earliest evidence of occupation on the site is residual Mesolithic activity. In the 2022 excavations the only certain Mesolithic artefact was a microlithic transverse arrowhead recovered from colluvium (3004) in Trench 3. Further Mesolithic and Early Neolithic flints were found in this layer during the 2023 excavations. These consisted of a small quantity of blades and bladelets, including SF32, a retouched blade.
- 9.2.2 Evidence from the Later Neolithic and Early Bronze Age was found throughout the site. Trench 8 was targeting a potential barrow feature, and following this excavation it can be concluded that it is a barrow. The feature was not fully excavated during the field season due to the inclement weather conditions and limited time. The barrow can be seen as a small rise in the field and is approximately 8m in diameter. The barrow is possibly a bell barrow, with a ditch running around the outer circumference of the mound, however there is no flat area or berm visible. The centre of the mound is characterised by a series of large unworked stone blocks forming a central chamber. In the lowest fill of this chamber (8006) a single flint dating to the Late Neolithic or Early Bronze Age was recovered. Five other lithics were recovered from deposits within the trench, all from the Late Neolithic and Early Bronze Age. Within five kilometres of site at least 71 barrows have been identified and designated scheduled monuments, one of these is to the north towards the coast, and all the others are south of site and on the moors (Figure 5).
- 9.2.3 Two ditches excavated in Trench 3 contained finds that were primarily Late Neolithic or Early Bronze Age in date. A single sherd of later Iron Age or Roman pottery from the lower fill of F302 raises doubts as to the phasing of the features, having previously been interpreted as Early Bronze Age. It may be that it is intrusive due to localised Roman activity in the vicinity, or the feature dates to the Late Iron Age or Roman period, and the earlier material is residual.
- 9.2.4 The latest phase of occupation on site is Roman or Romano-British. The evidence for this can be seen through features and pottery found in Trench 3. Ten fragments of pottery were found, predominantly dating from the late 3rd to 4th century, with a single earlier fragment of Samian ware from between 120 to 250 AD. The pottery is all highly degraded, it had been suggested in the 2022 report (Jackson et al 2022) that the pottery was not in situ, rather it had washed in from elsewhere on site. The discovery of pottery within features in Trench 3 indicates that there was occupation here in the Romano-British period, at some time from the 1st to the 4th century AD.

9.3 Function

- 9.3.1 Previous work at the site had suggested the earthworks were the remnants of a late Iron Age or Romano-British farming settlement (Brightman 2020). The excavations



have revealed evidence of Romano-British features and may indicate that the earthworks are from that date.

- 9.3.2 The microliths discovered may suggest that there was activity, possibly a transient camp, in the Mesolithic, the likelihood of discovering this seems minimal. Combined with the single microlith recovered during the 2022 excavation, this gives more evidence in favour, however some caution still needs to be taken when making this interpretation.
- 9.3.3 The site was occupied in the Early Bronze Age, during this period it is likely that there was a settlement with a funerary monument in the form of a barrow at its northern limit. Another barrow was identified through the earthworks survey to the south of the settlement. This may show the southern limit of the settlement. The excavations targeted the internal area of one of the earthwork enclosures (Trench 6; D6), this was to further investigate the function of these enclosures. A single feature was revealed in the trench, this has been interpreted as a small pit. Nothing was recovered from the pit, and its function is unknown. The trench only investigated a small proportion of the enclosure and if it was extended more features may be revealed. The function of the enclosures had been interpreted as livestock enclosures (Jackson et al 2023), and the excavations in 2023 reinforce this theory. Unfortunately, due to the poor preservation of animal bone it can't be determined for sure.
- 9.3.4 The presence of many unabraded flints, including many associated with production would suggest that there were people making tools in the Late Neolithic and Early Bronze Age, further strengthening the suggestion of an Early Bronze Age settlement on site.

9.4 Preservation

- 9.4.1 The onsite preservation of materials was mixed. No animal bone was recovered during the excavations, this is likely due to the acidity of the soil and thus none survived. The pottery easily disintegrated upon excavation, and it is possible that they were heavily worn through movement. None of the pottery was recovered from its primary context, all were found in probable hill wash deposits. The poor preservation of the pottery may also have been caused by the acidity of the soil, both the earlier prehistoric pottery and the Roman pottery were heavily abraded. The prehistoric pottery may also have been poorly preserved due to the nature of its manufacture. In contrast the lithics recovered from the site were very well preserved, with very little edge damage present, suggesting that if there was any movement of this material it was likely over very short distances and roughly contemporary with its production.
- 9.4.2 The preservation of the features on the site were overall very good. Limited damage had occurred, with extant ditches and banks, and despite the shallow coverage of the topsoil features were clearly visible upon excavation, both archaeological and natural. Once the topsoil and limited subsoil had been removed it was possible to see natural hollows, shallow scoops, where hill wash or buried soils had been preserved.



9.5 Conclusions

- 9.5.1 The excavations have revealed evidence of occupation from the Mesolithic to the Romans on a small corner of the North York Moors. The settlement started life as a transient camp; a place to stop and knap flint on the edge of the moors. It was possibly a place to bring livestock before moving to higher ground for fresh grazing. The site then evolved in the Early Bronze Age into a settlement, and a place to bury the dead. The settlement in the Roman period is more elusive, but the presence of both fine and coarse ware pottery indicates occupation somewhere near site during this time.

10 RECOMMENDATIONS

- 10.1.1 The following are recommendations for future work which could be carried out. These involve future excavation and further analysis of the recovered archive.

10.2 Excavation

- 10.2.1 Further excavation of targeted areas to the south of the site and in the centre of the settlement may help to identify the function of the settlement and could locate the heart of the Roman/Romano-British activity. As such, additional excavation which investigated a larger area across the entirety of one of the enclosures would gain a fuller understanding of their function and how they relate to both the Late Neolithic/Early Bronze Age activity on site, and the Roman/Romano-British phase. The full excavation of the barrow could add further detail about its use and confirm date and construction. Investigation to the south of the site and downslope to the north of Trench 6, could also help to identify the limits of the settlement.

10.3 Artefacts

- 10.3.1 Should additional material and information be recovered in future, it is recommended that further analysis is carried out on the lithics and pottery recorded to date. For the lithic assemblage, a larger group would benefit from detailed attribute and metric analysis, description of the raw material, description of the modes of reduction, description of the tools and evidence of use. The prehistoric pottery could be further analysed to give a more detailed understanding of the material and discuss it within the wider context of prehistory in the North York Moors National Park. Discussion of the total assemblage in relation to relevant local and regional assemblages could provide a valuable additional to regional knowledge.

10.4 Scientific Dating

- 10.4.1 As part of future investigation, suitable material from secure contexts could be subject to C14 dating. On prehistoric sites when the predominant finds are lithics, organic material including charred plant remains and burnt wood, has the potential to provide absolute dates and support understanding of the chronology and phasing of the site.



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Figures



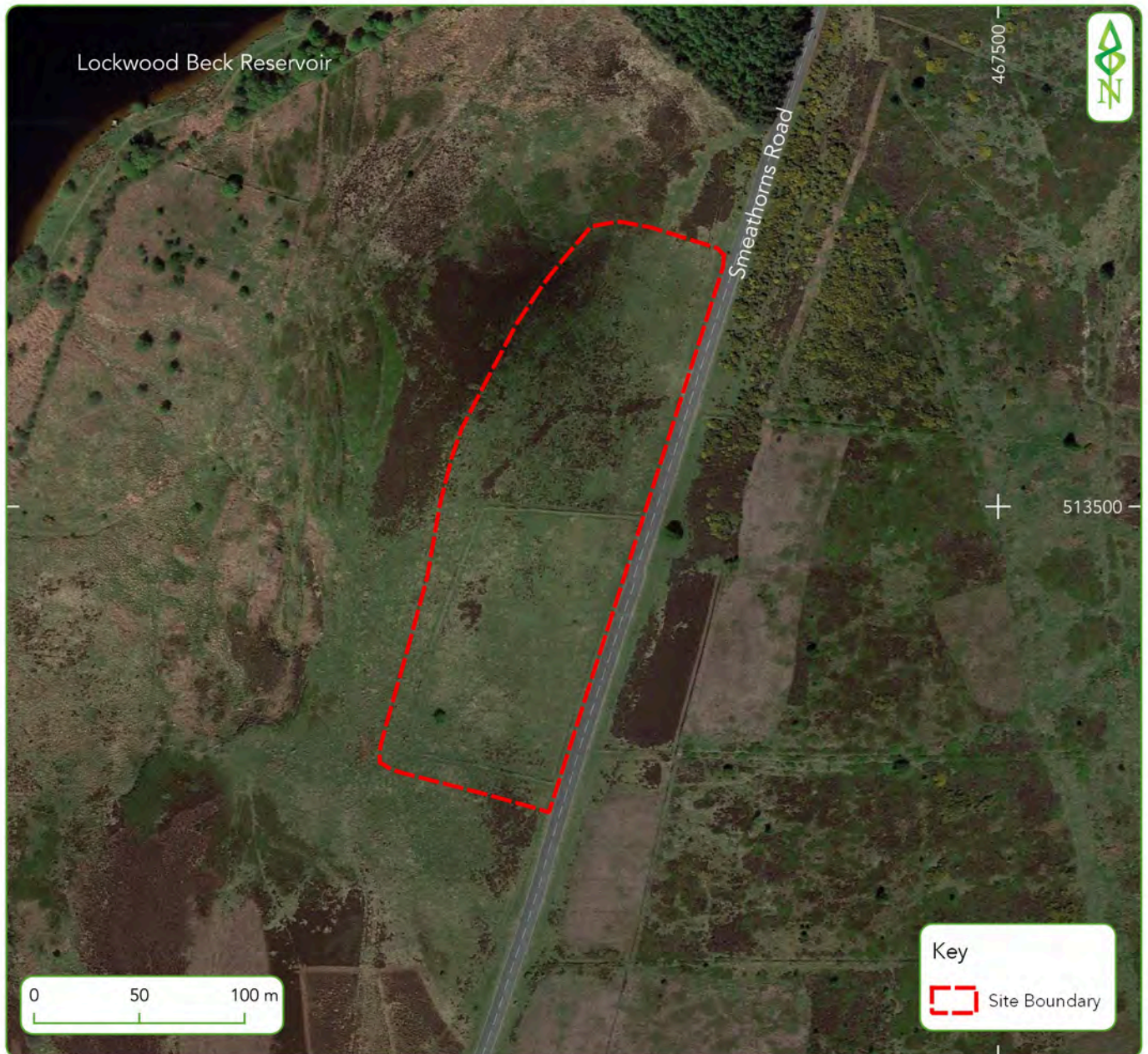
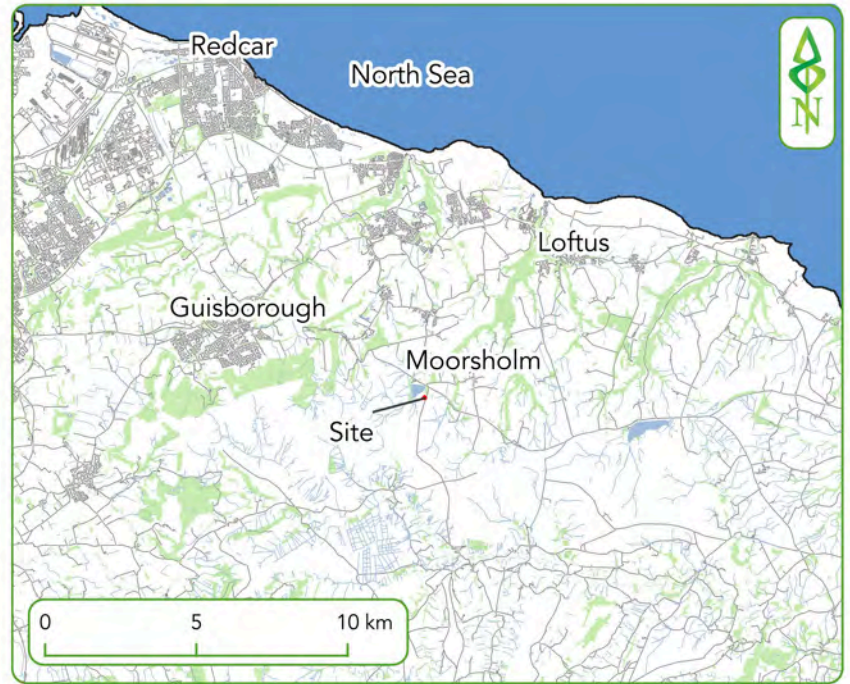


Figure 1. Site location



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

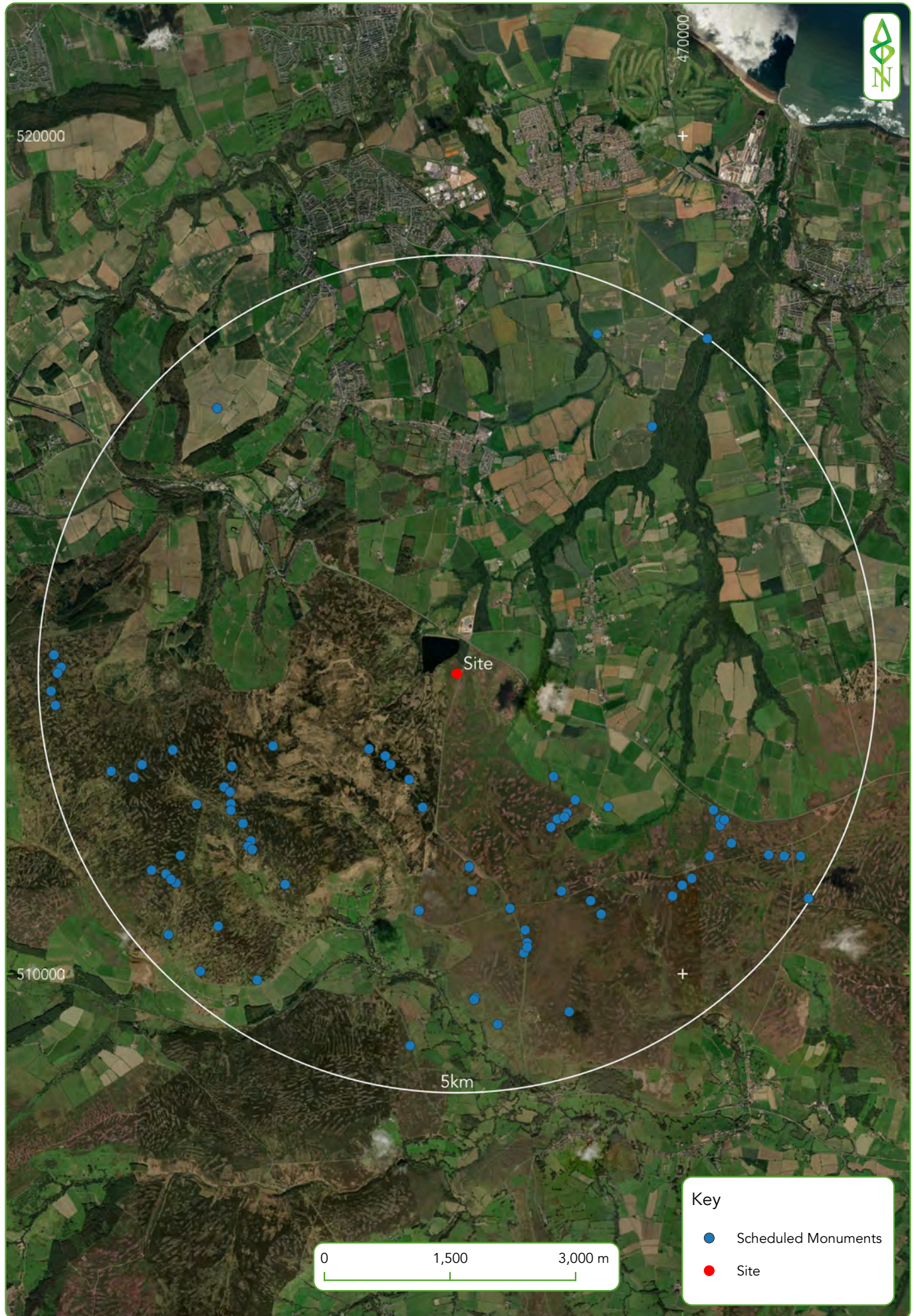


Figure 3. Scheduled monuments within 5km of site

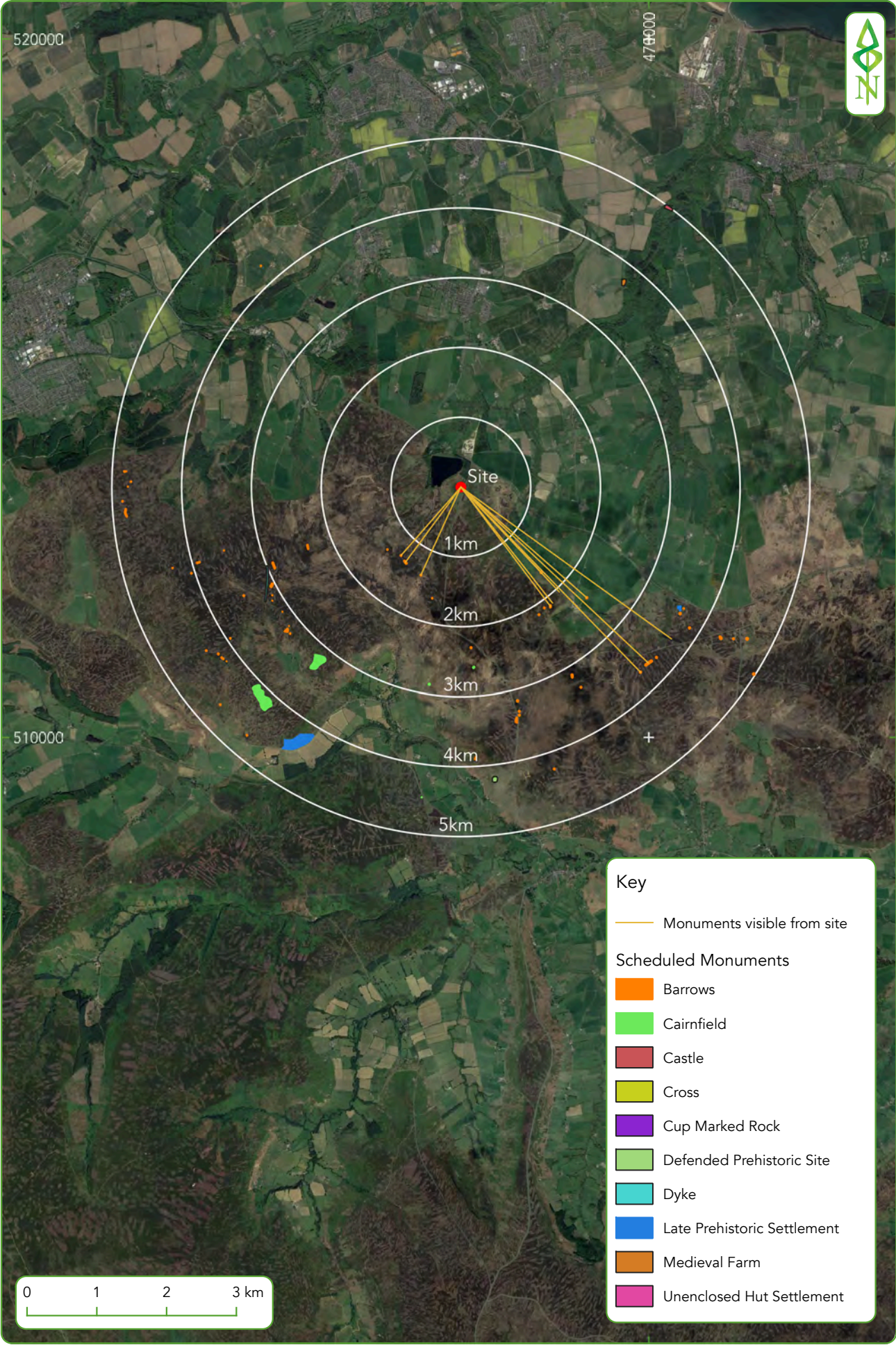
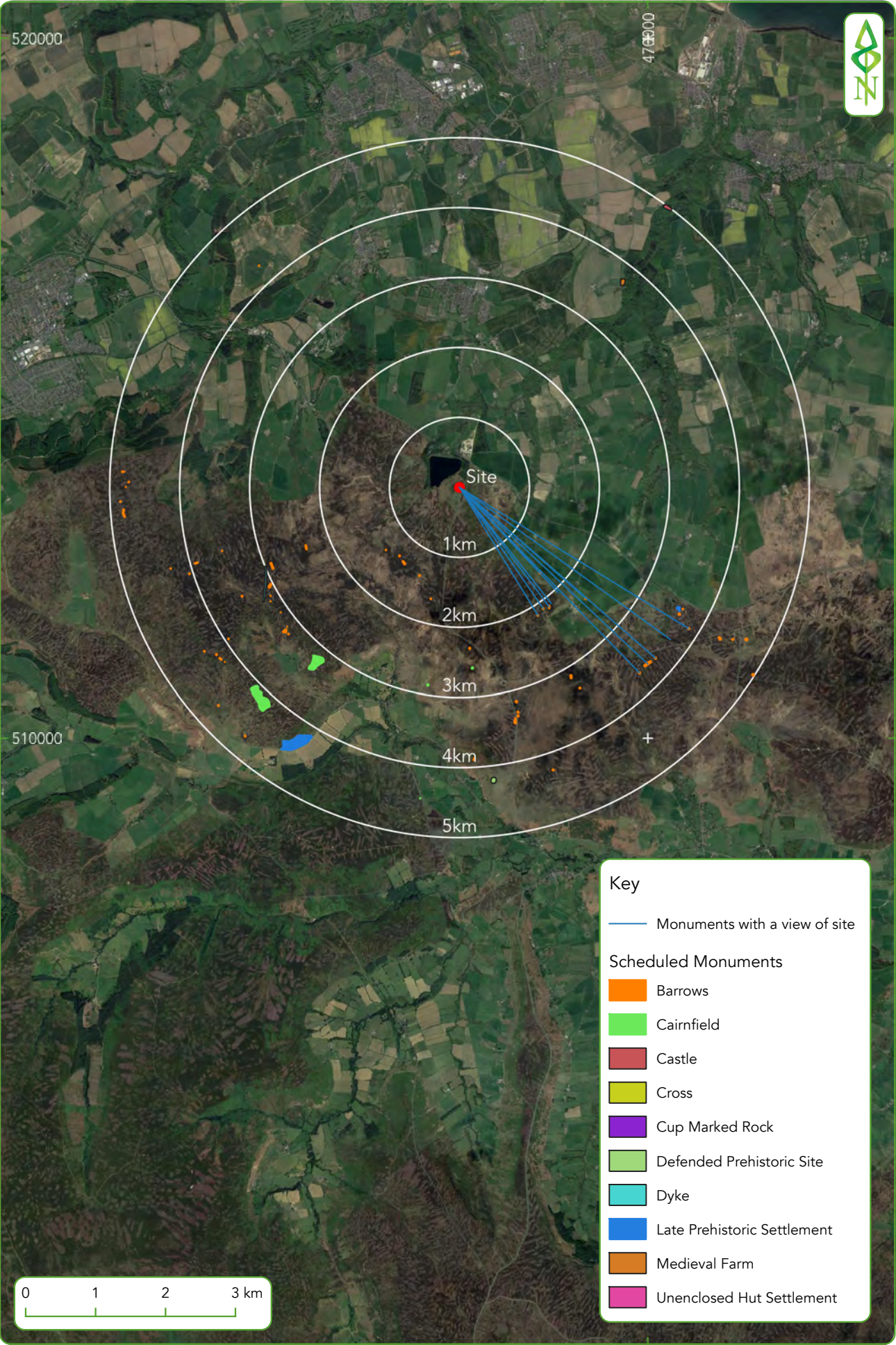


Figure 4. Intervisibility between site and scheduled monuments



Figure 5. Barrows that are scheduled monuments within 5km of site

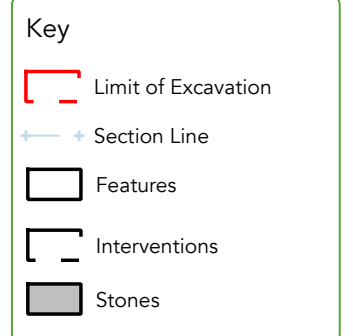
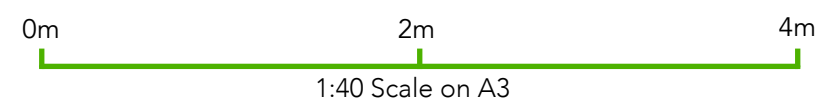
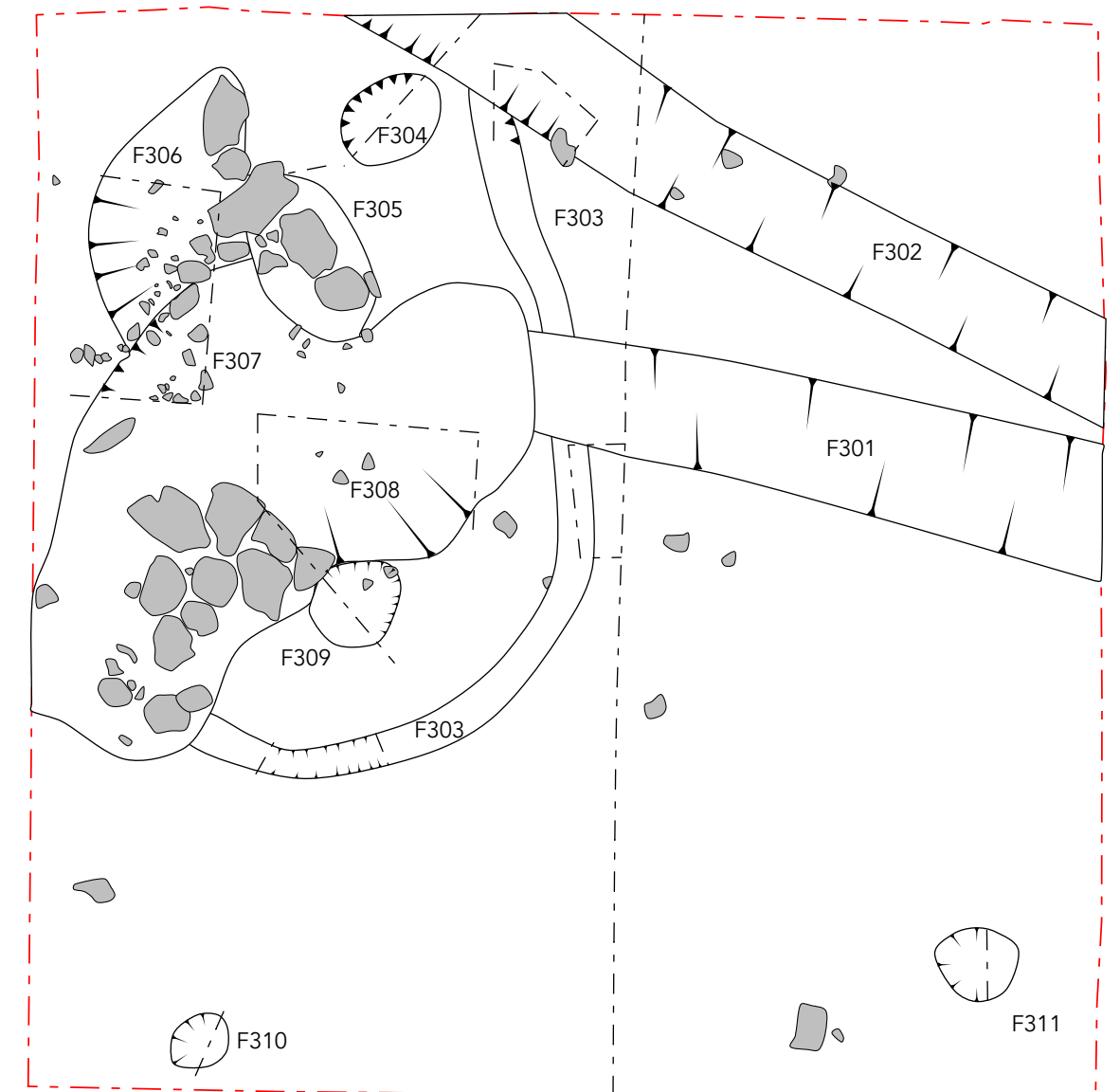


Figure 6. Trench 3 Post excavation plans

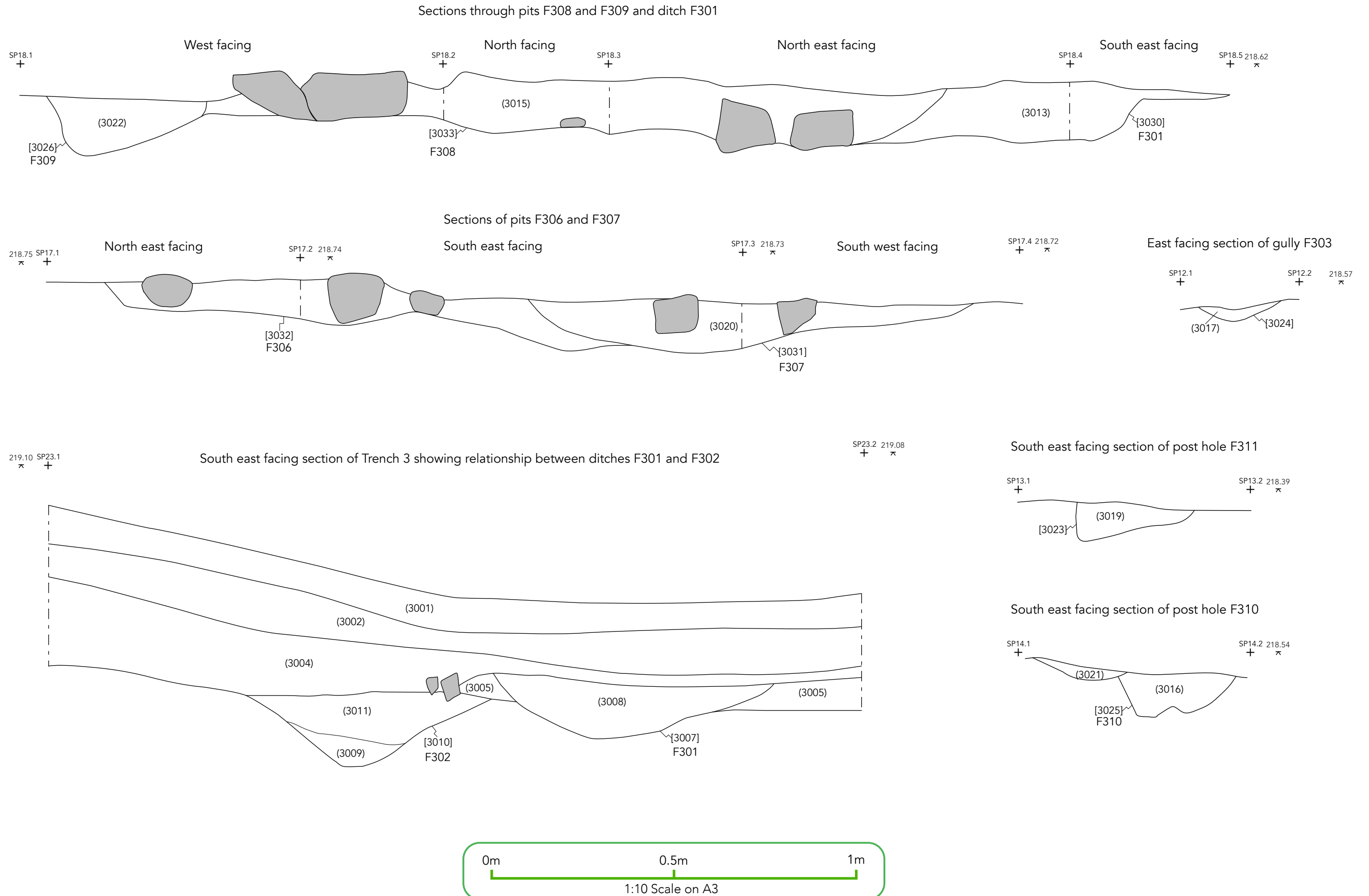


Figure 7. Trench 3 various sections

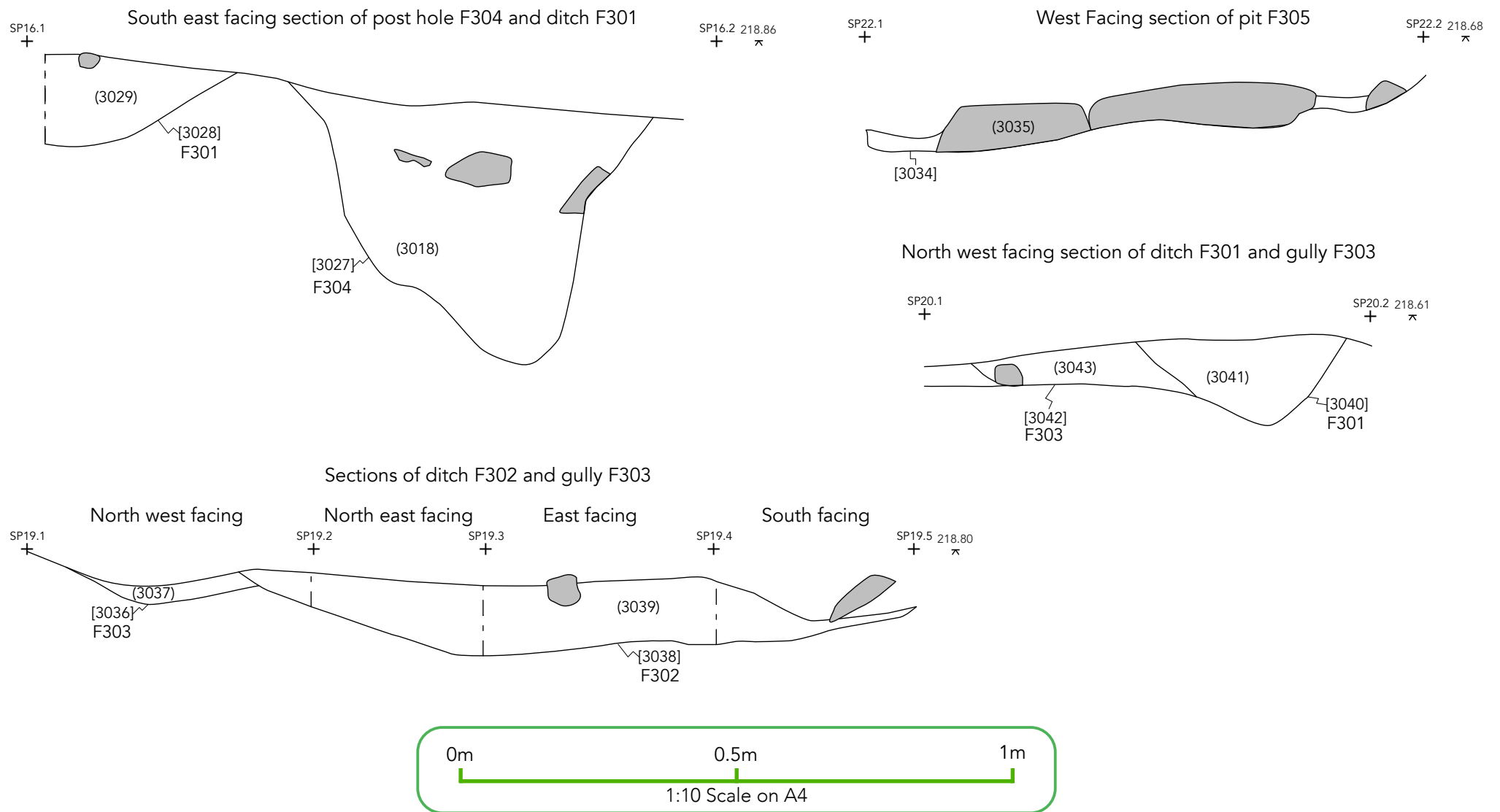


Figure 8. Trench 3 various sections

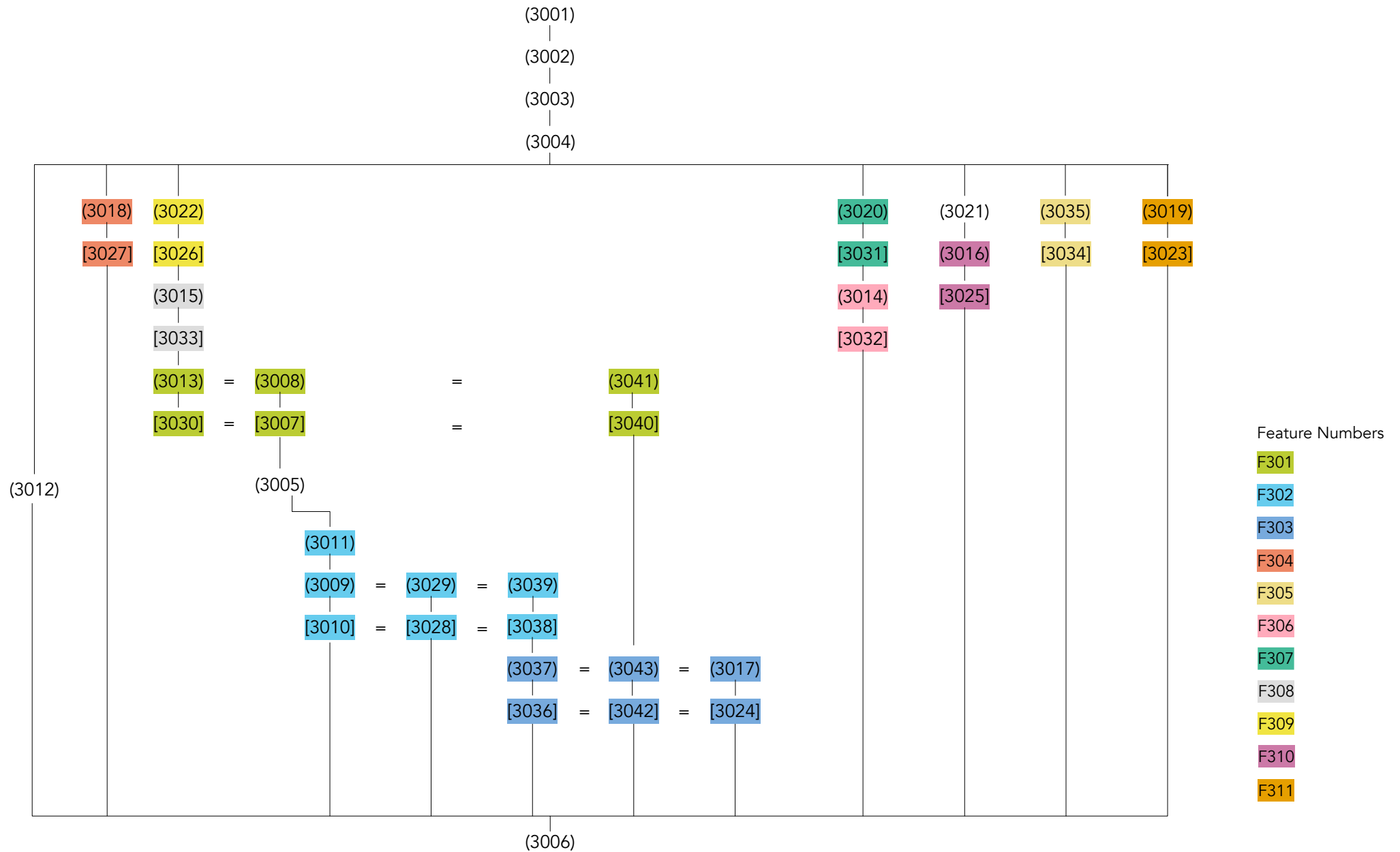


Figure 9. Trench 3 Matrix

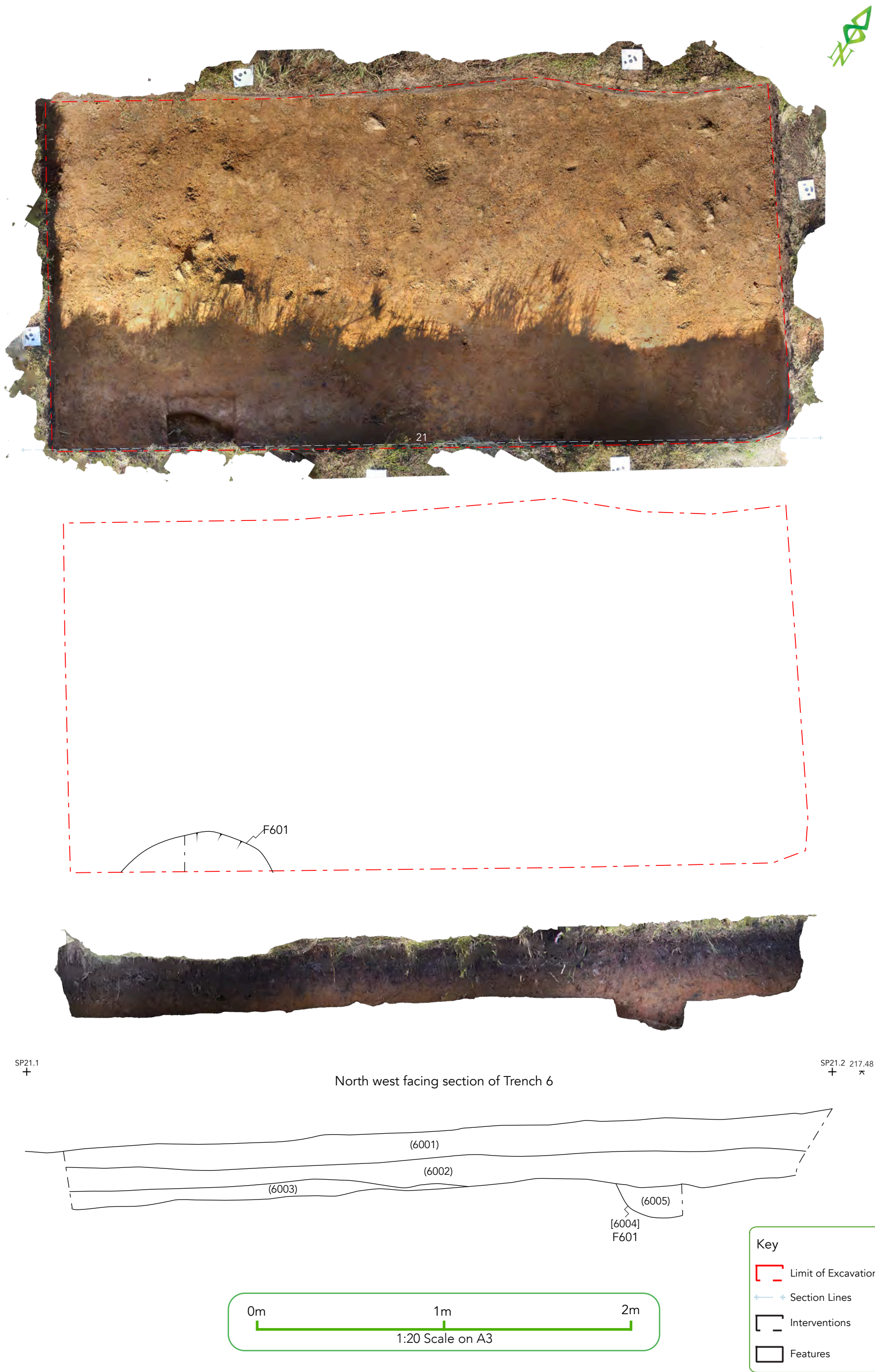
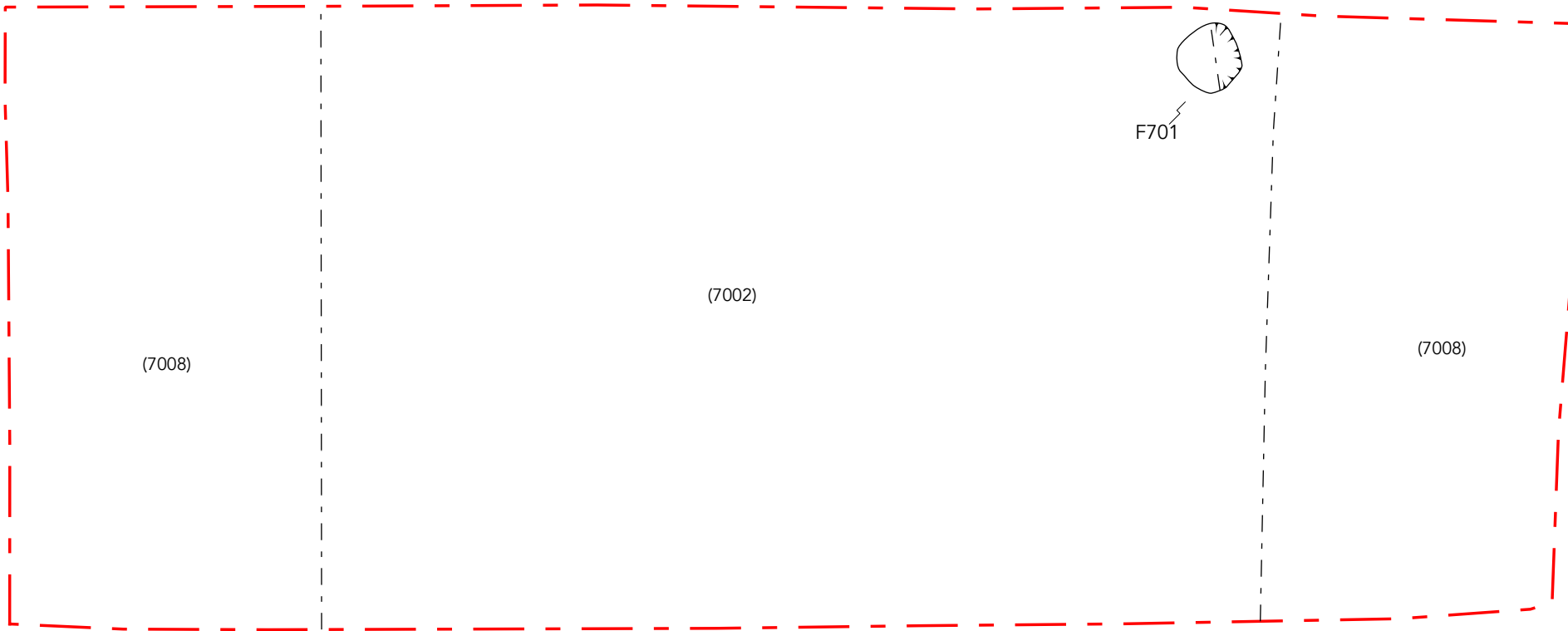
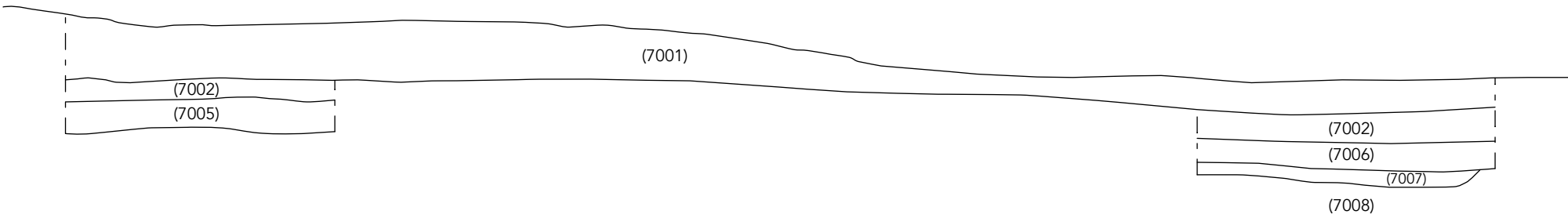


Figure 10. Trench 6 plan and section

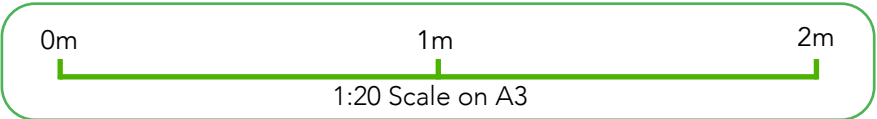
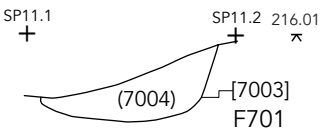


North east facing section of Trench 7

SP15.1 + SP15.2 216.67 + x



North west facing section possible post hole F701



Key

- Limit of Excavation
- Section Lines
- Interventions
- Features

Figure 11. Trench 7 plan and sections

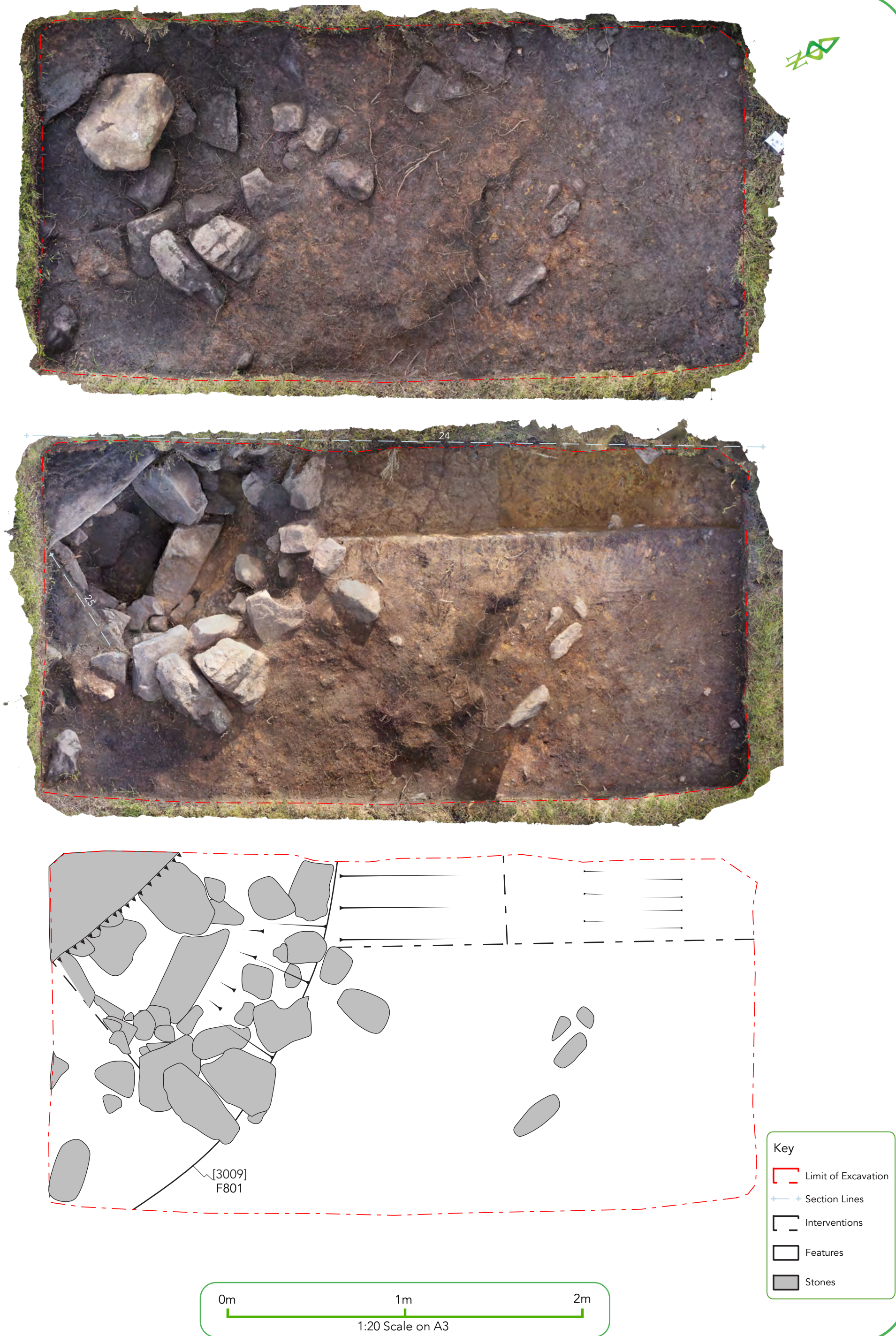
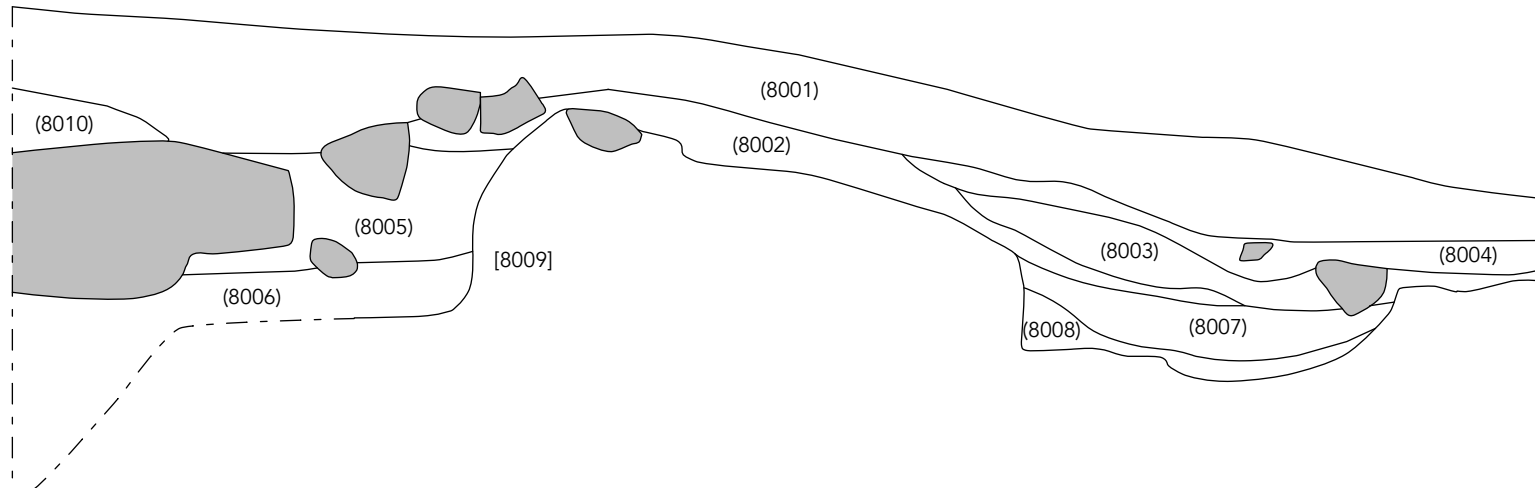


Figure 12. Trench 8 pre excavation plan (top) and post excavation plans (centre and bottom)

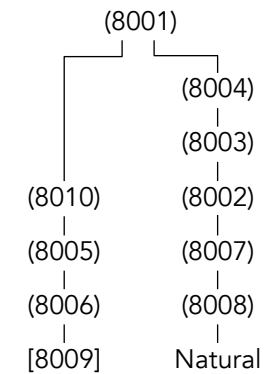
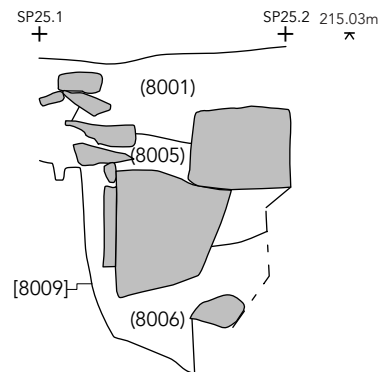
SP24.1
+

North west facing section of Trench 8

SP24.2 215.72
+ π



South west facing section of cist F801



0m 1m
1:20 Scale on A4

Key
Stones

Figure 13. Trench 8 sections and matrix



Record photograph of Trench 3 once topsoil, subsoil and colluvial layers had been removed, revealing features in the south of the trench, looking west, 2x2m scale



Record shot showing ring gully F303, and pit cluster in south west of the trench, looking west, 1m scale



Post excavation photograph of pit cluster in the south west of Trench 3, looking north west, 1m scale.



Record shot of east facing section of ring gully F303, looking west, 0.20m scale



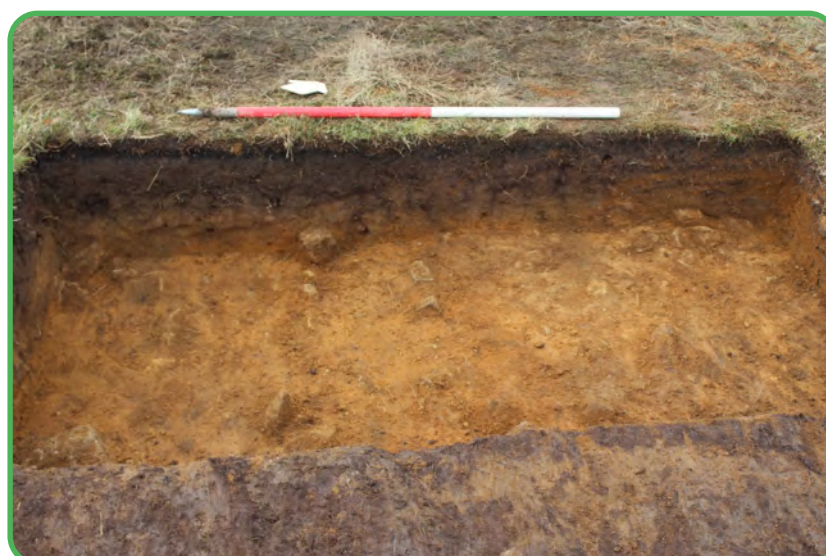
Post excavation photograph of ditches F301 and F302, 1m scale, looking north west.



Trench 6 Post excavation photograph, looking south east, 1x1m scale



Western sondage in Trench 7, looking south west, 1m scale



Eastern sondage in Trench 7, looking north west, 1m scale

Figure 15. Trench 6 and 7 record photographs



Trench 8 mid excavation photograph, looking north west, 1x1m scale



Trench 8 mid excavation photograph, showing removal of large stones in the centre of the barrow looking north west, 1x1m scale



Trench 8 post excavation shot, looking south east, 1m scale



Central chamber of barrow as it was left at the end of the excavation season, looking east, 0.50m scale



Post excavation photograph of slot through the base of the barrow in Trench 8, looking south west, 1m scale

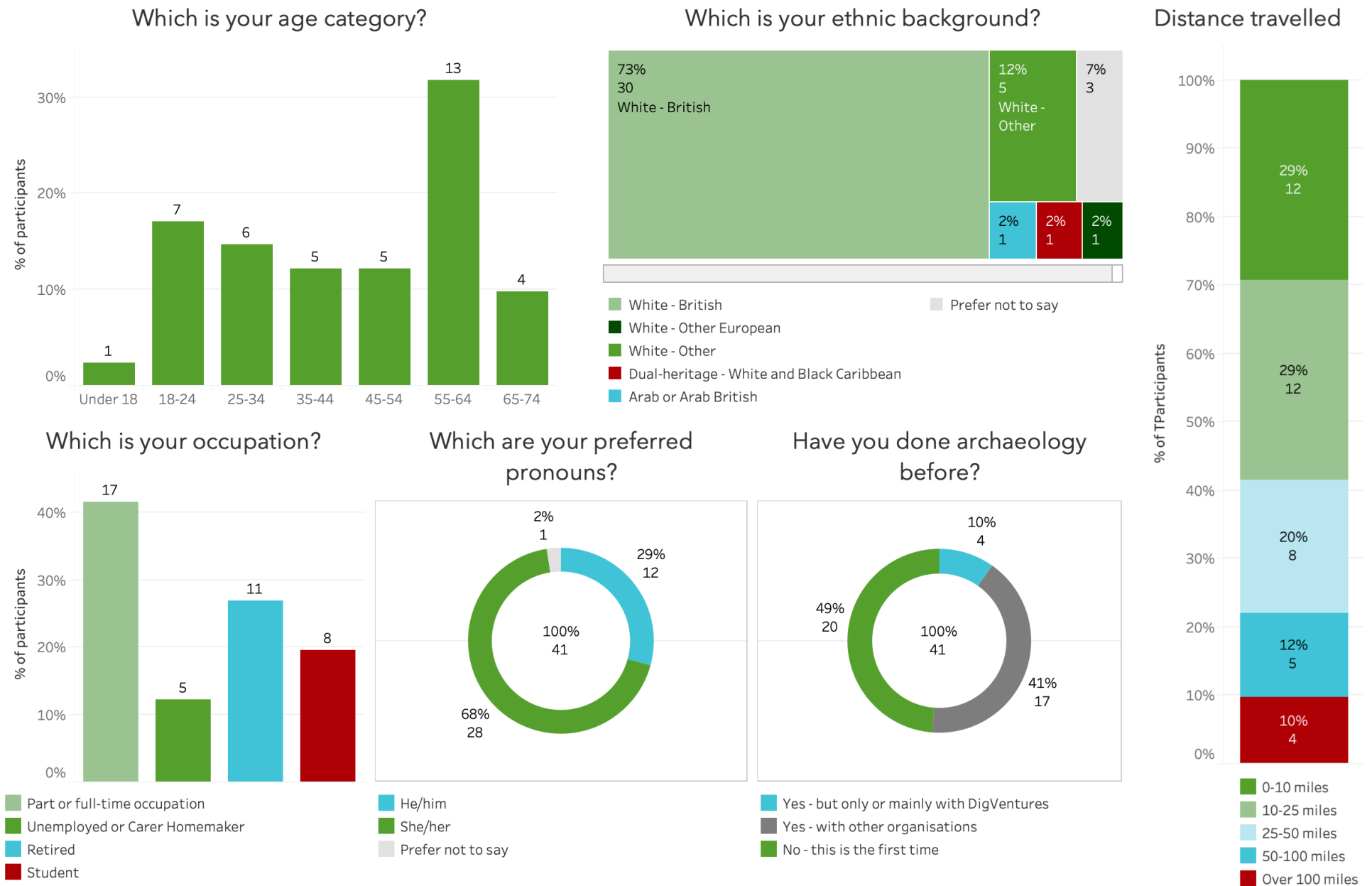


Figure 17. Socio-economic data and distance travelled



Clearing the trenches of snow on day one



Opening Trench 8



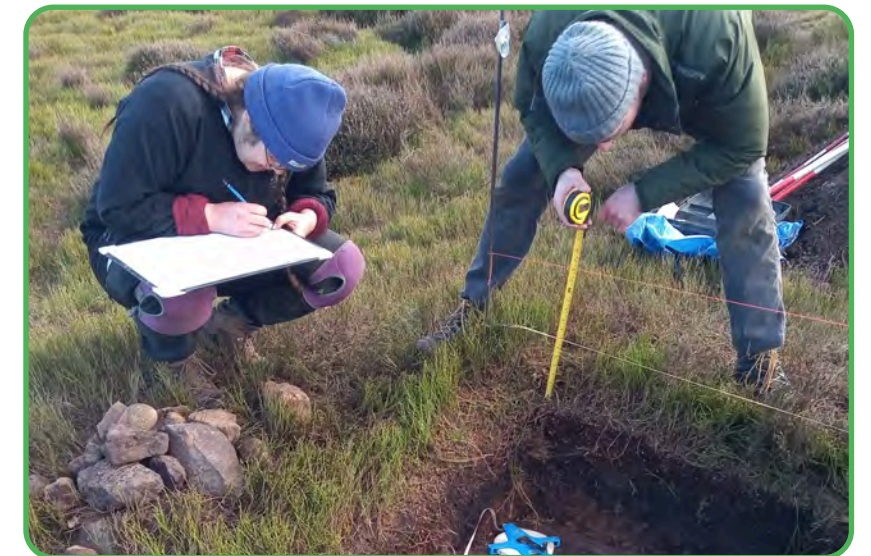
Trowelling back the newly exposed area of Trench 3



Teens from Old Farm School getting stuck into Trench 7



Jan was overjoyed finding her first fragment of prehistoric pottery



Recording the section in Trench 8

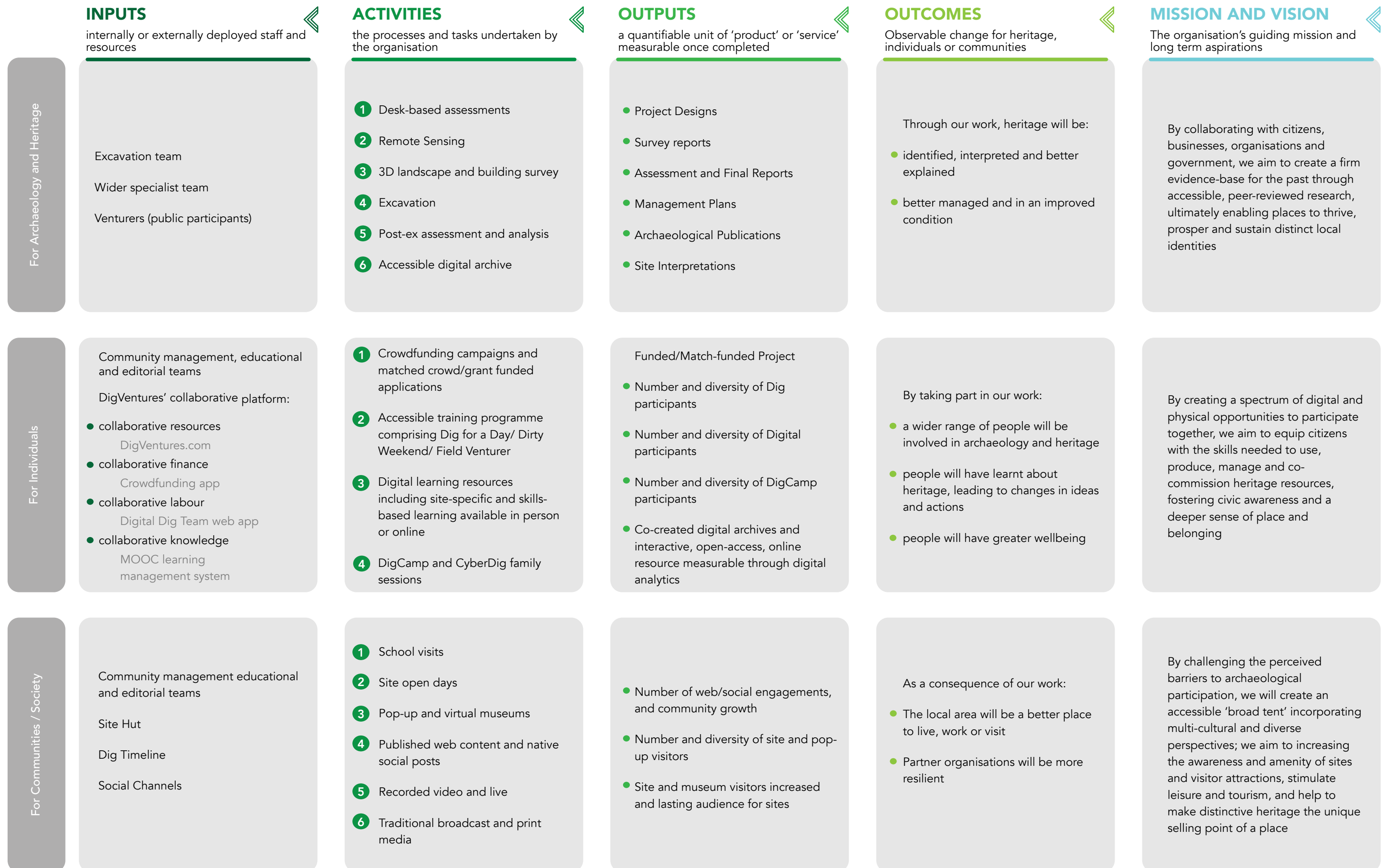


Figure 19: OUR THEORY of CHANGE - Measuring impact for both intrinsic outcome for archaeology and instrumental benefits for people and communities

	EXPECTATION	SUGGESTED METHOD	OUTCOMES FOR HERITAGE	OUTCOMES FOR PEOPLE	OUTCOMES FOR COMMUNITIES
Level One	Providing an academically rigorous framework, whilst ensuring that impact measurement is appropriate to the stage of development of a variety of different products, services and programmes. A low threshold, appropriate to very early stage innovations, which may still be at the idea stage. Involving little more than a clear articulation of why the intervention is needed, what it will aim to achieve why this is better than what currently happens. Project owners will be able to give an account of impact, providing a logical reason why their intervention could have an impact and why that would be an improvement on the current situation.	Steps needed to ensure correct evidence is collected to determine whether or not a venture is making a positive difference A clear rationale to show why the product/service could have an impact, and why that would be an improvement on the current situation. Articulated as a theory of change and logic model, linking activities, outputs, outcomes to hypothesized impact.	Intrinsic benefits relating to the research dividend and evidence baseline required for successful management of archaeological sites and landscapes A fully illustrated Project Design, signed off by statutory stakeholder, outlining key archaeological research questions, roles, procedures, stages and outputs.	Instrumental benefits for participants and platform users, enabling the voluntary sector to scale in a sustainable and ethically responsible fashion A training or activity plan, linking activities to outputs, outcomes and impact, and an explanation of how the outcome could be measured.	Wider social impacts received by those who may not be direct participants, but benefit through increased amenity value, tourism and local distinctiveness. A training, activity, audience development and/or heritage resource management plan, linking activities to outputs, outcomes and impact, and an explanation of how the outcome could be measured.
Level Two	At Level 2 projects will be gathering data that shows some change amongst those receiving or using the intervention. At this stage, data can begin to show that there is a change in the measure of the outcome among the recipients of the product or service, but this may not be sufficient to provide evidence of direct causality.	Pre and post–survey evaluation; cohort/panel study; and regular interval surveying.	Assessment Report; Management Report, base-lined against previous investigations	Evaluation survey for participants to quantify demographics, socio-economic characteristics and spatial data, followed up with a pre and post-survey qualitative evaluation using a separate questionnaire methodology to determine any changes as a consequence of taking part	Evaluation survey for site visitors to quantify audience demographics, socio-economic characteristics and spatial data, followed up with a qualitative study using a separate questionnaire methodology to determine any changes that took place as a consequence of the visit
Level Three	At Level 3 projects will be able to demonstrate that they are causing the hypothesized impact, by showing less impact amongst those who don’t receive the product/ service.	Robust methods using a control group, or evaluating a random selection of participants, begin to isolate the impact of the product/ service. All products/services at Level 3 will be well documented, with necessary skills, training (and other delivery requirements) outlined clearly, to enable effective replication in alternative places, situation, contexts etc.	Analytical report, synthesizing specialist reports with previous work locally, regionally and nationally, to determine significance, importance and potential of the site.	Meta-analysis of evaluation results with those derived from projects delivering similar community-based activities, including archaeological/ heritage and other unrelated arts/ citizen science projects.	Meta-analysis of evaluation results with those derived from projects delivering similar community-based activities - including both archaeological/heritage and other unrelated arts/citizen science projects.
Level Four	At Level 4 projects can explain why and how the intervention is having the impact observed and evidenced so far, supported by an independent evaluation to validate the findings. This will also assess the extent to which the intervention can deliver impact at a reasonable cost, and whether it can be replicated and purchased in multiple locations.	Robust independent evaluation that investigates and validates the nature of the impact; this might include endorsement via commercial standards or industry kitemarks, underpinned by a documented standardisation of delivery and processes, data on costs of production and acceptable price point for customers.	Quality assured by the Chartered Institute for Archaeologists (CIfA) under the Registered Organisation scheme, and involving independent site inspections and documentary audit.	External audit of quality of training programmes and activities by CIfA, The Archaeological Training Forum, Register of Professional Archaeologists, Skills Passport and National Occupational Standards.	External audit of community programming and impact by specialist consultancy, undertaken independently of project team.
Level Five	At Level 5, projects will be able to demonstrate that the intervention could be operated up by someone else, somewhere else and scaled up, whilst continuing to have positive and direct impact on the outcome, and whilst remaining a financially viable proposition. For a service, this will establish whether it can be delivered by different staff in different locations.	Evidence will be derived from multiple evaluations of the product/ service in different settings (at least two evaluations; one of which will be independent) to demonstrate that the product/service can be used in different settings (which could be in different settings geographically and/or with different types of product/service users). Appropriate methods at this level will include multiple replication evaluations; future scenario analysis; or fidelity evaluation.	An excavation manual, underpinned by a broader operations manual and ‘culture deck’, detailing how the DigVentures project model should be applied in differing contexts.	A syllabus and training manual, underpinned by a broader operations manual and outline spectrum of engagement, detailing the participant’s journey from digital supporter to experienced field digger.	An audience engagement and communications plan, underpinned by a broader operations manual and tailored ‘culture deck’, detailing how the intervention should be applied with clear and measurable benchmarks.

Figure 20. Standards of Evidence

Appendices

Appendix A: Context descriptions

Table 1. Trench 3 context descriptions

Trench 3	Dimensions:	2.00 x 6.00m					
	Orientation:	NE-SW					
	Reason for trench:	To investigate the relationship between enclosures D4 and D5					
Context	Description	Type	Interpretation	Length (m)	Width (m)	Depth (m)	Feature
3001	Very Dark brown silty peat/organic topsoil	Layer	Turf and topsoil in Trench 3	6.00+	2.00+	0.10	
3002	Dark reddish brown sandy silt with occasional small sub rounded sandstone pieces	Layer	Subsoil - likely accumulated silting and hillwash	6.00+	2.00+	0.13	
3003	Very dark brown silty peat/organic deposit with small sub rounded sandstone pieces	Layer	Likely caused by rooting/bioturbation	0.60	0.40	0.02	
3004	Mid reddish brown sandy silt with occasional small to medium sized sub rounded sandstone pieces, quartz and charcoal flecks	Layer	Likely silting from hillwash moving occupational debris, including numerous flints, downslope from an enclosure above.	3.18+	2.00+	0.24	
3005	Light greyish brown clayey silt with occasional small sub rounded sandstone pieces and charcoal flecks	Layer	Possible occupation layer containing debris such as flints, charcoal and pottery.	2.21+	2.00+	0.12	
3006	Light orangey yellow sandy clay with occasional small sub rounded sandstone pieces	Layer	Natural	6.00+	2.00+	N/A	
3007	Cut of a linear ditch	Cut	NW-SE aligned linear ditch in close proximity to F302, likely representing drainage ditches draining water downslope away from the enclosures	1.00+	0.56	0.25	301
3008	Moderately friable, dark greyish brown, clayey silt fill with occasional charcoal flecks	Fill	Silting fill of a ditch	1.00+	0.56	0.25	301



Trench 3	Dimensions:	2.00 x 6.00m					
	Orientation:	NE-SW					
	Reason for trench:	To investigate the relationship between enclosures D4 and D5					
Context	Description	Type	Interpretation	Length (m)	Width (m)	Depth (m)	Feature
3009	Light orangey brown silty clay with very occasional charcoal flecks and small sub rounded sandstone/ironstone pieces	Fill	Primary fill of drainage ditch F302	1.00+	0.30	0.10	302
3010	Cut of a linear ditch	Cut	N-S aligned linear ditch in close proximity to F301, likely representing drainage ditches draining water downslope away from the enclosures	1.00+	0.58	0.30	302
3011	Mid greyish brown clayey silt with occasional charcoal flecks and sub angular medium sized red sandstone pieces	Fill	Upper silting fill of a ditch	1.00+	0.58	0.20	302
3012	Light greyish brown silty clay with occasional charcoal flecks and small sub angular sandstone pieces	Layer	Possible occupation layer similar in nature to (3005), possibly representing a continuation of this deposit	1.05+	1.00+	0.08	
3013	Moderately compact, light greyish brown, clayey silt upper fill of ditch F301 with occasional charcoal flecks	Fill	Silting fill of ditch terminus. Equal to 3008 from 2022 excavations. F301; same as (3041), (3008)	0.32+	0.21+	0.15	301
3014	Moderately compact, mid greyish brown, clayey silt upper fill of possible pit with regular charcoal flecks and small to medium sub angular sandstone pieces	Fill	Silting fill of a small shallow, likely Roman, pit that is part of a cluster of likely Roman pits. This pit is truncated by pit [3031]	0.75+	0.63+	0.10	306



Trench 3	Dimensions:	2.00 x 6.00m					
	Orientation:	NE-SW					
	Reason for trench:	To investigate the relationship between enclosures D4 and D5					
Context	Description	Type	Interpretation	Length (m)	Width (m)	Depth (m)	Feature
3015	Friable, dark greyish brown, clayey silt upper fill of possible pit with regular charcoal flecks, occasional small sub angular sandstone pieces	Fill	Silting fill of likely Roman pit, part of a cluster of Roman pits in TR3. This fill contained several large sub angular/rounded stones that appeared to be set flat within the pit itself. None of the stones overlay others and seemed to respect a flat surface/level. It may be that they represented some sort of rudimentary surface for working at or walking over. It could also be that the stones are simply coincidentally here in the is positionat the low point in the trench having washed down over time. This, however, seems less likely given that the stones only appear within the fills of the pits, not outside the pits.	0.88+	0.55+	0.13	308
3016	Moderately compact, dark greyish brown, silty clay fill with very regular charcoal pieces and flecks and very occasional small sub rounded sandstone pieces	Fill	Fill of a possible posthole - very charcoal rich. The feature is undulating and may also be the result of bioturbation. The charcoal rich nature of the fill is unusual for bioturbation however in the context of this site.	0.40	0.31+	0.13	310
3017	Moderately friable, light greyish brown, clayey silt fill with occasional charcoal flecks	Fill	Silting fill of a ring gully for a possible prehistoric roundhouse/structure/small enclosure.	0.70+	0.19	0.03	303
3018	Moderately compact, light yellowish brown, silty clay fill with occasional charcoal flecks and small sub subangular sandstone pieces	Fill	Likely silting fill of a probable prehistoric small pit/large posthole. The feature is one of the deepest in the trench and suggests it is more likely a posthole than a pit.	0.70	0.55	0.46	304



Trench 3	Dimensions:	2.00 x 6.00m					
	Orientation:	NE-SW					
	Reason for trench:	To investigate the relationship between enclosures D4 and D5					
Context	Description	Type	Interpretation	Length (m)	Width (m)	Depth (m)	Feature
3019	Moderately friable, bright yellowish orange, silty clay fill with occasional charcoal flecks	Fill	Possible heat affected fill of a posthole or heat affected natural from burning above that permeated through the yellowish natural changing its colour. Either way this feature is suggestive of in situ burning at or near this location at layers above that have since been lost.	0.50	0.40	0.14	311
3020	Moderately friable, mid greyish brown, clayey silt fill with occasional charcoal flecks and small to medium sub rounded sandstone flecks	Fill	Silting fill of likely Roman pit, part of a cluster of Roman pits in TR3.	0.60+	0.45+	0.16	307
3021	Moderately compact, light greyish brown, silty clay fill with very regular charcoal flecks	Fill	Possible fill of a tenuous ring gully, more likely bioturbation dragging charcoal from posthole [3025].	0.36+	0.17	0.04	
3022	Moderately compact, light greyish brown, clayey silt fill with occasional charcoal flecks and small sub rounded sandstone pieces	Fill	Silting fill of a small pit/posthole in an area of Roman pitting. This feature is truncating known Roman pit [3033] and so must post-date it.	0.60	0.42+	0.16	309
3023	Cut of a circular posthole with moderately sharp breaks of slope	Cut	Possible cut of a posthole or area of potential near in situ burning at or near this location. The nature of the fill may be suggestive of burning - perhaps a small hearth - at layers above that have since been lost and the heat has permeated through the natural geology changing its colour. Alternatively a post may have burnt here. This seems less likely due to the distinct orangey clay nature of the fill. It feels more like burnt natural.	0.50	0.40	0.14	311

Trench 3	Dimensions:	2.00 x 6.00m					
	Orientation:	NE-SW					
	Reason for trench:	To investigate the relationship between enclosures D4 and D5					
Context	Description	Type	Interpretation	Length (m)	Width (m)	Depth (m)	Feature
3024	Approx NW-SE aligned curvilinear cut of a ring gully with gradual breaks of slope	Cut	Cut of a probable ring gully for a prehistoric roundhouse/structure/enclosure. This feature appears to be truncated by all other features with which it intersects in TR3 including prehistoric ditches F301 and F302. It is almost certainly the earliest feature within the trench, given that the pit cluster within the trench appears to be Roman.	0.70+	0.19	0.03	303
3025	Sub circular cut of a probable posthole with very sharp breaks of slope which is possibly truncated by potential feature/bioturbation (3021)	Cut	Cut of a possible posthole containing a charcoal rich fill. This was sampled. The feature is broadly circular and has some depth and the fill seems consistent with archaeological material. However, the base is very uneven and could suggest the feature is a result of bioturbation.	0.40	0.31+	0.13	310
3026	Circular cut of a posthole/small pit with sharp breaks of slope which truncates pit [3033]	Cut	Cut of a small pit or posthole likely Roman in origin as it appears to truncate pit [3033] which produced Roman material.	0.60	0.42+	0.16	309
3027	Circular cut of a large posthole/small pit with very sharp breaks of slope.	Cut	Cut of a probable prehistoric small pit/large posthole. The feature is one of the deepest in the trench and this suggests it is more likely to be a posthole than a pit.	0.70	0.55	0.46	304



Trench 3	Dimensions:	2.00 x 6.00m					
	Orientation:	NE-SW					
	Reason for trench:	To investigate the relationship between enclosures D4 and D5					
Context	Description	Type	Interpretation	Length (m)	Width (m)	Depth (m)	Feature
3028	Approx N-S aligned cut of a ditch with sharp breaks of slope and no visible truncation	Cut	Cut of linear ditch F302, part of an intervention to establish a relationship with pit/posthole [3027]. This could not be observed in section. The ditch however, is of known prehistoric date due to previous interventions in 2022. The full intervention was not excavated at this point due to the feature continuing beyond the LOE.	0.35+	0.34+	0.17+	302
3029	Moderately compact, mid-dark greyish brown, clayey silt fill with occasional charcoal flecks and small sub angular sandstone pieces	Fill	Fill of ditch [3028], F302 - likely silting up event over a relatively short period of time. F302; same as (3029), (3011).	0.35+	0.34+	0.17+	302
3030	NW-SE aligned cut of a ditch with moderately sharp breaks of slope which is truncated by pit [3033]	Cut	Cut of a ditch F301 at or near the point of the ditch terminus. This ditch is filled with silting fill (3013) which will equate to (3008) from 2022 dig. This ditch has been truncated at its terminus by likely Roman pit [3033], part of a cluster of Roman pitting in TR3.	0.32+	0.21+	0.15	301
3031	Likely circular cut of a small shallow pit with very gradual/imperceptable breaks of slope which truncates pit [3032]	Cut	Cut of a likely Roman pit part of a cluster of probable Roman pits in TR3. This pit truncates pit [3032]. This was seen by a distinct lack of charcoal in the fill of this feature compared to regular charcoal in pit [3032].	0.60+	0.45+	0.16	307
3032	Circular cut of a small shallow pit with very gradual breaks of slope which is truncated by pit [3031]	Cut	Cut of a small shallow likely Roman pit, truncated by another likely Roman pit [3031], all part of a cluster of likely Roman pits in TR3.	0.75+	0.63+	0.10	306



Trench 3	Dimensions:	2.00 x 6.00m					
	Orientation:	NE-SW					
	Reason for trench:	To investigate the relationship between enclosures D4 and D5					
Context	Description	Type	Interpretation	Length (m)	Width (m)	Depth (m)	Feature
3033	Likely circular cut of a possible pit with likely gradual breaks of slope which truncates ditch [3030] and is truncated by pit [3026]	Cut	Cut of a likely small shallow Roman pit part of a cluster of Roman pits in TR3. It is truncated by pit [3026] and truncates ditch F301 [3030].	0.88+	0.55+	0.13	308
3034	Oval/egg shaped cut of pit with sharp breaks of slope with no visible truncation in section	Cut	Cut of an oval shaped pit part of a cluster of pits likely Roman in date. This feature had a charcoal rich fill and produced some Roman pottery. Large, flate, carefully layed stones were also set within the fill that could have been part of a working/walking surface. This would be consistent with the quantity of charcoal recovered if it was a working area. They could however also have coincidentally wasted to this low point in the trench. No burning appears visible on the stones themselves. However, the stones only seem to appear set within the fill of the features themselves, not outside of them.	1.10	0.25+	0.10	305

Trench 3	Dimensions:	2.00 x 6.00m					
	Orientation:	NE-SW					
	Reason for trench:	To investigate the relationship between enclosures D4 and D5					
Context	Description	Type	Interpretation	Length (m)	Width (m)	Depth (m)	Feature
3035	Moderately friable, dark greyish brown, clayey silt fill with very frequent charcoal flecks and chunks. Also some large sub angular/rounded flat stones placed within the fill	Fill	Likely silting fill of a small shallow oval shaped pit containing very frequent burning - lots of charcoal. This was sampled. Also within the fill were numerous large, flat stones appearing to form some sort of surface, perhaps for working/walking on. A working surface would fit with the amount of charcoal/burning, within the fill. However, the stones themselves did not appear burnt so this may have been a walking surface only - or perhaps simply coincidentally where stones settled in this lower part of the trench. This is considered less likely, however, because the stones only appear set within the fill of the 'pit cluster' rather than outside of it.	1.10	0.25+	0.10	305
3036	Approx NE-SW curvilinear cut of a ring gully with very gradual/imperceptable breaks of slope which is truncated by ditch [3038]	Cut	Cut of a linear ring gully, possibly from a prehistoric structure, truncated by ditch F302. It is almost certainly the same ring gully as [3042] and [3024] - all of which appear truncated by other features in the trench. At this location, truncation by ditch F302 would seem to confirm its prehistoric origin as at least earlier than the date of this ditch - the earlier of the two ditches F302 and F301.	0.38+	0.15+	0.02	303
3037	Moderately friable, light greyish brown, clayey silt fill with occasional charcoal flecks	Fill	Silting fill of a possible prehistoric roundhouse or structure/enclosure. No finds were recorded, the fill was very shallow but it was visible truncated by ditch F302 [3028].	0.38+	0.15+	0.02	303



Trench 3	Dimensions:	2.00 x 6.00m					
	Orientation:	NE-SW					
	Reason for trench:	To investigate the relationship between enclosures D4 and D5					
Context	Description	Type	Interpretation	Length (m)	Width (m)	Depth (m)	Feature
3038	Approx N-S aligned ditch with sharp breaks of slope which truncates ring gully [3036]	Cut	Cut of linear ditch F302, visible truncating ring gully [3036] and therefore post-dating it. From previous excavations in 2022, this ditch was found to have prehistoric origins.	0.65+	0.30+	0.10+	302
3039	Moderately compact, mid-dark greyish brown, clayey silt fill with occasional charcoal flecks and small sub rounded/angular sandstone pieces	Fill	Likely silting fill of prehistoric ditch F302. Probable enclosure/drainage ditch identified, investigated and dated to likely prehistoric in 2022 excavations.	0.65+	0.30+	0.10+	302
3040	Approx NW-SE aligned ditch with sharp breaks of slope which truncates ring gully [3042]	Cut	Cut of a linear enclosure/drainage ditch F301 of probable prehistoric date based on interventions from 2022 season. This ditch is visible in section truncating ring gully [3042] therefore post-dating it.	0.31+	0.30+	0.20	301
3041	Moderately friable, dark greyish brown, clayey silt fill with occasional charcoal flecks and small sub rounded sandstone	Fill	Silting fill of a probable prehistoric enclosure/drainage ditch F301. Same as F301; (3013) and (3008).	0.31+	0.30+	0.20	301
3042	Approx NE-SW curvilinear ring gully with very gradual breaks of slope which is truncated by ditch F301 [3040]	Cut	Cut of a shallow ring gully likely of prehistoric origin and may relate to a possible prehistoric structure such as a roundhouse at this location. This is almost certainly the same, feature as [3036] and [3024], all of which appear truncated by later features in TR3. At this location, the ring gully is truncated by known prehistoric ditch F301 [3040] and must pre-date it.	0.38+	0.18+	0.06	303
3043	Moderately friable, light greyish brown, clayey silt fill with occasional charcoal flecks	Fill	Silting fill of a possible prehistoric ring gully that may be associated with a roundhouse structure or enclosure.	0.38+	0.18+	0.06	303



Table 2. Trench 6 context descriptions

Trench 6	Dimensions:	2x4m					
	Orientation:	NE-SW					
	Reason for trench:	Investigating an area internal to an enclosure					
Context	Description	Type	Interpretation	Length (m)	Width (m)	Depth (m)	Feature
6001	Very loose, very dark blackish brown, peaty loam topsoil with rare small sub-rounded to rounded stones	Layer	Topsoil	4.00+	2.00+	0.10	
6002	Friable, dark orangey brown, silty loam subsoil with moderate small to medium sub-angular to sub-rounded stones	Layer	Subsoil	4.00+	2.00+	0.10	
6003	Friable, light pinkish orange, clayey silt natural with moderate large angular to sub-angular stones	Layer	Natural	4.00+	2.00+	Not excavated	
6004	Sub-oval cut of a pit with gradual breaks of slope	Cut	Pit of burnt material. Possible refuse pit	0.81+	0.17+	0.13	601
6005	Friable, mid reddish brown, clayey silt fill with occasional small sub-angular to sub-rounded stones concentrated towards the east side	Fill	Fill of pit [6004] with burnt material not in situ.	0.81+	0.17+	0.13	601



Table 3. Trench 7 context descriptions

Trench 7	Dimensions:	2x5m					
	Orientation:	NW-SE					
	Reason for trench:	Investigating a possible barrow					
Context	Description	Type	Interpretation	Length (m)	Width (m)	Depth (m)	Feature
7001	Loose, dark greyish brown, sandy silt fill with occasional small rounded quartz and sub angular sandstone	Layer	Topsoil	5.00+	2.00+	0.24	
7002	Friable, mid greyish brown, clayey silt fill with occasional sub angular to sub rounded small stones	Layer	Subsoil	5.00+	2.00+	0.09	
7003	Circular cut of a burrow previously thought to be a posthole with sharp breaks of slope	Cut	Cut of a certain burrow. Initially thought to be a possible posthole but after excavation it is clear this is part of a burrow system found in this part of the trench.	0.23	0.21	0.06	
7004	Loose, dark greyish brown, sandy silt fill with rare mid sized sub angular stone	Fill	Fill of burrow. Similar fill to the topsoil suggests a silting into the burrow over time.	0.23	0.21	0.06	
7005	Friable, mid yellowish brown, sandy silt fill with moderately rare medium sub angular stone, rare roots and rare small angular flint	Layer	Colluvial deposit below subsoil (7002).	2.00+	1.00+	0.04	
7006	Friable, mid yellowish brown, sandy silt fill with occasional medium sub angular stone, frequent small roots and rare small angular flint	Layer	Colluvial deposit below subsoil (7002).	2.00+	1.00+	0.04	
7007	Moderately compact, light yellowish brown, sandy silt fill with occasional sub angular small to medium stones and rare angular flint	Layer	Colluvial deposit over underlying geological deposit.	2.00+	1.00+	0.08	
7008	Moderately compact mid pinkish orange to light reddish brown, clayey silt to clayey sand natural with moderate sub angular small to medium stones	Layer	Underlying geological deposit	5.00+	2.00+		



Table 4. Trench 8 context descriptions

Trench 8	Dimensions:	2x4m					
	Orientation:	NW-SE					
	Reason for trench:	Investigating a possible barrow					
Context	Description	Type	Interpretation	Length (m)	Width (m)	Depth (m)	Feature
8001	Loose, dark greyish brown, peaty loam topsoil with rare small to medium sub-rounded to rounded	Layer	Topsoil	4.00+	2.00+	0.12	
8002	Firm, mid yellowish brown, clayey silt fill with rare medium sub-angular to sub-rounded stones	Fill	Higher mound deposit of cairn/barrow	2.00+	1.60	0.11	
8003	Friable, mid greyish brown, clayey silt with occasional medium sub-rounded sandstone and occasional flecks of charcoal	Layer	Natural deposition, potential mound runoff down mound slope. Line of iron wash on upper boundary	1.10+	0.50+	0.09	
8004	Friable, dark greyish brown, clayey silt colluvium with occasional small sub-rounded to rounded sandstone and rare flecks to small sub-angular to sub-rounded quartz/small stones	Layer	Natural accumulation over time, no sign of robbing or alteration. Covers the whole mound and potential feature	4.00+	2.00+	0.18	
8005	Spongy, very dark blackish brown, peaty loam fill with frequent very large angular to sub-rounded stones	Fill	Top fill of pit [8009] in mound	1.90+	1.45	0.50	
8006	Firm, dark orangey brown, clayey silt fill with frequent large to very large sub-angular to rounded stones	Fill	Lower fill of pit [8009] in mound	1.90+	1.45	0.40+	



Trench 8	Dimensions:	2x4m					
	Orientation:	NW-SE					
	Reason for trench:	Investigating a possible barrow					
Context	Description	Type	Interpretation	Length (m)	Width (m)	Depth (m)	Feature
8007	Friable, mid greyish yellow, silty clay with occasional medium sub-angular iron stone and occasional medium sub-angular to sub-rounded concentrated towards base of mound	Layer	Deposition from building of mound	1.86	0.50	0.14	
8008	Firm, light yellowish orange, silty sand with occasional small to medium sub-angular to rounded stones	Deposit	Lowest deposit in mound make up for barrow	0.95	0.50+	0.15	
8009	Sub-oval cut of E-W aligned pit with gradual break of slope top which was never fully excavated	Cut	Stone lined pit. Cut of possible cist in middle of mound	1.90+	1.45	0.84+	
8010	Firm, mid yellowish brown, clayey silt fill with rare medium sub-angular to sub-rounded stones	Fill	Higher mound deposit of cairn/barrow likely same as (8002)	2.00+	1.60	0.11	



Appendix B: Pottery catalogue

Table 5: Pottery dating summary

Feature No	Feature Type	Context	Spot date	Comments	Sherd	Weight (g)	Total RE %
3004	Layer	3004	?	Tiny ceramic fragments	2	1	0
F301	Ditch	3008	Earlier Prehistoric?	Three small handmade sherds	3	4	0
F302	Ditch	3009	IA-Roman/ Early Prehistoric	One handmade vesicular sherd (SF38) and a further poorly mixed handmade sherd of earlier Prehistoric date (SF34)	2	10	0
F302	Ditch	3011	Early Prehistoric	A single small handmade sherd (SF33)	1	4	0
F306	Pit	3014	Roman	A small group of grey ware	3	4	0
F308	Pit	3015	Roman?	Three small reduced ware sherds probably of Roman date	3	13	0
F307	Pit	3020	AD120-250	A small sherd of Samian in poor condition possibly from Eastern Gaul	1	4	0
F305	Pit	3035	Roman?	Two reduced grey ware sherds	2	5	0



Table 6: Pottery fabric summary

Fabric code	Fabric group	Fabric details	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
SAM	Samian	Undifferentiated	1	5.88%	4	8.89%	0
GREY?	Reduced	Miscellaneous grey wares	8	47.06%	22	48.89%	0
CALG	Calcareous	Calcite tempered	1	5.88%	2	4.44%	0
EP	Handmade	Earlier Prehistoric	5	29.41%	16	35.56%	0
MISC	Misc	Misc uncategorised	2	11.76%	1	2.22%	0

Table 7: Pottery form summary

Form	Form Type	Form Description	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
OPEN	Open	Form	1	5.88%	4	8.89%	0
-	Unknown	Form uncertain	16	94.12%	41	91.11%	0



Table 8: Pottery sherd data

Site code	Context	Fabric	Form	Rim	Body	Base	Decoration	Vessels	Alt	Comments	Join	Sherd	Weight	Rim diam	Rim eve
MOO23	3004	MISC	-	-	-	-		1		BS TINY SCRAPS OF UNCERTAIN DATE		2	1	0	0
MOO23	3008	EP	-	-	U	-	HM	3	VAB	BS IRF; SOME SPARSE QUARTZ		3	4	0	0
MOO23	3009	CALG	-	-	U	-	HM	1	ABR	BS R		1	2	0	0
MOO23	3009	EP	-	-	-	U	HM	1	ABR	BASE SPARSE VOIDS AND SPARSE QUARTZ		1	8	0	0
MOO23	3011	EP	-	-	U	-	HM	1	ABR	BS IRF; GRANODIORITE		1	4	0	0
MOO23	3014	GREY?	-	-	-	-		3	ABR	BS MISC		3	4	0	0
MOO23	3015	GREY?	-	-	-	-		3	ABR	BS MISC		3	13	0	0
MOO23	3020	SAM	OPEN	-	-	-		1	ABR	BS SAMEG?		1	4	0	0
MOO23	3035	GREY?	-	-	-	-		1	ABR	BS		2	5	0	0

Appendix C: Lithics Catalogue

Table 9: Summary of lithic assemblage

Category	Trench 3	Trench 6	Trench 7	Trench 8	Total
Chip	65	2	6	3	76
Chunk	20	1	1	1	23
Primary removal	14	2		1	17
Flake	96	3	6	1	106
Blade	3		2		5
Bladelet			1		1
Single-platform core, flake removals	2				2
Multi-platform core, flake removals	1				1
End-scraper, short	1				1
Arrowhead frag			1		
Denticulated flake	1				1
Retouched blade	1				1
Total	205	8	17	6	236
No. burnt worked flints	44	3	3		50
No. burnt unworked flints	40		2	1	43
No. unworked	17	5	1		23

Table 10: Quantification of unworked burnt material

Context	Count	Weight
3001	6	3.9
3002	6	6.9
3004	6	8.1
3005	16	11.4
3008	2	4.9
3011	4	1.9
7007	2	6.5
8007	1	1
Total	43	44.6

Table 11: Quantification of naturally broken/unmodified material

Context	Count	Weight
3001	1	16.8
3002	4	17.9
3004	2	40.8
3005	8	29.3
3008	2	4.9
6001	1	2.6
6002	4	3.4
7006	1	2.5
Total	23	118.2



Table 12: Archive catalogue of worked flint

Context	Trench	Feature	SF	Chip	Chunk	Primary removal	Primary removal fragments	Flake	Flake fragment	Blade	Blade fragment	Bladelet fragment	Single platform, flake removals	Multi-platform core, flake removals	Discoidal core	Endscraper, short	Bifacially flaked	Denticulated, flake	Retouched, blade	Total Count	Total Weight (g)	No. Burnt	Patination	Edge damage	Period(s)	Notes
3001	3			4	5			9	6				1	1						26	104.9	8	None-Moderate	Light	L.Neo/EBA	
3002	3			7	5			6	3	1								1		23	58.7	7	None-Light	Light	L.Neo/EBA	
3004	3			4	2	1		5	2											14	47.9	1	Light-Moderate	Light	L.Neo/EBA	
3004	3		32																1	1	3.6	0	Light	None	L.Neo/EBA	
3005	3			29	5	4	3	26	11	1			1		1					81	144.5	23	None-Light	Light	L.Neo/EBA	
3008	3			7		1		11	3											22	36	1	None-Heavy	Light	L.Neo/EBA	
3008	3										1									1	2.9	0	Light	None	Meso/E.Neo-L.Neo/EBA	Large proximal blade frag on same material as SF32. Dihedral butt. Interesting because of similarity in tech/material
3011	3			13	3	2		10								1				29	59.3	3	None-Moderate	None-Light	L.Neo/EBA	
3012	3					1		2	1											4	16.7	1	Light-Moderate	None	L.Neo/EBA	
3018	3					2			1											3	11.1		Moderate	None	L.Neo/EBA	
3020	3			1																1	<0.1	0	-	-	L.Neo/EBA	
6001	6					1		1												2	5	1	Moderate	None	L.Neo/EBA	
6002	6			2	1	1			2											6	12.3	2	Light-Moderate	None	L.Neo/EBA	
7001	7			1					1											2	1	1	-	-	L.Neo/EBA	
7002	7			1				2												3	2.1	1	Light-Moderate	Light	L.Neo/EBA	
7005	7								1											1	1.6	0	Moderate	Light	L.Neo/EBA	

Context	Trench	Feature	SF	Chip	Chunk	Primary removal	Primary removal fragments	Flake	Flake fragment	Blade	Blade fragment	Bladelet fragment	Single platform, flake removals	Multi-platform core, flake removals	Discoidal core	Endscraper, short	Bifacially flaked	Denticulated, flake	Retouched, blade	Total Count	Total Weight (g)	No. Burnt	Patination	Edge damage	Period(s)	Notes
7006	7							1		1							1			3	3.8	1	Moderate-Heavy	Light	Meso/E.Neo-L.Neo/EBA	Bifacially flaked fragment, plausible that of a pressured flaked arrowhead but heavily burnt/fractured and not easily recognisable.
7006	7		31							1										1	3.2	0	Light	Light	Meso/E.Neo-L.Neo/EBA	
7007	7			4	1				1			1								7	4.4	0	Light-Moderate	None	Meso/E.Neo-L.Neo/EBA	
8001	8			2	1															3	10	0	Light	Moderate	L.Neo/EBA	
8004	8			1																1	<0.2	0	-	-	L.Neo/EBA	
8006	8						1													1	4.6	0	Heavy	None	L.Neo/EBA	
8007	8								1											1	0.6	0	Moderate	None	L.Neo/EBA	
Total				76	23	13	4	73	33	3	2	1	2	1	1	1	1	1	1	236	534.2					

Appendix D: Environmental

Table 13: Summary of material extracts from heavy residues and flots from samples

Material	Heavy residue			Flot		
	Count	Presence	Weight (g)	Count	Presence	Weight (g)
Bone	-	-	-	1	-	0.01
Fired clay	11	-	9.19	-	-	-
Magnetic material	-	***	61.35	-	-	-
Charcoal	52	***	7.33	24	***	6.71
Charred grain	-	-	-	3	-	0.01
Charred seed	-	-	-	2	-	0.02
Insect egg capsules	-	-	-	-	*	N/A
Modern roots	-	-	-	-	***	N/A
Moss	-	-	-	2	-	0.01
Plant remains	-	-	-	2	-	0.02
Untransformed seeds	-	-	-	3	-	0.01

*present (rare) **present (common) ***present (abundant).

Table 14: Summary of artefacts and ecofacts recovered from heavy residues

Context	Sample	Fired clay		Magnetic matter	Charcoal		Total	
		Count	Weight (g)	Weight (g)	Count	Weight (g)	Count	Weight (g)
3015	9	2	1.72	18.28	***	2.00	2	22.00
3016	10	9	7.47	4.07	***	1.36	9	12.90
3017	11			-	13 **	1.07	13	1.07
3019	12			32.38	3 **	0.08	3	32.46
8006	17			2.58	18 *	1.92	18	4.50
8007	19			4.04	18 *	0.90	18	4.94
Total		11	9.19	61.35	52	7.33	63	77.87

* present (rare) ** present (common) *** abundant.



Table 15: Summary of remains recovered from flots by context

	Context 3015 <9>		Context 3016 <10>		Context 3017 <11>		Context 3019 <12>		Context 8006 <17>		Context 8007 <19>		Total	
Material	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)
Bone	-	-	-	-	-	-	-	-	1	0.01	-	-	1	0.01
Charcoal <2mm	***	-	***	-	**	-	**	-	***	-	*	-	-	-
Charcoal >2mm	***	2.88	**	1.42	17	0.88	5	0.18	**	1.34	2	0.01	24	6.71
Charcoal 2mm	***	2.51	***	1.79	**	0.49	**	0.27	**	1	*	-		6.06
Charred grain	3	0.01	-	-	-	-	-	-	-	-	-	-	3	0.01
Charred seeds	1	0.01	-	-	-	-	2	0.01	-	-	-	-	3	0.02
Insect egg capsules	-	-	-	-	*	-	-	-	-	-	*	-	-	-
Modern roots	***	-	**	-	***	-	***	-	*	-	**	-	-	-
Moss	2	0.01	-	-	-	-	-	-	-	-	-	-	2	0.01
Plant remains	-	-	-	-	-	-	-	-	1	0.01	1	0.01	2	0.02
Untransformed seeds	-	-	-	-	-	-	1	0.01	2	0.01	-	-	3	0.02
Total	6	5.42		3.21	17	1.37	8	0.47	4	2.37	3	0.03	38	12.87

*present (rare), **present (common), ***abundant.



Table 16: Charred and untransformed fruits and seeds from flots, count.

Context	Sample	Fraction (mm)	Count	Species	Common name	Part	Condition
3015	9	Flot	1	Unidentified	Unidentified	Grain	Charred
			1	<i>Hordeum</i> sp.	Barley (hulled)	Grain	Charred
			1	<i>Triticum</i> sp.	Wheat (hulled)	Grain	Charred
			1	<i>Galium</i> sp.	Cleavers	Fruitlet	Charred
3019	12	Flot	2	<i>Brassica/Sinapis</i> sp.	Cabbage/Mustard	Seed	Charred
			1	<i>Rubus fruticosus</i>	Blackberry	Fruit (endocarp)	Untransformed
8006	17	Flot	2	Poaceae	Grasses	Spikelet	Untransformed
			1	<i>Calluna vulgaris</i>	Heather	Stem/leaves	Untransformed
8007	19	Flot	1	<i>Calluna vulgaris</i>	Heather	Stem/leaves	Untransformed

