

Digging for Britons!
High Carlingill, Cumbria

Addendum report on the 2021 Excavations



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Addendum report on the 2021 Excavations

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1. INTRODUCTION

Huddled against the side of the eastern hills of the Lune Gorge, in the pastoral river valley, are a series of earthwork banks and sub-circular features of a settlement which evidences the exploitation and habitation of this area of the South Cumbria Low Fells. To the north-west of the settlement, the Roman fort of Low Borrowbridge commanded a strategic position within the valley, by the confluence of the Borrow Beck and the River Lune. The natural topography of the area would have screened the fort from view of the settlement, which is located some 700 m to the south-east, beyond a small raised outcrop of hillside. The historic relationship between fort and settlement remained unknown. Very little investigation has taken place at the settlement site, although an RCHME (1993) topographic survey offered tentative suggestions as to the character of the subsurface features, which has been further supported by geo-physical survey (SUMO Surveys 2018). To understand the character and date of the settlement, and to investigate any possible associations with the Roman fort, the Lunesdale Archaeology Society (LAS) and local volunteers embarked on a programme of excavation of the enclosures and structures within under the guidance of Solstice Heritage.

1.1 PROJECT BACKGROUND

The Digging for Britons! Project is an NLHF-funded community archaeology project run as a partnership between the Lunesdale Archaeology Society and Solstice Heritage. The project ran for two seasons during 2018 and 2019 with a short supplementary season in 2021 (the subject of this addendum report). The two main seasons comprised the excavation of six trenches (Trenches 1–3 in 2018 and Trenches 4–6 in 2019) on the western slope of Blease Fell in the Lune Valley by volunteers under professional archaeological supervision to investigate a suspected Iron Age/Romano-British settlement to the south-east of Low Borrowbridge Roman Fort in the Lunesdale Gorge. The third, short duration, supplementary season comprised the excavation of two trenches; one sited to investigate the large mound of presumed quarrying upcast, with the other intended to investigate the centre of a possible roundhouse to establish the presence of a surviving hearth.

The site includes:

- Two large Late Pre-Roman Iron Age enclosures defined by spread stone-and-earth banks and stone-revetted lynchets
- Several areas of platforming hosting hut circles often set against the enclosure banks and subdivisions
- A later trackway which appears to access spoil heaps – evidence of later quarrying and reworking of the site

The project was funded as part of Digging for Britons! - an NLHF-funded project led by the Lunesdale Archaeology Society. This addendum report records the results of the short supplementary excavation undertaken between Tuesday 20th–Friday 23rd April 2021. The site lies in the defined gorge of the River Lune which lies at the edge of the Yorkshire Dales National Park to the east and is bordered by the Lake District National Park to the west. It hosts a combination of loamey and clayey soil with impeded drainage which derives from the Silurian slates and mudstone of the local area.

1.2 GEOLOGY AND SITE LOCATIONS

The excavation site is based at NY 61407 00687 within the Lunesdale Gorge and is part of the South Cumbria Low Fells, two-thirds of which is covered by the Lake District National Park designation. To the east the area extends to cover the River Lune valley. The area lies to the south and south-east of the central core of the Lake District (the Cumbria High Fells NCA), but the sudden change from the tough Ordovician Borrowdale Volcanic Group to the softer Silurian slates and mudstones provides a dramatic change in landscape—the rugged high fells give way to gentler, undulating hills, dissected by pastoral river valleys, woodland and linear lakes. The landscape is characterised by open, semi-improved pasture on a plateau between the rivers Kent and Line, with a shallow relief of ridges and hollows (NE 2015, 3). The site is located on a western-facing hillside in the Lune gorge, uphill from the river, approximately 0.7 km south of Low Borrowbridge Roman fort.

The British Geological Survey (BGS) records the superficial deposits across the site as Devensian till—a diamicton sediment which overlies a solid geology of the Coniston Group—a sedimentary bedrock of sandstone, siltstone and mudstone. Online mapping provided by the UK Soil Observatory (UKSO) characterises the soils across the site as ‘Slowly permeable seasonally wet acid loamy and clayey soils’.

All the features described in this report are on private land, and express permission of the farmers is needed to visit. All excavation trenches were backfilled and reinstated following the conclusion of fieldwork.



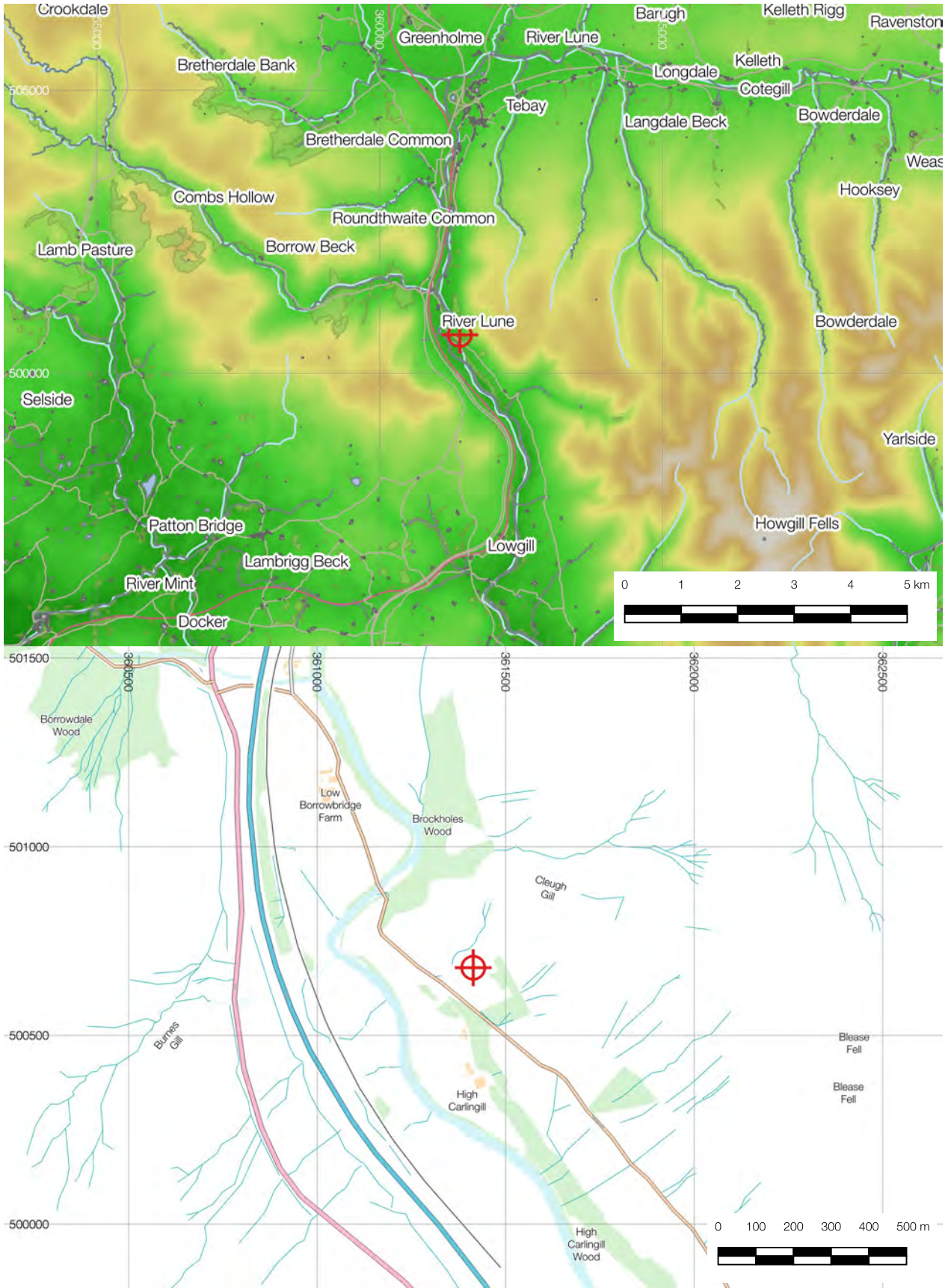


Figure 1 Location of the High Carlingill enclosure and settlement

2. METHOD

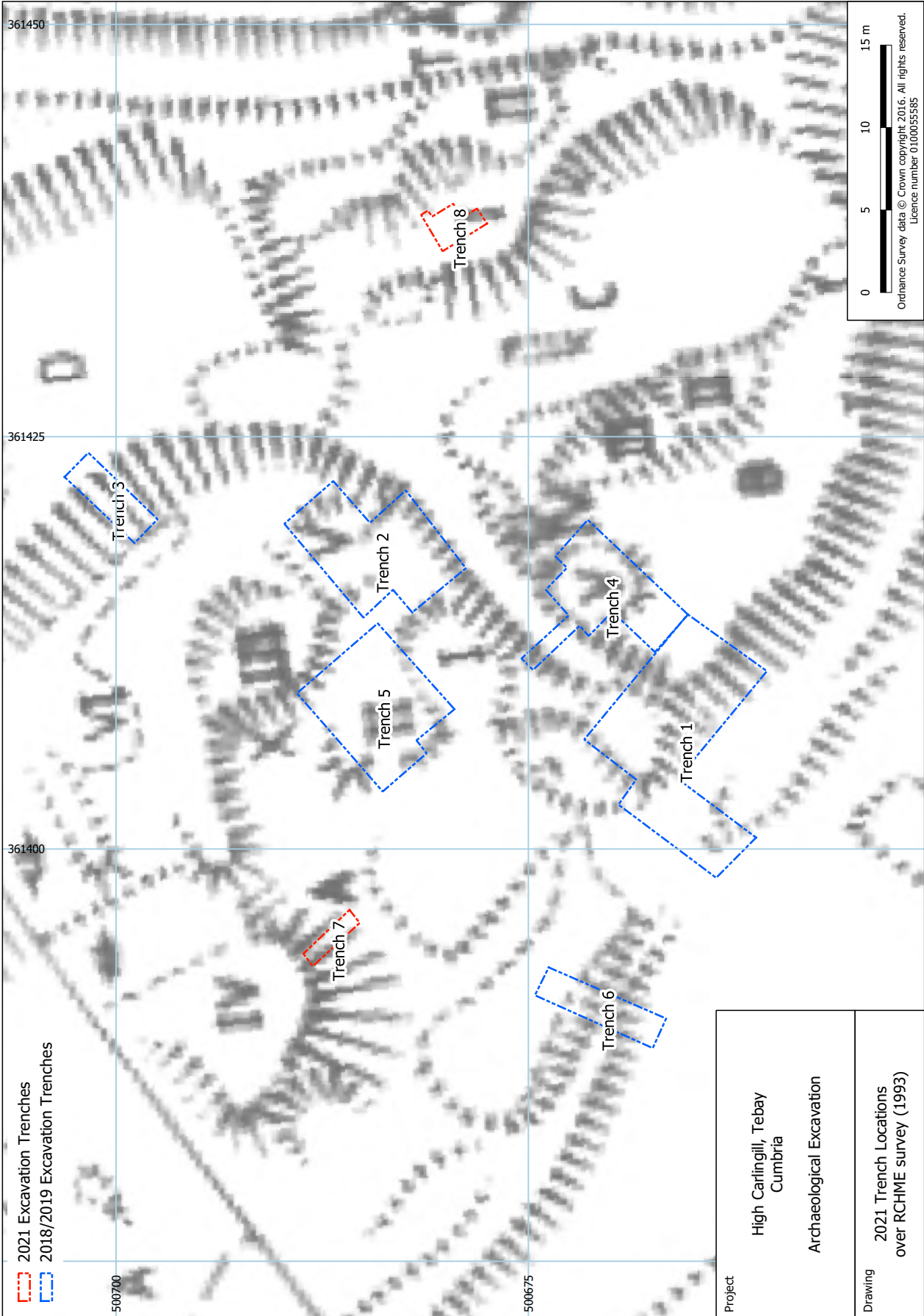
The short supplementary 2021 excavation was undertaken between Tuesday 20th–Friday 23rd April 2021. Conditions were changeable over the duration of the excavations but were generally good. Soil drainage in the area was generally impeded and this meant that overlying features retained water, but this was infrequent and there is not considered to be any reason that the results presented here were prejudiced by conditions in any way.

All de-turfing and excavation was undertaken by hand, with all turfs removed and stacked to prevent degradation prior to reinstatement at the end of the excavation. All excavation was undertaken with hand tools suitable to the nature of the deposit in question and in accordance with standard stratigraphic principles to allow use of single context planning and recording.

All individual features were cleaned, delimited and excavated by hand prior to recording. Written recording was based on *pro forma* sheets creating a primary written record and was accompanied by a site diary giving a summary of each day's work including overall interpretive observations. The drawn record comprised plan and section/profile/elevation illustrations of all features at a suitable scale depending on the complexity and significance of the remains. The drawn and written records were accompanied and augmented by a full photographic record compiled in high-resolution digital format. Survey control was established with a site datum correct to OSGB National Grid and Ordnance Datum, located using a survey-grade GPS with an accuracy of +/-10 mm. A control network from the site datum was established with a total station, from which all trenches and features were located and tied to the National Grid. This same control network was used for wider survey of the enclosures associated with the sites to ensure consistency of recording.

After fieldwork, all finds, and samples, were processed and catalogued in line with standard guidance prior to specialist assessment. The small finds, flots and samples from palaeoenvironmental assessment, primary field records and digital versions of all relevant images have been compiled into a site archive for long-term curation.

There are a number of conventions used in the descriptions of each trench that follows. Firstly, context numbers are given in either round brackets (denoting a deposit or fill) or square brackets (denoting a cut). All contexts described are also shown in the stratigraphic matrices in Appendix 2.



3. RESULTS

3.1 INTRODUCTION

Previous topographic and geophysical survey (RCHME 1993; SUMO Surveys 2018) had indicated the presence of two probable enclosures surrounding the settlement area—a probable earlier sub-circular enclosure bank to the north-west and a probable later sub-rectilinear enclosure extending towards the south-east. Three trenches were opened during the September/October 2018 season of excavation to investigate and characterise the enclosure banks and features within (Williams 2019). During the May/June 2019 season a further three trenches were opened to investigate two terraces/platforms and sub-circular features, and the south-western bank of the large sub-circular enclosure. A short season of work was planned for early 2020 to ground test the probable spoil mound presumed to have resulted from later quarrying and investigate one of the probable roundhouses. Due to the COVID-19 pandemic, this was postponed to early 2021.

Trench 7 targeted a possible spoil mound within the earlier Iron Age enclosure while Trench 8 was sited over one of the probable roundhouses in the later sub-rectilinear enclosure in order to establish the potential for a surviving central hearth.



Figure 3 Trench 7 during excavation, facing south-east. Scale = 2 x 1 m



Figure 4 Trench 7 during excavation, facing south. Scale = 2 x 1 m



Figure 5 Trench 8 during excavation, facing west. Scale = 2 x 1 m



Figure 6 Trench 8 during excavation, facing east. Scale = 2 x 1 m

3.2 TRENCH 7

Trench 7 measured 4 m x 1 m in plan, aligned roughly north to south and was sited to investigate a possible spoil mound within the earlier Iron Age enclosure. The archaeological features within Trench 7 were overlain by turf and topsoil (700) which was generally homogeneous in character across the site. The thickness of the topsoil was variable across the site due to its exposed nature—measuring just 0.08 m in thickness on average. Sporadic patches of accumulated mid-grey clayey silt subsoil (701), which measured on average 0.12 m in thickness, were encountered across the trench but notably sealing the paved area (703) and the weathered remains of the housing platform (702) adjacent to Structure 9.

3.2.1 STRUCTURE 9

Structure 9 was partially exposed within Trench 7 overlain by the turf and topsoil (700) defined above. Its visible area measured a maximum extent of c. 2 m from the northern edge of the trench but as its other edge was not within the excavated area, it was not possible to accurately assess its full dimensions. Based upon the previous seasons of excavation, this most likely represented the remains of a mid- to large-sized sub-circular housing platform. The whole structure was set on a sloping terrace projecting from the hillside.

The slight arc of a subcircular retaining kerb (705), broadly aligned north-east to south-west, which measured 0.38m in width and 0.32 m high, demarcated the edge of Structure 9 (Figure 7). The kerb was formed of large angular stones measuring on average c. 440 mm x 320 mm x 230 mm in size. This arc of stonework contained the house construction platform (704), which comprised a light orange-brown sandy silt which contained well-sorted stones of varying sizes, indicating that this was most probably imported material from the surrounding area. A sample of alder branchwood charcoal was obtained from this material and retained for analysis (see Palaeoenvironmental Assessment below). This housing platform survived to a height of 0.38 m and overlaid the natural substrate (707), which comprised a light grey-yellow sandy clay that sloped from north-north-east to south-south-west. The southern edge of the housing platform (704) and the kerb (705) were set in a construction cut [706] that measured c. 1.70 m from the southern edge of Trench 7 and 0.28 m deep and was characterised by a sharp break of slope and irregular edges which truncated the natural substrate.

South of the retaining kerb (705), an uneven tumble (702) was identified, composed of mid-sized angular stone fragments—which measured on average c. 150 mm x 120 mm x 30 mm—within a matrix of mid grey-brown silt. This material varied in thickness from north to south but measured on average c. 0.24 m in height and appears to have been derived from the housing platform levelling (704) as a result of its erosion. This was sealed by the accumulated mid-grey clay-silt subsoil (701) where it had built up in the lower-lying areas of Trench 7.

3.2.2 PAVEMENT AND DRAIN

The southern end of Trench 7 was characterised by a paved floor surface (703) that covered an area of 1.92 m by 1 m wide. This flat, paved area (703), which was sealed by the accumulated subsoil (701), was composed of angular, irregular, unworked stones, which measured 320 mm x 240 mm x 100 mm on average. This surface appears to have functioned as a paved area between the structures and appears to have been near-contemporary to the construction of Structure 9. Immediately beneath the paved area (703) was a thin, stone-lined drain (708), that was aligned along a north-north-east to south-south-west orientation, which measured 1.00 m in length and 0.33 m wide (Figure 8). The drain walls comprised two courses of irregular, straight-sided stones, up to 0.1m in height, that were capped by the overlying paved surface (703) itself. Accumulated light grey silt (710) completely filled the drain indicating abandonment. No archaeological finds were identified within the drain though it was sampled for palaeoenvironmental analysis, which identified some hazel charcoal fragments (detailed in Palaeoenvironmental Assessment below).

3.3 TRENCH 8

Trench 8—which initially measured 7.5 m x 2 m in plan and was aligned roughly north-east to south-west—as sited to investigate a probable roundhouse in the later sub-rectilinear enclosure in order to establish the potential for a surviving central hearth. An initial extension, beginning at the northernmost edge of the trench, projected c. 2 m to the south and 1 m from the eastern side. A further smaller extension, measuring 0.5 m x 0.5 m, was excavated on the northeastern corner of the extended trench. No small finds were recovered from any of the contexts within Trench 8.



The archaeological features within Trench 8 were overlain by dark grey brown turf and topsoil (800) which was generally homogeneous in character but varied in thickness across the site. Within Trench 8, this measured 0.1 m in thickness on average and sealed a thin light-grey clayey silt subsoil (801) which accumulated sporadically across the trench. This underlying naturally accumulated subsoil (801), measured on average 0.05 m in thickness where it was encountered.

3.3.1 STRUCTURE 10

A medium-sized sub-circular structure (Structure 10) was observed within the western extent of the trench (Figure 9). Based on the visible extent within Trench 8, this structure was estimated to measure c. 3 m across. Similar to Structures 6, 7, and 8 from the previous excavations, a packed stone rubble revetting (802) was partially revealed upslope. This revetment was composed of randomly deposited angular stones, which measured 600 mm x 300 mm x 70 mm on average. This deposit covered an area of 2.0 m x 1.5 m as observed within Trench 8 but extended beyond the limits of excavation to the west and, where measurable, was approximately 0.20 m thick. This revetting was clearly bounded in a slight arc along a broad north to south alignment, which appeared to indicate a possible wall line similar to that identified in Structure 7 in Trench 5 of the previous excavations (Williams 2019). As a result, the revetment (802) was similarly interpreted as a revetment or surface constructed external to a roundhouse wall.

Forming part of the interior of this structure and partially sealed by the revetting (802), a relict floor surface (803), which covered a maximum area of c. 1.40 m by 0.44 m, was identified in the northern extent of Trench 8. The floor surface comprised small, flat stones which measured 260 mm x 160 mm x 60 mm on average, bedded directly into the poorly preserved remnants of the underlying levelling material (804). No archaeological finds were identified within the interstices.

A broadly flat layer (804) comprising angular stone fragments—measuring c. 190 mm x 180 mm x 60 mm—within a light grey-brown silty clay matrix was observed partly overlaid by the relict floor surface (803). This material formed a clear earthwork terrace derived from redeposited natural substrate and nearby scree that formed the housing platform for Structure 10, and measured c. 3 m diameter and 0.30 m thick. This formed the roundhouse structure; a levelled-up terrace within a depression of the natural substrate which was not observed within its entirety within Trench 8. This landscaping (804) directly overlaid the natural substrate (805) of yellow-grey clay following the underlying topography which sloped east to west. No archaeological finds were identified within this material but it is suggestive of other contemporary landscaping activity within the enclosures.



Figure 7 Trench 7 during excavation, facing south-west. Scale = 1 x 1 m



Figure 8 Overview of stone-built drain (708), post-excitation, facing north-east. Scale 1 x 0.4 m



Figure 9 Overview of Structure 10, post-excitation, facing north. Scale 2 x 1 m

4. PALAEOENVIRONMENTAL ASSESSMENT

Lorne Elliott, Archaeological Services Durham University

4.1 SUMMARY

4.1.1 THE PROJECT

This report presents the palaeoenvironmental assessment results for a bulk sample and hand-recovered charcoal, taken during archaeological works at High Carlingill, Cumbria.

The works were commissioned by Solstice Heritage, and conducted by Archaeological Services Durham University.

4.1.2 RESULTS

All of the charcoal from fill (704) is alder branchwood and is in fairly good condition. The few small scraps of hazel charcoal recovered from fill (710) have relatively more mineral inclusions and are in a worse condition than the alder charcoal from (704). This could reflect residual material and may not be contemporary with the feature.

4.1.3 RECOMMENDATIONS

The charcoal from (704) should provide a reliable date. There is no need for a duplicate radiocarbon date from this context as all of the charcoal may have derived from the same piece of charred alder wood (see further details in Table 1).

Obtaining a radiocarbon date for the charcoal from the drain fill (710) requires more caution, as the scarcity and small size of the remains means residuality and intrusive material cannot be ruled out, particularly as there is a slight variation in the amount of mineral encrusting in these remains. Although the charcoal from (710) is above the acceptable minimum weight (10mg) for radiocarbon dating, it is also below the recommended size (50mg), and as it is mineral encrusted, it may have insufficient weight of carbon. The fragments could be combined, but this could introduce some level of uncertainty in the dating.

The flot and charcoal sample should be retained as part of the physical archive of the site. The residues were discarded following examination.

4.2 PROJECT BACKGROUND

4.2.1 LOCATION AND BACKGROUND

This report presents the palaeoenvironmental assessment results for a bulk sample and some hand-recovered charcoal, taken during archaeological works conducted by Solstice Heritage at High Carlingill, Cumbria. The charcoal sample derived from a Late pre-Roman Iron Age roundhouse construction platform (704). There were no associated finds and dating is based on similar dated structures on the site. The bulk sample comes from the silty fill (710) of a possible Late pre-Roman Iron Age drain, identified under a paved area. Again there were no finds and dating is based on the associated roundhouse.

4.2.2 OBJECTIVE

The objective of the scheme of works was to assess the palaeoenvironmental potential of the samples, establish the presence of suitable radiocarbon dating material, and provide the client with appropriate recommendations.

4.2.3 DATES

The samples were received by Archaeological Services on 1st November 2021. Assessment and report preparation was conducted between 21st November and 2nd December 2021.

4.2.4 PERSONNEL

Sample processing, assessment and report preparation was conducted by Lorne Elliott.



4.2.5 ARCHIVE

The site code is HC21, for High Carlingill 2021. The flint and charcoal are currently held in the Palaeoenvironmental Laboratory at Archaeological Services Durham University.

4.3 METHODS

The bulk sample was manually floated and sieved through a 500µm mesh. The residue was examined for shells, fruitstones, nutshells, charcoal, small bones, pottery, flint, glass and industrial residues, and was scanned using a magnet for ferrous fragments. The flint was examined at up to x60 magnification for charred and waterlogged botanical remains using a Leica MZ7.5 stereomicroscope.

Selected charcoal fragments were identified, in order to provide material suitable for radiocarbon dating and to determine the nature and condition of the assemblages. The transverse, radial and tangential sections were examined at up to x500 magnification using a Leica DMLM microscope. Identifications were assisted by the descriptions of Schweingruber (1990), Gale & Cutler (2000) and Hather (2000), and modern reference material held in the Palaeoenvironmental Laboratory at Archaeological Services Durham University.

The works were undertaken in accordance with the palaeoenvironmental research aims and objectives outlined in the regional archaeological research framework and resource agendas (Hodgson & Brennand 2007; Philpott & Brennand 2007; Hall & Huntley 2007; Huntley 2010).

4.4 RESULTS

Detailed palaeoenvironmental results are presented in Table 1. Material for radiocarbon dating is shown in Table 2.

4.5 DISCUSSION

All of the charcoal from fill (704) is alder branchwood (*Alnus glutinosa*). The fairly good condition of these remains indicates the time lag between deposition and burial within the construction platform was reasonably short and thus likely to be contemporary with the feature.

The few small scraps of hazel charcoal recovered from fill (710) have relatively more mineral inclusions and are in a worse condition than the alder charcoal from (704). This could reflect residual material and may not be contemporary with the feature. The slight variation in the condition of these remains may also indicate they have separate origins, but having said that they are all small fragments of the same species (hazel branchwood).

4.6 RECOMMENDATIONS

The charcoal from (704) should provide a reliable date. There is no need for a duplicate radiocarbon date from this context as all of the charcoal may have derived from the same piece of charred alder wood (see further details in Table 1).

Obtaining a radiocarbon date for the charcoal from the drain fill (710) requires more caution, as the scarcity and small size of the remains means residuality and intrusive material cannot be ruled out, particularly as there is a slight variation in the amount of mineral encrusting in these remains. Although the charcoal from (710) is above the acceptable minimum weight (10mg) for radiocarbon dating, it is also below the recommended size (50mg), and as it is mineral encrusted, it may have insufficient weight of carbon. The fragments could be combined, but this could introduce some level of uncertainty in the dating.

The flint and charcoal sample should be retained as part of the physical archive of the site. The residues were discarded following examination.

5. DISCUSSION

The previous report discussed the character and form of settlement at High Carlingill during the later Iron Age and early Romano-British periods in detail as well as the wider Lune Valley. Within that report, multiple phases of construction and activity across the High Carlingill site ranging from the Late Pre-Roman Iron Age (LPRIA), to the late 3rd century AD were detailed as well as evidence that the site was re-used during the sub-Roman period. The archaeological features detailed in the 2021 season of Digging for Britons! supplement those covered in the more-comprehensive report which addressed the previous seasons (Williams 2019). These archaeological features comprised further sub-circular structures and associated features similar to Structures 6, 7, and 8 identified in Trenches 4, 5, and 6 of the 2018 to 2019 seasons.

Within Trench 7, the remains of a substantially weathered mid- to large-sized sub-circular structure was identified in association with an immediately adjacent external paved surface, which included the remains of a stone-lined drain. Whereas in Trench 8, the eroded remains of another mid-sized sub-circular housing platform was observed, which was partially covered by a stone-built surface and delineated by the slumping of the adjacent revetment. Two possible paved surfaces were identified in Trench 1 of the 2018 season of excavation—both were heavily degraded; one earlier surface had been overlaid by the installation of Structure 1 and the sub-rectilinear enclosure and another, later surface was overlaid by colluvial material. In the following 2019 season, substantial paved areas were identified in Trench 6 that notably included stone steps which appeared to connect with the later surface within Trench 1. The results from this most recent phase of excavation works would appear to suggest that a substantial area of the external space within LPRIA and Romano-British High Carlingill settlement was consolidated or indeed, paved between housing platforms. In addition, the stone-lined drain in Trench 7 compares with a carved water channel associated with Structure 1 and a drainage gully identified in the enclosure bank—both excavated in Trench 1 during the 2018 season—indicating some differing approaches to water management at High Carlingill, although frustratingly neither of the trenches contained identifiable, datable finds, which complicates definitive phasing and defining any progression, if any, of those approaches

Williams (2019, 122) established three broad phases to High Carlingill, but acknowledged the possibility of settlement activity for which evidence no longer exists or might have been located in uninvestigated areas of the site. These corresponded with the Late Pre-Roman Iron Age, the early Romano-British period, and the sub-Roman period.

Radiocarbon dating of the enclosure established that the construction of a large sub-circular enclosure bank took place years before the arrival of the Romans to the Lune Valley. Structures 3 and 4—small sub-circular roundhouse structures—might also date to this period or possibly immediately following that enclosure's completion. These structures are not believed to be indicative of domestic settlement and neither this phase nor any of the previous phases of excavation work have identified any conclusive evidence relating to permanent occupation. Marginally later during the LPRIA, the sub-rectilinear enclosure was constructed south-east of the larger, earlier enclosure bank.

The early Romano-British period saw the construction of house-platforms against the interior and exterior of the enclosure banks. Williams (2019, 122) established that Structures 6 and 7 were also constructed during the earlier part of this period, based primarily on the material culture recovered from Structure 7—notably a bowl sherd of South-East Dorset BB1 which dates generally to the Hadrianic period (AD 117–138). This was further supported by modelled radiocarbon dates which suggested a span between cal AD 80–210 for the roundhouse. Based on their morphological similarities and shared features to Structure 7, it is probable that Structures 9 and 10 also date to this period. The poor preservation of both structures might also be indicative of their relative antiquity as much as a product of being more exposed as a result of their location within the High Carlingill settlement.

Whilst a radiocarbon date obtained from samples taken from the Structure 1 flooring suggested re-use of the site during the sub-Roman period some 500 years later, as did other intrusive 5th/6th-century dates obtained from Structure 6, no evidence of subsequent sub-Roman activity was identified during this phase of excavation works.



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6.2 WEBSITES

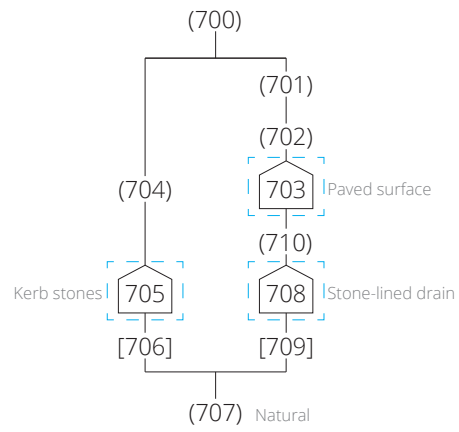
- British Geological Survey (BGS). 2021. *Geology of Britain Viewer*. Available from: <<http://mapapps.bgs.ac.uk/geology-of-britain/home.html>>. Accessed October 15th 2021.
- UK Soil Observatory (UKSO). 2019. *UK Soil Observatory map viewer*. Available from: <<http://www.ukso.org/mapviewer.html>>. Accessed October 15th 2021.



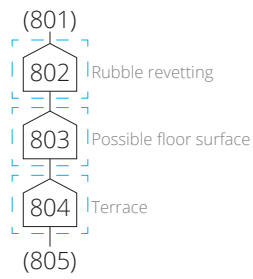
APPENDIX 1 – SITE MATRICES



Trench 7

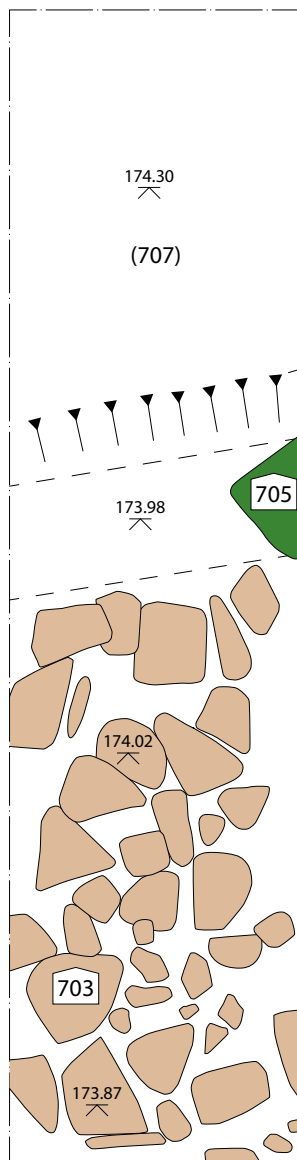
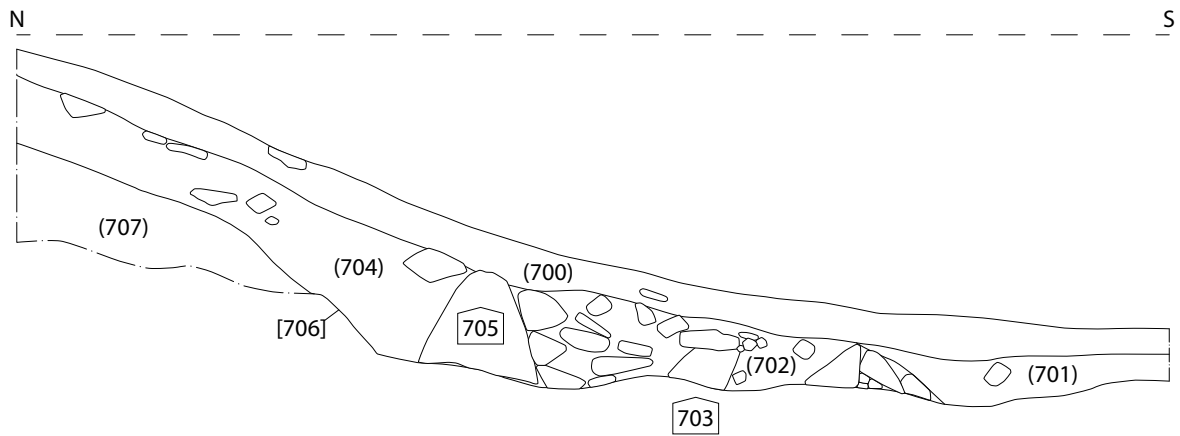


Trench 8

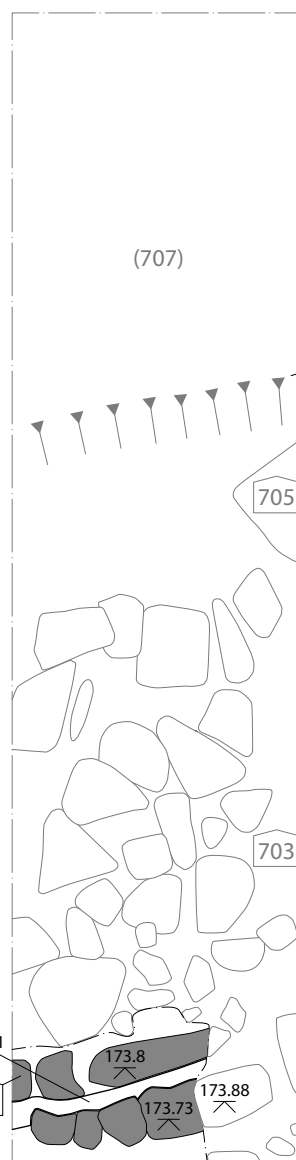


APPENDIX 2 – TRENCH PLANS AND SECTIONS





Trench 7 post excavation



Drain (708) beneath (703)



High Carlingill, Cumbria
NGR NY 61407 00687

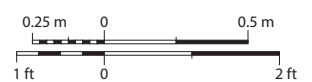


Fieldwork: CS, FW
Drawn: SW
Drawing Version: 1.0

Legend

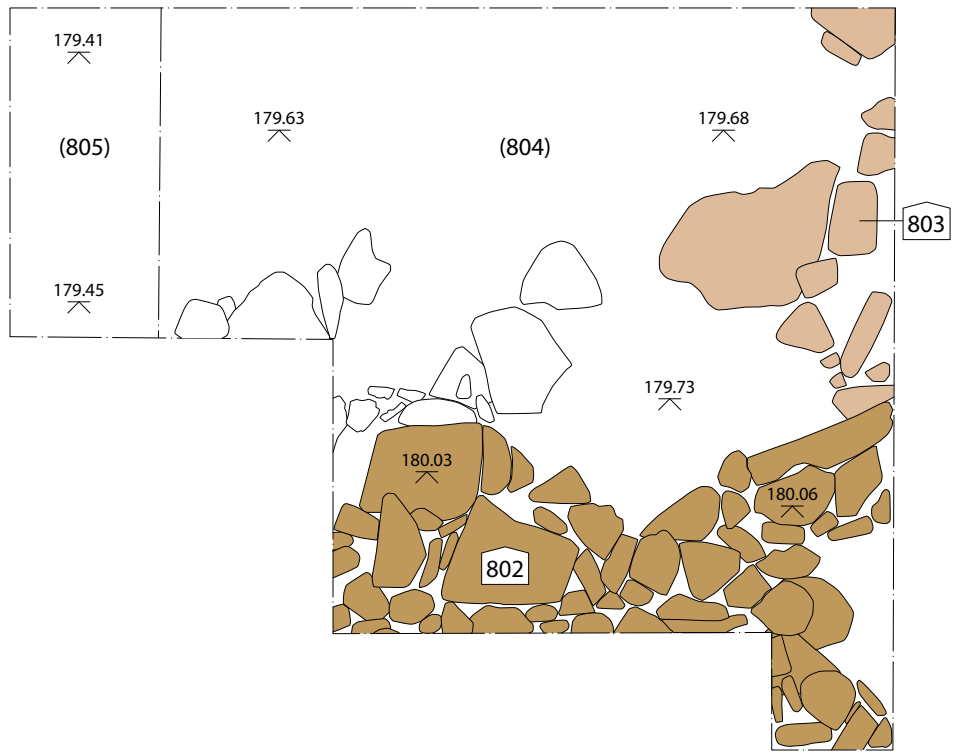
- Kerb stones (705)
- Paved surface (703)
- Stone-lined drain (708)

All elevations are given as metres above Ordnance Datum (aOD)



This drawing is for planning purposes and is not considered to be a construction drawing. Do not scale to this drawing. All dimensions are to be checked on site prior to commencement. This drawing is copyright Solstice Heritage.

Figure 11 Trench 7 plans and section



High Carlingill, Cumbria
NGR NY 61407 00687



Fieldwork: CS, FW
Drawn: SW
Drawing Version: 1.0

Legend

- Wall/revetment {802}
- Paved surface {803}

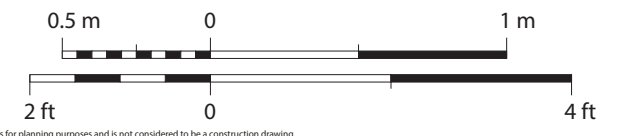


Figure 12 Trench 8 plan

All elevations are given as metres above Ordnance Datum (aOD)

This drawing is for planning purposes and is not considered to be a construction drawing.
Do not scale to this drawing. All dimensions are to be checked on site prior to commencement.
This drawing is copyright Solstice Heritage.

APPENDIX 3 – PALAEOENVIRONMENTAL ASSESSMENT DATA

Context	Volume processed (l)	Flot volume (ml)	C14 available	Rank	Notes
704	-	10	Y	*	Hand-recovered charcoal sample (weight = 2.1g). All of the charcoal is slightly friable, but in reasonable condition with few mineral inclusions/precipitates. All of the identified fragments are alder (large branchwood) and the larger fragments are up to 17mm. All of the fragments may derive from the same piece of wood judging by their similar condition and comparable anatomical characteristics (such as consistently wide annual ring growth). One of the fragments has a possible insect tunnel.
710	2	10	?	*	The sample produced a small flot comprising modern roots and a few small scraps of charcoal. The fragments are from hazel branchwood, however there is slight variation in their condition which may indicate they have separate origins. In terms of dating evidence there are no diagnostic plant remains. Many of the stones have a dark 'burnt-like' appearance that is presumably iron pan mineral encrusting, as there is no significant sign of fuel waste other than the few small scraps of charcoal.

[Rank: *: low; **: medium; ***: high; ****: very high potential to provide further palaeoenvironmental information. ? = material may be unsuitable for AMS dating due to small size or long-lived species]

Table 1 Data from palaeoenvironmental assessment.

Context	Sample	Single Entity recommended 1st choice	Weight	Notes	Single Entity recommended 2nd choice	Weight	Notes
704	*	Alder charcoal	114mg	large branchwood fair condition – relatively few mineral inclusions moderate ring curvature (2 wide growth rings)	Alder charcoal	341mg	Branchwood fair condition – relatively few mineral inclusions moderate growth ring curvature (5 growth rings)
710	**	Hazel charcoal	22mg	small branchwood mineral encrusted – poor condition	Hazel charcoal	19mg + 10mg	Branchwood – mineral encrusted these fragments could be combined but this could introduce some level of uncertainty in the date

* Hand-recovered charcoal sample ** Bulk soil sample

Table 2 Material available for radiocarbon dating.

