

Digging for Britons! High Carlingill, Cumbria

2018 Community Archaeology Excavation Interim Report



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TABLE OF CONTENTS

| | |
|---|-----------|
| Acknowledgements | 1 |
| 1. Introduction | 2 |
| 1.1 Project Background | 2 |
| 1.2 Geology and Site Locations | 2 |
| 2. Method | 4 |
| 3. Results | 6 |
| 3.1 Introduction | 6 |
| 3.2 Trench 1 | 9 |
| 3.2.1 Later trackway | 9 |
| 3.2.2 Structure 1 | 10 |
| 3.2.3 Foundation stones for Structure 1 | 13 |
| 3.2.4 Sub-rectilinear enclosure | 15 |
| 3.2.5 Sub-Rectilinear Enclosure – Wall and Yard Surface | 15 |
| 3.2.6 Possible earlier surface | 18 |
| 3.2.7 Probable Iron Age enclosure bank | 18 |
| 3.3 Trench 2 | 22 |
| 3.3.1 Structure 5 | 22 |
| 3.3.2 Structure 3 | 25 |
| 3.3.3 Structure 4 | 25 |
| 3.3.4 Terrace | 27 |
| 3.3.5 Probable Iron Age Enclosure Bank | 27 |
| 3.4 Trench 3 | 30 |
| 4. Radiocarbon Dating | 33 |
| 4.1 Method | 33 |
| 4.2 Results | 33 |
| 5. Pottery | 35 |
| 5.1 Samian | 35 |
| 5.2 Local Wares | 35 |
| 5.3 Black Burnished Ware Fabric 1 | 35 |
| 5.4 Catalogue | 35 |
| 5.5 Discussion | 36 |
| 6. Burnt Clay | 37 |
| 6.1 Introduction | 37 |
| 6.2 Catalogue | 37 |
| 6.3 Discussion | 37 |
| 7. Palaeoenvironmental Assessment | 38 |
| 7.1 Introduction | 38 |
| 7.2 Method | 38 |
| 7.3 Results | 38 |
| 7.4 Discussion | 39 |
| 7.5 Recommendations | 39 |
| 8. Discussion | 40 |
| 8.1 Location and Association with Low Borrowbridge Roman Fort | 40 |
| 8.2 Form and Landscape Setting | 40 |
| 8.3 Radiocarbon dating | 41 |
| 8.4 Summary of results | 41 |
| 8.5 Discussion | 44 |
| 8.6 Conclusion | 45 |
| 9. Sources | 47 |
| 9.1 Bibliography | 47 |
| 9.2 Websites | 48 |
| Appendix 1 – Site Matrices | 49 |



LIST OF FIGURES

| | |
|--|----|
| Figure 1 Location of the High Carlingill enclosure and settlement..... | 3 |
| Figure 2 Trench locations shown over the RCHME survey of the site (1993)..... | 5 |
| Figure 3 Trench 1 pre-excavation, facing south-west. Scale 3 x 2 m..... | 6 |
| Figure 4 Trench 2 during excavation, facing south-west. Scale 3 x 2 m..... | 7 |
| Figure 5 Trench 3 pre-excavation, facing north-east. Scale 1 m x 2 m..... | 7 |
| Figure 6 Post-excavation plan of Trench 1..... | 8 |
| Figure 7 Later trackway which cut through the sub-circular enclosure bank, facing north-west. Scale 2 x 2 m..... | 9 |
| Figure 8 Sondage through the later trackway, facing north-east. Scale 2 m..... | 11 |
| Figure 9 Structure 1, facing south-east. Scale 2 x 1 m..... | 11 |
| Figure 10 Structure 1, facing north-east. Scale 2 x 1 m..... | 12 |
| Figure 11 Cobbled surface leading to the entrance of Structure 1, facing north-east. Scale 1 x 1 m..... | 12 |
| Figure 12 Structure 1 possible hearth (1010, 1021, 1028), facing south-west. Scale 1 x 0.3 m..... | 13 |
| Figure 13 Structure 1 wall (1017) and hearth platform (1028), facing south-west. Scale 1 x 1 m..... | 14 |
| Figure 14 Foundation stones (1012), core infill (1018) and chock-stones highlighted, facing north-east. Scale 1 x 1 m..... | 14 |
| Figure 15 Worked stone (1015), facing south-west. The two parallel channels are clearly visible. Scale 1 x 1 m..... | 16 |
| Figure 16 The tapering edge of the sub-rectilinear enclosure bank (1008), abutting (1012) and overlaying surface (1004), facing north-east. Scale 1 x 1 m..... | 16 |
| Figure 17 The stone packed bank (1008) of the later rectilinear enclosure, facing north-east. Scale 1 x 2 m..... | 17 |
| Figure 18 The grooved stone on the later rectilinear enclosure bank, facing north. Scale 1 x 1 m..... | 17 |
| Figure 19 Gully (1013/1020) cutting across the rectilinear enclosure bank (1008), facing north-east. Scale 1 x 1 m..... | 18 |
| Figure 20 Wall (1007) at the break of slope of the sub-rectilinear enclosure bank (1008), facing north. Scale 1 x 2 m..... | 19 |
| Figure 21 Wall (1007) and yard surface (1006) beyond it, facing north. Scale 1 x 1 m..... | 19 |
| Figure 22 The relationships between wall (1007), yard surface (1006), worked stone (1015) and possible house platform (1011), facing north. Scale 1 x 1 m..... | 20 |
| Figure 23 Possible earlier surface (1004) overlain by the sub-rectilinear enclosure (1008) and the later trackway (1014), facing south-east. Scale 1 x 1 m and 1 x 2 m..... | 20 |
| Figure 24 External face (1009) of the probable Iron Age enclosure bank, facing north-east. Scale 1 x 1 m..... | 21 |
| Figure 25 Foundation deposit of the probable Iron Age enclosure bank, observed as a remnant beneath cut the of the later trackway (1014), facing north-east. Scale 1 x 2 m..... | 21 |
| Figure 26 Remnant of the probable Iron Age enclosure bank (1018), truncated by the later trackway (1014), facing north-east. Scale 2 x 1 m..... | 22 |
| Figure 27 Post-excavation plan of Trench 2..... | 23 |
| Figure 28 Trench 2 post-excavation, facing south-east. Scale 4 x 2 m..... | 24 |
| Figure 29 Structure 5 is indicated by the dashed yellow line, facing east. Scale 2 m..... | 24 |
| Figure 30 Sub-circular Structure 3, facing east. Scale 2 x 1 m..... | 26 |
| Figure 31 The wall (2009) of Structure 4 is indicated by the dashed yellow line, facing north-west. Scale 2 x 2 m..... | 26 |
| Figure 32 The edge of the terrace (2013) is indicated by the dashed yellow line, facing south-east. Scale 2 m..... | 28 |
| Figure 33 Enclosure bank (2007), facing south-east. Scale 2 m..... | 28 |
| Figure 34 Stone revetment kerb (2016), facing south-west. Scale 2 m..... | 29 |
| Figure 35 Flat stone with pecked dish depression, facing east. Scale 0.3 m..... | 29 |
| Figure 36 Post-excavation plan and section of Trench 3..... | 31 |
| Figure 37 Trench 3 post-excavation, facing north-east. Scale 2 m and 2 x 1 m..... | 32 |
| Figure 38 (3002) (left of image) can be seen overlaying (3001) (right of image), facing south-east. Scale 1 m..... | 32 |
| Figure 39 Probability distributions of dates from the 2018 excavations at High Carlingill. Each distribution plot represents the relative probability that an event happened at a certain time..... | 34 |
| Figure 40 Structure 3 cut back into the Phase 1 enclosure wall behind..... | 42 |
| Figure 41 Structure 1 set over the line of the earlier Phase 1 enclosure bank. The original facing stones of the Phase 1 bank can be seen in the front left of shot, and the large foundation stones of the Phase 2 are to the centre-right..... | 43 |
| Figure 42 Trench 1 matrix..... | 50 |
| Figure 43 Trench 2 and 3 matrices..... | 51 |





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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 earth-work 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 geophysical 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 2018 project comprised the excavation of three trenches 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 site includes:

- A large enclosure comprising at least three visible phases of expansion and 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 current project was funded as part of Digging for Britons! - an NLHF-funded project led by the Lunesdale Archaeology Society. The work was undertaken over sixteen days, Thursday 27th September to Friday 12th October 2018. All specialist material for assessment came from Trench 1 described below. The site lies in the defined gorge of the River Lune between the Yorkshire Dales National Park to the east and 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 Lune, 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 2018) records the superficial deposits across the site as Devensian Till – a diamicton sediment deriving from glacial deposition – which overlies a solid geology of Coniston Group – a sedimentary bedrock of sandstone, siltstone and mudstone. Online mapping provided by the UK Soil Observatory (UKSO 2018) characterises the soils across the site as ‘slowly permeable seasonally wet acid loamy and clayey’.

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 back-filled and reinstated following the conclusion of fieldwork.

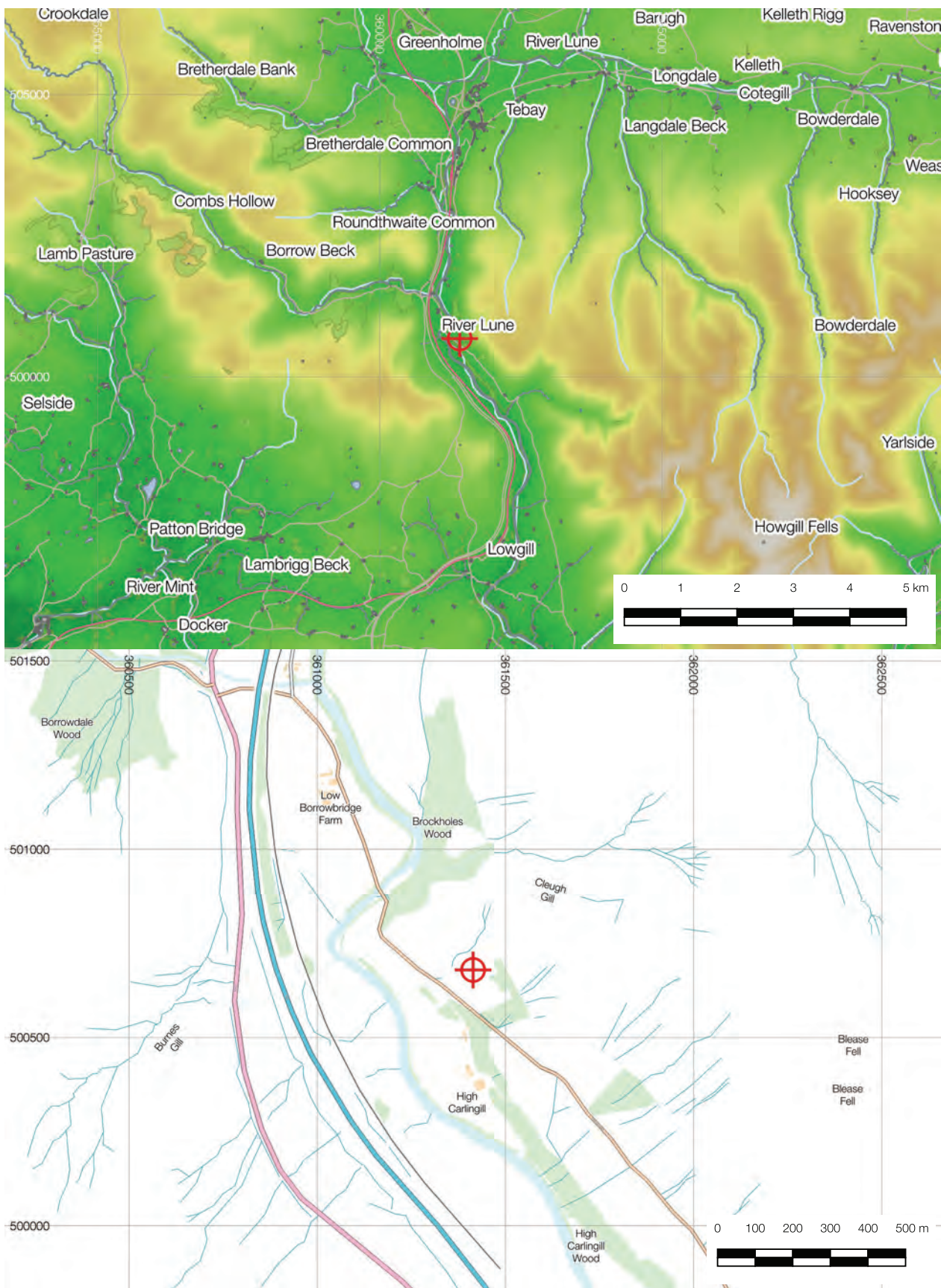


Figure 1 Location of the High Carlingill enclosure and settlement

2. METHOD

The excavations were undertaken over 16 days from September 27th through to October 12th. Conditions were changeable over the duration of the excavation 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 1. Radiocarbon date ranges are given in a standard form as calibrated and are principally cited at 95.4% probability, though in certain cases either the 1σ (68.2% probability) or specific spikes in the probability distribution have also been noted. Dates are rounded out to the nearest 10 years. More information on the presentation of the radiocarbon dates is given in Chapter 4.



| | |
|---------|---|
| Project | High Carlingill, Tebay Cumbria |
| | Archaeological Excavation |
| Drawing | 2018 Trench Locations over RCHME survey (1993) |



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.

Trench 1 targeted potential structures around the presumed earlier sub-circular enclosure bank, and later rectilinear enclosure bank extending south-east. Trench 2 was sited to target what appeared to be a large, sub-circular feature, set into the presumed earlier, larger enclosure bank. This feature had been interpreted as a possible roundhouse structure within the larger enclosure during previous site walkovers. Trench 3 specifically targeted the presumed earlier enclosure bank to characterise and understand its form and construction in an area away from structural intrusion.



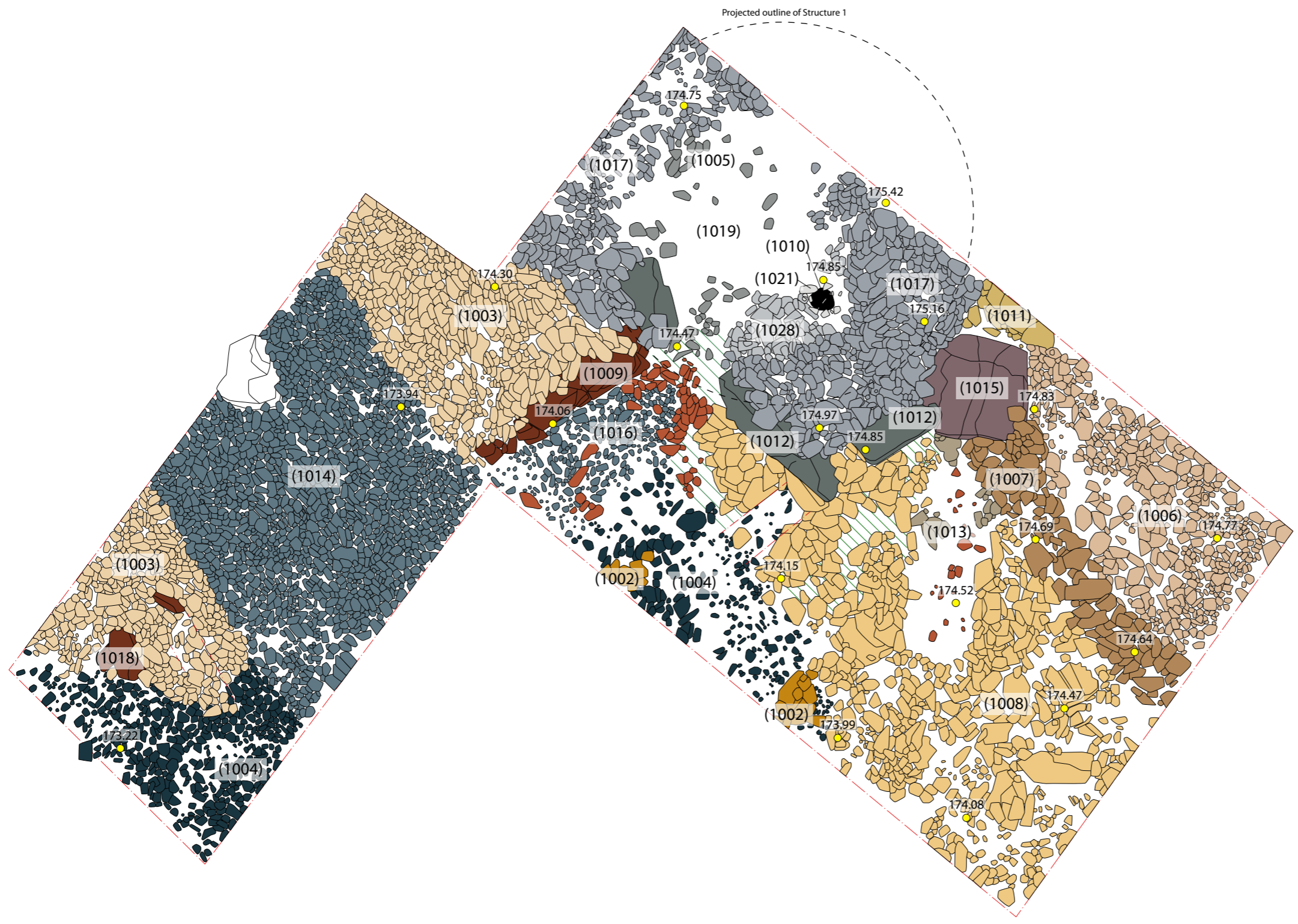
Figure 3 Trench 1 pre-excavation, facing south-west. Scale 3 x 2 m



Figure 4 Trench 2 during excavation, facing south-west. Scale 3 x 2 m



Figure 5 Trench 3 pre-excitation, facing north-east. Scale 1 m x 2 m



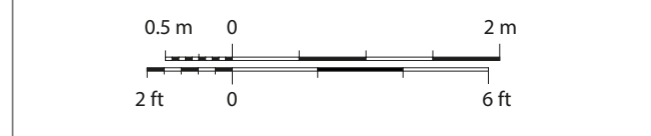
High Carlingill
Cumbria
NY 61407 00687



Post-excitation plan of Trench 1

Fieldwork: AT, CS, JB, SW September 2018
Drawn: SW February 2019
Drawing Version: 1.0

- Structure 1**
 - Exterior wall (1017)
 - Hearth platform (1028)
 - Hearth setting (1021)
 - Floor (1005)
 - Foundation platform (1012)
 - Cobbled entrance (1016)
- Earlier Iron Age enclosure bank**
 - Wall foundation (1009/1018)
 - Bank (1003)
- Later Iron Age enclosure bank**
 - Bank overlay (1002)
 - Bank (1008)
 - Wall (1007)
 - Yard surface (1006)
 - Possible house platform (1011)
 - Gulley (1013)
- Trackway/Road**
 - Earlier possible trackway (1004)
 - Later road (1014)
- Misc**
 - Worked stone (1015)
 - Uncavated soil overburden
 - Unidentified
 - Elevation, expressed 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. The underlying survey is copyright JohnsonClark.

3.2 TRENCH 1

Trench 1 initially measured 10 m x 6 m in plan, aligned north-west to south-east, and was sited to investigate the south-eastern arc of a sub-circular enclosure and a sub-rectilinear feature extending towards the south-east identified through geophysical and topographic surveys (SUMO Survey 2018; RCHME 1993). In addition to the initially opened area, the trench was extended by approximately 7.5 m by 3.5 m towards the south-west to investigate a trackway which appeared to truncate the enclosure bank.

The archaeological features within Trench 1 were overlain by turf and topsoil (001) which was generally homogeneous in character across the site. The thickness of the topsoil was variable, being less above raised subsurface features. In certain areas the topsoil was particularly denuded, and the archaeological features were protruding through. In other areas a layer of colluvium (1027) was observed overlying the features.

3.2.1 LATER TRACKWAY

The stratigraphically latest feature observed across the site was a metalled trackway aligned north-west to south-east which roughly followed the contour of the hillside and measured c. 4 m wide. The trackway was constructed of rough stone surface of sub-angular stones (1014) which measured c. 0.15 m thick and were compacted and embedded into a dark grey-black, silty clay soil (1022) measuring approximately 0.10 m in thickness. The stone surface and soil foundation directly overlay the cut [1023] through a large, earlier enclosure bank (1003/1009/1024) (see below), which left two raised remnants either side of the track (1003/1009 and 1018). The track respected the alignment of the later, sub-rectilinear enclosure (1008) (see below), alongside which it ran. A sondage was cut through the track to investigate the composition of the foundation and to confirm the relationship between the track and the enclosure bank. It was determined that the track foundation (1022) and surface (1014) lipped up against the bank remnant (1018) where it had been cut away [1023] to facilitate the track's construction. The track appeared to truncate the cobbled surface at the doorway of Structure 1 (see below). The relationship with the stone tumble (1002) which had cascaded down the slope (1008) of the later sub-rectilinear enclosure was uncertain.



Figure 7 Later trackway which cut through the sub-circular enclosure bank, facing north-west. Scale 2 x 2 m

A large sub-angular stone, which measured c. 1 x 1 x 0.45 m, was located in the middle of the track. The stone was overlain by the track surface (1014) and soil foundation (1022) and was probably a remnant of the larger stones within the make-up of the earlier enclosure bank (1009). This large stone was set immediately on top of a well-laid foundation of angular and sub-angular stones (1024), measuring c. 0.15 m thick, which were packed into a dark-grey, silty clay matrix. This foundation and the large stone were all that remained of the larger enclosure bank post-trackway. Bank foundation (1024) was deposited directly onto the natural slope of the hillside (1025).

3.2.2 STRUCTURE 1

The large earlier enclosure bank (1009) had been truncated by a small circular structure (Structure 1), which measured approximately 2.5 m in diameter and was constructed of roughly stacked stones. The interior space of the structure was generally overlain by a deposit of colluvium (1027) which measured up to 0.15 m in thickness at its maximum.

The circular footprint for the structure was cut [1026] through the enclosure bank and appeared to use part of the remaining bank to the east to support its wall on this side. The cut was not sufficiently observable to describe it in any detail, but it unequivocally truncated the earlier enclosure bank. Wall (1017), which defined the circumference of the structure, was constructed of small sub-angular stones pitched and packed together within a dark brown, clayish soil matrix. The wall was rudimentary in build, being of poor quality and form, and survived as a rough foundation course which measured c. 0.5 m in width. A doorway to the interior of the structure was observed facing south-west. The doorway measured approximately 0.8 m in width and was defined by large stones set either side. The stone to the south-east formed part of a level terrace upon which Structure 1 was partially built (see below). The stone to the north-west was probably part of the earlier enclosure bank face (1009) which had been laid perpendicular across the bank to form a solid foundation for wall (1017). The wall was almost entirely absent along its northern circumference, although this may have been the result of possible quarrying for stone during the recent past. It is probable that the wall of Structure 1 was constructed using the enclosure bank stone through which it cut.

A well-constructed cobbled/stone surface (1016) was observed in front of Structure 1 leading out of the doorway. A fragment of South-East Dorset Black Burnished 1 ware dating to the 2nd century AD was recovered from this context. The surface respected the entrance of the doorway and did not travel into the interior of the structure, and therefore the relationship between (1016) and floor surface (1005) remained uncertain. The surface (1016) was composed of sub-angular and angular stones of various sizes packed into a dark-grey silt clay soil matrix and was observed for a distance of c. 2 m to the west. The metallised surface abutted facing stones (1009) of the earlier enclosure bank and were cut during the construction of the later trackway (1014). The relationship between (1016) and a probable early stone surface (1004), which was situated to the south-east, was indeterminate.

Within the interior of the structure a degraded floor surface (1005) was noted. The compact mid-beige-brown, silty clay surface was thin and discontinuous and measured only c. 0.02 m in thickness where observed. The surface abutted the wall (1017) to the south-east and the platform of a burnt or organic deposit (1028) which was set against the southern circumference of the wall. This deposit, representing a possible hearth, was formed from a discrete depression which measured c. 300 x 320 x 60 mm in size, and which contained a firm, dark grey-black, silty deposit with very limited small stone inclusions. There was no observable cut for the 'hearth pit', rather a small hollow had been fashioned by a stone setting (1021), within which a fire could be contained. The sub-circular stone setting (1021) was poorly formed and measured c. 580 x 430 x 80 mm in size and was constructed directly on top of stone platform (1028).

The low stone platform (1028) measured no greater than 0.25 m in height and was constructed of poorly arranged sub-angular stones packed within a mid-red-brown clayish silt soil matrix, set against the southern circumference of wall (1017). The platform was of a greater thickness downslope (to the south-west) and was therefore interpreted as having been constructed to provide a level and raised surface upon which to contain the possible hearth (1021/1010). The platform overlaid a compacted deposit (1019) of dark brown silty clay with sub-angular stone inclusions. It was uncertain whether this earlier deposit represented a foundation for the degraded floor (1005) or was an earlier floor surface that had been repaired. The surface was uneven and gradually sloped down to the north-west where it met the fragmentary remnant of wall (1017). The uneven nature of this deposit and fragmentary/degraded appearance of the floor surface (1005) may suggest that (1005) was



Figure 8 Sondage through the later trackway, facing north-east. Scale 2 m



Figure 9 Structure 1, facing south-east. Scale 2 x 1 m



Figure 10 Structure 1, facing north-east. Scale 2 x 1 m



Figure 11 Cobbled surface leading to the entrance of Structure 1, facing north-east. Scale 1 x 1 m



Figure 12 Structure 1 possible hearth (1010, 1021, 1028), facing south-west. Scale 1 x 0.3 m

a restoration event to patch up worn areas of the floor (1019) within Structure 1. Samples recovered from the lower floor surface (1019) revealed evidence of charcoal for a variety of species: oak (*Quercus*) stemwood, birch (*Betula*) roundwood with wide growth rings, small calibre hazel (*Corylus avellana*), alder (*Alnus*) and ash (*Fraxinus*) Roundwood, as well as a charred hazelnut shell fragment and a brome (*Bromus*) caryopsis. Radiocarbon dating of two of the samples returned intriguing dates of 200–50 cal BC and cal AD 430–620 (both at 95.4% confidence).

3.2.3 FOUNDATION STONES FOR STRUCTURE 1

Immediately beneath the southern circumference of wall (1017) of Structure 1 was a foundation feature constructed of large oblong stones (1012) arranged to form a 90° corner. At least three large stones, the largest of which measured c. 1.3 m x 0.4 m x 0.3 m, were observed. The stones (which were not removed due to their weight) were embedded directly into the natural slope of the hillside and were probably re-used from the dismantled earlier enclosure bank (1003/1009). Small chock-stones were noted packed beneath the fractured corner stone of the retaining structure, which led to the interpretation that the hill slope had not been cut to accommodate them, rather they were placed on the slope and supported from slipping.

A core deposit of soil and smaller packing stones (1018) was observed behind and over stones (1012) creating a level platform on the slope of the hillside. Deposit (1018) was composed of a dark reddish-brown clayish silt with frequent small stone inclusions and was overlain by wall (1017) of Structure 1.

Foundation structure (1012) was partially laid onto a large (and presumably in situ) stone (1015) which was observed to its east. The stone measured approximately 1 m by 1 m, although its thickness remains unknown as it was not fully excavated. The upper surface, north-east and south-west faces had been pecked or chiselled. This resulted in two parallel grooves, or channels, aligned north-east to south-west across the stone. The cutting of the southernmost channel appeared to have utilised a natural fracture in the rock which was augmented to create the channel. The northernmost channel was partially overlain by the wall (1017) of Structure 1. A small, worked, sub-circular depression was noted between the two channels. The original purpose of these channels and the



Figure 13 Structure 1 wall (1017) and hearth platform (1028), facing south-west. Scale 1 x 1 m



Figure 14 Foundation stones (1012) with core infill (1018) and chock-stones highlighted, facing north-east. Scale 1 x 1 m

sub-circular depression remains unclear. However, a gully (1013) (see below) extended from the southernmost channel downslope and cut across the rectilinear enclosure bank (1008). Based on their spatial relationship, the channel was interpreted as having been used to direct water away from Structure 1 — a drip gully of sorts.

3.2.4 SUB-RECTILINEAR ENCLOSURE

Abutting and partially overlaying both the worked stone (1015) and foundation stones (1012) was a sub-rectilinear enclosure bank (1008). The bank extended from the stone foundation towards the south. The tapering edge of the bank was observed abutting the foundation stones (1012) and terminating before it reached the entrance to Structure 1, suggesting that the use of the structure and later enclosure may have been contemporary. The bank was formed of a rooted spread of irregular, angular stones of various sizes (1002) poorly arranged across the slope of the bank. A locally made everted cooking pot rim dating to the 2nd century AD was recovered from this context. (1002) immediately overlay a fairly regular spread of stone (1008) which was packed into the slope of the bank. Deposit (1008) was not removed, and therefore the complete composition of the bank was not investigated. The bank (1008) overlay an earlier surface (1004) (see below). The enclosure bank continued south beyond the limit of excavation. A number of sherds of Samian ware and South-East Dorset Black Burnished 1 ware pottery, dating to the 2nd century AD, were recovered from this context. In addition, radiocarbon determination of willow/poplar (*Salicaceae*) charcoal from the bank make-up returned a date range of 340–50 cal BC (95.4% probability) but with a tighter 1 σ (68.2% probability) of 190–100 cal BC.

A group of three larger stones were present within the spread of (1008), but they did not appear to be set in a recognisable form or represent anything structural. However, one of the stones towards the upper portion of the bank had been worked in a similar fashion to the large stone (1015). A groove had been pecked or chiselled into the relatively flat upper surface of the stone. The purpose of this groove was uncertain.

Extending obliquely across the enclosure bank from the worked stone (1015) was a very silted gully (1013/1020). The fill of the gully comprised a firm dark brown silt (1013), measuring no more than 0.01 m in thickness, which immediately overlay a sticky dark grey-brown clayish silt (1020) which was not fully excavated. It was uncertain whether the gully was a cut feature or had evolved organically over time through the action of water flowing down from the channel in stone (1015).

3.2.5 SUB-RECTILINEAR ENCLOSURE – WALL AND YARD SURFACE

The foundation courses of a rough built wall (1007) were observed overlying bank (1008). The wall was constructed of angular and sub-angular stones of various sizes, roughly laid at the break of slope of the enclosure bank (1008) in a curvilinear alignment, roughly orientated north to south. Two courses of foundation masonry were observed, but no bonding material was present. Flatter faced stones were generally laid to either side, with coarse, angular stones pitched in between. The wall, which measured approximately 0.6 m wide, abutted and partially overlay the large worked stone (1015) but did not have a discernible relationship with Structure 1 beyond.

Immediately abutting wall (1007) to the east was a yard surface (1006). The yard was constructed of irregular sub-angular and angular stones of various sizes, packed into the upper surface of the bank. The surface was degraded and in poor repair. Directly above the yard surface (1006) was a discrete spread of firm, dark grey clayish silt, measuring c. 0.06 m in thickness, that was interpreted as probable colluvial infill which had gathered in the rough and degraded areas of the yard. A better laid area of yard surface was noted towards the southern limit of excavation. This comprised smaller sub-angular stones which were tightly packed into the bank soil and formed a less rough and degraded surface. The extent of this area measured approximately 0.5 m wide and appeared to continue beyond the limit of excavation.

The stones of the yard (1006) appeared to abut a small area of well-packed stone (1011) against the limit of excavation on the north-east edge of the trench. Due to its proximity to the trench edge, very little can currently be said about the construction of this feature. The stones appeared to immediately overlay the large worked stone (1015), but any relationship (if one existed) with Structure 1 was not investigated due to time constraints. The outline of (1011) could be traced as an earthwork beyond the limit of excavation and was tentatively interpreted as a possible house platform relating to a sub-circular earthwork to the north-east. It is possible that the yard (1006) and wall (1007) both relate to this as yet unexcavated feature.





Figure 15 Worked stone (1015), facing south-west. The two parallel channels are clearly visible. Scale 1 x 1 m



Figure 16 The tapering edge of the sub-rectilinear enclosure bank (1008), abutting (1012) and overlaying surface (1004), facing north-east. Scale 1 x 1 m



Figure 17 The stone packed bank (1008) of the later rectilinear enclosure, facing north-east. Scale 1 x 2 m



Figure 18 The grooved stone on the later rectilinear enclosure bank, facing north. Scale 1 x 1 m



Figure 19 Gully (1013/1020) cutting across the rectilinear enclosure bank (1008), facing north-east. Scale 1 x 1 m

3.2.6 POSSIBLE EARLIER SURFACE

Overlain by the sub-rectilinear enclosure bank (1008) was a compact stone surface (1004). This surface comprised irregularly laid stone packed into a clayish soil (probably the natural hillside) to make a flat surface. The surface, which generally sloped down with the gradient of the hill, appeared to continue beneath the foundation stones (1012), but this relationship was uncertain. If (1004) was overlain by (1012) then it represents a surface that was in place prior to the installation of Structure 1 and the sub-rectilinear enclosure. A number of sherds of locally made wares, dating to around the 2nd century AD, were recovered from this context.

3.2.7 PROBABLE IRON AGE ENCLOSURE BANK

The earliest feature observed within Trench 1 was part of the southern circumference of the probable Iron Age enclosure bank (1003/1009). The large sub-circular bank had been truncated by the foundation cut [1026] for Structure 1 and cut [1023] for the later trackway (1014). The bank at this location was constructed of packed sub-angular and angular stones (1003), creating a core for the bank, which abutted, and were held in place by, large facing stones (1009) aligned along its exterior side. These deposits immediately overlaid a very compact foundation of small angular stones (1024), which measured various sizes and were packed into the natural slope of the hillside (1025). This foundation deposit had been exposed by the truncation of the bank by the later trackway (1014).

To the south-west of trackway (1014) a remnant of the enclosure bank was observed (1018). This dislocated section of bank had been formed through the truncation of the bank by the later trackway (1014). The turf and topsoil (001) which immediately overlay the bank at this location was very thin and degraded, which had resulted in the stones of the bank protruding through. The discontinuous appearance of the bank's earthwork to the west suggested that additional disruption and truncation of the enclosure bank had occurred beyond the limit of excavation, but this was not investigated further.



Figure 20 Wall (1007) at the break of slope of the sub-rectilinear enclosure bank (1008), facing north. Scale 1 x 2 m



Figure 21 Wall (1007) and yard surface (1006) beyond it, facing north. Scale 1 x 1 m



Figure 22 The relationships between wall (1007), yard surface (1006), worked stone (1015) and possible house platform (1011), facing north. Scale 1 x 1 m



Figure 23 Possible earlier surface (1004) overlain by the sub-rectilinear enclosure (1008) and the later trackway (1014), facing south-east. Scale 1 x 1 m and 1 x 2 m



Figure 24 External face (1009) of the probable Iron Age enclosure bank, facing north-east. Scale 1 x 1 m

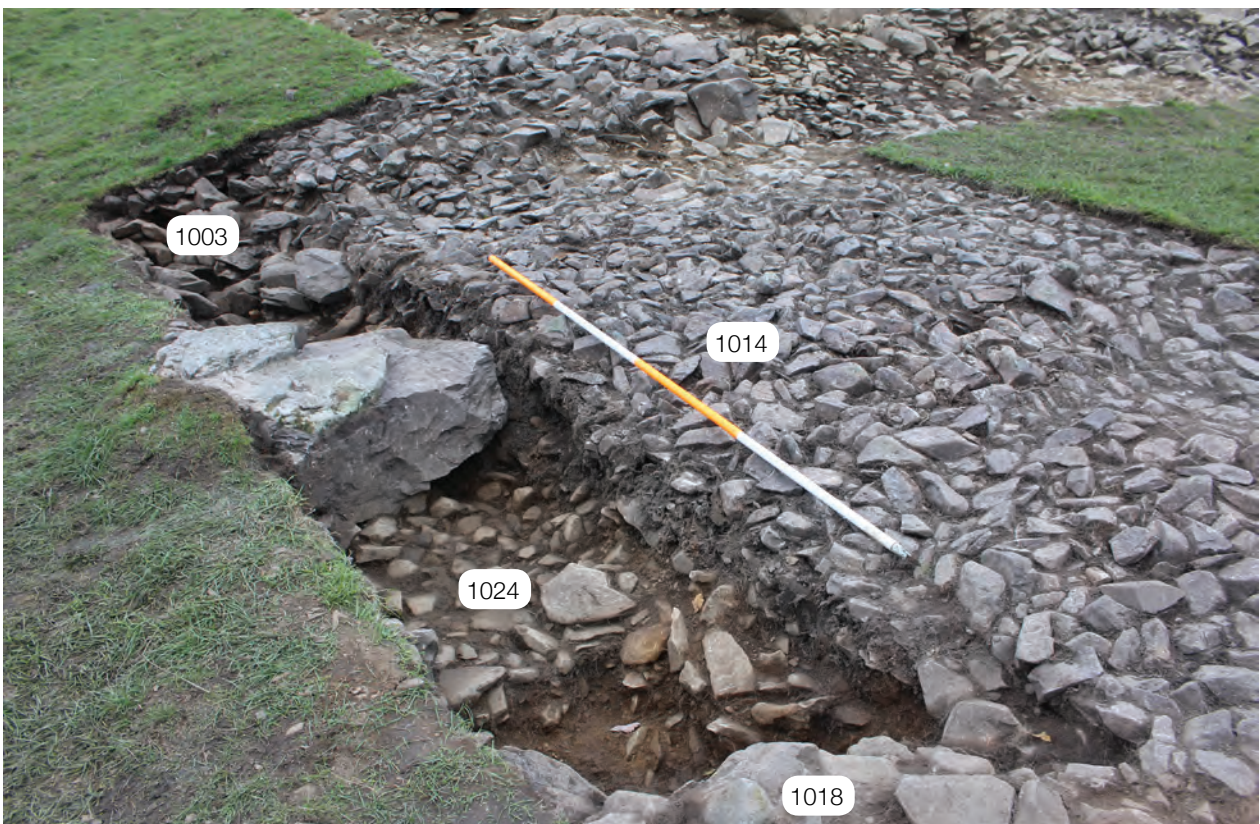


Figure 25 Foundation deposit of the probable Iron Age enclosure bank, observed as a remnant beneath cut the of the later trackway (1014), facing north-east. Scale 1 x 2 m



Figure 26 Remnant of the probable Iron Age enclosure bank (1018), truncated by the later trackway (1014), facing north-east. Scale 2 x 1 m

3.3 TRENCH 2

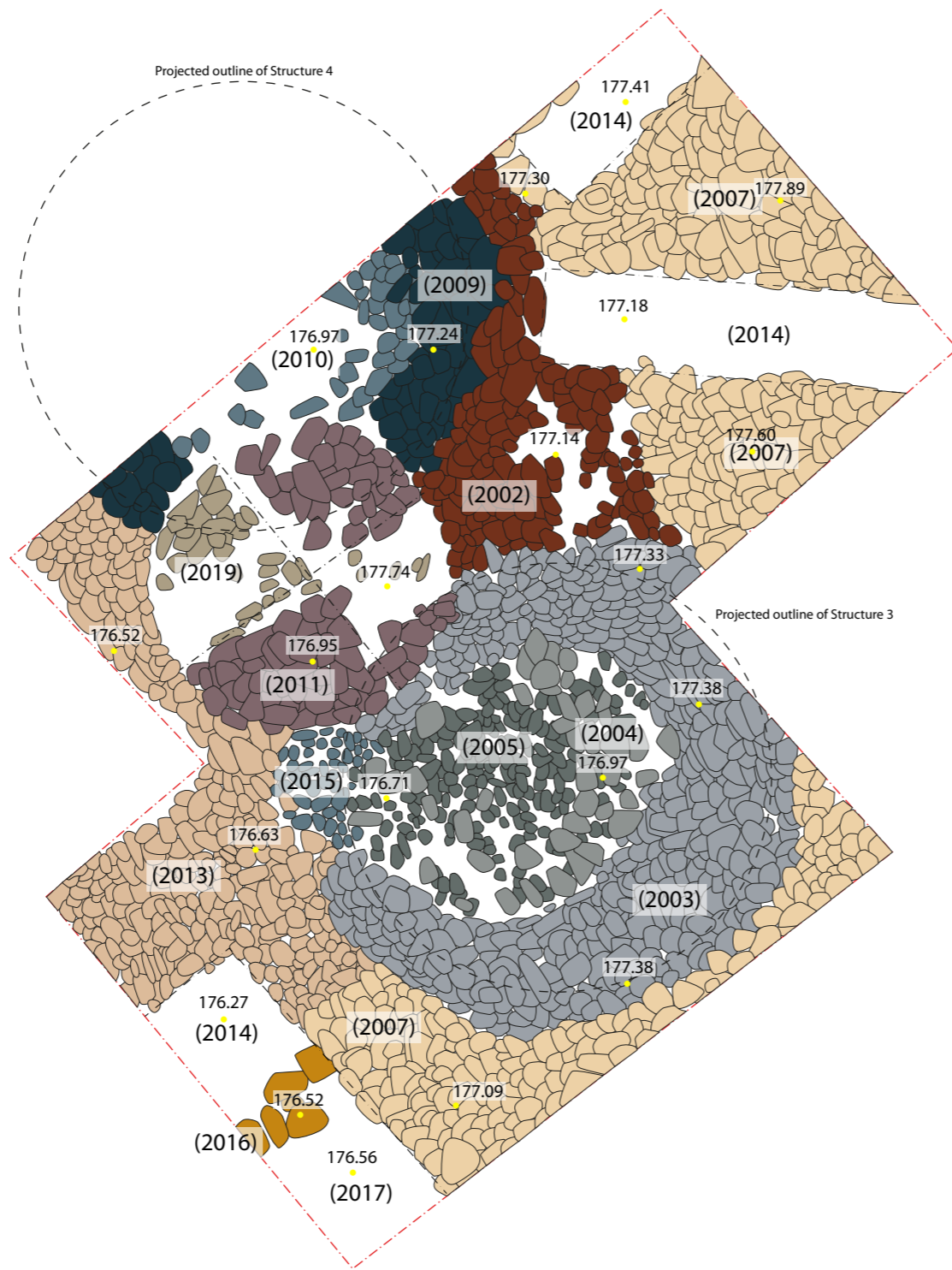
Trench 2 initially measured 7.5 m x 4 m in plan and was opened c. 14.5 m to the north-east of Trench 1. The trench was sited to target what appeared to be a large, sub-circular feature, set into the larger, earlier enclosure bank. This feature had been interpreted as a possible roundhouse structure within the larger enclosure during previous site walkovers.

Initially thought to contain a single, large, sub-circular structure, Trench 2 held part of the enclosure bank and three smaller structures set on a stone-built terrace, and so was extended to characterise and better understand their construction sequence. An extension, beginning approximately half way along the south-east side of the trench, projected c. 3 m to the south-east and 2 m from the south-west side. No small finds were recovered from any of the contexts within Trench 2, though the broken bottom stone of a probable quern had been incorporated into a later stone feature.

Immediately beneath the dark grey-brown silty topsoil and turf (001), which had a variable thickness across the site, was a grey, clayish silt, colluvial subsoil (2001) measuring c. 0.15 m in thickness. The occurrence of this hill-wash deposit was patchy across the trench, often being absent where features were closer to the surface, but accumulating within deeper, hollowed areas.

3.3.1 STRUCTURE 5

The stratigraphically latest feature observed within Trench 2 was Structure 5 — a raised platform overlain by colluvium (2001) but stratigraphically beneath stone tumble (2002) (see below) which had accumulated to the east of the structure. Structure 5 was a sub-circular platform constructed of stone, cut into and set on top of Structures 3 and 4 (see below). The southern side truncated the wall (2003) and floor (2004) of Structure 3 and the cobbled surface (2015) in front of the structure, whilst the northern side truncated the wall (2009) and floor (2010) of Structure 4. Whilst no cut truncating these features was directly observed, by implication one must have existed. Therefore, the cut for Structure 5 was ascribed context [2012].



High Carlingill
Cumbria
NY 61407 00687



Post-excavation plan of Trench 2

Fieldwork: AT, CS, JB, SW September 2018
Drawn: SW March 2019
Drawing Version: 1.0

Earlier Iron Age enclosure bank

- Bank (2007)
- Bank tumble (2002)
- Kerb/revetment stones (2016)

Structure 3

- Exterior wall (2003)
- Floor (2004)
- Floor foundation (2005)
- Cobbled entrance (1016)

Structure 4

- Wall (2009)
- Floor (2010)

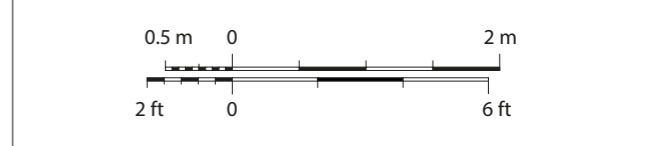
Structure 5

- Surface (2011)
- Foundation (2019)

Platform

- Platform (2013)

Elevation, expressed 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. The underlying survey is copyright JohnsonClark.



Figure 28 Trench 2 post-exavation, facing south-east. Scale 4 x 2 m



Figure 29 Structure 5 is indicated by the dashed yellow line, facing east. Scale 2 m

Structure 5 comprised a sub-circular, raised, pitched stone foundation (2011), measuring c. 2.70 m in diameter, set within a dark brown silty soil matrix. On average, the stones measured c. 160 x 200 x 40 mm in size and were haphazardly packed together. A broken stone quern base had been re-used in the construction of the foundation, which was rudimentary in appearance. A presumed cut was recorded, but not observed, for the construction of the structure.

The pitched stones (2011) overlaid a rough and fragmentary surface (2019), composed of flat stones embedded into a compact grey-green clay (2020) which appeared to form the core of the terrace platform (2013). The sub-angular flat stones measured on average c. 250 x 200 x 40 mm in size and were poorly arranged. This rough stone surface was interpreted as relating to the earlier phase of use of the area, when Structures 3 and 4 were active, and probably represented a yard surface or similar between the two structures. An alternative consideration was that the stone surface represented a repair to the platform terrace (2013) (see below).

3.3.2 STRUCTURE 3

A small, stone-built, sub-circular structure (Structure 3) was observed towards the southern extent of the trench, overlain by colluvial deposit (2001) and stone tumble (2002), but stratigraphically beneath the cut [2012] of Structure 5. The feature generally measured c. 2.90 m across, with an internal space of c. 2.5 m.

A sub-circular wall (2003) measured c. 0.45 m in width with an extant height of c. 0.20 m. The rough set wall was constructed of poorly stacked sub-angular stones without bonding, measuring c. 240 x 130 x 80 mm on average, which, where visible, survived as a rough and truncated stone footing. The north-eastern circumference of the wall was partially truncated by Structure 5. Along the eastern and south-eastern circumference of the structure, a presumed construction cut [2008] truncated the stone bank (2007) to enable installation of the wall (2003). The wall of Structure 3 was not removed and therefore the cut was not investigated. However, its presence was indicated through the way in which the wall of Structure 3 was set into, and not built upon, the slope of enclosure bank (2007). Any further relationship between the wall and the bank deposits were not determined. A doorway in the wall leading to the interior of the structure was observed facing west, and measured c. 0.85 m wide.

Abutting the interior face of wall (2003) was a well-constructed floor surface (2004) which comprised horizontally laid flat stone slabs measuring on average c. 200 x 300 x 40 mm. The stones were regularly placed, although there were many areas where stones were missing, presumed robbed. The floor did survive well in an area to the rear (east) of the structure and it was possible to determine that the stones were reasonably well fitted against each other. Immediately beneath the upper surface of the floor was a sub-floor foundation deposit (2005) of pitched sub-angular stones measuring on average c. 270 x 130 x 70 mm which were irregularly placed. Some flatter stones interspersed the pitched stones, and this formed the foundation onto which the upper floor surface (2004) was laid. The sub-floor foundation stones were surrounded by a firm compact grey-green clay matrix which added stability to the foundation.

A small area of degraded cobbling (2015) was observed within the threshold and continuing immediately in front of the doorway in wall (2003). The dimensions of the cobbled surface were uncertain due to truncation by Structure 5 to the north and the limit of excavation to the south and west. The degraded cobbled surface was roughly formed by smaller sub-rounded stones with occasional larger sub-angular stones, set within a dark-grey silty soil matrix. Placement of the larger stones was haphazard and may suggest some repair to the surface over time. Although, the general appearance of the surface was rough and poorly maintained. Stratigraphically, this deposit overlay the wall (2003), against which it abutted, and was presumed to sit directly on top of terrace (2013) (see below), but this relationship was not investigated further.

3.3.3 STRUCTURE 4

A small, stone-built, probably sub-circular structure (Structure 4) was observed towards the north-eastern limit of excavation of the trench, overlain by colluvial deposit (2001) and stone tumble (2002) but stratigraphically beneath the presumed cut [2012] of Structure 5. This feature was located approximately 2 m to the north-east of Structure 3 and its dimensions could be estimated as being c. 3 m across with an internal space of c. 2.6 m. This estimation was based on the arc of the excavated wall in conjunction with the visible earthwork which remained unexcavated.





Figure 30 Sub-circular Structure 3, facing east. Scale 2 x 1 m



Figure 31 The wall (2009) of Structure 4 is indicated by the dashed yellow line, facing north-west. Scale 2 x 2 m

A sub-circular wall (2009) measured c. 0.45 m in width with an extant height of c. 0.18 m. The wall was constructed of poorly stacked sub-angular stones without bonding, measuring c. 220 x 125 x 80 mm on average, which survived as an irregular and truncated stone footing. The rough stone wall was very fragmentary and disrupted. It was also heavily truncated along its southern edge by Structure 5 (see below). The wall of Structure 4 was not removed and therefore no construction cut was observed or determined. Unlike Structure 3 however, Structure 4 was completely situated on the level platform of terrace (2013) (see below), rather than partially set into the slope of the enclosure bank (2007). It is therefore possible that a construction cut for the external wall was not required, and the stone footing for the wall was laid directly onto the upper surface of terrace (2013). No doorway was observed in the excavated circumference of the wall. Assuming the form of this structure was the same or similar to Structure 3, then the doorway would presumably have faced north-west and would have been located beyond the limit of excavation.

Abutting the interior face of wall (2009) was a fragmentary floor surface (2010) which comprised sub-angular stone slabs, measuring on average c. 300 x 200 x 50 mm, in a compact, mid-brown, silty soil matrix. The floor was very degraded and the surface uneven. It was impossible to determine the construction of this floor and whether it shared similarities with Structure 3.

Because of the heavily degraded condition of Structure 4 it was not investigated further, and efforts were concentrated on Structure 3 which remained in a better state of preservation.

3.3.4 TERRACE

A level platform or terrace (2013) had been created over the slope of the hillside against the bank (2007). The terrace appeared to have been constructed by depositing a compact grey-green clay (2020), forming the core of the platform which overlaid the lower extents of the enclosure bank (2007), to create a level surface against the slope of the hillside — probably to enable the installation of Structures 3 and 4. Revetment stones (2013) were observed at the front of, and partially overlaying, the terrace. These roughly laid stones were interpreted as providing support to stop the terrace slipping down the natural slope of the hillside. The sub-angular stones, which were an assortment of sizes, were packed against and over the clay (2020) core of the platform and graded down the naturally sloping ground to the west. The front edge of the terrace appears to generally respect the alignment of Structures 3 and 4, thereby suggesting its relationship to them.

3.3.5 PROBABLE IRON AGE ENCLOSURE BANK

The earliest feature observed within Trench 2 was a curvilinear banked earthwork running through the south-eastern and south-western extents of the trench, which was visible prior to excavation. The feature was constructed of angular local scree stones (2007) which supported the interior face of the enclosure bank. The stones were generally laid in a single rough layer over the natural slope, which was partially augmented during the bank's construction (see below). The deposit of stone was generally thicker at the top of the bank becoming thinner downslope and the interior of the enclosure bank had a slightly concave profile. The very top of the bank was beyond the limit of excavation, and time constraints meant that it was not investigated at this location (see Trench 3). Colluvium (2001) was not present near the top of the bank, where stones protruded through the topsoil (001), but was observed towards the lower extents.

Immediately beneath the colluvium (2001) (where observed) was an abundance of sub-angular scree stones (2007), measuring an average size of c. 300 x 200 x 100 mm, which were generally laid in a single layer, pitched obliquely against the angle of the bank slope, no discernible facing was observed. These stones, which provided a robust revetment to the interior slope of the enclosure bank, were embedded into a dark reddish-brown silty soil (2018) with coarse sub-angular stone inclusions, which measured approximately 0.1 m in thickness. This soil deposit covered the core make-up of the bank and may represent an earlier phase of the bank prior to being faced with stone. This deposit overlay a compacted, light orangey-beige, clayish sandy redeposited natural substrate (2017) which measured approximately 0.1 m in thickness where it abutted the revetment kerb slabs (2016) (see below), increasing to approximately 0.25 m in thickness at the limit of excavation, and which formed the central core of the enclosure bank. The incline of the bank suggests this deposit would increase in thickness to form the core mound. An alignment of stone kerbing (2016) was laid to contain the redeposited natural substrate (2017). The stone kerb was generally laid as two courses of flat slabs which measured c. 340 x 300 x 60 mm on average. The revetment kerb, which measured approximately 0.40 m wide, followed the natural curve of the hillside at this location. The enclosure bank was constructed directly onto the natural substrate (2014) of the hillside.





Figure 32 The edge of the terrace (2013) is indicated by the dashed yellow line, facing south-east. Scale 2 m



Figure 33 Enclosure bank (2007), facing south-east. Scale 2 m



Figure 34 Stone revetment kerb (2016), facing south-west. Scale 2 m



Figure 35 Flat stone with pecked dished depression, facing east. Scale 0.3 m

It remains unclear whether the natural slope of the hillside had been cut away to provide a foundation for the bank. Whilst no cut was observed, the soils were very diffuse and leached. The use of a retaining feature such as the stone kerb (2016) which was laid directly onto the natural substrate (2014), would appear to suggest that the natural slope was not levelled through cutting.

An accumulation of tumbled stone (2002) from the enclosure bank was observed against the eastern sides of Structures 3, 4, and 5. The stones had spread down the slope from the enclosure bank (2007) over time and accumulated behind the structures. The stone accumulation comprised sub-angular scree stones measuring an average size of c. 300 x 200 x 100 mm — the same as bank (2007) — and were observed to a thickness of c. 0.25 m where they lay against the structures. This spread of tumbled stone probably represents a degradation of the site, post-abandonment of the earlier enclosure.

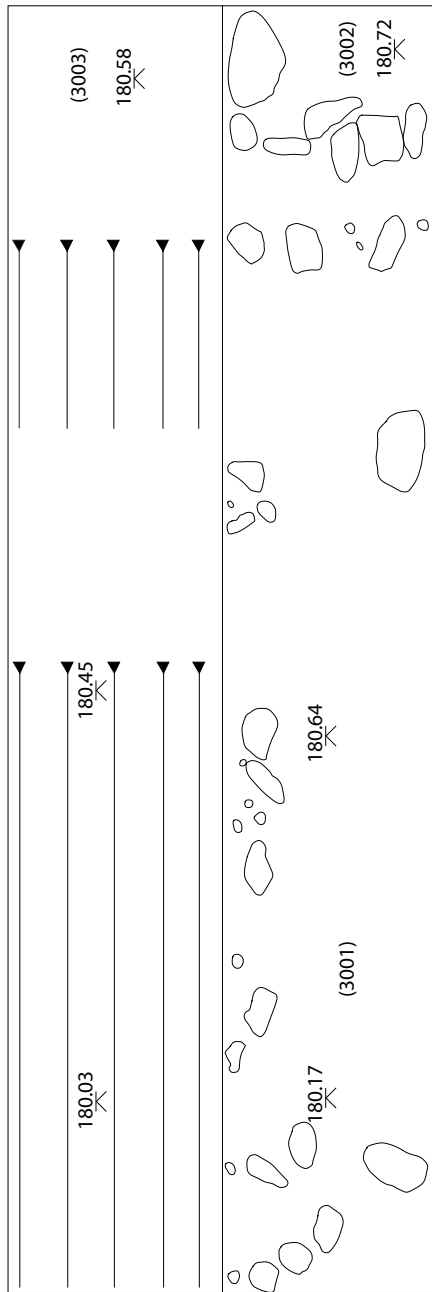
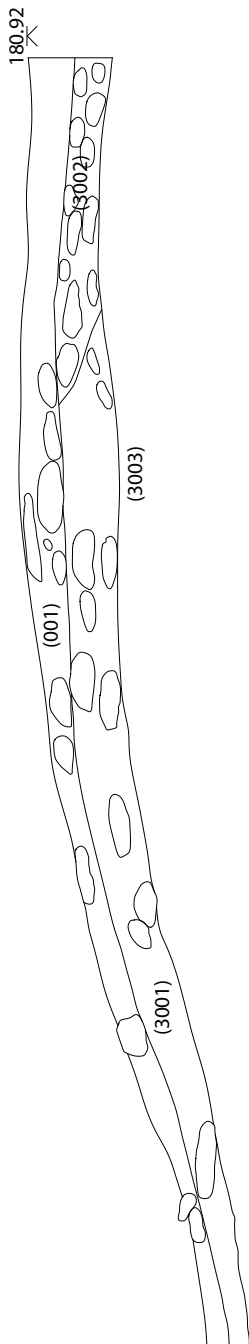
In among the revetment stones (2007) of the enclosure bank, a stone was observed approximately midway up the slope, which had a flat upper surface into which a dished depression had been pecked. A structural use for the stone could not be determined in relation to its position in relation to the other features in the trench, and therefore it was interpreted as having been reused from elsewhere. No similar stones were observed in Trench 2.

3.4 TRENCH 3

Trench 3 was opened approximately 7.5 m along the enclosure bank, to the north of Trench 2. This trench specifically targeted the enclosure bank to characterise and understand its form and construction in an area away from structural intrusion. The trench measured 6 m by 2 m in plan, extended from the top the enclosure bank and was orientated towards the south-west. Immediately beneath the turf and topsoil (001) a level area of stone (3002) was observed at the top of the bank. The stones were a collection of larger flatter stones measuring an average of c. 450 x 200 x 80 mm in size, interspersed with smaller sub-angular stones measuring an average of c. 150 x 200 x 80 mm in size. The stones were randomly distributed but created a flattened upper surface to the bank which extended to the break of slope where they overlay pitched stones (3001). Where (3002) met (3001) the former stones lipped up and slightly over the latter, creating a raised edge along the break of slope of the enclosure bank. It was uncertain whether (3001) / (3004) had been cut to enable the deposition of (3002).

The stone spread forming (3001) appeared as a revetment on the interior of the enclosure bank, probably the same as (2007) observed in Trench 2. The stones were randomly distributed, sub-angular in form, and ranged in size from c. 200 x 120 x 100 mm to c. 400 x 400 x 100 mm. The revetment stones were pressed into a dark grey brown silty soil deposit (3004) with coarse, sub-angular stone inclusions, which measured approximately 0.1 m in thickness and directly overlay a plastic, green-grey redeposited clay substrate (3003) which formed the core of the bank at this location. The trench was not extended far enough downslope to determine if a stone kerb, like (2016) (see Trench 2), was present.

Two large flat stones were observed just below the break of slope of the bank, beneath (3004) and overlying (3003). Their purpose was uncertain and further excavation did not provide a resolution.



| | |
|---------|---|
| Project | High Carlingill, Cumbria Archaeological Excavation |
| Drawing | Post-excavation plan of Trench 3 |

| | |
|--------|--|
| Legend | Heights expressed in metres above Ordnance Datum (aOD) |
| Scale | 0.5m 0 1m |



Figure 37 Trench 3 post-excitation, facing north-east. Scale 2 m and 2 x 1 m



Figure 38 (3002) (left of image) can be seen overlaying (3001) (right of image), facing south-east. Scale 1 m

4. RADIOCARBON DATING

Dr Elaine Dunbar and Dr Scott Williams

A total of three samples were submitted for radiocarbon determination by the Scottish Universities Environmental Research Centre (SUERC). Two samples came from the interior floor surface (1019) in Structure 1 and were duplicates of the same context; a single sample derived from the stones (1008) of the sub-rectilinear enclosure bank was also dated.

4.1 METHOD

A full method for the treatment and measurement of the samples by SUERC can be found in Dunbar *et al.* (2016). All the dates have been calibrated using the OxCal software (version 4.3) (Bronk Ramsey 1995; 1998; 2001; 2009; Bronk Ramsey *et al.* 2010; Bronk Ramsey and Lee 2013) and the calibration curve IntCal13 (Reimer *et al.* 2013). The calibrated date ranges are principally cited at 95.4% probability, though in certain cases either the 1^σ (68.2% probability) or specific spikes in the probability distribution have also been noted. Dates are cited in accordance with the form recommended by Mook (1986) and are rounded out to the nearest 10 years. They are also presented in accordance with the international standard known as the Trondheim convention (Stuiver and Kra 1986).

4.2 RESULTS

| Laboratory No. | Sample | Material and Context | $\delta^{13}C$ (‰) | Radiocarbon Age BP | Calibrated Date (68.2% confidence) | Calibrated Date (95.4% confidence) |
|-----------------------|---------|--|--------------------|--------------------|------------------------------------|------------------------------------|
| SUERC-85830 (GU50788) | HC18-01 | Charred hazelnut shell from the interior floor surface (1019) of Structure 1 | -23.4 | 1512 ± 30 | cal AD 480–600 | cal AD 430–620 |
| SUERC-85831 (GU50789) | HC18-02 | Birch charcoal from the interior floor surface (1019) of Structure 1 | -24.8 | 2104 ± 30 | cal BC 170–60 | cal BC 200–50 |
| SUERC-85832 (GU50790) | HC18-03 | Willow/poplar charcoal from the surface make-up of bank (1008) | -26.1 | 2114 ± 30 | cal BC 190–100 | cal BC 340–50 |

Table 1 Radiocarbon dating results

The samples submitted for radiocarbon determination comprised a pair of duplicate dates from the floor surface (1019) of a possible roundhouse (Structure 1), and a single sample from the stone bank (1008) of a sub-rectilinear enclosure feature. The two dates for the possible roundhouse floor surface were obtained on samples of a charred hazelnut shell and birch charcoal and returned very different results. The most likely date range for the charred hazelnut shell was cal AD 430–620 (95.4% probability), whilst the birch charcoal returned a date of between 200–50 cal BC (95.4% probability). The date from the stone bank of the sub-rectilinear enclosure sample was obtained from willow/poplar charcoal and returned date range of 340–50 cal BC (95.4% probability). No stratigraphic relationships existed between the two dated contexts. The two determinations which have returned a range within the Iron Age appear at first glance to have a slightly different span, but the 1^σ (68.2% probability) spans for each are close to identical – 170-60 cal BC and 190-100 cal BC respectively. Given that these are from two deposits which are stratigraphically unrelated, these dates are a strong indication of activity and settlement at the site in the later Iron Age. The unusual date within the sequence is that obtained from charred hazelnut shell within the Structure 1 floor surface. The determination of cal AD 430-620 (95.4% probability) places this sample within the post-Roman and pre-Anglo-Saxon period. Whilst presumably representing intrusive material into an earlier deposit, the presence of something so indicative of human activity as a charred hazelnut shell is an indicator of the potential for long-term or multi-period activity at the site.

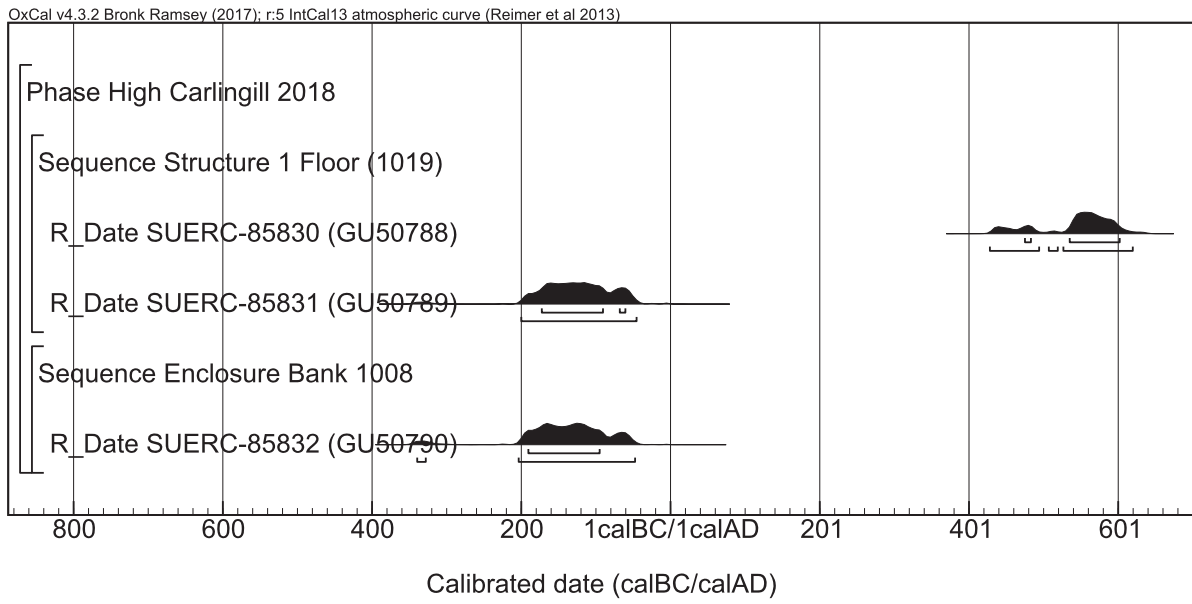


Figure 39 Probability distributions of dates from the 2018 excavations at High Carlingill. Each distribution plot represents the relative probability that an event happened at a certain time

5. POTTERY

Alex Croom

The assemblage consisted of 13 sherds weighing a total of 60 g, which represent a minimum of six vessels. The sherds are small, and those in oxidised ware have been badly affected by the soil, with little or none of the original surfaces surviving. The reduced wares are in better condition.

5.1 SAMIAN

There are four sherds of samian bowls or dishes, which have lost all or most of their slip. There is a scrap from a rounded rim (1008, SF 11), but the others are body or base sherds.

5.2 LOCAL WARES

The five sherds of oxidised ware are probably all the same fabric: a micaceous orange matrix with mixed soft rounded and hard angular brown, soft orange and rounded cream inclusions that have been left projecting due to the erosion of the original surfaces, although one sherd has more cream inclusions than the others (1004, SF 13). One sherd may be an everted cooking pot rim (1002; SF 3), and one sherd is burnt (1008, SF 10). The sherds are thin-walled and are likely to come from enclosed vessels such as cooking pots. There is a single grey ware sherd, with one oxidised surface and a possible granitic inclusion. These wares are likely to have been produced locally during the 2nd century AD.

5.3 BLACK BURNISHED WARE FABRIC 1

There were three sherds of South-East Dorset BB1 (DOR BB 1). The largest sherd is a flat-rimmed bowl or dish with sooted exterior, which were first made in the Hadrianic period (AD 117-138) but were superseded by other forms before the end of the 2nd century AD (1016, SF 25). The cooking pot rim sherd has a wavy line on its underside and dates to the 2nd century AD (1008, SF 11). The final sherd is a body sherd from a cooking-pot.

5.4 CATALOGUE

| Context | Find number | Description |
|---------|-------------|---|
| (1001) | SF 16 | Orange ware |
| (1002) | SF 2 | Cooking pot with squared everted rim, local oxidised ware |
| (1002) | SF 3 | Orange ware |
| (1003) | SF 22 | Orange ware |
| (1004) | SF 12 | Oxidised ware |
| (1004) | SF 13 | Oxidised ware |
| (1005) | SF 18 | Burnished |
| (1008) | SF 11 | Flat-rimmed bowl with sooted exterior, DOR BB 1 |
| (1008) | SF 9 | Burnished |
| (1008) | SF 8 | Oxidised ware |
| (1008) | SF 7 | Burnished |
| (1008) | SF 10 | Oxidised ware |
| (1013) | SF 21 | Orange ware |
| (1016) | SF 25 | Cooking pot, DOR BB 1 |

Table 2 Pottery catalogue



5.5 DISCUSSION

The assemblage includes both table ware and utilitarian cooking vessels. The native Britons in this region did not generally use pottery before the arrival of the Romans but found some use for it afterwards, although probably still not on a daily basis in the Roman way. The Ewe Close settlement at Crosby Ravensworth also produced a sherd of samian and a quantity of Roman coarse wares which apparently dated from the 2nd century up to the late 3rd or 4th century AD (Collingwood 1909, 307, no. 9, 12a; 308, no. 24a, 26; Pastscape 2018).

The earliest date provided by the pottery at High Carlingill is Hadrianic, and there are no sherds that need be later than the end of the 2nd century AD. The nearby fort at Low Borrowbridge is the likely source for the pottery; sherds recovered from its ramparts suggests it was constructed sometime after the mid-2nd century AD (Bidwell and Hodgson 2009, 102). Occupation at the fort, however, continued into the late 4th century, while use of the site at High Carlingill during the Roman period, at least as indicated through the pottery assemblage, appears to have been short lived.

6. BURNT CLAY

Dr Philip Mills

6.1 INTRODUCTION

There were 6 fragments of burnt clay weighing a total of 57 g presented for study. These were examined by context with fabric, number of fragments and weight in grams being recorded.

6.2 CATALOGUE

All the examples were in a pale red sandy fabric with common quartz and moderate black iron stone inclusions.

| Context | Find number | Description |
|---------|-------------|---|
| (1008) | SF 6 | Fabric D11. No = 1, Wt = 18g |
| (1008) | SF 4 | Fabric D11. No = 1, Wt = 5g |
| (1008) | SF 5 | Fabric D11 Daub wattle impression double twig 10 mm diameter. No = 1, Wt = 9g |
| U/S | SF 2 | Fabric D11. No = 3, Wt = 25g |

Table 3 Burnt Clay catalogue

6.3 DISCUSSION

This is a small group of burnt clay from Cumbria. Most of the material was unidentifiable, but there was one fragment of daub with a double twig wattle impression, each twig 10 mm in diameter, which could be from a small wattle and daub structure.

7. PALAEOENVIRONMENTAL ASSESSMENT

Dr Charlotte O'Brien – Archaeological Services Durham University

7.1 INTRODUCTION

This chapter presents the results of palaeoenvironmental assessment of two bulk samples and five hand-recovered charcoal samples taken during the 2018 excavations. The objective was to assess the palaeoenvironmental potential of the samples, establish the presence of suitable radiocarbon dating material, and provide suitable recommendations for the radiocarbon dating programme (see above). Assessment and report preparation was conducted by Dr Charlotte O'Brien. Sample processing was by Ben Matus and Jonathan Goldberg-Booth.

7.2 METHOD

The bulk samples were manually floated and sieved through a 500 µm mesh. The residues were examined for shells, fruitstones, nutshells, charcoal, small bones, pottery, flint, glass and industrial residues and were scanned using a magnet for ferrous fragments. The flots were examined at up to x60 magnification for charred and water-logged botanical remains using a Leica MZ7.5 stereomicroscope. Identification of these was undertaken by comparison with modern reference material held in the Palaeoenvironmental Laboratory at Archaeological Services Durham University. Plant nomenclature follows Stace (2010). Habitat classifications follow Preston *et al.* (2002).

Selected charcoal fragments were identified in order to provide material suitable for radiocarbon dating. 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), 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 and Brennand 2007; Philpott and Brennand 2007; Hall and Huntley 2007; Huntley 2010).

7.3 RESULTS

Bulk sample (1010), a deposit of possible hearth remains, produced a flot dominated by modern roots with other intrusive material including earthworm egg cases, articulated beetle remains and occasional uncharred seeds. A few very small fragments of hazel (*Corylus avellana*) and ash (*Fraxinus excelsior*) charcoal were present. At 7 mg each, these are smaller than the recommended minimum weight for radiocarbon dating of charcoal (10 mg). Charred plant macrofossils were absent.

Bulk sample (1019), a deposit of packed earth flooring, included a trace of calcined bone, a few heat-cracked stones and a large quantity of modern roots. Charcoal was common and in good condition. The mixed assemblage included oak (*Quercus*) stemwood with tyloses, birch (*Betula*) roundwood with wide growth rings, and small calibre hazel, alder (*Alnus*) and ash roundwood with variable ring widths. The only charred plant macrofossils were a hazel nutshell fragment and a brome (*Bromus*) caryopsis.

Hand-recovered charcoal from context (1004), a later trackway surface, comprised two fragments of small calibre hazel roundwood. They were in good condition although a few insect tunnels were noted. The smaller of the two fragments had 11 narrow growth rings while the other had five growth rings of variable width.

Tiny fragments of hazel charcoal occurred in the hand-recovered sample from (1005), a possible leached deposit infilling the Phase 2 roundhouse. It is unclear whether these were from a single piece or more than one. Several of these small fragments would need to be combined to provide sufficient weight for radiocarbon dating.

Hand-recovered charcoal from (1008), an enclosure bank deposit, was in good condition and included small calibre hazel and willow/poplar (*Salicaceae*) roundwood with evenly spaced moderate growth rings, and hazel roundwood and stemwood with narrow growth rings.

Hand-recovered material from colluvium (2001) comprises a trace of fine charcoal ash in a clay matrix. This was not suitable for radiocarbon dating.

7.4 DISCUSSION

The charcoal assemblages, including hazel, alder, birch, ash, oak and willow/poplar, give some indication of species available in the local woodland resource, with both brushwood and larger stemwood exploited. The presence of insect tunnels in some of the hazel may reflect collection of deadwood, long-term wood storage or the action of insects on wooden structures such as wattle.

The presence of a charred hazel nutshell in (1019) suggests the use of wild foods. Brome, also recorded in this fill, frequently (although not exclusively) occurs as an arable weed and has been associated with the cultivation of spelt wheat, one of the main field crops of the Iron Age and Roman periods in northern Britain (Greig 1991).

7.5 RECOMMENDATIONS

No further palaeoenvironmental analysis is required for the samples.

| Context | | 1010 | 1019 |
|---|----------------|-----------------|-----------------|
| Feature | | Hearth deposit? | Packed flooring |
| Material available for radiocarbon dating | | (✓) | ✓ |
| Volume processed (l) | | 2 | 38 |
| Volume of flot (ml) | | 100 | 800 |
| Residue contents | | | |
| Bone (calcined) | indet. frags | - | (+) |
| Charcoal | | - | + |
| Heat-cracked stones | | - | + |
| Flot matrix | | | |
| Charcoal | | + | +++ |
| Earthworm egg cases | | ++ | + |
| Insect / beetle (modern) | | (+) | - |
| Roots (modern) | | +++ | ++++ |
| Uncharred seeds | | + | - |
| Charred remains (total count) | | | |
| (a) <i>Bromus</i> sp (Bromes) | caryopsis | - | 1 |
| (t) <i>Corylus avellana</i> (Hazel) | nutshell frag. | - | 1 |
| Identified charcoal (✓presence) | | | |
| <i>Alnus glutinosa</i> (Alder) | | - | ✓ |
| <i>Betula</i> sp (Birches) | | - | ✓ |
| <i>Corylus avellana</i> (Hazel) | | ✓ | ✓ |
| <i>Fraxinus excelsior</i> (Ash) | | ✓ | ✓ |
| <i>Quercus</i> sp (Oaks) | | - | ✓ |

[a-arable; t-tree/shrub. (+): trace; +: rare; ++: occasional; +++: common; ++++: abundant
(✓) may be unsuitable for dating due to size or species]

Table 4 Palaeoenvironmental assessment table

8. DISCUSSION

8.1 LOCATION AND ASSOCIATION WITH LOW BORROWBRIDGE ROMAN FORT

Huddled against the side of the eastern hills of the Lune Gorge, in the pastoral river valley, are a series of earth-work banks and sub-circular features of a settlement which demonstrates 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, protected 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 shoulder of hillside. The settlement, which sits between c. 170 and 180 m aOD, occupies a location which is reasonably well sheltered by the surrounding topography and is close to a water source (the river Lune). The Roman road passes close to the west of the settlement.

The fort is on Wicker Street—the Roman road from Manchester (*Mamucium*) to Carlisle (*Luguvalium*). This route provided the primary north-south means of communication through the north-west of England for the considerable numbers of Roman soldiers posted towards the western end of Hadrian's Wall (Lambert 1996, 48). The cremation cemetery associated with the fort was located less than a kilometre to the south, on the bank of the Lune near Salterwath Bridge (Schotter and White 1995, 55) and was excavated as part of the North West Ethylene Pipeline (NWEP) installation (see Lambert 1996). Large pit features and ditched enclosures were discovered (Lambert 1996) in addition to part of the Roman road leading south. Pottery from the cemetery suggests multi-phased use from the mid-3rd to 4th centuries AD, in addition to probable earlier Iron Age activity (Hamilton-Gibney 2012, 10).

It is unknown whether an extra-mural settlement, or vicus, was associated with the fort, though geophysical survey undertaken by Oxford Archaeology North and the LAS in 2014 (OA North 2014) in a field immediately south of the fort identified numerous responses indicative of buried archaeological remains. The settlement at High Carlingill — originating earlier as a later prehistoric settlement — indicates a continuity of use within the wider landscape persisting into the Roman period, though the relationship between the two remains uncertain.

It has been suggested that phases of forest clearance occurred during the later Iron Age, and again during the Roman period (Hodgkinson et al. 2000, 323), which led to open landscapes and erosion of the low fells. The extent of Iron Age and Romano-British settlement activity at lower levels in the low fells is not, however, accurately known, and indeed may never be due to the extent of historical and modern agriculture truncating such remains. This is a problem common to upland landscapes in all parts of the country, where high pasture and unimproved moorland provide good conditions for the preservation of extant archaeological sites, despite introducing other issues of preservation depending on the local geology, soil and modern land-use.

8.2 FORM AND LANDSCAPE SETTING

During an initial review of the site — prior to the commencement of this project — the large, northernmost enclosure at the High Carlingill complex was identified as appearing 'traditionally Iron Age' in character, principally due to the irregular, curvilinear form and seemingly organic development within the enclosure which makes use of the natural topography. The smaller enclosure, adjacent to the southern circumference of the larger, suggested a more Romano-British character in its appearance, being a straighter sided sub-rectilinear shape. Whilst the sub-rectilinear enclosure certainly continued in use into the Romano-British period, as evidenced through the recovery of 2nd-century AD ceramic artefacts, radiocarbon dates obtained from a sample from the stone bank of the enclosure tentatively date its construction to sometime during the Later Iron Age.

In terms of local analogies there remains a general scarcity of information regarding Iron Age settlement in this area of Cumbria. Although a number of settlement sites are known in and around the Lune Valley (see Howard-Davis 1984), some of which are comparable in character to the site at High Carlingill, they are generally located farther south. The prehistoric defended settlement at Tatham Park (NHLE 1012817), whilst larger in size than High Carlingill and situated atop a hill rather than on its slope, is comparable for the hut circles which have been cut into the hillside within the area defined by the enclosure. The prehistoric defended enclosure at Claughton (NHLE 1011684), situated approximately 25 miles to the south of High Carlingill, presents a continuity of occupation from the Iron Age into the Romano-British period, which appears comparable to the initial findings at High Carlingill.

The closest contemporary site which has been subject to archaeological excavation is the small Iron Age and Romano-British enclosure at Brockholes on the east slope above Low Borrowbridge some 700 m north of the High Carlingill site. Brockholes was excavated by archaeologist John Anstee in the mid 1970s (Anstee *et al.* 2018) and revealed considerable evidence for domestic occupation contemporary with the Roman fort at Low Borrowbridge. In form, the Brockholes settlement is considerably smaller than High Carlingill and has more in common with Romano-British rectilinear enclosures than the more curvilinear and 'Iron Age' form at High Carlingill.

There are a few examples of hillforts in the area. The site of Castle Hill, near Leck, is a defended prehistoric enclosure, set on a flat-topped spur of land overlooking a tributary of the river Lune. Castle Stede (ADS 2019) is a probable Iron Age hillfort in the Lune valley, which was repurposed during Norman times.

8.3 RADIOCARBON DATING

The samples submitted for radiocarbon determination comprised a pair of duplicate dates from the floor surface (1019) of a possible roundhouse (Structure 1) and a single sample from the stone bank (1008) of the 'Phase 2' enclosure. The two dates for the possible roundhouse floor surface returned very different results, the first between 170–60 cal BC (68.2% probability) and the second between cal AD 480–600 (68.2% probability). The duration between these dates spans over 500 years, which seems unlikely to represent a continuity of use of this type of structure. It is more likely that the later date is intrusive and represents a re-use of the structure during the post-Roman period. The visibility and condition of the structure at this time is debatable. The exterior wall of the structure was poorly constructed and so would be unlikely to have remained upstanding for an extended duration post-abandonment. It should be noted, however, that the feature was visible as a defined earthwork prior to excavation, and a similar, if not more prominent, situation is likely to have been present during the past.

Whilst artefactual evidence proves that the sub-rectilinear enclosure bank continues in use into the Romano-British period, the sample from within this 'Phase 2' feature returned a date of 190-100 cal BC (68.2% probability). This could represent a residual fragment within a later bank, but the very close accord between the dates from this feature and the Iron Age date from the roundhouse flooring supports the interpretation that this extension of the enclosure dates to the later Iron Age.

8.4 SUMMARY OF RESULTS

Given the focused area of excavation undertaken to-date, it is not possible to comment on the development and functions of the enclosures in anything more than broad generalisations. It should also be noted that these interpretations are tentative and based on assumptions about the contemporaneity of some of the elements.

The presumed Iron Age enclosure bank, which appears to relate to the earliest phase (tentatively named Phase 1) of use at the site, was constructed of a core mound of compacted, redeposited natural substrate, which was laid onto the natural slope of the hillside. The internal (downslope) side was supported with an alignment of kerb stones which served to hold the core material in place. The external side of the enclosure appeared to consist of a well-constructed faced wall, comprising large stones laid in alignment with a slight inward batter. Sub-angular stones were packed behind the facing stones. A foundation deposit of angular stones embedded into the natural slope of the hillside was observed farther along the circumference of the enclosure bank to the south-west. No kerbstone revetment was apparent at this location which may suggest that a flatter foundation was used on the shallower gradient of the slope, whereas more support was required where the slope was steeper. A layer of soil was deposited over the enclosure core mound—certainly over its internal face—and this was strengthened with pitched stones, packed and embedded into the soil. Much of this stone revetment had tumbled downslope into the enclosure. The top of the bank presented a level profile, constructed from larger, flatter stones which had been laid to create a flattened surface, and which overlay the revetment stones sloping down the bank. No evidence was found that the enclosure bank was surmounted by a wooden palisade or setting, but this cannot be discounted.

A small, stone-built, sub-circular structure (Structure 3) was excavated within the Phase 1 enclosure. The structure was partially overlain by hill wash and stone tumble from the bank but once excavated measured c. 2.90 m across on average. The structure was constructed of a rough set wall of poorly stacked sub-angular stones without bonding which, where visible, survived as an irregular and truncated stone footing. The wall of the structure was cut into the enclosure bank, producing a scooped effect against the interior of the bank. A doorway in the wall leading to the interior of the structure faced west. Structure 3 had a well-constructed internal floor



surface made of regularly placed flat stones, which survived best towards the east of the structure. A small area of degraded cobbling was observed within the threshold and continuing immediately in front of the doorway in the wall. The degraded cobbled surface was roughly formed and poorly maintained, with a suggestion of repair over time.

A small, stone-built, probably sub-circular structure (Structure 4) was observed approximately 2 m to the north-east of Structure 3, also within the Phase 1 enclosure. Whilst not fully investigated due to its proximity to the limit of excavation of Trench 2, its size can be estimated from the arc of the excavated wall in conjunction with the visible earthwork which remained unexcavated. Structure 4 probably measured c. 3 m across, with an internal space of c. 2.6 m. The structure was constructed of a rudimentary wall of poorly stacked sub-angular stones without bonding which survived as an irregular and truncated stone footing. The rough stone wall was very fragmentary and disrupted. No doorway was observed in the excavated circumference of the wall. Assuming the form of this structure was the same or similar to Structure 3, then the doorway would presumably have faced north-west and would have been located beyond the limit of excavation.

Truncating, and therefore later than, both Structures 3 and 4, was stone-built, sub-circular platform Structure 5. This feature was represented by a pitched stone foundation measuring c. 2.70 m in diameter. The foundation stones were haphazardly packed together, and a broken stone quern bottom stone had been reused in the construction of the foundation, which was rudimentary in appearance. The purpose of this structure remains uncertain. No archaeological finds were recovered from the area around Structures 3, 4 and 5, or from the structures themselves.

Structures 3 and 4 were located on the level platform of a terrace which had been built up against the natural slope of the hillside. The terrace appeared to have been constructed by depositing a compact clay, forming the core of the platform which overlaid the lower extents of the large enclosure bank, to create a level surface against the slope of the hillside — probably to enable the installation of Structures 3 and 4. Revetment stones were observed at the front of, and partially overlaying, the terrace. These roughly laid stones were interpreted as



Figure 40 Structure 3 cut back into the Phase 1 enclosure wall behind

providing support to stop the terrace slipping down the natural slope of the hillside. The sub-angular stones were packed against and over the clay core of the platform and graded down the naturally sloping ground to the west. The front edge of the terrace appears to generally respect the alignment of Structures 3 and 4. An accumulation of tumbled stone from the enclosure bank had banked against the eastern sides of Structures 3, 4 and 5. The stone tumble comprised sub-angular scree stones from the bank and probably represents a degradation of the site post-abandonment.

The Phase 1 Iron Age enclosure bank had been truncated by a small circular structure (Structure 1), which measured approximately 2.5 m in diameter and was constructed of roughly stacked stones. The circular footprint for the structure was cut through the enclosure bank and used part of the remaining bank as its east wall. The remains of the wall which defined the circumference of the structure were rudimentary in build, being of poor quality and form. The wall was almost entirely absent along its northern circumference, although this may have been the result of possible quarrying for stone during the recent past. It is probable that the wall of Structure 1 was constructed using the enclosure bank stone through which it cut.

The floor of Structure 1 was uneven, generally sloping downhill towards the north. An area of possible burnt deposit, perhaps representing a small hearth, was observed set against the south-eastern arc of the wall on a low platform of earth and stone. The hearth was sub-circular in form with a stone setting around a small pit. In addition, a spread of compacted and well packed cobble stones were observed in front of the entrance to Structure 1, from which a sherd of South-East Dorset Black Burnished Ware from a flat-rimmed bowl or dish was recovered. This fragment probably dates to the early Hadrianic period in the early 2nd century AD and is a clear indicator of the continuation of activity at the site into the Romano-British period.

A platform of very large flat boulder stones had been constructed to support the southern arc of the structure's wall, aligned to form a corner and roughly faced by using and augmenting natural fractures in the rock. This corner foundation supported the south-eastern arc of the wall of Structure 1 and was set next to a very large, sub-cubic stone carved with two parallel channels, aligned north-east to south-west. The purpose of these



Figure 41 Structure 1 set over the line of the earlier Phase 1 enclosure bank. The original facing stones of the Phase 1 bank can be seen in the front left of shot, and the large foundation stones of the Phase 2 are to the centre-right

channels remains uncertain though a possible interpretation is that they had been used to direct water run-off from the roof of Structure 1. This was partially supported by the observation of a well-silted gully within the Phase 2 enclosure bank, extending downslope from the stone. It is possible that the formation of the gully was simply a result of water run-off from the channel, rather than being a purposeful construction relating to it, and it was noted that the channel in the rock was not sufficiently deep to effectively contain and direct water. Further consideration of this feature is required.

A sub-rectilinear enclosure bank (Phase 2) extended south-east from the Phase 1 Iron Age enclosure, was constructed against the stone platform which supported the wall of Structure 1. A tapering edge was observed abutting the stone platform and overlaying what appeared to be a degraded metalled surface. A spread of poorly sorted, angular stones of loose compaction lay over the bank, and it was uncertain whether they represented a second phase of the bank or were tumbled stone from a wall which has been lost.

The stones of the bank appeared to overlay an earlier metalled surface or trackway which may have been associated with Structure 1, and a single fragment of locally made pottery dating to the 2nd century AD was recovered from this deposit. A number of fragments of burnt clay were recovered from the bank, with at least one being daub with a double twig wattle impression which may have come from a small wattle and daub structure – possibly walling or a clay oven. Additionally, two sherds of South-East Dorset Black Burnished Ware and two sherds of locally made wares were recovered from amongst the Phase 2 enclosure bank stones, again all dated to the 2nd century AD.

At the top of the bank, a curving section of wall sat against the break of slope. The wall was constructed of angular and flattened stones, laid in a roughly north to south alignment, with two courses remaining upstanding. Whilst not conventionally faced, the outer surfaces of the wall used generally flatter faced stones, with angular stones pitched between to form the core. To the east of the wall a flat and level space was interpreted as a yard, possibly relating to a sub-circular earthwork to the north-east outside the limit of the trench.

The latest feature observed on site (in Trench 1) was a metalled trackway aligned north-west to south-east which roughly followed the contour of the hillside. The trackway was cut through the southern arc of the Phase 1 enclosure bank but respected the alignment of the sub-rectilinear Phase 2 enclosure.

8.5 DISCUSSION

No datable evidence was recovered from the Phase 1 enclosure bank, assumed to be Iron Age in date. This larger enclosure, however, is demonstrably earlier than the sub-rectilinear Phase 2 enclosure to the south. This has been established stratigraphically and suggested in terms of the artefactual evidence, although no material culture was recovered from the earlier enclosure or associated structures. Radiocarbon dating of the Phase 2 enclosure and Structure 1, which truncates the Phase 1 enclosure, suggests a late Iron Age date for Phase 2.

Perhaps the most interesting evidence from High Carlingill is that which demonstrates the multi-phase use of the site. The archaeological evidence clearly demonstrated at least three broad phases to the remains, though there may be multiple further instances of settlement and/or other activity for which evidence no longer exists or exists only in the parts of the site that remain uninvestigated. The phases can be described as follows: the probable Iron Age enclosure (Phase 1) with small round structures set on a terrace, with one scooped into the enclosure bank; followed by a second phase (Phase 1a) of a circular foundation built in rough stone, which truncated and overlay both of these structures; possibly sometime later, the main enclosure bank to the south-west of the earlier structures was further truncated to accommodate another round building (Phase 1c), partially supported by a platform of large flat stones, and, perhaps contemporaneously, another enclosure was constructed to the south-east (Phase 2); finally, a trackway truncated the cobbled surface outside of Structure 1 and intersected the probable Iron Age enclosure (Phase 3). The post-Roman date obtained on samples from within the Structure 1 flooring suggests the intriguing possibility of re-use of the site some 500 years later than the main periods of settlement.

It is difficult to attribute usage with any degree of certainty to the round buildings observed within the Phase 1 enclosure. As stone-built round buildings, generally measuring no more than c. 2.5 m internal diameter, they could conceivably represent small dwellings, though they would be notably small examples. It also remains possible that they may have been employed in the holding of livestock or other such commodities. Unfortunately, a poverty of material culture from within and around these structures has hampered any such characterisation. The small possible hearth within Structure 1 may suggest a domestic use, and the material culture that was spatial-

ly associated with the structure (South-East Dorset BB1 cooking pot) would certainly be appropriate to such a suggestion.

Whilst Structure 1 was presumed to be later in date than Structures 3 and 4, each of the buildings were of similar form, construction and dimensions. The main difference between Structure 1 and Structures 3 and 4 was the method of floor construction. There was no evidence of a stone foundation with flat stones laid on top in Structure 1, as found in Structures 3 and 4. It is possible however, that all three round structures (1, 3, and 4) were contemporary in date and use, and may represent a continued tradition of building technique in the area. Structures 1 and 3 both truncated the Phase 1 enclosure bank. Whilst Structure 4 did not truncate the enclosure, it was constructed upon a terrace which post-dated the enclosure. The similarity in character and construction of these structures, and considering that they all post-date the Phase 1 enclosure this may suggest a contemporary date.

The radiocarbon dates (see section 4) obtained for the floor surface of Structure 1 and the stone bank of the sub-rectilinear enclosure suggest a contemporary relationship between the two features. Whilst the dates suggest that both features were in use at the same time in the Late Iron Age, it is probable that Structure 1 was constructed immediately prior to the construction of the Phase 2 sub-rectilinear enclosure. The large foundation stones (1012) stratigraphically precede both Structure 1 and the later enclosure bank, and it would seem unlikely that a foundation to create a level surface for the structure would be installed only to then proceed with the construction of the bank rather than the roundhouse. It should be noted, however, that a direct physical relationship between Structure 1 and the sub-rectilinear enclosure bank was not identified. A lack of clarity existed in the deposits between the two features, where abundant loose rock, which was often protruding through the turf, was extant. Therefore, the construction sequence given for the two features remains the most likely suggestion.

It was noted that Structure 1 was curiously located on the edge of the enclosures, with a doorway facing downhill to the south-west. How movement occurred between this structure and the uphill enclosure is uncertain, although the metallised surface that was partially overlain by the rectilinear enclosure may have facilitated such activity.

It remains unclear within the sequence where the construction of Structure 5 sits. It was demonstrably later than Structures 3 and 4, but it cannot be said with any certainty to be later or earlier than the features revealed in Trench 1, due to its spatial dislocation from these features. The purpose of Structure 5 is also uncertain. There were no other features within the excavated area at the same stratigraphic level. Its position, close to the edge of the platform, may suggest a relationship with an as yet unexcavated feature. As a foundation, it was somewhat crude in its construction and did not offer a useable surface as found. Whether additional material was removed in the past from its upper surface remains uncertain.

The 'yard' which was partially examined within the Phase 2 enclosure deserves further investigation, as does the possible house platform which was observed at the northern end of the yard, which may relate to a circular earthwork or possible roundhouse upslope to the east. During the investigation of these features it may be possible to clarify the relationship between Structure 1 and the sub-rectilinear Phase 2 enclosure.

The palaeoenvironmental samples obtained from High Carlingill produced only limited results. Generally, the materials indicate the exploitation of both local woodland and areas of scrub, as sources of wild nuts and wood for fuel and probably building materials. The charcoal recovered was in good condition, with hazel, alder, birch, ash, oak and willow/poplar represented. The exploitation of both brushwood and larger stemwood was apparent.

8.6 CONCLUSION

The excavations undertaken as part of this project have resulted in a better understanding of the character and form of the settlement at High Carlingill and has contributed knowledge towards the understanding of later Iron Age and Romano-British settlement in the Lune Valley — a defined geographic area for which our understanding of this period is relatively thin. By analogy, this new information may hopefully also contribute more to our understanding of settlement remains, land use and continuity of occupation in the Lune Valley and the North more generally and help support the ongoing debate about the form, dating and use of such landscapes..

The excavations to-date have revealed multiple phases of construction and activity across the site, spanning from the Late Iron age to at least the late 2nd century AD and with the potential for activity in the post Roman period.



Three small round structures have been identified and characterised, and their association with the enclosures investigated. The composition of the probable Iron Age enclosure bank is now better understood, and an order of construction has been determined for the two principal enclosures on the site. The dating gained from the recovery of stratified material culture has demonstrated a contemporaneity of use of the settlement with the fort at Low Borrowbridge, though the radiocarbon dating has strongly suggested that the enclosures were already occupied long before the coming of the Romans. The form of the settlement earthworks have been characterised through excavation, and this raises the possibility of identifying other areas of interest through comparison, with a greater understanding of the probable sub-surface archaeology.

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APPENDIX 1 – SITE MATRICES



