2018

North Yorkshire

Archaeological Excavation

The Hagg
Fremington Edge, Swaledale
North Yorkshire

NGR 405694 498989

Archaeological Excavation (2017 Season)

May 2018

Philip Bastow, David Brooks and Rob Nicholson
Edited by Tony Liddell

Swaledale & Arkengarthdale
SWAAG
swaag.org
Archaeology Group
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Archaeological Excavation

The Hagg
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2017 Season

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Name of location:	The Hagg
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Concise Summary of Report

Surveys and exploratory excavations by the Swaledale and Arkengarthdale Archaeology Group (SWAAG) over the past few years at the Hagg have suggested the presence of roundhouses, walls, trackways and features associated with a possible settlement/farming complex. Analysis of finds indicated that the site is Romano-British, abandoned towards the end of the 4th century AD. However there has as yet been no evidence indicating when the site was established or how it developed. In 2017 SWAAG was awarded a grant by the Yorkshire Dales National Park Authority's Sustainable Development Fund for a community dig on the site. The dig was carried out in July 2017 and included an outreach programme targeting local schools as well as regional media coverage.

To date the excavations on the site support the picture of a small successful farmstead, active between the 2nd and the 4th centuries AD. Evidence of two roundhouses has been recorded, with the LIDAR evidence suggesting at least the possibility of two further structures. The farmstead produced flour, worked on cultivated crops and likely also mined for surface lead, suggesting a busy prosperous settlement.

The 2017 grant-funded excavation proved invaluable to the interpretation of the site, with the presence of a large courtyard established with entrances from the east and a further entrance to the south leading to a southern annexe. Further work into the roundhouse first discovered in 2012 also presented evidence of a porched structure with a pathway leading up northeast to the as-yet unexcavated upper platform. Further pottery remains, as well as quernstone fragments, a silver Roman coin and a crossbow brooch of a rare type also added to the evidence uncovered.

The civil engineering of the site with evidence of crinoidal limestone for aesthetic effect continues to impress, and as so few of these sites have been excavated in North Yorkshire, the Hagg site may prove to be regionally significant as a type-site for future archaeological works. As such, it is recommended that work continue on the site to allow for a full interpretation of the farmstead/settlement in due course.

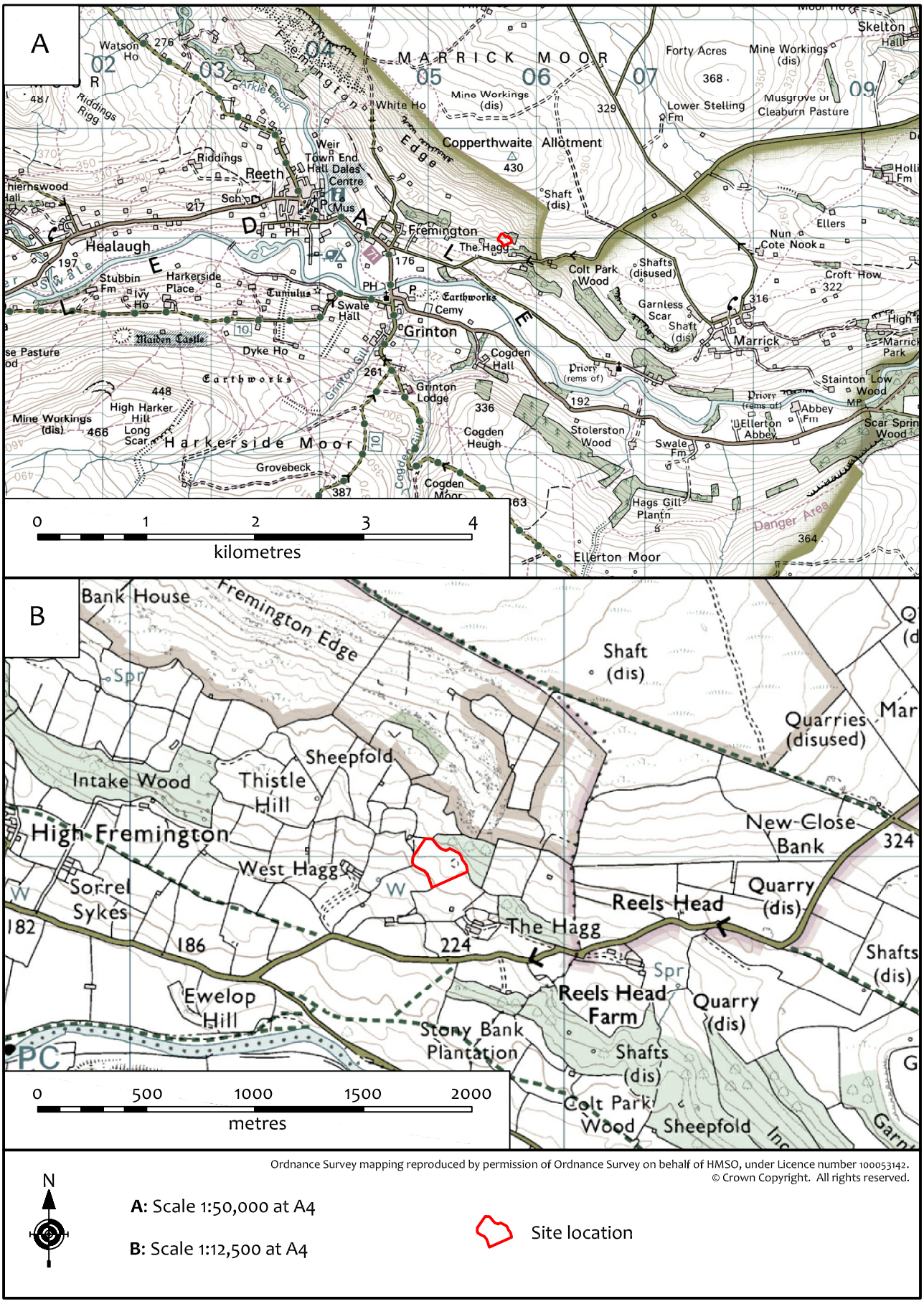

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Figure 1. The site location, regionally

1. Scope of Project

Plate 1. Aerial image of the site, 2009. Courtesy of Google Earth Pro 2018. The approximate assumed area of the settlement is marked in red.

1.1 Location

1.1.1 Hagg Farm is situated east of Fremington in the Yorkshire Dales National Park and centred on the national grid reference SE 05694 98989. The site lies to the northeast of West Hagg and to the northwest of Hagg Farm itself. See Figure 1 for regional location.

1.1.2 Directly to the north and east of the site is Hagg Plantation containing a steep cliff. To the west of the site is a natural drop, with a glacial mound marked by a post-medieval circular wall to the east.

1.1.3 The geological bedrock for the area belongs to the Yoredale Group comprising limestone, sandstone and argillaceous rocks. Overlying this are glacial deposits of clay, sand and silt (British Geological Survey 2018).

1.1.4 The average height above sea level for the site is 262m OD.

1.2 Circumstances of the project

1.2.1 Surveys and exploratory excavations by the Swaledale and Arkengarthdale Archaeology Group (SWAAG) over the past few years at the Hagg have suggested the presence of roundhouses, walls, trackways and features associated with a possible settlement/farming complex. Analysis of finds indicated that the site is Romano-British, abandoned towards the end of the 4th century AD. However there has as yet been no evidence indicating when the site was established or how it

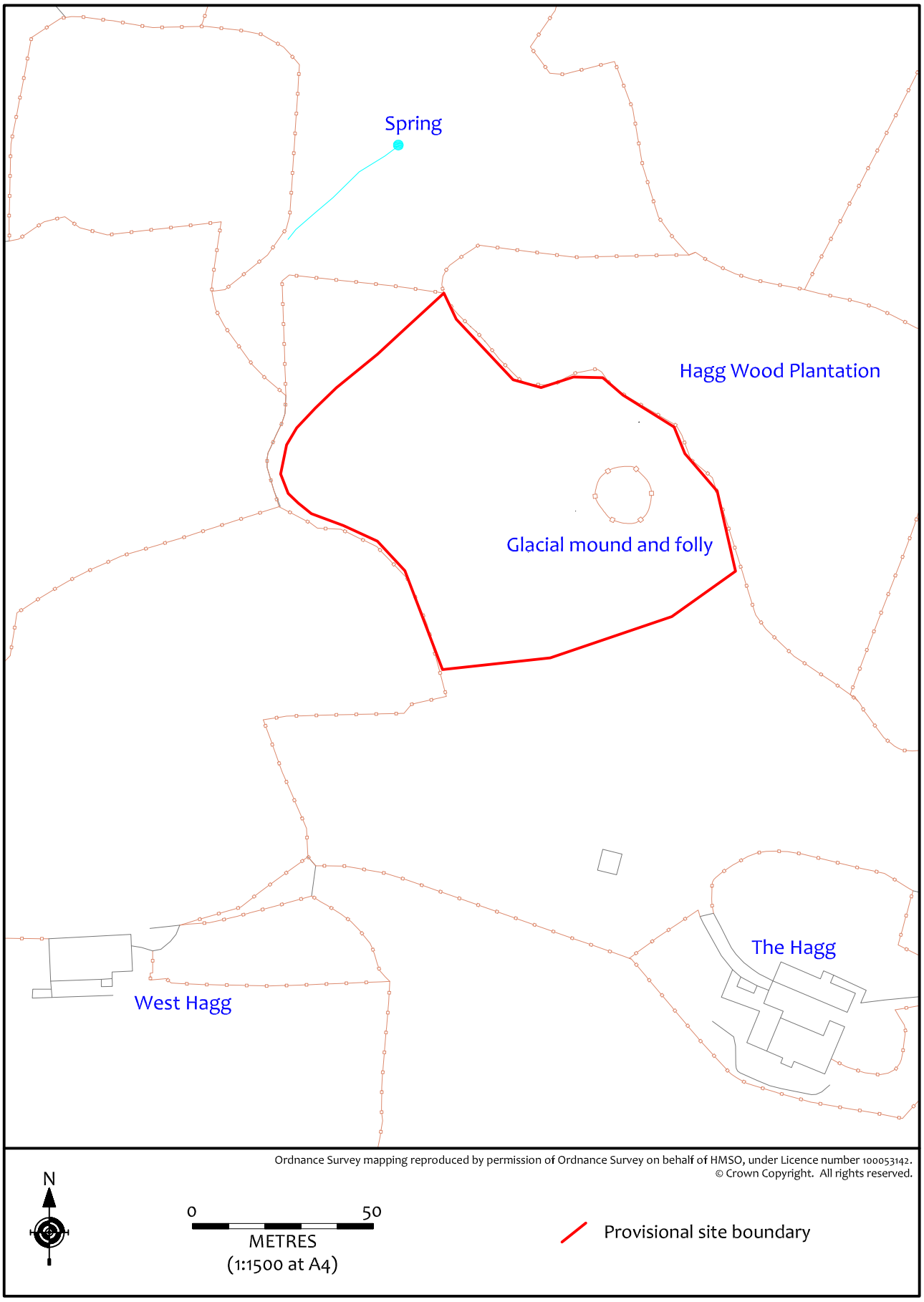


Figure 2. The site location, locally

developed. Although Swaledale has many recorded examples of sites with similar surface features, only one, near Healaugh, has been excavated (Flemming 1998). Consequently the potential information from The Hagg site could add significantly to the Swaledale cultural and historical record, and to an understanding of how early farming and settlements developed.

1.2.2 In 2017 SWAAG was awarded a grant by the **Yorkshire Dales National Park Authority's Sustainable Development Fund** for a community dig on the site. The dig was carried out in July 2017 and this report holds a detailed description of the work undertaken.

1.2.3 An outreach programme targeting local children was an important element of the project. Early contact with the Reeth/Gunnerside and Arkengarthdale schools provided enthusiastic responses. Members of SWAAG visited the classrooms and explored different aspects of archaeology and local history relevant to the Hagg. Arkengarthdale School was also taken on a guided walk from Reeth to the Hagg, given a guided site tour, a talk about and an opportunity to handle Roman-style pottery, and they also did some drawing.

1.3 Project Plan

1.3.1 A project plan "The Hagg - a Project Plan for 2017" was produced in May 2017 by by David Brooks, SWAAG Chairman, and approved by the SWAAG Trustees prior to being lodged with the Yorkshire Dales National Park Authority.

1.4 Research agenda

1.4.1 With the absence of a detailed Yorkshire research agenda, the project defaults to the research priorities set out in *Shared Visions: North East Regional Research Framework for the Historic Environment* (2006), in particular:

- *Roman:* Ri. Iron Age to Roman transition
  Riii. The Roman military presence
  Riv. Native and civilian life
  Rv. Material culture
  Rvi. Trade and industry
  Rix. Landscape and environment

1.5 Professional Standards

1.5.1 All work was undertaken in accordance with the Chartered Institute for Archaeologists' *Code of Conduct* (2014) and their *Standard and Guidance for an archaeological excavation* (2014).

1.6 Health and Safety

1.6.1 All issues of on-site health and safety during the excavation were undertaken in accordance with the SWAAG *Health and Safety Manual* (updated 2017).

1.7 Project Personnel

1.7.1 The archaeological works were managed on a day-to-day basis by Philip Bastow. Professional archaeological support was provided by Tony Liddell and Mick Coates of Vindomora Solutions Ltd. The report was written by Philip Bastow, Tony Liddell, David Brooks and Rob Nicholson with its associated illustrations produced by Tony Liddell and Philip Bastow. The report was formatted and edited by Tony Liddell and Philip Bastow.

1.7.2 Specialist analysis and reporting was provided by Karen Barker (Conservation), James and Sally Gerrard (small finds), Eniko Hudak (pottery), John Cruse (querns), Rebecca Cadbury-Simmons

(animal bone), Archaeological Services Durham University (palaeoenvironmental assessment) and Barry Bishop (lithics).

1.7.3 The project was managed as a community dig and people of all ages and skill levels from the local community and wider afield were encouraged to participate. Initial expectations were for 10 volunteers per day on site. However, the project generated wide interest and it became necessary to limit the numbers for reasons of safety and supervision. Overall there was a team of 96 volunteers providing approximately 25 volunteers/day on site throughout the dig.

1.8 Timetable

1.8.1 The archaeological excavation took place between 5th-19th July 2017.

1.9 Archive

1.9.1 A full archive has been compiled in line with the specification and current UKIC and English Heritage Guidelines. The project code is **HFS-17** (**H**agg **F**arm **S**waledale 20**17**). SWAAG support the **O**nline **A**cces**S** to the **I**ndex of Archaeological Investigation**S** project (OASIS). As a result, this report will be made available to the project under the unique identifier **swaledal1-315461**.

1.10 Acknowledgements

1.10.1 SWAAG would like to extend their gratitude to landowner David Clark and his family for their continuing support in allowing us to excavate this important site. We would also like to thank Miles Johnson of the Yorkshire Dales National Park and the Authority's Sustainable Development Fund for their support as well as all of the volunteers who aided in this project.

2. HISTORICAL AND ARCHAEOLOGICAL CONTEXT

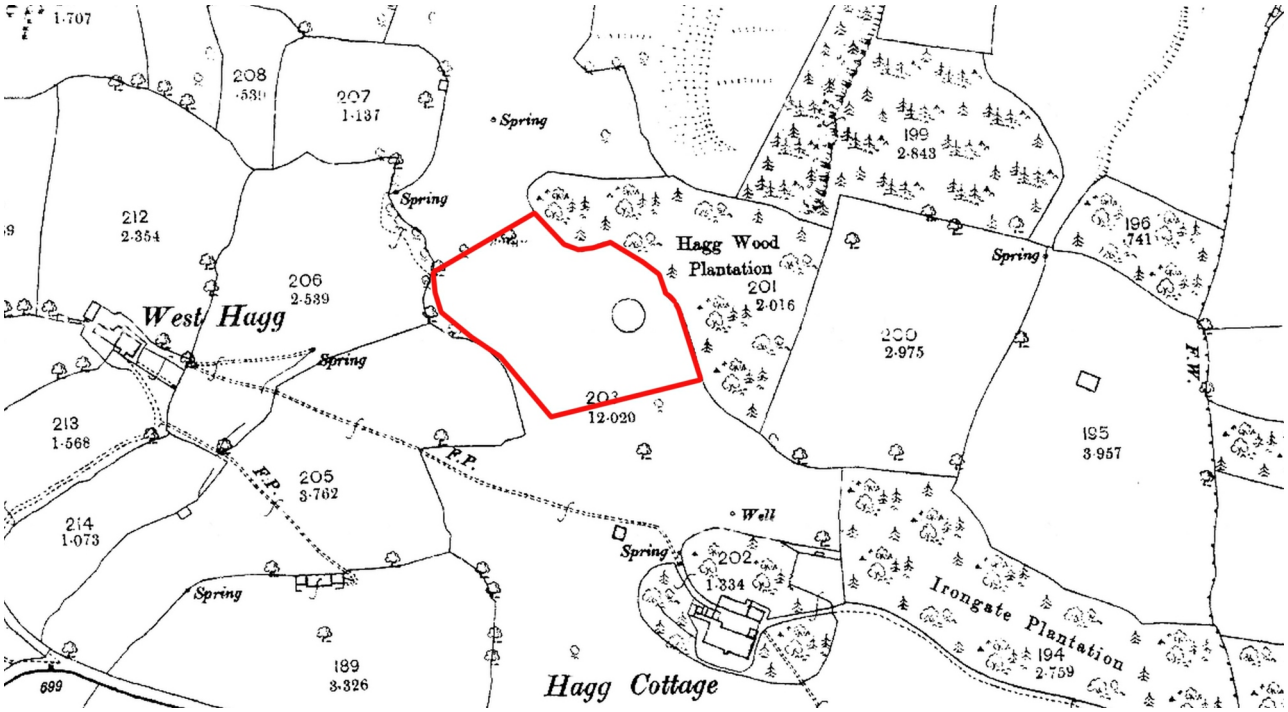


Plate 2. Extract from the 1894 Ordnance Survey mapping showing the suggested extent of the settlement in red.

2.1 Introduction

2.1.1 In July 2010, SWAAG produced their Archaeological Report No. 1, "The Fremington Project: An Iron Age/Romano-British Landscape at Hagg Farm" (Laurie, Eastmead and Denison-Edson 2010). The report identified an archaeological landscape comprising potentially 9 separate settlements or farmsteads centred on West Hagg and extending across Sorrel Sykes to Marrick Priory Farm. The settlements lie within a contemporary co-axial field system. The report incorporated an earthwork survey of all of the proposed settlements undertaken in 2009.

2.1.2 The project identified the current study area as Site 103 or 'The Hagg Plantation Settlement'. Site 103 is described as "...the most significant settlement at Hagg Farm showing a more regular and developed site plan. This settlement may represent higher status, Romanised, influences." The earthwork survey of the site produced by SWAAG in 2009 can be seen on *Figure 3* (page 14).

2.1.3 The site appeared to have been heavily robbed during the post-medieval period, and a circular folly was introduced on the crown of the glacial mound to the east of the settlement.

2.2 Previous investigations

2.2.1 In 1997 the Yorkshire Dales National Park Authority and English Heritage commissioned Ed Dennison Associates to produce a survey of the site as part of the *Hill Farming Initiative*. The report suggested that the site was a potential deserted medieval farmstead.

2.2.2 In May 2011, Archaeological Services Durham University (ASDU) undertook both a magnetometry and a resistivity survey of the settlement, revealing a well-defined enclosure with annexes to the east and southwest. The positive nature of the survey provided a basis for the excavation of Site 103.

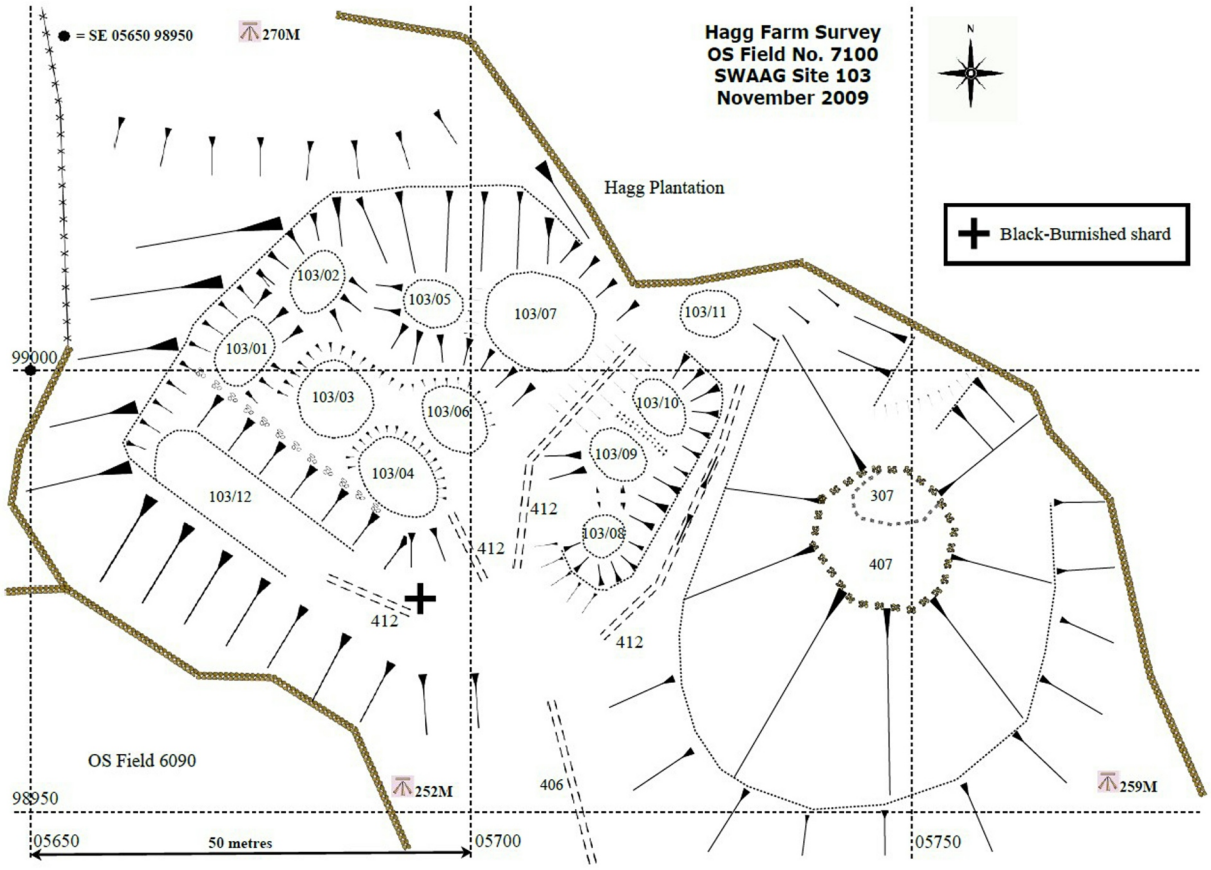


Figure 3. 2009 survey of the site

2.2.3 **2012 Season**: The first season of excavation at the site by SWAAG was supervised by ASDU. Four trenches were excavated. An earthwork survey was also produced via Total Station, the results of which can be seen on *Figure 4* (page 15).

2.2.4 "T"- shaped Trench 1 was located over the presumed central area of the settlement as defined in *The Fremington Project*. The earthworks observed consisted of a banked enclosure, with a potential entrance on the south side and two level platforms. The trench revealed a large enclosure bounded by a stone wall on the south and west. The southern extent of the trench was flagged, with what appeared to be a stone-flagged roundhouse floor 'fossilised' within it, clear evidence that the site was multi-phased. An entrance to the enclosure was identified in the southern embankment, including a stone door-sill suggesting a double-doored entrance. The potential remains of slipped steps or a trackway headed south from the earlier roundhouse platform.

2.2.5 Trench 2 was located to evaluate a potential embankment identified by the geophysical survey as well as a large platform defined in *The Fremington Project*. The trench revealed the partial remains of a stone-flagged roundhouse dating to the 3rd century AD. The roundhouse was found to have an entrance in its eastern wall clearly marked by a stone door-sill, with a flagged surface externally to the south of the building. A hearth was located centrally in the structure: a thick deposit of rubble covered the building, and substantial robbing had taken place of the stone comprising the walls, though excavation did reveal remains of habitation strata which produced iron artefacts including a late Roman pruning hook, a nail and a back-handled knife. The deposits also produced a concentration of charcoal and burnt, cracked stones.

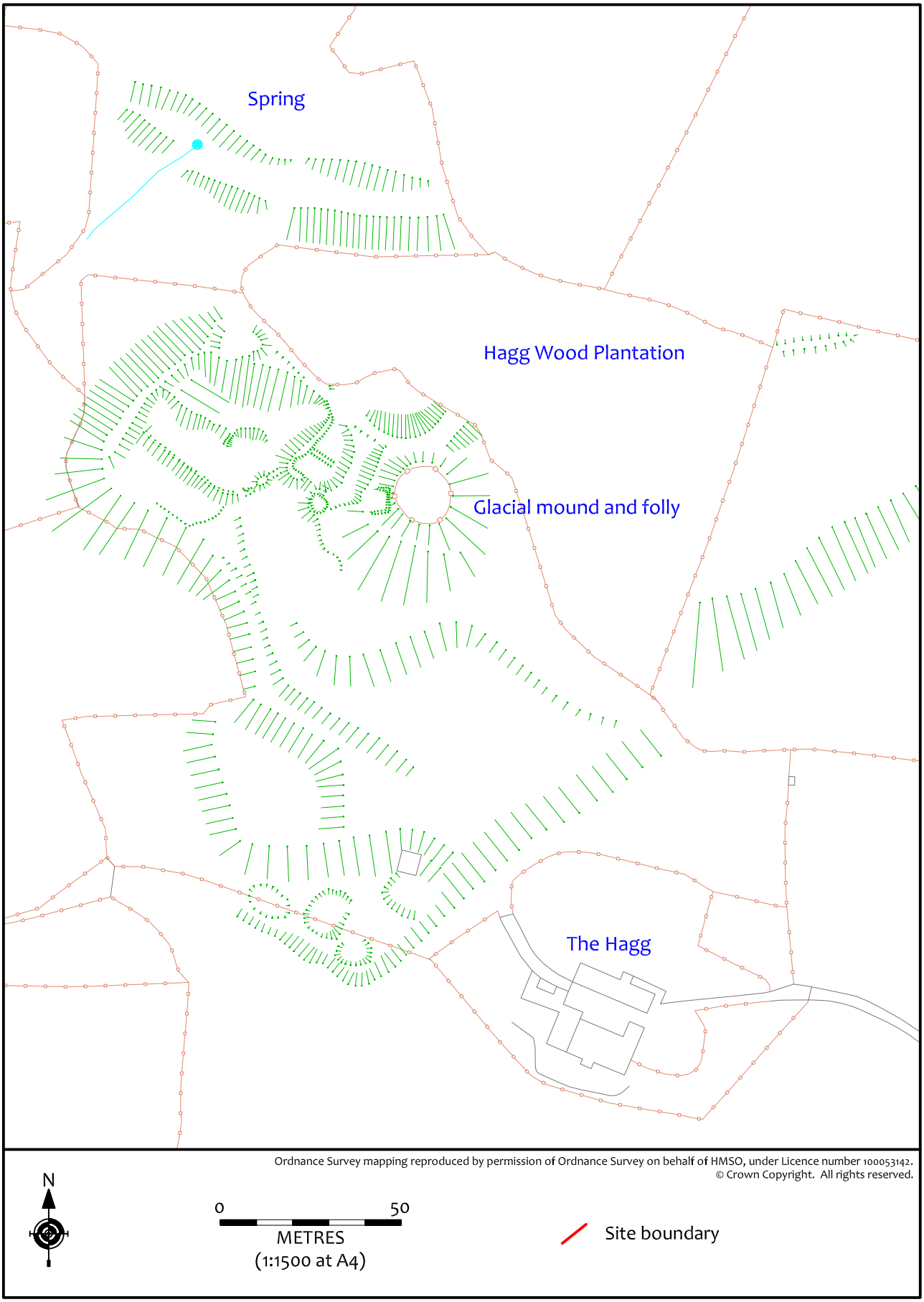


Figure 4. The results of the 2012 Total Station earthwork survey

2.2.6 Trench 3 was located within what was assumed to be the main enclosure, just northwest of the assumed entrances in the southeastern wall. While the trench failed to encounter structural remains, deposits within the trench contained late Roman pottery sherds and cinder.

2.2.7 Trench 4 was located to evaluate a potential trackway leading up by the southern wall of the plantation aligned northwest-southeast. The trench revealed a rubble bank with a faced edge bounding a cobbled surface with a line of kerb stones on its southwestern extent. The trackway was found to contain a central posthole within the trench. The excavation produced 3rd century pottery sherds.

2.2.8 **2013 Season**: Trench 5 aimed to evaluate the top of the supposed glacial mound marking the eastern extent of the main site. The excavation failed to identify any structures or deposits dating prior to the 19th century with the construction of the circular wall.

2.2.9 Trenches 6-12 were supervised by ASDU. Trench 6 targeted a large area of disturbance identified on the geophysical survey northeast of Trench 2. A man-made stone flagged platform was noted, essentially adjoining with a flat platform in the natural sandstone. Cut features in a clay seam were also noted, producing late 3rd century Roman ceramics, cinder, coal and potential kindling remains, suggesting the presence of a domestic fire in the close vicinity.

2.2.10 Trench 7 investigated the area between Trenches 1 and 4, following the line of the enclosure bank/wall marking the boundary between what was assumed to be the main enclosure and its eastern annexe. It was found that the bank matrix was comprised of rubble, with facing stones on its eastern edge. The feature formed an enclosure wall as expected, with the annexe primarily consisting of a cobbled surface that ran north and then northwest, joining with the 'track' identified in Trench 4.

2.2.11 Trench 8 was located east of Trench 2 and south of Trench 6, investigating a visible platform. A flagged surface was identified within the trench.

2.2.12 Trench 9 was a small test pit aiming to evaluate one of the earthwork depressions potentially marking the south-eastern entrance. The pit contained stonework, suggesting a wall or flagged track.

2.2.13 Trench 10 was excavated across the southern embankment of the main enclosure. The trench identified a well-built wall terminating in the southern 'gap' of the proposed entrance.

2.2.14 Trench 11 was a small test-pit aiming at evaluating a platform to the north of the site. The excavation produced evidence of a cobbled surface.

2.2.15 Trench 12 was a small test-pit located to the northeast of Trench 4. No archaeological remains were found within the trench.

2.2.16 **2014 Season**: This season was undertaken solely under SWAAG supervision. The season saw the excavation of a slot through the southeastern embankment, as well as a viewport into the southern entrance/passage to the southwestern platform (Trench 14). Further work was also undertaken east of Trench 7, and west of Trench 6 (Trench 13).

2.2.17 **2016 Season**: Five evaluation trenches were excavated in 2016, supervised by Vindomora Solutions Ltd. This season was aimed evaluate certain areas and earthworks in an attempt to answer certain queries. Trench A was located to the northeast of Trench 7, and between Trenches 4 and 12. The excavation uncovered a continuation of the cobbled surface observed in Trenches 4 and 7, and identified a thick stone wall running northwest-southeast.

2.2.18 Trench B was located west of Trench 7, east of Trench 11 and aimed to evaluate the potential of a platform in that area. The excavation uncovered the remains of a flagged surface and a further rubble bank.

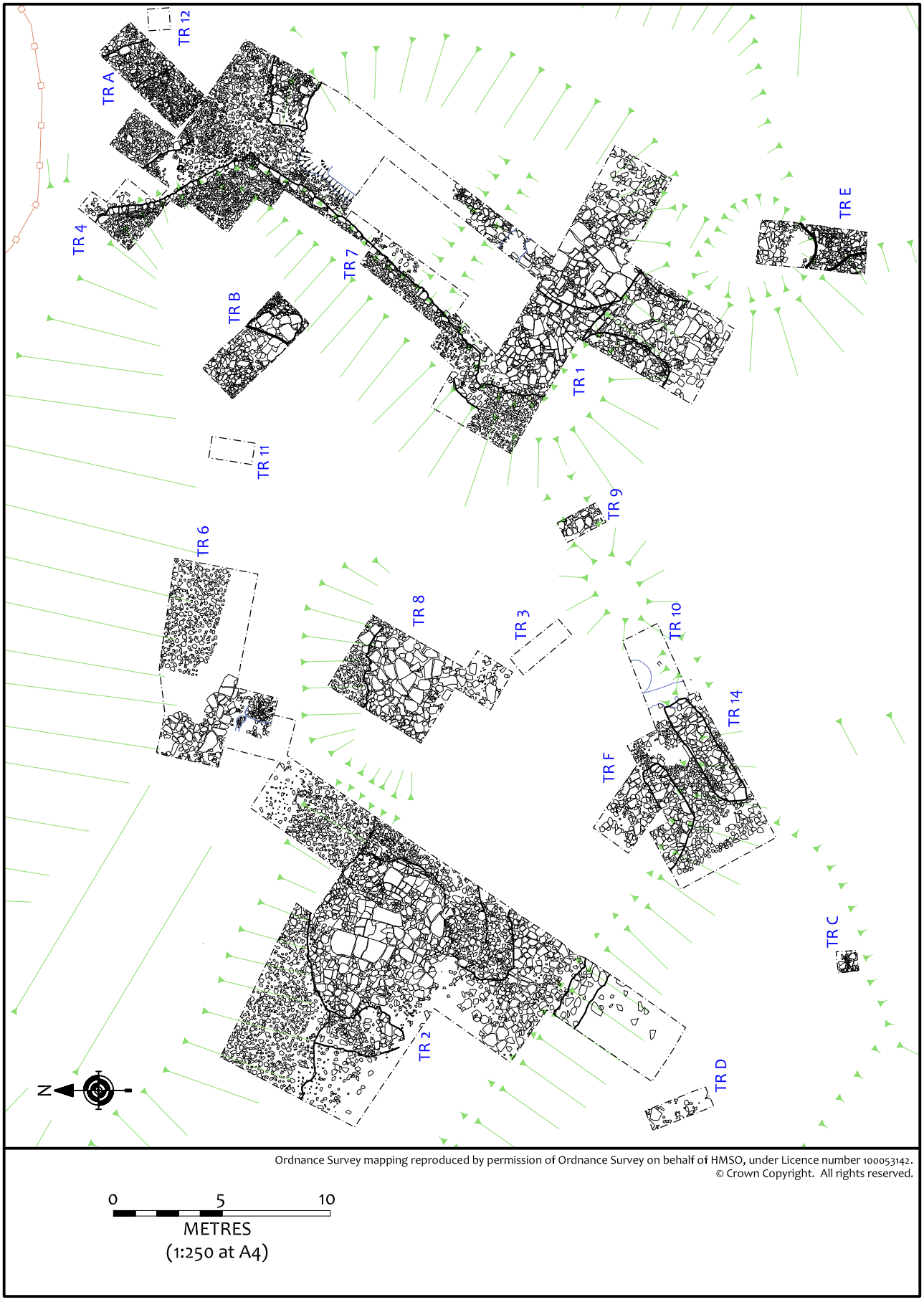


Figure 5. Excavations over the main settlement up to and including 2016

Plate 3. Aerial view of the site in Winter 2002, courtesy of Google Earth Pro 2018.

2.2.19 Trench C was a small test pit located southwest of the main enclosure, aligned to evaluate the potential of a lower enclosure wall continuing through this area. Structural stone and rubble remains were observed.

2.2.20 Trench D was a small trench located within the proposed lower platform, southwest of Trench 2. The excavation failed to reveal any structural remains, rather deep soil potentially suggesting an agricultural area.

2.2.21 Trench E was located to the southeast of Trench 1, situated over a potential platform on the southeast corner of the annexe. The trench revealed a slipped flagged surface and a curving rubble bank, as well as potentially some late Iron Age or native-ware pottery.

2.2.22 Trench F extended Trenches 10/14 northwest parallel with the southwestern main enclosure wall. The trench extended the paved 'yard' surface west.

2.3 The settlement within its wider landscape

2.3.1 As suggested by Laurie et al in 2010, the settlement appears to be part of a larger archaeological landscape with the site aligning with Site 102 to the south (see *Figure 6*, page 19). The extent of the settlement can be further highlighted by the study of aerial imagery and LIDAR (LIght Detection And Ranging). The Environment Agency LIDAR coverage of the area is complete at a resolution of 0.5m, which maps the site's earthworks out well.

2.3.2 *Plate 3* shows the site from an aerial perspective as it was during the Winter of 2002. The earthworks of the main settlement can be seen west of the glacial mound with further earthworks south of the mound.

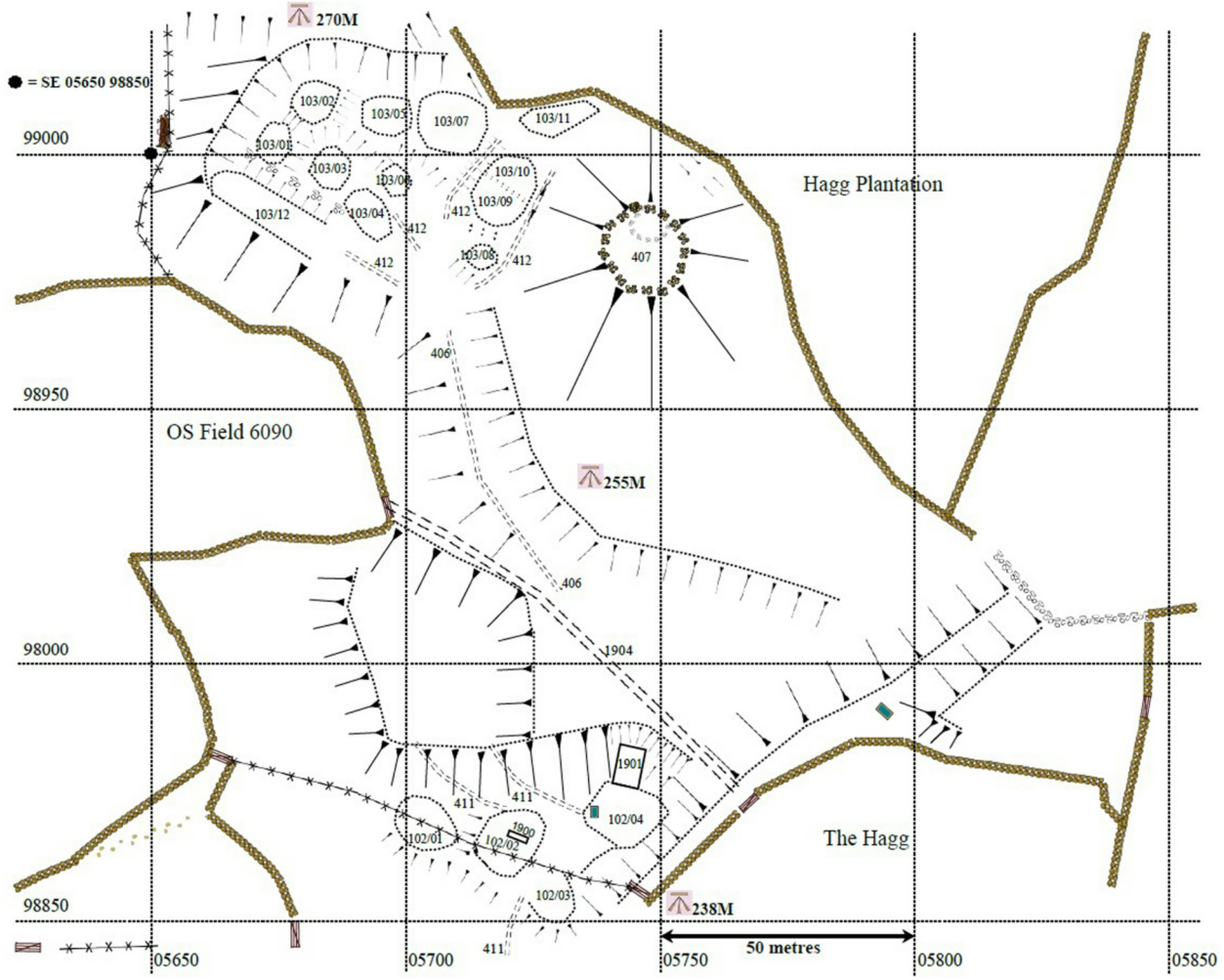


Figure 6 (above). SWAAG's 2009 plan showing sites 102 and 103

Plate 4 (below). LIDAR view of the site (dataset courtesy of the Environment Agency), with light set at 90° horizontal and 40° vertical

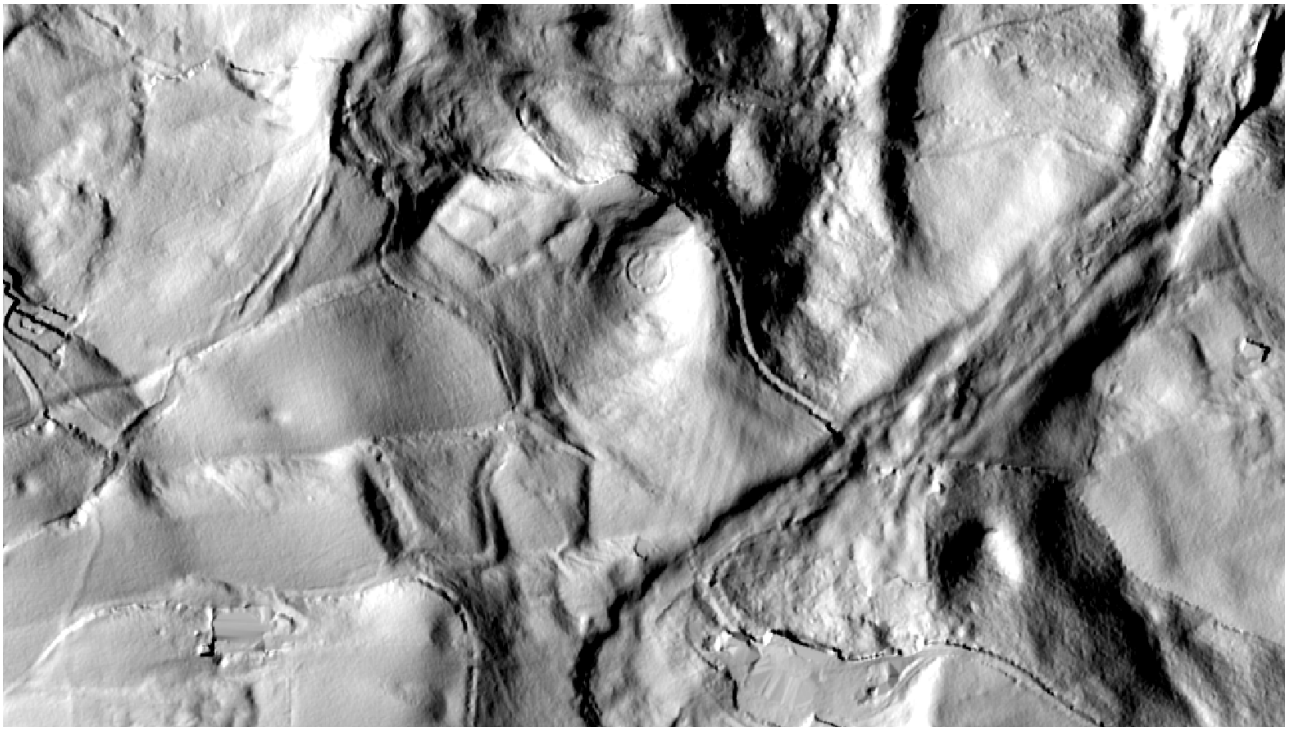
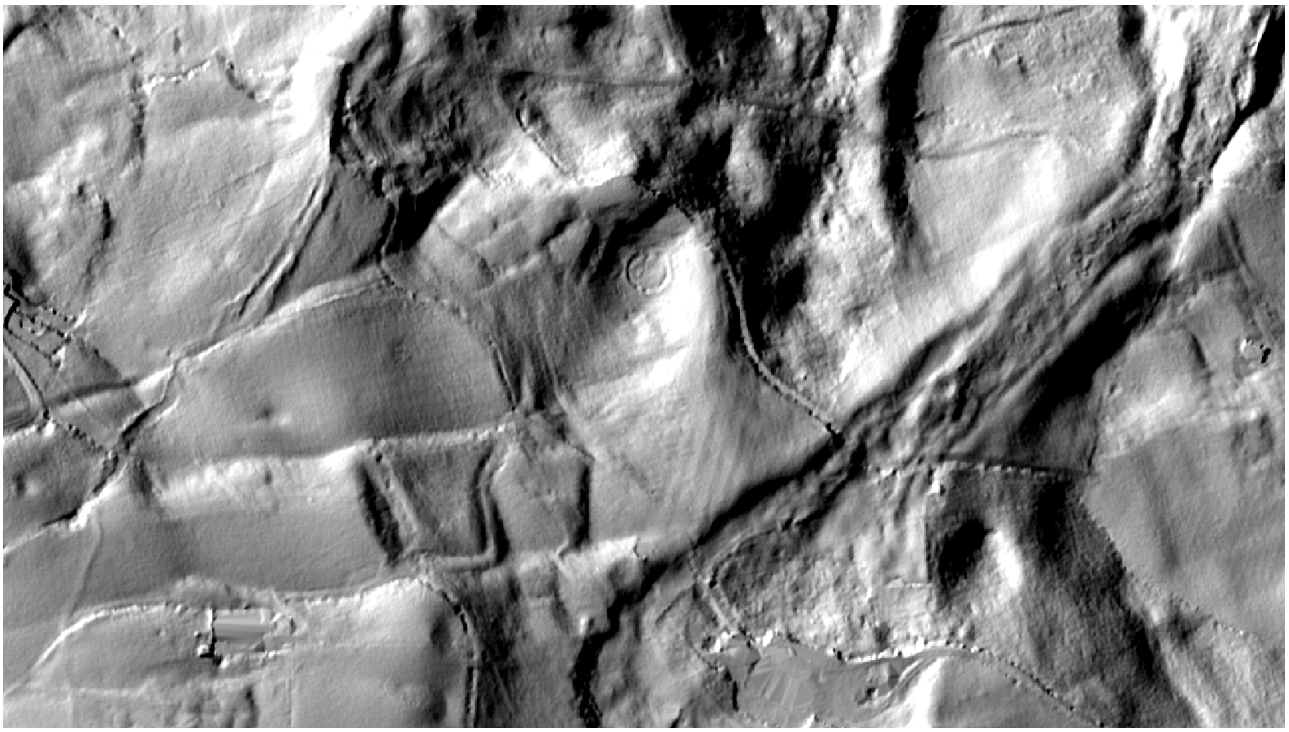


Plate 5 (above). LIDAR view of the site (dataset courtesy of the Environment Agency), with light set at 120° horizontal and 30° vertical

Plate 6 (below). LIDAR view of the site (dataset courtesy of the Environment Agency), with light set at 120° horizontal and 60° vertical



2.3.3 LIDAR imagery shows different alignments of depressions and extant earthworks depending on the angle of the light cast across the data. *Plates 4-7* show the site and its surroundings over 4 different angles of light. *Plate 7* shows the earthworks of the main site in the clearest contrast, and shows the southeastern track clearly. *Plates 4* and *5* show the main enclosure in less detail,

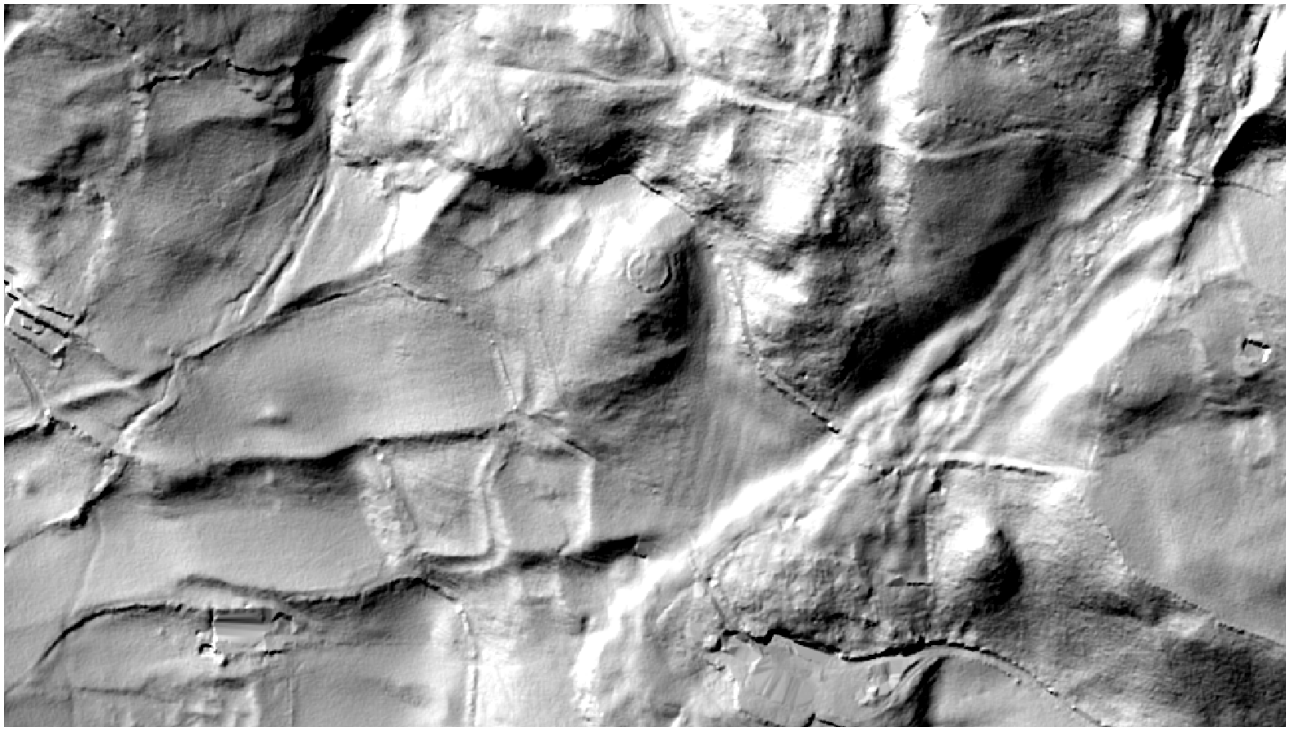


Plate 7. LIDAR view of the site (dataset courtesy of the Environment Agency), with light set at 300° horizontal and 40° vertical

but marks a potential track overlain by the ridge and furrow to the east. Finally, *Plate 7* highlights the ridges of the field system to the south and east of the site.

2.3.4 *Plate 8* (below) shows the amalgamation of the aerial and LIDAR imagery, clearly extending the settlement further than that originally surmised during the 2010 survey.

Plate 8. LIDAR view of the site (dataset courtesy of the Environment Agency), showing potential walls/embankments (green) and tracks/roads (purple). Post-medieval/modern activity is shown in red.

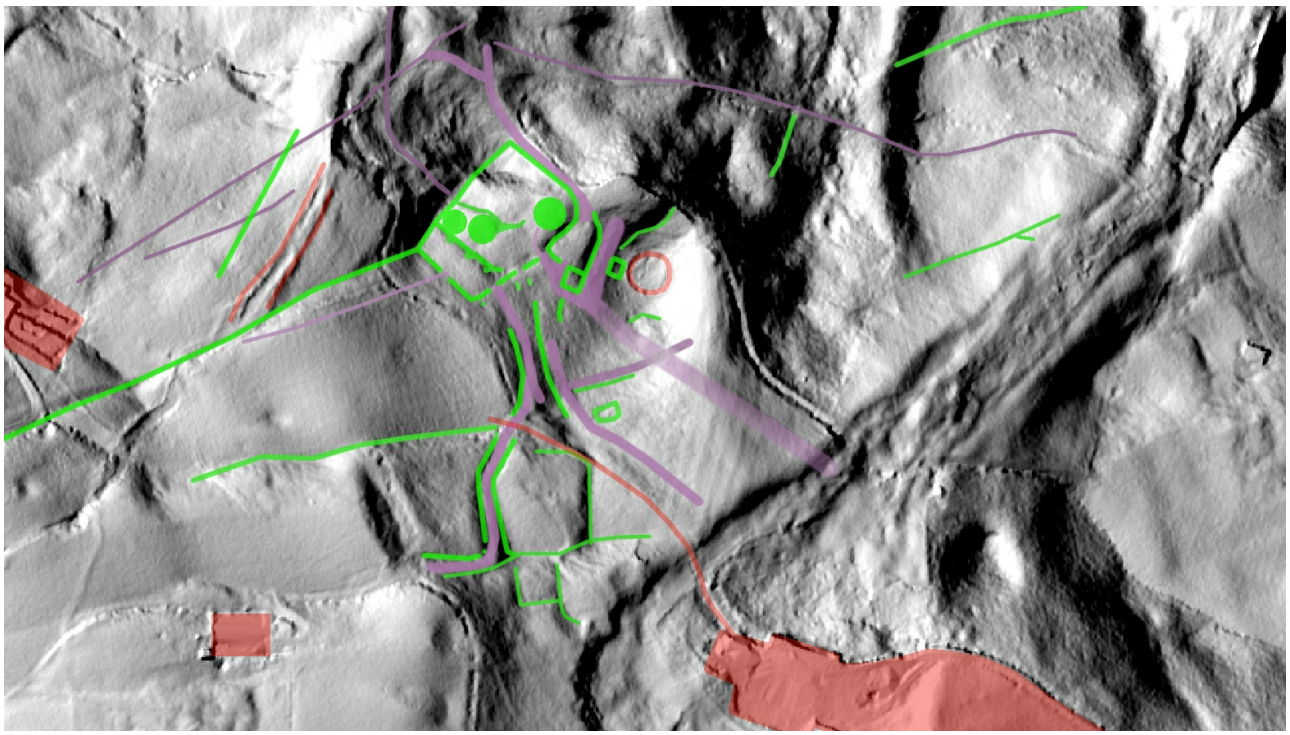


Plate 9. Excavation of the roundhouse in 2013, looking south

2.4 Summary and Site-specific research aims for 2017

2.4.1 The excavation undertaken up to 2016 along with the landscape surveys, aerial photography and LIDAR show that the site appears to be a central hub, likely a farmstead lying within an archaeological landscape.

2.4.2 The settlement itself appears to have at least two development phases, both lying within the Romano-British period, with abandonment likely in the mid-late 4th century. The main farmstead itself appears to belong to the later phase and utilised the natural escarpment of what is now Hagg Plantation on its northern edge, with an glacial mound against its eastern boundary. The western boundary of the main enclosure is built upon a natural drop to the west, with its southern edge overlooking the valley below. It was divided between a large enclosure with a corral or 'annexe' to the east and a further corral or platform to the south. Access to the eastern corral appears to have been from a drove-track to the north, and through a double gate to the south. So far, the main enclosure appears to be only accessible from the southeast, with one route leading to the southern platform, and two entrances/exits leading southeast toward 'Site 102'.

2.4.3 Evidence of the earlier phase on site takes the form of a roundhouse floor 'fossilised' in the flagged yard of the eastern corral. Just to the southeast of this, early pottery was also recovered, suggesting that the original early settlement may have clustered around the west and southwest base of the glacial mound.

2.4.4 The later phase involved the construction of the main enclosure, the conversion of the area surrounding the original roundhouse base into a large flagged corral or yard, and the construction of at least one roundhouse. The roundhouse in question, situated in the western quadrant of the main enclosure was found to have late 3rd century pottery fragments beneath its flagged floor, giving us a 3rd century date for the redevelopment of the farmstead. While only one roundhouse has so far been discovered within the enclosure, LIDAR suggests a potential smaller structure directly to the west of the house already identified, and a potentially larger structure on a higher platform directly to the northeast. Of significance was the discovery of two stone crafted doorsills, likely produced by the same craftsman. One was set in the eastern doorway of the roundhouse and suggested a single door with side hinge and shallow rebate, suggesting the door would be lifted and dropped into place within the rebate, creating a wind-proof barrier. The second formed the southern entrance/exit of the eastern corral, suggesting a double gate with central bolts.

2.4.5 Finds recovered from the site include a quernstone fragment, iron agricultural tools, glass and jet jewellery and Roman pottery including Samian and mortaria. Environmental samples show that spelt wheat and barley were the main crop in the area, standard with Romano-British occupation.

2.4.6 With the work to date, it was decided that a large open area would be excavated east of Trench 2 in 2017, conjoining with Trenches 3, 8, 9, 10, 14 and F. The main archaeological objectives of the 2017 excavation were:

- Was this an area principally for habitation, and if so how many roundhouses are we able to identify and were they sited in an area enclosed by walls.
- Over what period were the roundhouses inhabited.
- Associated with any roundhouses, are we able to locate:
  - any midden(s);
  - hearths;
  - or other evidence of habitation which will help with dating.
- If the settlement was enclosed can we identify the entrance(s) to the enclosure;
- Are we able to find any evidence for pre Romano-British settlement/use of the site and if so, how did the site evolve to what was found at the abandonment phase.

3. Methodology

Plate 10. The 2017 team at the end of the season

3.2 Basic excavation methodology

3.2.1 The excavation area was positioned to overlap with the 2012 western excavation by 1 metre along its western boundary in order to establish visual context and to allow GPS recording of the door sill uncovered in 2012. This allowed for cross-referencing feature and trench locations since the first season.

3.2.2 The excavation area aimed to investigate the alleged southeastern entrance and the potential 'yard' within the assumed line of the settlement's southern boundary wall. In plan view, the excavation area measured 27.7m on its northeastern edge, 19.9m on its southeastern edge, 15m on its southwestern edge and 21.3m on its northwestern edge. The initial edge of the excavation was laid out by topography, with the excavation area then surveyed in by GPS.

3.2.3 The topsoil and turf was removed by hand using spades and shovels, with spoil heaps and turf walls established a distance away from the excavation area for Health and Safety reasons (prevention of slippage of spoil back into the excavation area). Once the majority of the overburden was removed across the site, the excavation area was then systematically cleaned using shovels, spades, mattocks and trowels.

3.3 Recording

3.3.1 Cleaned areas were recorded photographically (digital) at the end of each day or section as appropriate at the time. The photography was done by both SWAAG and Vindomora Solutions

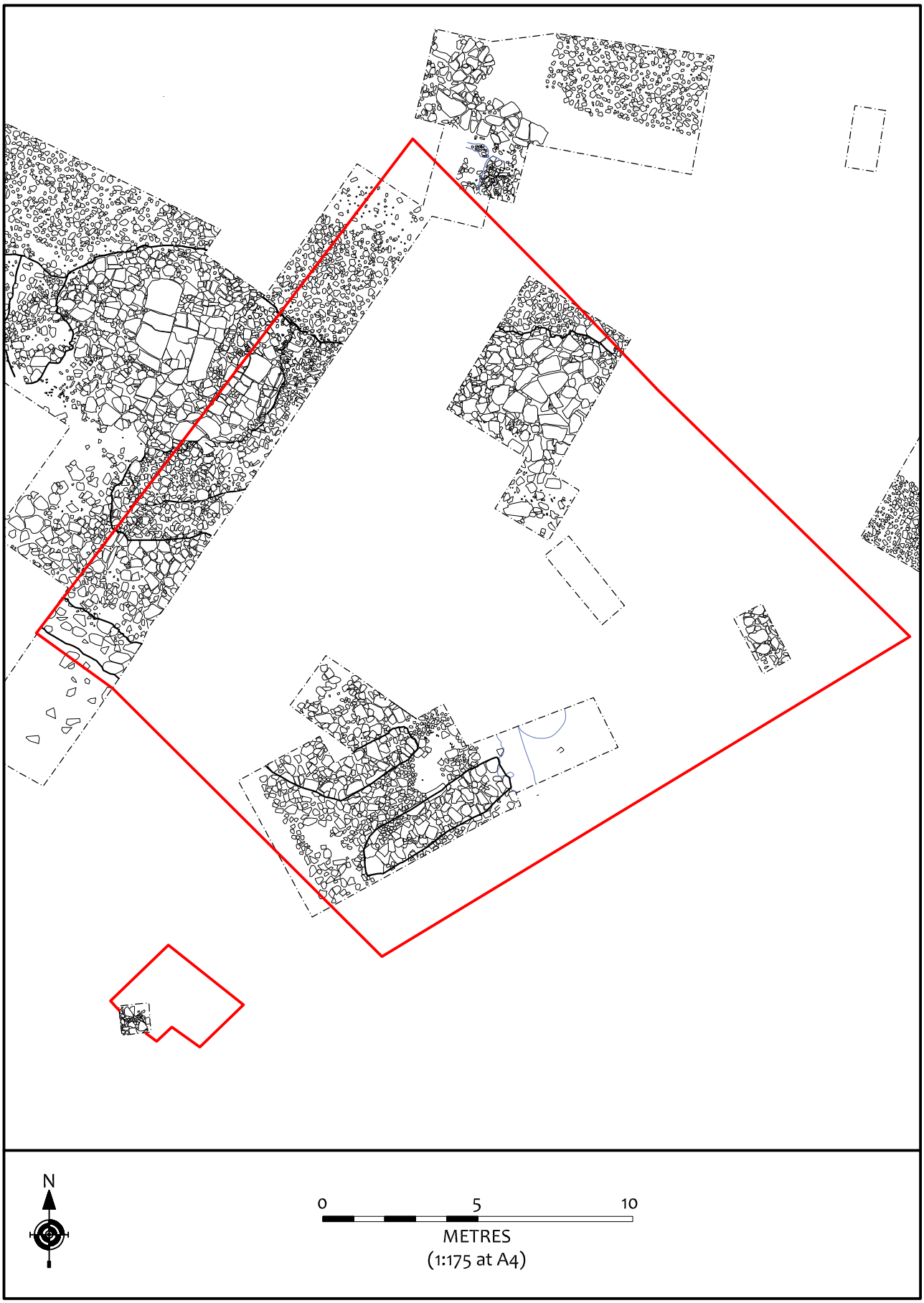


Figure 7. The 2017 season excavation area, highlighted in red

Ltd, the latter acting as a backup. General site shots and working images were also undertaken throughout the project.

3.3.2 The site was planned utilising photogrammetry with the edges of features and control points established by GPS.

3.3.3 The feature and context recording was undertaken by project leader Philip Bastow. **47** contexts within or associated with **12** archaeological features were uncovered by the excavation. Context numbers will be labelled in the forthcoming text with (**#**) for deposits and fills, [**#**] for cuts, (**G#**) for natural geological substrates and archaeological features with (**F#**).

3.4 Finds and Sampling

3.4.1 Where appropriate, palaeoenvironmental samples were retrieved for analysis from features deemed by the excavation team to be uncontaminated by modern intrusion (see Section 5.8). Samples are denoted in the text by {**S#**}.

3.4.2 All artefacts recovered were bagged and recorded by Feature and Context identifiers (see Sections 5.1-5.7).

3.4.3 Section 4 describes in technical detail the archaeological features investigated and recorded during this project. Section 6 gives a discursive account of the archaeological remains.

3.5 Backfilling

3.5.1 Once the excavation was completed, the site was backfilled utilising a mini tracked excavator, with turf re-laid by hand.

Plate 11. Re-laying the turf by hand

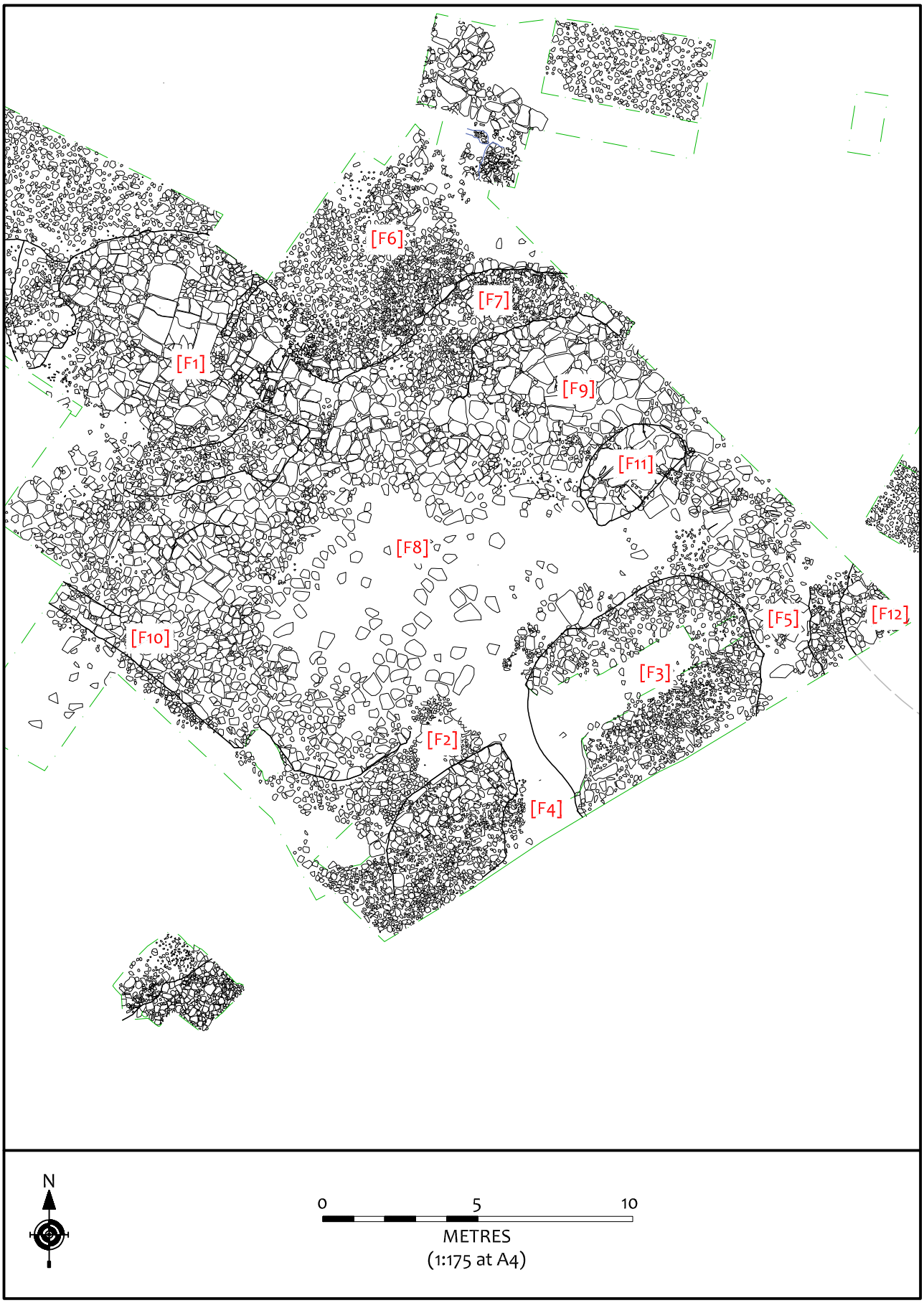


Figure 8. The 2017 excavation area with individual Feature identifiers marked in red. These features are described individually in Section 4

4. The excavation: technical description

Plate 12. Looking west through the roundhouse doorway.

4.1 [F1] Round-house

4.1.1 The roundhouse was originally identified in 2012, centred at NGR 405686 498996. The building had an internal diameter of *circa* 7m, with a wall thickness averaging 1m, and one established entrance in the east wall.

4.1.2 The internal floor of the roundhouse (1) comprised sandstone slabs. Pottery from within a palaeoenvironmental sample retrieved in 2012 from beneath the floor gave a date of 3rd century AD (giving us a *terminus post quem* construction date for the building). In the centre of the floor was the remains of a hearth, comprised of large slabs (40). The feature measured 2.84m long by 2.53m wide, and paleoenvironmental samples produced burnt material from within the binding matrix. To the east of the hearth a small internal dividing wall (41) was noted, 0.20m wide and 1.08m long (within the excavation area). This latter feature was observed as surviving as foundation level only. During the 2017 excavation, the southeastern/eastern extent of the roundhouse was overlapped by 1m.

4.1.3 A 5m length of the southern wall (2) of the roundhouse was exposed within the excavation area. It averaged between 1.09 and 1.37m wide, and remained approximately 0.30m tall. The wall comprised sandstone facing stones (outer edge) and rubble. Rubble (3) including likely wall-tumble extended 0.9m south and east from the wall itself, overlying the yard surface below.

4.1.4 The entrance in the east wall was marked by a stone door-sill (9). The sill was located on the inner edge of the doorway, and measured 1.87m long and 0.45m wide. A socket was noted 0.24m from the northern end, with am upstanding rebate 0.16m from the eastern edge, with a 0.03-0.04m wide groove.

4.1.5 The entrance held evidence of a 1.74m wide porch (25). This was flagged, running northwest-southeast from the door sill for 1.63m and bounded by a cut drain [6] on its eastern edge. Similar flagging (39) continued for 1.08m to the east of the drain. On the southern side of the doorway

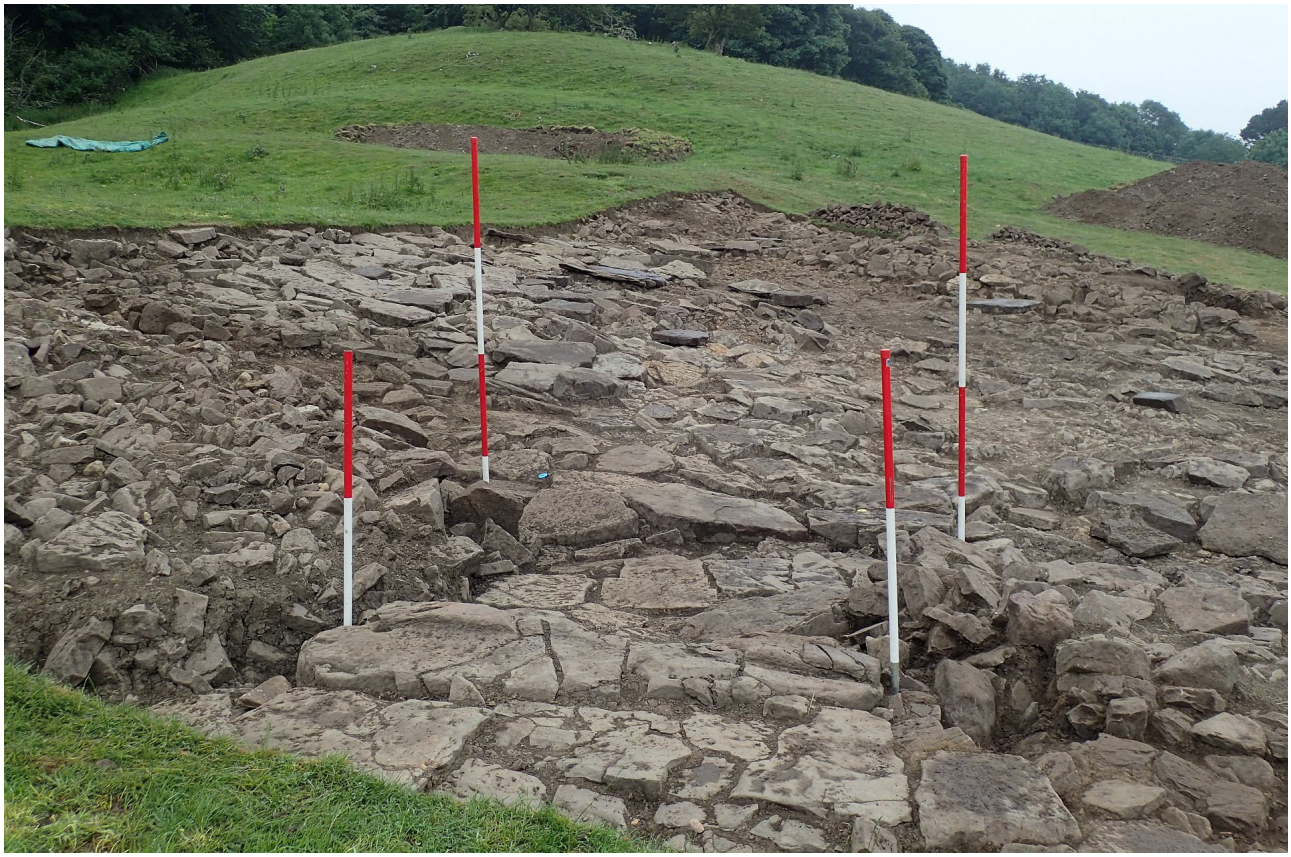


Plate 13 (above). The entrance looking east.

Plate 14 (below). The entrance looking north

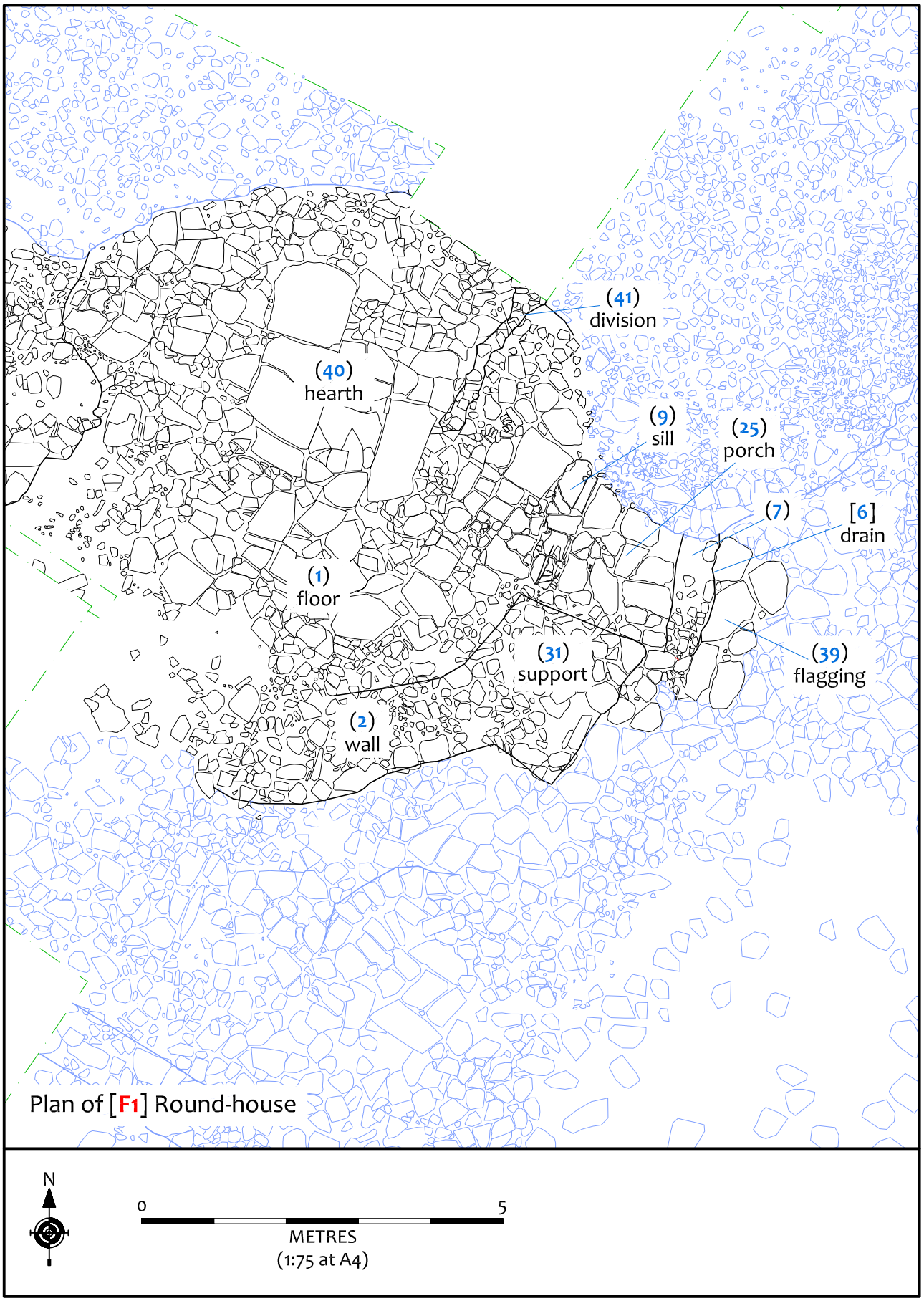


Figure 9. Plan of [F1] showing context identifiers as described in Section 4.1

Plate 15. View southwest showing roundhouse wall width

was a squared block (31) of rubble 2m long by 0.88m wide that appeared to be a later addition, butting wall (2) and creating an extruding buttress or entrance jamb.

4.1.6 On the north side of the doorway, the wall of the roundhouse (24) was indistinct and appeared as rubble.

4.1.7 The drain cut [6] measured 0.52m wide and 1.67m long and was aligned with the front of the porch. The drain was filled with dark grey/black clay soil (7) with rubble inclusions, and averaged between 0.03 and 0.05m deep.

4.1.8 The 2017 excavation produced a number of finds from the roundhouse. Quern segments <6> and <10> were retrieved from wall tumble (3) south of the roundhouse. A further quern fragment <11> found to have been used as packing in floor (1), southwest of the entrance. A fragment of a honing stone <12> was found within rubble (3) overlying the southern edge of the porched entrance. East Yorkshire Calcite Gritted Ware pottery sherds were found within wall (2) and rubble (3), dating to the 4th century AD.

4.1.9 A sample {S4} was taken from beneath the flagged entrance of the external porch (25), producing charcoal and cinder, further supporting the theory that context (40) was in use as a hearth.

4.1.10 *Focal point*: A well built sturdy round building, constructed in stone, the inside having a well-laid flagged floor. The thick walls created a deep entrance/porch on the east side with a wide door-opening marked by a rebated stone doorsill (the door swung inward on a pivot set in the northern end of the sill). The doorsill had a shallow groove running along the rebate's inner edge, initially thought to have been cut to allow any water that entered to run off. However, due to the construction of the 'porch' it is more likely that when the door was swung shut, it could be dropped into the groove against the rebate, securing the door and making it windproof. A drain had been constructed along the eastern entrance, suggesting a stone-constructed version of the classic Iron Age drip-ditch/gully for the roof.

4.2 [F2] Southern entrance to lower platform

4.2.1 This feature was noted in the southern extent of the site providing access between the main settlement area and a further platform to the southwest. Elements of the entrance were initially noted in trenches excavated in 2013 and 2014, with this excavation investigating the overall feature.

4.2.2 The trackway (16) was aligned northeast-southwest and measured an average of 1.4m wide. It comprised two layers of packed cobble, with the upper strata (42) having been removed in the 2014 excavation. Below the cobbled track was shale natural substrate. The trackway was bounded on its long axis by wall (13) to the south and wall (44) to the north. It was noted that the northern extent of the trackway spread around the northern terminus of wall (13), likely forming a cobbled track leading southeast out of the excavation area. It was also noted that the track curved to the south and west leading potentially down to a lower platform (see Section 4.13).

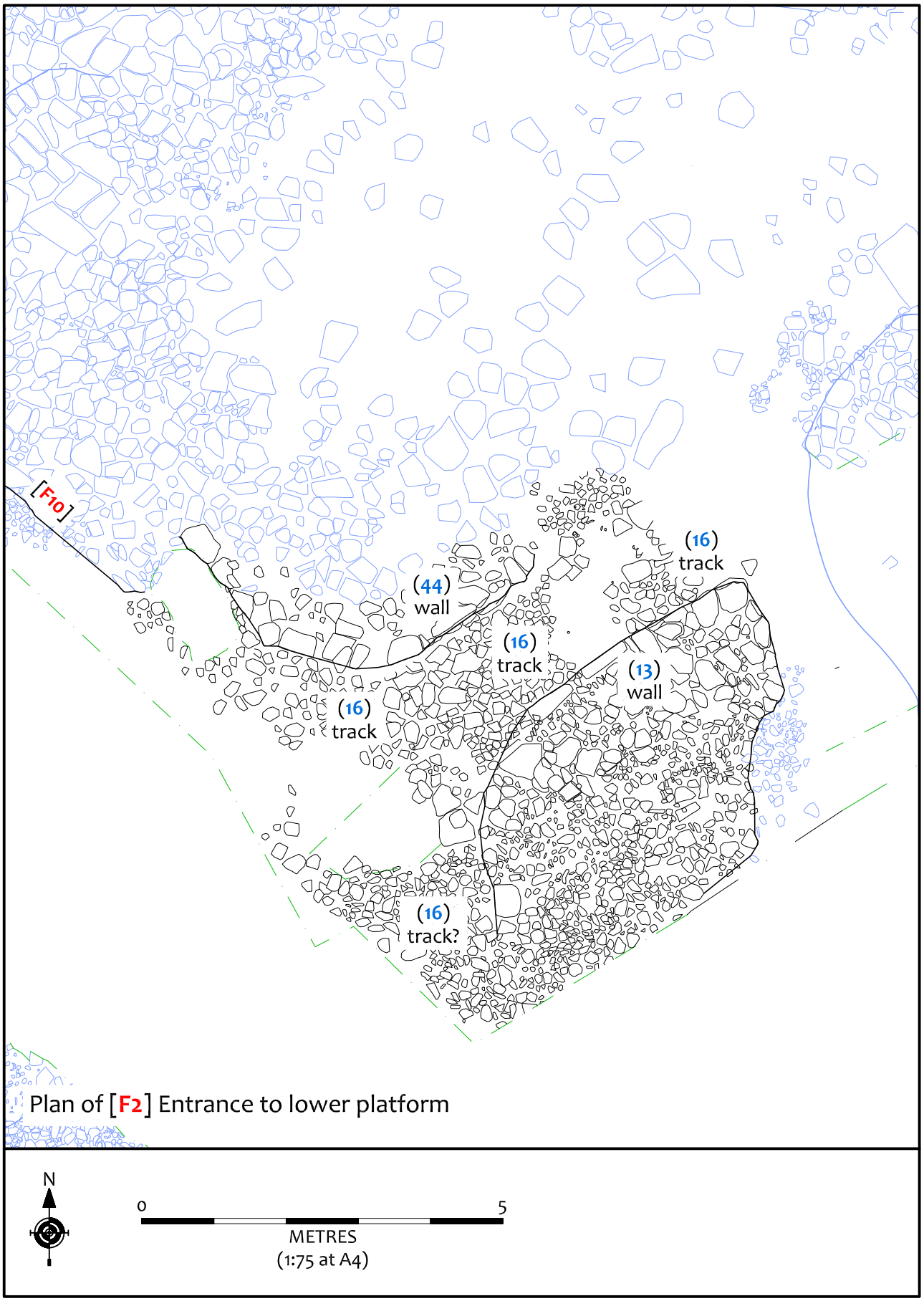


Figure 10. Plan of [F2] showing context identifiers as described in Section 4.2

4.2.3 Southern wall (13) measured 4.09m long (northeast-southwest alignment) and 1.4m wide. The structure was standing to 0.40m high, and was constructed with sandstone blocks

4.2.4 Northern wall (44) measured 6.4m long and curved west and then northwest. This wall seems potentially a later addition, with its western terminus out of alignment with the southern enclosure

Plate 16 (above). The entranceway looking north

Plate 17 (below). The entrance looking west.

Plate 18. Cross-section of [F3] looking north.

wall [F10]. The wall (44) was faced on its southern side, with its western extent in line with the presumed inner facing (north-facing) elevation of the enclosure wall.

4.3 [F3] Potential robbed and collapsed embanked platform

4.3.1 This feature was located in the eastern extent of the excavation area and consisted of a large oval rubble mound 7.81m long, 5.3m wide and averaging 0.45m high. The feature appeared to be dividing two potential entrances, [F5] to the north and [F4] to the south.

4.3.2 The mound was originally investigated in 2013 and again in 2014, when a large trench was cut through its length. The latter trench recovered a single sherd of 3rd-4th century mortarium.

4.3.3 Investigation of the mound suggested that the natural substrate consisting of compact clay (G1) banded with shale (G2) had potentially been scraped and levelled for the construction of the mound. Large retaining stones (35) had then been placed along the western and eastern edges (45) of the mound, and the structure was then built up with three turf layers (37) which compacted together with the weight of rubble (17) atop. The mound sloped to the east, with the full extent of the rubble not lying within the excavation area.

4.3.4 When the central length of the feature was investigated in 2014, no evidence of a central structure or post-holes was observed. However, the sheer amount of loose rubble, some of it sizeable, suggests that there may have been a wall within or on top of the mound. However, the disturbance from 2014 and robbing in antiquity made it impossible to ascertain during the 2017 season.

4.4 [F4] Entrance

4.4.1 Between the southern extent of mound [F3] and the northern termination of wall [F2]/(13) was a 1.07m wide gap, which appeared to form an entrance into the main enclosure [F8]. The track

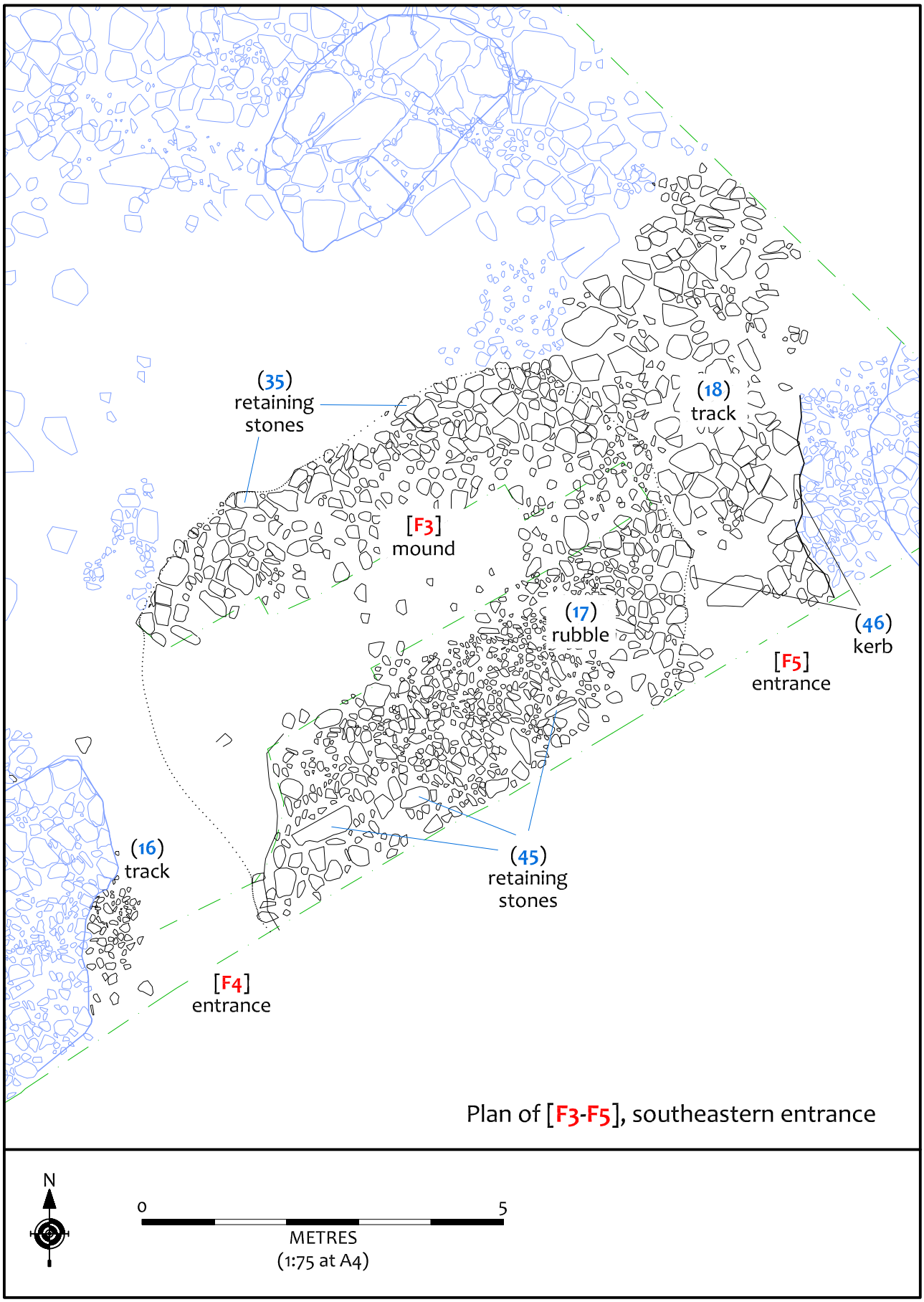


Figure 11. Plan of [F3], [F4] and [F5] showing context identifiers as described in Sections 4.3-4.5

Plate 19. View of entrance track [F4] looking northwest

comprised compacted cobbles (**16**), which turned southeastward out between walls (**44**) and (**13**) in [**F2**] and headed downslope through the gap.

4.4.2 Investigation of this surface produced a Roman coin (SF 8 silver denarius) dated to the 3rd century AD (see Section 5.6 for more details). 3rd-4th century pottery sherds were also recovered.

4.4.3 The cobbled track (**16**) was noted to be one course deep through the entrance, averaging 0.11m thick.

4.5 [F5] Entrance

4.5.1 This feature was initially investigated in 2013 and again in 2014, when it was initially identified as either a truncated wall or a track.

4.5.2 The entrance lay between the southwestern extent of the embankment for enclosure [**F12**] and the northern extent of rubble mound [**F3**]. This flagged trackway (**18**) measured 3.1m long and appeared to run eastward out of the excavation area. The trackway was funnel-shaped, 1.6m wide at its narrowest extent and appeared to conjoin with flagged surface [**F9**] at its western extent. The trackway had been robbed in antiquity but the remains of limestone kerbstones (**46**) were noted on both the north and south edges of the track. Investigation of the flagging revealed that it was laid upon a compact cobbled surface (**38**) which extended west under [**F9**].

4.6 [F6] Revetted wall and bank

4.6.1 This revetted wall and bank was located in the northern extent of the excavation area, and conjoined with the northeastern wall of roundhouse [**F1**] while forming the western boundary for pathway [**F7**].

Plate 20 (above). The flagged entrance [F5] looking northwest.

Plate 21 (below). The revetted wall and bank [F6], looking north

4.6.2 This feature utilised the natural contour of the landscape, which was then built up with facing stones (4) and rubble (5). A width of 4.3m of this feature was revealed within the northern extent of the excavation, narrowing to 2.1m where it met the porchway for the roundhouse.

4.6.3 The excavation showed a considerable amount of rubble (24), presumably from the collapsed wall (4) overlay an area 1-1.9m south and east of the wall itself. The extent of the rubble suggests that the wall was initially substantially higher, with the collapse occurring due to the elements,

gravity and likely during the robbing of the site in the post-medieval period. The remains of the faced wall (4) itself revealed varying levels of preservation, with breaches in the facing stones allowing the rubble bank core behind to spill outward in two areas, whilst the rest of the wall remained between 1-2 courses high.

4.6.4 The removal of the rubble spread (24) revealed a number of artefacts, including pottery, a stone cosmetic pallet, a quernstone segment, a piece of lead and animal bone.

4.6.5 The wall was noted to potentially form the north wall of the roundhouse porch which then turned northeast, suggesting the line of a marked path to an upper platform north of the current excavation area.

4.7 [F7] Path to upper platform

4.7.1 This path was bounded on its west side by faced wall [F6]/(4) and to its east side by the raised flagging comprising [F9]. The path was composed of a packed deposit of cobbles (20) averaging 2.1m wide: the northern extent of the path ran out of the trench, appearing to be heading for an upper platform, but 4.83m of the path lay within the excavation area.

4.7.2 Excavation of the trackway revealed a collection of worked flints (see Section 5.2).

4.8 [F8] Main flagged yard

4.8.1 The main flagged yard was bounded on its south side by enclosure wall [F10], its east side by mound [F3], its west side by the roundhouse [F1] and to the north by raised platform [F9]. On average it was 10.7m wide and 12.1m long.

Plate 22. The trackway [F7] against the revetted wall [F6], looking north

Plate 23. Southwestern corner of flagged yard [F8]

4.8.2 Beneath the yard was natural substrate (G1), comprising clay to the north, west and south and shale (G2) to the east. The southern extent of the yard, comprising a length across the site of approximately 5m wide had been packed with soil and rubble (33) to raise the level of the surface above creating a flat platform. Above this was cobbled/metalled layer (23), averaging 0.06m thick with a silty-clay levelling layer (36) above. On top of this was flagged surface (10), which had notably been robbed from the central and eastern extents of the feature.

4.8.3 2.5m from the western extent of the excavation area and 1.3m south of the roundhouse wall, the potential remains of a circular feature (47) within the flagged surface was noted. This comprised a curved edge of eight stones, with flags to the southeast. The feature measured 2.2m in diameter, and taken in conjunction with sample {S5}, this feature may have been an external bonfire base.

4.8.4 Numerous sherds of pottery were recovered from the overburden across the yard, but nothing was observed lying within the surfaces themselves. A palaeoenvironmental sample {S5} was taken from within the (23)/natural substrate interface producing charcoal, cinder and calcined bone suggesting the close proximity to a fire.

4.9 [F9] Raised flagged terrace/platform

4.9.1 This terrace/platform was located at the northern extent of the excavation, bounded on its west side by pathway [F7] and extended to the east as the flagged entrance of [F5]. The northern extent of the feature lay outside of the excavation area, and to the south the platform could be seen to slump across the flags of the main yard [F8].

4.9.2 Within the investigation area, the feature measured 10m long and 4.9m wide. Over the natural clay (G1) was a packing layer of coarse stones, pebbles and clay (38). This deposit was thicker to the south of the feature (0.1m thick) tapering to 0.05m to the north. On top of this was the flagged surface (21), noted to step up from the pathway to the west and yard to the south.

4.9.3 2.4m from the eastern extent of the terrace a limestone feature [F11] was set within the terrace.

4.9.4 Investigation of the terrace produced no artefacts.

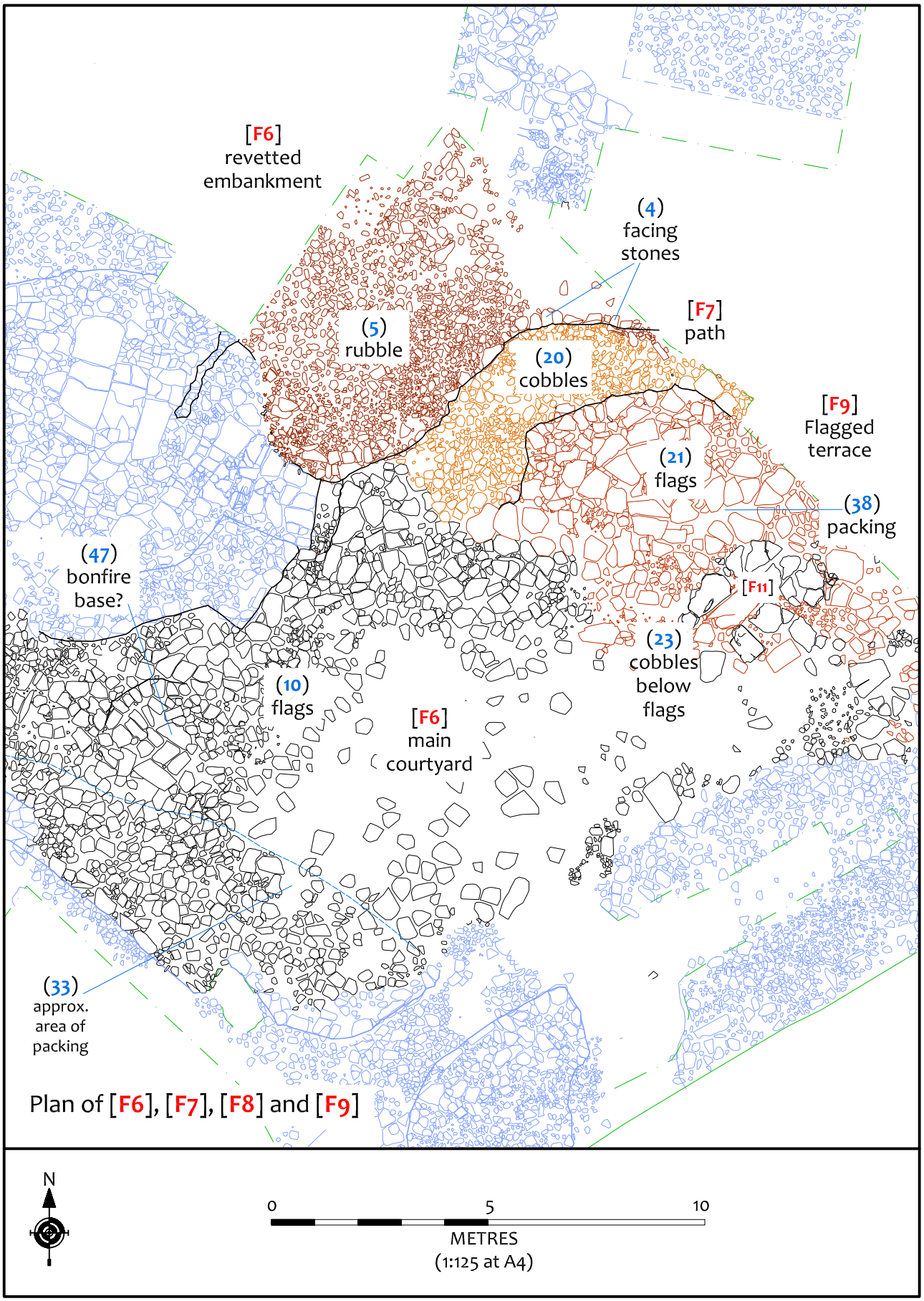


Figure 12. Plan of [F6-F9] showing context identifiers as described in Sections 4.6-4.9

Plate 24. The western extent of the flagged terrace [F9] looking northeast, with the cobbling of trackway [F7] to the left.

4.10 [F10] Revetted enclosure wall (south)

4.10.1 This feature marked the southwestern edge of the excavation area, and was originally investigated in 2012 when it was interpreted as a sturdy enclosure wall.

4.10.2 6.4m of the revetted wall was in place (from the western edge of the excavation), with facing stones noted on the south side. Only 2.2m length (from the western edge) remained with facing stones on the northern elevation. Where both sides were *in-situ*, the wall averaged 0.9m wide. Of interest where the north side of the wall was no longer in place, the flagging of yard [F8]/(10) appeared to run to the break of slope, with the revetment of the wall to the south marking its edge. As such, the wall may not have continued across the revetment as originally thought, but may have stopped at the 2.2m mark previously noted. To the east of flagging (10) was a short gap (34) in the structure containing rubble, before hitting wall (44) of feature [F2].

4.10.3 The revetment was constructed by digging out a level base for the wall, where flat foundation stones (29) were laid. Over this was the main construction of the revetment utilising stone and boulders angled with the natural slope within a matrix of clay and rubble (11) similar to the base of the yard (33).

4.10.4 A narrow band of stone (43), was observed spanning entrance [F2] on its south side, potentially suggesting the remains of a collapsed wall: this wall may be an extension of the main enclosure wall (F10), and as such may indicate that the wall was extended in a later development phase, blocking entrance [F2]. The remains were 1.6m long and 0.40m wide. Top the south of this was an area devoid of structural material (26) but was found to contain a single burnt bone. A

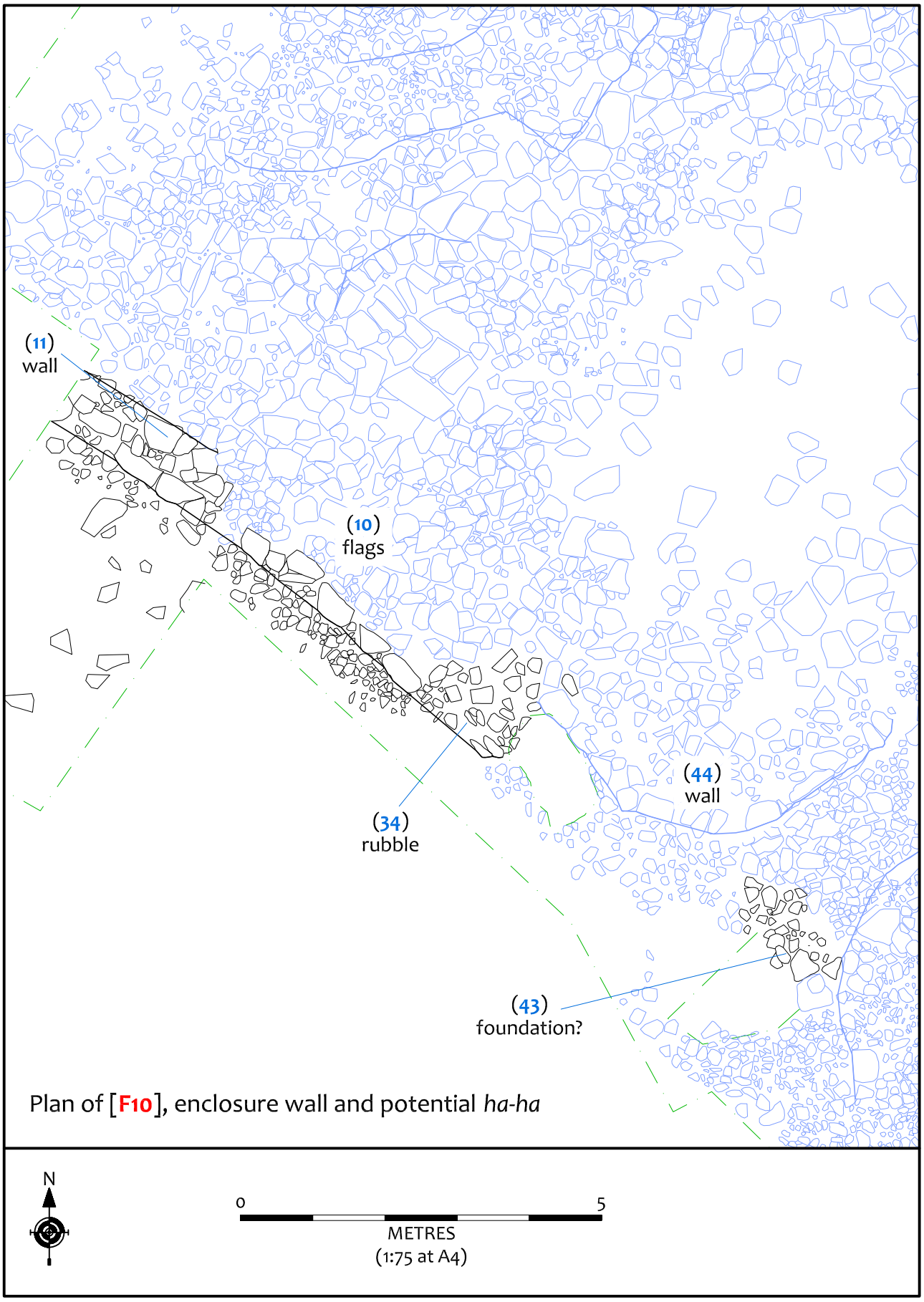


Figure 13. Plan of [F10] showing context identifiers as described in Section 4.10

Plate 25. Section through revetted wall [F10] looking west showing construction.

palaeoenvironmental sample {**S7**} was taken containing spelt wheat, fuel waste and charred plant debris.

4.10.5 Investigation of the revetment revealed a concentration of animal bone including cattle, sheep, pig and dog. A palaeoenvironmental sample {**S8**} was taken from within the wall which was found to contain charcoal, coal, cinder and charred wheat and barley.

4.11 [F11] Crinoidal limestone feature

4.11.1 This limestone feature was set within the stone flagging of terrace [**F9**]. The feature was 3.8m long and 2.2m wide and comprised large crinoidal limestone blocks (**22**) surrounding a central sandstone block.

4.11.2 The feature was noted to have slipped southward (with the slope) but appeared to have originally formed an oval shape. The crinoidal blocks were worn smooth on their upper surfaces but remained rough below, suggesting that the upper surfaces may have been utilised or subject to the elements.

4.11.3 A palaeoenvironmental sample {**S2**} was taken from beneath the central sandstone block, which revealed trace elements of oak charcoal.

4.12 [F12] Eastern annexe enclosure wall

4.12.1 This feature was the main enclosure wall of the eastern annexe noted in Trench 7 during the 2012-2013 seasons.

Plate 26. The crinoidal limestone feature looking southeast

4.13 Extension to Trench C

4.13.1 In 2016, a small test pit 'Trench C' was excavated over a potential earthwork (now confirmed by LIDAR imagery) possibly forming a further platform south of the main settlement enclosure. Along with Trench D, in 2016 this area suggested a potential walled agricultural field. The expansion of Trench C revealed the remains of a tumbled wall and a metalled surface.

4.13.2 The wall comprised the southeastern half of the trench, and comprised rubble in a soil matrix (**28**) aligned southwest-northeast. To the northwest of this was a firm metalled surface (**27**) similar in makeup to the track running southwest from [**F2**].

4.13.3 Excavation of this small extension revealed calcite gritted ware from the overburden.

4.14 Natural substrate

4.14.1 Natural substrate was encountered in a number of places within the 2017 excavation areas.

4.14.2 (**G1**) was a compact clay, noted in the northern section of the excavation area.

4.14.3 (**G2**) was a compact friable shale, observed in the southeastern section of the excavation area.

4.14.4 Though not seen within this excavation area, previous seasons noted an outcrop of stone north of the current area within Trench 6. This has been included in the natural substrate register as (**G3**).

4.15 Overburden

4.15.1 The overburden across the site comprised an upper strata of turf and topsoil (**OB1**), heavily mixed with a gritty subsoil (**OB2**). The overburden itself showed signs of heavy trample by sheep during the wet seasons. Within the overburden was also the remains of the backfill from previous seasons.

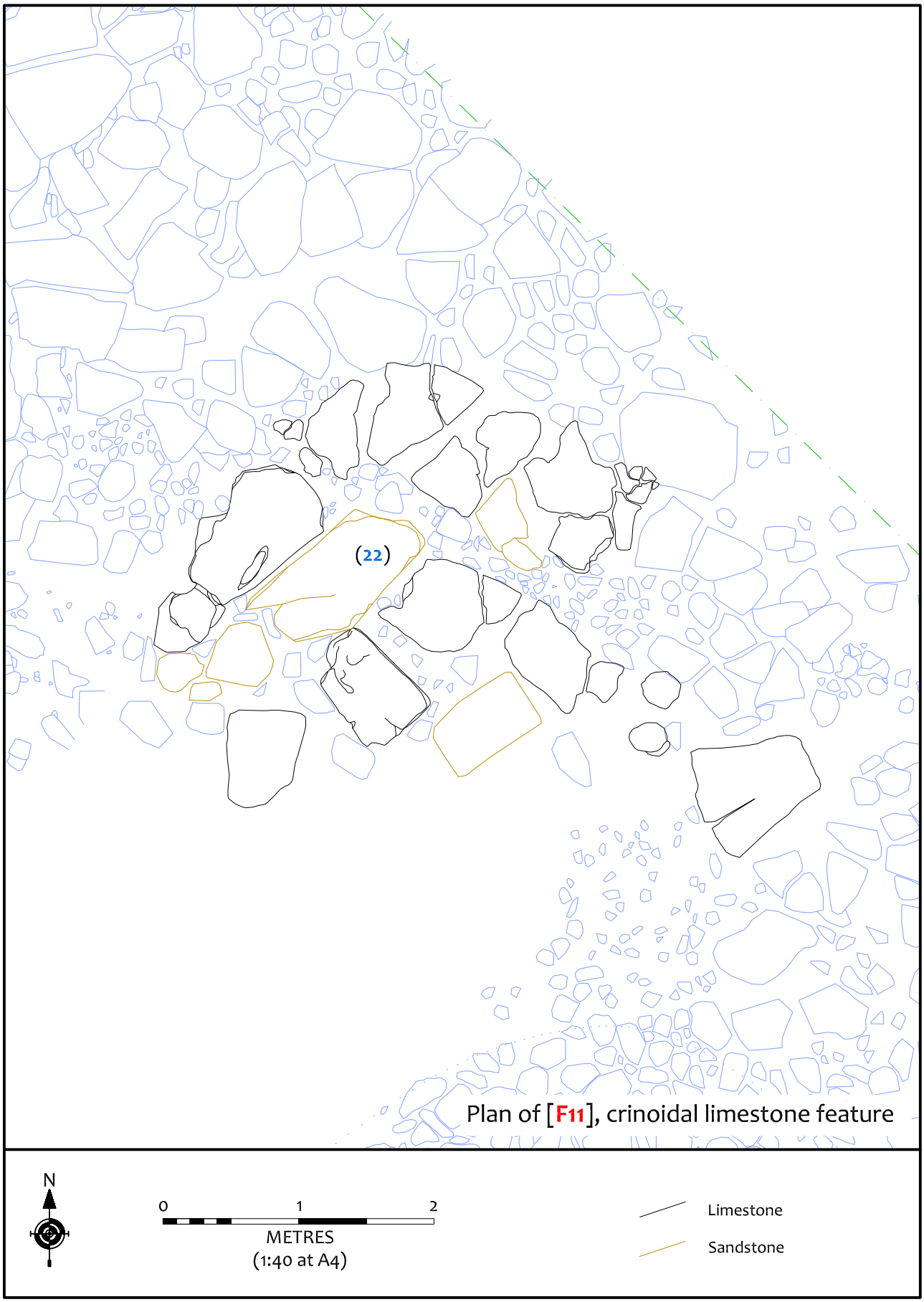


Figure 14. Plan of [F11], showing context identifiers as described in Section 4.11

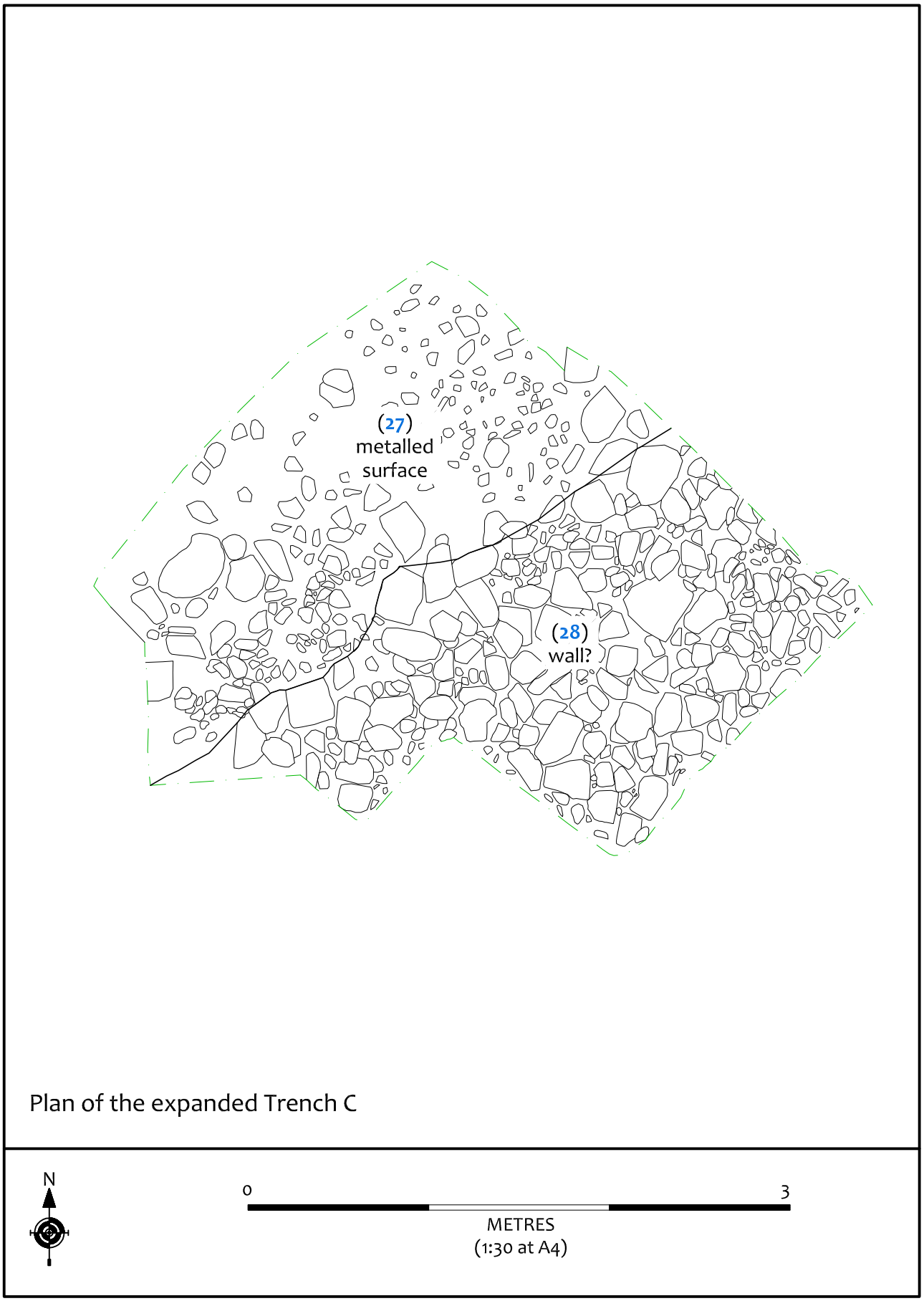


Figure 15. Plan of the southern extension of Trench C showing context identifiers as described in Section 4.13

Plate 27. Extension to Trench C, looking northeast

4.15.2 The majority of the pottery and finds came from the overburden, which were recorded as unstratified during the excavation.

4.15.3 The overburden itself measured between 0.02m (directly overlying stones) to 0.50m deep, with the thickest deposit set to the north and northwest of [**F2**].

5. The Excavation: Finds and specialist analysis

5.1 Introduction

5.1.1 This section details the specialist analysis undertaken on finds and samples gathered from the 2017 excavation.

5.2 Lithics assessment (by Barry Bishop)

5.2.1 Archaeological investigations at the above site resulted in the recovery of 26 pieces of struck flint and chert. The assemblage has been comprehensively catalogued and this includes details of raw materials, condition and a suggested spot-date range (*Table 7*, Appendix 2). This report follows the methodology and recommendations encapsulated in both MAP2 and MoRPHE (English Heritage 1991; 2006). It summarises the information contained in the catalogue, describing the general characteristics of the assemblage and assessing its wider archaeological significance and potential to contribute to the further understanding of the nature and chronology of activity at the site. Metrical information follows the methodology established by Saville (1980).

5.2.2 Quantification and Distribution: The struck pieces were all recovered from unstratified deposits during the 2017 investigations. This suggests that the bulk of the material was originally discarded onto the surface and became incorporated into the soil horizons. Overall, the assemblage is in a good condition. Most pieces are either sharp or only slightly abraded, indicating that they had received only minimal post-depositional disturbance and were recovered from close to where originally discarded.

	Flake	Non-prismatic blade	Prismatic blade	Core - flake	Core - blade	Conchoidal chunk	Arrowhead	Burin	Scraper	Retouched fragment
No.	8	2	3	1	1	6	1	1	1	2

Table 1. Quantification of the struck flint

5.2.3 Raw materials: The raw materials used include chert and a variety of types of flint. Ten of the pieces are made from chert, all of which are inclusion-free, dull or 'stony', dark grey to black, fine-grained and slightly laminated. It appears to have a rough outer surface but no true cortex. The pieces used here are all small, none measures in excess of 40mm, and comprise thin <20mm thick tabular fragments that were used as 'front' or 'front and back' types cores. The chert is clearly very brittle with six pieces consisting of conchoidal fragments that most probably represent cores that shattered during reduction. The chert is typical of the 'Pennine Black Chert' (cf Hind 1998; Evans *et al.* 2007; 2010) and, although petrological analysis would have to be conducted to verify its origin, it is perhaps most likely to have been gathered either from the chert-bearing Four Fathoms Limestone Member, which outcrops a few hundred metres to the east of the site or one of the other chert sources present along the Swale valley (e.g. Eastmead 2014).

5.2.4 The remainder of the material is made from a 'glassy' flint of variable knapping-quality. It ranges from black, brown to grey in colour and contains a variety of inclusions. Such flint is present in the glacial tills or as redeposited material within alluvial deposits found across much of the region, and other potential sources include beach or marine deposits present along the coast (e.g. Young

1984; Henson 1985). Interestingly, no Lincolnshire or Yorkshire Wolds flint is present. Whilst the chert at least could have been obtained locally, given the highly mobile nature of Mesolithic and Neolithic populations it is quite possible and perhaps likely that some of the raw materials could have been brought from further afield by the communities themselves (e.g. Donahue and Lovis 2006).

5.2.5 Technology, Typology and Dating: Whilst much of the assemblage comprises knapping waste, technologically diagnostic pieces indicate that most, if not all, was generated using a blade-based, systematic approach to producing standardised narrow thin flakes. Such techniques are typical of those of Mesolithic and Early Neolithic industries. These include all of the blades, the blade core and most of the conchoidal chunks, which also show evidence for blade production. One of the retouched pieces has been identified as a leaf-shaped arrowhead, which if correct would belong to the latter period. However, a dihedral burin is also present. These are more commonly encountered in Mesolithic collections, although are not entirely absent in Early Neolithic assemblages. Young's examination of numerous assemblages from County Durham has also raised the possibility of the existence of transitional assemblages containing elements from both Mesolithic and Early Neolithic industries (Young 1987). The other retouched pieces include a scraper and fragments from two others, none of which are closely dateable.

5.2.6 Discussion: The assemblage is small but indicates activity at the site during the Mesolithic / Early Neolithic. It comprises core working waste and a high proportion of retouched implements, the latter contributing nearly a fifth of an admittedly small sample. The composition of the assemblage suggests that the raw materials had been brought here and converted into a range of tools that would be typical of settlement-type activities. The assemblage is too small, however, to indicate whether this represents broad-based occupation or a more task-specific encampment, and it is also possible that it was generated during repeated visiting to the site. There is only limited evidence for activity in this part of the Swale valley during these periods although a number of stray stone tools from these periods have been found (Fleming 1998, 118-119). Nevertheless, the resources provided by of the river and the opportunities the valley would have provided in terms of movement through the Pennines must have made this a favourable location for early mobile communities.

5.2.7 Recommendations: Due to the size of the assemblage, no further analytical or descriptive work is warranted but a brief description of the worked stone, which can largely be gleaned from this report, should be included in any published account of the investigations. The assemblage does indicate that further fieldwork in the vicinity could have the potential of adding to understandings of later prehistoric lithic technology and depositional practices in the region as well as addressing specific questions concerning the nature of the occupation at the site. Should further work be considered, the assemblage reported here should be re-documented in conjunction with any additional material found following the completion of the archaeological programmes.

5.3 Querns (by John Cruse)

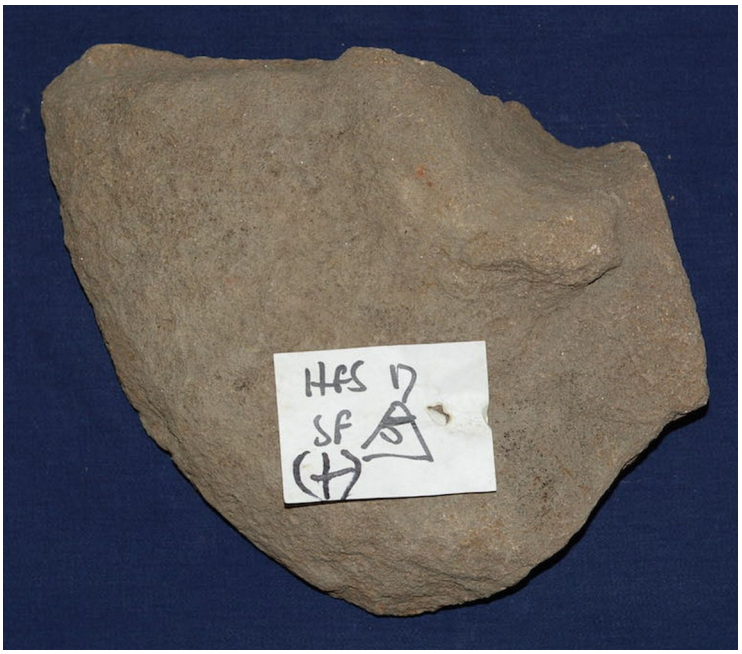
5.3.1 Quern fragments: All the querns appear to have been fragmented and discarded, before they were exhausted by use.

5.3.2 SF 4: *Lower Stone: Disc Hand Quern*
Context: From cobbled 'yard' [**F8**]/(**10**). Dated by ceramics to potentially AD 370+.
Description: 45% fragment: ca 95% of its G/S (grinding surface) edge has been deliberately removed: G/S is worn smooth, with its outer 110mm flat, but the inner area sl. convex (5°): It has a peck-dressed edge and a drum-shaped profile: The base is flat and unusually has been neatly peck-dressed.
Lithology: Fine grained, with sparse coarse inclusions: Gritstone.
Dimensions: Diam 430mm: Height Rim 90mm, centre 110mm: Hour-glas perforation, Diam top

30mm, min 15mm, base 60mm: Weight 10.5kg (Est intact 23 kg): YQS 7601.
Comment: Deliberate removal of G/S edge is a 'native' practice, more usually associated with the users of beehive querns. From its rim thickness and weight, it is estimated to be only 25-50% used.

Plate 28 (above). Lower hand quernstone, SF4

Plate 29 (below). Traprain Law upper quernstone, SF5



5.3.3 SF 5: *Upper Stone: 'Traprain Law' Disc Hand Quern*
Context: From cobbled 'yard' [F8]/(10). Dated by ceramics to potentially AD 370+.
Description: 24% fragment: a radial break on one side and a chordal removal on the other: the upper surface is neatly pecked: its profile is similar to SF 11/16 (above), with the upper surface parallel to the G/S and a curved outer edge: The collar around the hopper is rounded (50mm wide, 15mm high): The convex hopper is pecked, with no feed-pipe evident: the G/S is flat and worn smooth.
Lithology: Fine grained gritstone.
Dimensions: Diam 400cm: Height Rim 45mm, Collar 65mm: Hopper width c.120mm: Depth 65mm: Feed=Pipe diam 50mm: V-shaped radial handle slot is 100mm long, max width >15mm (est ca50mm): Total wt 3.5kg (Est intact 14.5 kg): YQS 7599.
Comment: From rim height, its absence of a feed-pipe and its est. weight, this appears to have been more used than SF 11/16. Its radial slot shows it to be a Traprain Law-type of hand quern, with a similar profile to SF 11/16.

5.3.4 SF 6: *Probable Lower Stone: Disc Hand Quern*
Context: From cobbled 'yard' [F8]/(10). Dated by ceramics to potentially AD 370+.
Description: 10-15% rim fragment: broken radially, with ca75% of its G/S edge removed: G/S is worn, with outer 60mm horizontal and inner 140mm sl convex: Profile is drum-shaped, with a peck-dressed edge and a well finished base, with a more roughly pecked area 20mm wide and 3mm deep, some 20mm form the edge.
Lithology: Fine to medium grained sandstone: Gritstone?
Dimensions: Diam ca500mm: Height rim 65mm, centre >70mm: No surviving perforation: Weight 3.8kg (est intact 32kg): YQS 7660
Comment: Assumed to be a lower stone as a) G/S profile is Sl convex, b) no apparent space for a 'hopper', but there is room for a typical base perforation (min 50mm (+/- 25mm), c) within expected weight range of 30kg (+/-15kg). From rim height and est weight, this stone was ca 50% used.

5.3.5 SF 10: *Lower Stone: Probable Beehive Hand Quern*
Context: From cobbled 'yard' [F8]/(10). Dated by ceramics to potentially AD 370+.
Description: ca15% fragment, apparently reshaped into a rectangular block for re-use: G/S is smooth and sl. convex: the edge is almost completely removed, with only a hint of a roughly worked lower section: the base is roughly dressed flat and horizontal.
Lithology: Fine to medium grained, with sparse, coarse (12mm quartz) pebbles. Gritstone? *Dimensions*: Diam 360+ mm: Height Rim ca70mm, Centre 90mm: Non-perforating conical spindle hole, Diam 20+mm, depth 50mm: Weight 3.25kg (est intact 22 kg): YQS 7602

Plate 30. Upper stone, 'collared hopper', SF11

Comment: An intriguing stone, with two possible reconstructions:-

- The non-perforating spindle hole is normally indicative of a beehive quern: if so, its diameter probably exceeds that expected for a beehive ie: 32cm (+/- 4cm), so it could be a 'Developed Beehive' – which were influenced by standard Roman disc querns, which tend to be ca 40cm diam: If so, its presence in a late 4th C context indicates either a surprisingly long period of usage, or (perhaps more likely) that an Earlier Roman beehive base had been split in half, though its spindle hole, and discarded, then later reshaped for subsequent late 4th C re-use.
- Alternatively, we don't know what sort of base stone was used with a Traprain Law-type upper, so the non-perforating spindle hole could be a conservative feature, contemporary with the late 4th C context.

5.3.6 SF 16 (2011) and SF 11 (2017): *Upper Stone, 'Collared Hopper' Disc Hand Quern*
Context: From rubble over roundhouse [F1]/(3) . Dated by ceramics to potentially AD 370+.
Description: Two non-joining fragments, ca 35% survival: mostly broken radially: The upper surface of SF 16 is roughly peck-dressed flat (with 10-15mm diam, 3mm deep impressions), the surface of SF 11 has had more handling wear before deposition: both have their upper sides parallel to the grinding surface ("G/S") and rise to a neatly dressed, round profiled, hopper collar (50mm wide, 15mm high). The peck-dressed hopper is convex. The grinding surface is smoothly worn (with concentric markings), concave (by an unspecified amount) and its outer 200mm is worn flat, but the inner zone is less worn.
Lithology: Sandstone: Fine to medium grained, with sparse coarse grains (quartz pebbles up to 9mm length): Gritstone.
Dimensions: Diam 550mm: Height, Rim 50mm, Collar 65mm: Hopper width 120mm, Depth 50mm: Feed-pipe diam, c.85mm: Total wt 9.5kg (Est intact wt c.27kg): YQS 5286.
Context: From rubble over roundhouse [F1]. Dated by ceramics to potentially AD 370+.
Comment: The similarity in dimensions, profile and lithology make it reasonably certain that both fragments are from the same stone. Although no evidence survives of a radial slot in the upper surface for a handle, the modest weight of this stone and its profile similarity to SF 5, suggests that it was a large hand-driven quern of 'Traprain Law' type. The rim height suggests it was not heavily used.

5.3.7 Notes on 'Traprain Law' Upper Stones: The rounded collar on its hopper rim has been recorded on only 62 of the 7,600+ querns in the Yorkshire Quern Survey ('YQS') archive. Of these examples, 17 also have a radial slot cut into their upper surface, enabling a vertical handle to be fitted. As no other type of handle fitting is currently associated with these collared hoppers, we are probably safe to assume that most of these querns originally had similar radial slots (although there are a few intact stones without such slots, which presumably are small millstones). They are generally made from local stone, usually described as Millstone Grit or gritstone.

5.3.8 In just four of the English examples, the handle slot is also surrounded by a moulding, similar to that around the hopper rim. Euan McKie (pers.comm) has identified three similar examples of this type in Scotland, which he has named after the published quern from Traprain Law, East Lothian (Close-Brooks, 1983, p214), which he dates to the 2nd/3rd centuries AD. In our remaining ten examples, the radial slot is lacks any such mould. We are unclear about either the chronological or geographical significance of these moulded slot types.

5.3.9 The diameters of collared hopper querns range between 350-550mm, spanning the full range expected from a hand-powered quern (see below). It is interesting that both SF 11/16 and SF 5 share the same characteristic profile (with the upper surface being roughly parallel to its grinding surface). However, whereas SF 11/16 has a diameter shared with six other English examples in the diameter range 480-550mm (see below), our SF 5 has a smaller diameter, which lies comfortably within a smaller sub-group, whose diameters range from 350-470mm.

5.3.10 Beehive querns rarely exceed 30-35kg in weight or 550mm in diameter (Cruse & Heslop, 2013, 167). SF 11/16 is thus a very wide hand quern, but was little worn, whereas SF 5 was smaller and more intensively used. We do not know whether these two different size ranges have any functional explanation.

5.3.11 The distribution of these collared hopper querns is quite interesting. Their English core area appears to be delimited by Wharfedale, Ribblesdale and Swaledale, with no examples being found east of Dere Street. Of the smaller and medium diameter stones (between c.350-450mm), we have an example from Castleford fort (Cool & Philo, 1998, 61, SF 2668) dated to 85AD and another photographed at the 1906-7 excavations at Melandra Castle (Hammett, 1908, 321), a fort abandoned by 140AD (Bidwell & Hodgson, 2009, 95).

5.3.12 Thus, whilst the smaller querns have been found in and around the Early Roman auxiliary forts in the Pennine military area, our example (SF 5) shows continuity of use into the late 4th century AD. The larger examples (listed above) come from a more restricted range of Later Roman contexts. These are sited along, and just to the west of, Dere Street, occurring in both civil and military sites. Such sites have also have yielded a considerable number of millstones, suggesting that, in Later Roman times, a significant volume of corn grinding took place along this corridor, potentially linked in the State's requirement for *anona.* The collared hopper and lateral handle slot, often with added circular moulding to the upper surfaces, continue to be popular features into the 5th- 6th centuries AD in Shetland and in the Outer Isles – so these features were both long-lived.

5.3.13 Against this background, the presence of SF 5 & 11/16 in Upper Swaledale, relatively far from the Roman road system, is somewhat anomalous. Their lithology provides few clues, as such gritstone sandstone could well be relatively local. By 370AD, there is little evidence from PAS records that a coin-based economy still operated in this area (Collins, 2012, 59, Fig 3.3), so these querns either have been:-

a) obtained for local usage by either barter [or theft] from somewhere further east, along Dere Street, perhaps from settlements around Catterick fort or

b) brought in by external processors, perhaps to facilitate the export of their ground products (as '*annona*'?) to consumers further east.

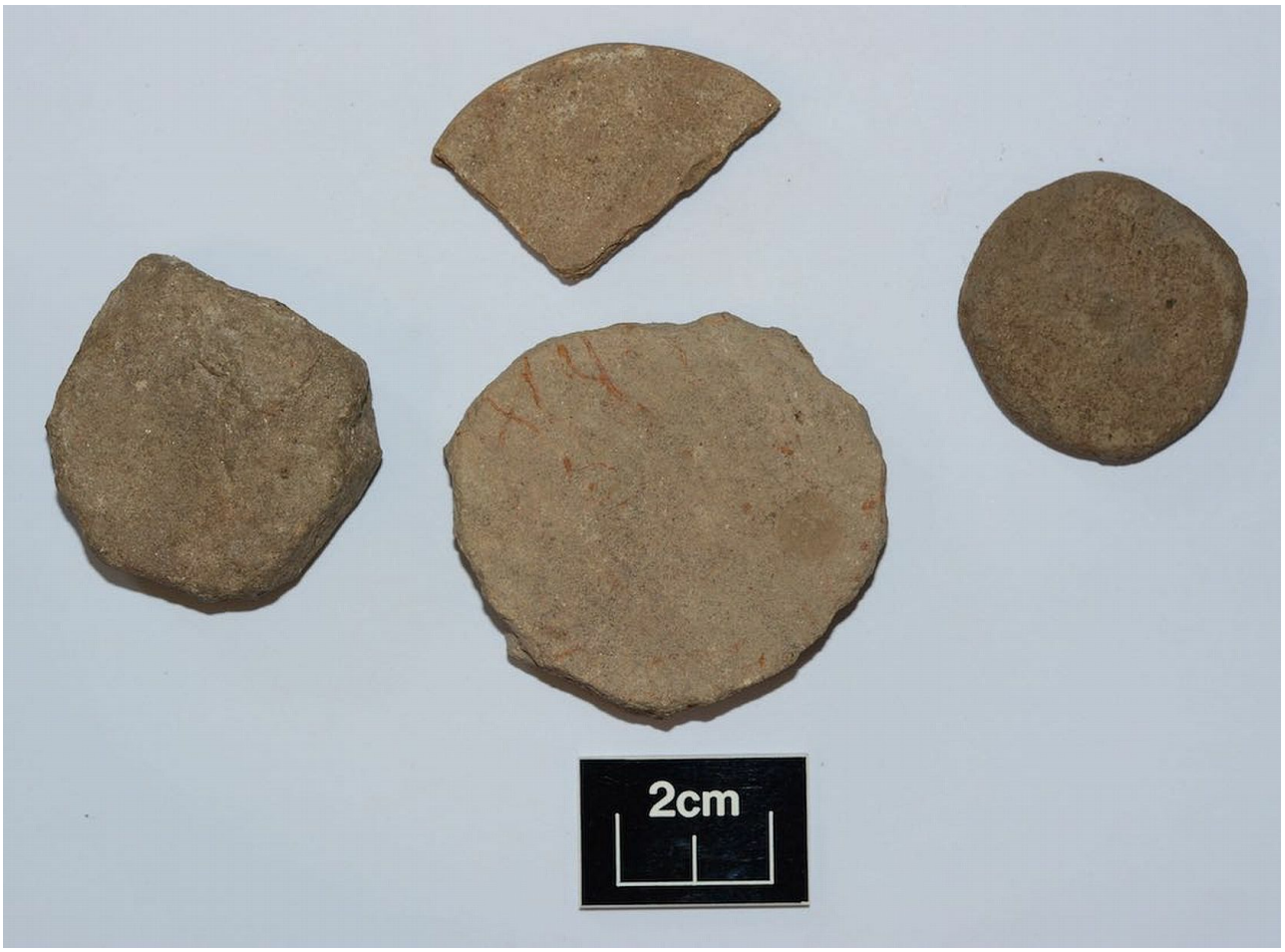
5.3.14 Notes on Quern Fragmentation Practice: Previous studies at Wattle Syke (Cruse & Heslop 2013) have shown that beehive upper stones were particularly susceptible to having their grinding surface edge removed, prior to division and deposition, but that this phenomenon was far less marked for Roman-inspired disc querns. It is therefore interesting to find that the lower stone (SF 4) of a disc quern from Hagg Farm had been treated in this 'old-fashioned' manner – perhaps suggesting that someone on the settlement still maintained such 'traditional' practices.

5.4 Worked stones (by John Cruse)

5.4.1 Counters: The smaller items are best interpreted as 'counters', probably from recreational games, with the larger example as a 'pot-lid'. None are chronologically helpful, as board games have pre-70AD origins, but their usage is not inconsistent with the leisure pursuits of soldiers, as well as civilians. Ann Clark at Wharram, sees diameters of 100-150mm as being usable 'pot-lids' for early med pottery, whereas smaller examples could be 'counters'. Allason-Jones (2011, Artefacts in R-B, p232) describes counters as being 17-25mm diam, 2-5mm in depth. Jilik & Breeze (Hingley & Willis 2007) discuss 'the detritus of like' at 'smaller military installations', noting that 'counters and fragments of gaming-boards are a small but regular element in many places, both in turrets and fortlets.' Wilmott (1997) mentions stone & pottery counters where 'one surface is abraded from being pushed along a surface', which could 'equally apply to a game board as a tally board', so one can't decide whether they are computational aides or recreational items. Typical dimensions 17-44mm diameter, 7-13mm thick.

5.4.2 Leather working/linen/pottery finishing tools: It is difficult to ascribe a definite usage to these worked stones, with a range of flat surfaces and rounded corners. Relevant references include

Plate 31.The 'pot-lid' and counters



McSoy (2011) "Slightly glossy flat surfaces .. suggest that it may be a polisher, possibly for leather working or else as a smoother for pottery", Wainwright (1968) "Quartzite pebbles with distinctive wear in the form of shiny, polished surfaces are commonly found on IA and Roman sites. Could be used as pot-burnishers, as slickstones for leather working (Barford 1985) or even as linen smoothers (Roe pers.comm.). Croom (2011) describes them as "circular, slightly domed glass or stone discs that were rubbed across the cloth while it was stretched over a suitable flat surface" and Walton Rogers (1997) describes a "typical [Roman] linen-smoother has a slightly dull face, with microscopic scratch marks on it, whose direction suggests a back-and-forth action, rather than a circular movement."

5.4.3 Hammerstones: Two pebbles were identified as hammerstones.

5.5 Pottery (by Eniko Hudak BA (Hons) Mlitt)

5.5.1 Introduction: Pre-Construct Archaeology Ltd. was commissioned by the Swaledale and Arkengarthdale Archaeology Group to carry out the post-excavation assessment of the Romano-British pottery found during the 2016 and 2017 community excavations at The Hagg, Swaledale. The following report presents the results of the identification, quantification, and dating of the above assemblages.

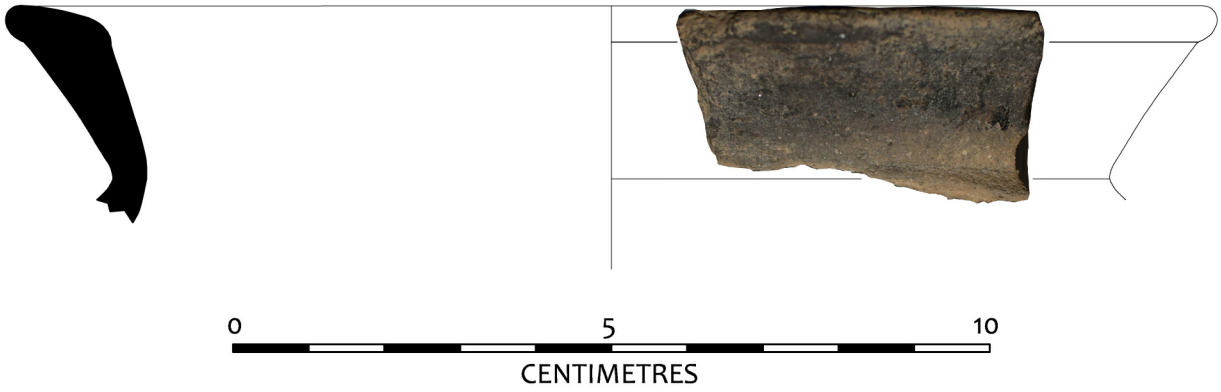


Plate 32. Sherd of Dales ware

5.5.2 Methodology: All fragments were fully quantified using the standard measures of sherd count, weight, and Estimated Vessel Equivalents (EVEs) in accordance with the guidelines set out by the Study Group of Roman Pottery (MPRG 2016) and standards used by PCA specialists. All data has been recorded in a relational database on a template used by PCA specialists, which is ultimately based on that of Museum of London Archaeology Services (Symonds 2002).

5.5.3 Sherds were examined by hand lens under 10x magnification and fabrics have been identified and recorded with the help of the *National Roman Fabric Reference Collection* (Tomber and Dore 1998), the fabric type series established for the Catterick pottery assemblages (Bell and Evans 2002), and the pottery report of previous seasons (Gerrard 2014). Fabrics of unknown source were subjected to further analysis and their fabrics were described in terms of colour, feel, hardness, fracture, and inclusions from fresh breaks (Orton *et al.* 1993); and have been assigned short four-letter descriptive codes. Forms have been recorded with the help of the Catterick type series (Bell and Evans 2002).

5.5.4 Sourced fabrics: The excavation yielded 6 forms of sourced fabrics, listed on *Table 2*.

5.5.5 Catterick fabrics: The range of sandy grey and oxidised wares, calcite gritted wares, and mortarium fabrics in the assemblages compare well to a range of fabrics present and described in the type series for the Catterick CfA excavations (Bell and Evans 2002).

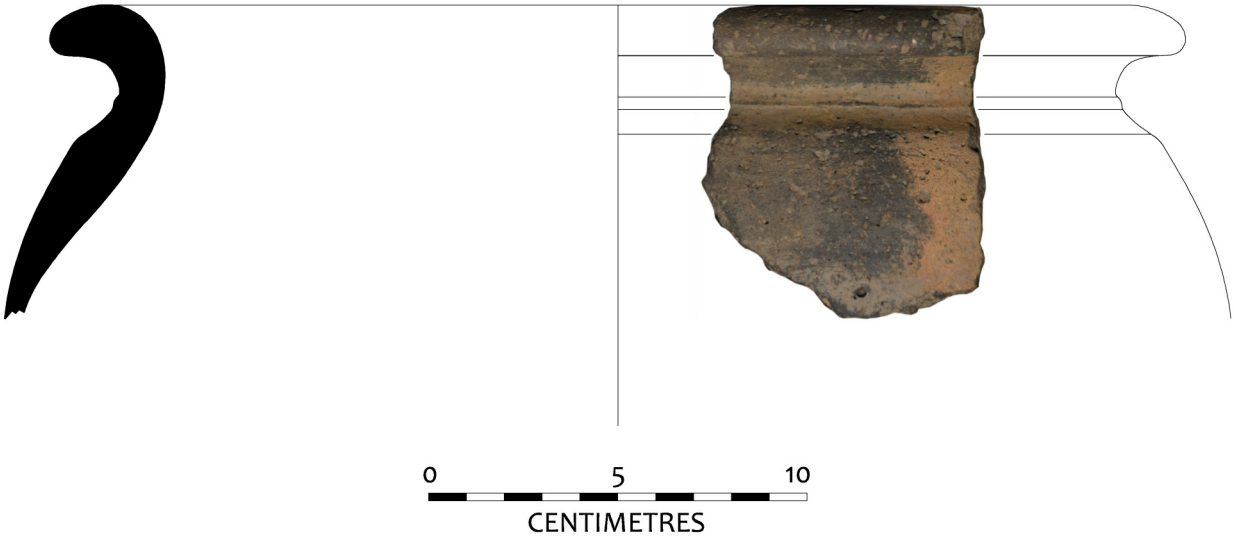


Plate 33. Sherd of Huntcliff ware

DOR BB1	Dorset Black Burnished Ware 1	for details see Tomber and Dore (1998)
IMIT BB1	Imitation Black Burnished Ware	for details see Gerrard (2014)
MAH WH	Mancetter Hartshill White Ware	for details see Tomber and Dore (1998)
CRA WH	Crambeck White Ware	for details see Tomber and Dore (1998)
CRA PA	Crambeck Parchment Ware	for details see Tomber and Dore (1998)
SAMCG	Central Gaulish Samian	for details see Webster (1996) and Tomber and Dore (1998)

Table 2. Sourced fabrics

O3A, O3C, and O4A	sandy oxidised fabrics	for more details see Bell and Evans 2002: 353
R1, R1B, and R3B	sandy reduced fabrics, R1 including Dales-type ware	for more details see Bell and Evans 2002: 353
R4	This fabric is the East Yorkshire Calcite Gritted ware at Catterick (Bell and Evans 2002: 354), which is the same as the Knapton and the Huntcliff types (also *cf.* HUN CG in Tomber and Dore 1998, and Late Gritty Wares in Gerrard 2014). This fabric was the most prolific of the East Yorkshire industries, and is abundant in the 4th century AD (Evans 1985, Bell and Evans 2002).	
MB14-17	range of superficially similar mortarium fabrics attributed to the Bainesse/Catterick area	for details see Hartley 2002: 357

Table 3. Catterick fabrics

FINE	unsourced fine grey ware	A grey fabric with dark grey/black core and lighter grey margins. Surfaces are soapy and highly micaceous. Rather soft fabric, probably affected by soil conditions. Wheelmade.

Table 4. Unsourced fabrics

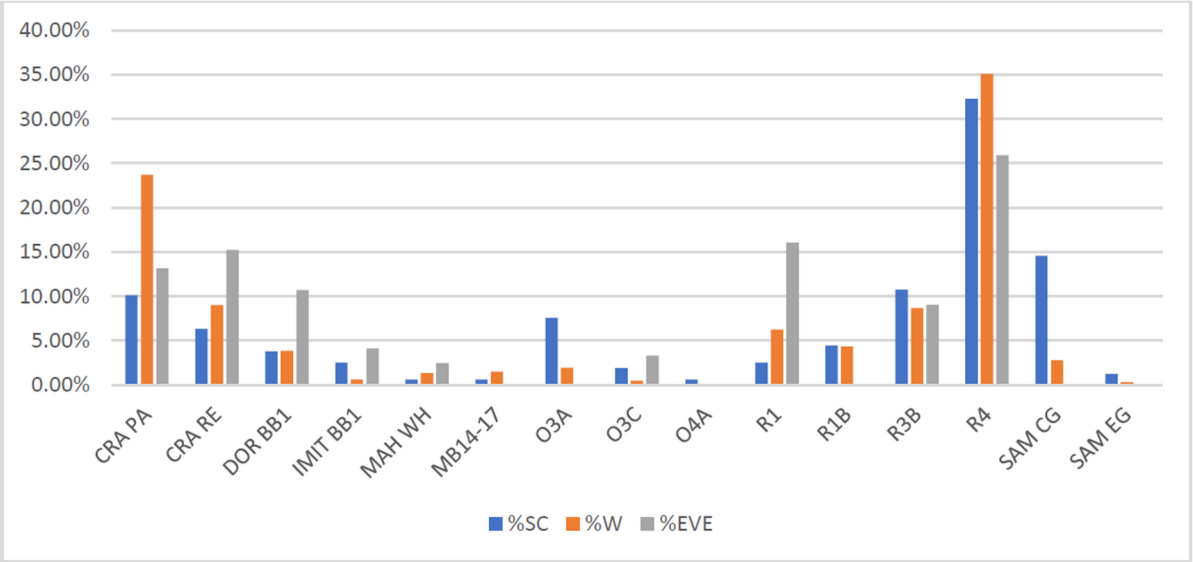


Table 5. Quantification of the HSF17 assemblage by sherd count, weight (g), and EVEs per fabric

5.5.6 Unsourced fabrics: (see Table 4)

5.5.7 Assemblage composition and dating: The 2017 season yielded an assemblage of 158 sherds weighing 1920g and representing 2.43 EVEs. Most of the fragments were unstratified with a small amount from contexts (2), (3), (11), (16), (24), and (26). Again, most sherds were heavily abraded which may suggest a degree of redeposition.

5.5.8 The most common fabric is R4 comprising nearly a third of the assemblage by sherd count and weight; and is only represented by form J6.6, the Huntcliff type jar dated AD350/55-400+. Other 4th-century fabrics are also present in greater quantities, such as the Crambeck Parchment and Reduced wares. They include sherds with red painted decoration, a variety of flanged bowls (CRA RE, B17.8), mortarium forms (CRA PA, M47, M50), and even a rim fragment of a type M61 (Corder type 5b, 1937) dated to AD350/55-400+, which was produced both as bowls or mortaria when gritted. Some of the DOR BB1 forms can also be dated to the late 3rd to the 4th centuries AD: beaded and flanged bowl B17.6, and everted rim jars J13.7 and J13.8. There is also a rim fragment in fabric R1 of the very distinctive Dales-type jar of Gillam form 157 (Loughlin 1977) dated to between AD200 and AD375.

5.5.9 There is also a 2nd- to 3rd-century element in this assemblage. This includes a rim fragment of a Mancetter Hartshill hammerhead mortarium (M98) dated to AD220-300, another even earlier mortarium form M12 in Catterick fabric MB14-17, which is probably a local Bainesse/Catterick product and is dated to AD100-140. Interestingly, there is a quantity of heavily abraded Terra Sigillata fragments; in fact, they form the second most common fabric group in the assemblage by sherd count, but that is possibly due to its fragmented nature rather than signifying the presence of a large Terra Sigillata assemblage. Most of them seem to be of Central Gaulish origin, but two fragments could be from the East Gaulish centres dated to AD150-300. There is also a re-worked fragment of SAM CG: half of a disc-shaped object, which could be either a gaming counter or a loom weight.

5.5.10 Discussion: Overall, the two assemblages are very similar in nature, and also compare well to the West Hagg excavation material (Gerrard 2014). There is a strong late 4th-century component in both represented by the Huntcliff type jars and Crambeck Parchment Ware mortaria. The presence of these fabrics is not unusual for the area. For example, the Roman pottery assemblage of the Aiskew Roman villa excavations also produced sherds of these fabrics/forms and some late BB1, despite the assemblage being predominantly 3rd century in date (Gerrard 2017; Hudak 2017). As mentioned above, East Yorkshire Calcite Gritted Ware is typical of the latest deposits in the North

(Bidwell and Croom 2010), and Crambeck was the major supplier of mortaria in the 4th century in Northern Britain (Hudak 2013). On the other hand, it is an extremely interesting assemblage as rural sites producing very late 4th-century pottery are uncommon in the North of England (Collins 2012).

5.5.11 Earlier Roman pottery from the HFS17 site might signify earlier occupation, however, the notion of 'heirloom' or retained fragments arriving to the site might be a more likely explanation – and the re-worked Terra Sigillata fragment could also fit into this theory.

5.5.12 The small size and abraded and unstratified nature of the assemblages limits their discussion beyond dating, however, the occurrence of fabrics also present at – and in some cases possibly produced in the area of – Catterick may present evidence of links to the supplies of Catterick and its hinterland.

5.5.13 Recommendations: All pottery has been examined and requires no further analysis, although a Samian specialist might be able to provide a more detailed discussion of the Terra Sigillata assemblage.

5.6 Small finds (by Sally Gerrard BA MA and James Gerrard BA MA PhD ACIfA)

5.6.1 Introduction: Archaeogenie were commissioned in 2017 to undertake a post-excavation assessment and analysis of seventy one small finds and twenty one pieces of daub from the excavations of The Hagg by the Swaledale and Arkengarthdale Archaeology Group (SWAAG). The range of objects was wide and included a single Roman coin, a Roman brooch in addition to a small assemblage of other metal (mainly iron) and stone objects along with a small group of daub and related material.

5.6.2 Methodology: All of the metal items were x-rayed for this assessment and the coin was conserved.

5.6.3 The coin has been identified and recorded following received numismatic practice and the English Heritage guidelines (Brickstock 2004). The other finds have been identified using standard catalogues (Crummy 1983, Manning 1985) and functional categories have been assigned to each find using the scheme developed by Crummy (1983, v). This scheme is not without its difficulties (Cool and Baxter 2000, Crummy 2007). However, it is widely used and thus useful for inter-site comparisons of assemblages. The most important objects are discussed below.

5.6.4 Coin SF <8>: A single Roman coin <8> was recovered from [**F4**]/(**16**). The coin proved to be an unworn silver *denarius* of Caracalla struck in Rome in AD201 (*RIC*IV (Caracalla), 54a). Silver *denarii* were high value coins and are relatively rare (when compared with copper-alloy coins) as site finds.

Obverse: ANTONINVS-PIVS AVG
Reverse: PART MA PONT TRP III

Plate 34 (above). Obverse

Plate 35 (below). Reverse

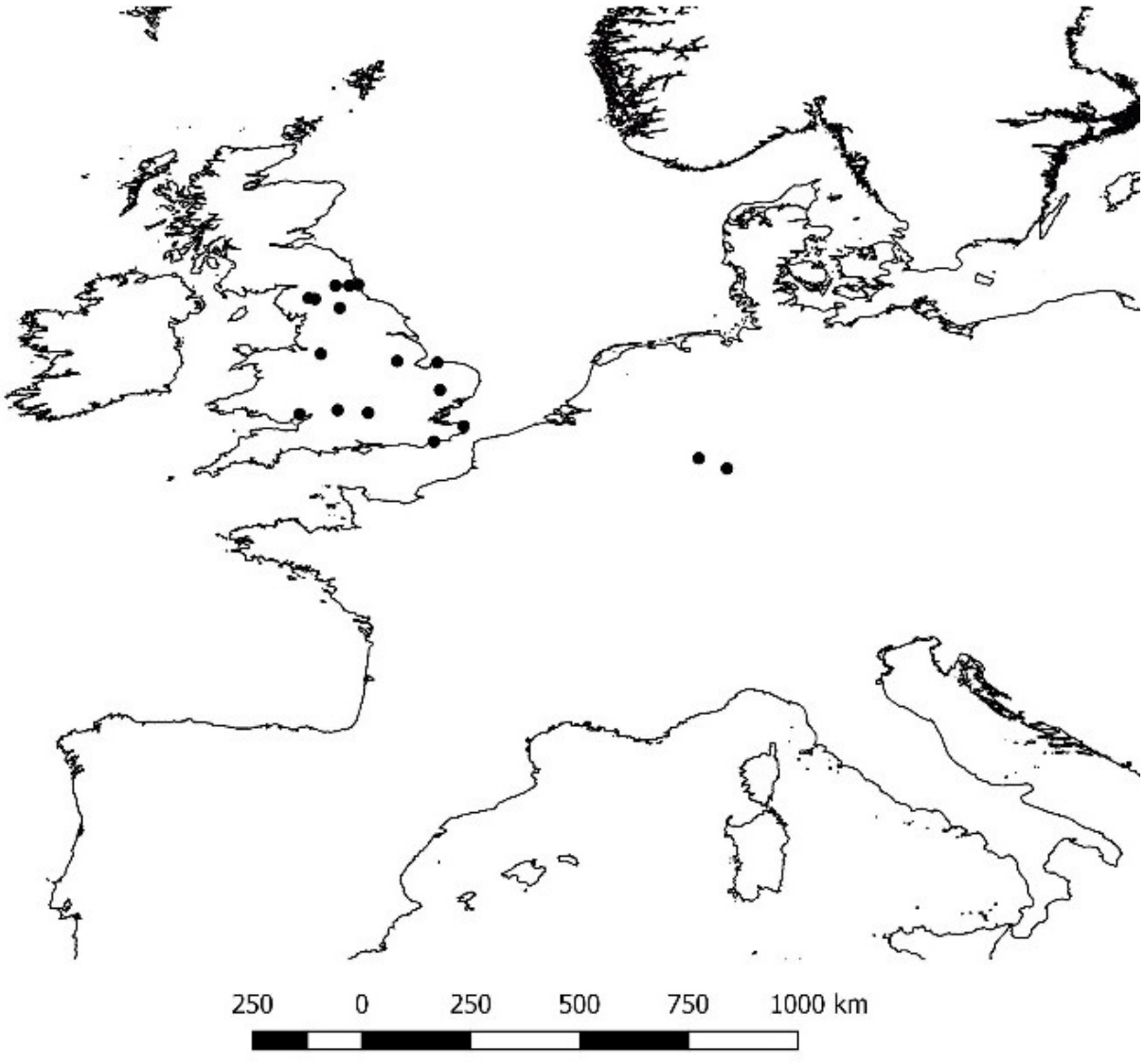
5.6.5 It is difficult to determine the wider significance of the coin. It suggests that the inhabitants of the site were connected to money-using elements of the Romano-British economy. However, it may simply have been seen by the inhabitants of The Hagg as a piece of bullion. The lack of wear suggests loss in the early third century. In AD208 Severus and his son Caracalla campaigned in northern Britain and significant quantities of silver entered Britain to support these campaigns. The large hoard from Shapwick in Somerset (Abdy *et al*. 2001) and the Severan hoards from

Scotland are all, perhaps, to be associated with Severan interest in Britain. It is tempting (if beyond proof) to associate the loss of this *denarius* at an obscure upland rural site with the social, economic, political and military dislocations that might have accompanied the presence of the imperial court at York and the large numbers of troops needed to subdue Caledonia in the early third century.

5.6.6 Brooch SF <8>: Context (**23**), a copper-alloy proto-crossbow brooch missing its sprung pin. The brooch has been silvered and then the front of the bow has been gilded. The head of the brooch has a small knob, four knobs (perhaps missing soldered extensions) divide the bow longitundinally along a raised ridge. The remainder of the bow is divided longitudinally either side of the central ridge by a further ridge leaving two cells to the left and right of the centreline. Remains of a copper alloy-spring survive.

5.6.7 This is a relatively rare brooch type. Parallels for the form are listed by Bayley and Butcher (2004, Fig 81.247), Hattatt (1989, Fig 226 Nos. 494 and 1252) and Mackreth (2011, 198, Type 3c). An example from Caerleon "described as plated with gold on the upper part and silvered on the foot and under surface" (Bayley and Butcher 20014, 103) provides a good parallel for the decoration on our brooch.

Figure 16. The distribution of proto-crossbow brooches of Mackreth's (2011) Type 3c (after data in Mackreth 2011; Bayley and Butcher 2004; Hattatt 1989 and the PAS).



5.6.8 Relatively few of these brooches are known. Mackreth (2011, 198) lists thirteen examples, Bayley and Butcher (2004, 257) a mere five and Hattat (1989, 367) just two. There are only three listed on the PAS database. Similar brooches are also present at Niederbieber and Zugmantel in Germany (Bayley and Butcher 2004, 257), leading Böhme (1972, 24) to suggest that they might be British imports.

Plate 36. The brooch

5.6.9 The distribution of these finds is largely military in its focus and certainly the brooch form, which is largely seen as 'ancestral' to the late Roman crossbow brooch, would support the identification of this object as a military personal adornment. The dating is probably early to mid-third century and it may not be going too far to associate the presence of this object with the presence of a Roman soldier at the site.

5.6.10 Toilet instruments: A fragment of an incomplete stone cosmetic palette with rounded corners and bevelled edges is an interesting object, found within [F8](23). Such palettes are thought to have been used in preparing either cosmetics or medicines and are relatively common finds, especially in urban contexts. The example from The Hagg is a finely polished and broken example of uncertain geological provenance.

Plate 37. Cosmetic palette

5.6.11 Household objects/recreation: Five stone discs were recovered. The two smallest might be considered as gaming pieces or counters with diameters of 5cm and 6cm respectively. The three bigger are perhaps better considered as 'pot lids', with diameters of 9cm, 14cm and 35cm, although even here the vessel mouths would be much smaller than most Romano-British pottery vessels. It is best to simply consider these as 'discs' and not place impose a function upon them.

5.6.12 Objects associated with weighing and measuring: A biconical steelyard suspension weight (weighing 618g) is made from lead with traces of an iron suspension chain remaining. There are many parallels for this kind of object and the discussion of weights from Augst and Kaiseraugst (Mutz 1983) provides a detailed description of their function. Such steelyard weights are reasonably common finds on Romano-British sites and suggests some interest in weighing commodities at the site. The discs, if used as counters (above), might also be associated with measuring and accounting.

5.6.13 Tools: The only objects that can be assigned to the category of tools are four stone artefacts. Two of these may have been hones and the other two may have served as smoothers or burnishers.

5.6.14 Fittings: A small group of iron fittings present a number of interpretative difficulties. There are two iron rings (M5) with diameters of 43mm and 54mm. Neither is intrinsically dateable but both could be Roman (Manning 1985, Pl 65). The same can be said of what appears to be a piece of figure-of-eight chain link (M7: Manning 1985, Pl. 64, S16).

5.6.15 There are also eleven handmade nails of seemingly Roman form (Manning 1985, Pls. 64 and 65) and six nail shafts. Nails are common on Roman sites and the presence of these examples is not surprising.

5.6.16 Objects of unknown function: There are nineteen objects of unknown function. The most important of these is a piece of lead folded over itself to form an irregular cylindrical mass. This might be a piece of scrap, a weight or even possibly (but perhaps improbably) a curse tablet. The other significant object is a small cylindrical fragment of jet or shale. This has some similarities with the knife handles illustrated by Allason-Jones (1996) but it appears to be too small to have performed this function.

5.6.17 Daub: The assemblage was quantified by fragment count, weight and dimension. There were 23 fragments of daub weighing in total 594g, with an average weight of 25.8g, ranging from tiny fragments weighing 2g to larger pieces weighing over 100g. It was apparent that the majority of the assemblage was either 8mm thick or *c*.15mm thick. The fabric of this material appeared to be homogenous. Wattle impressions were visible on the interior of two larger fragments; and what appear to be finger marks on the exterior. These fragments are presumably evidence of structures, but it is not possible to determine what those structures might have been from this assemblage.

5.6.18: Post-medieval finds: Two personal adornments are of post-medieval date. The first is an iron D-shaped buckle frame of post-medieval date and it is probably from a plough-horse harness or similar (rather than being a belt buckle). The second is an incomplete post-medieval iron boot heel. Fragments of three post-medieval round-sectioned nails suggests modern contamination in the assemblage, as do a post-medieval washer and a fitting. A sub-rectangular iron object with an off-set square sectioned tang seems to defy sensible interpretation. X-rays show no visible perforations and the 'tang' might suggest that the sub-rectangular end is meant to be a blade, although it lacks a cutting edge. One possibility is that this is the top (handle) of a post-medieval iron spoon. Four iron horseshoes were also recovered from the site overburden.

5.6.19 Discussion: This is a small but nonetheless interesting group of objects from an upland site. There is evidence for some contact with the wider Romano-British economy and the presence of weighing equipment, coinage and the proto-crossbow brooch all go some way to suggest 'commercial' iteration. There is a possibility (although this would need to be confirmed by other evidence) that activity may have been focussed in the early third century. This in turn might be related to particular historical circumstances (the Severan campaigns) in northern Britain at the time. The evidence for this is slight, however, so this interpretation should not be pushed too far.

5.6.20 The nails, fittings and daub indicate the presence of structures and buildings.

5.6.21 It is interesting to note that there are very few personal adornments and no textile working equipment. These are usually ubiquitous even on Romano-British sites with sparse assemblages.

5.6.22 The small collection of post-medieval objects indicate post-Roman activity of some description.

5.7 Faunal remains (by Rebecca Cadbury-Simmons)

5.7.1 The assemblage of animal bone recovered from Hagg Farm in Swaledale during the summer 2017 excavations contained 329 fragments of animal bone in total. The bones were all excavated by hand. The assemblage was made up of ninety elements from context (24)/[F7],

four elements from context (26)/[F2], seventy-four elements from (11)/[F10] and 161 elements that were labelled as unstratified. Of the 329 total fragments, only fifty-six fragments were identifiable, of which 38 were from the unstratified collection, two were from (24)/[F7], one was from (26)/[F2] and fifteen were from (11)/[F10].

5.7.2 The elements were identified by eye using Hillson (1996) as a reference material. The bones were examined for element, species, fragmentation, preservation, taphonomy and completeness of fusion. The preservation was graded on a scale of poor, fair and good and the fusion was graded as either complete or incomplete.

5.7.3 Unfortunately, the assemblage was extremely fragmentary with only two of the elements within the entire assemblage being recorded as complete and many of the fragments measuring only a few millimetres. The level of preservation on the site is likely to have contributed to the highly fragmentary nature of the assemblage as many elements were so degraded that the periosteal layer of the bones was partially or completely lost. Only one of the elements was recorded as having a good level of preservation, and 60% of the whole assemblage being recorded as poor. Of the bones that were recorded as having fair preservation, only two were from context (24)/[F7] whereas the entirety of context (11)/[F10] was recorded as having fair preservation. The variety of preservation levels vary between contexts but the consistency within contexts implies that the preservation level is unlikely to be due to the soil's pH level, but could rather be attributed to the date associated with the contexts, although without further information available this is conjecture. If an explanation is not made clear by the stratigraphy of the site, analysis of the pH level of the soil and radio carbon dating of the bones could offer further insight into this. The single bone that was recorded as having good preservation was that of a rabbit femur and as it was the only bone identified as being a small rodent, it is likely to have died in situ after disturbing the ground at a later, likely post-medieval date, rather than being contemporary with the rest of the bones from that context.

5.7.4 Of the fifty-six identifiable fragments, the species and element could be identified in thirty-one fragments whereas only the element was identifiable in twenty-five of the fragments, this is again due to the fragmentation and preservation levels. The identifiable species present were common agricultural animals, namely cattle, sheep and pig, the majority of which was cattle. There were two additional species identified within the assemblage, the first is that of the previously mentioned rabbit femur (from the unstratified assemblage) and the second is a fragment of a dog mandible (from context (11)/[F10]).

5.7.5 Taphonomic change and pathology were also identified and recorded throughout the assemblage. A total of twenty-two fragments were recorded as having been burnt due to the discoloration of the bone from the oxidisation process that takes place during burning. All but one of these fragments were from the unstratified assemblage, the one remaining fragment was from context (26)/[F2]. Three fragments had possible cut marks present which could have been a sign of butchery, all three of these fragments were from the unstratified assemblage. Finally, three fragments from context (24)/[F7] showed signs of a minor periosteal reaction which could have been an indicator of infection. However, the reaction did not seem severe so this is unlikely to have been significant, especially as it was present on such a small proportion of the assemblage. Due to the poor preservation level of the bones it is possible that further taphonomy or pathology was once present and is merely no longer identifiable.

5.7.6 In conclusion, due to the comparatively small sample size, the poor preservation level and the highly fragmentary nature of the assemblage the information that can be gained from the

animal bones is limited. However, the common species that were identified and the presence of possible butchery marks indicates that the samples are likely the result of food production. The noticeable differences between the different contexts is interesting and worth further investigation through radio carbon dating and analysis of the soil pH levels as well as comparison with the known stratigraphy of the site. The full catalogue of animal bones present can be seen below:

5.8 Palaeoenvironmental samples (by Archaeological Services Durham University)

5.8.1 Methodology: The bulk samples were manually floated and sieved through a 500μm 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 waterlogged 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).

5.8.2 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 x600 magnification using a Leica DMLM microscope. Identifications were assisted by the descriptions of Schweingruber (1990) and Hather (2000), and modern reference material held in the Palaeoenvironmental Laboratory at Archaeological Services Durham University.

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

5.8.4 Results: The deposit (**23**) taken from beneath a limestone feature produced a small flot comprising tiny traces of oak charcoal, modern roots and an uncharred sedge nutlet. The presence of modern roots suggests the sedge nutlet is a recent introduction.

5.8.5 The deposit (**25**) from beneath the external porch floor produced a small flot containing traces of charcoal, cinder and modern roots. In spite of the small fragment size, the charcoal can be identified as hazel and cherries (which represents blackthorn, wild or bird cherry). Plant macrofossils are absent from (**25**).

5.8.6 The deposit (**10**) taken from beneath the main yard contains modern roots and traces of fragmented (<4mm) charcoal, coal and indeterminate calcined bone. The charcoal can be identified as Maloideae and ash. Maloideae is a subfamily that includes hawthorn, apple, whitebeam and rowan. Based on vessel arrangement, spiral thickening (abundant, localised or absent), and ray composition the fragments of Maloideae are recorded as cf. hawthorn and cf. rowan. Again plant macrofossils are absent.

5.8.7 The sample (**11**) taken from a trench cut into the south enclosure wall, again produced a small flot comprising modern roots and small quantities of fragmented (mainly <4mm) coal, charcoal, cinder and charred heather twigs. The charcoal can be identified as hazel. A few charred plant macrofossils include cereal chaff remains of wheat and barley, and a single barley grain. The twisted form of the barley grain is characteristic of 6-row barley (Hordeum vulgare), although the poor condition of the barley rachis fragment prevents certain identification. The diagnostic wheat chaff is a glume base of spelt wheat (Triticum spelta).

5.8.8 The deposit (**26**) from below the south enclosure wall line produced a small flot comprising modern roots, traces of cinder and a charred spelt wheat glume base.

5.8.9 Discussion: The samples contain traces of fuel waste associated with domestic activity. Charred plant debris recovered from the south enclosure wall (**11** and **26**) contains limited evidence for using spelt wheat and 6-row barley. These were the main cereal crops cultivated during the late prehistoric and Roman periods in northern England (Hall & Huntley 2007; Greig 1991), which is consistent with palaeoenvironmental data previously recorded for Hagg Farm and consistent with the Roman date suggested by the artefactual evidence from the site (Archaeological Services 2014). Although the charcoal evidence is limited, identified fragments from beneath the stone flags are consistent with material previously recovered (Archaeological Services 2014), with ash, hazel and Maloideae the most frequently recorded species. The similarity of evidence including traces of coal and cinder (also previously noted at the site) probably indicates a Roman origin for these deposits rather than signs of earlier activity. The presence of this burnt material below the stone flags is probably the result of taphonomic processes such as bioturbation and water percolation.

5.8.10 Recommendations: Material suitable for radiocarbon dating is available for contexts (**10**) and (**11**), although due to fragment size and the amount of mineral inclusions it is uncertain whether there is sufficient weight of carbon. Considering the fuel debris is similar in composition to remains previously recovered from the site, it is highly likely that these deposits are also of Roman origin and may be worth bearing in mind before undertaking radiocarbon dating evidence.

6. 2017 Season: Conclusions and Discussion

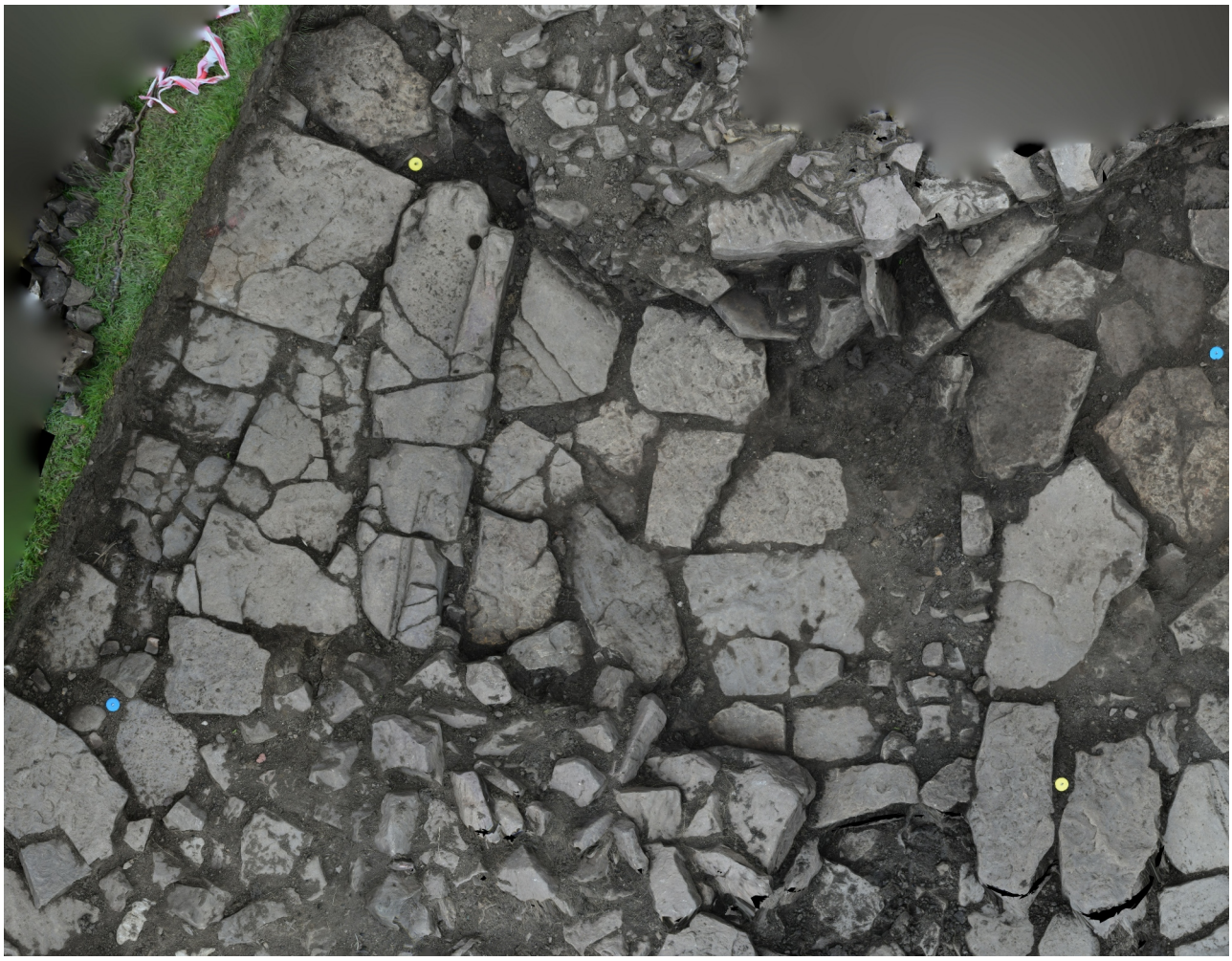


Plate 38. Photogrammetric bird's eye view of the porched entrance, with north aligned to the top of the image.

6.1 Discussion: The Structural remains

6.1.1 The 2017 season continued to investigate the remains of the roundhouse first discovered in 2012, with 2017's limit of excavation overlapping with the eastern entrance of the house, specifically using the doorsill as a focal point. In 2012, the remit of the investigation was to reveal to abandonment phase only, so in 2017 the rubble banks that were assumed to be the remains of the roundhouse walls were investigated.

6.1.2 The south/east wall was found to stand up to 0.30m high with a foundation approximately 1m in width. This suggests that the roundhouse wall may have been built entirely of stone, faced inside and out with a packed core of rubble, and likely built to a set height that the roof timbers could spring from.

6.1.3 The wall being this wide allowed for a deep porch entrance to the doorsill which was positioned at the very inner edge of the wall. The wall terminus at the door entrance had an unusual stone built feature which initially was thought to be a porch extension, but with the entrance already deeply set, this wide squared stone addition could be interpreted as a either a buttress to help secure the wall end entrance (which may at this point have stood higher than the rest of the wall), or an imposing column purposely built to enhance the entrance. Either way, this seems to be a later addition to the house, with the original curved wall of the house continuing behind it.

6.1.4 The flagged floor of the 'porch' had been well laid to form an edge in line with the outer edge of the south wall extension. This allowed for a shallow surface drain to be constructed running north-south, with it's eastern edge aligned against continuing flags, though the latter had been raised to help define the drain. This drain itself had been carefully positioned to capture any rain fall likely to have flowed off the porch roof, and it is assumed that it likely formed part of a drip-drain that may have continued around the northern embankment, though as previously mentioned there was no time in the 2017 season to investigate the rubble for the feature.

Plate 39. Photogrammetric bird's eye view of the crinoidal feature

6.1.5 The entrance to the roundhouse is aligned east/south-east, and was likely built utilising the natural topography on its northern side.

6.1.6 No evidence of a north wall could be seen as the north side of the roundhouse had been built into the embankment. The north wall edge of the curving embankment running east and northeast from the entrance started at a point where the outer edge of the north wall should be, but time constraints didn't allow for the removal of the the rubble to confirm for certain the foot print of the north wall and whether it too had a column similar to the south wall house entrance edge.

6.1.7 The curving embankment had a part-natural and part-manmade bank with a flat top at its northern point, and a gentle slope south overlying the edges of the round house floor. The bank was revetted on its eastern edge, with the facing stones forming the west edge of a cobbled trackway which ran in a gentle curve eastward out of the roundhouse entrance, before turning sharply to the north and then north east, continuing onwards to the unexcavated area of the enclosure.

6.1.8 East of this trackway was a raised terrace/platform comprising large stone flags which ran eastward out through an entrance/exit to the main enclosure. This terrace respected the alignment of the trackway and revetted wall to the west, suggesting that the features were contemporary. It was also noted that the western extent of the terrace contained a distinct step up from the cobbled track, again suggesting their contemporary nature, with the flagged terrace leading to the enclosure entrance/exit, and the cobbled trackway leading up to either a further living or working area. Within the terrace was a large feature comprising crinoidal limestone which formed an oval shape surrounding a large central sandstone block. While no archaeological remains existed to give us a use for the limestone feature, it does appear to have been a starkly obvious feature due to the colour contrast, and may also form the central point within the main settlement. The central stone may suggest an above-ground timber feature.

6.1.9 Two entrances to the main 'courtyard' (which comprised levelled flagging over a metalled surface) were located at the eastern edge of the excavation, divided by a low bank. This bank comprised a build up of top soil and subsoil layers to form the mound with a gentle slope east. The north, south and east extents had some surviving large stones acting as a retaining edge for the rubble bank. The west edge of the mound, which would have been inside the enclosure, had a supporting wall built along it's edge, the surviving structure now visible as a line of wall tumble and rubble

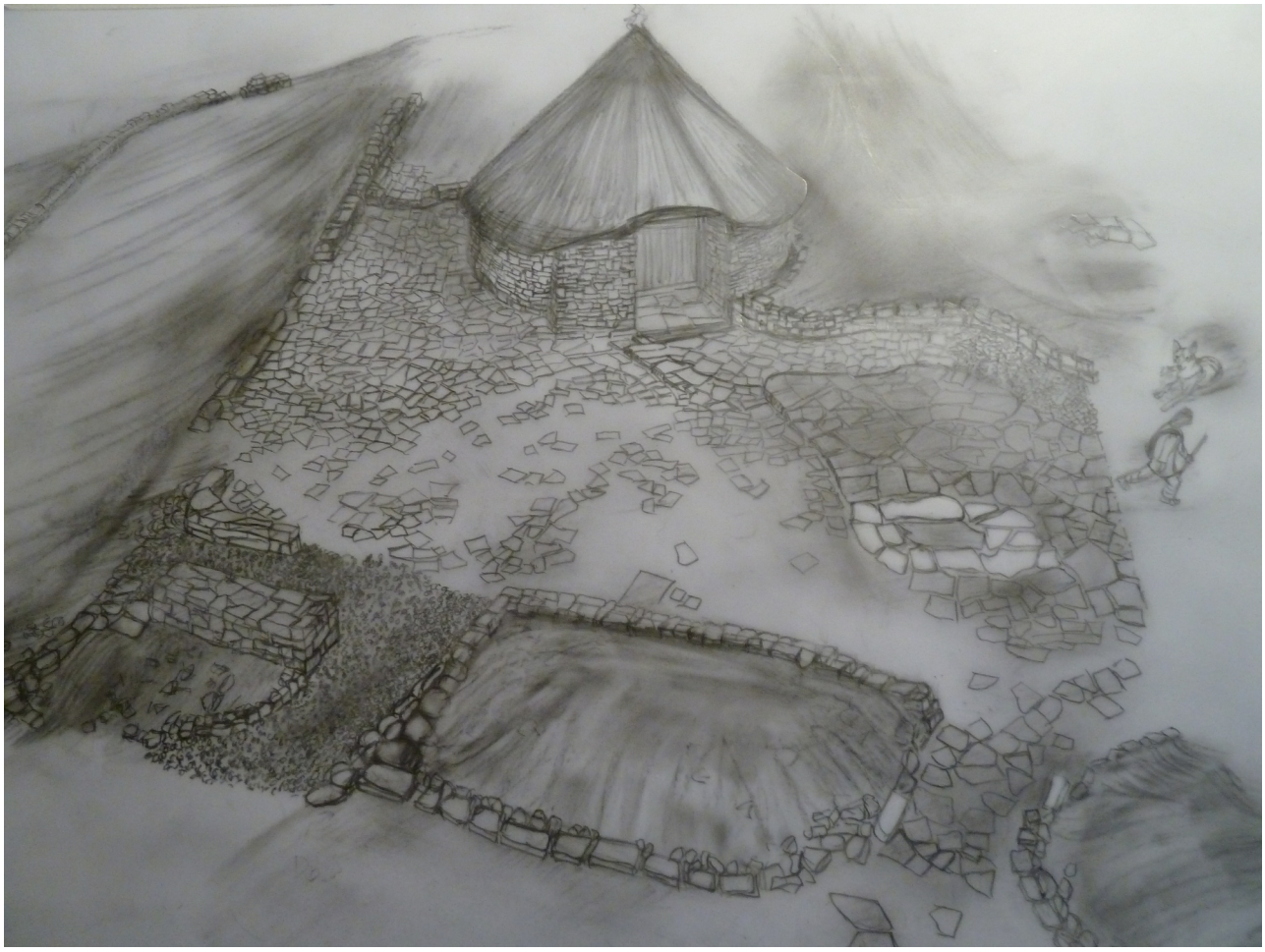


Plate 40. Reconstruction of the excavation area looking west by Philip Bastow

standing approximately 0.5m high. Removal of some of the tumble at the south end of the mound revealed the wall had been built upon the natural shale strata, which ran into the compacted clay base. Two theories for the interpretation of the mound or bank have been presented. The first is that the structure is a spoil heap from the development phases of the site, which eventually became a neatly bordered mound. The second theory, presented by a member of the public, is that the mound is purposely built viewing platform accessed from the gentle slope east to be able to oversee events taking place within the yard area.

6.1.10 As previously mentioned, to the north of the mound was a flagged entrance, which likely conjoins with the flagged terrace to the west, creating a track visually aligned with the doorway to the roundhouse. This track way approaches the enclosure from a curving south easterly direction with the topography and LIDAR images suggesting that the path/road may run south of the glacial mound. Within the excavation area, there was evidence of a surviving *in-situ* kerb stone of white crinoidal limestone on the track's southern edge, with a similar singular surviving kerb stone also on the north edge which creates the defining edge and corner of the mound to the south.

6.1.11 To the south of the mound was a further entrance, though of much poorer quality than the track to the north. The entrance comprised a metalled surface first seen in 2013. At its northwestern extent the track opened into the main flagged courtyard and also turned to the southwest through an internal entrance to a lower southern platform. Excavation of the cobbling produced a Roman coin dating to the 3rd century, suggesting a potential date for the track's usage.

6.1.12 In the southern extent of the excavation area, a cobbled stone-aligned track (noted to be the highest buildup point within the excavation to date) leading from the main courtyard to a lower

enclosed platform to the south was uncovered. The feature had been cobbled with two layers of stone, and had a stone wall on its eastern edge with a revetted bank to the west. Trace evidence of a stone foundation wall ran across the entrance, but it is unknown whether this alignment pre or post-dated the feature. It is likely to be the continuation of the main enclosure revetment running to the west.

6.1.13 To the west of the stone-aligned track was what has been interpreted as the main settlement southern wall, though there was a short gap containing rubble between the two (possibly suggesting robbing or water damage). The structure itself was revetted on its southern edge, with only a short section of wall at the western extent of the excavation, with seemingly the flagged surface of the main central courtyard running to the edge of the revetted structure for the rest creating a 'ha ha' effect (a vertical barrier preserving an unobscured view of the landscape). The structural material of the 'ha ha' contained a number of animal bones and habitation debris, potentially suggesting that the platform to the south may have been used as a midden. This would also explain the 'ha ha' effect, with the domestic waste being thrown over the edge or brushed away with minimal effort, and the southern stone-aligned trackway allowing access for waste management.

6.1.14 This extension of Trench C to the south produced evidence of a stone rubble wall and a metalled surface, suggesting the trackway from the stone-aligned structure to the northeast extends into this area.

6.1.15 The main courtyard of the settlement itself comprised a large flagged area, levelled where necessary with gravel and clay. The flags were noted in 2012 to continue northwest beyond the roundhouse, suggesting a further flagged area to the west of the area currently excavated. The flagging had been heavily robbed to the centre and to the east of the area, and to the south of the roundhouse a potential bonfire base was noted, suggesting potentially that the yard and house was kept well lit externally.

6.1.16 The small extension to Trench C, south of the main enclosure, coupled with the trackway leading from the southeast corner of the excavation area and the LIDAR data suggest strongly that a part-cobbled, part agricultural platform exists south of the main enclosure, again surrounded by a rubble wall. LIDAR also suggests that as well as the entrance to this enclosure already noted, there may also be a central southwestern entrance and accompanying trackway.

6.2 Discussion: The Finds

6.2.1 Previous excavations at Hagg Farm, site 103, have provided scant evidence for activity earlier or later than the first four centuries AD. One of the research objectives of the 2017 excavations was to look for evidence of activity outside this, in archaeological terms at least, relatively narrow time frame.

6.2.2 Lithics: 26 pieces of struck flint and chert were recovered from unstratified topsoil deposits. These were generally sharp or only slightly abraded suggesting that they had originated close to their eventual recovered locations. The source of the raw materials cannot be clearly identified, although the chert, given its abundance in the area, might most likely be from local deposits. Flint on the other hand was transported by Prehistoric populations and so might have originated from further afield. There is however no evidence of flint from the Yorkshire Wolds or Lincolnshire having been used and so perhaps flint recovered from glacial deposits, the only source of flint in the locality, or material from beach or coastal sources was used.

6.2.3 Whilst the majority of the material is knapping waste several fragments suggestive of Mesolithic and Early Neolithic technology were present. This is an indicator of settlement type activities, which could be either broad-based occupation, a more task-specific encampment or might even have resulted from repeated visits to the site. So, the presence of worked flint and chert gives us

evidence for early occupation at the site. There is however nothing to suggest a continuous human presence from the Early Neolithic up to the Romano-British period.

6.2.4 Faunal remains: 329 fragments of animal bone were recovered by hand excavation and small amount of calcined bone from environmental sampling. The quality of the hand-excavated material was generally poor with a high level of fragmentation and decay, which hindered identification. This degradation of the bone is likely to have been due to either acidic soil conditions or the length of time post deposition. As the majority of the bone was recovered from unstratified topsoil the date of the deposition is difficult to determine. Where bone was recovered from sealed contexts (**24**), (**11**) and (**26**) they were dated by the associated pottery to AD 250-400, AD 50-400 and AD 120-400 respectively.

6.2.5 From (**11**) there is evidence for the presence of domestic species, probably cattle, sheep and pigs, during the Romano British period – and a dog!

6.2.6 Amongst the overall assemblage, some fragments had been burnt and others showed cut marks as evidence of butchery but without resorting to C14 dating it is difficult to date these or any of the other unstratified diagnostic elements. It is also debatable as to whether such dates would provide significant additional evidence or knowledge about the site and the potential uses/activity therein.

6.2.7 Pottery: The main source of datable material from the site is the pottery assemblage. The pottery recovered during July 2017 (158 sherds 1.920kg) was assessed by Eniko Hudak, Roman Pottery specialist with Pre-Construct Archaeology (North). Fifteen different fabric types are represented in the 2017 assemblage. The most common fabric, East Yorkshire calcite gritted ware is accompanied by other regional pottery such as Crambeck ware, a range of types associated with Bainesse and Catterick and also a locally made copy of Dorset Black Burnished ware, indicating the influence of Roman pottery styles on local potters.

6.2.8 There is a strong late 4th century component in all the pottery from the Hagg as typified by the Huntcliff type jars and Crambeck mortaria. These are not unusual for the area as the Roman Villa at Askew also produced these fabrics and types although there the assemblage was predominantly 3rd Century.

6.2.9 There is also a 2nd to 3rd century element in the assemblage from 2017 including the 25 sherds of Samian ware (*Terra sigillata* AD150-300). This is the second most frequent fabric by sherd count (c16%) but as they were rather fragmented weighed only 60g (c3% by weight of total assemblage). In addition one piece, which represented a significant amount (>10%) of the total Samian weight had been reworked, possibly as a gaming counter, further emphasizing the fragmentary nature of this pottery.

6.2.10 Other fabrics that might signify early occupation include the Mancetter Hartshill pottery from Warwickshire (AD 220-300), which is also widely found in Northern England and an even earlier fragment of a local mortarium from Catterick or Bainesse dated to AD100-140.

6.2.11 The presence of earlier pottery (2nd and 3rd century dates) does not necessarily signify earlier occupation and the concept of "heirloom" or retained objects arriving on site might offer another explanation. This is a phenomenon we believe to have seen in previous excavations on this site and certainly the reworked Samian "gaming counter" would fit into this category.

6.2.12 Querns: During an earlier excavation in 2011 (reported in ASDU 2014) a broken fragment of a quern stone (2011 SF16) was recovered. In 2017 a matching fragment (2017 SF11) to this earlier stone together with another four querns were found.

6.2.13 The Traprain Law querns, a typology named after a quern found at Traprain Law in East Lothian, are also sometimes referred to as collared hopper querns. These are a type that appear infrequently in the Yorkshire Quern survey where only 62 of the 7,600+ recorded querns show

this feature. SF11/SF16 is considered to be very wide hand quern in comparison to SF5. Wharfedale, Ribblesdale and Swaledale define the boundaries of the core distribution of these quern types in England with no example having been recorded east of Dere Street. The smaller querns (e.g.SF5) have typically been found in and around early Roman auxiliary forts in the Pennine area. Larger examples tend to be found associated with later Roman contexts in both civil and military sites along and just to the west of Dere Street.

6.2.14 The presence of SF5, an early type, on a site with a very strong late 4th century pottery profile and also SF11/SF16 some distance away from the Roman Road system and their typical findspots is somewhat anomalous and two possible explanations have been proposed: either the querns were obtained by barter, or theft from somewhere further east along Dere Street and settlements in the Catterick area or they were brought in by external processors to facilitate the processing of grain for local consumption and to serve their customers in the east.

6.2.15 Finally one other interesting observation is that some querns had their edges removed prior to them being put out of use or discarded; SF4 had been treated in this manner. This practice is however far less common in the Roman era and so perhaps someone on site had retained this traditional practice.

6.2.16 Worked stone objects: Five worked stone discs were recovered ranging in diameter from 5 – 13.5cm. Similar items are variously described in the literature as gaming counters, or computational aids at the smaller end of the range and pot lids for the larger items. However it has been noted that the larger discs recovered from the Hagg do not match with most Romano-British pottery vessels and so in the circumstances it is difficult to accurately ascribe a function to each object. This does not detract from the fact that they clearly represent human activity in their production and use.

6.2.17 Other evidence for human activity is seen in a range of stone shapes and types, that suggest their use as hones, polishers, burnishers and perhaps grindstones. The common identifying feature is a very smooth surface which is sometimes flat (?burnisher) and sometimes slightly concave (?hone). It would seem appropriate to associate these with some type of activity but whether this is domestic or more industrial in nature is uncertain.

6.2.18 Personal and trade related items: Of particular note is a Roman brooch (**23**) SF1, a copper alloy proto-crossbow brooch silvered and gilded. This is a relatively rare item from the early to mid third century with only around twenty having been described from the UK. Similar examples are known from Germany and so there is the possibility that these are imported items. The distribution of these brooches in the UK is largely military in association and this form, which is seen as ancestral to the late Roman crossbow brooch, would suggest that this is a male, military adornment.

6.2.19 A silver *denarius* [16] SF8 of Caracalla struck in Rome in AD201. This is a high value coin, and as such a relatively rare site find, as compared to copper alloy coins. The coin shows remarkably little wear suggesting it was perhaps lost or had been out of circulation since the early 3rd century.

6.2.20 A fragment of a stone palette [23] SF2. Palettes of this type are though to have been used in the preparation of either cosmetics or medicinal items. They are relatively common finds particularly in Roman urban settings but perhaps less so in the uplands of the Northern Yorkshire Dales.

6.2.21 A biconical steelyard suspension weight [+] SF9. Made from lead with the remains of an iron suspension ring and weighing 618g. The Roman *libra,* or pound weight, is believed to be around 328g. So perhaps with the addition of the iron chain this weight might approximate to 2 *librae.* These types of weights are reasonably common finds on Romano-British sites and suggest the need for weighing commodities on site.

6.2.22 A small, hollow, cylindrical jet or shale object [+] SF14. The lack of curvature precludes its identification as a bracelet and although it shares some similarities with previously described knife handles it seems to small for this function. Alternatively perhaps it is a bead.

6.2.23 A collection of daub (594g) varying size from 2g to over 100g is indicative of structures on site. However despite its close spatial association with the remains of the westernmost putative roundhouse its precise role remains unclear. The fabric of the daub appears homogenous and is present in two thicknesses (8mm or c15mm). It exhibits what appear to be fingermarks on the external surface together with wattle impressions on the interior.

6.2.24 At least 11 iron nails of Roman form.

6.2.25 Objects of unknown function: A piece of rolled or folded lead (**US**) SF4 shaped into a cylindrical mass. Initial assessment suggest this could be working waste, a weight or (improbably a curse). Careful unrolling of the object by a professional conservator revealed an irregularly shaped sheet with no obvious marks or other features apart form a perforation at one end. Whilst this might suggest its use as a suspended weight the irregular shape would speak against this theory.

6.2.26 With the exception of the Roman nails and a fragment of figure of eight link chain also dated to the Roman period all other ferrous items were of indeterminate date or unknown function.

6.3 Discussion: Environmental evidence

6.3.1 Part of the planned work for the 2017 excavation was the environmental sampling of deposits, again to look for evidence of earlier occupation. Nine soil samples were collected into clean polythene bags, five of which were subsequently selected for processing and assessment by Archaeological Services Durham University (ASDU).

6.3.2 All samples were taken from below flagged areas at different parts of the site, with the exception of <8>, which originated from the southern boundary trench. Collectively the samples showed evidence of burning with coal, cinder, charcoal, calcined bone and charred heather twigs being identified. It appears from an analysis of the limited charcoal remains that a variety of species had been burnt; oak, hazel, cherries (blackthorn, wild or bird cherry) ash and also specimens from the sub family Maloideae (hawthorn, apple, rowan, and whitebeam). There is also limited evidence for the use of spelt wheat and 6-row barley (bere meal) both of which were staple crops cultivated in northern England during late Prehistoric and Roman periods. Whilst many of these recovered elements are present in only small amounts they do provide evidence of domestic activity on the site.

6.3.3 During one of the first excavations at the site, ASDU also carried out environmental analysis (ASDU 2014). The similarity of those earlier results as compared with the current data suggests that despite the current samples being taken from beneath flags they also represent a Romano-British date rather than anything earlier. The presence of burnt material below the flags being likely to be *"the result of taphonomic processes such as bioturbation and water percolation"* i.e. worm and water activity moving material under the flags rather than the flags being laid on top of the material (ASDU 2017). Although there is material available from (**10**) and (**11**) that might prove suitable for radiocarbon dating, at this time there does not appear to be a convincing argument that this would provide any additional information.

6.4 Overall conclusions and recommendations

6.4.1 The latest environmental analysis, together with earlier results, do not provide any evidence of activity at the site between the early Neolithic and the Romano British periods. This does not however preclude intermittent or sporadic activity in this period, which is something to bear in mind during future work.

6.4.2 From 2012 to 2017, 21 trenches and one large open area excavation have all exposed to a larger or lesser degree flagged surfaces, cobbled/metalled surfaces, and faced stone walls (some still standing to 0.5m). One of the many impressive elements belonging to this site is the quantity and quality of the civil engineering displayed, including the excavated round house floor of 2012 with its well made *in-situ* doorsill and the flagged surface area of the eastern annexe platform which also exposed a larger, wider doorsill.

6.4.3 Despite preferring the traditional roundhouse for habitation, the doorsills, construction techniques, pottery, tools and personal items all indicate that the occupants of the settlement had a heavy Roman influence, one which has also been theorised may suggest a Roman *military* influence or patronage. This theory is potentially supported by the discovery of a military Roman brooch within the demolition material of the roundhouse as well as military-style querns, but equally these goods could have been gained by trade or as heirlooms.

6.4.4 The roundhouse is built solidly in stone with walls up to 1 metre wide, this width creating a deep porch protecting the wide door which dropped into a deep rebated stone sill. The porchway was extended slightly at a later date, with a squared column of stone built against the south wall entrance. This column either enhanced the front entrance aesthetically or acted as a buttress. The front of the porch had a shallow drip-drain leading water south from the entrance, and also had a purpose-built cobbled track leading from the doorway northeast to the upper as-yet unexcavated platform within the settlement.

6.4.5 A step up from this path led to the flagged upper terrace which runs along the northern edge of the excavation area, its full extent lying within the upper northern platform. The terrace lay higher than the main yard area and was built up purposely with packing. The flags themselves were also noticeably larger than those within the main yard and appear as a later phase of construction. Within the terrace was a large oval feature constructed with white crinoidal limestone surrounding a large sandstone block at its centre. Similar limestone was noted to have been used as edging for a track leading into the terrace from the east. The use of the limestone in these two areas suggests an attempt to use the contrasting colour of the limestone to good visual effect.

6.4.6 From the east, the approach to the enclosure had two entrances - one to the north (flagged) leading to the terrace and limestone feature (which was also noted to have direct line of sight to the roundhouse door) and the second to the south noted to be cobbled rather than flagged leading into the main courtyard as well as to an entrance to a lower enclosure to the south. The two entrances were separated by a mound, noted in construction type to be of a poorer build than the rest of the site. The mound appeared to have a retaining wall on its western edge, and a gentle slope to the east, suggesting that the feature may have been a viewing platform.

6.4.7 The main courtyard of the settlement was flagged with stone, packed on earlier cobbles and engineered at its southern extent into a level surface. The southern edge of the yard appears to have had a main enclosure wall as a boundary, though as only part of the wall survives it is merely a supposition that it continued across the break of slope: indeed, as the flags of the yard continue to the edge of the slope where the wall no longer exists, it may have formed a similar arrangement to a ha-ha, or may simply suggest that the enclosure wall was built over and along the edge of the yard with the rear (northern) edge of the wall using the yard flags as a foundation base.

6.4.8 As with previous assemblages the 2017 pottery confirmed occupation as being confined to the Romano-British period. There is good evidence for human occupation and domestic activity on the site during the Romano-British period: The presence of barley and spelt residues, cattle, pig and sheep bones perhaps with butchery evidence and burning as demonstrated charcoal, cinder and coal together with burnt bone, from both environmental and hand excavated contexts.

6.4.9 The number of stones used as hones and for burnishing and/or grinding purposes suggested domestic or small-scale industrial type processes and the presence of five quern stones indicated

cereal processing was taking place on site. The source of the querns is notable in that they appear to have a military origin, possibly from nearby at Catterick, which might suggest co-operation and trade on cereal production or maybe simply evidence of processing for local consumption.

6.4.10 The steelyard weight was of a Roman type and indicates the need for accurate weighing for trade rather than domestic use. Finds of *galena* on site, whilst not unsurprising in this locality might also have been trade related. The presence of the Imperial Court in York in AD 208 and the campaigns into Caledonia by Septimius Severus and others required large amounts of supplies and money and no doubt impacted on the rural economies over a wide area. A theory presented is that the settlement at The Hagg may have provided continuous trade or potentially a series of discontinuous contacts during the Romano-British period. Again, this theory may be supported by some of the pottery found on the site which potentially originated in Catterick, though whether the source was a local kiln or actually traded in Catterick itself is unknown.

6.4.11 Looking at some of the small finds of the site, it has been suggested that they are evidence of heirlooms being broken and discarded over time. However, there is no reason to think that items such as the early 3rd century silver coin was not simply lost in the mud on the owner's way into the settlement, or that the gaming counters were not simply games in use. Items such as Samian ware, jet jewellery and the glass bead, bangle and partial handle of a 1st century glass flagon found since 2012 are likely simply evidence of trade and suggestive of a certain level of wealth within the settlement.

6.4.12 Overall the excavations to date support the picture of a small successful farmstead, active between the 2nd and the 4th centuries AD. Evidence of two roundhouses have been noted to date, with the LIDAR evidence suggesting at least the possibility of two further structures. The farmstead produced flour, worked on cultivated crops and potentially also mined for surface lead, suggesting a busy prosperous settlement.

6.4.13 The earliest evidence found to date suggests that the early phase of the site may have been situated at the southwestern edge of the base of the glacial mound in the eastern segment of the overall settlement. During the 3rd century AD, the farmstead underwent a major change: the original house was demolished and the flagged floor widened to form a large walled corral or annexe. This annexe was cobbled to the north of the flags and opened into what appeared to be cattle or sheep droves to the northwest and possibly the northeast: a large double gate was positioned on the southern edge of this new corral.

6.4.14 A new roundhouse was built west of the corral on flatter but lower ground. Its main courtyard was initially cobbled, later flagged, with an enclosure wall running to the west and south. It is also likely that further industrial or domestic buildings lie to the north, making use of the space between the new enclosure wall and the west wall of the corral. There was a natural terrace between the main yard and the upper platform, which was enhanced with large flags and an entrance created through the eastern enclosure wall/mound which likely joined with the southern track from the corral. A cobbled path was built running up the terrace leading to the upper platform, potentially a well used path between roundhouse and whatever activity lay to the north.

6.4.15 In the early 3rd century, a further entrance was built in the southeast corner leading down to a further annexe to the south. This cobbled track also formed a further entrance from the east, suggesting a dedicated entrance for those climbing the hill from the southeast then turning into the lower annexe without having to enter the main courtyard fully. Between these two entrances was a mound of layered turf and rubble, faced on the inner edge and which may have acted as a viewing platform overseeing the courtyard, though without knowing the truncation of the height of the feature it is impossible to ascertain whether or not the mound would have really provided a useful function as such. The mound itself was heavily disturbed, and may simply be a hasty repair if an original wall running through this area had collapsed. This could suggest that the feature was

an addition late in the farmstead's life (supported by the single find of a sherd of late 3rd-early 4th century *mortarium*).

6.4.16 The presence of late 4th century pottery and thus habitation within Romano-British sites have until recently been classed as atypical for Northern British sites. However, as further excavation and work on sites from this period is undertaken, a 4th century and later presence within farmsteads and similar settlements is becoming recognised as a natural progression not altogether out of the ordinary. A good example of a lowland site, similar in date to the site at the Hagg (and including a Romanised 3rd century stone-flagged roundhouse) was excavated at West Chilton, Ferry Hill in County Durham (24 miles to the northeast of the Hagg) by Vindomora Solutions Ltd in 2015-16. The site included a large amount of 4th and early 5th century pottery, with the stratigraphical relationship of the 4 hectares of features on site suggesting a sudden surge in development in the late 2nd through the 3rd centuries, declining again until the late 4th or early 5th century when the site was abandoned.

6.4.17 Based on the LIDAR and earthwork surveys, only a fraction of the settlement has thus far been excavated, with obvious gaps in our knowledge of the archaeological record lying within the upper platform within the main settlement area, the southern annexe, outlying features to the east and north and trackways, watersources and potential usage of the sides of the glacial mound (with the top of the mound having been stripped by the Victorians). Further recommendations for work would include the following:

- Excavate north of 2017 excavation including the enclosure wall line of the upper eastern platform, and up to the north embankment. This opened area will then cover the two platforms seen on the surface, help to explain the flagged areas seen in 2013 and 2016, and investigate the possibility of further domestic or industrial buildings in this area;
- Stratified excavation of all features and surfaces to investigate phasing;
- Excavate west of roundhouse [**F1**] including the wall-line of [**F10**] and reveal the western boundary enclosure wall. This will investigate the possibility of a further building in this area and identify the nature of the western boundary of the farmstead;
- Excavate south of [**F10**] to reveal the southern annexe. This may reveal if the platform is a late addition and its suggested possible use as a midden;
- To excavate south of the current boundary formed by entranced [**F4**], [**F5**] and mound [**F3**]. This would investigate the nature of the tracks and may allow for phasing of the entrances;
- Excavate north of roundhouse [**F1**] porch, within embankment [**F6**] to investigate if there is a footprint of its northern wall and if it too had a built up column as the south wall;
- Excavate north west corner of enclosure, to establish if this is the boundary corner, or if it extends further west towards the spring area;
- Excavation of the possible building at the southeastern corner of the eastern annexe;
- Excavation of the square feature on the western side of the glacial mound;
- Excavation across the potential trackway on the west side of the glacial mound running above the eastern annexe;
- Geophysical survey of the field below the south platform to establish if the enclosure continues to expand south and establish any track ways . Survey also the eastern side of the glacial mound to confirm track ways and possible east boundary edge, survey flat area to the south east of the established track way that leads to the site from the east.

7. SOURCES

7.1 Sources

Abdy, R., Brunning, R. and Webster, c. (2001) 'The discovery of a Roman villa at Shapwick and its Severan coin hoard of 9238 silver denarii'. *Journal of Roman Archaeology* 14, 358-372.

Allason-Jones, L. (1996) *Roman Jet in the Yorkshire Museum*. York, Yorkshire Museum.

ASDU (2014) *West Hagg Site 103 Swaledale, North Yorkshire: archaeological excavation.* Unpublished report **3360**, Archaeological Services Durham University

ASDU (2017) - Archaeological Services *Hagg Farm, Swaledale, North Yorkshire. palaeoenvironmental assessment report* 4647, December 2017 Archaeological Services Durham University

Bayley, J and Butcher, S. (2004) *Roman Brooches in Britain: a technological and typological study*. London, Society of Antiquaries of London.

Bell, A. and Evans, J. (2002) 'Pottery from the CfA excavations', in P. Wilson *Cataractonium Volume I*. London, CBA Research Report 128, 352-498.

Bidwell, P. and Croom, A. (2010) 'The supply and use of pottery on Hadrian's Wall in the 4th century' in R. Collins and L. Allason-Jones (eds) *Finds from the Frontier: Material Culture in the 4th-5th centuries*, York: Council for British Archaeology Res. Rep. 162. 20-36.

Bidwell P & Hodgson N (2009) *The Roman Army in Northern England,* Arbei Soc, Newcastle.

Bishop (2017) - An Archaeological Evaluation at Hagg Farm, Swaledale, Yorkshire, Lithic Assessment, Barry Bishop, November 2017

Böhme, H. (1972) 'Die Fibeln der Kastelle Saalburg und Zugmantel', *Saalburg Jahrbuch* 29, 5-112.

Buckley D & Major H (1990) 105-120, *Quernstones*, in Wrathmell S & Nicholson A, *Dalton Parlours Iron Age Settlement and Roman Villa*, WYAS, Leeds.

Brickstock, R. (2004) *The Production, Analysis and Standardisation of Romano-British Coin Reports*. London, English Heritage.

Cadbury-Simmons (2017) – Animal Bone Assessment, Hagg Farm Swaledale 2017

CIfA (2014) *Code of Conduct*. Chartered Institute for Archaeologists.

CIfA (2014) *Standard and guidance for archaeological evaluations*. Chartered Institute for Archaeologists.

CIfA (2014) *Standard and guidance for the collection, documentation, conservation and research of archaeological materials*. Chartered Institute for Archaeologists.

CIfA (2014) *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*. Chartered Institute for Archaeologists.

Close-Brooke J (1983) *Dr Bersu's Excavations at Traprain Law, 1947*, in O'Connor A & Clarke DV *From the Stone Age to the '45: Studies Presented to RBK Stevenson, Former Keeper, NMS,* Edinburgh.

Collins R (2012) *Hadrian's Wall and the End of Empire: The Roman Frontier in the 4th and 5th Centuries*, Routledge.

Cool, HEH & Philo,C (1998) *Roman: Castleford: Volume 1: The Small Finds,* Yorkshire Archaeology 4, WYAS, p241-246.

Cool, H. and Baxter, M. (2002) 'Exploring Romano-British finds assemblages'. *Oxford Journal of Archaeology* 21(4), 365-380.

Corder, P. (1937) 'A pair of fourth-century Romano-British pottery kilns near Crambeck' reprinted in Wilson, P. R. (1989) *The Crambeck Roman Pottery Industry,* Leeds: Yorkshire Archaeological Society.

Crummy, N. (1983) *The Roman Small Finds from excavations in Colchester 1971-9*. Colchester, Colchester Archaeological Report 2.

Crummy, N. (2007) 'Six honest serving men: a basic methodology for the study of small finds', in R. Hingley and S. Willis (eds.) *Roman Finds*. Oxford, Oxbow, 59-66.

Corder, P. (1937) 'A pair of fourth-century Romano-British pottery kilns near Crambeck' reprinted in Wilson, P. R. (1989) *The Crambeck Roman Pottery Industry,* Leeds: Yorkshire Archaeological Society.

Cruse, J & Heslop DH (2013) *Querns, Millstones and other Artefacts,* in Martin, L, Richardson, J & Roberts, I, *Iron Age and Roman Settlement at Wattle Syke: Archaeological Investigations during the A1 Bramham to Wetherby upgrading scheme*

Cruse (2017) - SWAAG: Querns from 2011-2017 Excavation at West Haggs Farm (SE 0567.9901)

Department for Communities and Local Government (2012) *Communities and Local Government: National Planning Policy Framework*

Donahue, R.E. and Lovis, W.A. (2006) Regional Settlement Systems in Mesolithic Northern England: scalar issues in mobility and territoriality. *Journal of Anthropological Archaeology* 25, 248–258.

Eastmead, S. (2014) *Hungry Chert Quarries, Mouldside, Arkengarthdale*: a discussion and pictoral record. SWAAG Publications.

English Heritage (1991) *Management of Archaeological Projects*. Historic Buildings and Monuments Commission for England. London.

English Heritage (2006) *Management of Research Projects in the Historic Environment*. English Heritage. Swindon

Evans, A.A., Langer, J.L., Donahue, R.E., Wolframm, Y.B. and Lovis, W.A. (2010) Lithic Raw Material Sourcing and the Assessment of Mesolithic Landscape Organization and Mobility Strategies in Northern England. *The Holocene* 20 (7) 1157–1163.

Evans, A.A., Wolframm, Y.B., Donahue, R.E. and Lovis, W.A. 2007 A Pilot Study of "Black Chert" Sourcing and Implications for Assessing Hunter-gatherer Mobility Strategies in Northern England. *Journal of Archaeological Science* 34, 2161-2169.

Evans, J. (1985) *Aspects of Later Roman Pottery Assemblages in Northern England,* PhD, Bradford: University of Bradford.

Fleming, A. (1998) *Swaledale: valley of the wild river*. Edinburgh University Press.

Gerrard, J. (2014) *A Post-Excavation Assessment of the 'Native' and Romano-British Pottery from West Hagg, Swaledale, North Yorkshire for the Swaledale and Arkengarthdale Archaeology Group,* unpublished client report Centre for Interdisciplinary Studies and Newcastle University.

Gerrard, J. (2017) 'Appendix 6: Assessment of the Romano-British Pottery from the Aiskew Roman Villa (Site 122 and 122N)' in Goode, A. Proctor, J. and Vance, S. *Archaeological Investigations A684 Bedale, Aiskew and Leeming Bar Bypass, North Yorkshire,* Pre-Construct Archaeology Ltd. unpublished client report.

Google Earth Pro 2018

Greig, J R A, (1991) The British Isles, in W Van Zeist, K Wasylikowa & K-E Behre (eds) *Progress in Old World Palaeoethnobotany*. Rotterdam

Hall, A R, & Huntley, J P, (2007) *A review of the evidence for macrofossil plant remains from archaeological deposits in northern England*. Research Department Report Series no. **87**. London

Hammett R (1908) *Excavations at the Roman Camp of Melandra*, Derbyshire Arch J, 30, 319-323.

Hartley, K. F. (2002) 'Mortaria fabrics' in P. Wilson *Cataractonium Volume I*. London, CBA Research Report 128: 355-360.

Hather, J G, (2000) *The identification of the Northern European Woods: a guide for archaeologists and conservators*. London

Hattatt, R. (1989) *A Visual Catalogue of Richard Hattatt's Ancient Brooches*. Oxford, Oxbow.

Henson, D. (1985) The Flint Resources of Yorkshire and the East Midlands. *Lithics* 6, 2-9

Hind, D. (1998) Chert Use in the Mesolithic. *Assemblage 4*: http://www.assemblage.group.shef.ac.uk/4/4hind.html

Hudak, E. (2013) Mortaria in Northern Britain: Rethinking Distribution in the Frontier Zone, unpublished MLitt dissertation, Newcastle University.

Hudak, E. (2017) 'Appendix 7: Assessment of the *mortaria* from the Aiskew Roman Villa (Sites 122N and 122)' in Goode, A. Proctor, J. and Vance, S. *Archaeological Investigations A684 Bedale, Aiskew and Leeming Bar Bypass, North Yorkshire,* Pre-Construct Archaeology Ltd. unpublished client report.

Hudak (2017) - A Post-Excavation Assessment of the Romano-British pottery from The Hagg, Swaledale, North Yorkshire for the Swaledale and Arkengarthdale Archaeology Group

Huntley, J P, (2010) *A review of wood and charcoal recovered from archaeological excavations in Northern England*. Research Department Report Series no. **68**. London

Laurie et al (2010) "The Fremington Project: An Iron Age/Romano-British Landscape at Hagg Farm". Swaledale and Arkengarthdale Archaeology Group Archaeological Report No. 1.

Loughlin, N. (1977) 'Dales Ware: A Constribution to the Study of Roman Coarse Pottery' in Peacock, D. P. S. (ed.) *Pottery and Early Commerce: characterization and trade in Roman and later ceramics,* London: Academic Press, 85-146.

Liddell, T. (2017) Excavation of a Romano-British Settlement and earlier features at West Chilton, Ferryhill, County Durham. Vindomora Solutions Ltd Report 129-15-HS.

Mackreth, D. (2011) *Brooches in Late Iron Age and Roman Britain*. Oxford, Oxbow.

Manning, W. (1985) *Catalogue of the Romano-British Iron Tools Fittings and Weapons in the British Museum*. London, British Museum Press.

MPRG (2016) *A Standard for Pottery Studies in Archaeology*, Prehistoric Ceramics Research Group, Study Group for Roman Pottery, Medieval Pottery Research Group.

Mutz, A. (1983) *Römische Waagen und Gewichte aus Augst und Kaiseraugst*. Augst, Augster Museumshefte 6.

Ordnance Survey Map, 1894 and 2018 editions

Orton, C., Tyers, P. and Vince, A. (1993) *Pottery in Archaeology*, Cambridge: CUP.

Petts, D. & Gerrard, C. (2006) *Shared Visions: The North-East Regional Research Framework for the Historic Environment*. Durham

Prehistoric Ceramics Research Group, Study Group for Roman Pottery, Medieval Pottery Research Group (2016) *A Standard for Pottery Studies in Archaeology*

Preston, C D, Pearman, D A, & Dines, T D, (2002) *New Atlas of the British and Irish Flora.* Oxford

Roskams, S & Whyman, M, (2007) *Yorkshire Archaeological Research Framework: research agenda*. York

Saville, A. (1980) On the Measurement of Struck Flakes and Flake Tools. *Lithics* 1, 16-20.

Schweingruber, F H, (1990) *Microscopic wood anatomy*. Birmensdorf

Stace, C, (2010) *New Flora of the British Isles*. Cambridge

Symonds, R. (2002) *Recording Roman pottery: a description of the methodology used at Museum of London Specialist Services (MoLSS) and Museum of London Archaeology Service (MoLAS)* (Unpublished document available from MoLSS).

Tomber, R. and Dore, J. (1998) *The National Roman Fabric Reference Collection*. London, MoLAS Monograph 2.

Webster, P. (1996) *Roman Samian Pottery in Britain,* CBA Practical Handbook in Archaeology 13.

Wright E, *The Querns (*2002) 267-285, in Wilson PR, *Cataractonium: Roman Catterick and its hinterland: Excavations and Research 1958-1997*, CBA Res Rep 129, York.

Young, R. (1984) Potential Sources of Flint and Chert in the North-East of England. *Lithics* 5, 3-9.

Young, R. (1987) Lithics and Subsistence in North-Eastern England: aspects of the prehistoric archaeology of the Wear Valley, Co Durham, from the Mesolithic to the Bronze Age*. British Archaeological Reports 161.*

APPENDIX 1: 2017 FEATURE AND CONTEXT SUMMARY

Table 6. Feature and context summary

F#	C#	Description
G1		*Natural substrate*: Compact clay
G2		*Natural substrate*: Compact friable shale
G3		*Natural substrate*: Bedrock outcrop
OB1		*Overburden*. Topsoil and turf
OB2		*Overburden*. Mixed subsoil
F1	1	*Roundhouse*: flagged internal floor
	2	*Roundhouse*: southern wall
	3	*Roundhouse*: demolition rubble
	6	*Roundhouse*: cut of drain across entrance
	7	*Roundhouse*: fill of drain across entrance
	9	*Roundhouse*: eastern doorsill
	24	*Roundhouse*: northern wall/rubble
	25	*Roundhouse*: flagged porch
	31	*Roundhouse*: southern buttress to eastern entrance
	39	*Roundhouse*: continuation of entrance flagging east of drain
	40	*Roundhouse*: hearth
	41	*Roundhouse*: internal division
F2	12	*Entrance to southern annexe*: packing of (44)
	13	*Entrance to southern annexe*: southern wall of trackway
	14	*Entrance to southern annexe*: Demolition rubble
	16	*Entrance to southern annexe*: cobbled surface of track (primary)
	42	*Entrance to southern annexe*: cobbled surface of track (secondary)
	44	*Entrance to southern annexe*: northern wall of trackway
F3	17	*Potential embanked platform: Rubble matrix*
	35	*Potential embanked platform: Retaining stones on the west side*
	37	*Potential embanked platform: Turf matrix*
	45	*Potential embanked platform: Retaining stones on the east side*
F4	16	*Entrance*: cobbled surface
F5	18	*Entrance*: Flagged surface of entrance
	38	*Entrance*: Cobbled surface beneath flags
	46	*Entrance*: Limestone kerb

F#	C#	Description
F6	4	*Revetted bank*: Facing stones
	5	*Revetted bank*: Rubble matrix
	24	*Revetted bank*: demolition rubble
F7	20	*Path*: cobbled surface
F8	10	*Courtyard:* Flagged surface
	23	*Courtyard:* Cobbled surface
	33	*Courtyard:* Levelling deposit
	36	*Courtyard:* Levelling deposit
	47	*Courtyard*: Potential bonfire base
F9	21	*Flagged terrace:* Flagging
	38	*Flagged terrace:* Packing deposit
F10	11	*Enclosure wall:* Wall matrix
	26	*Enclosure wall*: Hillwash and debris
	29	*Enclosure wall:* Foundation slabs
	34	*Enclosure wall*: Rubble gap
	43	*Enclosure wall*: Potential wall foundation
F11	22	*Crinoidal limestone feature*
F12	19	- Southwestern corner of Trench 1/7 - Rubble bank
	27	*Southern annexe*: potential boundary wall
	28	*Southern annexe*: metalled surface

APPENDIX 2: SPECIALIST ANALYSIS DATA TABLES

The data tables in this appendix were provided by the individual specialists and are shown here in their original format:

Table 7. Lithics catalogue

Context	Type	Sub-type	Colour	Cortex	Condition	Suggested date range	Comments
Topsoil	Flake	Fragment	Semi-opaque light grey flint	None	Burnt	Prehistoric	Burnt flake fragment
Topsoil	Flake	Fragment	Semi-opaque light grey flint	None	Burnt	Prehistoric	Burnt proximal end of a probably wide flake
Topsoil	Conchoidal chunk	Core fragment	Black chert	None	Slightly chipped	Undated	Disintegrated core fragment
Topsoil	Retouched implement	Fragment	Translucent dark brown flint	None	Slightly chipped	Meso-EBA	Fragment of a flake with medium, moderately steep scalar retouch along remnant edge
Topsoil	Retouched implement	Fragment	Translucent dark brown flint	None	Slightly chipped	Meso-EBA	Fragment of a flake with medium, steep scalar retouch along remnant edge
Topsoil	Flake	Core preparation	Black chert	None	Slightly chipped	Prehistoric	Large thick flake
Topsoil	Burin	Dihedral	Translucent dark brown flint	None	Slightly chipped	Meso-ENeo	Laterally split flake with dihedral burin removals taken across proximal end and the snapped surface plus blunting retouch around left margin. Distal splintering suggests that the burin removals were accomplished using the anvil method. 35x25x11mm
Topsoil	Blade	Fragment	Translucent dark brown flint	None	Slightly chipped	Meso-ENeo	Mesial section of a prismatic blade
Topsoil	Blade	Non-prismatic	Translucent mid brown flint	None	Slightly chipped	Meso-ENeo	Not prismatic but systematically produced
Topsoil	Core	Blade	Black chert	None	Slightly chipped	Meso-ENeo	Opposed platformed blade core made on the 'front' of a small black chert angular pebble with an unmodified back and facetted / rejuvenated platforms set at a markedly acute angle to the core's face. 15g
Topsoil	Conchoidal chunk	Core fragment	Black chert	None	Slightly chipped	Prehistoric	Possible core fragment
Topsoil	Conchoidal chunk	Core fragment	Black chert	None	Slightly chipped	Prehistoric	Possible core fragment

Context	Type	Sub-type	Colour	Cortex	Condition	Suggested date range	Comments
Topsoil	Flake	Core preparation	Black chert	None	Slightly chipped	Prehistoric	Possible flake
Topsoil	Core	Flake	Opaque speckled mid brown flint	None	Slightly chipped	Meso-EBA	Possible large flake with numerous small flakes removed centripetally from all margins. 12g
Topsoil	Core	Flake	Opaque speckled mid brown flint	None	Slightly chipped	Meso-EBA	Possible large flake with numerous small flakes removed centripetally from all margins. 12g
Topsoil	Blade	Prismatic	Black chert	None	Slightly chipped	Meso-ENeo	Proximal end of a systematically struck flake
Topsoil	Conchoidal chunk	Core fragment	Unknown	None	Slightly chipped	Meso-ENeo	Recorticated. Fragment of a blade core
Topsoil	Scraper	Side	Opaque speckled mid brown flint	Hard worn	Slightly chipped	Meso-EBA	Short thick flake with well executed inverse medium, moderately steep scalar retouch around convex right margin. 24x33x10mm
Topsoil	Flake	Useable	Semi-opaque lt grey flint	None	Slightly chipped	Prehistoric	Short, wide
Topsoil	Flake	Trimming	Translucent dark brown flint	None	Slightly chipped	Meso-ENeo	Small core face trimming flake
Topsoil	?Arrowhead	leaf-shaped	Translucent reddish brown flint	None	Chipped	?ENeo	Small leaf-shaped flake with medium, bifacial invasive retouch around most margins but with unretouched surfaces surviving on both faces. Small but reminiscent of a minimally worked LSA. 19x15x4mm
Topsoil	Flake	Useable	Black chert	None	Slightly chipped	Meso-EBA	Small, reasonably well struck
Topsoil	Conchoidal chunk	Core fragment	Black chert	None	Slightly chipped	Meso-ENeo	Some blade scars but either minimally worked or fragmented. 13g
Topsoil	Conchoidal chunk	Core fragment	Black chert	None	Slightly chipped	Meso-ENeo	Some blade scars but either minimally worked or fragmented. 7g
Topsoil	Blade	Prismatic	Translucent mid brown flint	None	Chipped	Meso-ENeo	Systematic, struck from an opposed platformed blade core
Topsoil	Blade	Non-prismatic	Opaque speckled mid brown flint	Hard worn	Slightly chipped	Meso-Neo	Systematically produced but detached largely along a thermal flaw. Distal end missing
Topsoil	Flake	Trimming	Translucent dark brown flint	None	Slightly chipped	Meso-ENeo	Well struck, almost blade-like core face trimming flake

Table 8. Quern fragment description

Date	No	YQS No	Type	U/L	%	Diam (mm)	Rim Ht (mm)	Est Wt (Kg)	Usage (%)
2017	SF 5	7599	'Traprain Law' Disc	U	24	400	45	14.5	50-75
2011 2017	SF 16 SF 11	5286	'Traprain Law' Disc?	U	c.35	550	50	27	25-75
2017	SF 4	7601	Disc	L	c.45	430	90	23	25-50
2017	SF 6	7600	Disc	L	10-15	c.500	65	32	50
2017	SF 10	7602	Beehive? Or Disc?	L	c.15	>360	c.70	22	50?

Table 9. Leather working/linen/pottery finishing tools

Date	No	Shape	%	Dimensions mm	Thickness mm	Intact Weight kg	Comment
2017	S3	Rhombohedron?	?	100 x 55-65	10-20	>0.3	Smoother?
2017	S4	Angled Rectangle	?	85-125 x 55	26-28	>0.45	Hone?
2017	S5	5-sided slab	?	130 x 120	40	>0.8	Smoother?
2017	S6a	Rectangular pebble	100	80 x 25	15-20	0.06	Smoother?
2017	S6b	Rectangular pebble	?	>60 x 38-42	15	>0.09	Smoother?
2017	S6c	Rectangular pebble	?	>55 x 35	18	>0.09	Smoother?
2017	S6d	Rectangular pebble	?	>63 x 19-25	20	0.08	Smoother?
2017	S6e	Rectangular slab	?	42-60 x 31-37	8	0.03	Smoother?

Table 10. Round(-ish) flat stone objects

Date	No	Shape	%	Dimensions mm	Smooth Sides	Thickness mm	Intact Weight kg	Likely Use
2017	S1a	Oval	100	55x50	1	10	0.08	Counter
2017	S1b	Round	100	35 diam	1	5	0.01	Counter
2017	S1c	6-sided	100	38 x 40	1	15	0.04	Counter
2017	S1d	Round	30	60 diam	2	7	0.04	Counter
2017	S2	10-sided oval	100	120 x 130	2	35	1.1	Pot lid

Table 11. Unworked stone

Date	No	Dimensions (max)	Lithology	Comment
2017	SF 7	195 x 140 x 30-35	Sandstone	Irregular block
2017	SF 12	170 x 120-170 x 40	Sandstone	Unworked slab
2017	S7	5 small frags	Limestone (?)	One has natural hole
2017	S8	105 x 130 x 120	Baked Clay (?)	
2017	S9	100 x 45 x 20-45	Sandstone	Fossil impression?
2017	S10a	200 x 145 x 25-30	S/S	Naturally rounded edges
2017	S10b	110 x 45 x 20	S/S	Unworked
2017	S10c	140 x 85 x 33	S/S	Slab with curving edge
2017	S11a	95mm long: 50mm max diam	S/S	Oval, rounded pebble, used as hammerstone
2017	S11b	50 x 35 x 30	S/S	Rounded pebble
2017	S11c	60 x 50 x 45	Quartzite	Pebble - hammerstone

Table 12. Traprain Law Stones

	Diam (mm)	Radial Slot	Date (AD)	Site	Ref	YQS
Piercebridge	c.480	-	-	Fort	Gwilt A, Unpublished	1066
Dishforth (A1)	480	-	250-400	Civil?	SF19: Cruse RJ (in prep)	3263
Dalton Parlours	495	-	200-400	Villa	SF 1178A: B&M,1990	2167
Catterick	510	Moulded	U/S	Fort	Wright,2002, 274, No17	3273
Dalton Parlours	525	-	200-400	Villa	SF 1478: B&M, 1990	2178
Adel	540	No mould	-	Vicus	SF2: Cruse RJ (in prep)	2029
West Hagg Fm	550	-	370+	Native	SF 16	5286

Table 13. Quantification of the HFS17 assemblage by sherd count, weight (g), and EVEs per fabric

Fabric	SC	%SC	W(g)	%W	EVEs	%EVE
CRA PA	16	10.13%	455	23.70%	0.32	13.17%
CRA RE	10	6.33%	173	9.01%	0.37	15.23%
DOR BB1	6	3.80%	74	3.85%	0.26	10.70%
IMIT BB1	4	2.53%	12	0.63%	0.1	4.12%
MAH WH	1	0.63%	26	1.35%	0.06	2.47%
MB14-17	1	0.63%	29	1.51%		0.00%
O3A	12	7.59%	37	1.93%		0.00%
O3C	3	1.90%	9	0.47%	0.08	3.29%
O4A	1	0.63%	1	0.05%		0.00%
R1	4	2.53%	120	6.25%	0.39	16.05%
R1B	7	4.43%	83	4.32%		0.00%
R3B	17	10.76%	167	8.70%	0.22	9.05%
R4	51	32.28%	674	35.10%	0.63	25.93%
SAM CG	23	14.56%	54	2.81%		0.00%
SAM EG	2	1.27%	6	0.31%		0.00%
TOTAL	158	100.00%	1920	100.00%	2.43	100.00%

Table 14. Small finds

Context Number	Grid Square	Finds Number	Material	Length	Width	Height/thickness	Diameter	Weight	Object name	Typology	Date	Comments	Crummy Category	X Ray
0		S11.1	Stone						Natural			Spherical pebble	0	
0		S11.2	Stone						Natural			Spherical pebble	0	
0		S11.3	Stone						Natural			Oval pebble	0	
0		S9	Stone						Natural			A natural stone	0	
0		S7	Stone						Natural			5 small vessica shaped stones with rounded edges. One has a hole. These are all probably natural	0	
23	F8		Cu	53	21	2		10	Brooch	Mackreth 2011, No 10289, PL 35	Late second to early third century	A copper-alloy proto-crossbow brooch missing its sprung pin. The brooch has been silvered and then the front of the bow has been gilded. The head of the brooch has a small knob, four knobs (perhaps missing soldered extensions) divide the bow longitudinally along a raised ridge. The remainder of the bow is divided longitudinally either side of the central ridge by a further ridge leaving two cells to the left and right of the centreline. Remains of a copper alloy spring survive. This is a relatively unusual type with a small number of examples known from Roman Britain.	1	XRK17/847
0	M5		Fe	76	55	7			Buckle	YORYM-260223	PMED	An iron D-shaped buckle, corroded. The strap side has the loop of a tongue but not tongue survives. The form of this buckle frame suggests a post-medieval date and it is probably from a plough horse harness or the like	1	XRK17/523
0	M9		Fe	110	10	5			Boot heel		PMED	Incomplete, iron boot heel with square holes visible on xray for fixing.	1	XRK17/522
23	F8		Stone	55	38	8		46	Cosmetic Palette		Roman	Incomplete finely polished stone cosmetic palette. It is a corner fragment with one irregular break and one smoother break. It has a rounded corner and bevelled edges. The geology of this stone requires specialist comment.	3	
0		S2	Stone	130			35		Pot lid?			A round disc, with roughly chipped edges.	4	
0		S1.1	Stone	35			5		Disc			A circular disc with a central dimple - lathe mounting?	4	
0		S1.2	Stone	60			6		Disc			One quarter of a disc	4	

0		S1.3	Stone	40			14		Disc			A sub-circular disc	4	
0		S1.4	Stone	50			9		Disc			A sub-circular disc	4	
0		S8	Stone	130	105	135			Pivot?			A cube of stone (possibly brick?). Pitted surfaces. The upper surface has a sloping hole centrally but offset to one side. Unclear what this is or its age. Possibly a socket for a pivot or the like?	4	
0		S10.1	Stone						Obj			Possible quern frag?	4	
0		S10.2	Stone						Obj			Possible quern frag?	4	
0		S10.3	Stone						Obj			Possible quern frag?	4	
0	0		Pb			60	53	618	Weight (Steelyard)		Roman	Biconcial steelyard weight. It has the traces of an iron chain link embedded in the top, presumably part of the suspension chain.	6	
0		S6.1	Stone	54	33	16			Burnisher			Cuboid hone/rubbing stone. Broken midway along the object. Surfaces are smooth, corners are rounded. One face displays concave wear.	10	
0		S6.4	Stone	64	21	18			Hone			A smooth dark cuboid stone with rounded edges. Concave wear on two opposing faces	10	
0		S6.5	Stone	79	21	16			Burnisher			A smooth dark stone similar to S6.4. One flat face, the other face is convex. Fits the hand well as if the flat faced was used for smoothing or burnishing	10	
0		S4	Stone						Hone			Large cuboid object. Tapers to an offside rounded point at one end. Irregular break at the other. Smooth surfaces. Rounded edges, except on one edge which is roughly flaked away. Possibly a large hone	10	
0			Cu	28	10	4	>30 mm	8	Obj		Unk	A curving strip. The underside is flat with an irregularity along one edge. One side is vertical and the upper surface divides longitudinally. The other edge of the object is a slope. This is probably a fitting and is likely to be of post-Roman date.	11	
0	M5		Fe		9	9	54		Ring	Manning 1985, Pl 65	UNK	Corroded iron ring. Could be of any date	11	
0	M5		Fe		7	7	43		Ring	Manning 1985, Pl 65	UNK	Corroded iron ring. Could be of any date	11	
0	M3		Fe	75	11	6			Fitting		UNK	An incomplete tapering iron bar with a pointed terminal perforated by an oval hole. This is a fitting of some kind.	11	XRK17/522
0	M3		Fe	28	27	1	27		Washer		PMED	A circular plate with a small 1mm diameter central perforation. This	11	

												is probably some kind of early washer.		
0	M3		Fe	27	27	2			Fitting		PMED	An incomplete sub-rectangular plate with a central perforation 2mm in diameter	11	
0	M7		Fe	33	22	4			Chain link	Manning 1985, Pl 64 S16	Roman	One half of a piece of figure of eight chain link.	11	XRK17/523
0	M4		Fe	55			6		Nail		PMED	Round section iron rod. Possibly a modern nail shaft	11	XRK17/522
0	M9		Fe	27			2		Nail		PMED	Round headed- and sectioned modern nail. Bent.	11	XRK17/522
0	M9		Fe	35	6	4			Nail shaft		Unk	Nail square sectioned shaft	11	XRK17/522
0	M9		Fe	27	5	2			Nail	Manning Type 2	Roman	Complete	11	XRK17/522
0	M9		Fe	22	5	3			Nail	Manning Type 2	Roman	Complete	11	XRK17/522
0	M9		Fe	34	5	4			Nail shaft			Incomplete, square sectioned	11	XRK17/522
0	M9		Fe	32	8	5			Nail shaft			Incomplete, square sectioned	11	XRK17/522
0	M9		Fe	28	5	5			Nail shaft			Incomplete, square sectioned	11	XRK17/522
0	M9		Fe	27	8	8			Nail shaft			Incomplete, square sectioned	11	XRK17/522
0	M9		Fe	22			4		Nail shaft		PMED	Incomplete Round sectioned	11	XRK17/522
0	M9		Fe	25	5	3			Nail shaft			Incomplete Round sectioned	11	XRK17/522
0	M9		Fe	18	5	5			Nail shaft			Incomplete Round sectioned	11	XRK17/522
0	M6		Fe	31	6	3			Nail	Manning Type 4		L shaped nail of Manning's (1985) Type 4. Tip missing	11	XRK17/522
0	M6		Fe	52					Nail	Manning Type 1b		Incomplete round headed square sectioned nail	11	XRK17/522
0	M6		Fe	42	12	9			Nail	Manning Type 3		T shaped nail	11	XRK17/522
0	M6		Fe	71	7	4			Nail	Manning Type 3		T shaped nail, bent	11	XRK17/522
0	M6		Fe	32	5	5			Nail	Manning Type 3		T shaped nail, bent and incomplete	11	XRK17/522
0	M6		Fe	30	5	5			Nail	Manning Type 2?		Pyramidal head?	11	XRK17/522
0	M6		Fe	32	5	3			Nail	Manning Type 1b		Incomplete	11	XRK17/522
0	M6		Fe	55	4	3			Nail	Manning Type 3		T shaped nail, complete	11	XRK17/522
0	M6		Fe	60	4	4			Nail	Manning Type 3		T shaped nail, missing tip	11	XRK17/522
0			Pb	49	19	14		59	Obj		Roman	A piece of lead sheet folded over itself to form an irregular cylindrical mass.	18	
0			Jet	29	13	10	13	3	Obj		Roman	A fragmented sub-oval cylindrical object manufactured from jet or shale. This shares some similarities with the knife handles discussed by Lindsay Allason Jones, but appears to be too small. Other functions are possible - furniture decoration etc. The lack of curvature suggests that this is not a bracelet fragment.	18	
0	M8		Fe	77	65	4			Sheet		UNK	A fragment of iron sheet, irregular sub-	18	XRK17/522

												rectangular shape. Corroded, no detail visible on xray.		
0	M3		Fe	21	20				Obj		UNK	Incomplete bifid iron object with a small hook on one side.	18	XRK17/522
0	M7		Fe	30	6	5			Obj			A bent rod of iron, could be a piece of chain link	18	XRK17/523
0	M7		Fe	22	13	4			Obj			Corroded incomplete iron rod	18	XRK17/523
0	M2		Fe	121	31	5			Obj		Unk	Subrectangular piece of iron with rounded corners and a off centre square-sectioned 'tang'. It is unclear what this object is. The rectangular element does not appear to be a blade and the xray shows no visible perforations. It has been suggested that this is the handle of a post-medieval iron spoon but this is uncertain.	18	XRK17/523
0	M4		Fe	72	7	8			Obj		Unk	Iron bar, broken at each end. Corroded, irregular width.	18	XRK17/522
0	M9		Fe	45	22	5			Obj			Rounded and corroded unidentifiable object	18	XRK17/522
0	M9		Fe	35	9	3			Obj			Square sectioned corroded iron bar, incomplete	18	XRK17/522
0	M9		Fe	20	15	5			Obj			Dished object, corroded	18	XRK17/522
0	M9		Fe	25	15	16			Obj			Lump	18	XRK17/522
0		S6.2	Stone	60	32	8			Obj			Trapezoidal stone object. Smooth surfaces and an irregular fracture at one end	18	
0		S6.3	Stone	59	40	15			Obj			A smooth stone with a rounded end and an irregular transverse fracture.	18	
0		S3.1	Stone	93	54	19			Burnisher			A sub rectangular stone with rounded corners, smooth surfaces and a longitudinal break.	18	
0		S3.2	Stone	29	19	26			Obj			A sub-square fragment. One original surface remains, smooth with rounded edges	18	
F1[2]		Sf12	Stone	180	180	42			Object?			A flat fragment of stone, irregular breaks on all sides, smooth upper and lower surfaces.	18	
0		S5	Stone	122	72	38			Pivot?			A sub-rectangular fragment with irregular breaks on all edges. The upper surface is smooth.	18	
WHF160		1a	Stone						Obj			Sub rectangular piece, tapering to an irregular break at one end. A smooth upper surface.	18	

Table 15. Daub

Context Number	Finds Number	Material	Length	Width	Thickness	Weight	Comments
0	0	Carbonised burnt material					19 frags 220g
0	0	Daub	47	40	10	8	Fragment of daub
0	0	Daub	25	25	15	8	Fragment of daub
0	0	Daub	25	23	15	3	Fragment of daub
0	0	Daub	25	22	8	3	Fragment of daub
0	0	Daub	40	35	10	9	Fragment of daub
0	0	Daub	90	65	10	42	Fragment of daub
0	0	Daub	65	55	20	33	Fragment of daub
0	0	Daub	84	60	14	33	Fragment of daub
0	0	Daub	65	34	15	17	Fragment of daub
0	0	Daub	65	60	15	26	Fragment of daub
0	0	Daub	35	20	8	3	Fragment of daub
0	0	Daub	35	25	8	3	Fragment of daub
0	0	Daub	35	25	8	4	Fragment of daub
0	0	Daub	120	40	30	111	Large fragment of daub, with a central indentation on one face, possibly an impression of wattle; and small irregular indentations on the opposite face.
0	0	Daub	73	60	20	80	Large fragment of daub, with small irregular indentations on one face.
0	0	Daub	63	19	8	16	Fragment of daub
0	0	Daub	75	35	12	28	Fragment of daub
0	0	Daub	38	33	8	10	Fragment of daub
0	0	Daub	40	25	15	8	Fragment of daub
0	0	Daub	36	24	8	2	Fragment of daub
0	0	Daub	50	25	8	8	Fragment of daub
0	0	Daub	33	30	10	7	Fragment of daub
0	0	Daub	130	65	15	132	Large fragment of daub with 2 deep grooves on one face, probably impressions of wattle; and small irregular indentations on the opposite face.

Table 16. Catalogue of identifiable elements (faunal remains)

Context	Element	Species	Fusion	Age	Fragmentation	Preservation	Taphonomy
(24) [F7]	Rib	Indet.	Indet.	Indet.	Fragment of body	Fair	
(24) [F7]	Premolar	Cattle	N/A	Juvenile	Complete	Fair	
(24) [F7]	Tooth	Indet.	N/A	Indet.	Enamel fragment	Poor	
Add.	Tooth	Cattle	N/A	Adult	Complete	Fair	
Add.	Molar	Cattle	N/A	Adult	Almost complete	Fair	
Add.	Molar	Cattle	N/A	Adult	Almost complete	Fair	
Add.	Premolar	Cattle	N/A	Adult	Almost complete	Fair	
Add.	Tooth	Cattle	N/A	Juvenile	Almost complete	Fair	
Add.	Tooth	Cattle	N/A	Juvenile	Almost complete	Fair	
Add.	Tooth	Indet.	N/A	Indet.	Enamel fragment	Poor	
Add.	Tooth	Indet.	N/A	Indet.	Enamel fragment	Poor	
Add.	Tooth	Indet.	N/A	Indet.	Enamel fragment	Poor	
Add.	Tooth	Indet.	N/A	Indet.	Enamel fragment	Poor	
Add.	Tooth	Indet.	N/A	Indet.	Enamel fragment	Poor	
Add.	Tooth	Indet.	N/A	Indet.	Enamel fragment	Poor	
Add.	Tooth	Indet.	N/A	Indet.	Enamel fragment	Poor	
Add.	Tooth	Indet.	N/A	Indet.	Enamel fragment	Poor	
Add.	Tooth	Indet.	N/A	Indet.	Enamel fragment	Poor	
Add.	Tooth	Indet.	N/A	Indet.	Enamel fragment	Poor	
Add.	Tooth	Indet.	N/A	Indet.	Enamel fragment	Poor	
Add.	Tooth	Indet.	N/A	Indet.	Enamel fragment	Poor	
Add.	Tooth	Indet.	N/A	Indet.	Enamel fragment	Poor	
Add.	Premolar	Pig	N/A	Indet.	Almost complete	Fair	
Add.	Premolar	Pig	N/A	Indet.	Almost complete	Fair	
Add.	Tooth	Indet.	N/A	Indet.	Enamel fragment	Poor	
Add.	Rib	Indet.	Indet.	Indet.	Fragment of body	Fair	

Add.	Tibia	Sheep	Indet.	Indet.	Fragment of epiphyseal end of bone	Poor	
Add.	Tibia	Sheep	Indet.	Indet.	Fragment of epiphyseal end of bone	Poor	
(11)[F10]	Skull	Indet.	Indet.	Indet.	Fragment of sinus	Fair	
(11)[F10]	Radius/Ulna	Cattle	Complete	Adult	Distal fragment	Fair	
(11)[F10]	Innominate	Pig?	Indet.	Indet.	Fragment of neck	Fair	
(11)[F10]	Innominate	Sheep?	Indet.	Indet.	Fragment of neck	Fair	
(11)[F10]	Innominate	Sheep?	Indet.	Indet.	Fragment of neck	Fair	
(11)[F10]	Tooth	Cattle	N/A	Indet.	Almost complete	Fair	
(11)[F10]	Mandible	Dog	Indet.	Indet.	Fragment	Fair	
(11)[F10]	Scapula?	Cattle?	Indet.	Indet.	Fragment of spine	Fair	
(11)[F10]	Proximal phalanx (x2 frags of same bone)	Cattle	Complete	Adult	Fragment of proximal articulation surface & diaphysis	Fair	
(11)[F10]	Femur	Indet.	Indet.	Indet.	Fragment of head	Fair	
(11)[F10]	Femur	Indet.	Indet.	Indet.	Fragment of head	Fair	
(11)[F10]	Femur	Indet.	Indet.	Indet.	Fragment of head	Fair	
(11)[F10]	Femur?	Indet.	Indet.	Indet.	Fragment of round articulation surface, likely to be femur	Fair	
(11)[F10]	Femur?	Cattle?	Indet.	Indet.	Diaphyseal fragment	Fair	
Add.	Molar	Cattle	N/A	Adult	Almost complete	Fair	
Add.	Molar	Cattle	N/A	Adult	Almost complete	Fair	
Add.	Tooth	Cattle	N/A	Adult	Almost complete	Fair	
Add.	Tooth	Indet.	N/A	Adult	Fragment	Fair	
Add.	Premolar	Cattle	N/A	Adult	Almost complete	Fair	
Add.	Tooth	Cattle	N/A	Juvenile	Almost complete	Fair	
Add.	Tooth	Cattle	N/A	Juvenile	Almost complete	Fair	
Add.	Scapula?	Indet.	Complete	Adult	Fragment of glenoid cavity	Fair	Burnt

Add.	Tooth	Indet.	Indet.	Indet.	Fragment of tooth with fragment of mandible attached	Poor	
Add.	Femur	Rabbit	Complete	Adult	Distal fragment	Good	
Add.	Rib	Cattle?	Indet.	Indet.	Fragment of body	Poor	Possible cut marks
Add.	Phalanx	Cattle	Complete	Adult	Proximal fragment	Poor	
Add.	Metacarpal	Cattle	Complete	Adult	Proximal fragment	Fair	

Table 17. Catalogue of indeterminate elements (faunal remains)

Context	**Element**	**Quantity of Fragments**	**Preservation**	**Taphonomy**
(24) [F7]	Long bone	87	Poor	3 frags with periosteal reaction
(24) [F7]	Irregular bone	1	Poor	
(26) [F2]	Long bone	2	Poor	
(26) [F2]	Long bone	1	Fair	Burnt
(11) [F10]	Long bone	3	Fair	
(11) [F10]	Irregular bone	2	Fair	
(11) [F10]	Indeterminate fragment	54	Fair	
Add.	Flat bone	1	Fair	
Add.	Irregular bone	16	Poor	
Add.	Irregular bone	3	Fair	2 frags were burnt
Add.	Long bone	72	Poor	5 frags were burnt and one has possible cut marks
Add.	Long bone	31	Fair	13 frags were burnt, one had possible cut marks

Table 18. Data from palaeoenvironmental assessment

Sample		**2**	**4**	**5**	**7**	**8**
Context		**23**	**25**	**10**	**26**	**11**
Feature number		**11**	**1**	**8**	**2**	**10**
Feature		**deposit**	**deposit**	**deposit**	**deposit**	**deposit**
Material available for radiocarbon dating		-	-	(✓)	-	(✓)
Volume processed (l)		14	5	7	7	5
Volume of flot (ml)		20	10	20	10	20
Residue contents						
Bone (calcined)	indet. frags	-	-	+	-	-
Charcoal		-	-	(+)	-	-
Coal		-	-	(+)	-	-
Flot matrix						
Charcoal		(+)	(+)	+	-	+
Cinder	vesicular	-	(+)	-	(+)	+
Coal		-	-	(+)	-	++
Heather twigs (charred)		-	-	-	-	+
Roots (modern)		++	+	++	++	++
Uncharred seeds		(+)	-	-	-	-
Charred remains (total count)						
(c) *Hordeum* sp (Barley species)	grain	-	-	-	-	1
(c) *Hordeum* sp (Barley species)	rachis fragment	-	-	-	-	1
(c) *Triticum spelta* (Spelt Wheat)	glume base	-	-	-	1	1
Identified charcoal (✓presence)						
Corylus avellana (Hazel)		-	✓	-	-	✓
Fraxinus excelsior (Ash)		-	-	✓	-	-
Maloideae (Hawthorn, apple, whitebeams)	cf. hawthorn	-	-	✓	-	-
Maloideae (Hawthorn, apple, whitebeams)	cf. rowan	-	-	✓	-	-
Prunus sp (Cherries-blackthorn, wild and bird cherry)		-	✓	-	-	-
Quercus sp (Oaks)		✓	-	-	-	-

[c-cultivated (+): trace; +: rare; ++: occasional; +++: common; ++++: abundant
(✓) may be unsuitable for dating due to size]

Table 19. Data from palaeoenvironmental assessment

Context	Sample	Single Entity recommended 1st choice	Weight	Notes	Single Entity recommended 2nd choice	Weight	Notes
10	5	Ash charcoal	31mg	(2 growth rings) contains mineral inclusions	Maloideae charcoal	25mg	(2 growth rings) contains mineral inclusions
11	8	charred barley grain	15mg	contains mineral inclusions	charred heather twig	32mg	contains mineral inclusions **3rd choice hazel charcoal (15mg)**