Archaeological Investigations at Soudley Camp, Gloucestershire

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Archaeological Investigations at Soudley Camp, Soudley, Gloucestershire

Worcestershire Archaeology
Archive and Archaeology Service
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Contents

Archaeological Investigations at Soudley Camp, Soudley, Gloucestershire

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With a contribution by Rob Hedge

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Summary

A community archaeological excavation was undertaken at Soudley Camp, Soudley, Gloucestershire (NGR SO 6616 1058). The excavation was managed and supervised by Worcestershire Archaeology (part of Worcestershire Archive and Archaeology Service), and carried out by 32 local volunteers as part of a five year Heritage Lottery Funded Landscape Partnership Programme called the Foresters' Forest.

Soudley Camp is a Scheduled Monument and is currently owned and maintained by the Forestry Commission in line with a management agreement agreed with Gloucestershire County Council Archaeology Service. The site is poorly understood. No excavations are known to have taken place, and the only previous archaeological investigation was an earthwork survey by Dean Archaeological Group in 2000. A metal detectorist was noted to have excavated 20 small holes in the site in 1994 but no finds or features were reported. As a result of this lack of work at the site, even baseline information such as the date and function of the monument have not been established, and interpretations have been based almost entirely on morphology. It has been interpreted as a small Iron Age defended settlement, or possibly a very small hillfort, although the suggestion that it represents the remains of an early Norman fortification has also been published.

Three trenches were excavated during the community excavation along with five 1m² test pits. Trench 1 targeted a low earthwork feature in the north-east corner of the Camp, Trench 2 targeted a probable buried wall or earthwork identified in the centre of the Camp by geophysical survey, and Trench 3 targeted the main ditch and entrance into the camp. The trenches and test pits excavated within the centre of the Camp identified a number of notable features including a small wall in Trench 1, and a number of discrete features in Trench 2. Unfortunately none of these features provided any clear evidence of the use of the camp, and a quern stone was the only datable find recovered from a discrete feature. The ditch on the western side of the camp survives as a 1.5m deep earthwork, but within the ditch an infilling sequence amounting to only 0.5m in depth was identified while in test pits to the north and south the ditch fill sequence was even shallower. The shallow, U-shaped, profile of the ditch indicates it was not built to be defensive, and that the bank and ditch were perhaps more symbolic in nature. In the absence of contradictory evidence and given the presence of the beehive quern, an Iron Age date remains the most likely for the monument though its function remains unclear.

The excavations failed to identify any environmental material suitable for sampling. The artefactual assemblage reflected a long history of human activity at the site, but cannot conclusively demonstrate the date of the earthworks synonymous with the Camp. The paucity of pre-modern artefactual evidence, especially the low numbers and markedly poor condition of ceramics, may reflect poor preservation potential rather than absence of activity. It is clear that the deposition of a quern fragment represents either symbolic or domestic (or both) activity on the site in the later Iron Age or early Roman period. The worked flint is evidence that the natural promontory on which the camp is located was also used at an earlier date.

Report

1 Background

A community archaeological excavation was undertaken at Soudley Camp, Soudley, Gloucestershire in the Autumn of 2017. Soudley Camp is currently owned and maintained by the Forestry Commission in line with a management agreement agreed with Gloucestershire County Council Archaeology Service. The excavation was managed and supervised by Worcestershire Archaeology (part of Worcestershire Archive and Archaeology Service), and carried out by 32 local volunteers. The excavation was carried out as part of a five year Heritage Lottery Funded Landscape Partnership Programme called the Foresters' Forest. The excavation was one element of the Foresters' Forest 'Buried Heritage' project, which seeks to train and work with community volunteers to investigate heritage sites across the Forest of Dean.

The project conformed to a written scheme of investigation (WSI), produced by Worcestershire Archaeology, following discussions with staff of Historic England (Mel Barge, Inspector of Ancient Monuments), Gloucestershire County Council Archaeology Service (Jon Hoyle, Senior Project Officer), and the Forestry Commission (Sue Middleton, HLF Programme Manager and James Williams, Beat Forester).

The site of Soudley Camp is a Scheduled Monument (List number 1005564) and the investigations were undertaken following approval of Scheduled Monument Consent (S00174124; dated 05/09/17) and also under terms of a Forestry Commission Licence (LIC9/645).

The project also conforms to the *Standard and guidance: Archaeological field evaluation* (CIfA 2014a) and *Standard and guidance: Archaeological excavation* (CIfA 2014b*)*.

2 The site

2.1 Location, topography and geology

The site is located on the east side of the settlement of Upper Soudley, approximately 3km south of Littledean and 19km south-west of Gloucester, centred on NGR SO 6616 1058 (Figure 1). The site is located on a small promontory (c.0.3ha) on a hillside, overlooking the junction of three valleys to the north, east and south.

The promontory is roughly triangular in shape and is defined by steep scarps to the north and south-east. These appear to be largely natural in origin but they may have been enhanced to make them steeper. The west of the site is defined by a substantial earthen bank (c.2m high and 10m wide) with an external ditch (c.1m deep and 10m wide). Although the bank is largely confined to the western side, traces of a bank can also be observed on the northern side.

The underlying geology of the site is mapped as micaceous sandstone of the Brownstones Formation (BGS 2017). No superficial deposits are recorded on the site, although alluvial deposits of clay, silt sand and gravel are mapped in the valley base.

2.2 Archaeological and historical background

Soudley Camp is a Scheduled Monument (List number 1005564; https://historicengland.org.uk/listing/the-list/list-entry/1005564) although the site is poorly understood. The Gloucestershire Historic Environment Record (GHER 444) notes that no excavations are known to have taken place, and the only previous archaeological investigation was an earthwork survey by Dean Archaeological Group in 2000. A metal detectorist was noted to have excavated 20 small holes in the site in 1994 but no finds or features were reported.

A small quantity of finds are reported to have been recovered from molehills within the area of the earthworks. Although details are unclear and it has not yet proved possible to locate these finds, it is understood that they these include a single struck flint, some sherds of late Romano-British pottery and a small quantity of bloomery slag. Although some of these may be indicative of the date of the monument, the evidence is ambiguous.

As a result of this lack of work at the site, even baseline information such as the date and function of the monument has not been established, and interpretations have been based almost entirely on morphology. It has been interpreted as a small Iron Age defended settlement, or possibly a very small hillfort (Saville 1984, 143, and PastScape 2017), although a suggestion that it is the remains of an early Norman fortification has also been published (Hart 1967, 53). The poor understanding of the site has been highlighted within the recently published Research Framework for Forest of Dean District which suggested that further investigation of the site would be appropriate (Hoyle 2017, Research Aim 82).

2.3 Geophysical survey

In advance of the excavation, and in line with Research Aim 82, a geophysical investigation of the site was undertaken in July 2017 (Sumo 2017; Appendix 1). This combined magnetometer and GPR survey identified a probable buried wall or earthwork associated with the defended settlement, at depths between 0.29 and 1.23m. Further geophysical responses were also suggested to be of archaeological origin, though their exact cause could not be determined with confidence.

3 Aims

The aim of the investigation, as outlined in the written scheme of investigation, was to:

- To improve understanding and definition of this poorly understood Scheduled Monument, thus supporting research into the heritage of the forest, and interpretation and future management of the site.
- To engage with the local community, thus raising public understanding and awareness of the great potential and wealth of archaeological and heritage features surviving within the Forest.

The following objectives were also identified:

- Through area excavation and test pits, to determine the date and character of the enclosure and any internal activity present.
- Through area excavation and test pits, to identify features and deposits that support development of understanding of the construction, use and abandonment of the enclosure.
- Through earthwork survey and area excavation, to refine definition of the extents of the monument, thus enabling the area of scheduling to be extended to include the whole of the known monument and to provide evidence to enhance and improve the current scheduled area and description.
- Through auger survey, to identify and record the form/profile of the ditch, and determine whether the infilling sequence includes deposits with environmental potential to reveal anything about the origins, use and abandonment of the enclosure?
- Through area excavation and test pits, to examine to what extent has the survival of features been compromised by the long-term woodland cover on the site and other post-abandonment use and activity (eg Mountain biking, dumping).
- Through all aspects of the investigation, to inform the next revision of the site management plan to ensure the best support for the long-term preservation of the site?
- Through enthusing local people to develop, or further develop, their interest in their heritage, to support the recruitment of community volunteers to engage with the remainder of the Foresters' Forest programme and especially 'Buried Heritage' and also join local interest groups thereby providing a lasting legacy for the project.
- Through provision of training and engagement opportunities for community volunteers, to develop and extend their skill set and provide volunteers with an opportunity to practice

those skills; specifically excavation and recording (written, drawn and photographic) of archaeological deposits, finds and environmental processing, and survey.

4 Methods

4.1 Personnel

The excavations were supervised by Andrew Walsh, Jesse Wheeler, Jem Brewer and Robin Jackson (all of WA) and were carried out by Jackie Brown, Kyle Chambers, Roger Coe, Stuart Cox, Ian Dean, Ellen Durbin, Ken Eames, Ian Evans, Jo Fawcett, Gerald Fentler, Ruth Fletcher, Linda Froud, Kevan Froud, Christian Goodfield, John Izzard, Clive Kind, Cathie Moore, Cathy Morgan, Lauren Mountford, Caroline Prosser, Phil Riches, David Savage, Elaine Savage, Amelia Schafer-Rutherford, Dave Slater, Elanor Stanley, Andrew Thorpe, Janet Thorpe, Terry Tomlin, Malcom Vine, Gwynneth Weaver, Marlene Wilkinson (all local community volunteers).

4.2 Fieldwork strategy

Three trenches, amounting to a total 130m² in area, were proposed for excavation along with up to six 1m² test pits. In the event the trenches were smaller than proposed amounting to a total of 80m², and five test pits were excavated. The location of the trenches and test pits is indicated in Figure 2. Trench 1 targeted a low earthwork feature, Trench 2 targeted the probable buried wall or earthwork identified by the geophysical survey, and Trench 3 targeted the main ditch and entrance into the camp.

All excavation was undertaken by hand. Clean surfaces were inspected and selected deposits were excavated to retrieve artefactual material and environmental samples, as well as to determine their nature. Deposits were recorded according to standard Worcestershire Archaeology practice (WA 2012) by volunteers and Worcestershire Archaeology staff. On completion of excavation, the trench and test pits were reinstated by replacing the excavated material.

In the event it was decided not to undertake an auger survey. The trenches and test pits revealed only shallow deposits containing large quantities of stone rubble and no organic deposits and as a result augering was not considered likely to be either viable or produce useful information. Evidence of environmental remains was also very limited within the trenches and test pits. Due to time constraints the earthwork was not undertaken.

The excavation was undertaken between 19th October and 2nd November 2017. The unique site code used in the archive is P5050SOUD.

4.3 Structural analysis

All fieldwork records were checked and cross-referenced. Context descriptions are presented in Appendix 2 and a description of the site archive presented in Appendix 3. Analysis was effected through a combination of structural and artefactual evidence, allied to the information derived from other sources.

4.4 Artefact methodology, by Rob Hedge

The finds work reported here conforms with the following guidance: for finds work by CIfA (2014c), for pottery analysis by PCRG/SGRP/MPRG (2016), for archive creation by AAF (2011), and for museum deposition by SMA (1993).

4.4.1 Recovery policy

The artefact recovery policy conformed to standard Worcestershire Archaeology practice (WA 2012; appendix 2).

4.4.2 Method of analysis

All hand-retrieved finds were examined. They were identified, quantified and dated to period. A *terminus post quem* date was produced for each stratified context. The date was used for

determining the broad date of phases defined for the site. All information was recorded on a Microsoft Access database.

The pottery and ceramic building material was examined under x20 magnification and referenced as appropriate by fabric type and form according to the fabric reference series maintained by Worcestershire Archaeology (Hurst and Rees 1992 and www.worcestershireceramics.org). Classification of worked flint follows conventions outlined in Ballin (2000) and Butler (2005): the material was catalogued according to type and dated where possible. Visible retouch, edge-damage, cortex, raw material characteristics and quality, burning, and breakage were noted.

4.4.3 Discard policy

The following categories/types of material will be discarded after a period of 6 months following the submission of this report, unless there is a specific request to retain them (and subject to the collection policy of the relevant depository):

- where unstratified;
- post-medieval material, and;
- generally where material has been specifically assessed by an appropriate specialist as having no obvious grounds for retention.

4.5 Environmental archaeology methodology

4.5.1 Sampling policy

Sampling was undertaken according to standard Worcestershire Archaeology practice (WA 2012). In the event no deposits were identified which were considered to be suitable for environmental analysis

5 Results

5.1 Structural analysis

5.1.1 Trench 1

Trench 1 measured approximately 10m by 2m and was located near the eastern corner of the enclosure, across a low earthwork feature of unknown origin (Figures 2 and 3). This feature was defined by a clear break of slope, which was located approximately in the centre of the trench. It was originally proposed that this trench would be L-shaped in plan with an arm extending to north across a low bank located on the northern edge of the enclosure. However given the extremely steep nature of the scarp at this location, together with the presence of low, dense, tree cover and the difficult in fencing and securing the area, this part of the trench was not excavated.

The earliest deposit identified was natural bedrock (102) which was identified in a sondage in the central part of the trench. The bedrock was visible as 'layers' of sandstone sat at approximately a 45° angle, located approximately 0.40m below ground level. This geological outcrop appeared to correspond with the low earthwork feature targeted by this trench. To the west the bedrock was overlaid by a slightly pinky orange clay 101. This deposit was not excavated but appeared to be natural in origin.

Deposit 101 was cut [105] by a wall (103). The wall was orientated approximately north to south and partially excavated, although its depth was not established. It measured approximately 0.50m in width and was fairly crudely constructed of unbonded blocks of sandstone (Plate 1). The only find associated with this feature was an undated piece of fired clay and it was not possible to establish whether it formed part of a building or another type of structure. Sealing these deposits was a dark greyish brown sandy loam (100) which measured approximately 0.20m in depth. A small number of modern finds and moderate quantity of charcoal was recovered from this deposit (Table 3).

To the east of the trench removal of the turf revealed a stone rubble deposit (104). This deposit was not excavated but was formed of generally small (*c*.0.20-0.30m) pieces of sandstone. It was visible across the downward slope of the earthwork feature targeted by this trench (Plate 2). It did not appear to be of natural origin and may have been material dumped over the break in the slope.

5.1.2 Trench 2

Trench 2 measured approximately 15m by 2m and targeted the probable buried wall or earthwork feature identified by the geophysical survey, and more generally the central part of the enclosure (Figure 2 and 4). The earliest deposit identified was natural bedrock which, like in Trench 1, appeared as layered outcrops of sandstone sat at approximately a 45°-90° angle. These outcrops were visible at both the eastern and western ends of the trench (Plate 3), although at the western end it was difficult to identify the difference between the layers of bedrock (204) and deposits of stone rubble (203 and 205) which appeared to overlay the bedrock (Plate 4). Finds dating from the prehistoric to modern periods, including a flint scraper, glass and pottery (Table 3) were recovered from these deposits suggesting significant disturbance, or intrusive activity has taken place.

On a number of the stones identified in deposit 203 and 205 were grooves or scores (Plates 5 and 6). The origin of these is unclear but it appears unlikely that they are natural in original (eg glacial) or the result of plough damage. Another scored stone was identified in a posthole (209; see below).

In the centre of the trench, in the approximate location of the anomaly identified on the geophysical survey, a sondage measuring 2m by 0.50m was excavated to a depth of 0.50m below ground level through deposit 205. No evidence of any feature or wall was identified (Plate 7), although it is possible that the feature causing the anomaly survives below the excavated levels.

At the eastern end of the trench a number of discrete features were identified cutting natural clay (207). These comprised of a large posthole or pit (209), a possible stakehole (211) and a small mound of stones (212).

The posthole (209; Plates 8 and 9) measured approximately 0.48m in diameter, and *c*.0.30m in depth. It was tightly filled with stone (208), probably for packing, and included within this material was a broken beehive quern (Figure 6; Plate 8) and a large stone measuring 0.5m by 0.25m which had a number of scored marks present (Figure 7; Plate 6). The other stones within the feature were all smaller and unworked.

The stakehole (211) measured approximately 0.20m in diameter and 0.15m in depth (Plate 3). It was filled with mid orangey brown fine sandy loam (210), which yielded no finds. The southern edge of this feature was fairly irregular and it is possible the feature may be natural in origin.

The mound of stones (212) measured approximately 0.40m in diameter, and appeared to be sitting on top of layer 205. A flint scraper was found on the edge of this feature but it is not clear if this was an intentional deposition or a coincidence.

In the north-east corner of the trench was a dark brown layer (206), which was rich in charcoal (Plate 3). It extended approximately 2.50m to the west and 1.10m to the south, and was up to 0.26m in depth. It appeared to be sub-oval in plan.

All the features and deposits in this trench were sealed by a subsoil (201), and turf layer (200), which also yielded a flint scraper.

5.1.3 Trench 3 and Test Pits 2 and 5: The enclosure ditch

Trench 3 measured 10m by 2m and was located in the base of the ditch, with the southern end of the trench located adjacent to the entrance into the enclosure. At the northern end of the trench an arm was excavated off to the west, measuring 6m by 1m, to enable the profile of the outside half of the ditch to be established.

The earliest deposit was natural bedrock which, like in Trenches 1 and 2, was angled upwards (Plate 10). A natural silty sand was interbedded between the layer of sandstone. Cutting the

natural deposits was the main enclosure ditch [312]. It measured approximately 1.90m in depth and was filled to a depth of 0.50m. The primary fill was a reddish brown loamy fine sand (310), which was very sterile and yielded no finds. Along the western edge of the ditch was a sandy loam layer (307) which included blocks of sandstone (Plate 11). It was unclear whether these were some sort of revetment on the edge of the ditch, or another band of natural bedrock. To the west of this deposit was a further sandy clay loam deposit (306). Within the ditch a flint scraper was found in fill 308 but no other datable finds were recovered.

Deposits 306, 307 and 310 were overlaid by a fine sandy loam (305) which was generally sterile. In the base of the ditch this was overlaid by a sandy clay loam (309) which in turn was overlaid by a sandy loam (304), which contained modern finds. To the west of the trench, fill 305 was overlaid by a sandy clay loam (311), which yielded no finds.

Within the ditch, at the southern end of the trench, a possible causeway or entrance structure (303) was identified (Plate 12). It comprised of a compacted area of sub-angular sandstone, in a fine sandy loam matrix. It was not excavated and no finds were recovered during its cleaning.

All the deposits in Trench 3 were sealed by a thin topsoil/turf layer (300) which yielded numerous modern finds.

Test Pits 2 and 5 were also located in the base of the ditch. Test Pit 2 was located towards the southern end of the ditch, and revealed a natural clay (2001) which was overlaid by 0.13m deep fine sandy loam (2000), which yielded a single sherd of modern pottery (Plate 13). Test Pit 5 was located to the north of Trench 3, and revealed natural sandstone bedrock (5002), overlaid by a 0.20m deep sandy loam (5001), and a 0.06m deep topsoil/turf layer (5000; Plate 14). A fragment of tile, dating to the Roman to medieval period was recovered, along with modern ceramics, glass and plastic.

5.1.4 Test Pits 1 and 3

Test Pits 1 and 3 were excavated within the enclosure in order to recover finds and identify any features in the main enclosure. Test Pit 1 was excavated adjacent to the western bank, and the earliest deposit identified was a sandy clay (1002) which was 0.30m below ground level (Plate 15). This was sealed by a 0.25m deep sandy silt subsoil (1001) which yielded a small quantity of slag or heath bottom, and a 0.05m deep topsoil/turf layer (1000).

Test Pit 3 was located in the centre of the enclosure. The earliest deposit identified in the pit was a stone deposit *c*.0.20m below ground level (3002; Plate 16). This appeared to be natural bedrock, although small quantities of Roman pottery and slag were recovered from a soil matrix within the stone. This was sealed by a 0.15m deep sandy loam subsoil (3001), and 0.04m of topsoil (3000).

5.1.5 Test Pit 4: Charcoal burning platform?

Charcoal rich deposits were identified in the topsoil in the western end of Trench 1 (context 100) and below the topsoil in the eastern end of Trench 2 (context 206), and between Trenches 1 and 2, a potential charcoal burning platform was identified as an earthwork feature. This was targeted by Test Pit 4 (Plate 17). The earliest deposit identified was natural sandy clay (4001), which was overlain by a loamy sand (4000). A few fragments of charcoal were identified during excavation but they amounted to significantly less than the amount of charcoal identified in Trenches 1 and 2. No evidence of *in-situ* burning was identified, and unless the platform had been cleaned extremely efficiently, which seems extremely unlikely, it appears to not have been used for charcoal burning. A fragment of what may have been a quern stone was identified in the topsoil (4000) of this test pit.

5.2 Artefactual analysis by Rob Hedge

5.2.1 Quantification

The artefactual assemblage recovered is summarised in Tables 1 and 2. A total of 492 artefacts weighing just over 67.9kg were recorded, reflecting many phases of activity on the site from prehistory up to the present-day.

period	material class	material subtype	object specific type	count	weight(g)
prehistoric	Stone	Flint	end scraper	1	4
			flake	1	1
			side-and-end scraper	2	10
Middle Iron Age to early Roman	Stone	old red sandstone quartz conglomerate	beehive quern	1	16500
Roman	ceramic		pot	5	7
Roman+	ceramic		tile	2	14
post-medieval	ceramic		clay pipe	1	2
			pot	4	25
post-medieval/ modern	ceramic		brick	8	3922
			pot	19	86
			roof tile	4	176
	glass		vessel	36	278
	mortar		mortar	1	117
	stone	Slate	roof slate	16	198
modern	ceramic		drainage tile	3	518
			pot	2	32
			roof tile	3	423
			sanitary ceramic	1	62
	glass		vessel	21	112
			window	6	57
	metal		bottle cap	1	1
			enamelled bowl	1	344
		Aluminium	beer can	1	18
			character	1	1
		copper alloy	button	1	2
		Iron	bracket	1	107
			iron plate	2	257
		Steel	spoon	2	16
	plastic		plastic	19	106
undated	bone	animal bone	mammal bone	1	8
		burnt bone	burnt bone	5	1
	ceramic	fired clay	fired clay	1	1
	metal	Iron	iron object	3	124
			iron rod	1	32
			nail	2	7
	organic	Charcoal	charcoal	263	1686
	slag	?	?sulphur-rich	1	344
		slag(fe)	slag	7	1448
			slag/hearth bottom	1	44
			smelting slag	8	400
	stone		burnt stone	29	312
		Sandstone	scored slab	1	36000
			worked slab	1	3905
		sandstone quartz conglomerate	possible quern fragment	1	198
	stone		slate	1	1
			Totals:	**492**	**67907**

Table 1: Quantification of the assemblage

Pottery retrieved from the excavated area amounted to 30 sherds weighing 150g. Worked stone and flint, charcoal, iron slag, ceramic building material, and modern domestic refuse were also present. The assemblage came from 20 stratified contexts and could be dated from the prehistoric period onwards (see Table 1). Using pottery as an index of artefact condition, this was generally poor; the majority of sherds displayed high levels of abrasion, and the average sherd size (5g) was

well below the norm. Condition of earlier ceramics was especially poor, which renders precise identification difficult.

5.2.2 Pottery

All sherds have been grouped and quantified according to fabric type (Table 2). Sherds were then dated by fabric type to their general period or production span.

Broad period	fabric code	Fabric common name	count	weight(g)
Romano-British	12	Severn Valley ware	5	7
Post-medieval	78	Post-medieval red ware	2	17
Post-medieval	81.3	Nottingham stoneware	1	3
Post-medieval/modern	83	Porcelain	1	5
Modern	81.4	Miscellaneous late stoneware	2	11
Modern	85	Modern china	14	46
Modern	101	Miscellaneous modern wares	5	61
		Totals:	**30**	**150**

Table 2: Quantification of the pottery by period and fabric-type

5.2.3 Site dating

context	material class	material subtype	object specific type	count	weight(g)	start date	end date	TPQ date range
100	stone	slate	roof slate	1	16	1600	2000	AD 1950-2000
	organic	charcoal	charcoal	14	24			
	slag	slag(fe)	smelting slag	3	161	-700	1600	
	metal		bottle cap	1	1	1950	2000	
	ceramic		pot	1	1	1600	1800	
	glass		vessel	18	108	1905	2000	
	ceramic		tile	1	5	43	1800	
105	ceramic	fired clay	fired clay	1	1			Undated
200	ceramic		pot	5	17	1800	2000	AD 1950-2000
	ceramic		pot	3	4	43	410	
	glass		vessel	7	51	1850	2000	
	plastic		plastic	1	1	1950	2000	
	metal	copper alloy	button	1	2	1900	2000	
	slag	slag(fe)	slag	2	718	-700	1600	
	stone	flint	side-and-end scraper	1	7	-10000	-1500	
203	metal	iron	iron object	1	2	-700	2000	700 BC - AD 2000
205	stone	flint	side-and-end scraper	1	3	-10000	-1500	AD 1900-2000
	stone	slate	roof slate	1	2	1600	2000	
	organic	charcoal	charcoal	5	3			
	slag	slag(fe)	slag	2	42	-700	1600	
	metal	iron	nail	2	7	-700	1900	
	ceramic		pot	1	14	1900	2000	
	glass		vessel	3	4	1900	2000	
	ceramic		pot	1	1	43	410	
	stone	flint	flake	1	1	-10000	-1500	

context	material class	material subtype	object specific type	count	weight(g)	start date	end date	TPQ date range
	Stone	sandstone	worked slab	1	3905			
206	organic	charcoal	charcoal	147	1634			Undated
207	organic	charcoal	charcoal	1	2			Undated
208	Bone	burnt bone	burnt bone	5	1			400 BC-AD 200
	Stone	slate	slate	1	1			
	Stone	burnt stone	burnt stone	1	1			
	Stone	old red s/stone quartz conglomerate	beehive quern	1	16500	-400	200	
	Stone	sandstone	scored slab	1	36000			
300	metal		enamelled bowl	1	344	1900	2000	AD 2000-2009
	plastic		plastic	12	96	1950	2000	
	ceramic		roof tile	2	400	1900	2000	
	ceramic		brick	2	292	1800	2000	
	ceramic		drainage tile	1	264	1900	2000	
	stone	slate	roof slate	6	92	1600	2000	
	ceramic		sanitary ceramic	1	62	1900	2000	
	metal	iron	bracket	1	107	1900	2000	
	metal	iron	iron plate	2	257	1900	2000	
	metal	aluminium	beer can	1	18	2000	2009	
	ceramic		pot	1	16	1600	1800	
	ceramic		pot	1	8	1850	1950	
	ceramic		pot	4	14	1800	1950	
	ceramic		pot	2	4	1850	1950	
	ceramic		pot	1	5	1750	1900	
	ceramic		pot	1	25	1800	2000	
	ceramic		clay pipe	1	2	1600	1910	
	metal	steel	spoon	2	16	1910	2010	
	glass		vessel	17	99	1850	2000	
	slag	slag(fe)	smelting slag	1	21	-700	1600	
	stone		burnt stone	25	257			
304	ceramic		drainage tile	2	254	1900	2000	AD 1950 - 2000
	ceramic		roof tile	3	167	1800	2000	
	ceramic		brick	6	3630	1800	2000	
	mortar		mortar	1	117	1800	2000	
	stone	slate	roof slate	8	88	1600	2000	
	bone	animal bone	mammal bone	1	8			
	plastic		plastic	3	2	1950	2000	
	stone	burnt stone	burnt stone	3	54			
	metal	iron	iron objects	2	122	-700	2000	

context	material class	material subtype	object specific type	count	weight(g)	start date	end date	TPQ date range
	ceramic		pot	1	3	1800	1950	
	ceramic		pot	1	3	1690	1790	
	ceramic		pot	3	12	1800	1950	
	ceramic		pot	1	18	1900	2000	
	glass		vessel	11	92	1800	1950	
	glass		window	5	54	1900	2000	
	slag	slag(fe)	slag	3	688	-700	1800	
	slag	?	?sulphur-rich	1	344			
308	stone	flint	end scraper	1	4	-10000	-1500	10000 BC - 1500 BC
1000	organic	charcoal	charcoal	17	6			Undated
1001	slag	slag(fe)	slag/hearth bottom	1	44	-700	1600	700 BC - AD 1600
	organic	charcoal	charcoal	3	1			
2000	ceramic		pot	2	3	1800	1950	AD 1800 - 1950
3000	metal	aluminium	character	1	1	1950	2000	AD 1950 - 2000
3002	slag	slag(fe)	smelting slag	4	218	-700	1600	AD 43 - 1600
	ceramic		pot	1	2	43	410	
4000	ceramic		roof tile	1	9	1800	2000	AD 1800 - 2000
	stone	sandstone quartz conglomerate	possible quern fragment	1	198			
4001	metal	iron	iron rod	1	32	-700	2000	AD 1950 - 2000
	plastic		plastic	1	1	1950	2000	
	organic	charcoal	charcoal	73	15			
5000	ceramic		tile	1	9	43	1600	AD 1950 - 2000
	ceramic		roof tile	1	23	1900	2000	
	glass		window	1	3	1900	2000	
	glass		vessel	1	36	1800	2000	
	plastic		plastic	2	6	1950	2000	
5001	organic	charcoal	charcoal	3	1			Undated

Table 3 Summary of context dating based on artefacts grouped in phase order

5.2.4 Period discussion

Prehistoric

The earliest phase of activity on the site is represented by three flint scrapers and a single undiagnostic flint flake; they were residual within topsoil and subsoil within Trench 2, and an upper ditch fill in Trench 3. The scrapers comprised:

- an end-scraper, 28mm diameter, on a small rounded flake of dark blue-grey flint with *c* 60% dorsal cortex(fill 308);

- a side-and-end scraper, 27mm diameter, on a squat flake of coarse, mottled blue-grey flint (layer 200);
- a side-and-end scraper, 26mm diameter, on the distal portion of a flake of mottled blue-grey flint (layer 205).

It is difficult to assign a precise date to these artefacts, as both types of scraper are found within assemblages of Mesolithic to early Bronze Age date. The small size of these examples may indicate a date in the earlier part of this range, but this cannot be definitively stated due to the small sample size.

Middle Iron Age–early Roman

The key evidence for activity on the site at this date is the presence, within a packing deposit (208) for posthole [209], of a large part of the upper portion of a beehive quern. The complete quern would have been around 380mm in diameter; it is 180mm tall. The bottom (grinding) surface is heavily-worn. The stone is a light pinkish colour, with frequent rounded <10mm quartz pebbles set within a matrix of finer <1mm quartz grains.

Comparison with a stone sample held by WA (identified by Fiona Roe) confirms that the geological provenance of this quern is Old Red Sandstone Quartz Conglomerate (Derek Hurst pers comm). Local sources of this stone are known to have been exploited for quern manufacture since Neolithic times and these include the May Hill area (see Dorling *et al* 2017*,* 81), just over 15kms from Soudley Camp, although similar conglomerates occur at multiple sites within the region. This stone is known to have been used for production of late Iron Age and early Roman querns as at Beckford (Roe 1987, 14) and more locally at *Ariconium* where fragments of beehive querns of Old Red Sandstone Quartz Conglomerate have been found (Shaffrey and Roe 2012, 157). Broadly speaking, beehive querns tend to have been dated from the 4th century BC to the 2nd century AD (Allason-Jones 2011, 111).

Whether this quern fragment represents domestic activity on the site or structured deposition in a symbolically significant act (see Watts 2014 on the deposition of fragmentary querns in southwest England) is open to interpretation due to the paucity of related domestic finds. It may, of course, reflect both.

Roman

Five extremely small residual, abraded sherds of oxidised, micaceous pottery are thought to be Roman in date. With a mean weight of just 1.4g per sherd, identification remained somewhat uncertain, but they resemble typical products of the local Severn Valley Ware industries, which span the mid-1st to late-4th century. They may, therefore, be contemporary with the beehive quern, but it is equally possible that they represent a Roman background scatter from later Roman activity within the area.

Roman or medieval

Several tiny, undiagnostic fragments of ceramic building material have been assigned a Roman or later date (they are considered to be either Roman or medieval in date, but cannot be readily identified).

A similar date range accounts for the iron slag products listed as 'undated'. They bear the characteristics of bloomery slags (Crew 1995), but the waste products of this method changed little from the 1st century AD to the end of the medieval period. In the absence of closely associated dating evidence, the slags cannot generally be closely dated. The small quantities of slag — a total of 16 pieces weighing less than 2kg — are considered unlikely to indicate the presence of a furnace at Soudley Camp: the sites of bloomery furnaces are generally characterised by large quantities of slag. However, the slag may originate from a furnace somewhere in the near vicinity.

Post-medieval and modern

A small scatter of post-medieval and modern material was noted in the upper levels of trenches across the site, with a concentration within Trench 3 likely to represent local, casual 20th century rubbish disposal.

Small fragments of post-medieval redware, Nottingham Stoneware, and clay pipe stem, indicate low-level background activity in the 18th century; larger quantities of whitewares and vessel glass reflect 19th and early 20th century expansion. The accessibility of the site through the later 20th century is evident from the presence of plastic waste. The recovery of an empty Stella Artois can, best before December 2009, attests to ongoing recreational use of the Camp as a locus for the consumption of alcohol.

Undated

Charcoal recovered from deposit (206) seems likely, from the size of the fragments and the large quantity therein, to be a product of charcoal burning in the near vicinity, although no clear evidence of a charcoal burning platform was observed during the excavations to date within the footprint of the camp itself. No associated dating evidence was recovered.

Several large pieces of weathered local sandstone found in Trench 2, some in association with the beehive quern, are thought to bear traces of use-wear or deliberate modification. The most striking is a large block (Figure 7; Plate 8), with overlapping scored lines in multiple directions, mostly (but not entirely) confined to a single flat face. Not regular or deep enough to be sharpening grooves, they may be 'keying' marks or scoring associated with a function as a working surface or a stand of some sort; the close proximity to the quern fragment may be an indicator of an association, or a similarly domestic function.

6 Discussion

The excavations at Soudley Camp, which were undertaken as part of the Foresters' Forest HLF programme, have provided a rare opportunity to investigate this poorly understood Scheduled Monument. The camp has generally been interpreted as Iron Age in date and although no conclusive evidence was identified during the excavations, the presence of an Iron Age to early Roman beehive quern stone, buried *in-situ* within a posthole, provides further evidence to support this interpretation. However, given the lack of other datable finds and any clearly defined structural features, the origin and function of the camp remains enigmatic.

Previous reports of Roman pottery and slag from mole hills suggested the presence of Roman and/or industrial activity on the site. However the excavations did not identify any significant evidence of Roman or industrial activity and nothing was present to contradict the currently favoured interpretation of the camp as a site of Iron Age date.

The trenches and test pits excavated with the enclosure identified a number of notable features including a small wall (in Trench 1) and a number of discrete features in Trench 2. However none of these features provided any clear evidence of the use of the camp, and the quern stone was the only datable find recovered from a feature.

The ditch on the western side of the camp survives as a 1.5m deep earthwork. In Trench 3, an infilling sequence amounting to only 0.50m in depth was identified, although to the north (Test Pit 5) and south (Test Pit 2) the ditch was even shallower. This was perhaps somewhat unexpected as deep fills had been anticipated but on reflection it is perhaps the case that the shallow, U-shaped, profile of the ditch indicates it was not built to be defensive, and that the bank and ditch were perhaps more symbolic in nature. The paucity of finds and environmental material from the ditch makes it difficult to determine anything about the origins, use and abandonment of the camp, although the presence of an undated stone feature, possible a causeway, within the ditch close to the entrance to the camp, suggests this was added after the ditch was originally excavated. The

absence of modern finds associated with the causeway suggests a pre-modern date for its construction although as the feature was not excavated it is not possible to be definitive.

With the exception of the charcoal fragments identified in various trenches, no evidence of any significant environmental evidence was identified during the excavations. No animal bone was recovered from any of the excavated features or deposits, and there was no evidence of other organic remains surviving.

The artefactual assemblage reflects a long history of human activity at the site, but cannot conclusively demonstrate the date of the earthworks synonymous with the Camp. The paucity of pre-modern artefactual evidence, especially the low numbers and markedly poor condition of ceramics, may reflect poor preservation potential rather than absence of activity. It is clear that the deposition of a quern fragment represents either symbolic or domestic (or both) activity on the site in the later Iron Age or early Roman period. The worked flint is evidence that the natural promontory on which the camp is located was also used at an earlier date.

6.1 Extension to the Scheduled Area

Soudley Camp was first listed as a Scheduled Monument in 1963, and the extent of the monument appears to have largely been based on 1:2500 scale Ordnance Survey mapping, rather than any form of measured survey. The Ordnance Survey mapping available at this time did not include the western ditch, and as such the scheduled area only includes the western bank and the triangular enclosure, including the steep scarps (an area of *c*.3000m²). Following the excavation at the camp it is proposed that the scheduled area be extended up to 16m to the west, as suggested on Figure 7, in order to fully include the western ditch (an extension of *c*.1225m²). Although no measured survey was undertaken as part of this project, the proposed extension area is based on current Ordnance Survey MasterMap data which now includes the ditch.

7 Recommendations

7.1 Further investigation

The following recommendations are made for consideration when designing any further archaeological project for this site.

- Further works should be designed to maximise chances of recovery of dateable ceramics and worked flint from all spoil, including overburden.

The following comment is made with regard to potential further work on artefacts reported as having been recovered from the site.

- It is noted in Section 2.2 that a single flake of worked flint has previously been recovered from the site. Efforts are underway to locate this flake and formally identify it as part of the wider Foresters' Forest project, but such work lies beyond the remit of the current exercise.

Further specialist analysis of the slag is unlikely to provide any further insights to dating.

7.2 Discard and retention

The prehistoric and Roman material should be retained, subject to the collection policies and final decision of the Dean Heritage Centre (the receiving museum). It is also recommended that the small quantity of undated slag products be retained pending further examination, as finds generally are so sparse. The modern material is not considered to merit retention.

7.3 Management

The Forestry Commission will continue to maintain the site following the management plan agreed with Gloucestershire County Council Archaeology Service to ensure that it remains in good condition and remnant features remain protected.

8 Publication summary

Worcestershire Archaeology has a professional obligation to publish the results of archaeological projects within a reasonable period of time. To this end, Worcestershire Archaeology intends to use this summary as the basis for publication through local or regional journals. The client is requested to consider the content of this section as being acceptable for such publication.

A community archaeological excavation was undertaken at Soudley Camp, Soudley, Gloucestershire (NGR SO 6616 1058). Soudley Camp is currently owned and maintained by the Forestry Commission in line with a management agreement agreed with Gloucestershire County Council Archaeology Service. The excavation was managed and supervised by Worcestershire Archaeology (part of Worcestershire Archive and Archaeology Service), and carried out by 32 local volunteers. It was completed as part of a five year Heritage Lottery Funded Landscape Partnership Programme called the Foresters' Forest.

Soudley Camp is a Scheduled Monument although the site is poorly understood. No excavations are known to have taken place, and the only previous archaeological investigation was an earthwork survey by Dean Archaeological Group in 2000. A metal detectorist was noted to have excavated 20 small holes in the site in 1994 but no finds or features were reported. As a result of this lack of work at the site, even baseline information such as the date and function of the monument has not been established, and interpretations have been based almost entirely on morphology. It has been interpreted as a small Iron Age defended settlement, or possibly a very small hillfort, although the suggestion that it represents the remains of an early Norman fortification has also been published.

Three trenches were excavated along with five 1m² test pits. Trench 1 targeted a low earthwork feature in the north-east corner of the Camp, Trench 2 targeted a probable buried wall or earthwork identified in the centre of the Camp by geophysical survey, and Trench 3 targeted the main ditch and entrance into the camp. The trenches and test pits excavated within the centre of the Camp identified a number of notable features including a small wall in Trench 1, and a number of discrete features in Trench 2. Unfortunately none of these features provided any clear evidence of the use of the camp, and a quern stone was the only datable find recovered from a discrete feature. The ditch on the western side of the camp survives as a 1.5m deep earthwork, but within the ditch an infilling sequence amounting to only 0.5m in depth was identified while in test pits to the north and south the ditch fill sequence was even shallower. The shallow, U-shaped, profile of the ditch indicates it was not built to be defensive, and that the bank and ditch were perhaps more symbolic in nature. In the absence of contradictory evidence and given the presence of the beehive quern, an Iron Age date remains the most likely for the monument though its function remains unclear.

The excavations failed to identify any environmental material suitable for sampling. The artefactual assemblage reflected a long history of human activity at the site, but cannot conclusively demonstrate the date of the earthworks synonymous with the Camp. The paucity of pre-modern artefactual evidence, especially the low numbers and markedly poor condition of ceramics, may reflect poor preservation potential rather than absence of activity. It is clear that the deposition of a quern fragment represents either symbolic or domestic (or both) activity on the site in the later Iron Age or early Roman period. The worked flint is evidence that the natural promontory on which the camp is located was also used at an earlier date.

9 Acknowledgements

Worcestershire Archaeology would like to thank the following for their kind assistance in the successful conclusion of this project; Sue Middleton and James Williams (Forestry Commission), Jon Hoyle (Gloucestershire County Council Archaeology Service), and Mel Barge (Historic England). Funding was through the Heritage Lottery Fund.

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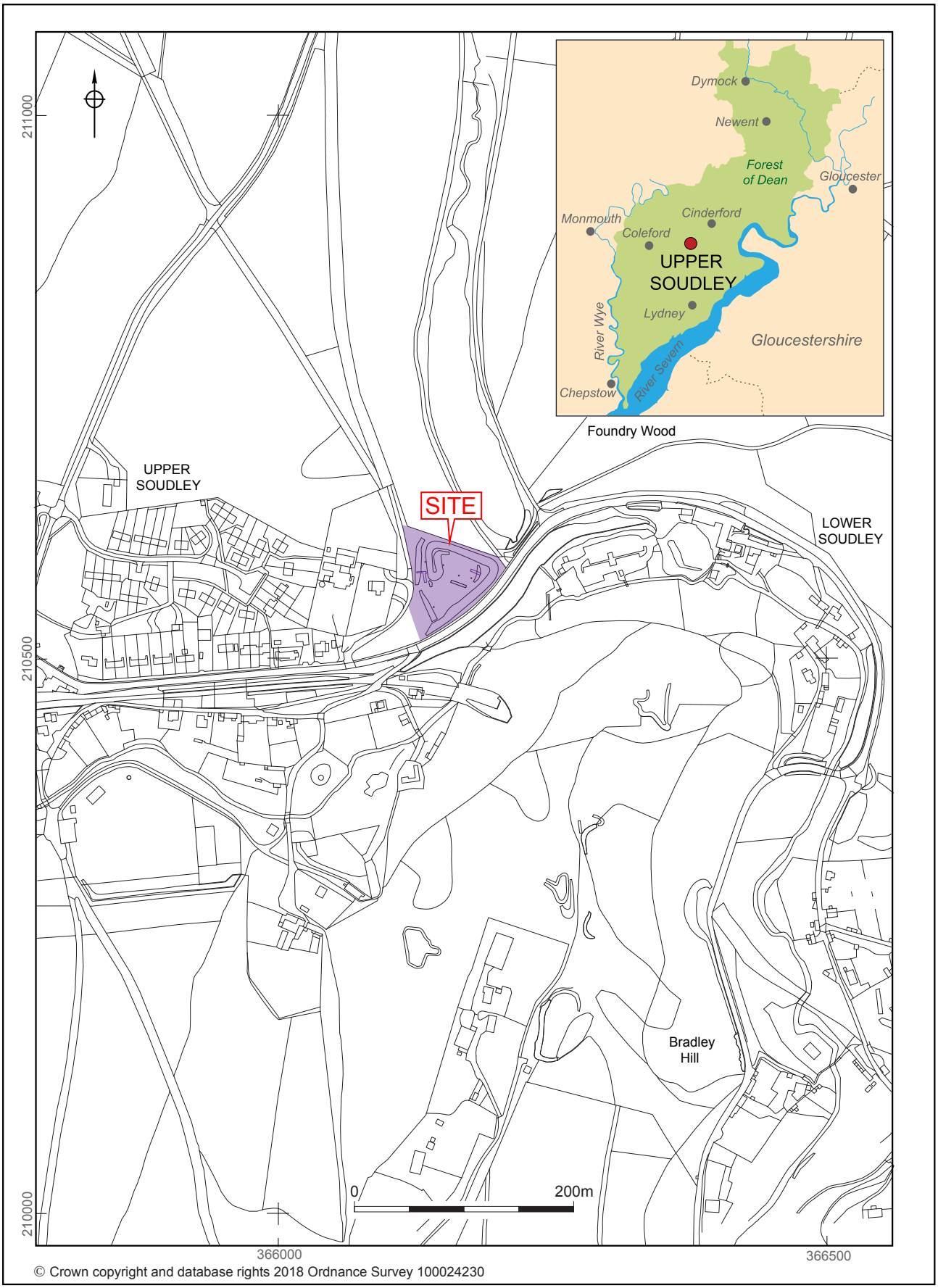
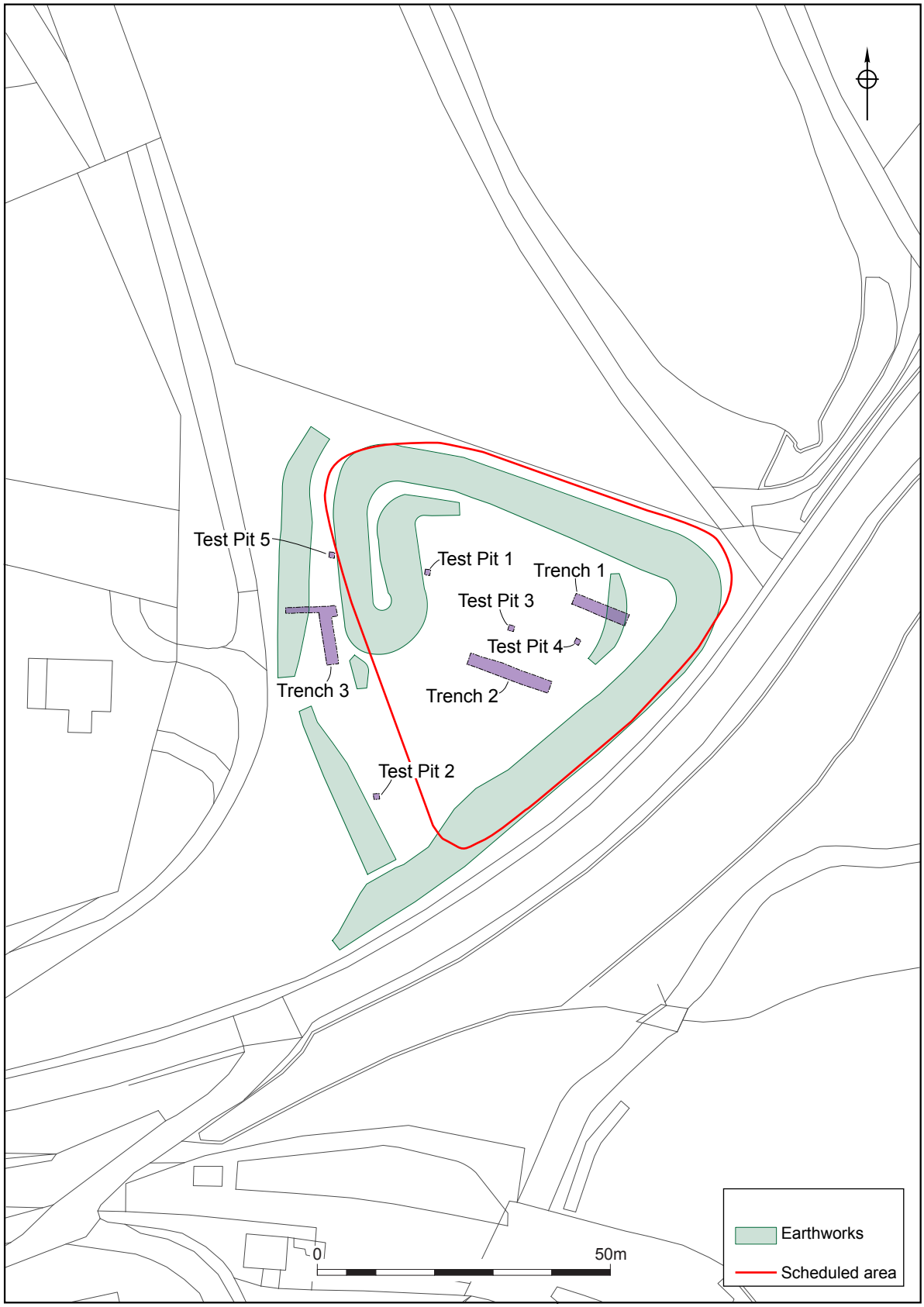
Figures

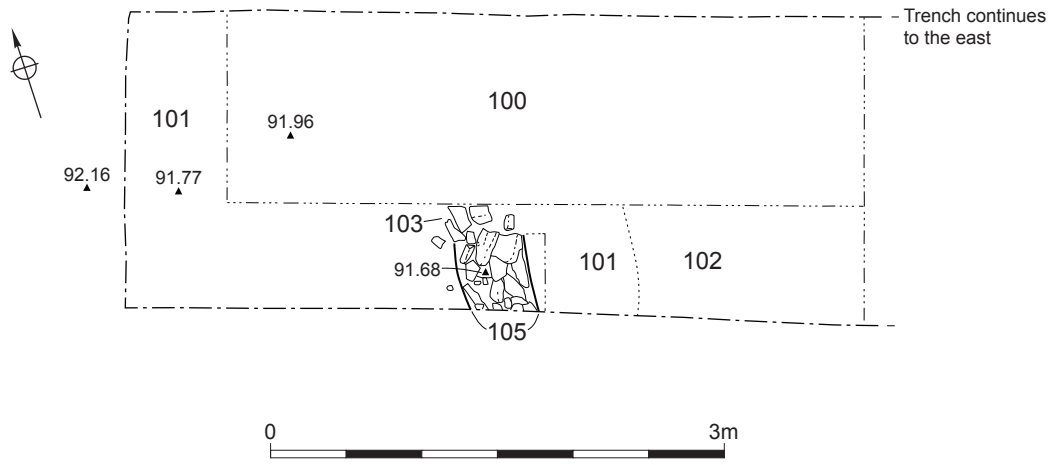


Location of the site *Figure 1*



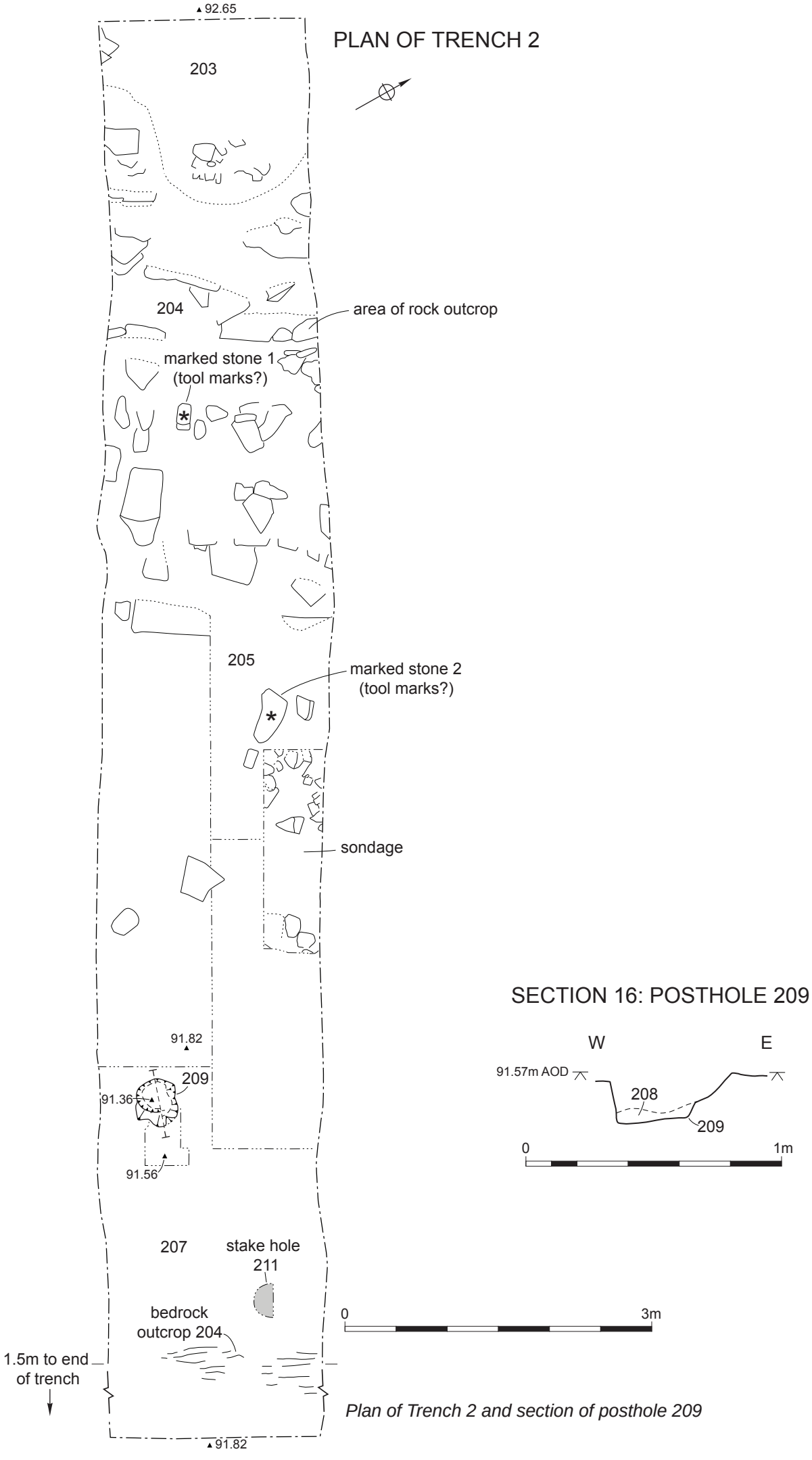
Trench location plan *Figure 2*

PLAN OF TRENCH 1



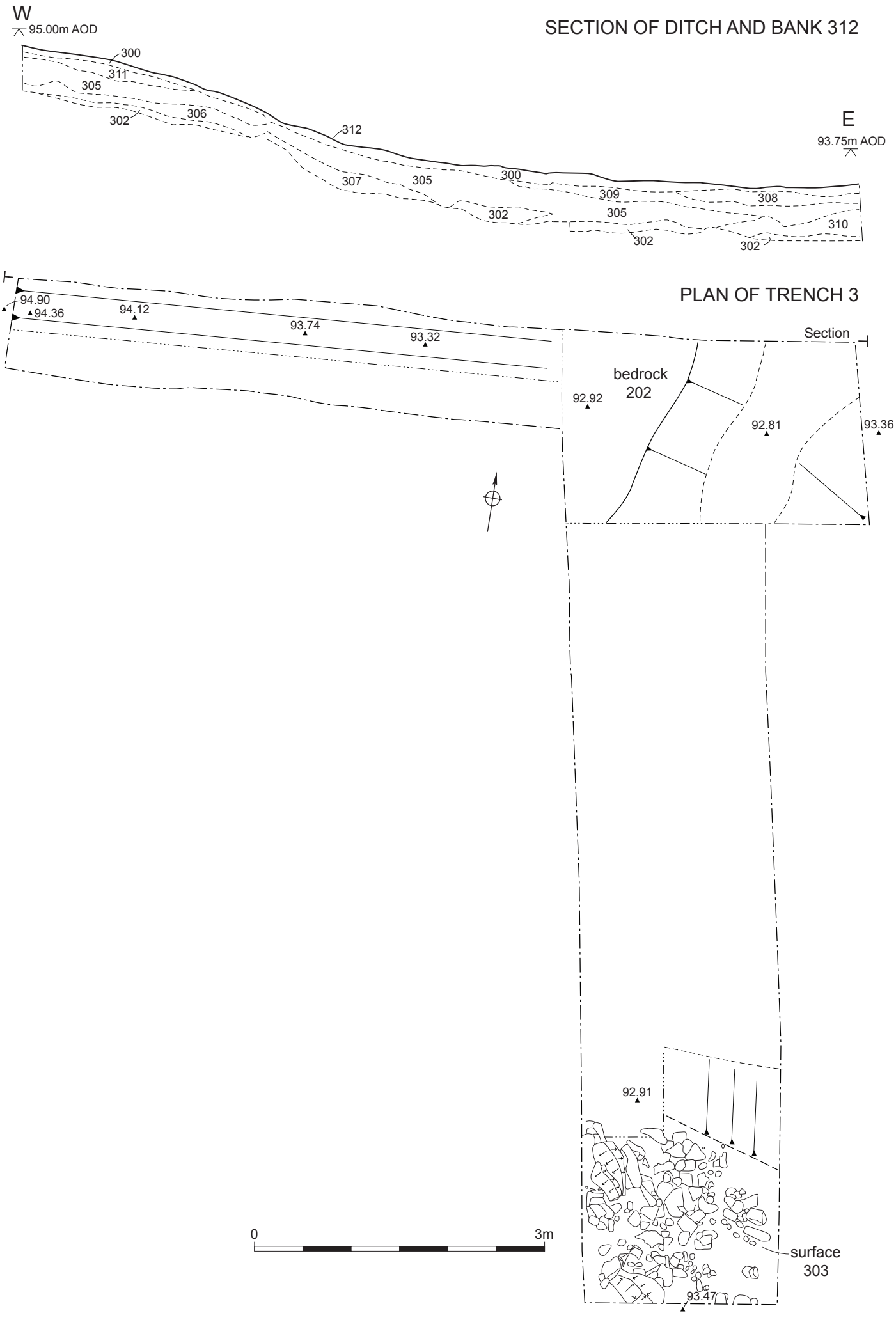
Plan of Trench 1

Figure 3



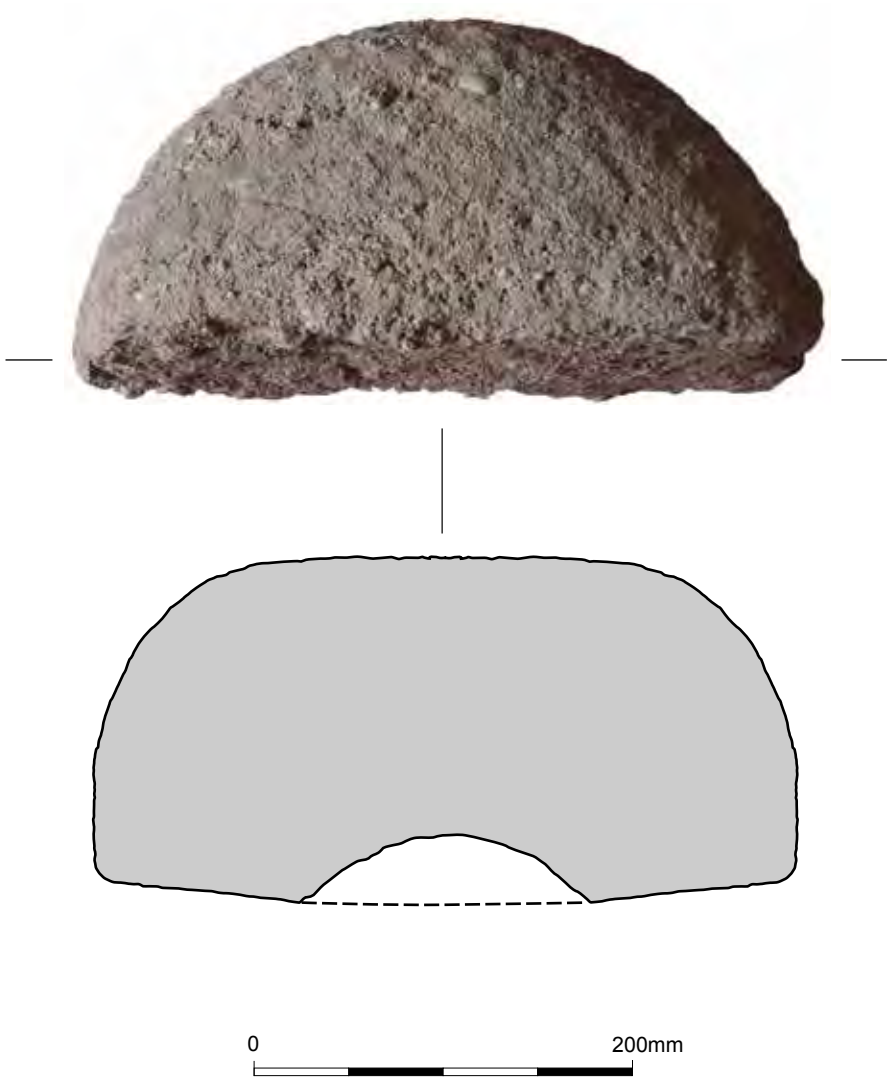
Plan of Trench 2 and section of posthole 209

Figure 4



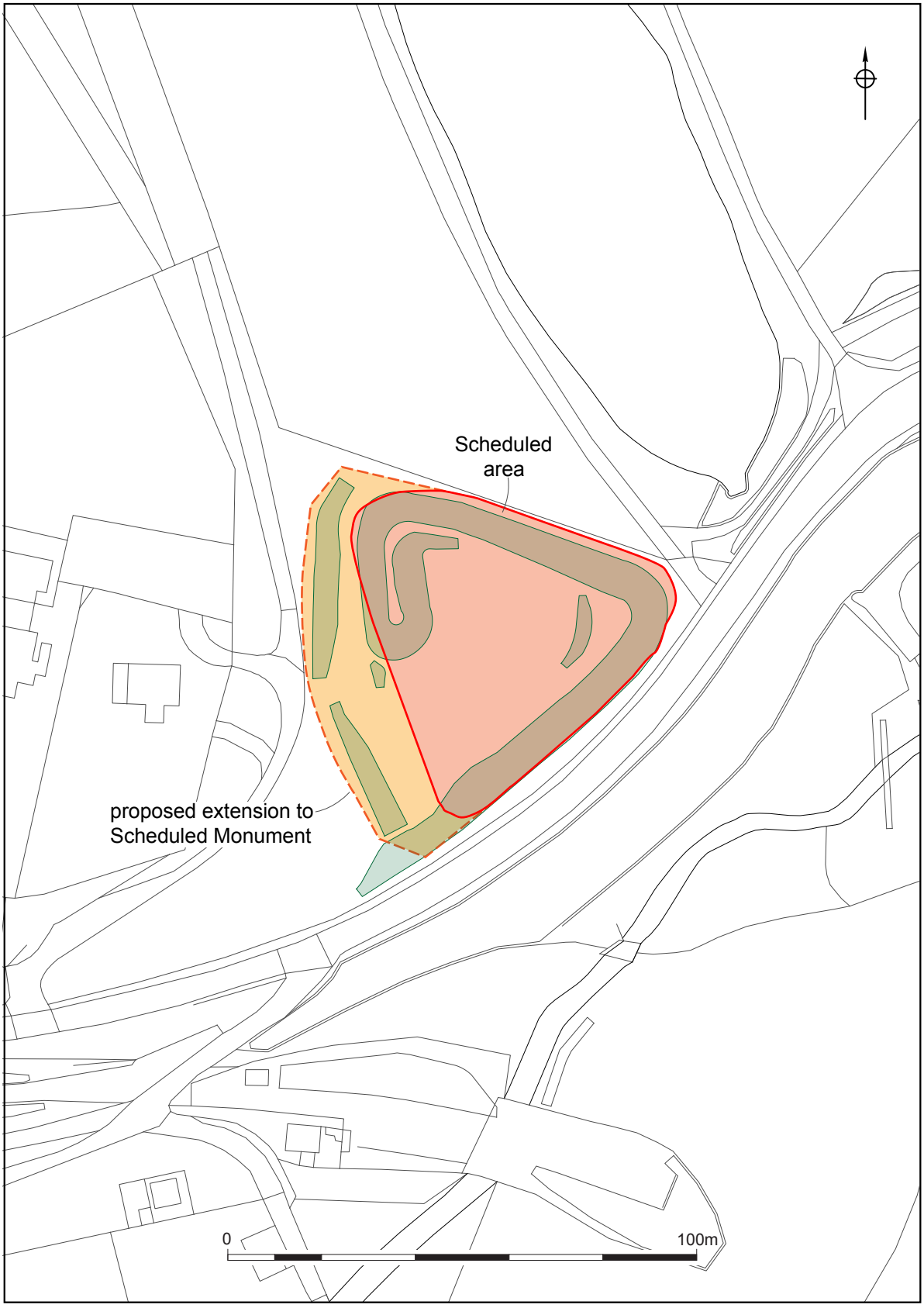
Plan of Trench 3 and section of ditch and bank 312

Figure 5



Worked stone: quern fragment *Figure 6*

Stone block with overlapping scored lines *Figure 7*



Scheduled areas *Figure 8*

Plates

Plate 1: Trench 1, wall 103 cut through deposit 101. Photo looking north

Plate 2: Trench 1, showing the break of slope and rubble deposit (104), which was just below the turf. Photo looking west

Plate 3: The eastern end of Trench 2. Note the bedrock, natural clay 207, feature 211, and the charcoal layer 206 visible in section. Photo looking north

Plate 4: The western end of Trench 2, showing subsoil rubble deposits (205 in foreground, 203 in distance) with natural bedrock 204 also visible. Photo looking north-west

Plate 5: Scored lines on an in-situ stone (Figure 4, stone 1) in Trench 2

Plate 6: Overlapping scored lines on an in-situ stone (Figure 4, stone 2) in Trench 2

Plate 7: The sondage excavated in the centre of Trench 2, across the location of the geophysical anomaly. There is no evidence of a wall or other linear feature.

Plate 8: Posthole 209 prior to excavation. The quern stone is visible on the lower left and the stone with overlapping scored lines is to the upper right

Plate 9: Posthole 209 after excavation. Photo looking north

Plate 11: Trench 3, showing the profile of the outside of ditch 312, as well as the 'layers' of natural bedrock and sandy natural. Photo looking north-west

Plate 12: Trench 3, showing stone deposit 307 which may be natural bedrock or possibly a revetment structure. Photo looking west

Plate 13: Rubble deposit 303 which may be the remains of a causeway across ditch 312. Photo looking west

Plate 14: Test pit 2, showing natural clay c.0.15m below ground level. Photo looking north

Plate 15: Test pit 5, showing bedrock c.0.25m below ground level. Photo looking west

Plate 16: Test pit 1, showing natural deposits in the base of the pit. Photo looking north.

Plate 17: Test pit 3. The stone in the base of this pit appears to be natural in origin although very small quantities of slag and Roman pottery were recovered from amongst the stone. Photo looking west

Plate 10: Test pit 4. No significant evidence of charcoal burning was identified in this trench. Photo looking south-east

Appendix 1: Geophysical survey report

GEOPHYSICAL SURVEY REPORT

GEOPHYSICS FOR ARCHAEOLOGY & ENGINEERING

Soudley Camp, Forest of Dean, Gloucestershire

Client

Worcestershire County Council

Survey Report

11470

Date

August 2017

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GEOPHYSICAL SURVEY REPORT

Project name:
Soudley Camp, Forest of Dean, Gloucestershire

SUMO Job reference:
11470

Client:
Worcestershire County Council

Survey date:
21 July 2017

Report date:
14 August 2017

Field co-ordinator:
Richard Fleming

Field Team:
Charlie Burton

Report written by:
Rebecca Davies **BSc**

CAD illustrations by:
Rebecca Davies **BSc**

Project Manager:
Simon Haddrell **BEng AMBCS PCIfA**

Report approved by:
David Elks **MSc ACIfA**

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1 SUMMARY OF RESULTS

A combined magnetometer and Ground Penetrating Radar (GPR) survey was conducted over approximately 200m^2 at Soudley Camp. The survey has revealed a probable wall or buried earthwork associated with the Camp, along with several further responses of possible archaeological origin. An anomaly of uncertain origin is visible in both the GPR and magnetometer data, however its exact origin cannot be determined with confidence.

2 INTRODUCTION

2.1 Background synopsis

SUMO Surveys were commissioned to undertake a geophysical survey at Soudley Camp in the Forest of Dean. This survey forms part of an archaeological investigation being undertaken by **Worcestershire County Council**.

2.2 Site details

NGR / Postcode	SO 661 105 / GL14 2UA
Location	The site is located to the east of Upper Soudley, which lies at the eastern fringe of the Forest of Dean. Church Road bounds the site along its southern edge, with Soudley School to the west, and Soudley Ponds to the east.
District	Forest of Dean
Parish	Ruspidge and Soudley CP
Topography	Undulating, comprising steep scarps and earthworks
Current Land Use	Rough pasture
Weather	Heavy rain, overcast
Geology	Solid: Brownstones Formation - micaceous sandstone. Superficial: None recorded (BGS 2017).
Soils	Eardiston 1 Association (541c), reddish coarse loamy soils over sandstone (SSEW 1983).
Archaeology	Historic England's record for the monument identifies it as an Iron Age defended settlement, which is based on the morphology of the site. This morphology suggests that it could be a 'promontory fort' or a defended farmstead. Defended farmsteads continued to be constructed into the Roman period, though this site is small in comparison to other sites. Other suggestions on the origins of the earthworks include that it could be a Neolithic hilltop enclosure, or that it could be the remains of an early medieval castle. In both instances, however, it is rather small and does not conform to the typical pattern (FF 2017).
Survey Methods	Magnetometer survey (fluxgate gradiometer) Ground Penetrating Radar
Study Area	c. 200m^2

2.3 Aims and Objectives

The objective of the survey was to locate any anomalies that may suggest the presence of any structural remains.

3 METHODS, PROCESSING & PRESENTATION

3.1 Standards & Guidance

This report and all fieldwork have been conducted in accordance with the latest guidance documents issued by Historic England (EH 2008) (then English Heritage) and the Chartered Institute for Archaeologists (IfA 2002 & CIfA 2014).

3.2 Survey methods

Magnetometer and Ground Penetrating Radar were used as efficient and effective methods in detecting archaeological remains.

Technique	Instrument	Traverse Interval	Sample Interval
Magnetometer	Bartington Grad 601-2	1.0m	0.25m
GPR	GSSI Dual Frequency System	2m	0.05m

More information regarding the techniques are included in Appendices A and C.

3.3 Data Processing & Interpretation - Magnetometer

The following basic processing steps have been carried out on the data used in this report:

De-stripe; de-stagger; interpolate

3.4 Presentation of results - Magnetometer

The presentation of the results for each site involves a grey-scale plot of processed data (Figure 4). Magnetic anomalies are identified, interpreted and plotted onto the 'Interpretation' drawings. The minimally processed data are provided as a greyscale image in the Archive Data Folder with an XY trace plot in CAD format. A CAD viewer is also provided.

When interpreting the results, several factors are taken into consideration, including the nature of archaeological features being investigated and the local conditions at the site (geology, pedology, topography etc.). Anomalies are categorised by their potential origin. Where responses can be related to other existing evidence, the anomalies will be given specific categories, such as: *Abbey Wall* or *Roman Road*. Where the interpretation is based largely on the geophysical data, levels of confidence are implied, for example: *Probable*, or *Possible Archaeology*. The former is used for a confident interpretation, based on anomaly definition and/or other corroborative data such as cropmarks. Poor anomaly definition, a lack of clear patterns to the responses and an absence of other supporting data reduces confidence, hence the classification *Possible*.

3.5 Data Processing & Interpretation - GPR

The following basic processing steps have been carried out on the data used in this report:

Position correction; background removal.

Each radargram has been studied and those anomalies thought to be significant were noted and classified as detailed below. Inevitably some simplification has been made to classify the diversity of responses found in radargrams. This abstraction is then employed as the primary source for producing the interpretation plot, but is not itself reproduced in the report.

Further information on the display and interpretation of GPR anomalies can be found in Appendix C.

3.6 Presentation of results - GPR

The location of the survey area and referencing information is provided in Figure 2. Depth slices of collected data are provided at 0.15-0.21m, 0.26-0.31m, 0.56-0.61m and 0.71-0.81m in Figure 5, and at depths of 1.02-1.12m and 1.33-1.43m in Figure 6. Interpretation of data is provided in Figure 7, with example radargrams accompanying interpretation plots in Figures 7

4 RESULTS

4.1 Magnetometer Survey

4.1.1 *Uncertain*

Several discrete positive responses of uncertain origin have been detected across the area. Anomaly [1] corresponds with a complex response [C] in the GPR data, and could be of archaeological origin.

The moderate strength, discrete response [2] near the entrance of the enclosure could be thermoremanent, and indicate possible industrial activity. However, the exact origin of the anomaly cannot be determined with confidence.

Several weak linear trends are visible in the south and east. These could be associated with the Camp, though could equally be of more modern or natural origin.

4.1.2 *Magnetic Disturbance*

Areas of magnetic disturbance are present throughout the site, but especially in the west, near to the entrance of the Camp. On many sites these are typically categorised as being of modern origin, though in this instance they could reflect general occupational activity within the defences and the site.

Small scale ferrous anomalies ("iron spikes") are present throughout the data and their form is best illustrated in the XY trace plots. These responses are characteristic of small pieces of ferrous debris (or brick / tile) in the topsoil and are commonly assigned a modern origin. Only the most prominent of these are highlighted on the interpretation diagram.

4.2 GPR Survey

4.2.1 *Probable Archaeology*

A band of strong and complex responses [A] have been detected across the east of the area (Figure 7) at depths between 0.29 and 1.23m. The responses are likely to be associated with buried structural remains such as a wall or earthwork, or a further internal feature of the defended settlement. The response is detected at depths of c.1.00m on its west side, and rises to c. 0.40m at its eastern extent, perhaps suggesting that the feature relates to a bank or earthwork which was later removed.

Further complex anomalies at depths between 0.41 and 1.04m have been detected either side of the probable wall or buried earthwork, and are equally likely to be related to structural remains.

4.2.2 *Possible Archaeology*

Weak complex anomalies in the south and east of the area, at depths of between 0.42 and 1.17m, could be of archaeological, or possible natural origin. The linear bands of responses [B] at the south are more likely to be associated with the extant earthworks of the Camp.

4.2.3 *Uncertain*

A small number of weak complex responses are visible in the west of the area at depths between 0.13 and 0.2m, outside of the Camp itself. The northernmost of these anomalies [C], corresponds with a discrete response detected in the magnetometer survey [1]. This could be of archaeological origin; however, its exact origin is unknown.

A strong discrete response in the south-east of the area has been detected at a depth of 0.69m. This is again of uncertain origin, and could relate to a buried obstruction of archaeological or natural origin.

5 DATA APPRAISAL & CONFIDENCE ASSESSMENT

5.1 Historic England guidelines (EH 2008) Table 4 states that the average magnetic response on sandstone can be variable. Given that several responses of uncertain origin have been detected, it is likely that the technique has been effective.

5.2 The GPR data across the areas shows a high contrast between strong complex and discrete responses and that of the background response, suggesting that the underlying geology is conducive to GPR survey. The depth of penetration across all areas is below average, reaching depths of up to 1.55m; however, given that probable archaeological remains have been detected, it can be determined that the survey has been effective.

6 CONCLUSION

6.1 The combined magnetometer and GPR survey at Soudley Camp has identified a probable buried wall or earthwork associated with the defended settlement, at depths between 0.29 and 1.23m. Further responses may also be of archaeological origin, though their origin cannot be determined with confidence. A response of uncertain origin in the GPR data corresponds with an anomaly detected in the magnetometer survey, and it could be of archaeological, modern or natural origin. Areas of magnetic disturbance in the west of the area could be associated with the earthworks, though could equally have modern origins.

7 REFERENCES

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Appendix A - Technical Information: Magnetometer Survey Method

Grid Positioning
For hand held gradiometers the location of the survey grids has been plotted together with the referencing information. Grids were set out using a Trimble R8 Real Time Kinematic (RTK) VRS Now GNSS GPS system.

An RTK GPS (Real-time Kinematic Global Positioning System) can locate a point on the ground to a far greater accuracy than a standard GPS unit. A standard GPS suffers from errors created by satellite orbit errors, clock errors and atmospheric interference, resulting in an accuracy of 5m-10m. An RTK system uses a single base station receiver and a number of mobile units. The base station re-broadcasts the phase of the carrier it measured, and the mobile units compare their own phase measurements with those they received from the base station. This results in an accuracy of around 0.01m.

Technique	Instrument	Traverse Interval	Sample Interval
Magnetometer	Bartington Grad 601-2	1m	0.25m

Instrumentation: Bartington *Grad* 601-2
Bartington instruments operate in a gradiometer configuration which comprises fluxgate sensors mounted vertically, set 1.0m apart. The fluxgate gradiometer suppresses any diurnal or regional effects. The instruments are carried, or cart mounted, with the bottom sensor approximately 0.1-0.3m from the ground surface. At each survey station, the difference in the magnetic field between the two fluxgates is measured in nanoTesla (nT). The sensitivity of the instrument can be adjusted; for most archaeological surveys the most sensitive range (0.1nT) is used. Generally, features up to 1m deep may be detected by this method, though strongly magnetic objects may be visible at greater depths. The Bartington instrument can collect two lines of data per traverse with gradiometer units mounted laterally with a separation of 1.0m. The readings are logged consecutively into the data logger which in turn is daily down-loaded into a portable computer whilst on site. At the end of each site survey, data is transferred to the office for processing and presentation.

Data Processing

Zero Mean Traverse	This process sets the background mean of each traverse within each grid to zero. The operation removes striping effects and edge discontinuities over the whole of the data set.
Step Correction (De-stagger)	When gradiometer data are collected in 'zig-zag' fashion, stepping errors can sometimes arise. These occur because of a slight difference in the speed of walking on the forward and reverse traverses. The result is a staggered effect in the data, which is particularly noticeable on linear anomalies. This process corrects these errors.

Display

Greyscale/ Colourscale Plot	This format divides a given range of readings into a set number of classes. Each class is represented by a specific shade of grey, the intensity increasing with value. All values above the given range are allocated the same shade (maximum intensity); similarly, all values below the given range are represented by the minimum intensity shade. Similar plots can be produced in colour, either using a wide range of colours or by selecting two or three colours to represent positive and negative values. The assigned range (plotting levels) can be adjusted to emphasise different anomalies in the data-set.

Interpretation Categories

In certain circumstances (usually when there is corroborative evidence from desk-based or excavation data) very specific interpretations can be assigned to magnetic anomalies (for example, *Roman Road, Wall,* etc.) and where appropriate, such interpretations will be applied. The list below outlines the generic categories commonly used in the interpretation of the results.

Archaeology / Probable Archaeology	This term is used when the form, nature and pattern of the responses are clearly or very probably archaeological and /or if corroborative evidence is available. These anomalies, whilst considered anthropogenic, could be of any age.
Possible Archaeology	These anomalies exhibit either weak signal strength and / or poor definition, or form incomplete archaeological patterns, thereby reducing the level of confidence in the interpretation. Although the archaeological interpretation is favoured, they may be the result of variable soil depth, plough damage or even aliasing as a result of data collection orientation.
Industrial / Burnt-Fired	Strong magnetic anomalies that, due to their shape and form or the context in which they are found, suggest the presence of kilns, ovens, corn dryers, metal-working areas or hearths. It should be noted that in many instances modern ferrous material can produce similar magnetic anomalies.
Former Field Boundary (probable & possible)	Anomalies that correspond to former boundaries indicated on historic mapping, or which are clearly a continuation of existing land divisions. Possible denotes less confidence where the anomaly may not be shown on historic mapping but nevertheless the anomaly displays all the characteristics of a field boundary.
Ridge & Furrow	Parallel linear anomalies whose broad spacing suggests ridge and furrow cultivation. In some cases, the response may be the result of more recent agricultural activity.
Agriculture (ploughing)	Parallel linear anomalies or trends with a narrower spacing, sometimes aligned with existing boundaries, indicating more recent cultivation regimes.
Land Drain	Weakly magnetic linear anomalies, quite often appearing in series forming parallel and herringbone patterns. Smaller drains may lead and empty into larger diameter pipes, which in turn usually lead to local streams and ponds. These are indicative of clay fired land drains.
Natural	These responses form clear patterns in geographical zones where natural variations are known to produce significant magnetic distortions.
Magnetic Disturbance	Broad zones of strong dipolar anomalies, commonly found in places where modern ferrous or fired materials (e.g. brick rubble) are present. They are presumed to be modern.
Service	Magnetically strong anomalies, usually forming linear features are indicative of ferrous pipes/cables. Sometimes other materials (e.g. pvc) or the fill of the trench can cause weaker magnetic responses which can be identified from their uniform linearity.
Ferrous	This type of response is associated with ferrous material and may result from small items in the topsoil, larger buried objects such as pipes, or above ground features such as fence lines or pylons. Ferrous responses are usually regarded as modern. Individual burnt stones, fired bricks or igneous rocks can produce responses similar to ferrous material.
Uncertain Origin	Anomalies which stand out from the background magnetic variation, yet whose form and lack of patterning gives little clue as to their origin. Often the characteristics and distribution of the responses straddle the categories of *Possible Archaeology* / *Natural* or (in the case of linear responses) *Possible Archaeology* / *Agriculture*; occasionally they are simply of an unusual form.

Where appropriate some anomalies will be further classified according to their form (positive or negative) and relative strength and coherence (trend: weak and poorly defined).

Appendix B - Technical Information: Magnetic Theory

Detailed magnetic survey can be used to effectively define areas of past human activity by mapping spatial variation and contrast in the magnetic properties of soil, subsoil and bedrock. Although the changes in the magnetic field resulting from differing features in the soil are usually weak, changes as small as 0.1 nanoTeslas (nT) in an overall field strength of 48,000 (nT), can be accurately detected.

Weakly magnetic iron minerals are always present within the soil and areas of enhancement relate to increases in *magnetic susceptibility* and permanently magnetised *thermoremanent* material.

Magnetic susceptibility relates to the induced magnetism of a material when in the presence of a magnetic field. This magnetism can be considered as effectively permanent as it exists within the Earth's magnetic field. Magnetic susceptibility can become enhanced due to burning and complex biological or fermentation processes.

Thermoremanence is a permanent magnetism acquired by iron minerals that, after heating to a specific temperature known as the Curie Point, are effectively demagnetised followed by re-magnetisation by the Earth's magnetic field on cooling. Thermoremanent archaeological features can include hearths and kilns; material such as brick and tile may be magnetised through the same process.

Silting and deliberate infilling of ditches and pits with magnetically enhanced soil creates a relative contrast against the much lower levels of magnetism within the subsoil into which the feature is cut. Systematic mapping of magnetic anomalies will produce linear and discrete areas of enhancement allowing assessment and characterisation of subsurface features. Material such as subsoil and non-magnetic bedrock used to create former earthworks and walls may be mapped as areas of lower enhancement compared to surrounding soils.

Magnetic survey is carried out using a fluxgate gradiometer which is a passive instrument consisting of two sensors mounted vertically 1m apart. The instrument is carried about 30cm above the ground surface and the top sensor measures the Earth's magnetic field whilst the lower sensor measures the same field but is also more affected by any localised buried feature. The difference between the two sensors will relate to the strength of a magnetic field created by this feature, if no field is present the difference will be close to zero as the magnetic field measured by both sensors will be the same.

Factors affecting the magnetic survey may include soil type, local geology, previous human activity and disturbance from modern services.

Appendix C - Technical Information: Ground Penetrating Radar

Grid locations

The location of the survey traverses has been plotted in Figure 2. Traverses were carried out on a 2m orthogonal grid, with 1m traverses targeted over magnetometer anomalies.

Survey equipment and configuration

Two of the main advantages of radar are its ability to give information of depth as well as work through a variety of surfaces, even in cluttered environments which normally prevent other geophysical techniques being used.

A short pulse of energy is emitted into the ground and echoes are returned from the interfaces between different materials in the ground. The amplitude of these returns depends on the change in velocity of the radar wave as it crosses these interfaces. A measure of these velocities is given by the dielectric constant of that material. The travel times are recorded for each return on the radargram and an approximate conversion made to depth by calculating or assuming an average dielectric constant (see below).

Drier materials such as sand, gravel and rocks, i.e. materials which are less conductive (or more resistant), will permit the survey of deeper sections than wetter materials such as clays which are more conductive (or less resistant). Penetration can be increased by using longer wavelengths (lower frequencies) but at the expense of resolution.

As the antennae emit a "cone" shaped pulse of energy an offset target showing a perpendicular face to the radar wave will be "seen" before the antenna passes over it. A resultant characteristic *diffraction* pattern is thus built up in the shape of a hyperbola. A classic target generating such a diffraction is a pipeline when the antenna is travelling across the line of the pipe. However, it should be pointed out that if the interface between the target and its surrounds does not result in a marked change in velocity then only a weak hyperbola will be seen, if at all.

The Ground Penetrating Impulse Radars used was GSSI Dual Frequency system manufactured by GSSI. 2m orthogonal traverses were used to record the data in the area.

Sampling interval

Readings were taken at 0.05m intervals with traverse intervals of 1m. All survey traverse positioning was carried out using a Trimble S6 Robotic Total Station.

Depth of scan and resolution

The average velocity of the radar pulse is calculated to be 0.1m/nsec which is typical for the type of sub-soils on the site. With a range setting of 100nsec this equates to a maximum depth of scan of 2m but it must be remembered that this figure could vary by ± 10% or more. A further point worth making is that very shallow features are lost in the strong surface response experienced with this technique.

Under ideal circumstances the minimum size of a vertical feature seen by a 200MHz (relatively low frequency) antenna in a damp soil would be 0.1m (i.e. this antenna has a wavelength in damp soil of about 0.4m and the vertical resolution is one quarter of this wavelength). It is interesting to compare this with the 400MHz antenna, which has a wavelength in the same material of 0.2m giving a theoretical resolution of 0.05m. A 900MHz antenna would give 0.09m and 0.02m respectively.

Data capture

Data is displayed on a monitor as well as being recorded onto an internal hard disk. The data is later downloaded into a computer for processing.

Display and Interpretation

i. Strong and weak discrete reflector.
These may be a mix of different types of reflectors but their limits can be clearly defined. Their inclusion as a separate category has been considered justified in order to emphasise anomalous returns which may be from archaeological targets and would not otherwise be highlighted in the analysis.

ii. Complex reflectors.
These would generally indicate a confused or complex structure to the subsurface. An occurrence of such returns, particularly where the natural soils or rocks are homogeneous, would suggest artificial disturbances. These are subdivided into both strong and weak giving an indication of the extent of change of velocity across the interface, which in turn may be associated with a marked change in material or moisture content.

iii. Point diffractions.
These may be formed by a discrete object such as a stone or a linear feature such as a small diameter pipeline being crossed by the radar traverse (see also the second sentence in iv. below)

iv. Convex reflectors and broad crested diffractions.
A convex reflector can be formed by a convex shaped buried interface such as a vault or very large diameter pipeline or culvert. A broad crested diffraction as opposed to a point diffraction can be formed by (for example) a large diameter pipe or a narrow wall generating a hybrid of a point diffraction and convex reflector where the central section is a reflection off the top of the target and the edges/sides forming diffractions.

v. Planar returns.
These may be formed by a floor or some other interface parallel with the surface. These are subdivided into both strong and weak giving an indication of the extent of change of velocity across the interface which in turn may be associated with a marked change in material or moisture content.

vi. Inclined events.
These may be a planar feature but not parallel with the survey surface. However, similar responses can be caused by extraneous reflections. For example, an “air-wave” caused by a strong reflection from an above ground object would produce a linear dipping anomaly and does not relate to any sub-surface feature. Normally this is not a problem as the antennae used are shielded, but under some circumstances these effects can become noticeable.

vii. Conductive surface.
The radiowave transmitted from the antenna has its waveform modulated by the ground surface. If this ground surface or layers close to the surface are particularly conductive a ‘ground coupled wavetrain’ is generated which can produce a complex wave pattern affecting part or all of the scan and so can obscure the weaker returns from targets lower down in the ground.

viii. A category for “focused ringing” has been included as this type of anomaly can indicate the presence of an air void. This is created by the signal resonating within the void, but with a characteristic domed shape due to the “velocity pull-up effect”.

13

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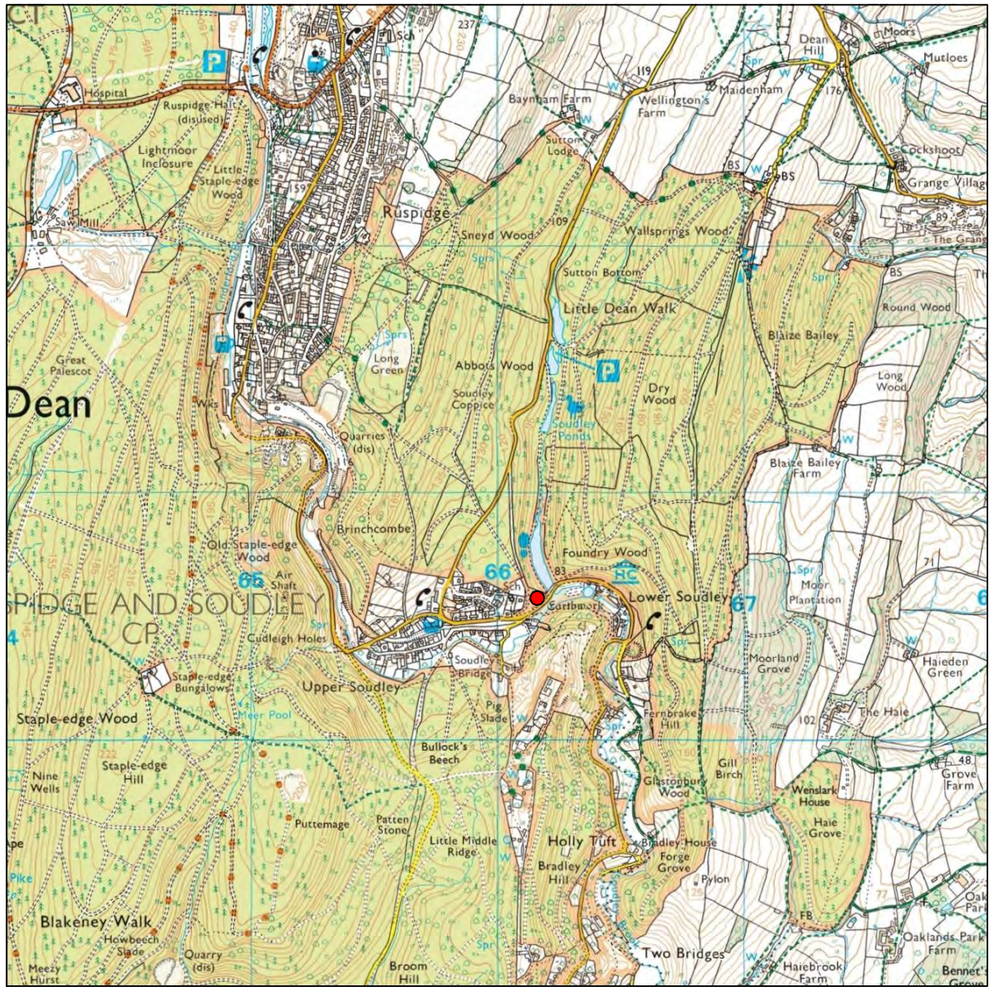
09



N

Site Location

sumo Survey
GEOPHYSICS FOR ARCHAEOLOGY & ENGINEERING

Title:
Site Location Diagram

Client:
Worcestershire County Council

Project:
11470 - Soudley Camp, Forest of Dean, Gloucestershire

Scale:
0 metres 1000
1:25000 @ A3

Fig No:
01

N

Magnetometer Survey Area with 30m grid

sumo Survey
GEOPHYSICS FOR ARCHAEOLOGY & ENGINEERING

Title:
Location of Magnetometer Survey Area

Client:
Worcestershire County Council

Project:
11470 - Soudley Camp, Forest of Dean, Gloucestershire

Scale:
0 metres 25
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Fig No:
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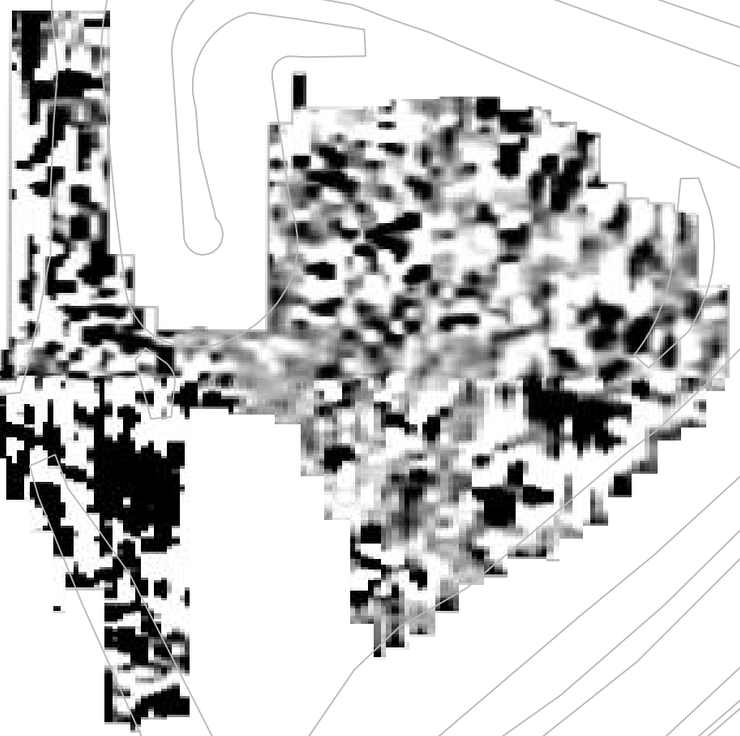

N

KEY

	Uncertain Origin (discrete anomaly / trend)
	Magnetic disturbance
	Ferrous

+2nT

-1nT

sumo Survey
GEOPHYSICS FOR ARCHAEOLOGY & ENGINEERING

Title:
Magnetometer Survey
- Greyscale Plot & Interpretation

Client:
Worcestershire County Council

Project:
11470 - Soudley Camp, Forest of Dean, Gloucestershire

Scale:
0 metres 25
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Fig No:
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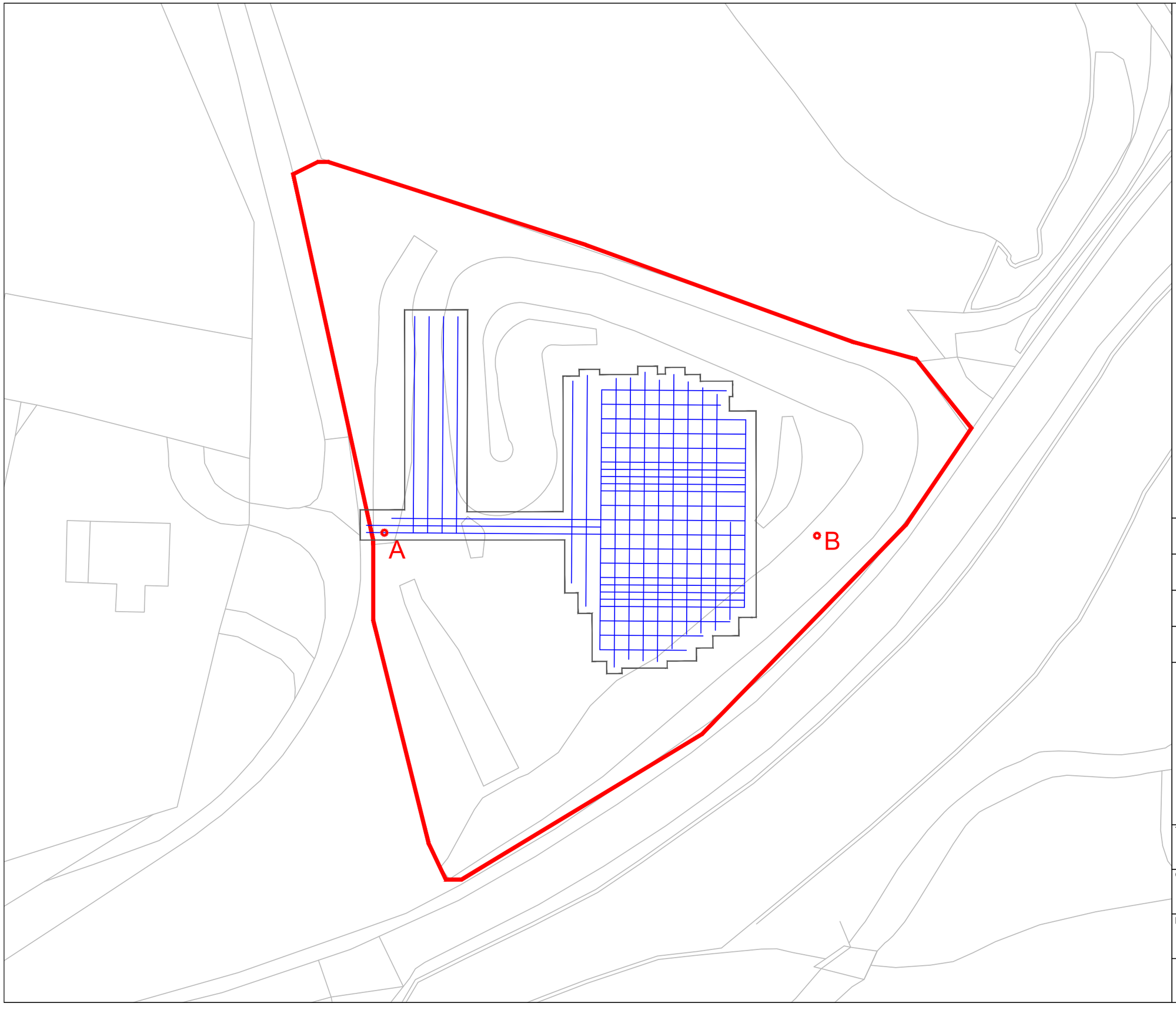

N

GPR Survey Area and traverses

OS References

A	366126.29, 210574.03
B	366186.29, 210573.61

sumo Survey
GEOPHYSICS FOR ARCHAEOLOGY & ENGINEERING

Title:
Location of GPR Survey Area & Referencing

Client:
Worcestershire County Council

Project:
11470 - Soudley Camp, Forest of Dean, Gloucestershire

Scale:
0 metres 25
1:500 @ A3

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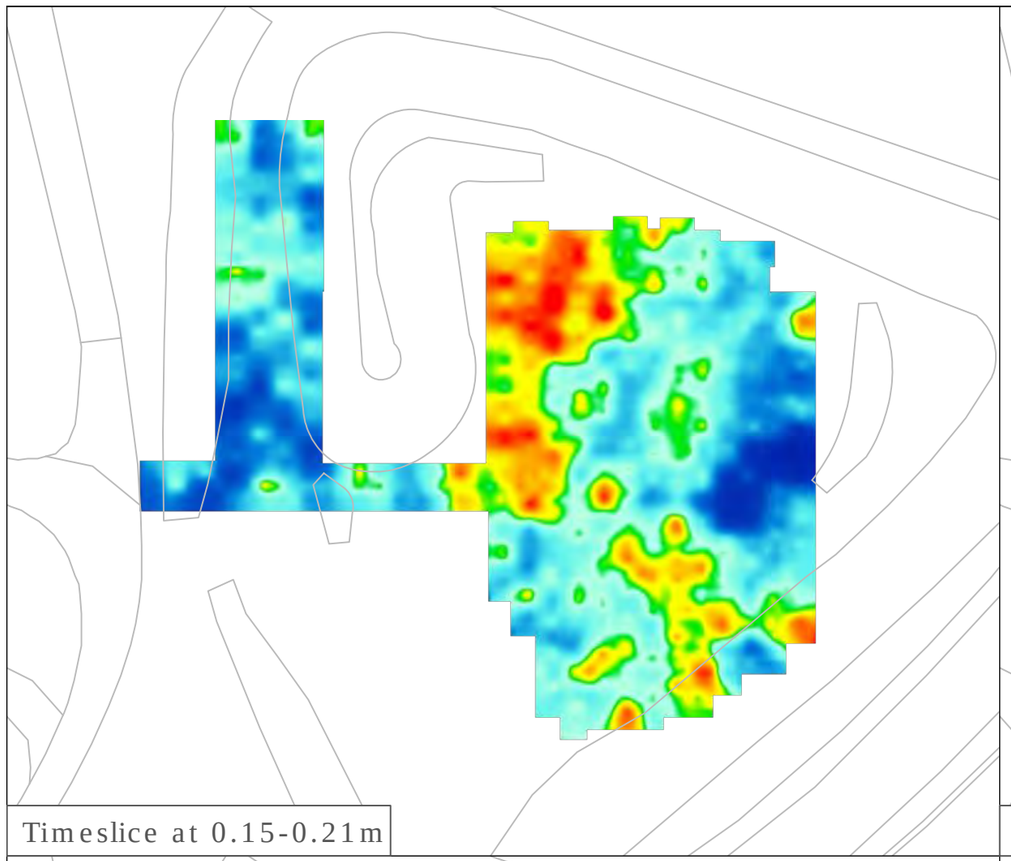
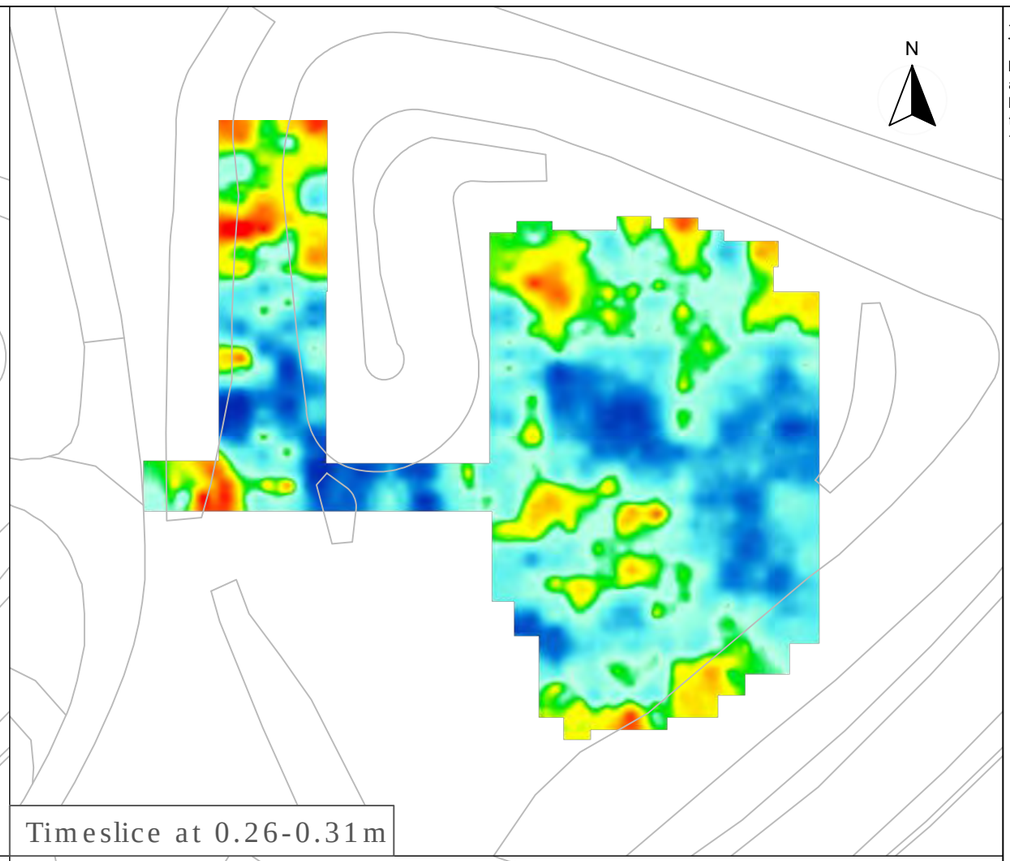
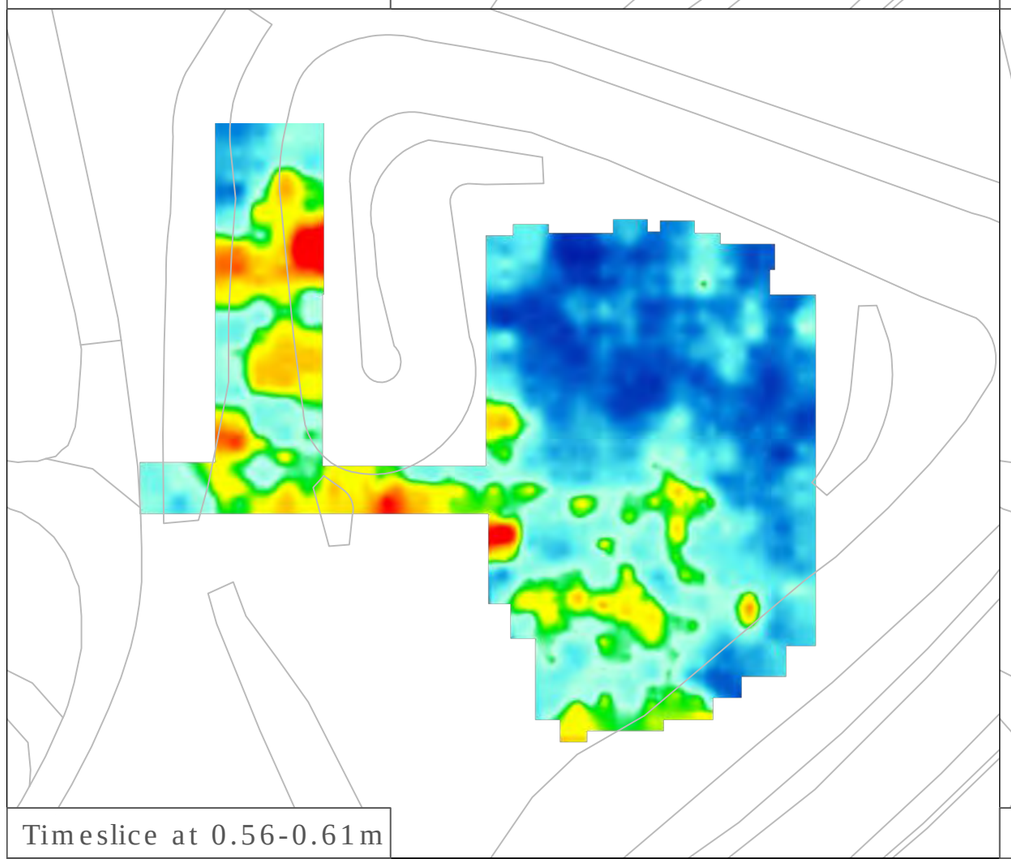


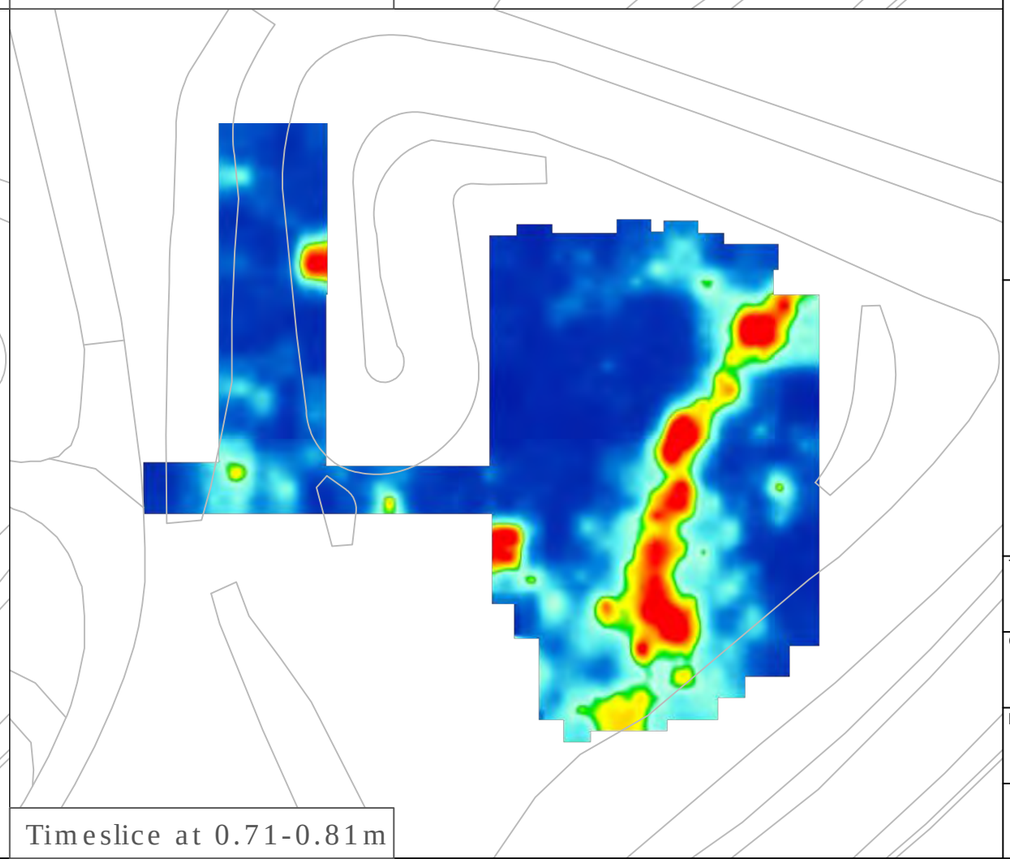
Timeslice at 0.15-0.21m



Timeslice at 0.26-0.31m



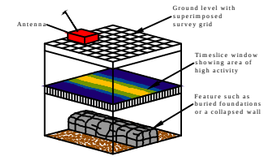
Timeslice at 0.56-0.61m



Timeslice at 0.71-0.81m

TIMESLICE PLOTS

In addition to a manual abstraction from the radargrams, a computer analysis was carried out. The radar data is interrogated for areas of high activity and the results presented in a plan format known as timeslice plots. In this way it is easy to see if the high activity areas form recognisable patterns.

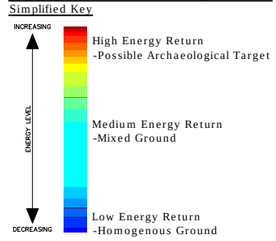


The GPR data is compiled to create a 3D file. This 3D file can be manipulated to view the data from any angle and at any depth within range. The data was then modelled to produce activity plots at various depths. As the radar is actually measuring the time for each of the reflections found, these are called "time slice windows". Plots for various time slices have been included in the report. Calculations, based on an average velocity, have been made to show the equivalent depth into the ground. The data was sampled between different time intervals effectively producing plans at different depths into the ground.

The weaker reflections in the time slice windows are shown as dark colours namely blues. The stronger reflections are represented by brighter colours such as light green, yellow, orange and red.

Reflections within the radar image are generated by a change in velocity of the radar from one medium to another. It is not unreasonable to assume that the higher activity anomalies are related to marked changes in materials within the ground such as buried foundations or surfaces within the soil matrix.

Colour Scale for Timeslice 'Activity' Plots and Simplified Key



sumo Survey
GEOPHYSICS FOR ARCHAEOLOGY & ENGINEERING

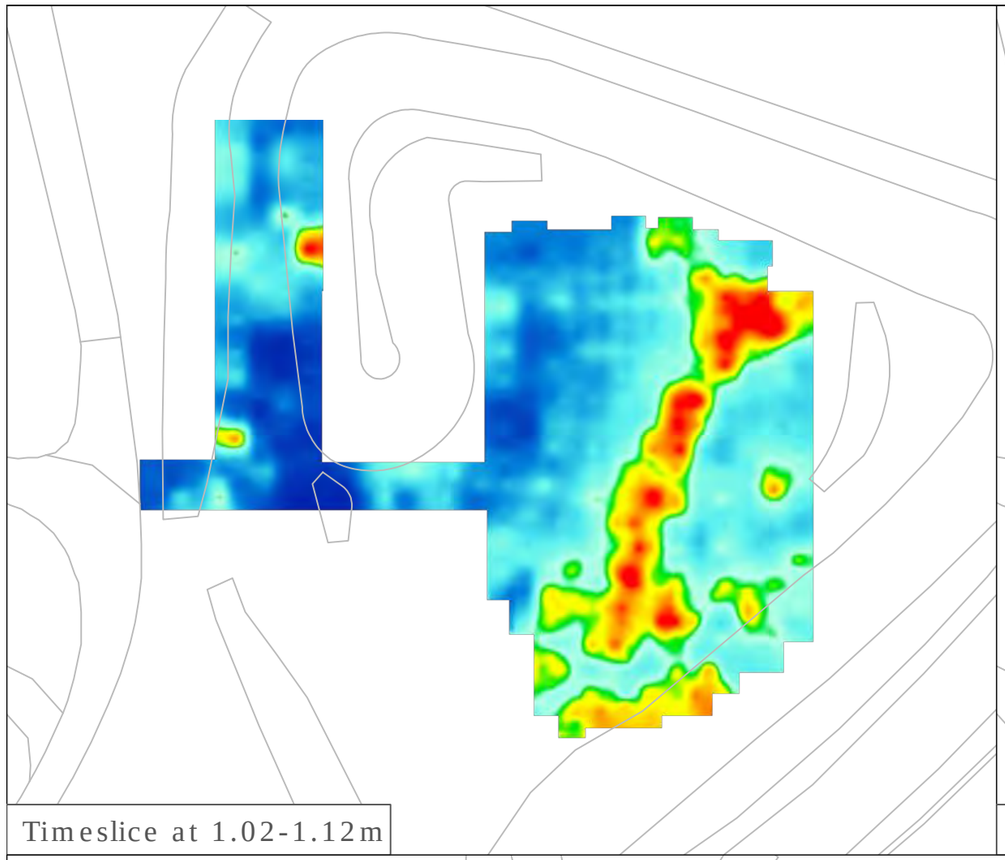
Title: GPR Survey - Timeslices at depths of 0.15-0.21m, 0.26-0.31m, 0.56-0.61m & 0.71-0.81m

Client: Worcestershire County Council

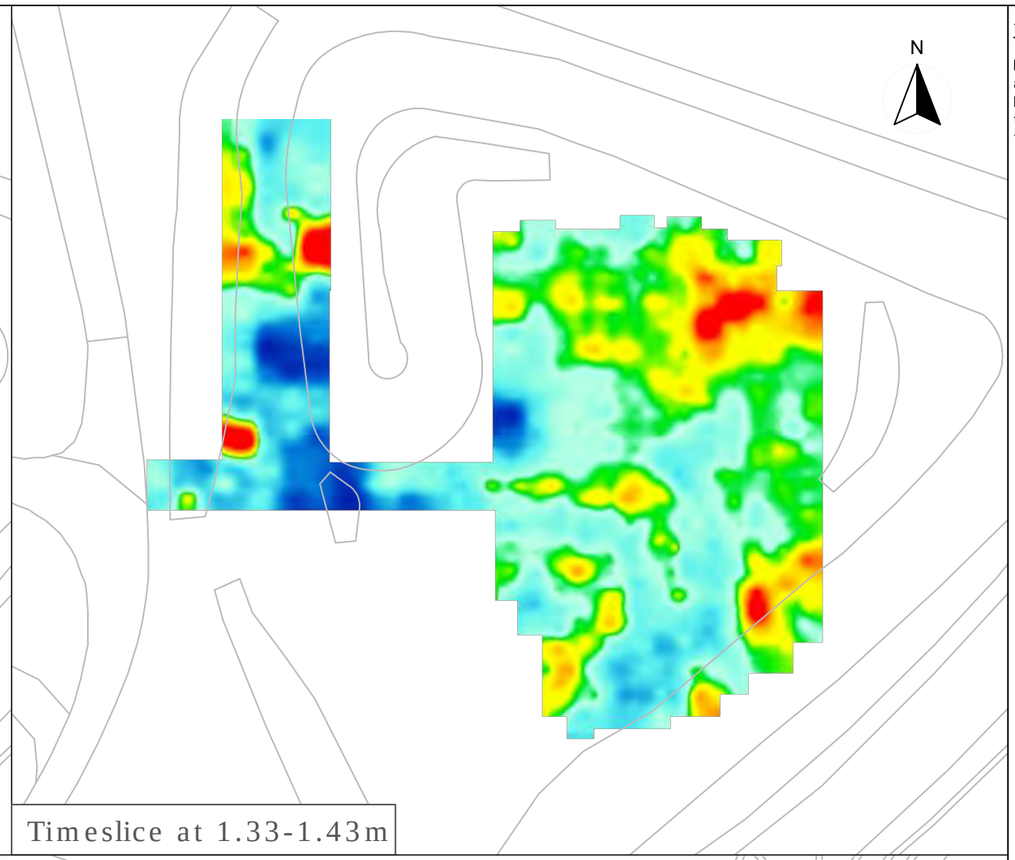
Project: 11470 - Soudley Camp, Forest Of Dean, Gloucestershire

Scale: 0 metres 25
1:500 @ A3

Fig No: 05



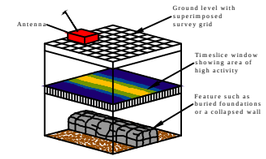
Timeslice at 1.02-1.12m



Timeslice at 1.33-1.43m

TIMESLICE PLOTS

In addition to a manual abstraction from the radargrams, a computer analysis was carried out. The radar data is interrogated for areas of high activity and the results presented in a plan format known as timeslice plots. In this way it is easy to see if the high activity areas form recognisable patterns.



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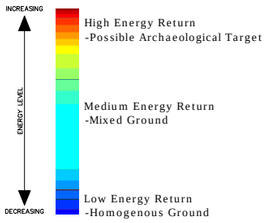
The weaker reflections in the time slice windows are shown as dark colours namely blues. The stronger reflections are represented by brighter colours such as light green, yellow, orange and red.

Reflections within the radar image are generated by a change in velocity of the radar from one medium to another. It is not unreasonable to assume that the higher activity anomalies are related to marked changes in materials within the ground such as buried foundations or surfaces within the soil matrix.

Colour Scale for Timeslice 'Activity' Plots and Simplified Key



KEY

	Strong complex anomalies - probable structural/archaeological remains
	Weak complex anomalies - possible archaeological remains
	Discrete and complex anomalies - uncertain origin
0.37	Depth to top of feature (m)

sumo Survey
GEOPHYSICS FOR ARCHAEOLOGY & ENGINEERING

Title: GPR Survey - Timeslices at depths of 1.02-1.12m & 1.33-1.43m & Interpretation

Client: Worcestershire County Council

Project: 11470 - Soudley Camp, Forest Of Dean, Gloucestershire

Scale: 0 metres 25
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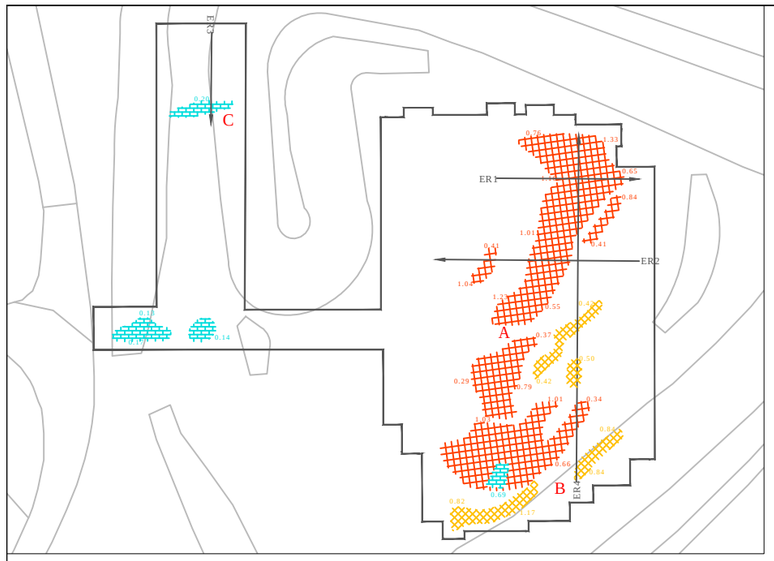
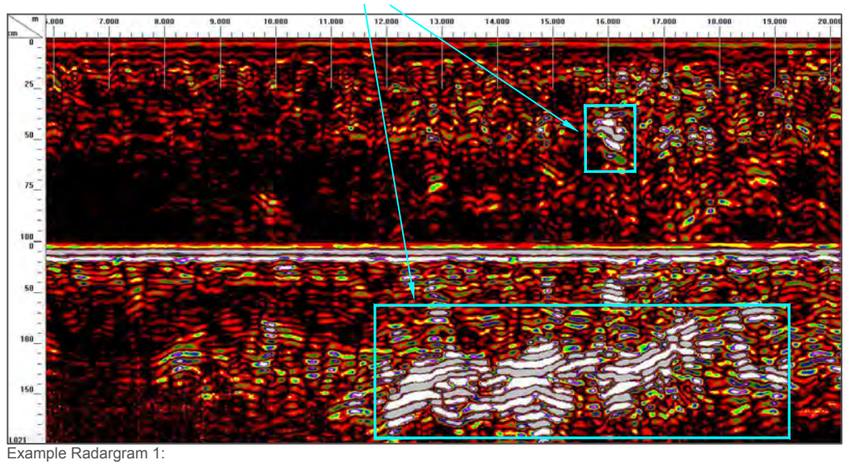
Fig No: 06

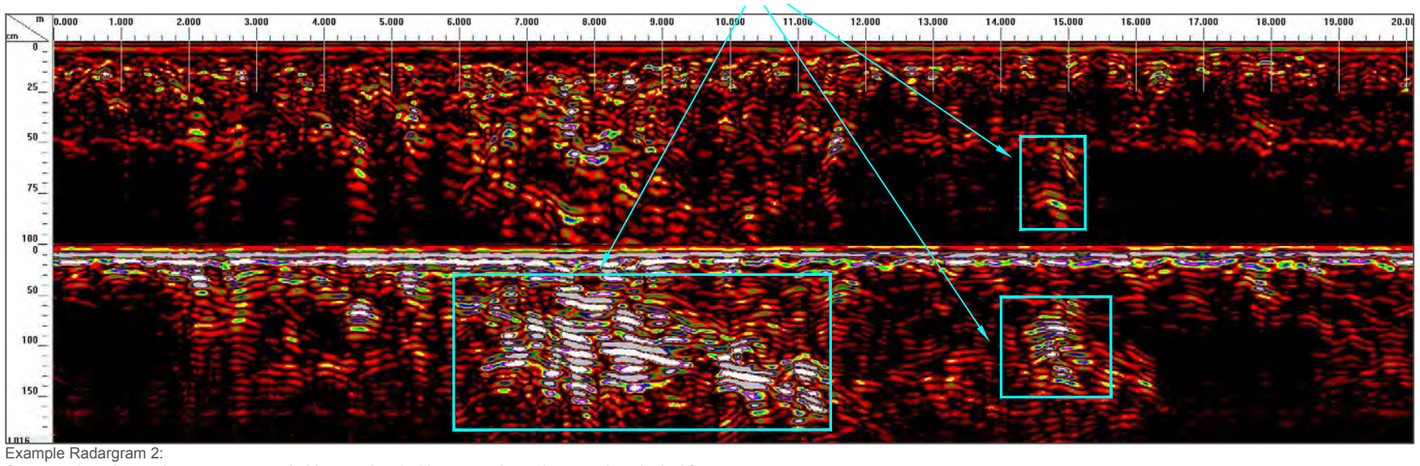


Probable structural or archaeological remains



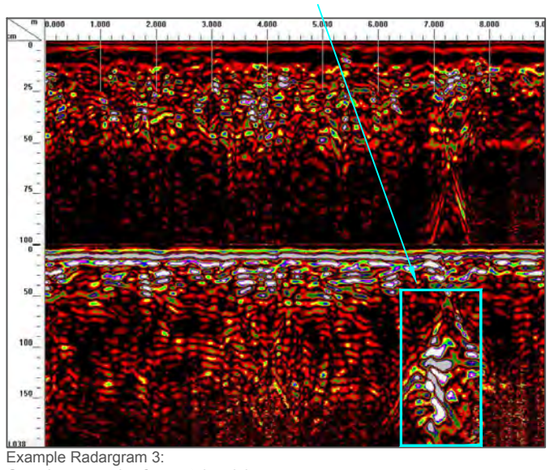
Example Radargram 1:
Strong complex responses, probably associated with structural remains or archaeological feature.

Probable structural or archaeological remains



Example Radargram 2:
Strong and weak complex responses, probably associated with structural remains or archaeological feature.

Uncertain origin

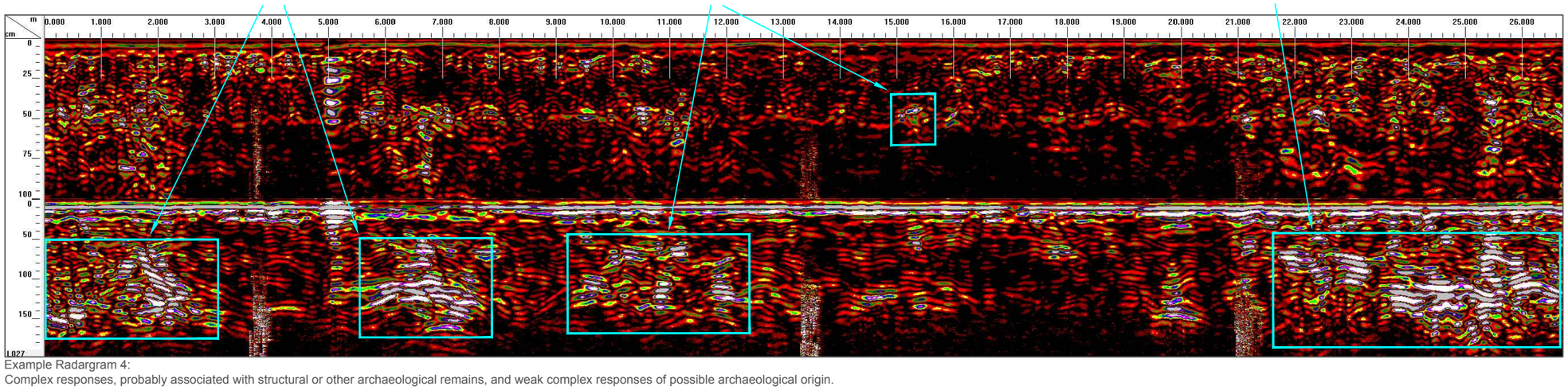


Example Radargram 3:
Complex anomaly of uncertain origin.

Probable structural or earthwork remains

Possible archaeological remains

Probable structural or earthwork remains



Example Radargram 4:
Complex responses, probably associated with structural or other archaeological remains, and weak complex responses of possible archaeological origin.

N

KEY

	Strong complex anomalies - probable structural/archaeological remains
	Weak complex anomalies - possible archaeological remains
	Discrete and complex anomalies - uncertain origin
0.37	Depth to top of feature (m)

sumo Survey
GEOPHYSICS FOR ARCHAEOLOGY & ENGINEERING

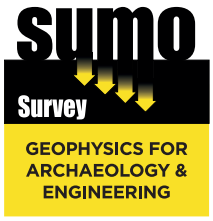
Title:
GPR Survey - Interpretation with Example Radargrams

Client:
Worcestershire County Council

Project:
11470 - Soudley Camp, Forest of Dean, Gloucestershire

Scale:
0 metres 25
1:500 @ A3

Fig No:
07



- Archaeological
- Geophysical
- Laser Scanning
- Measured Building
- Topographic
- Utility Mapping

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Company Registration No.4275993.
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Appendix 2: Trench descriptions

Main deposit descriptions

Trench 1

Context	Type	Deposit description	Interpretation	Depth
100	Layer	Moderately compact dark greyish brown fine sandy loam	Topsoil with barely developed subsoil	
101	Layer	Very compact mid-pinky orange clay	Natural	
102	Layer	Sandstone	Natural bedrock	
103	Structure	Sandstone	Possible wall	
104	Layer	Moderately compact mid brown loamy sand.	Stony rubble deposit. Possibly dumped over natural beak in slope	0.16m
105	Cut		Cut for possible wall 103. Cuts 102	

Trench 2

Context	Type	Deposit description	Interpretation	Depth
200	Layer	Moderately compact dark greyish brown fine sandy loam	Topsoil	
201	Layer	Moderately compact mid brownish orange loamy fine sand	Subsoil	0.08m
202	Layer		Natural	
203	Layer	Moderately compact light brownish pink, fine sandy loam	Layer of loose rocks in a pink sandy matrix	
204	Layer	Moderately compact light browny orange fine sandy loam	Layer of natural rocks	
205	Layer	Moderately compact light orangey brown sandy loam	Mixed subsoil containing large rocks	

Context	Type	Deposit description	Interpretation	Depth
206	Layer	Soft and loose dark blackish brown charcoal rich sandy loam	Charcoal rich layer, possibly corner of burning platform	0.26m
207	Layer	Moderately compact orange loamy sand	Natural layer	
208	Fill of posthole	Soft and loose mid orangey brown fine silty loam	Fill of posthole [209] containing half quern stone	0.4m
209	Cut of posthole		Cut of posthole containing single fill (208) and large stones	0.4m
210	Fill of stakehole	Loose mid orangey brown loamy sand	Fill of stakehole [211]	0.15m
211	Cut of stakehole		Stakehole containing single fill (210)	0.15m
212	Structure	Unworked natural stone	Small mound of stones of indeterminate purpose. Possibly a postpad, but no clear cut.	0.1m

Trench 3

Context	Type	Deposit description	Interpretation	Depth
300	Layer	Loose dark brown sandy clay	Topsoil	0.04m
301	Layer	Moderately compact reddish brown clayey sand	Subsoil	0.17m
302	Layer	Compact reddish brown clayey sand	Natural	
303	Layer	Moderate mid pinkish brown fine sandy loam	Causeway	
304	Layer	Loose dark blackish grey sandy silt	Modern dump of rubbish into depression caused by settling of ditch fill (310)	0.22m

Context	Type	Deposit description	Interpretation	Depth
305	Layer	Loose mid brown fine sandy loam	Sterile sandy loam layer	
306	Layer	Moderately compact mid orangey brown sandy clay loam	Stoney layer, possibly natural	0.14m
307	Layer	Moderately compact mid reddish brown sandy clay loam	Stony deposit on western bank of ditch. Possibly natural deposit.	0.18m
308	Layer	Compact pinky brown fine sandy loam	Modern rubble layer	0.7m
309	Fill	Moderately compact mid reddish brown sandy clay loam	Stony rubble layer	0.17m
310	Fill of ditch	Moderately compact reddish brown loamy sand	Single fill of ditch [312] likely deposited through natural processes	0.22m
311	Layer	Moderately compact mid pinkish brown sandy clay loam	Topsoil, only seen at western end of trench	0.16m
312	Cut of ditch		Cut of ditch surrounding possible Iron Age enclosure	

Test Pit 1

Context	Type	Deposit description	Interpretation	Depth
1000	Layer	Loose mid yellowish brown sandy silt	Topsoil	0.05m
1001	Layer	Moderately compact reddish brown sandy silt	Subsoil	0.25m
1002	Layer	Compact mid pinky red sandy clay	Natural	
1003	Deposit		Area within 1001 containing flakes of charcoal, burnt stone and iron slag.	0.22m

Test Pit 2

Context	Type	Deposit description	Interpretation	Depth
2000	Layer	Loose dark brownish black fine sandy loam	Topsoil	0.13m
2001	Layer	Very compact mid brownish orange clay	Natural	

Test Pit 3

Context	Type	Deposit description	Interpretation	Depth
3000	Layer		Topsoil	0.4m
3001	Layer	Moderately compact mid orangey brown fine sandy loam	Subsoil	0.15m
3002	Layer	Compact dark orangey brown fine sandy loam	Stony layer containing some pottery	

Test Pit 4

Context	Type	Deposit description	Interpretation	Depth
4000	Layer	Loose and moderately compact dark yellowish brown loamy sand	Topsoil subsoil horizon, no real sub	
4001	Layer	Compact mid brownish orange sandy clay loam	Natural	

Test Pit 5

Context	Type	Deposit description	Interpretation	Depth
5000	Layer	Moderately compact reddish brown fine sandy loam	Topsoil	0.06m
5001	Layer	Moderately compact reddish brown sandy loam	Subsoil	0.2m

Context	Type	Deposit description	Interpretation	Depth
5002	Layer	Moderately compact reddish brown sandy loam with large sandstone inclusions	Natural bedrock	

Appendix 3: The archive

Site code: P5050SOUD

The archive consists of:

29	Context records AS1
2	Photographic records AS3
286	Digital photographs
1	Drawing number catalogues AS4
1	Context number catalogues AS5
15	Permatrace scale drawings AS34
7	Trench record sheets AS41
1	Box of finds
1	CD-Rom/DVDs
1	Copy of this report (bound hard copy)

The project archive is intended to be placed at:

Dean Heritage Centre
Camp Mill
Soudley
Forest of Dean
Gloucestershire GL14 2UB
Tel 01594 822170

A copy of the report will also be deposited with the Historic Environment Record (HER) and the National Monuments Record (NMR).