

Sleights Pasture Round Cairn blog

by Yvonne Luke et al

Sleights Pasture Resistivity Survey blog item for 11th & 16th March 2024

Beverley Rymer



Figure 1 A cheerful 'Team Speedy' raring to go: Abby, Vicki, Clare and Beverley

Wet weather continued to frustrate the cairners and there were a few cancelled days, but we were not to be deterred. At last Monday 11th March promised to be fair, if chilly, and an all-ladies team took to the field to continue the resistivity survey. Well layered up, Yvonne, Clare, Vicki, Abigail and Beverley got to work on grid 3 using the resistivity meter. Experience with the equipment, a well-practised routine as well as slightly more even ground enabled us to make fewer mistakes and correct any problems more quickly: we completed the 3600 sample points in an improved time of 3 hours and christened ourselves 'Team Speedy'.

Two visitors to the site were keen to learn how we were progressing. These were Rodney Beresford, the farmer of Sleights, whose family have owned the land since 1968, and Arthur Batty whose original documentary research on the 1828 excavation provided such a useful breakthrough in our understanding of the site. It was good to see them both.

Yvonne's "One last push" was also delayed by rain, but on Saturday 16th we joined the throngs heading up Ribblesdale and got to work on grid 4. Bob joined Yvonne, Abigail and

Beverley to refresh his previous experience of resistivity surveying and we made such good time that we were able to afford the luxury of a team lunch break. The sunshine meant we were soon peeling off our thermal clothing and were able to relax and take in the view of the many cyclists and walkers passing by. The birdsong throughout the day was another treat...curlew, larks and lapwing all around us. We had finished and were heading home well before the seemingly inevitable rain arrived again at 3pm.



Figure 2 Yvonne, Bob and Beverley coming down the edge of terrace bank in Grid 4, Ingleborough in looming mood, warning us that rain was on the way.

What are we hoping to get out of using geophysics on the Sleights Pasture monument complex?

Yvonne Luke



Figure 3 Learning the ropes on the first day: Rowan and Carol on the Resistivity meter, Whernside behind. Photo: Rick Peterson

We are lucky in the Yorkshire Dales that we have so much surviving archaeology from all periods which is visible above ground. Recent ploughing, together with destoning and harrowing, continues to decrease the survival rates of visible surface archaeology. However, sufficient countryside remains within the pastoral farming land management system that upland sites such as the prehistoric monument complex on Sleights Pasture can and have survived (albeit in mutilated form) into the modern era. Much can be gleaned from studying the extant earthworks, as the measured survey of the site by the Ingleborough Archaeology Group has proved (Luke 2022).

Nonetheless, what we can see on the surface is a highly restricted view of surviving archaeology. Stones, earth and turf prevent us from seeing any structures, artefacts and human remains which may lie hidden within the surviving monuments and beneath the land which surrounds them. This particular site may well have been the focus of human actions for centuries. If so, it would have evolved and developed as a centre for all sorts of social events. Many of these activities will have left no trace but, by using different geophysical techniques, buried archaeological traces can be revealed. For instance, it would be unusual to have a prehistoric monument complex which is devoid of pits – these would have been dug originally to contain timber posts and wooden structures, burials and other deposits. The techniques currently being used on Sleights Pasture monument complex are **electrical resistance** measured in *ohms* using a *resistivity meter*, and **magnetometry** measured in *nanotesla* using a *fluxgate magnetometer* (also known as a *gradiometer*). Data is collected from the same grid system – here 30m grids – and on parallel traverses. Ideally you would collect data from both instruments for all the 24 grids used for this survey, but the slowness of getting resistivity meter readings means that in practise it is quite usual to cover a much smaller area with this machine.

Magnetometry

As the name suggests, the magnetometer/gradiometer is designed to pick up variations in magnetic responses within the ground. The unit of measurement is the *nanotesla*, named after the same scientist made famous by the car! These variations are all caused by iron, which makes up 6% of the earth's crust. Some oxides of iron are more magnetic than others, and there are many human activities which alter the type of iron present and lead to an increase in the magnetic properties of soil and even stones.

Burning is one of these activities. Many soils, in particular clayey soils, are rich in particles of iron. Heat turns iron into magnetite or haematite, both very magnetic. Over burnt ground, be it caused by a furnace, kiln, pottery clamp, hearth or bonfire, the readings can be as high as 500 *nt*. Stones affected by burning may also possess this increased magnetic response - and it should be remembered in this context that a number of burnt stones were found scattered on the surface of the site, hinting at some sort of major burning episode(s) (Luke 2022, 39-41). Burnt clay i.e. *pottery* will also present a higher response than in its unburnt state, especially if there is a high iron content in the original clay material. Needless to say, anything made of iron or with some iron in it will show up well in this type of survey – but this kind of extreme distinctive signal frequently comes from relatively modern items!

Because of millennia of activity the topsoil is generally more magnetic than the subsoil. This can be a great help in ‘reading’ the earth beneath our feet: in the event of post holes, pits, trenches and ditches being dug in the past, these ‘negative’ or ‘cut features’ (as they are termed) usually silt up over time with deposits from the topsoil above and around them. As a consequence, there is a greater depth of magnetised soil within this type of archaeological feature. A higher magnetic signal is the result. However, depending on the type of soil and substrate, archaeological features can register signals as low as 1 *nt*. Artificial features are therefore not always obvious.

One of the main problems of the site on Sleights Pasture is that the limestone pavement, which lies not far beneath the turf, has natural ‘negative features’ in the form of grykes. This can make the reading of the data, from the archaeological point of view, extremely challenging. In these circumstances differentiating between signals caused by natural phenomena and those relating to archaeological features requires a great deal of skill!



Figure 4 Rick Peterson of UCLAN in full stride with the Bartington fluxgate magnetometer.

Earth resistance

Earth resistance, often termed *resistivity*, is an electrical based measurement (*ohms*) showing higher or lower resistance to an electrical current which is passed through the earth via a pair of remote, fixed probes and a pair of mobile probes. The latter are the ones which are marched up and down the grids. On our site we have been taking points every 1/2m,

using 1/2m traverses. 3,600 points have been taken in each of the four grids which are centred on the Embanked Stone Circle and Round Cairn. This is high resolution Resistivity! Basically, the differences in measurements are showing the relative dryness or wetness of a piece of ground. Electricity conducts much better in wet conditions – think of rain storms and lightning! Much of the time the differences will relate to sub-surface geology and geomorphology: soils will be wetter than rock, and show lower resistance; sandy soils usually hold less moisture than clay etc. However, on an archaeological site the readings will, in the right conditions, give some indication of the presence of sub-surface archaeology. Negative cut features such as pits, post holes, trenches and ditches, tend to have silted up with earth and stones which may have a different consistency to the surrounding less disturbed ground. As a result, they may well retain more, or less, water than the adjacent earth. The measurements should pick this up. Extremes of weather will have an effect on the raw data. A prolonged drought could render the soil as dry as the stone – not an issue for us this winter! A prolonged period of rain, such as we have had these last four months, may blur the usual contrast between rock and soil.



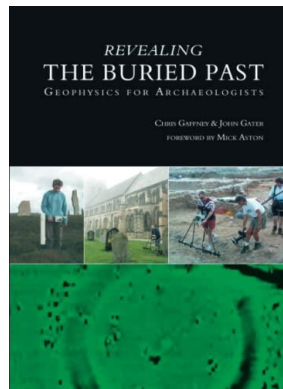
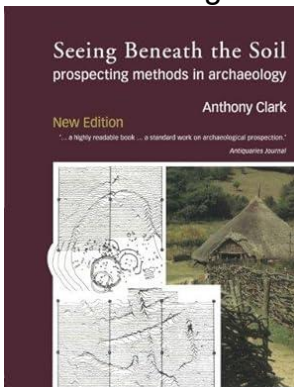
Figure 5 Clare and Vicki on the Resistivity meter concentrating hard in Grid 3.

The resistivity meter may also help detect buried stone structures and even voids within built structures, as stone and voids usually show as high resistance features. Unsurprisingly this technique is a favourite of archaeologists searching for the buried remains of nicely constructed Roman buildings in arable fields. On prehistoric sites it may be of less obvious use, but nonetheless in the best conditions it can indicate the presence of buried cut features such as post holes and pits. It may even highlight the existence of stone cists.



Figure 6 Tony and Carol at work, in classic Ribblesdale weather

Further reading:



Clark Anthony. 1996. *Seeing Beneath the Soil: prospecting methods in archaeology*. 2nd ed. Batsford, London.

Gaffney Chris, Gater John and Ovenden Susan. 2002. *The Use of Geophysical Techniques in Archaeological Evaluations*. Institute of Field Archaeologists Paper No. 6. This is available online. https://www.archaeologists.net/sites/default/files/ifa_paper_6.pdf

Gaffney Chris and Gater John. *Revealing the Buried past: Geophysics for Archaeologists*. Tempus, Stroud

Luke Yvonne. 2022. *A 'Druid's Temple' between Ingleborough and Ribblesdale: Sleights Pasture Monument Complex*. Report published by the Ingleborough Archaeology Group. Available online.

www.ingleborougharchaeologygroup.org/files/uqd/46c5de_19e70496ef2d4852b07ec99353952b90.pdf

University of Bradford 2015 EAC Guidelines for the use of Geophysics in Archaeology: Questions to Ask and Points to Consider. Available online:

<https://bradscholars.brad.ac.uk/handle/10454/8129>

Sleights Pasture visit - Wednesday 26 April 2023

Today the Cairn Survey Team had another look at Sleights Pasture Monument Complex and a few other sites in the company of Arthur Batty, a local archaeologist who has done fieldwork and research in this area. Indeed, it was courtesy of Arthur's work that we now know about the existence of the 1828 excavation of the site, and his colleague Mark Simpson kindly let us use his aerial photographs of the complex in the IAG report. We had a lively discussion about this excavation while standing on the monument, principally about which of the mounds exterior to the bank of the stone circle might be excavation spoil heaps. Arthur thinks that all of them derive from this activity, but I am not so sure. The three linears running off the east and southern banks may well be part of the prehistoric development of the site, and to this end I showed him the curious small 'V' shaped stone construction halfway down the west side of the 46m N-S linear and overlapping it. It does not look modern in origin.

We then moved on to the southern part of the field, in search of the now vanished second large cairn mentioned by John Hutton in his travels in the area, published in 1780. We had coffee at Arthur's favoured site, trying to keep out of the cool grey wind! It lies not far from the lambing shed, and was suggested to him by the farmer Rodney Beresford as a possible site. There is a natural limestone knoll not far from the field gate and the lambing shed, right by the track. The knoll has been partly quarried away, but on and around it are sandstone pieces which support the suggestion that it may have been developed as a cairn. In addition, a curious large disc-shaped stone projects from the adjacent peat moss bank. Its distinctive presence bestows a certain 'atmosphere' to the site. As Arthur pointed out, there are supporting chock stones around its base.

On the return journey later in the day we looked at another candidate site for the second large cairn. This also is in the southern part of the field, but it is intervisible with the surviving monument complex and built on the same type of ground – turf-covered limestone pavement. There is a small mound of (abandoned cairn?) material surviving, and possible evidence of an excavation along a wide buried gryke which contains a potential small cist. Further investigations are required to definitively locate this missing cairn.

We then crossed the road to Haws House Pasture to have a look at the surviving Ring Cairn and its associated cairnfield. Arthur had cored down into a magnetic anomaly within a small mound within the Ring Cairn (identified through his gradiometer). From the charcoal, associated with fragments of burnt bone, a radiocarbon date of 1940-1730 BCE was obtained, positioning this deposit in the early 2nd Millennium BCE. We also looked at the rest of the cairnfield, which included a varied assortment of structures – not just small round cairns but several irregular linear banks. Off the southern end of the raised limestone area where these monuments were built, a small 'V' shaped stone setting was found. It is very similar to the stone setting mentioned above on the N-S linear. Arthur discussed Harry Speight's description of the monuments the author saw on a walk in the area and subsequently described in his 1892 book *The Craven and North-West Yorkshire Highlands*.

We then returned to Sleights Pasture and had a look at several old enclosures in the eastern side of the field. Some of them are relics of the late 1st Millennium AD, others undated. It was a reminder of the multi-period nature of this landscape, used and developed by people and animals for thousands of years. Thanks go to Arthur for his insights and discoveries which he generously shared with us on the day. Growing up on a farm in Kingsdale we also enjoyed his personal knowledge of the use of the landscape

during the 20th century, particularly his tales of game shooting on Scales Moor and Whernside. An excellent day - though Weather Gods (if you are listening) we would still like better weather for our outings!



Figure 1 The disc-shaped stone above the possible cairn site, with Bob, Mike, Sarah, Vicki and Arthur



Figure 2 On the bank of Haws House Pasture Ring Cairn. The small interior mound from which the radiocarbon date was taken is inside the bank, left of centre

Sleights Pasture walkover - 1 March 2023

Yvonne Luke led eight hardy cairn enthusiasts through more than 4,000 years of history on a fascinating walkover of Sleights Pasture. The aim of the outing was to assess the archaeology and put the prehistoric monuments in context, following the publication of Yvonne's report "A 'Druid's Temple' between Ingleborough and Ribbleshead: Sleights Pasture Monument Complex". Additional expertise was provided by Doug Mitcham, the Community Heritage Officer of the YDNPA, who was keen to see the area surveyed by IAG.

Though the BBC had announced that 1 March was officially the first day of meteorological spring the message hadn't reached the Ingleborough weather gods, who sent a biting north-east wind and blasts of chilly rain. But the Survey Team, wisely togged out in full waterproof gear with warmest hats and gloves, were undeterred.

Yvonne pointed out a huge slab of limestone and sandstone cobbles in the drystone walls, all probably robbed from the Cairn many years ago. Then we moved along to the monument, where we learned how the survey had revealed with amazing clarity the Embanked Stone Circle within which the Round Cairn was constructed, probably many years later. As we stood within the robbed-out Cairn it was enthralling to learn that our feet were, quite likely, just inches above the original Neolithic ground level.

We ate lunch in the welcome shelter of a massive medieval stone bield built to give sanctuary to horses in the long-ago days when Sleights Pasture was owned by Furness Abbey. The final section of the walk included a 'propped stone' near the edge of the limestone pavement, and a visit to the far south of the field to identify two possible locations for a second massive cairn which was recorded in the 18th century by John Hutton but has since completely vanished.

Clare Leigh



Figure 1 Yvonne and Doug by the large limestone slab, possibly from the cairn.



Figure 2a Standing on Neolithic ground? Examining the remnants of the round cairn. sleights pasture



2b Lunch location at the medieval horse field.

Day 15 - Friday 13 May 2022

Final day for the Total Station and John Cuthbert. Due to the blasting/ed wind it was yet another 'three trouser' day on site for Yvonne (thermal leggings, trousers and over-trousers, since you ask) and Mike Short never took his gloves off! Our chief worry was wind wobble, and that the equipment wouldn't work because of being shaken too much, but everything went well.

We captured the last linear, the 'half' ring cairny thing, extended the trackway, did 3 profiles over the linears plus the fallen standing stone and the large greywacke boulder. Having the latter two will help integrate the measured survey with the Total Station survey.

Mike had the most difficult task of holding the reflector staff steady, and when we switched to the dumpy level to do a measured profile of the cairn it was even trickier – due to variations of height over the site he had to put the staff up to 4 metres at one point – it was really hard in the worst wind gusts to keep it upright.

So, we are left with one last survey day to finish the SW quadrant. Hopefully this will happen soon, in better weather.



John and Mike surveying each other



Yvonne's antique dumpy level is having a rare outing. A lot of cobwebs got blown off it during the day

Day 14 - Friday 29 April 2022 - by Clare Leigh

Good news first: the weather was glorious. It was so warm and sunny in Sleights Pasture that we needed sun hats! The chill winds and grey skies of earlier survey days seemed a distant memory as skylarks soared, lambs bleated and a cuckoo was heard in the distance.

Bad news: Yvonne had been struck down by covid and unfortunately couldn't take part. So Bob, John, Vicki, Sarah and Clare were tasked with continuing the Total Station survey.

The cairn itself was the focus for the morning. John set up the TS with his usual careful attention to detail and flags were placed to delineate the residual banks. There was much thought, deliberation and discussion (but no arguments!) about the placement of the flags; it's not easy to see where slopes begin and end. Then while Bob and John manned the business end of the TS, Vicki, Sarah and Clare took turns to hold the reflector. Once the survey of the cairn was complete, the same process was carried out on the embanked circle. After that we turned attention to burnt stones and sandstone cobbles spotted on earlier visits. (Have to confess, though, that we had some difficulty identifying them. Hope we didn't miss any!) Finally, we surveyed the track that cuts through the radial banks. In total, 311 measurements were recorded that day.

Though Yvonne's knowledge and expertise were greatly missed, it was a very successful and enjoyable day and we look forward to seeing the completed plan that John will produce after working some technical magic on the 675 measurements taken over the two days.









Day 13 - Tuesday 26 April 2022 - by Sarah Moorhouse

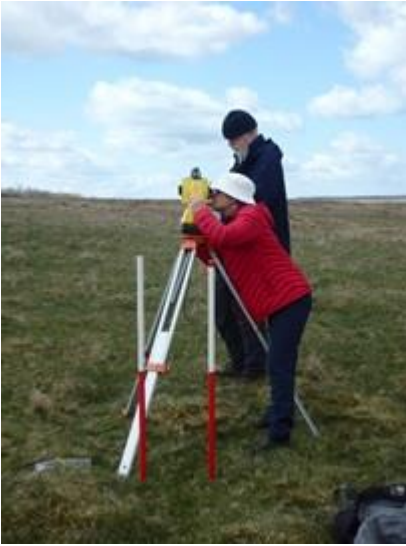
We were lucky with the weather which started out sunny, with some light cloud later. It was a bit breezy, but we were kept busy so didn't notice too much. Yvonne and Abby were with us in the morning to place flags ready for our survey of the site. John was running training for Clare and I on the setting up and use of the Total Station we were going to use. After a complex and precise setting up procedure, we started measuring. I think we all had varying degrees of back ache by the end of the day due to peering into lenses, but it was very fruitful. We managed to survey the dump mounds of the South and South East linear banks. Thank you to John for his patience and clarity of explanation of the Total Station. I also had an interesting chat with the son of the farmer who had found the remains of an iron long-handled knife or tool! We are looking forward to our next session.



Taking the preliminary fixed points: Clare Leigh on the largest greywacke boulder on site



The results of the first Total Station survey day, provided by John Cuthbert



Sarah Moorhouse and John Cuthbert starting on the technical stuff



Part of the South linear flagged up for points, with Clare Leigh at the far end

Day 12 - April 2022

I don't usually do a blog for the days by myself on the cairn, but thought I would make an exception this time. While the IAG were engaged on the excavations at Clapham Bottoms I needed to assess and improve the hachures on the near completed measured survey. My husband takes himself off for a walk and I set too. Lovely days of watery sunshine. I forgot my hat the second time and, feeling cold, put on the tea cosy I wrap my coffee flask in. Luckily, although the farmer was around lambing, it wasn't a day he came over to say hello.... At the same time a hornet started to get interested in me, and chased me along the linear bank. Lost it when I doubled back upwind. Hah!

Having finally mended my camera I took quite a few photos as well. I am particularly fond of the photogenic standing stone and semi-detached limestone slab. A photographic detail of the 'improved' survey is below, showing part of the NE and SE quadrants. The measurements were worked on by Bob Moore, David Gibson, Mike Short, Clare Leigh, Sarah Moorhouse, Vicky Lewis: I hope they approve of the output.



The fallen standing stone in the SE quadrant



The long slab, probably removed from the cairn in the past and abandoned by the field gate



Day 11 - Tuesday 29 March 2022

Pressed on with the SW quadrant helped by my Ilkley friend Abigail Nixon. Although it only got up to 10° there was very little wind and conditions were good. The edge of the cairn is visible just where I am kneeling and beyond me is the embanked stone circle. Both disappear under excavation dumps several metres to the east. Although not much survives of the cairn it is still possible to trace its outline much of the way round, and through the survey we have been able to document this.



The remains of the edge of the cairn lie in front of Yvonne.
Photo: Abigail Nixon



Beyond the remains of the cairn is a section of the embanked stone circle – Yvonne is kneeling in the gap between the two monuments. Photo: Abigail Nixon

Day 10 - Monday 21 March 2022

Started on the last quadrant today, the SW. Mike Short spent some time on photography today, helping Clare Leigh and I when free. We set up the tapes and started on the three antiquarian excavation spoil heaps which overlie the prehistoric archaeology.

We are identifying more and more potential burnt stones within the debris from the 19th century excavations, including a piece of limestone which looks as if it has redeposited burnt pieces encrusted on its surface. It bolsters the argument for a geophysical survey of the site, to see if burnt areas survive within the ground.



Day 9 - Friday 18 March 2022

Lovely day, though still cold. Clare Leigh spotted a wheatear, hopping and creeping over the ground – a summer visitor, very quiet compared to the bonkers larks, curlews and pewits. Birds were not the only noisy things in the sky – a troop carrier on a training exercise flew very low over Sleights Pasture and disappeared round the corner down Ribblesdale, returning a couple of hours later. Mike Short thought it could have come from RAF Valley in Anglesey, very close to where the iron age hoard was found in Llyn Cerrig Bach. I hope they were taking useful photographs of the monument complex!

Mike was tasked with photographing the gap between the embanked stone circle and the cairn, as well as the external linear banks on the SE – not an easy task in the bright, flattening sunshine. Also got photos of us lined up beneath the edge of the natural terrace on which the monument complex was built, to give its height human scale. Vicki Lewis, Clare and I finished off the NE quadrant, surveying in the remains of the embanked stone circle.



Clare and Vicki on the embanked stone circle in the NE quadrant. Later in the week Sarah Moorhouse spotted a burnt stone in the area near where Vicki is.



It was a gorgeous day, Ingleborough looking photogenic, with Mike in the background, doing his photographs.

Day 8 - Tuesday 15 March 2022

Lovely sunny day, surrounded by the sound of the three great songsters of the upper fells – the skylark, curlew and peewit, flapping and circling and burbling around us. Spring is here and they are back!

Clare Leigh, Sarah Moorhouse and I returned to the NE quadrant, surveying in the curious low mound which straddles the edge of the natural terrace. Is it the remains of excavation debris? or the remnant of something much older, itself the victim of robbing out and destruction? it's an intriguing but, at the moment, opaque and very slight earthwork.

We also measured up different sections of the bank of the embanked stone circle, according to their differing states of preservation. The total perimeter, measured along the highest line of bank (where it survives) and where the bank is thought to have run (where it doesn't) comes to 95m. Just as we were packing up Sarah spotted a 'pink' stone on the embankment – a piece of sandstone which looks as if it may have been burnt, hence the colour change. Interesting.



As ever, Ingleborough draws the attention. Photo: Sarah Moorhouse

Day 7 - Tuesday 4 January 2022

The photo says it all about working conditions today! We hoped when the sun rose above Park Fell that a little bit of thawing might happen, but no such thing. However, the vicious north-west wind which had been promised never materialised, so despite freezing toes we managed a good day's work.

Today we concentrated on making a catalogue of all the visible boulders and stone scatters on the cairn, recording their position, dimensions, geology, whether or not we thought they were still in situ etc. in an effort to glean as much information from the site as possible. Limestone, greywacke and sandstone are all present on site. Conditions were good for obtaining photographs which highlighted the stones within their earthwork setting, but not so good for obtaining consistently clear images of the stones.

Abby did the measurements, Clare wielded the camera and came to the rescue with her own back-up equipment when Yvonne's failed, and Vicki managed the 1m ranging poles. The catalogue entries were discussed, then recorded by Yvonne. Much to think about!



Winter has arrived at Sleights Pasture. Photo: Clare Leigh



The magical setting of the monument complex. Photo: Abigail Nixon



Stone 17 - a greywacke boulder. It is not thought to be in situ, unlike Stone 16. This is the limestone block on the far left still embedded in the embankment of the potential Embanked Stone Circle, which curves away behind it. Photo: Clare Leigh

Day 6 - Tuesday 23 November 2021

Much better weather than forecast – no wind to speak of and lots of sun. We were owed one of these days! Not that it was particularly warm (Yvonne had thermal leggings and two pairs of trousers on) but the bliss of no wind! The hurdle this time was that the road-menders were out resurfacing the layby we use, and had cordoned it off. However, we managed to park at the grassy end near the gate and they were fine with that.

Today we had a team of four, with Sarah Moorhouse and a new member Vicki Lewis joining Abby and Yvonne. We worked on the NE quadrant, concentrating on what remains of the cairn – it is in this quadrant that the surviving bank of cairn material tapers out.

We heard the deep croaking of the raven(s) again, and a curious sheep came to stare at the goings on. The light was fantastic, raking low over the archaeology.



Whernside and Batty Moss viaduct – looking west and north from the cairn
Photo: Yvonne Luke



From Park Fell to Ingleborough - looking east and south from the cairn
Photo Yvonne Luke

Day 5 - Friday 12 November 2021

A sunny day with some dramatic clouds over Ingleborough. Trained up Clare Leigh and Abigail Nixon in the art and science of measured survey. We started a new quadrant, the NW, which is characterised by a minimal amount of archaeology – the cairn and embanked stone circle are practically non-existent on this side. This is the quadrant facing the field gate and the road, through which and along which much of the cairn material may well have exited. We captured the farm track which runs parallel to and below the natural bank of the terrace as well as the boulders of greywacke which are scattered and dispersed around this quadrant.



Celestial drama over Ingleborough. Photo: Abby Nixon



The farm track and bank of the limestone terrace are in the foreground; the wooded area in the distance is Howrake Rocks, the domain of the raven. Photo: Clare Leigh

We had company today – a raven croaked from the wooded limestone pavement of Howrake Rocks. Above its head paragliders hovered and swooped off Park Fell. We also met the farmer for the first time and had an informative chat about the monument. An hour

or so later the new Natural England Reserve Manager came over to say hello. It's busier than you think at the top of Weysedale.

Day 4 - Friday 5 November 2021

Well, the forecast was wrong. Mike Short, Clare Leigh and Yvonne Luke arrived at Ribblehead to find a light drizzle and quite dense fog, not the nice dry if cloudy day which was promised. Rather than waste our journeys we went to have a look at the cairn and show Clare around as she hadn't seen it before. We then spent a couple of hours counting stones in the field wall. This may sound bonkers, but it is very obvious from even a cursory viewing of the walls that some of the sandstone cobbles mentioned by John Hutton in 1780 as a distinctive characteristic of the cairn(s) may have ended up as building material for them. They stand out in contrast to the limestone pieces which elsewhere and away from the cairn make up the majority of the boundary walls.

We got an idea of numbers from one measured section of wall in the north-west corner of the field. Both sides of course, as its double-skinned. The walls defining Sleights Pasture can be measured using tapes, but the far side of the road also has a lot of gritstone pieces opposite this north-west corner. Don't fancy using tapes along the road due to traffic, so will probably use GPS and estimate the amount of stone there from that. Mike asked 'why are you interested in doing this?' A good question – it's about documenting as best we can the destruction of the site. It had a complicated demise probably involving the turnpike road, field wall building, stone 'recycling' and excavation. The more we understand exactly what happened to it and when, the better we can understand the surviving physical remains.

The day was brightened by Helen Goldie, expert in limestone pavements, calling by for a chat (despite the drizzle and fog!). Covid and a couple of years have intervened since the last time we met for a day's survey...



Photograph of a small section of the Sleights Pasture field wall boundary showing an intermixture of sandstone and limestone.

Day 3 - Sunday 26 September 2021

Survey plans for September went a bit awry, as Yvonne wasn't well. We missed the rest of the wonderful September sunshine and by the time we got back to surveying the weather had turned. Nonetheless, thanks to David Gibson turning out a dreary cloudy Sunday the rest of the south-east quarter was surveyed in. It was a long stint – I don't think we finished until about 5.30pm, but it is done! This was especially gratifying, as the next two dates the following week had to be cancelled due to rain and the 'fuel anxiety crisis' (remember that? shortage of lorry drivers).

Day 2 - Wednesday 8 September 2021

Surprisingly warm September day – no jumpers required! Anyone familiar with the Ribbleshead area will know this is an astonishing event! Bob Moore and Mike Short joined Yvonne Luke in starting the measured survey. The cairn has been divided into quarters along the cardinal points, and we tackled the south-east one first – probably the most challenging quarter, due to the height and steepness of the residual bank of the internal cairn which survives best in this area. It is also one of the most complicated quarters, as two of the radial banks come in on this side.

We decked it out in flags, and it looked very merry! Every flag marks a salient point for the surveyors to capture and plot. Bob and John Cuthbert's 5m grid system, established with the Total Station, really came into its own, and tapes could be laid out with confidence in their accuracy. We completed everything up to the inner bank of the potential embanked stone circle. We all agreed (this doesn't always happen!) that the heavily eroded piece of limestone pavement, now lying on its side on the ground, was probably once upright – there is a potential socket hole at its southern end indicated by the shallowest of depressions in the turf. This would make it a standing stone – relatively rare in the Dales. On the downside, it is rather short – we can forget comparisons with Long Meg!



Part of the south-east quarter of the cairn, showing the (probable) fallen standing stone on the right hand side of the photo. You begin to get an idea of the size of this site from this. Photo credit: Bob Moore

Day 1 - Friday 3 September 2021

After many preparatory visits to this large prehistoric cairn site we finally begin the measured survey. This is a massive complex site - though not as large as it once was, having been half destroyed in the late 18th and early 19th century by quarrying and excavation.

Dull leaden sky, though thankfully not much wind for Ribbleshead – surely the largest natural wind tunnel in the Dales. Usually you can have this place to yourself, but today arrived to see packs of red-jacketed men in the adjacent field with dogs – Fell Rescue training their canine counterparts. If anyone breaks a leg today, no worries for us it seems!

Today the task was to throw a 5m grid over the site using the Total Station. This will be used to anchor the baseline tapes and improve accuracy. John and Bob did all the technical stuff (a maths degree is required for this!) and a North-South and East-West line established across the centre (the Cardinal points) followed by the Ordinals (NE, NW, SE, SW). After this the maths got really complicated, so we resorted to extrapolating 5m points with tapes from the known set points. Job done, ready for the survey start next week.

However the greatest success of the day was finding a lost piece of twine, which helps keep together three important survey poles and was dropped on the way out to the field. Happiness, it seems, is a piece of string.

