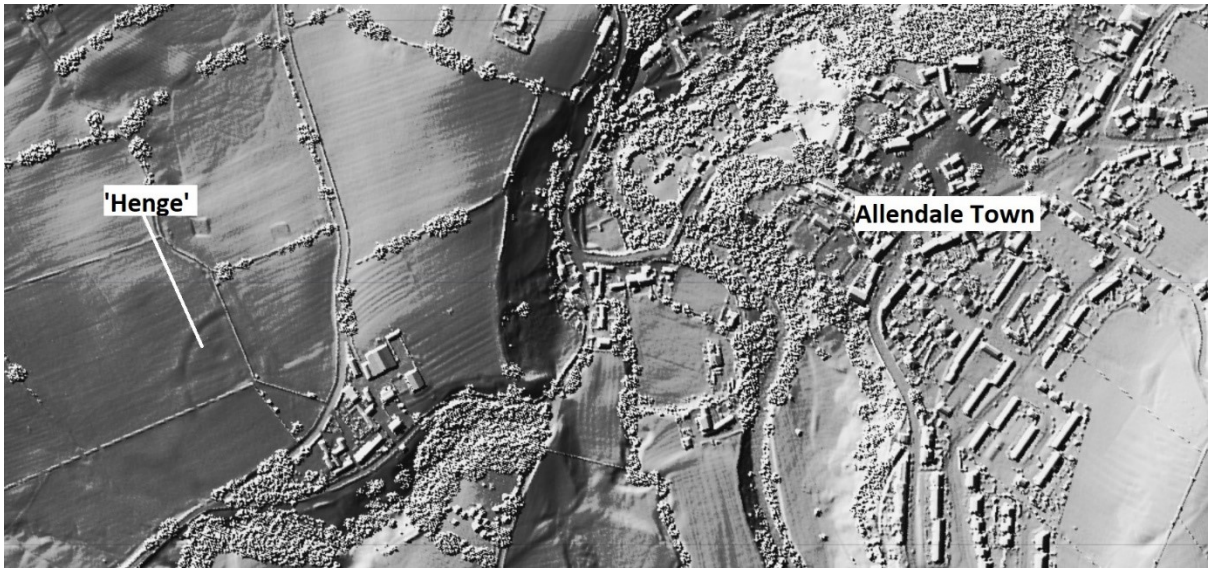
Altogether Archaeology
Digging our heritage in the North Pennines

ALLENDALE 'HENGE'

Near Allendale Town, Northumberland

Excavation Report
29/9/24 to 4/10/24



ALTOGETHER ARCHAEOLOGY

Document compiled by Martin Green and Paul Frodsham

Site code: ALE24

Version 1.6 (10 Aug 2025)

Site location: NY 83105 55656 150m north-west of Broadwood Hall, Allendale

Northumberland Historic Environment Record: 27787

Please note: The features described in this report lie on private farmland with no public access.

Cover image: Lidar image of the possible henge

Contents

1 BACKGROUND (FROM PROJECT DESIGN)

This document reports on an exploratory excavation of a circular or elliptical archaeological feature, located about 150m north-west of Broadwood Hall near Allendale Town (Northumberland). It is on the northern fringe of the North Pennines upland area of England.

Excavation to the west of the field-wall that passes over the site was unfortunately not possible, hence excavation was restricted to the site's eastern, less-well preserved portion. This was far from ideal, as excavation to the west would probably have offered the opportunity to sample well-preserved ditch-fills and deposits sealed beneath the bank, and to examine the structure of the bank where it survives as a substantial earthwork. However, the opportunity to excavate to the east of the field-wall was still considered potentially worthwhile.

The first four sections of this report repeat information that was included in a Project Design (Green & Frodsham 2024) which is available, like all AA reports, on the website https://altogetherarchaeology.org.

The excavation was by members of Altogether Archaeology (AA), the community archaeology group working in the North Pennines, under the direction of Paul Frodsham (Oracle Heritage Services and Archaeological Advisor to AA) and Martin Green (AA Fieldwork Co-ordinator) with advice from Jan Harding.

The feature was first noted during a community lidar survey (Ainsworth 2016). AA members under the supervision of Stewart Ainsworth, examined lidar images of the Allen Valleys and Hexhamshire, noting all archaeological features seen in a total area of 285 square km. This was the second of three lidar surveys that have now covered most of the North Pennines. The first survey (Ainsworth 2009; Oakey, Radford & Knight 2012) was a project of English Heritage, covering the Alston Moor area. The third was a community survey of Teesdale, Weardale and the upper Derwent Valley (Frodsham 2017), a project of the North Pennines Area of Outstanding Natural Beauty.

In general, all three surveys recorded many previously unknown medieval and post-medieval sites. Large numbers of late prehistoric settlements, enclosures and field systems were also newly discovered. However, the surveys failed to find many previously unrecorded Roman, Bronze Age or Neolithic features. The Roman Army, apart from the fort at Epiacum (near Alston) and the Roman roads accessing it, seem to have built few structures in the North Pennines, and the native population continued an essentially Iron Age lifestyle, explaining the lack of identifiably Roman features.

Lidar at the available resolution (1m) is not ideally suited for detecting the slight surface traces of pre-Iron Age settlement. In much of England, discovery of such sites has often been by the detection of cropmarks on aerial photography. This relies on parch marks and differential crop growth; neither of which are likely to occur in most of the North Pennines, in view of its damp cool climate and landscape of peat moorland and rough pasture, with very little arable agriculture.

The discovery on lidar of the Allendale feature is very significant. It appears to be oval, with a definite bank outside the ditch, and no internal bank. There are no apparent internal features except a possible 10m diameter platform. The diameter (long axis) of the line of the ditch is about 110m, with at least one causewayed entrance. The form of the monument and its location on a low hill near to a major river (the Allen) suggest that it could be a henge. However, plough damage to a large part of it makes interpretation difficult: the number of entrances is unknown, as is the extent to which it deviates from being a true circle, since most of its eastern side is not seen. The ground is sloping, from 257m OD on the north-west side of the monument, to 250m OD on the south and east. It has extensive views across the East Allen Valley.

The Allendale monument is of major importance as so little is known about the Neolithic period in the North Pennines. There is the potential to discover information about the nature and chronology of the monument itself, and also (via paleoenvironmental samples) gain clues as to the nature of the contemporaneous environment and agriculture in the area. The site is not a Scheduled Monument, nor is any part of it in a Site of Special Scientific Interest or Nature Reserve. It is entered on the Northumberland HER as site 27787.

Initial investigation of the monument was by geophysics in December 2023 (discussed in Section 3). Based on the results of this, it was decided to proceed to a small-scale excavation in autumn 2024 to evaluate the site and take samples for paleoenvironmental analysis and dating.

Figure 1: Site location maps, zooming in on site.
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2 THE NORTH PENNINES IN THE NEOLITHIC (FROM PROJECT DESIGN)

If this monument is a 'henge', it is almost certainly late Neolithic (c. 3200 – 2400 BC) or Chalcolithic (Copper Age; c. 2400 – 2100 BC) in date. There are very few known Neolithic sites in the North Pennines, apart from findspots of lithics. The only settlement site was discovered recently; post-excavation analysis is yet to be fully published. It was found unexpectedly during archaeological work prior to construction of an overflow beside the Grassholme Reservoir dam in Lunedale, a side valley of Teesdale, and dates to the early Neolithic (Robinson 2022, 2024; Frodsham, Green & Finch 2024: chapter 2). There were many lithics, at least two hearths, seven pits and two postholes. This is the only North Pennines site to have yielded a Neolithic pottery assemblage.

Neolithic ceremonial monuments are also rare in the North Pennines. There are no confirmed tombs or cursuses, and the few stone circles are of the small, probably Bronze Age, type (though none have been excavated or scientifically dated). One henge-type monument has been excavated, at Dry Burn near Alston (Payne 2011; ASDU 2016a; Frodsham, Green & Finch 2024: chapter 2). This consists of two concentric circular ditches, about 50m and 80m in diameter, with low internal and external banks. Radiocarbon dates in the late 3rd millennium BC were obtained: i.e. in the Chalcolithic period. Interpretation is confused by modification in the late prehistoric period when it probably housed an Iron Age farmstead. The Dry Burn monument is not as large as the Allendale one: it has a smaller diameter and its ditches (2m and 3m wide, both 0.6m deep) are slighter. Its altitude is about 100m higher, 350m OD.

About 30km to the south-west of Allendale, lying in the Eden Valley below the Pennine Escarpment, is the major Neolithic site at Long Meg. As well as the stone circle (Long Meg and her Daughters) this includes an adjacent earlier Neolithic enclosure. (ASDU 2016b; Frodsham 2021a; Frodsham, Green & Finch 2024: chapter 2). There are other lesser stone circles and possible Neolithic enclosures in the Eden Valley. These include cropmarks showing a causewayed enclosure at Hayton in the lower part of the Valley (Small 2008), and a hilltop enclosure on Birkett Knott at the upper end of the Valley which has wide gaps in its bank, suggesting a ceremonial, not defensive, function (Hamilton-Gibney 2011; Oswald & Edmonds 2021). These enclosures, shown in Figures 2 and 3, are almost certainly early Neolithic (c. 4000 – 3200 BC) in date.

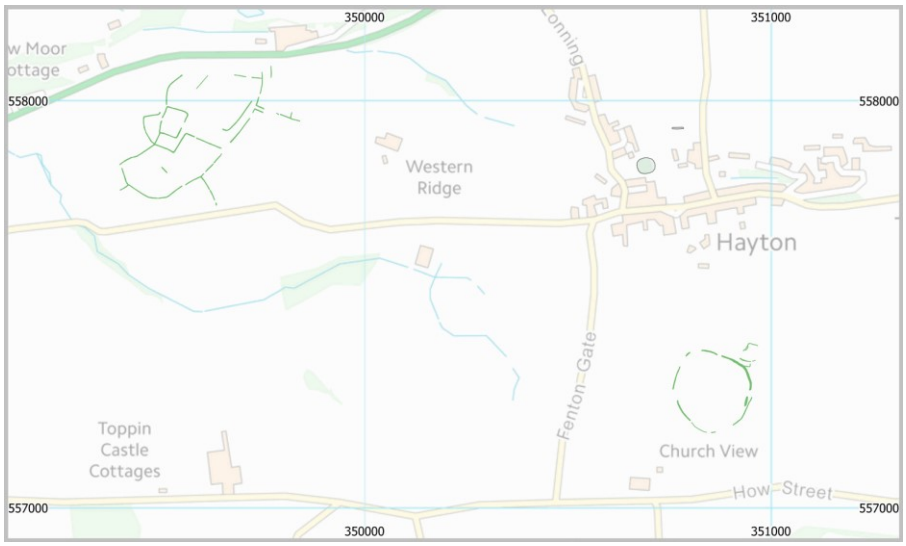

Figure 2: Cropmarks near Hayton in the lower Eden Valley. To the west of Hayton is a probable late prehistoric farmstead and to the south is a possible Neolithic causewayed enclosure.
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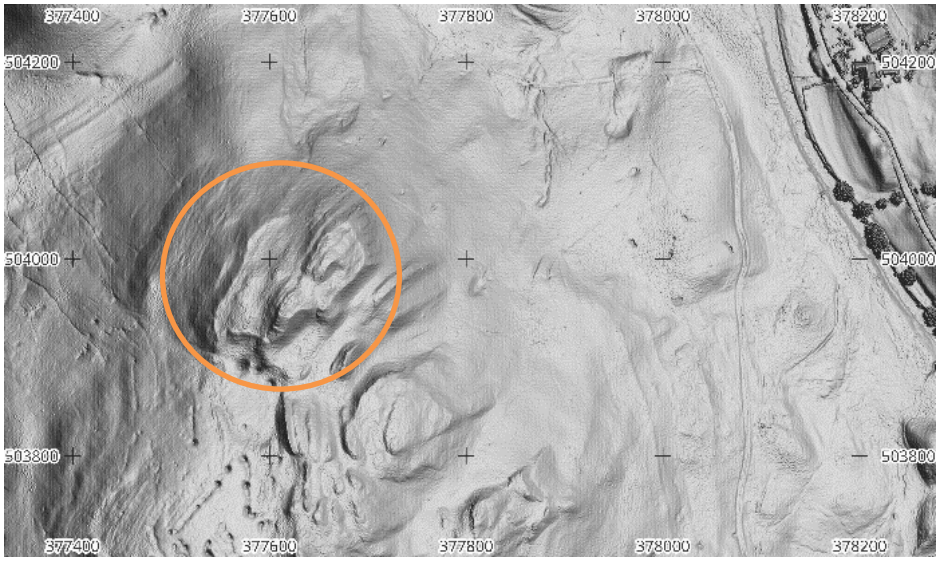

Figure 3: Lidar view of Birkett Knott, circled, with a discontinuous bank surrounding its rocky summit. The River Eden crosses the north-east corner of the image.
Lidar data © Environment Agency copyright and/or database right 2024; all rights reserved.

A major blank spot in knowledge is the nature of agriculture in the Neolithic in the North Pennines. The few pollen diagrams available for the area show only small amounts of cereal pollen. However, interpretation is difficult as pollen is only preserved in wet ground, usually bogs, which are clearly not areas suitable for cereal crops. The pits at the Grassholme settlement (mentioned above) were sampled and provisional results indicate that cereals were not found in them, full results are awaited. Similarly, no evidence of cereals was found in samples taken from the Neolithic enclosure ditch or features linked to the stone circle at Long Meg.

Also relevant to the Neolithic are findspots of stone axes. Young (1994) notes that in Weardale these have generally been found high on the side of the valley (unlike other lithics which are mostly found lower down). Possibly the axes were lost when being used to clear trees at the forest margins. This may have been to clear land for arable fields, but might have been to extend the area of sheep and cattle pasture.

Large areas of the North Pennines may have only been used seasonally, with a tradition established in the Mesolithic of upland hunting/foraging camps, continuing into the Neolithic. However, it seems probable that, on better soil in the lower parts of the dales, some form of farming began. Whether this was largely pastoral, with only limited arable agriculture, is unclear. Paleoenvironmental sampling of Neolithic contexts seems the best way currently to gather more detailed information about this.

Henges are curious monuments that exist in a wide range of forms (Harding 2003). If the Allendale monument is indeed a henge, then it belongs to a tradition that saw several such monuments constructed along the A1 corridor in Yorkshire and County Durham. The best known of these are the Thornborough Henges (Harding 2013). This distribution extends into North Northumberland and across the Pennines to the Mayburgh/King Arthur's Round Table complex near Penrith. Such monuments may be related in terms of function to the large Cumbrian stone circles, such as Long Meg. All such monuments are thought to have functioned as ceremonial meeting places for large groups of people, some of whom may have travelled considerable distances. See Harding 2013, ASDU 2024 and Frodsham, Green & Finch 2024 (chapter 2) for discussion of henges in northern England. Establishing

the age and date of this monument is important: not only to Allendale and the North Pennines, but also more widely to the Neolithic of northern England.

3 GEOPHYSICS (FROM PROJECT DESIGN)

Initial investigation of the Allendale 'henge' was by geophysics, undertaken by Archaeological Services Durham University (ASDU) as part of the *Belief in the North East* project (https://beliefne.net). This was a Heritage Lottery Funded project that ended in early 2024.

The geophysics (resistivity, magnetometry and ground-penetrating radar) took place in December 2023, with the help of *Belief in the North East* and AA volunteers (ASDU 2024). The report is misleadingly titled '*Land at Low Broadwood Hall…*': the eastern part of the monument on which excavation is planned is actually the land of Broadwood Hall – a land ownership boundary passes through the site.

The results confirm that the ditch, shown clearly in the resistivity data, continues to the east, where later ploughing has erased it on the surface. However, the full circuit of the bank and ditch were not located, so the shape of the monument remains uncertain, as is the number of entrances. The only definite entrance is on the west side: a causeway about 1m wide. Any entrance on the east side would have been in the part of the monument lost to ploughing.

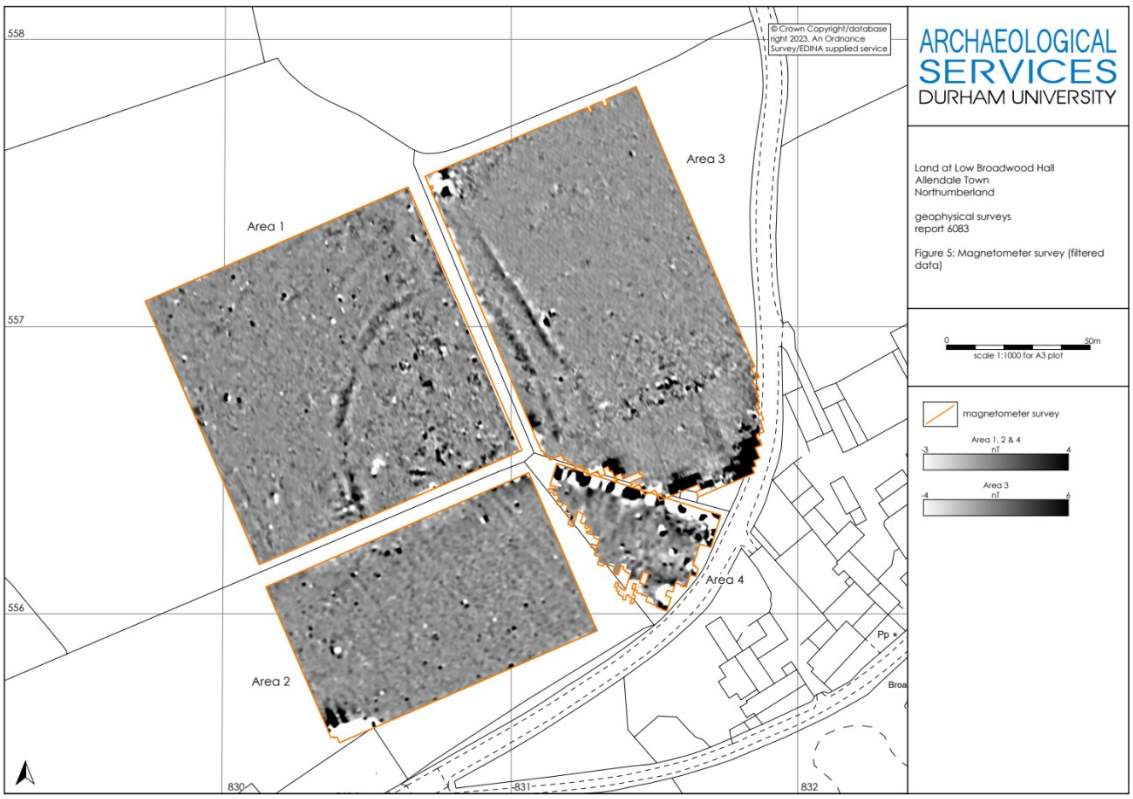

Figure 4: Geophysics: magnetometry. A close-up of the central area is shown in Figure 6.

The designation of Areas 1,2,3,4 as shown in the geophysics plans, will be used in the rest of this document. The areas correspond to the parts of monument (NW, SW, NE, SE respectively) in each of

four fields. Area 4 is in a small field, with no evidence of the bank/ditch position given by magnetometry, GPS survey or lidar (resistivity was not done). It will not be considered further here.

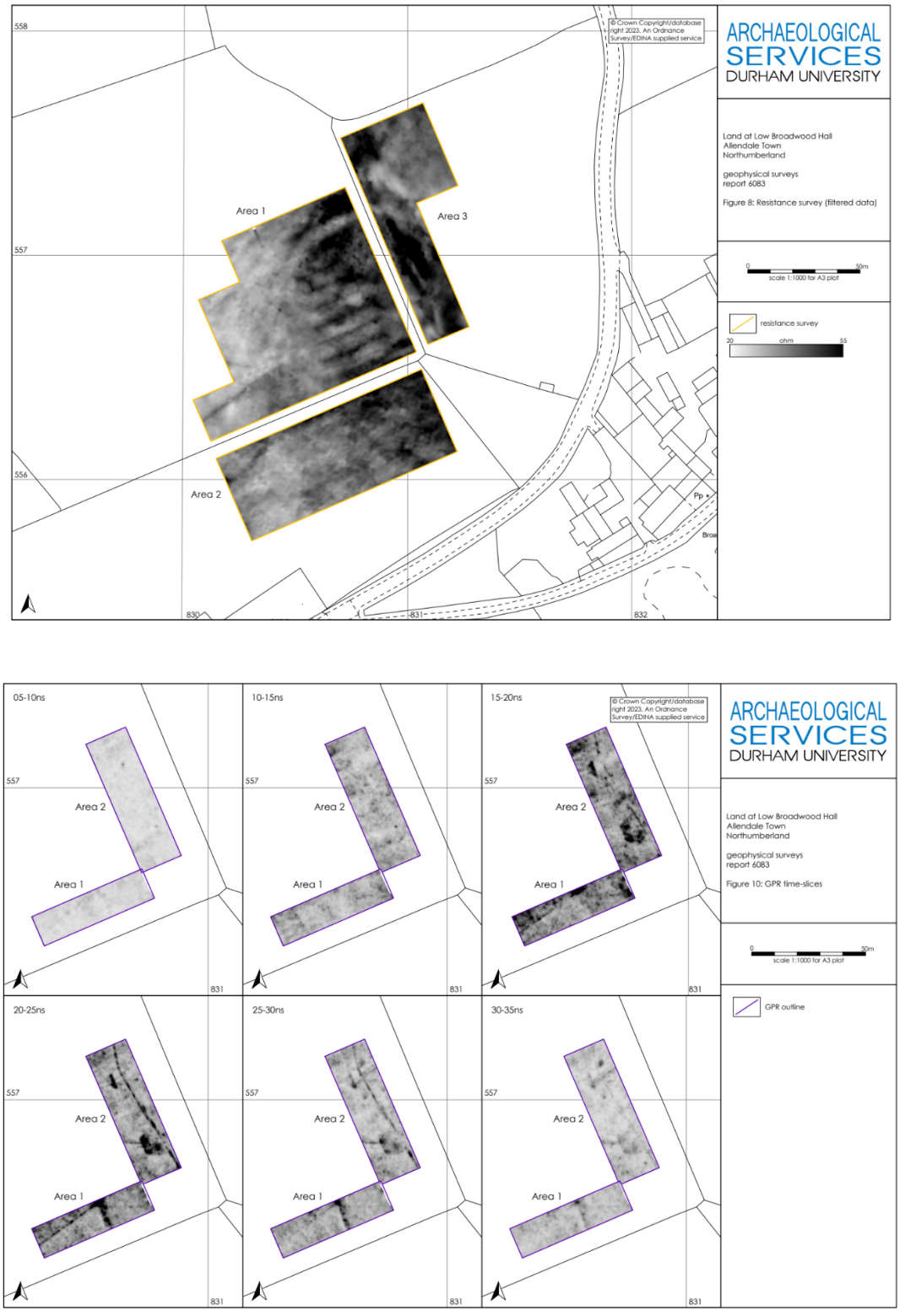

Figure 5: Geophysics. A close-up of the central area is shown in Figure 6.
***Top*: Geophysics: resistance.**
***Bottom*: ground-penetrating radar**

The images from the three modes of geophysics are shown above, reproduced from ASDU (2024).

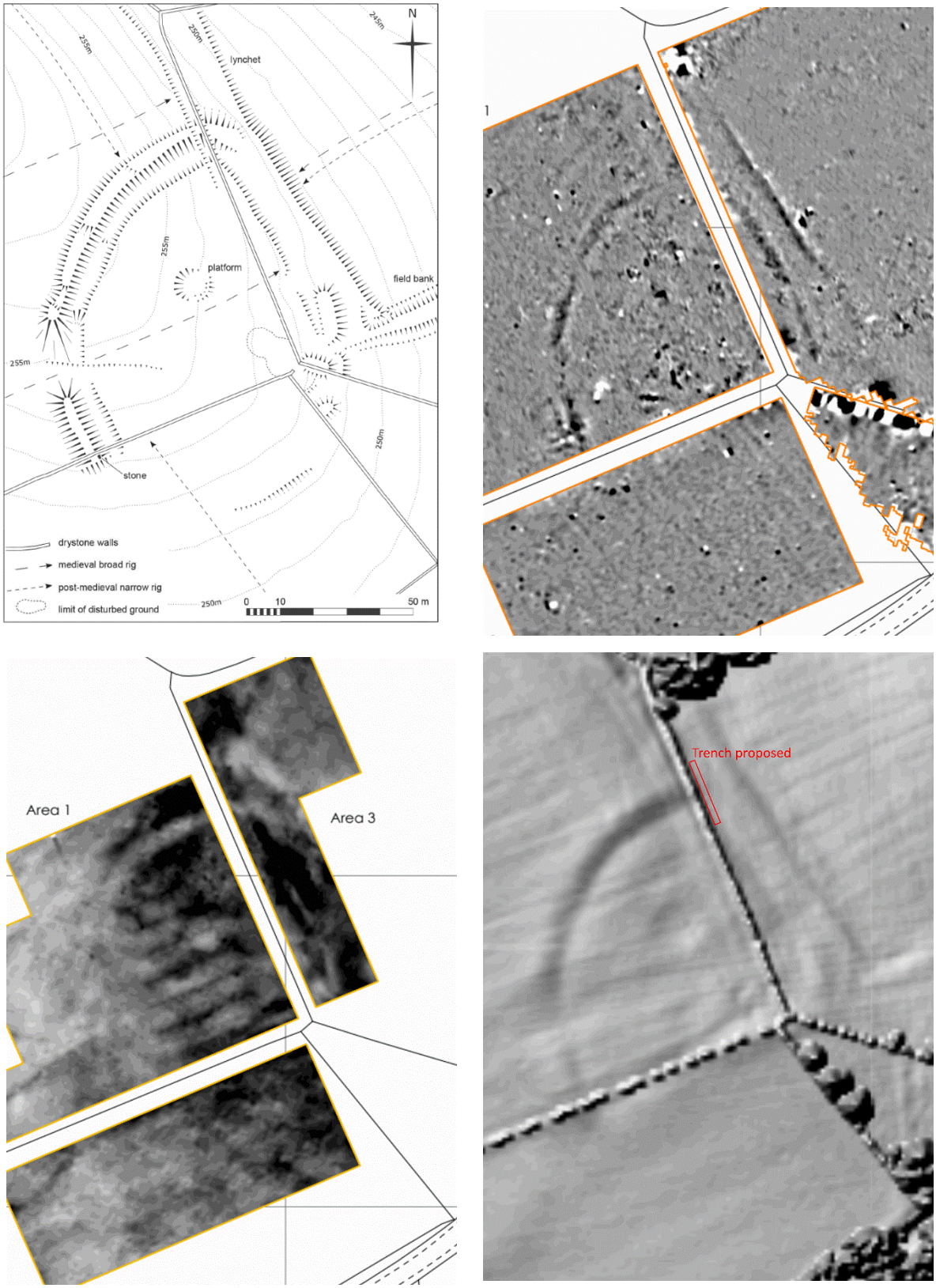

Figure 6: The central part of the site surveyed by four methods.
***Top left*: GPS ground survey. *Top right*: magnetometry.**
***Bottom left*: resistivity. *Bottom right*: lidar DSM hill-shaded.**

The interpretation of the geophysics, overlaid with the GPS/tape ground survey of Oswald and Ainsworth (illustrated in Ainsworth *et al*. 2021) are combined in the following diagram. Taken with the lidar image of the area, this summarises all the available evidence for the nature of the monument.

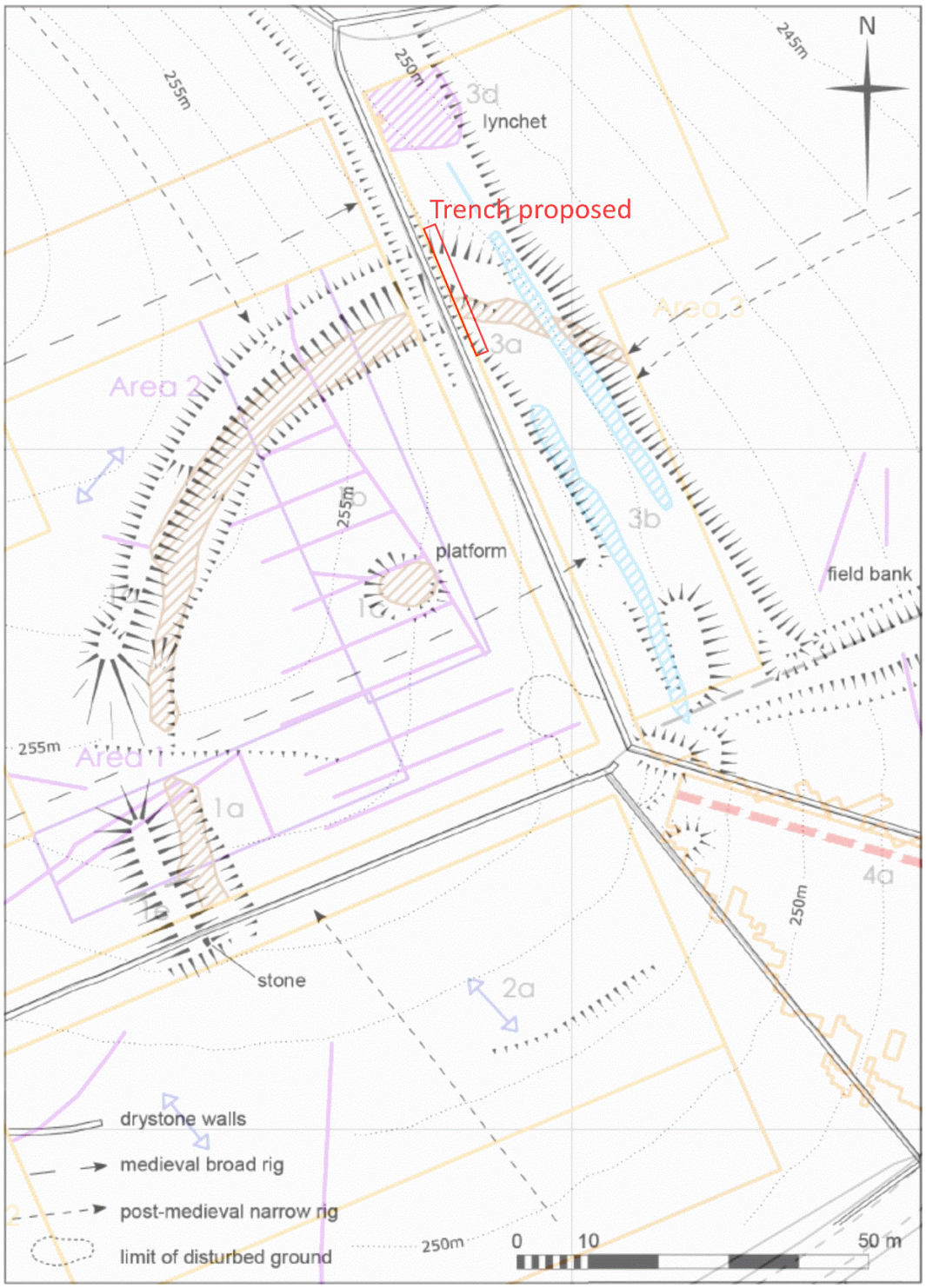

Figure 7: The GPS ground survey (Ainsworth *et al.* 2021) overlain on the geophysics interpretation (ASDU 2024). The proposed trench is shown in red: see Figure 8 for actual trench locations.

No evidence was found for the course of the southern side of the monument (Areas 2 and 4 on the geophysics plans). Later ploughing seems to have erased it. Narrow cultivation ridging is seen on the magnetometry survey and was noted in this field on the GPS ground survey.

The eastern side (Area 3) is also badly damaged, with plough ridging of the field and lynchets across the slope; the ground falls away sharply to the east. These lynchets, shown in blue in the interpretation plan, are very obvious on the GPS ground survey and on magnetometry. However, the resistivity survey shows that the ditch of the monument does cross under the wall and continue eastward for at least 20m into the field, under the lynchets. Inspection of the ground on the site confirms that the ditch is present there, seen as a wetter, slightly lower, band of ground surface.

It is in Area 1 that the monument is most obvious on all four survey modes, with a bank and a ditch (shown in brown on the interpretation plan) arcing across the field. There is a clear causewayed entrance on the west side, apparent in the GPS survey, lidar, and magnetometry. The gap in the ditch appears narrower than that in the bank. The only significant internal feature is a 10m diameter platform scooped into the slope. This is not central and appears on the resistivity survey as a low resistance area (similar to the ditch). Area 1, like the rest of the site, has cultivation ridges passing across it (seen on GPS survey, resistivity and lidar) but there appears to have been less post-medieval ploughing, resulting in the better preservation of the monument.

Another probable oval henge has recently been investigated with geophysics (Stewart Ainsworth, pers comm). It lies in Cornwall which, like the North Pennines, has very few henge-type monuments. The results (Linford and Payne 2023) showed an ovoid arrangement of pits inside the circuit of the henge ditch/bank; these are apparent in the resistance survey data and (to some extent) in the ground penetrating radar data. Without excavation it is not clear if the pits held stones or wooden posts.

4 PROJECT AIM (FROM PROJECT DESIGN)

The **North East Regional Research Framework** (https://researchframeworks.org/nerf/neolithic-and-early-bronze-age-agenda/) includes two relevant agenda items:

> ***NB4: How can we better understand early prehistoric settlement and agriculture?***
>
> Very few Neolithic or early Bronze Age settlement sites have been excavated in the region, other than in north Northumberland around Milfield. There is a need to assess the nature of settlement throughout the period; e.g. to what extent did it remain mobile and when and how did the permanently occupied farmsteads of the early to middle Bronze Age, with their associated field systems, develop. We also need to try and better understand the onset of the Neolithic: what happened to all the 'Mesolithic people' and did they become part of 'Neolithic' society? In much of our region the general settlement pattern should be investigated through structured programmes of fieldwalking, a task ideally suited to large numbers of volunteers with appropriate levels of professional supervision. The results of such work must then be merged with those of earlier work in the attempt to identify intraregional patterns.
>
> Work to further this research might include detailed survey of settlements and their surrounding landscapes. There is also a need for targeted excavation, with a particular focus on the chronological evolution of selected landscapes. Excavation in areas surrounding settlements

may also help identify areas of middening or dumping of rubbish and this would lead to a better understanding of discard patterns across prehistoric sites.

This would improve local, regional and national appreciation of how NE England relates to other patterns of contemporary settlement and agriculture? An improved appreciation of value, rarity and distinctiveness will feed into decisions and management policies being made by local government curators.

NB5: How can we better understand the distinctive forms and traditions of Neolithic enclosures in north-east England?

Enclosures of probable or possible Neolithic date show considerable variation and need to be adequately characterised. Several Neolithic enclosures have now been recognised in Cumbria and from these it is clear that models of Neolithic enclosure based on examples in the south of England are insufficient to explain more northern sites. Numerous enclosures survive throughout the region as cropmarks and while most will eventually prove to be of Iron Age or later date it is probable that a small number will date from the Neolithic (some may be multiphase, as may some upland 'hillforts'). An initial programme of survey work, with small-scale excavation, would secure much information relating to the chronology and function of these sites.

This will allow a more nuanced appreciation of regional distinctiveness and value for local curators and managers.

Note – the above agenda item, NB5, relates essentially to early Neolithic enclosures, but is also relevant to henge-type enclosures of later date.

The **North Pennines Archaeological Research Framework** (Frodsham 2021b) includes the agenda item:

2f. The nature of monuments of potential Neolithic or Chalcolithic date throughout the North Pennines, of which only a few are known (e.g. Dryburn 'henge', Lunedale stone circle, Eggleston stone circle) could be investigated to ascertain their nature and potential link to wider patterns of Neolithic activity. The recent recognition of an apparent henge at Allendale is very exciting, and needs to be tested through detailed field survey and perhaps excavation. All these sites seem to be located in relation to pathways across the landscape. Such work must be linked to the work on lithics and possible settlement sites discussed above.

These are the two relevant research frameworks to this region of England. Clearly the study of Neolithic monuments, settlement and agriculture is still in an early stage of development, with an extreme paucity of data. It is unwise to assume that the Neolithic of this area was broadly similar to that in the much-better studied south of England. The typology and relative chronology of Neolithic monuments across the British Isles are still unclear, though there are definite regional differences.

The main aims of excavation at the Allendale 'henge' are therefore: to acquire as much dating evidence as possible and to collect palaeoenvironmental samples in the hope of clarifying the nature of human activity in the area, by sampling both the ditch fill and the buried soils under the bank. It will hopefully also be possible to determine the size and shape of the ditch. The expectation is that there will be few if any artefacts found; any pottery would be only the second assemblage from the North Pennines (the first being from Grassholme, mentioned above) so very significant.

Better understanding the depth and preservation of the monument will inform future management and investigation of the site.

5 EXCAVATION

5.1 The excavation

Permission for excavation was given by only the owner of land to the east of the wall across the site. Here the course of the bank and ditch is uncertain, probably due to damage from ploughing and the formation of terrace on this part of the hill, in contrast to the west side of the wall where bank and ditch are very obvious.

The excavation took place over 6 days (29/9/24 to 4/10/24), although it was not possible to work all days due to wet conditions. Three trenches were opened, although weather conditions made it impossible to proceed very far with the third trench, so it will not be described here. All excavation was by hand, with paper records kept of contexts, finds etc.

Of the other two trenches, Trench 1 was laid out as suggested in the Project Design, parallel to the stone field-wall, see Figure 8. It was 23m long and 1.5m wide, with its western side parallel to, and 1.5m from, the side of the field-wall. Alignment was approximately NNW to SSE. It was positioned to pass across the suspected line of the bank and ditch, more definite here than anywhere else to the east of the wall. The bank can be seen on the ground as a low broad ridge, and the ditch, seen as a slight depression (approximately 5cm deep) where the ground is wetter than surrounding areas. See Figure 9 for profiles of the land surface along the trenches.

The side of Trench 1 nearest to the wall lay approximately at the lower edge of a lynchet/terrace on which the wall had been built; it is not clear if this terrace preceded the wall, or was built as foundations for it. An extension to the trench, 2.0m x 1.1m, was excavated towards the wall to examine this terrace.

Trench 2 was in the same field, about 50m to the SE of Trench 1. It was 12m long and 1m wide, aligned roughly east-west, with a gap of about 6m between the field wall and trench. It was positioned to cross a low bank, noted on the ground survey (Figure 7) and lidar images, which may have been part of the bank of the suspected henge. As Trench 2 was on the side of the hill (with the slope falling away at the east end), the bank is only detectable here as a change in gradient. An extension 1.5m x 1m was excavated on the north side of the trench to follow a band of stones (see below Section 5.3).

See Figure 8 for the trench locations and Figure 9 for the measurements of the ground level along the sides of each trench.

In the descriptions of the trenches which follows, context numbers are given in brackets. Further details of the contexts can be found in Appendix 1. The photogrammetry images of the trenches are in Appendix 2, and the palaeoenvironmental report (by Archaeological Services Durham University) on the three samples is reproduced in full in Appendix 3. The trench grid references are given in Appendix 4.

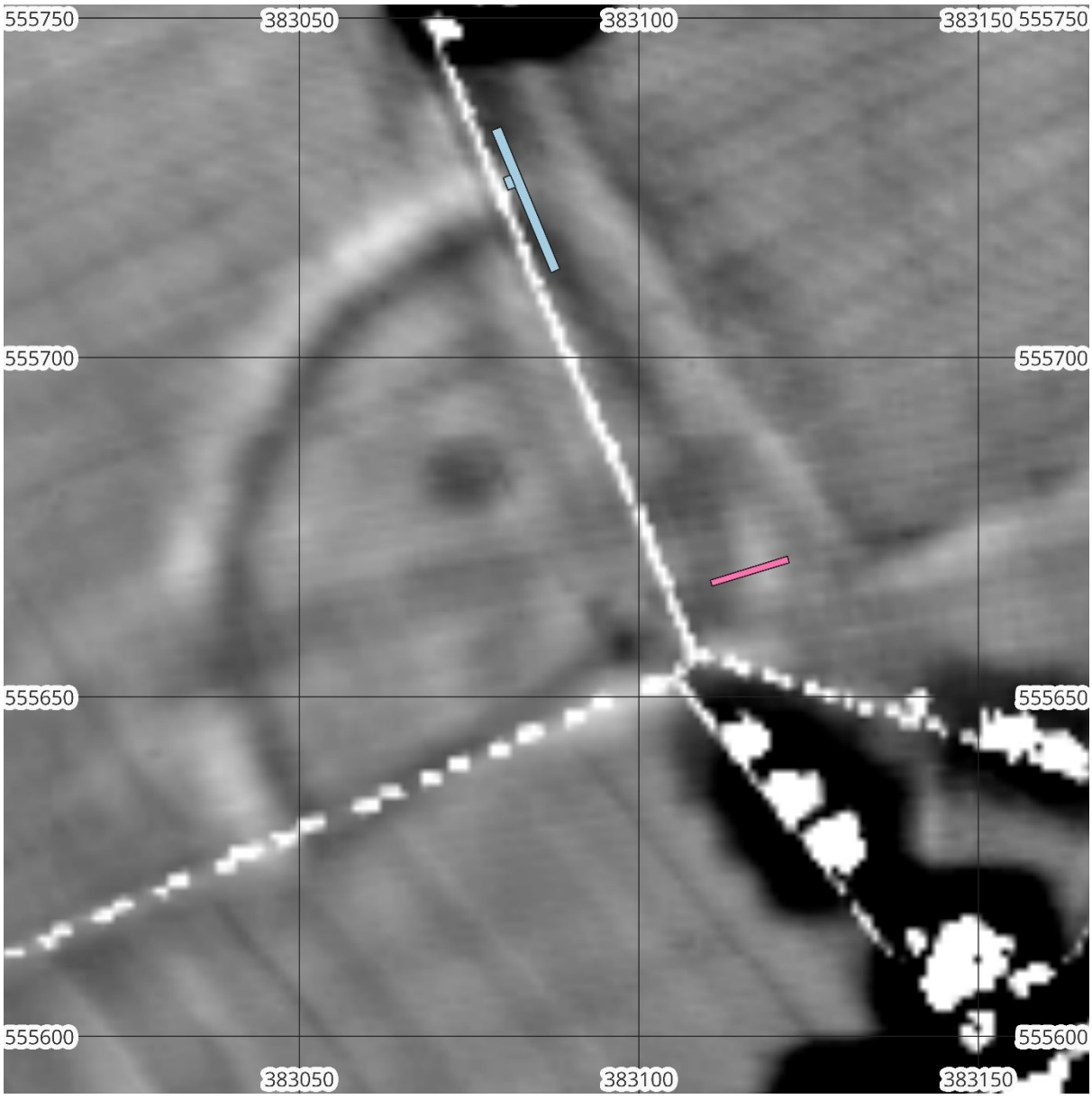

Figure 8: Actual trench locations. Trench 1 in blue, Trench 2 in pink.
Superimposed on lidar DSM image with SLRM (simple local relief model) processing.
Co-ordinates of the trench corners are given in Appendix 4.

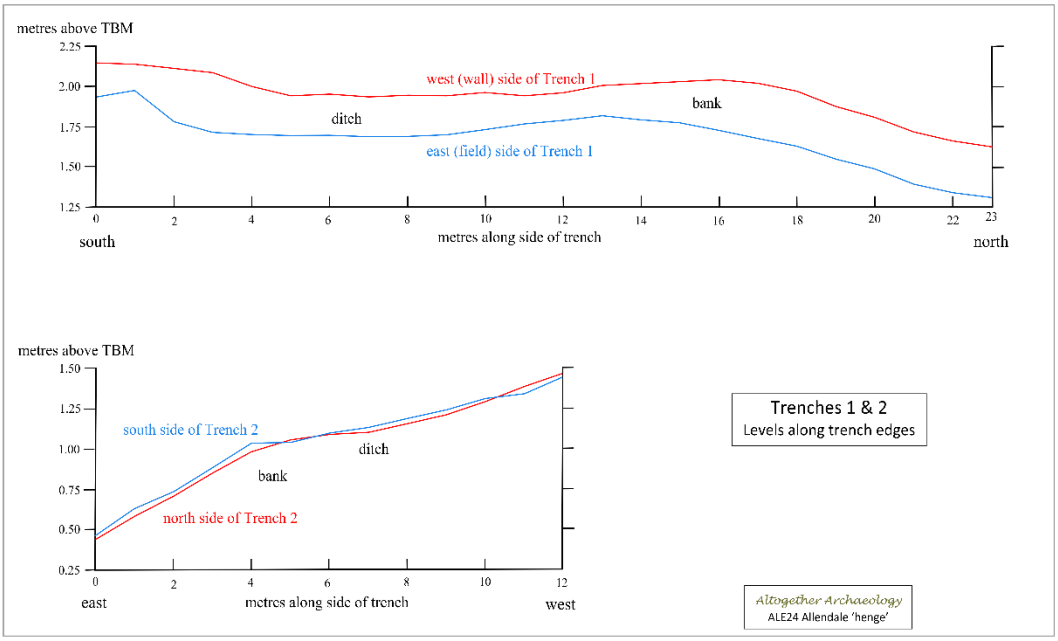

Figure 9: Ground level measured along the sides of each trench, showing the bank and ditch (seen clearly in Trench 1, but only as changes in slope in Trench 2).

5.2 Trench 1 description

As stated earlier, excavation was hampered by poor weather and by the difficult nature of the archaeology due to plough damage and the formation of terraces on the hillside which obscured the bank and ditch. In this part of the site, resistivity and magnetometry surveys added little useful information to guide excavation.

The ditch was located, crossing the trench as an ill-defined deposit of grey clay (1005), about 7m wide. This silty-clay was barren of any finds or charcoal and included only a few stones. In contrast, the clay of the glacial till natural (1004) was more variable in colour (yellow-orange-brown-grey) and had more stones (mostly rotten sandstone). No tip-lines were seen in the ditch and the edges were very uncertain. It was excavated to a depth of 1.2m below ground surface (0.95m into the natural), without reaching the base. Deeper excavation was not possible due to the wet conditions: water was running into the excavation from the ditch higher up the hillside, filling the excavation.

Possible positions of the ditch-cut in the section along the western side of the trench were noted. These are uncertain due to the similarity of the clayey fill of the ditch and some parts of the natural clay into which it was cut, so might represent re-cutting, not the sides of the ditch. A sample of the ditch-fill was taken for palaeoenvironmental analysis, from as low down as possible in the context.

The bank was also located, seen as a thin, up to 30cm, deposit (1002) of rotted orange sandstone in clay, giving a more orange appearance than the natural due to the orange sand eroding out of the disintegrating stones. Its width was about 6m, but this is very uncertain as it has clearly been extensively spread and flattened by ploughing. However, no evidence was seen of bank material being spread across the top of the ditch-fill. No finds were retrieved from the bank.

The depth of the topsoil (1001) remained constant as it passed over the bank material, which lay directly on the clay natural. No buried soil was seen underneath the bank material. At some places a thin intermediate layer (1003) was seen between topsoil and the bank material, formed of yellow

clay, with fewer stones than (1002). A sample of the bank material (1002) was taken for palaeoenvironmental analysis.

The small trench extension towards the wall cut into the lynchet/terrace on which the wall stood. Here, the bank appeared to be higher, and the topsoil was also deeper on the top of the terrace (40cm).

The trench was too narrow, and the edges of the ditch and bank were too unclear (due to plough mixing) to ascertain accurately the angle at which they crossed the trench. A best guess would be 45 degrees, corresponding roughly to the survey evidence (Figure 7), but no reliance should be put on this figure.

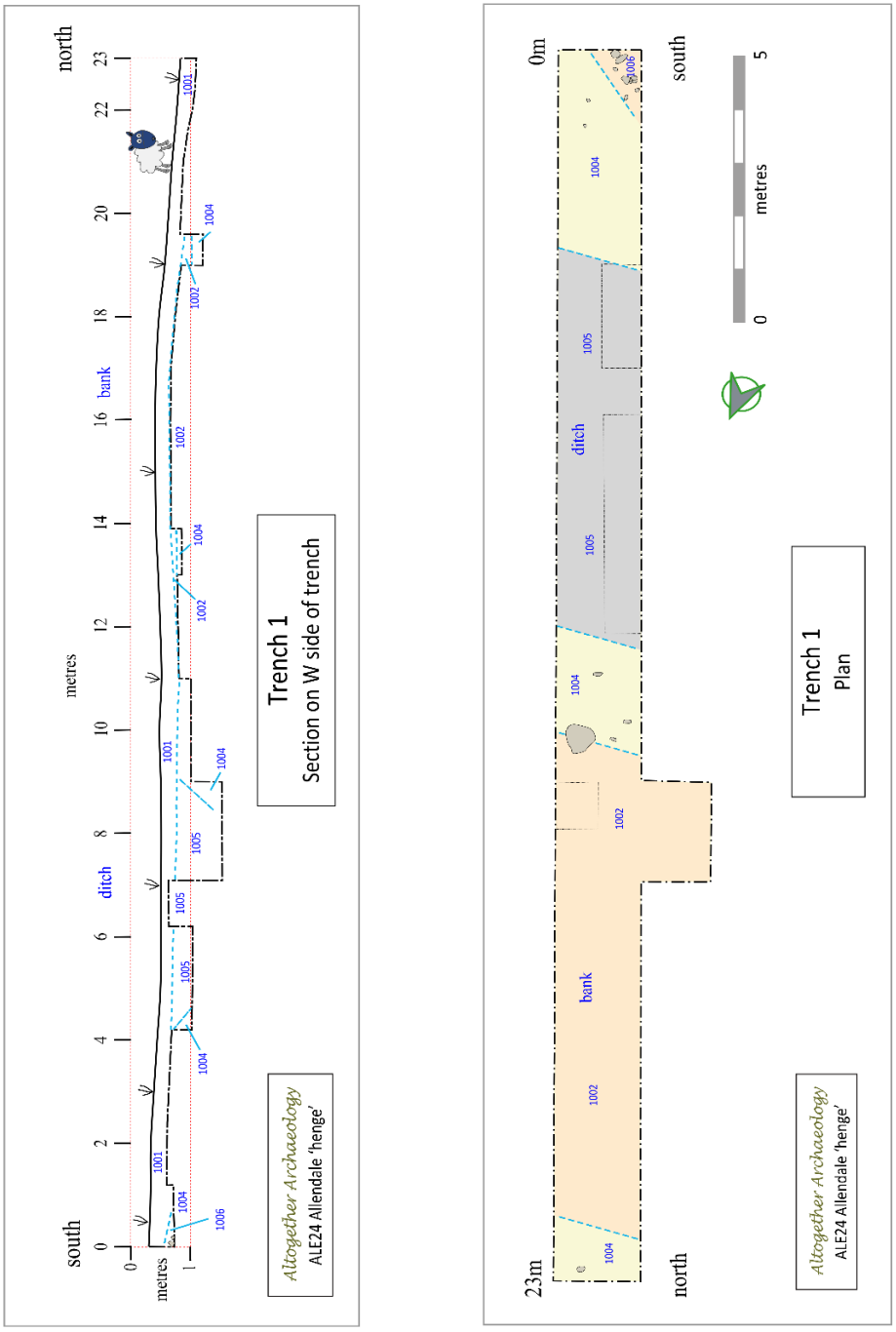

Figure 10: Trench 1 section along W (wall) side of trench and plan of trench.
See Appendix 2 for vertical photogrammetry images of the trench

Figure 11: Trench 1 *Top:* Excavation commences.
***Bottom:* Group of stones (1006) in the south-west corner of the trench.**

Figure 12: Trench 1 *Top:* Paul Frodsham and Jan Harding checking progress. The ditch is visible as a grey wet band across the trench, with ploughed-out bank more orange beyond.
***Bottom:* Water-filled sondage into ditch on left, ranging rods at near edge and on top of bank.**

Figure 13: Trench 1 *Top:* The extension into the terrace on which wall sits. *Bottom:* The southern side of the ditch cut possibly seen in the section

Figure 14: Trench 1: Looking north in middle of trench (the extension towards the wall is on the left. Bank material (1002, rich in rotting pieces of orange sandstone) lies over the greyer clay natural (1004, containing fewer stones).

5.3 Trench 2 description

As in Trench 1, the ditch-fill (2003) in Trench 2 was a compact grey silty clay deposit. It crossed the trench in a band only about 2m wide. To the east of it was the probable bank, a more orange and more stoney deposit (2005) than the underlying natural glacial till. This extended 6m to the east end of the trench, though as this was on a steep gradient (see Figure 9), the downhill part of it may have been material spread downslope by ploughing and weathering.

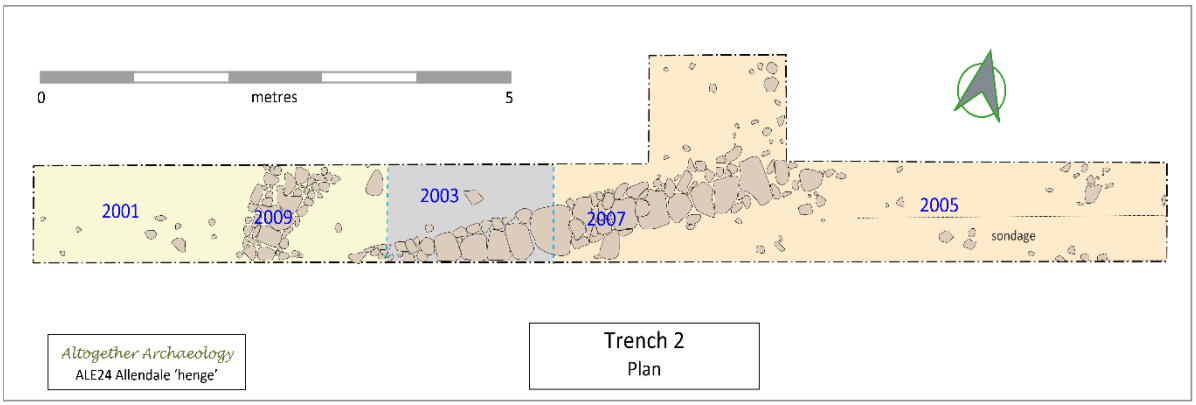

Figure 15: Plan of trench 2. See Appendix 2 for vertical photogrammetry image.

Wet conditions precluded excavation of the suspected ditch. The stratigraphy (including the edges of ditch and bank) was confused by the two stone-lined drains. One (2008, built of stones 2009) crossed the trench north-south, to the west of the ditch. The other (2006, built of stones 2007) ran north-east to south-west, diagonally across the trench and about 5m long. Both drains were about 65cm wide and had stone sides covered by capstones. However, one (2006) had larger capstones, completely covering the drain; the other had smaller capstones, edged by small stones. Both drains were blocked with a grey silty deposit. In view of the different construction methods and the fact that the drains were at 45 degrees to each other, it is probable that they were not contemporaneous, but were from different phases in the improvement of the field.

Figure 16: Trench 2 *Top:* Excavation commences. Looking north-west. Livestock watering trough built into wall is seen at top left.
***Bottom:* Looking east. The ditch is the wet band across the trench, with drier, more orange, bank beyond.**

Figure 17: Trench 2 *Top:* Looking west, over the bank to the wet ditch further along the trench. *Bottom:* Looking along drain (2006) as it crosses the wet ditch-fill. Drain (2008) crosses the trench further along.

Figure 18: Trench 2 *Top:* Drain (2006) after removal of some of the cap-stones. *Bottom:* Drain (2008) after removal of some of the cap-stones.

5.4 Finds

There were no pre-medieval finds. The top soil contained numerous post-medieval finds, as would be expected on a field close to a farmstead and which showed signs of ploughing. In Trench 2, there were also post-medieval finds in the upper part of the ditch-fill (2003) at the interface with the topsoil.

Trench 1 topsoil: 128 potsherds (total weight 520g), mostly white glaze 18th/19th century. A few sherds of earthenware land drains. 20 fragments of glass: colourless or pale green. 16 pieces of clay pipe-stem and 2 pieces of pipe-bowl, one with moulded design (Figure 19).

Figure 19: Moulded decoration on fragment of a clay pipe-bowl.

Trench 2 topsoil: 96 potsherds (total weight 250g) all post-medieval. 8 fragments of glass, all colourless modern. 4 pieces of clay pipe-stem.

Trench 2, upper part of ditch-fill: 22 potsherds (total weight 65g). 4 pieces of clay pipe-stem.

6 DISCUSSION

This excavation confirmed that the bank and ditch do indeed continue into the field to the east of the wall. It showed that the ditch is filled with a grey silty clay. The upper part of this fill in Trench 2 included modern finds (pipe-stems). The palaeoenvironmental sample (see Appendix 3 for report), taken much deeper in the fill in Trench 1, found no material suitable for radiocarbon dating, nor was there any evidence for agriculture. The organic material was an assemblage of native flora (bramble, elder, hawthorn, dog rose, violet, woundwort, grass, bugle, buttercup). “The samples did not produce diagnostic palaeoenvironmental evidence ……these uncharred plant remains are likely to be later intrusive material”. A small fragment of oak charcoal was also noted, unsuitable for radiocarbon dating.

The course of ditch and bank in Trench 1 were too uncertain to determine the shape of the ‘henge’ to the east of the wall. However, Trench 2 was successful in locating ditch and bank, which seemed to consist of similar material as they did in Trench 1. This pins down where the monument passes through the field, and strongly supports the idea that it is oval in shape (see Figure 20).

Any further investigation would ideally involve excavation of one or more trenches across the ditch and bank to the west of the wall, and possibly part of the area inside the 'henge'. The feasibility of this depends on obtaining permission to excavation, which hasn't been given as yet. Here the archaeology is likely to be less affected by ploughing, terracing, and hill-slope. And the field appears drier.

The results of this excavation are certainly consistent with the monument being a henge as no artefacts or other dating evidence was found to suggest an alternative date. The lack of medieval finds make significant activity in that period unlikely. The palaeoenvironmental sample from the ditch also seemed consistent with a "natural" landscape rather than a cultivated one, again suggesting an early date for the monument.

The location of the ditch and bank on excavation, confirmed that the monument is oval, not round. Examination of the lidar images suggests that the north-east section of the bank actually lies under the lynchet crossing the field. The apparent gap north of Trench 2 may be an eastern entrance, roughly opposite the definite western entrance.

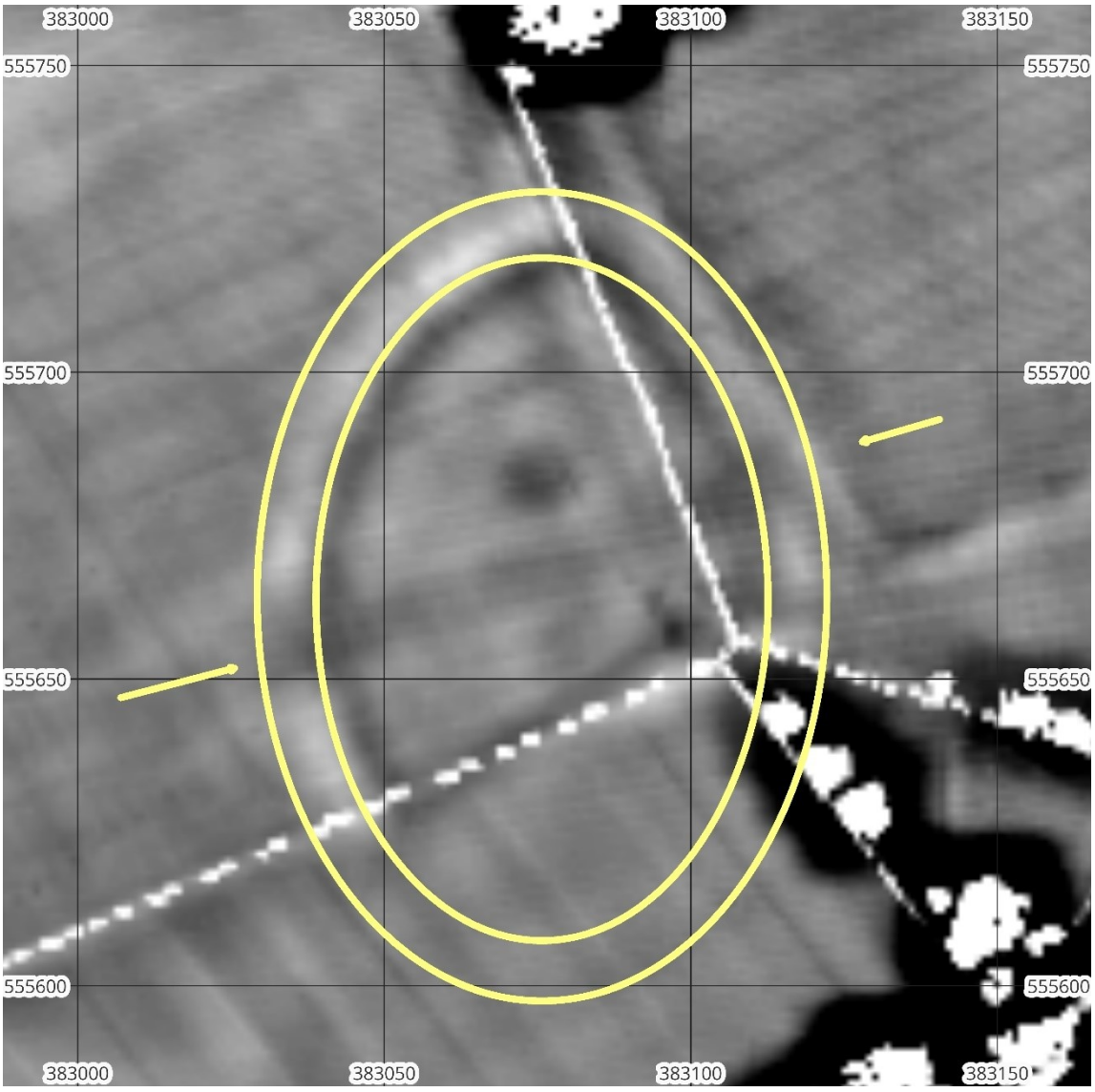

Figure 20: Speculative annotation of SLRM lidar image (same image as in Figure 8) to show oval shape of bank, with west and possible east entrances arrowed.

7 ACKNOWLEDGEMENTS

AA thanks the landowners for their interest and assistance. The geophysics was carried out as part of the *Belief in the North East*, a Heritage Lottery Fund project based at Durham University (https://beliefne.net). Members of AA and Belief in the North East took part in the geophysics work.

Much of the groundwork to progress the project was by Stuart White. Stewart Ainsworth has given advice and encouragement. Archaeological advice in planning the project and during the excavation was given by Paul Frodsham and Jan Harding (both having a specialist interest in the Neolithic in northern England) with management of the excavation by Martin Green.

Those who gave their time and experience excavating (getting rather wet in the process) were: Lorraine Clay, Dorothy Coe, Steve Cunningham, Greg Finch, Paul Frodsham, Martin Green, Jan Harding, Karen Heyes, Ron Heyes, Malcolm McCallum, Alan Newham, Rob Pearson, Joan Raine, David Ranner, Unity Stack, Brian Stirk, Janet Stirk, Gordon Thomson, Stuart White. GPS was by Rob Pearson.

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9 APPENDIX 1: CONTEXTS AND SAMPLES

Table of contexts (Trench 1)

Context #	Type	Is above	Is below	Description
1000	Topsoil	1002 1003 1004 1005 1006		Topsoil over all of trench. Friable, mid-brown silty/ loam with a few small angular stones
1001	Cut	1004	1005	Cut of ditch. Uncertain. May be recuts. Ditch about 6m wide. 45 deg sides.
1002	Deposit	1004	1000 1003	Material of bank. Grey/orange patchy clay with many stone inclusions, more than the natural glacial till (mostly rotted orange sandstone).
1003	Deposit	1002	1000	Intermediate yellow clay lower over 1002. Indistinct.
1004	Natural		1000 1001 1002 1006	Subsoil all trench. Silty clay with moderate number of stones, mostly rotten orange sandstone. Colour grey but with orange patches
1005	Deposit	1001	1000	Fill of ditch 1001. Grey silt/clay with very few stone inclusions.
1006	Deposit	1004	1000	Area of stones in S corner of trench, on subsoil.

Table of contexts (Trench 2)

Context #	Type	Is above	Is below	Description
2000	Topsoil	2001 2003 2005 2007 2009		Topsoil over all of trench. Friable, mid-brown silty/ loam with a few small angular stones.
2001	Natural		2000 2002 2008	Subsoil at W end of trench. Silty clay with moderate number of stones, mostly rotten orange sandstone. Colour grey but with orange patches.
2002	Cut	2001	2003	Ditch crossing trench 4m from W end. Cut about 2m across, could be wider as drains 2006 and 2008 cut into this part of trench. .
2003	Deposit	2002	2000	Upper fill of ditch 2002. Grey silty clay, only a few stones included.
2004	Feature			Possible bank to east of ditch 2002. Very ill defined: plough-spread. Possibly 6m wide.
2005	Deposit		2000 2006	Material of bank 2004. Grey/orange patchy clay with more stone inclusions than the natural glacial till (mostly rotted orange sandstone).
2006	Cut	2005	2007	NE-SW drain in middle of trench. About 65cm wide. Straight. About 5m length seen in trench.
2007	Deposit	2006	2000	Stones of drain 2006. Upper layer is of flat stones up to 50cm, subrectangular, aligned across the drain as capstones. Under these were two lines of stones forming side of the drain with silty deposit between them blocking the drain.
2008	Cut	2001	2009	N-S drain crossing W end of trench. About 65 cm wide. Straight.
2009	Deposit	2008	2000	Stones of drain 2008. Upper layer includes some large (up to 25cm) capstones, with smaller stones at sides. Lower layer is of two lines of stones forming sides of drain with silty deposit between them blocking the drain.

Table of Palaeoenvironmental samples

Trench 1 only. Trench 2 was not sampled

Sample number	Size litres	Context	Taken by	Description & lab report (see Appendix 3)
101	10	1005	SC	Possible fill of ditch "Small flot comprising modern roots and small amounts of fragmented coal (fragments up to 10 mm) and cinder. Only one small (<4mm) fragment of oak stemwood charcoal, not suitable for C14. Plant remains are uncharred and include fruitstones of bramble, elderberry, hawthorn and dog rose in addition to a violet seed, a woundwort nutlet, a grass caryopsis, a bugle nutlet and a buttercup achene. **Nothing diagnostic"**
102	10	1003	MG	Possible intermediate layer between bank material and topsoil. "Moderate-sized flot comprising modern roots and small amounts of fragmented coal. Only two tiny (<4mm) fragments of oak stemwood charcoal, not suitable for C14. No charred plant macrofossils. **Nothing diagnostic"**
103	10	1002	PF	Possible bank material "Moderate-sized flot mainly comprising modern roots and small amounts of fragmented coal and cinder. No charred plant remains. **Nothing diagnostic"**

10 APPENDIX 2: PHOTOGRAMMETRY (VERTICAL IMAGES)

***On left*: Trench 1 (south top) after first day (29 Sep) and final (3 Oct). Doesn't include small extension.**
***On right*: Trench 2 (west top) on 1 Oct and final (3 Oct) before drain capstones lifted.**

11 APPENDIX 3: ASDU REPORT ON PALAEOENVIRONMENTAL SAMPLES

Archaeological Services Durham University report 6209, November 2024

Allendale Enclosure, Allendale, Northumberland Palaeoenvironmental assessment

Contents

1. Summary

The project

1.1 This report presents a palaeoenvironmental assessment of three bulk samples taken during an excavation of a possible prehistoric henge at Allendale, Northumberland.

1.2 The works were commissioned by Altogether Archaeology and conducted by Archaeological Services Durham University.

Results

1.3 The samples did not produce diagnostic palaeoenvironmental evidence or material for radiocarbon dating.

Recommendations

1.4 No further analysis is recommended for the samples.

1.5 The flots should be retained as part of the physical archive of the site. The residues were discarded following examination.

2. Project background

Location and background

2.1 Archaeological works were conducted by Altogether Archaeology at Allendale Enclosure, Northumberland. This report presents a palaeoenvironmental assessment of three bulk samples taken from ditch and bank deposits associated with a possible prehistoric henge.

Objective

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

Dates

2.3 The samples were received by Archaeological Services on 11th October 2024. Assessment and report preparation was conducted between 24th October and 18th November 2024.

Personnel

2.4 Sample processing, assessment and report preparation was conducted by Elena Stefani.

Archive

2.5 The site code is **ALE24**, for **Al**lendale **E**nclosure 20**24**. The flots will be retained at Archaeological Services Durham University.

3. Methods

3.1 The samples were manually floated and sieved through a 500μm mesh. The flots were examined for waterlogged and charred botanical remains, using a Leica MZ7.5 stereomicroscope at up to x60 magnification. Identifications were aided by comparison with modern reference material held in the Palaeoenvironmental Laboratory at Archaeological Services Durham University, and by reference to relevant literature (Cappers *et al.* 2006; Hather 2000). Plant nomenclature follows Stace (2010). Residues were fully scanned for additional charred plant material, industrial residues, and finds such as small bones (animal, fish and bird), marine shell and snails. This included microscopic examination of the fine fraction where appropriate.

3.2 The works were undertaken in accordance with the palaeoenvironmental research aims and objectives outlined in the regional archaeological research framework and resource agendas (Petts & Gerrard 2006; Hall & Huntley 2007; Huntley 2010), including the updated version: *North-East Regional Research Framework for the Historic Environment* (NERRF 2.0) (https://researchframeworks.org/nerf/accessed 04/11/2024).

4. Results

4.1 The samples produced small to moderate-sized flots often dominated by modern roots with small quantities of coal and cinder which is generally fragmented. Trace amounts of oak stemwood charcoal were recorded in deposits [1005] and [1003] but these are too small for radiocarbon dating. Charred plant macrofossils were absent but deposit [1005] produced some uncharred plant remains such as brambles and elderberry fruitstones amongst others.

4.2 There are no finds and material for radiocarbon dating is absent for all the samples.

4.3 Detailed palaeoenvironmental results for each context are presented in Appendix 1.

5. Discussion

5.1 The samples did not produce diagnostic palaeoenvironmental evidence. The small assemblage of uncharred plant remains in ditch fill [1005] is largely of woody fruitstones such as bramble and elder, which can persist in the soil due to their decay-resistant nature. The suite of

remains often associated with permanently waterlogged features is absent, therefore these uncharred plant remains are likely to be later intrusive material.

6. Recommendations

6.1 No further analysis is recommended for the samples.

6.2 The flots should be retained as part of the physical archive of the site. The residues were discarded following examination.

7. Sources

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Palaeoenvironmental assessment results

Sample	Context	Feature	Volume processed (l)	Flot volume (ml)	C14 available	Palaeo Rank	Notes
101	1005	fill of ditch of possible henge	10	25	N	*	Small flot comprising modern roots and small amounts of fragmented coal (fragments up to 10 mm) and cinder. Only one small (<4mm) fragment of oak stemwood charcoal, not suitable for C14. Plant remains are uncharred and include fruitstones of bramble, elderberry, hawthorn and dog rose in addition to a violet seed, a woundwort nutlet, a grass caryopsis, a bugle nutlet and a buttercup achene. **Nothing diagnostic**
102	1003	top deposit of bank of possible henge	8	110	N	*	Moderate-sized flot comprising modern roots and small amounts of fragmented coal. Only two tiny (<4mm) fragments of oak stemwood charcoal, not suitable for C14. No charred plant macrofossils. **Nothing diagnostic**
103	1002	main deposit of bank of possible henge	10	150	N	*	Moderate-sized flot mainly comprising modern roots and small amounts of fragmented coal and cinder. No charred plant remains. **Nothing diagnostic**

[Palaeo rank: *: low; **: medium; ***: high; ****: very high concentration of palaeoenvironmental evidence]

12 APPENDIX 4: GPS READINGS OF TRENCH CORNERS.

Points	Easting	Northing
Trench 1-1	383078.3	555733.5
Trench 1-2	383079.7	555734
Trench 1-3	383088.4	555713.1
Trench 1-4	383087.1	555712.5
Trench 1-5	383081.8	555725.1
Trench 1-6	383080.9	555724.7
Trench 1-7	383080.0	555726.5
Trench 1-8	383081.1	555726.9
Trench 2-1	383110.5	555667.2
Trench 2-2	383110.8	555666.3
Trench 2-3	383122.1	555669.8
Trench 2-4	383121.9	555670.7
Trench 3-1	333095.2	555699.8
Trench 3-2	333095.7	555698.9
Trench 3-3	383103.0	555701.8
Trench 3-4	383102.7	555702.7
Field corner 1	383108.3	555657.3
Field corner 2	383067.5	555761.3