

Gueswick Hills Near Cotherstone, Teesdale

Project Design for Research and Excavation



ALTOGETHER ARCHAEOLOGY

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Site location: (NZ 0036 2104) 1.5km north-west of the village of Cotherstone, Teesdale.

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The Lidar Landscapes survey was a project of the North Pennines AONB Partnership
<http://www.northpennines.org.uk>

Drone images and processing of lidar data by Stephen Eastmead, <https://eastmead.com/>

QGIS Free and Open Source Software was used: <https://qgis.org>

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

Cover image: Drone photograph of terraces on southern side of Gueswick Hills. The site of interest is located on the plateau at the right side of the photograph. The cairn is at the crest of the slope, in the line of bushes/trees along a field boundary.



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1 SUMMARY

This is a Project Design for the further investigation of the Gueswick Hills by the community group Altogether Archaeology (AA). These hills are a ridge of moraines crossing Teesdale between Cotherstone and Romaldkirk. They are formed of material deposited by a glacier during the last Ice Age. Later, the southern side of the hills was sculpted by agricultural terraces. The site of interest lies on the summit of the hills, a plateau that shows little disturbance from medieval ploughing. There is a cairn on the plateau which it has been suggested may be of Bronze Age date (on the basis of a nearby cup-marked boulder and the finding of a cup-marked stone beside the cairn itself). Structures to the east of the cairn were discovered by the Lidar Landscape Survey, site number #00212, and evaluated as being a possible prehistoric or Romano-British enclosure (Frodsham 2017b).

AA organised initial investigation by a walk-over and magnetometry survey in June 2019. This showed complex anomalies at the possible occupation site seen on lidar. In addition, there was a probable large sub-rectangular ditched enclosure on the plateau, with other ditches, and a small C-shaped ditch to the west of the cairn. None of these structures can be ascribed a date without excavation, although the intensive medieval arable agriculture in this area of Teesdale gives a high probability that at least some of the features are of that date. Iron Age structures are also to be expected as the lidar survey showed extensive Iron Age occupation in Teesdale, where the evidence for it has not been obliterated by later medieval ploughing.

The Gueswick Hills are in the parish of Hunderthwaite, although the nearest village is Cotherstone which lies 1.5km south-east of the site. This area was in Yorkshire (North Riding) until transferred to County Durham in the 1974 re-organisation. The site is close to, but not within, the North Pennines Area of Outstanding Natural Beauty (AONB). Public footpaths pass near, but none run across the site. It lies in fields used for grazing; it is not subject to protection as nature reserve or historic site.

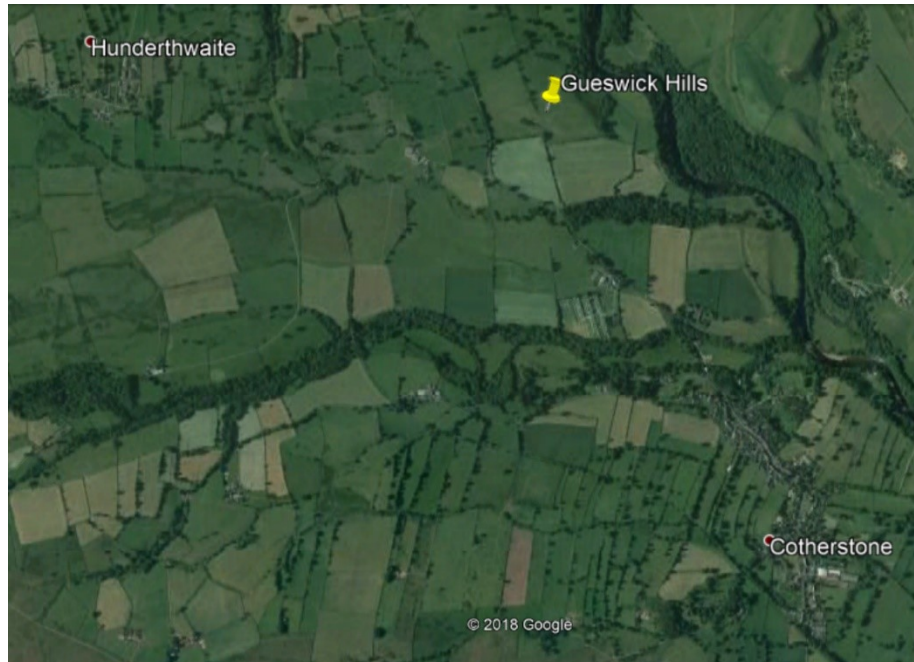


Figure 1: Location of the Gueswick Hills site, showing relationship to nearby villages. The Tees is on the east side of the site, flowing southwards.

Included in this document are the reasons, strategy and methodology for undertaking possible further work, including excavation. This Project Design is also intended to function as an introduction to the site and the project for participants.



The project will involve members of Altogether Archaeology (AA), a community archaeology group for the North Pennines and surrounding area. This group arose out of the North Pennine AONB Partnership project of the same name, managed by Paul Frodsham. Information about AA is given at <https://altogetherarchaeology.org>, where reports of all previous surveys and excavations are available (see the Reports page). AA has received grant support from the Northern Heartlands Project <https://northernheartlands.org> enabling increased public awareness and involvement in AA's work in Teesdale, at Holwick.

2 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

2.1 Maps: Ordnance Survey and Estate

A copy of an estate map of Doe Park has been supplied by the current owners.



Figure 2: Doe Park estate map of 1761 (east section). The house is below the label “Hall Garth”. The Gueswick Hills site is around the junction of “Reins”, “High Geswick” and “North-East Geswick”



Figure 3: Ordnance Survey showing Gueswick Hills in 1850s (left), 1890s (centre), 1940s (right).
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Ordnance survey maps of the Gueswick Hills are shown above. The field boundaries hardly change over more than a century (and are fairly similar to those on the 1761 estate map). However, one detail that does change is the small structures at the summit of the hills by the cairn (where the field boundaries join). On the estate map there is a square over the junction (this could represent the cairn, a building, or a small stock enclosure). On the 1850s OS there are no structures. By the 1890s OS there is a narrow rectangular structure running east-west along the south side of boundary to the east of the cairn. This is still there on the 1910s OS (see below, Figure 7). However, by the 1940s OS there is, in addition, a rectangular structure marked over the location of the cairn itself. Wartime (1945) aerial photographs (accessed via GoogleEarth) are low resolution, but show no buildings on the hills. Possibly the long narrow rectangle was a fenced enclosure for livestock processing.

2.2 Rock art

The only previously noted archaeology on the site, or nearby, is a single cairn and rock art. Its discovery is described in Brown and Brown (2008). The cairn is on the summit plateau in a field boundary. It is recorded on the Durham HER as a Bronze Age burial cairn (DHER 5421 & 5423, NZ00342090), largely on the basis of a small cup-marked stone found in the debris of a collapsed field-wall close to it, as well as a cup-marked boulder nearby (DHER 5422). A later examination of the site failed to find any cup-marked stones in or near the cairn, but did confirm the cup-marked boulder at NZ0025521039, about 30m north-west of the cairn. Records are held in the England's Rock Art database, which can be accessed at <https://archaeologydataservice.ac.uk/era/> (catalogue numbers ERA-1749 and ERA-1753).



Figure 4: Photograph of cup-marked boulder and location sketch.
 Reproduced from the England's Rock Art database.
 See Figure 18 for a drone photograph of the boulder and surroundings.

A wax rubbing of the small portable cup-marked stone is illustrated in Brown and Brown (2008, p147): it is 27x24x11cm and had seven cups, one with a possible ring. A note in their gazetteer (p290) confirms that this stone has been removed from the site.

The cairn is clearly much altered by robbing for wall building. Whether it is indeed of Bronze Age origin is uncertain, although the position on the skyline as seen from the valley floor is a typical location for a burial cairn. The small cup-marked stone may have been in the first phase of clearance cairns on site, subsequently re-used to build walls and consolidated to a single clearance cairn.

Rock art is common in this part of Teesdale (between Barnard Castle and Middleton), though less so in the upper dale above Middleton. Most known sites are on higher ground, as expected in view of the lack of stone to be carved on the valley floor. The known examples are clustered: in part due to the tendency for the area around a known example to be searched more thoroughly than elsewhere. The cluster east of Eggleston is associated with a Bronze Age cairnfield (Bracken Heads, Mon 1021114, NZ0143023307).

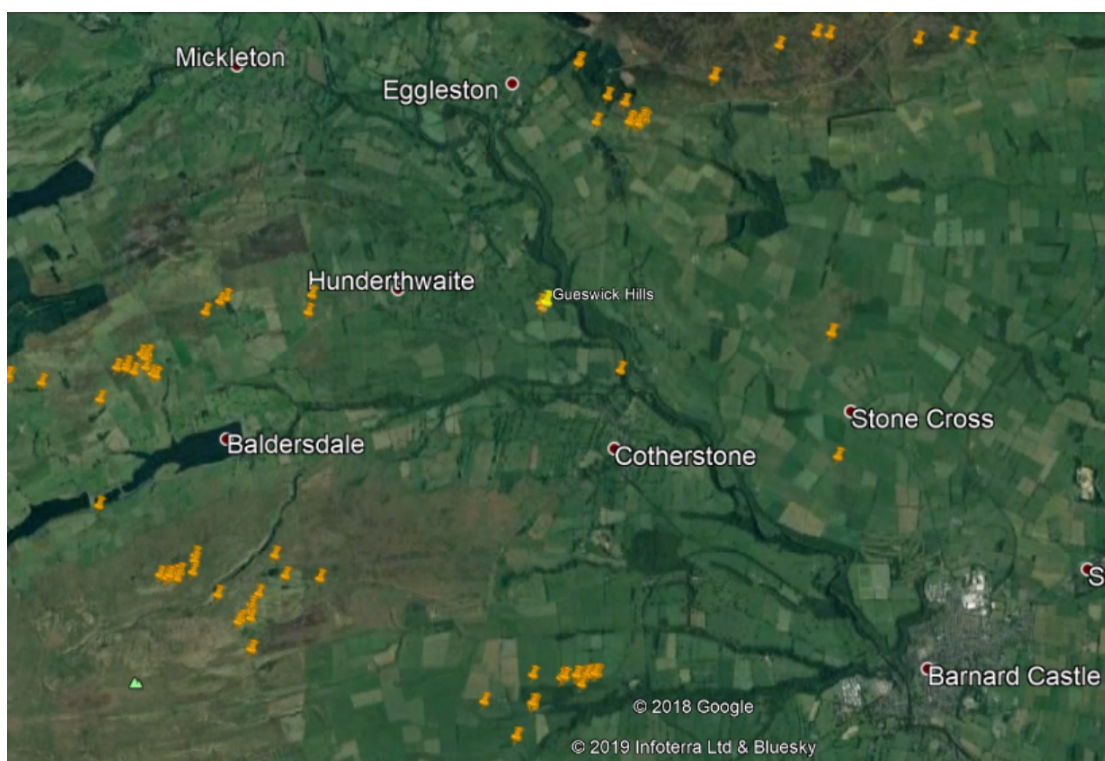
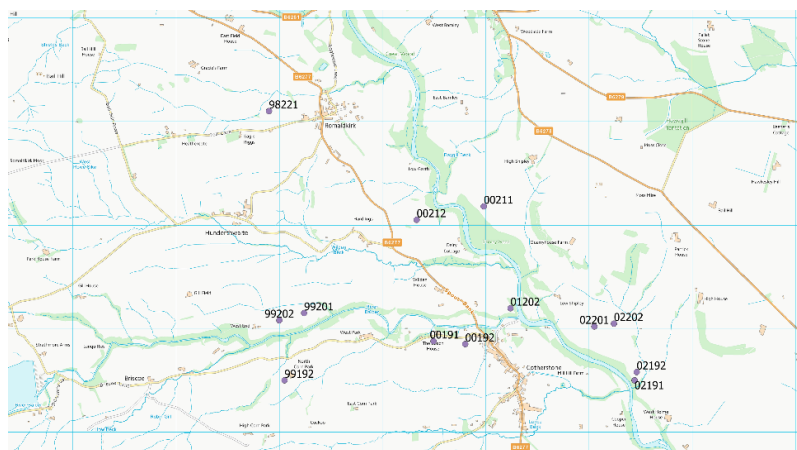


Figure 5: Distribution of known rock art around Gueswick Hills.
Mapped on GoogleEarth using data from the England's Rock Art database.

2.3 Lidar Survey

The Lidar Landscape Survey report (Frodsham 2017b) summarises the findings of the North Pennines AONB project which enabled volunteers to examine lidar images of the area, finding new sites of interest. The sites found in the survey which were suspected of having a prehistoric or Romano-British date and are close to Gueswick (#00212) are shown below, mapped and in table form:



Site no. #	NGR eastings	NGR northings	Type	Period	Description
02191	402440	519500	hillfort	prehistoric	Univallate hillfort.
02192	402460	519580	cairns	prehistoric	4 'bumps', ploughed down by rigg and furrow. ?cairns
02201	402050	520020	settlement	prehistoric Roman	Possible IA/RB settlement. Underlying current field walls, strip fields to S
02202	402240	520048	hillfort	prehistoric	Large enclosure at Low Shipley, possible hillfort. 120m across. Predates medieval fields.
01202	401238	520196	cairn	prehistoric	Mound: BA burial cairn? East of Thwaite Hall.
00191	400493	519878	enclosure	prehistoric	Substantial circular enclosure beneath rigg-and-furrow. Field inspection suggests central platform, inner ditch and external bank. Good contender for a henge - if so in good landscape position adjacent to the Tees.
00192	400800	519850	mound	prehistoric	Large mound to east of possible henge. No evidence of origin, but if 00191 is really a henge then this could be associated.
00211	400980	521180	settlement	prehistoric Roman	Well-preserved classic IA or RB homestead SW of High Shipley, two possible internal roundhouses.
00212	400330	521050	enclosure	prehistoric Roman	Possible enclosure on Gueswick Hills , overlain by rigg-and-furrow. Looks good, but just might be amalgam of field boundaries rather than enclosure.
99201	399240	520150	settlement	prehistoric Roman	West End (East) IA/RB homestead. Irregular enclosure containing three apparent roundhouse platforms. Large lump within interior - could be natural. Part of complex including site 99202.
99202	399000	520080	settlement	prehistoric Roman	West End (West) IA/RB homestead. D-shaped enclosure containing one apparent roundhouse platform. Apparently contemporary field system to the E. Part of complex including site 99201.
99192	399050	519500	settlement	prehistoric Roman	Apparent IA/RB settlement immediately SW of Corn Park Farm. Damaged by ploughing.
98221	398900	522100	settlement	prehistoric Roman	Suggestion of possible enclosure above E bank of Hole Beck, with hints of possible field system. Much damaged by medieval and later ploughing.

Figure 6: Prehistoric and R-B sites near Gueswick (#00212) found by the Lidar Survey (table/map).



2.4 Known nearby archaeological features

The site is part of the Doe Park estate: the house of Doe Park (NZ00582024) is 700m to the south. As the name implies, a medieval deer park was located here (Durham Historic Environment Record (DHER) 2020). The house itself (DHER 37622) dates from circa 1700 and is Grade II* listed (1323079). Close to the house is a complex of 19th century farm buildings (DHER 36680) which are Grade II listed (1121014). Field names on the estate map (Figure 2) suggest that the Deer Park was beside the house and quite small, not extending on to the Gueswick Hills.

Running past Doe Park is the B6277 road between Romaldkirk and Cotherstone. Two medieval cross-bases lie beside this road, probably used during the carriage of bodies to be buried at Romaldkirk, and at other times. One is near Doe Park house (DHER 2502), the other is where the road crosses the shoulder of the Gueswick Hills at NZ00012100 (DHER 2507).

The only other listed/protected site nearby (apart from listed buildings) is the Norman Castle at Cotherstone.

Pastscape and Keys to the Past (Durham HER) were searched for other archaeological features within 2km of the Gueswick Hills site. The Lidar Landscape Survey report (see Section 2.3) gave additional information. Significant sites listed in these sources are shown on Figure 7 and described below. Lidar survey reference numbers are preceded by “#”.

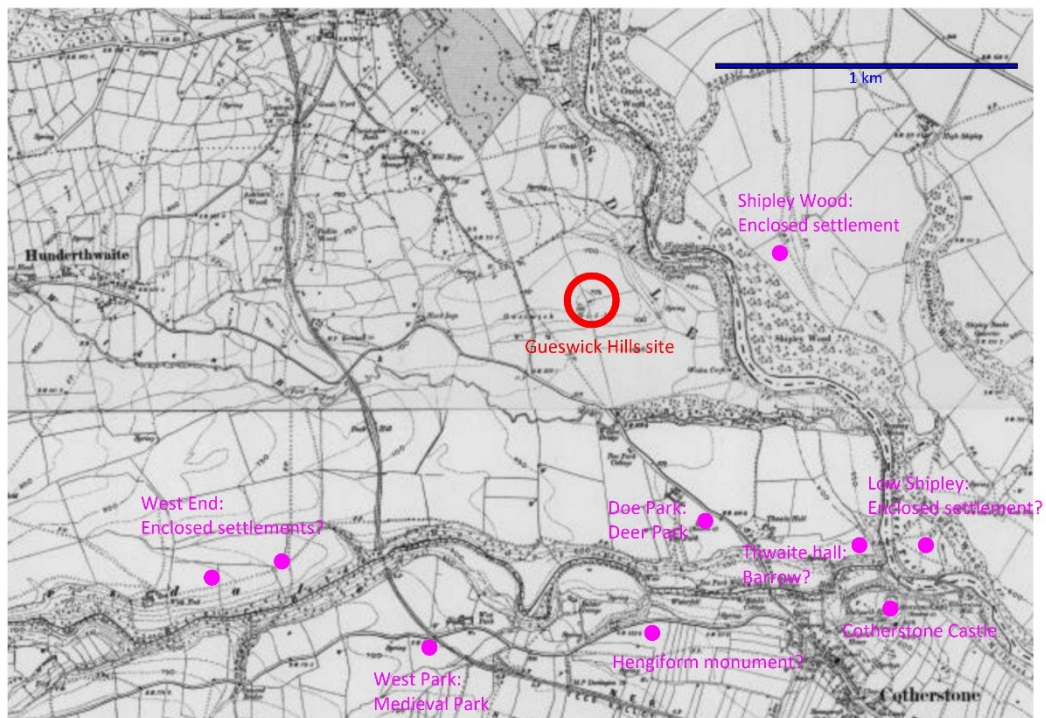


Figure 7: Ordnance survey 6-inch map (surveyed 1913) with significant nearby sites marked.
Map reproduced with the permission of the National Library of Scotland.

To the west of the site, on high ground the other side of the Tees is an enclosed settlement above **Shipley Wood** (NZ01002117, Mon. 20065, NMR NZ02SW8). This is seen on aerial photographs and was also noted in the lidar survey (#00211). It appears to be a classic late Iron Age settlement, but has not been excavated. It is oddly absent from the Durham HER. There is another possible enclosed settlement at **Low Shipley** on the riverside fields opposite Cotherstone: this has an enclosure bank and possible round-house platform (NZ015202, DHER 21).

Cotherstone Castle is a Norman castle, now in a very ruinous state. On the opposite side of the Balder, east of **Thwaite Hall** on a spur of land above the Tees, is a mound, possibly a Bronze Age barrow (#01202).

The deer park at **Doe Park** has already been mentioned. There was also a medieval park a little higher up the Balder at **West Park**. According to the Victoria County History (North Riding Vol. I, p121), Brian Fitz Alan, by a grant of King John (1199-1216) is alleged to have 'made a park' within his manor of Cotherstone with Hunderthwaite. In 1594 it was stated that West Park, Cotherstone (NY 998199), had been wooded ground and was now used as arable and meadow ground. The nearby farms of High Corn Park (NY 989190), North Corn Park (NY 991195) and East Corn Park (NY 997192) may signify the conversion of the park to arable.

At **West End** are earthworks near NY991201, seen on aerial photographs (Mon. 1448529/32/49, NMR NY92SE124/5/6). They are noted on Pastscape as enclosures and a possible stack-stand, which might be related to West Park. The Lidar Survey lists the West End earthworks as two possible enclosed settlements (#99201/2). Hence there is some uncertainty as to their nature. The Lidar Survey found yet another possible enclosed settlement at Corn Park (#99192) only 600m further south (just below the southern edge of Figure 7).

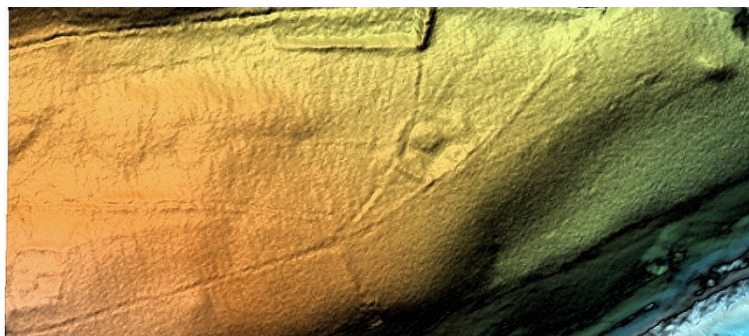


Figure 8: Lidar image of possible enclosed settlements at West End (centre and bottom left).

A hengiform circular earthwork was discovered by the lidar survey (NZ005199, #00191) on the south side of the Balder, close to Balder Grange. This has not been recorded previously. It is approximately 80m in diameter and is overlain by cultivation ridges. To the east is a mound (#00192).

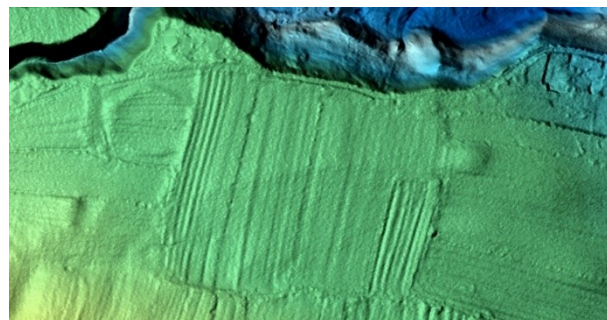


Figure 9: Lidar image of hengiform monument and mound.

About 3km south-east of Gueswick Hills is a fort at NZ02471951, on a promontory between the west bank of the Tees and a tributary (Mon. 19872, NMR NZ01NW1). This was the only known Iron Age hill-fort type monument in this part of Teesdale. However, the Lidar Survey found another possible hill-fort (a banked enclosure) 800m NW of it at Low Shipley (#02202, NZ023201). Both these monuments are to the east of Cotherstone, beyond the area shown on Figure 7.

2.5 Ridges and terraces

This part of Teesdale is mostly covered by traces of ridge and furrow, assumed to date from the medieval period. The heavy plough was introduced into general use in England around 900AD, encouraging a switch from square fields, cross-ploughed by a light plough (ard) which was easy to turn but ineffective, to long thin fields ploughed in parallel furrows by the heavy plough which was hard to turn, but broke up the soil well.

The GoogleEarth view of the area (Figure 1) shows that nearby villages such as Cotherstone and Hunderthwaite are surrounded by narrow, often curving, fields. These are the “fossil” remains of the ploughed strips that formed the medieval open fields around the villages, which were later taken into private ownership and hedged. This pattern of strip fields is less obvious along the banks of the River Balder (running from west to east across the centre of Figure 1), probably at least partly due to these fields being meadows, rather than ploughland.

On the Gueswick Hills the fields are rectangular, but have evidence of terracing (see Figure 2) and there is cultivation ridging of the fields on and around the Gueswick Hills, some of which is broad and curving (hence probably medieval) and some is narrow and straight (so post-medieval).

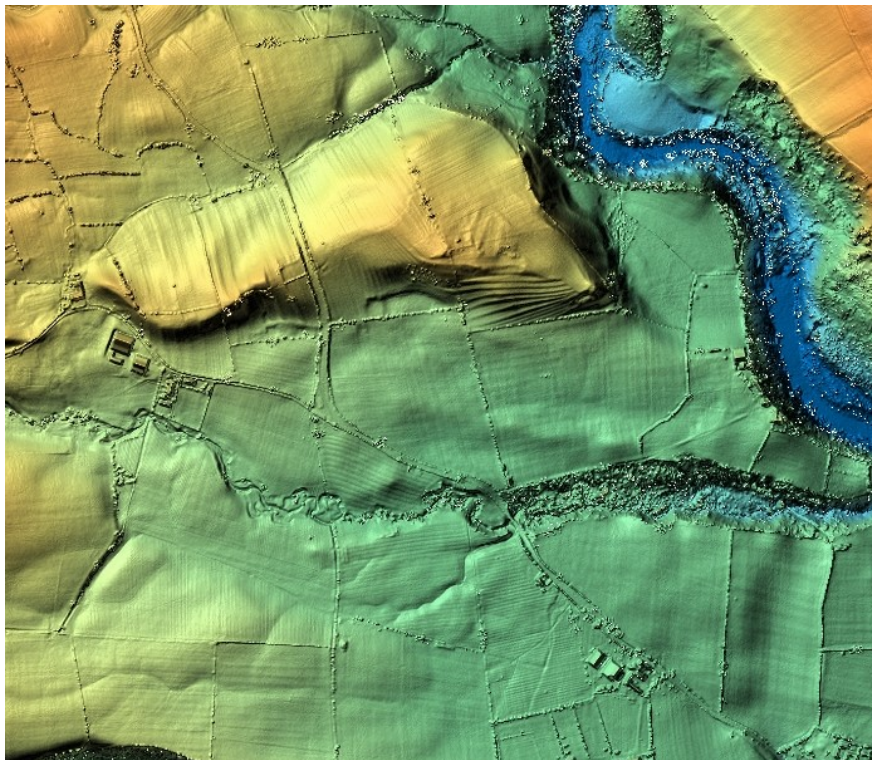


Figure 10: The Gueswick Hills on lidar, coloured by altitude. The site is at the top-centre. Doe Park is at the bottom edge. Enlarged lidar images of the site are given in Figures 12 and 13

The terraces on the south side of the Hills are about 8m wide, similar in width to typical ridges in medieval ridge and furrow (allowing an extra metre or two for the steep rise between terraces). On the west side of the hilltop they are slightly narrower, possibly as the slope is less steep (see Figure 11 for a GoogleEarth view of the terraces and the document cover for a drone photograph).

It is therefore tempting to assume that the terraces are effectively ridge and furrow that happens to be on a steep slope, and hence are medieval in date. It is difficult to see why such massive terraces would be needed except for intensive arable agriculture. However, it is dangerous to assume that the terraces originated in the medieval period. Excavations at Plantation Camp in the Breamish Valley Northumberland, (Frodsham and Waddington 2004) showed that the terraces there had a long history of probably intermittent use from the early Bronze Age onwards (and possibly even earlier). The international TerrACE Project, <https://www.terrace.no/england>, carried out further excavations there in 2019, so more detailed information should be available soon about the chronology of the terraces there.

There is a possibility therefore that the terraces, although part of the medieval ridge and furrow arable cultivation of the area, had origins much further back, before the introduction of the heavy plough. They were part of a pattern of agricultural exploitation of the valley in pre-history, most of the evidence for which has been obliterated by extensive medieval ploughing.



Figure 11: Close-up view of the Gueswick Hills terraces on GoogleEarth, with scale.

The cairn is at the field boundary to the west of the marker pin. Circles are from livestock feeding.

2.6 Summary of archaeology of area

Teesdale above Middleton was the subject of intensive research by Coggins and Fairless, and later the AA Holwick survey of 2011 (Schofield and Quartermaine 2011) and upland surveys of Gledhill. Lower in the dale, between Barnard Castle and Middleton, the current area of interest, there has been less systematic investigation.

Overall the impression is of a landscape dominated by medieval villages with their associated field systems. However, there are, in a few places, hints of older settlement. None of these have been excavated so dating is speculative. However, there is much evidence that the area was settled in the Neolithic and early Bronze Age. This includes the rock art, the possible hengiform monument, the cairnfield 2.5km to the north at Bracken Heads and the possible burial cairns on prominent sites at Thwaite Hall and Gueswick itself.

Exploitation probably intensified in the Iron Age. The Lidar Survey (Frodsham 2017b) found that enclosed settlements are common in Teesdale, although many must have been obliterated by later ploughing, or lie under current settlements. There are five possible examples within 2km of the Gueswick Hills. A striking example of the intensity of Iron Age agriculture is the 2km long system of fields, tracks and settlements in Lunedale, 9km west of the Gueswick Hills (Lidar Survey #90212) at 370m altitude. If such a relatively high area was intensively farmed, then it seems probable that much of the lower parts of Teesdale were also being farmed in the late Iron Age and into the Romano-British era.

Roberts (2007), using place-name and documentary evidence, shows that the Tees Valley lowlands were a cultural core settlement area from early Anglo-Saxon times. However, the valley above Barnard Castle lies outside this core area, so the extent of settlement is unclear.

By the Domesday Book (late 11th century), Romaldkirk, Cotherstone and Hunderthwaite were all in the Lands of Count Alan, but described as “waste”. The assessments were: Romaldkirk: 2 ploughlands and 1 geld unit, Cotherstone: 3 ploughlands and 6 geld units, Hunderthwaite 1 ploughland and 1 geld unit. Hence, in the Domesday survey, Cotherstone was the village with the greatest resources of the three, with Hunderthwaite having the least.

3 GEOLOGY

The North Pennines in the last Ice Age had large ice-fields on the high plateau areas e.g. Cross Fell. These fed glaciers down the main dales: Weardale, South Tynedale, & Teesdale (Evans 2018).

In addition, ice flowed past Carlisle southwards from Scotland, sweeping down the Eden valley, and eastwards across Stainmore and down the Tyne valley past Hexham. These movements can be traced by the erratic boulders the ice left behind as it melted, and by looking at the alignment of the drumlins (mounds on the valley). These drumlins are formed of rock debris, dumped by the ice-flows, but similar oval mounds can be made by the glaciers eroding the rock the valley floor (whalebacks).

Where glaciers stop and then retreat, they leave moraines (heaps of sand/gravel/clay) along their edges and across their front. Gueswick Hills are moraines, part of a line of moraines in an arc across Teesdale. They mark the position of the snout of the Teesdale glacier at the end of the Ice Age. The line of moraines isn't a continuous ridge because meltwater from the glacier will have punched narrow valleys through it. By around 12,000 BC the Teesdale glacier had melted leaving the shape of the landscape in its present form (although, of course, initially poorly vegetated).



Thus, excavation on the Gueswick Hills will be into a glacio-fluvial deposit of clays, sand and gravels. At the east end of the terraces along the south side of the Gueswick Hills is a quarry (best seen on lidar) for this material. The underlying bedrock, is (like nearly all of the North Pennines) from the Carboniferous era, mainly sandstones in this part of Teesdale.

4 DISCUSSION AND PROJECT AIMS

4.1 Gueswick Hills: Findings of geophysics and lidar

In June 2019, Altogether Archaeology carried out a geophysics (magnetometry) survey of part of the top of the Gueswick Hills, using the expertise of the Swaledale and Arkengarthdale Archaeology Group (SWAAG). Six grids were surveyed, each 30m x 30m, plus one of 10m x 10m. The detailed results of this survey, plus lidar imagery, is given in a report (Eastmead 2019) available on the reports page of <https://altogetherarchaeology.org>, hence only a brief summary of results will be given here.

Figure 12 shows the areas chosen for magnetometry, overlaid on lidar. Figure 13 is the central part of this, enlarged, with field boundaries added. The prominent east-west boundary seen on lidar is a tumbled wall. Close to it, and almost parallel is a wire fence (marked as a black line). The magnetometry sites A (60x30m) and C (90x30m) are placed to avoid interference from this fence. At the west end of the fence and tumbled wall is the large cairn. Here the wire fence turns northwards and the tumbled wall southwards.

Site B (30x30m) is placed to examine the level area close to the cairn, avoiding the wire fence. Grid D (10 x10m) is at the extreme south-east end of the summit plateau.

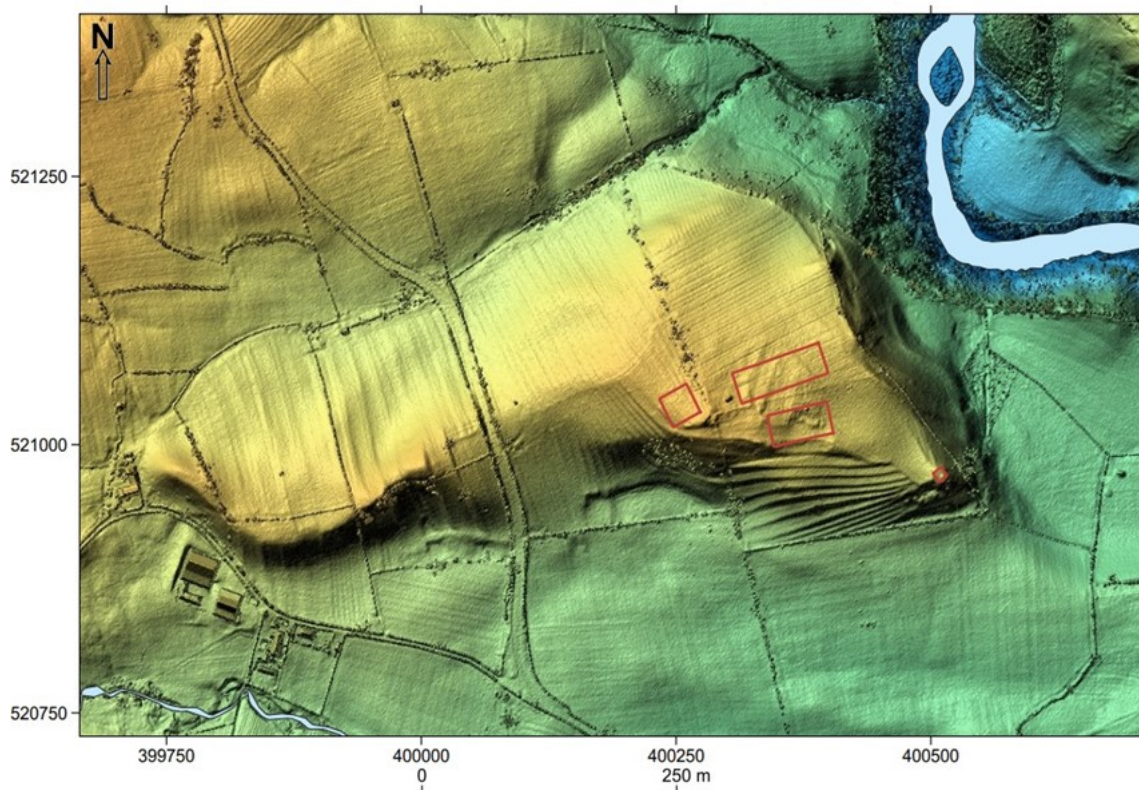
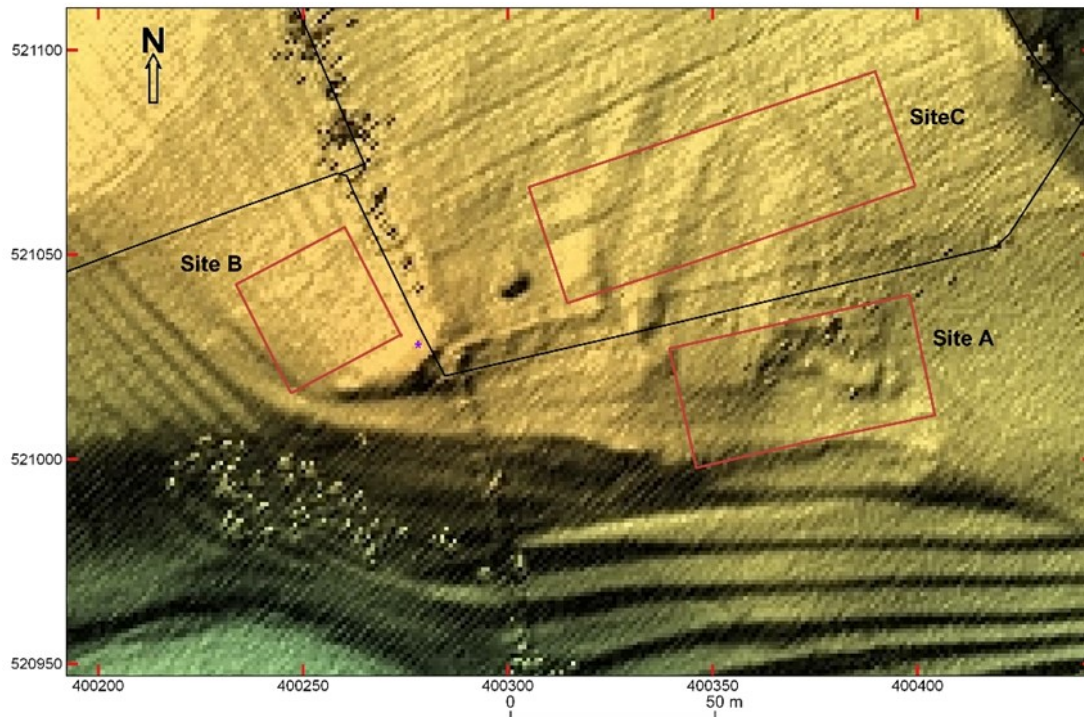


Figure 12: Lidar image of the Gueswick Hills, with location of magnetometry areas.



**Figure 13: Enlarged central part of previous figure. Site D is to the east, just beyond image area.
Wire fences are shown as black lines**

Prior to geophysics being carried out, members of AA did a preliminary walk-over survey to familiarise with the site and identify possible features. The geophysics was targeted at the areas identified in the walk-over as being of most interest, fairly level, and not obviously disturbed by ploughing. One area that was avoided was that between Sites B and C which the farmer believed had been used for burying dead livestock at one time (the pit seen on lidar may be this burial site). A farm building was thought to have been at that approximate location at one time.

Site A is located over an area of disturbance seen on lidar, with no cultivation ridges across it. On walkover survey, the feature was easily seen as irregular roughly rectangular earthworks. **Site B** was placed on a fairly flat area close to the cairn, to include the cup-marked stone. The lidar is fairly featureless in this area, apart from faint modern cultivation ridging running NNW-SSE. **Site C** examined the large area to the north of the field boundary wall and fence: On lidar there are faint post-medieval cultivation ridges running ENE-WSW, which overlie broader features running on the general orientation NNE-SSW, but further apart than expected for medieval ridge and furrow. **Site D** was placed on the extreme SE tip of the plateau, which seemed a “special place” overlooking the river.

Results of the magnetometry are shown below (more detail is given in the report).

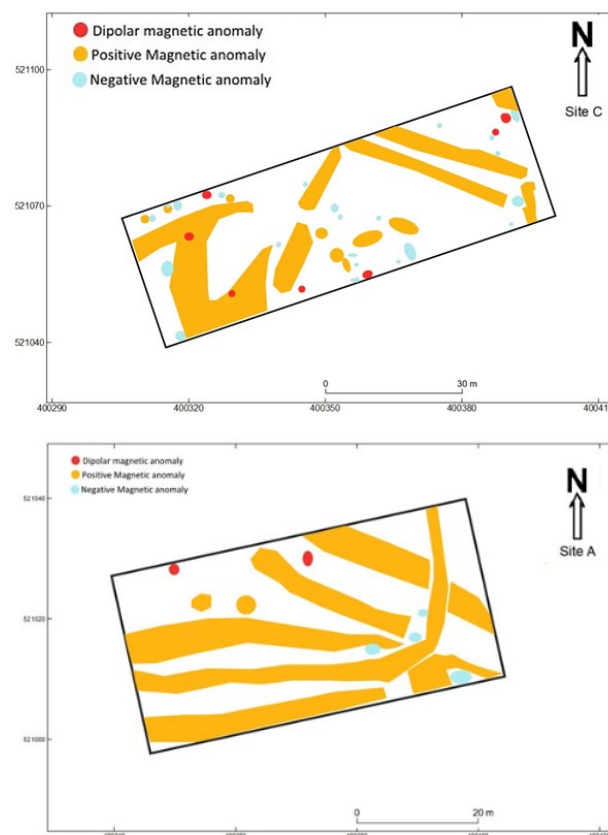
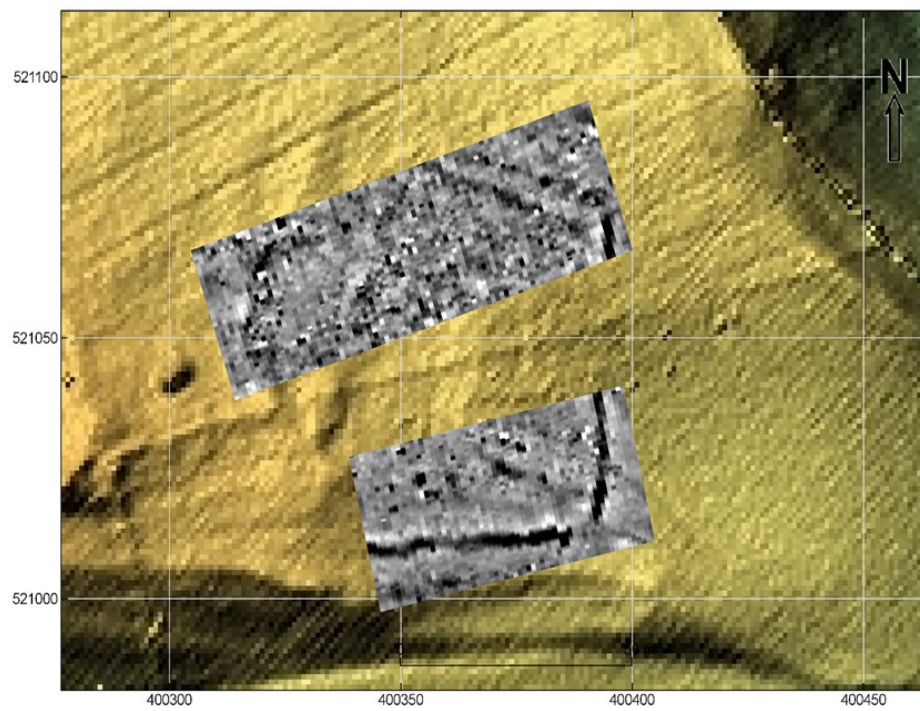


Figure 14: Magnetometry: Sites A (bottom) and C (top) on lidar background, with interpretation.

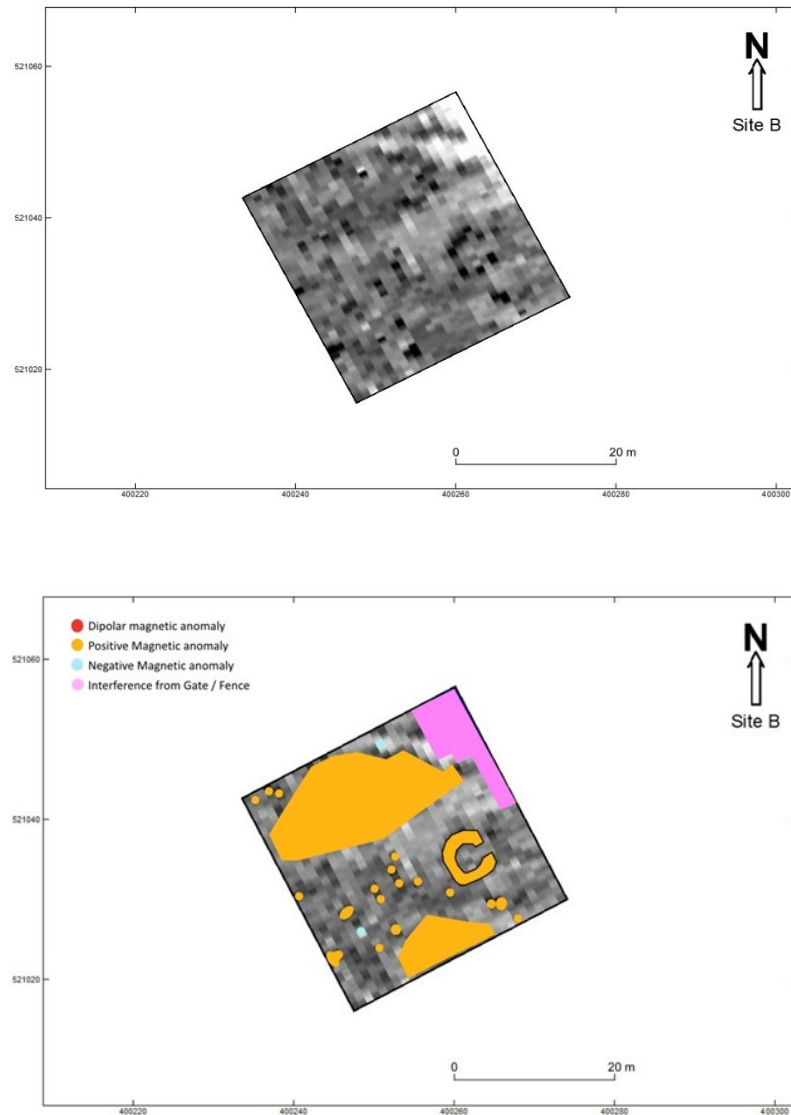


Figure 15: Magnetometry: Site B with interpretation

Magnetometry of Site D was unhelpful (not surprisingly in view of the small area examined), and will not be discussed further here.

Site A showed a small positive rectangular feature in the same position as the roughly rectangular feature seen on lidar and on the ground. Several broad positive anomalies pass roughly east-west across the area. However, the strongest feature is a probable ditch which turns through a right angle (and has a possible gap) at the south-east corner of site A. The same ditch is seen further north in the south-east corner of Site C. Here it turns through somewhat less than a right-angle to run WNW to leave Site C in the middle of its northern edge. Another ditch runs roughly parallel and on the south side of this; the ditches converge slightly to the west. There is a possible ditch seen returning southwards from the parallel ditches, suggestive of the western side of an irregular rectangular ditched enclosure, about 80x50m in size. These ditches are not seen on lidar, nor on the ground, suggesting an early date.

At the west end of site C is a north-south positive anomaly, with an eastwards extension at its north end. This may possibly be the trace of one end of a farm building suspected to have been on the site.

Site B shows a scatter of spots of high intensity readings, including a C-shaped structure about 20m north-west of the cairn. This is about 6m in diameter.

4.2 Aims of further investigation

The site has strong indications that it is multi-period. It is a “special” site in that it is a high point of the valley floor, commanding views up and down the river valley and dominating the road along the valley connecting a chain of villages. To summarise the information available about the site:

Prehistoric: The possible hengiform monument 1km to the south, the rock art, and the cairnfield 2.5km to the north all suggest human use of the landscape in the Neolithic and early Bronze Age. The large cairn on the site could date from then (although likely to be altered), as could another mound 1km to the south-east. The ditched enclosure found by magnetometry is probably prehistoric, on the basis of its hilltop location, irregular shape, and the fact that it is not seen on lidar as an earthwork. The enclosure could be from the later prehistoric, i.e. Iron Age, although it does not have the characteristics of a classic hill-fort. A hill-fort would not be expected, being rare in the North Pennines despite plenty of evidence of Iron Age occupation of the area. Enclosed settlements were common in the area, with one (Shingley Wood) at a similar altitude opposite Gueswick Hills across the Tees, and other possible examples nearby (see above). Hence the disturbed area seen on lidar and magnetometry (Site A), may well be the remains of an enclosed settlement (with later alteration). The terraces adjacent to the site may have a prehistoric origin in that case, but gaining evidence for this would be beyond the capability of this project.

Early medieval: As usual in the North Pennines, the possibility of early-medieval features is difficult to evaluate, since so little is known, and there are no useful comparison sites. Excavations at Simy Folds and Frosterley (St Botolphs) showed that the North Pennines were occupied during the early medieval period; however, one is a high remote site and the other is at the centre of a village.

Medieval: The intensive ridge and furrow agriculture across the surrounding landscape shows the dense settlement in the high medieval era (1100 to 1300 AD), before plague and climate change (followed by economic and social changes) swung farming away from intensive arable cultivation towards mixed farming by a lower population. The peasants of the valley would have been concentrated in the villages, spaced only about 2km apart, each village surrounded by its field system (and woods and meadows). Hence the Gueswick Hills are not likely to have been the site of a deserted medieval hamlet. However, agricultural buildings of that time are possible, as are structures related to hunting/deer parks. It is notable that the summit plateau of the Gueswick Hills is surprisingly free (on lidar) of evidence of medieval ridge and furrow and might have been used at that time for grazing or woodland. Possibly the lack of ploughing across Site A, at the top of the terraces, indicates that an existing structure there was being respected.

Post-medieval: Ordnance Survey maps (1850s onwards) shows the site as it is now, apart from possible farm buildings or stock enclosures close to the cairn (not on any of the areas of the magnetometry survey). Field barns might be expected as the site is not close to a farm, so it would have been convenient to be able to store hay (and maybe house livestock) on the hills, rather than transport it away. The location would be suitable for a windmill, but the lidar and magnetometry don't show any evidence for this.

The site is therefore one of “unknown unknowns” rather than “known unknowns”. Clearly there are features to be investigated, but no certainties about their date or purpose. This means that the project at this stage does not fit neatly align with a single category in the research agendas of the



North East Regional Research Framework (NERRF) (Petts and Gerrard 2006) and the North Pennines Archaeological Research Framework (NPARF) (Frodsham 2017a), which are structured by defined eras and topics. Both of the Research Frameworks highlight the lack of knowledge of medieval rural settlement in the North Pennines: both buildings and field-systems.

Since the site is one of the few rock art sites identified on the valley floor of Teesdale, the project is in keeping with the NPARF comment (Research Strategy 3: Stone Age) that small scale excavation is recommended at carefully chosen locations (e.g. the Allendale henge). And the NPARF (Research Agenda p13) points out the great increase in knowledge that can occur from carefully planned speculative excavations such as at Frosterley (St Botolphs). In fact, in our present state of ignorance, any excavation that retrieves information about the early medieval period must be somewhat speculative.

In addition, this is one of the sites (#00212) discovered by the Lidar Landscape project, and hence gives an opportunity to “ground-proof” the evidence supplied by lidar surveys.

Thus, further research into the Gueswick Hills site is clearly warranted, but the project is still at an early stage. The following are recommended as lines of investigation:

- Further desk-based research to find out more about the local landscape: What does the Doe Park estate map tell us? Do documentary sources (e.g. Victoria County History) have relevant information?
- Evaluation by small-scale excavation to check the state of preservation of the features noted on magnetometry and lidar. Also, to attempt to determine which eras the site was in use and the nature of the features. Metal detection may be part of this.
- Further work on the Lidar Survey material to attempt to investigate landscape use of the area and distribution of significant sites.
- Linkage with the ongoing place-name research underway by members of AA (with the help of Diana Whaley).
- The parish boundaries in the area (as shown on the first edition Ordnance Survey map) are complex, with several detached parts of parishes. This must hold clues to land ownership and usage (including transhumance) in previous times.
- The NPARF (Research Agenda 6h) suggests comparison between different area of the North Pennines, to see how agriculture (including transhumance) differed. One area that is already well-known to AA members is Holwick in upper Teesdale (see the AA website for survey and excavation reports); the Gueswick/Hunderthwaite area could be a useful comparison area.

Once further information is available from desk-based research and the small evaluation excavation, and if this suggests further work would be useful, then an updated Project Design will be produced to guide further work (including possible larger scale excavation).

5 PRELIMINARY EXCAVATION

5.1 Aim and extent of excavation

Only limited excavation is planned at this stage. The purpose is to use targeted evaluation trenching:

- to investigate the state of preservation of structures on the site which are visible on geophysics and/or lidar
- to assess the depth of archaeological deposits, and to gain clues about the nature and date of any features.



- to help formulate a better understanding of the site and help to decide what further investigations would be productive.
- to enhance engagement of people (both AA members and local residents) with their historic environment.

The trenches will be within the area surveyed by magnetometry (so findings can be correlated to the geophysics data), and only cover a small fraction (less than 1%) of the site. The aim is to evaluate, not to fully excavate, the features.

AA members have previously fully excavated and recorded approximately 250m² of trenches in 15 days. Assuming a limited excavation would take place over 7 days, then a reasonable target would be to open 100m² of trenches. Obviously, this may change considerably with variations in weather, volunteer numbers, depth and complexity of deposits and weather conditions.

5.2 Trench siting

Trench locations are provisional: the following list will be amended in the light of comments. To position them accurately, the same professional GPS unit that was used for the magnetometry survey will be used to determine where the corners of the magnetometry grids were. Trench positions will then be established by tape measure from these known points. Thus, the trenches will be aligned with the magnetometry data to better than one metre accuracy.

Trench 1: A 4mx9m trench to examine the eastern half of the C-shaped anomaly seen on magnetometry close to the cairn (Site B). Or be sited to cut across the centre of this feature.

Trench 2: A 2m x 10m trench across the west end of the strong east-west anomaly (ditch) found on magnetometry (Site A)

Trench 3: A 4m x 10m trench across the eastern terminus/entrance of the same anomaly as Trench 2

This totals 96m². Alternative targets could be the double ditches in Site C and the irregular rectangular area in Site A.



Figure 16: Provisional location of trenches in Site A (left) and Site B (right).

5.3 Excavation of trenches

The excavation will be carried out in accordance with the guidance given in the Institute for Archaeologist's *Standard and Guidance for Archaeological Excavation* (IfA 2008), and will be completed according to relevant professional standards and guidelines.

The excavation will be under professional supervision and undertaken by Altogether Archaeology members, who will receive training and on-site guidance and supervision. They will be briefed on health and safety before being allowed to take part. Risk assessment documents (generic AA and site-specific) will be circulated to them before the dig.

The excavation areas will be defined by Netlon fencing if (necessary) to prevent animals from entering the area when the site is unattended. The depth of the excavations is not expected to exceed 1m. Advice will be taken from the professional archaeologist, if necessary, as to precautions needed for deep excavation.

All excavation will be by hand. Turf, stones, and soil will be stored separately on site. After the completion of the excavation, the original ground surface will be restored and the area re-turfed to return it to its original state. Metal detection will be used to ensure no metal artefacts are missed.

All excavated archaeological deposits will be recorded stratigraphically by context using a paper recording system, as in previous Altogether Archaeology excavations. The trenches will be recorded by vertical drone photography and/or photogrammetry to give isometric views as well as 3-D models. Important sections will be hand-drawn at 1:10 scale. A dumpy level will be used to establish heights.

A photographic record will be maintained, using colour digital photography, of all significant features, finds, deposits and general site working. The photographic record will illustrate both the detail and the general context of the principal features and finds excavated and the site as a whole. A site notebook and loose-leaf folder will be maintained to record the volunteers present, work done, photography, plans, sections, levels, contexts and significant finds.

5.4 Finds, environmental sampling and human remains

All artefacts from excavated contexts will be retained, except those considered to be of no intrinsic interest, from features or deposits of obviously modern date. However, in such circumstances, sufficient artefacts may still be retained in order to elucidate the date and/or function of the features or deposits. The context and position of selected finds (e.g. all metal finds, carved or shaped stones, and unusual potsherds) will be recorded; other artefacts will be recorded by context alone. All retained artefacts will, as a minimum, be washed, weighed, counted, marked (as necessary), identified, and bagged or boxed in suitable containers. AA volunteers and interested local people will have the opportunity to take part in the post-excavation cleaning and labelling of finds. Any artefacts requiring conservation or specific storage conditions will be dealt with in line with *First Aid for Finds* (Watkinson and Neal 2001) and after taking expert advice.

All artefacts recovered during the excavations on the site remain the property of the farmer/landowner. They will be suitably bagged by context and boxed after any necessary conservation (on expert advice and subject to agreement with the landowner). Finds will be kept in a secure location overnight. No finds will be discarded before post-excavation assessment. If material is recovered that is considered to be covered by the Treasure Act of 1996 all the necessary information required by the Act will be reported and the Finds Liaison Officer for County Durham informed.

Sealed deposits suitable for paleo-environmental examination and dating may be found during this excavation. Such samples will be taken, stored, and processed according to accepted procedures. Durham University has arranged training of volunteers in geoarchaeology and process sampling and has provided lab resources. Durham University is already assisting AA with the analysis of ceramic finds from other sites. Radiocarbon dates from samples taken in 2018 have been processed at Queens University Belfast and Edinburgh University.



It is unlikely that human remains will be discovered during this small-scale excavation. If any are discovered then the advice of the professional archaeologist will be taken regarding recording, excavation and removal from the site, subject to compliance with the appropriate legislation and guidance. Leaving the remains in situ may be the preferred option. All excavation and post-excavation treatment of remains will be in accordance with the standards set out by the Institute for Archaeologists (McKinley and Roberts 1993).

5.5 Community engagement

Doe Park runs a site for touring caravans and motor-homes. Holiday-makers at Doe Park will be able to visit the excavation, under supervision, and will have the archaeology explained.

5.6 Report

Specialists will be called on as necessary from Durham University and elsewhere to assess finds, process samples taken, and advise on archaeological findings.

A comprehensive project archive will be prepared and a final project report issued, intelligible to the interested non-specialist, which will include:

- Introduction and background to the project, using updated and expanded extracts from this Project Design
- A site location plan, with trenches marked, notated with the OS grid
- A concise description of the dates of the project, methods used, and results obtained
- Drawn and photogrammetric plans and sections of the archaeological deposits
- A list of significant finds with any specialist reports on these
- A report on any environmental and dating work undertaken, giving results

Copies of the report will be supplied to the landowners and County Archaeology Service. An electronic copy of the report will be, in keeping with previous practice, posted on the AA website for public access: <http://www.altogetherarchaeology.org>. The report will be made available via the ADS/OASIS archive

6 COMMUNICATION

In accordance with standard Altogether Archaeology practice, this project will be overseen by a Project Team. The team will be in daily contact during the excavation.

All volunteers taking part are required to be paid-up members of AA and to specifically register giving days of attendance. The number of volunteers will be limited each day to no more than 25; the number of days allocated to each volunteer may need to be reduced. Publicity about the project will be disseminated via email to all members of AA.

On registration for the project, volunteers' contact details and those of their emergency contact will be recorded, and they will be given the contact details of the fieldwork co-ordinator and archaeological director. Volunteers should contact the fieldwork co-ordinator if concerned that excavation may not take place due to adverse weather or other factors, or if unable to attend as planned. Emergency contact details will not be retained by AA after the excavation has finished.



7 SITE ACCESS, HEALTH AND SAFETY, INSURANCE, AND WELFARE

Parking will be at Doe Park, with car share along the road to where there is limited parking at the start of the farm-track up onto the site. The road between Doe Park and the farm-track is busy and narrow, so participants should not walk along it.

A portable toilet will be provided at the bottom of the farm track. There is a 400m uphill walk from there to the site itself, so participants should have a reasonable level of fitness.



Figure 17: Site access map

The farmers' advice will be followed regarding restrictions in access. Full consideration will be given to health and safety. In accordance with standard AA practice, all work will be subject to the generic AA Risk Assessment and to a specific risk assessment, covering all hazards associated with the site. A comprehensive health and safety induction will be given to volunteers at project start-up and will be emailed to them to read before participation. They will be asked to sign a register, confirming that they understand the risk assessment. An appropriate first aid kit and antiseptic gel and wipes will be on site at all times. In 2018 AA arranged a First Aid course to enhance members' abilities in this area.

The site is normally in mobile phone coverage in case of emergencies. If there is no signal, then telephones at Doe Park should be used. Altogether Archaeology pays for insurance to cover volunteer activities, including excavation.

8 ACKNOWLEDGEMENTS

AA thanks the farmers, Alison and Stephen Lamb of Doe Park, for their interest and assistance, and for supplying an estate map. Swaledale and Arkengarthdale Archaeology Group, <https://swaag.org>, generously provided equipment and manpower to enable the magnetometry.

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Figure 18: Drone photograph looking north-west. The Gueswick Hills cairn is in the foreground just beyond the fence-corner. The cup-marked boulder is arrowed.