



ALTOGETHER ARCHAEOLOGY Theme 1. Early farmers.

Fieldwork module 1c. Phase 2. LONG MEG EXCAVATION

PROJECT DESIGN



ARCHAEOLOGICAL
SERVICES
DURHAM UNIVERSITY

Document control grid

Title	Altogether Archaeology Fieldwork Module 1c. Phase 2. Long Meg excavation.
Author	Paul Frodsham Historic Environment Officer/Altogether Archaeology Project Officer North Pennines AONB Partnership The Old Co-Op Building 1 Martin Street Stanhope County Durham DL13 2UY Tel 01388 528801 Email pfordsham@northpenninesaonb.org.uk
Derivation	
Origination date	January 2015
Reviser(s)	PF
Date of last revision	February 2015
Version	1.1 (final)
Status	Final version for SMC application.
Circulation	English Heritage, landowner, tenant, AA volunteers, Project Team members.
Required Action	Amendment (if necessary) and submission for SMC.
File/location	G:/North Pennines/Historic Environment/Altogether Archaeology/AA fieldwork modules/Module 1c Phase 2 Long Meg excavation v1.1
Approval (Signature and Date)	

This document has been produced in accordance with the Management of Research Projects in the Historic Environment (MoRPHE) guidelines (English Heritage 2006).

Contents

- 1 General introduction to Altogether Archaeology
2. Introduction to Altogether Archaeology Theme 1
3. Long Meg. Previous work and site description
4. Long Meg. Results of the 2013 Altogether Archaeology survey
5. Research Aims and Objectives
6. Business Case
7. Project scope and interfaces
8. Project team
9. Communications
10. Methods statement
 - 10.1 General
 - 10.2 Pre-start planning and start-up meeting
 - 10.3 Fieldwork: excavation strategy and methods
 - 10.4 Report and Archive
11. Publicity and Outreach
12. Stages, Tasks and Timetable
13. Project review
14. Land ownership
15. Health and safety and insurance.
16. References

Appendices (2, 3 & 4 bound as separate documents)

- Appendix 1. Scheduled Monument list entry summary and map.
- Appendix 2. Altogether Archaeology Generic Risk Assessment
- Appendix 3. Module 1d Project Specific Risk Assessment
- Appendix 4. Risk Log.

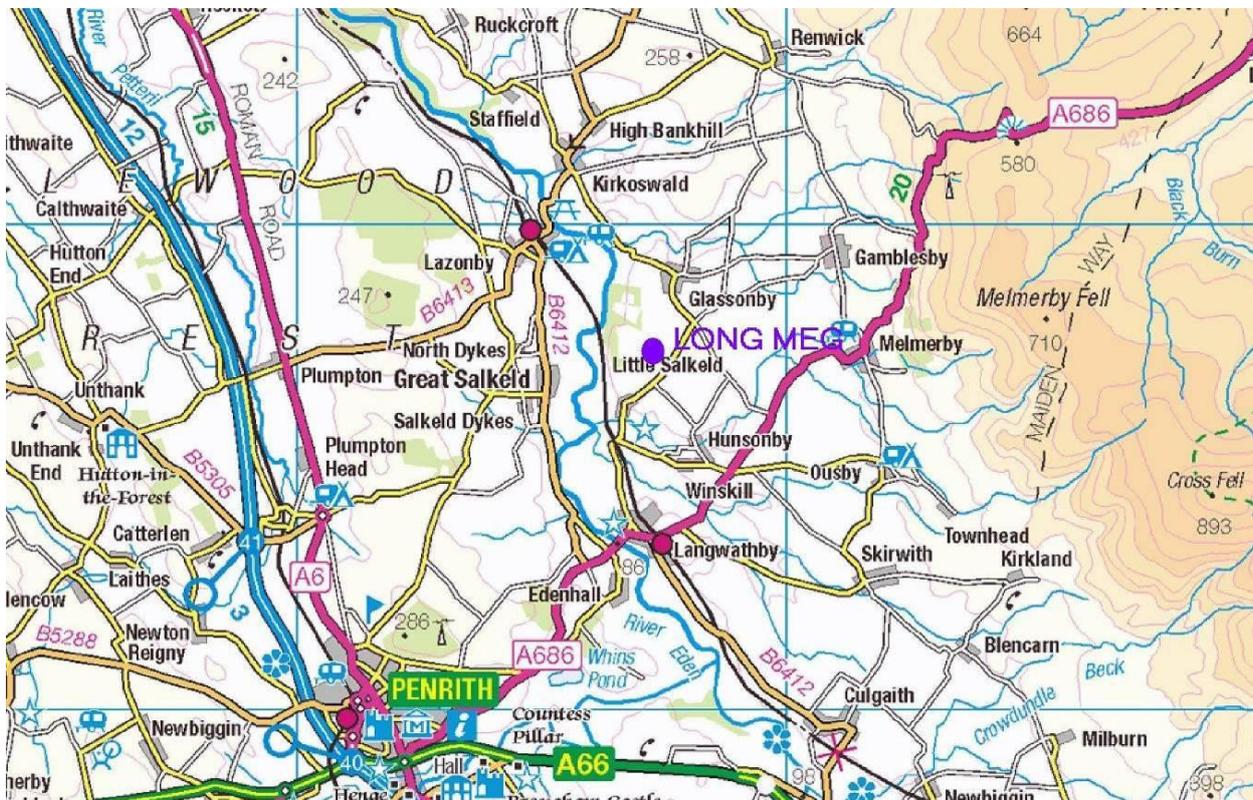
Cover illustration. Sunset at Long Meg. Photo: Paul Frodsham.

1. General introduction to Altogether Archaeology

Altogether Archaeology, largely funded by the Heritage Lottery Fund, is the North Pennines AONB Partnership's community archaeology project. It enables volunteers to undertake practical archaeological projects with appropriate professional supervision and training. As well as raising the capacity of local groups to undertake research, the project makes a genuine contribution to our understanding of the North Pennines historic environment, thus contributing to future landscape management.

Over an initial 18 month period ending in December 2011, the project attracted 400 volunteers and completed a range of fieldwork modules including survey and excavation of prehistoric, Roman, medieval and post-medieval sites, and the survey of complex multi-period archaeological landscapes. Details of work completed during this pilot phase can be found on the AONB website.

The current *Altogether Archaeology* programme runs from September 2012 - September 2015. It involves a range of professional and academic partners, and participation is open to all; it currently has some 600 registered volunteers. Work is arranged according to ten themes, ranging from Early Farming to 20th-Century Industrial Archaeology. Further information, including details of how to register as a volunteer, are available on the AONB website.



OS Map showing the location of Long Meg in relation to the A6/M6 corridor, the A686, and the River Eden. Note also the location of Hunsonby; project HQ and car parking for participants will be at Hunsonby Village Hall.

2. Introduction to Altogether Archaeology Theme 1.

2.1 Theme 1 of the Altogether Archaeology project is entitled 'The First Farmers'. It focuses on finding out more about the lives of people in the Neolithic (New Stone Age), that is to say between about 4,000 and 2,000BC, the period during which agriculture was gradually adopted by North Pennines communities. It will include a range of initiatives at Stone Age sites throughout the region, including detailed survey, geophysics, field walking, palaeoenvironmental work, and small scale excavation, along with the analysis of finds in museums. It aims will be to analyse various aspects of the lives of people who lived here in the Stone Age, including when, why and how agriculture was first introduced into the area.

2.2 Proposed fieldwork modules within this theme are:

- 1a. Dryburn Henge excavation.
- 1b. Fieldwalking in the Eden valley and elsewhere.
- 1c. Long Meg survey and excavation.
- 1d. Survey and excavation of Neolithic rock art sites at Battle Hill, Upper Teesdale..

Each element is important in its own right, but collectively this work has much potential to inform us about numerous aspects of the poorly understood lives of our Neolithic ancestors in and around the North Pennines. The work is wide-ranging in nature and will provide varied opportunities for volunteers to play important roles, supervised as appropriate by experienced academics and professional field archaeologists.

2.3 This document focuses specifically on item 1c in the above list. It aims to further our understanding of Long Meg within the context of cross-Pennine transport and communications during the Neolithic. The results will be of importance in their own right, but will also contribute to wider understanding of the Neolithic throughout the North Pennines.

2.4 In addition to providing the necessary Project Design for the work, this document is also intended to function as an introduction to the site and the project for all participants.

3. Long Meg. Previous work and site description.

3.1 The Long Meg stone circle, one of northern England's most enigmatic ancient monuments, has to date enjoyed remarkably little attention from archaeologists. It has huge potential to answer questions relating to a range of Neolithic activity in the Eden Valley, and also to patterns of communication across the North Pennines, linking north-west and north-east England.

3.2 The Long Meg complex is legally protected under the terms of the Ancient Monuments and Archaeological Areas Act 1979 (as amended). The full title of the legally protected site is 'Long Meg and her Daughters stone circle, associated cursus and prehistoric enclosure'. The List Entry number is 1007866. See Appendix 1 for further details of the protected area. The site is recorded on the Cumbria Historic Environment record as site no 6154.

3.3 The earliest known description of Long Meg is provided by the 16th-century antiquarian, William Camden (1551 - 1623), who was clearly impressed by the site. Exploring the Eden Valley, heading northwards from Penrith, he notes:

After that Eden hath how given Eimont entertainment, hee turneth his course Northward by bothe Salkelds, watering as hee goes obscure villages and forteresses. Amongst which at the lesse Salkeld (ie Little Salkeld) there be erected in manner of a circle seventie seaven sstones, every one tenne foote high, and a speciall one by it selfe before them at the very entrance, rising fifteen foote in height. This stone the common people thereby dwelling name Long Megge, like as the reste her daughters. And within that ring or circle are heapes of stones, under which, they say, lie covered the bodies of men slaine. And verily, there is reason to thinke that was a monument of some victory there achieved, for no man would deem that they were erected in vaine.

(Camden 1586)

3.4 John Aubrey (1625-1697), the second of England's great antiquarians, after Camden, offers a few observations, though he states he gleaned the information from others, and may never actually have visited Long Meg for himself. He states that:

'In Cumberland neer Kirk-Oswald is a Circle of Stones about two hundred in number, of severall Tunnes...In the middle are two Tumuli or Barrowes of cobble-stones, nine or ten foot high.'

The number of stones recorded here is clearly inaccurate, so it is not clear how much attention we should pay the observation regarding the height of the cairns. Elsewhere, Aubrey notes, from another (apparently more reliable) source that:

In little Salkeld in Westmorland are Stones in an orbicular figure, about seventie in number, which are called Long Meg & Her Daughters. Long Meg is about...fifteen yards distant from the rest. Quaere mr Roninson the Minister there, about the Giants bone and Body found there. The body is in the middle of the orbicular stones.

Clearly there is a suggestion here that bones had been recovered from within the circle, possible from within the cairns, but no further information is available.

3.5 Celia Fiennes (1662 - 1741), who famously travelled the country on horseback and compiled a memoir of her travels in 1702, rode from Lancaster to Carlisle in 1698 and noted:

A mile from Peroth (Penrith) in a Low bottom and Moorish place stands Mag and her sisters; the story is that these soliciting her to an unlawful Love by an Enchantment are turned with her into stone; the stone in the middle is Call'd Mag is much bigger and have some fforme Like a statue of a figure of a body, but the rest are but soe many Craggy stones, but they affirme they cannot be Counted twice alike as is the story of Stonidge (Stonehenge), but the number of these are not above 30.
(Fiennes 1888)

This is on some ways an odd description, but it is fascinating in recording the legends already associated with the site in the minds of local people.

3.6 William Stukeley (1687 - 1765), famous for his work at Stonehenge and Avebury, visited Long Meg in c1725. He made two sketches, which are very interesting for a number of reasons. All sign of the stone mounds within the circle seem to have gone by the time of his visit, but he shows a second (now destroyed) stone circle to the south-west, and also an apparent large mound to the west. He describes the 'lost' stone circle as a '*circle of lesser stones, in number twenty;... fifty five feet in diameter; and at some distance above it...another stone placed, regarding it as Meg dos the larger circle*'. Stukeley further noted that the main circle was being damaged, with many stones having been carted away, broken up using gunpowder, or sawn up for millstones.

3.7 William Hutchinson, who wrote important histories of Cumberland, Northumberland and County Durham in the late eighteenth century, devotes no less than 28 pages of his 'History of Cumberland' (1797) to discussion of Long Meg. Much of this is rather curious and (for such a learned authority) excessively fanciful speculation; Hutchinson is prone to such discussion which demonstrates his fascination with ancient sites, about which very little was known for certain in his time. He describes Long Meg as:

..nearly an exact circle of three hundred and fifty paces in circumference, of massy stones, most of which remain standing upright. There

are sixty-seven in number, not hewn nor touched with a tool; and their form shows they were gathered from the surface of the earth; some are of blue and grey limestone: some flint, but most of them are granites - many of those that are standing measure from twelve to fifteen feet in girt, and ten feet in height: - others much less in size. - at the southern side of the circle, about the distance of 17 paces from its nearest part, is an upright column, naturally of a square form, of red freestone, with which the country abounds..... What creates great astonishment to the spectator is, that the whole face of the adjacent country does not show any stones of the like magnitude or quality; and how such immense bodies could be moved, in an age when little of the mechanical powers (except the force of the lever) were known in this country, is not to be concived.

Hutchinson's observation regarding the lack of naturally occurring stones in the vicinity is important. It is usually assumed that the stones of the circle were locally occurring glacial erratics, but even so manoeuvring them into position to form the circle was a huge undertaking that must have involved many people.

3.8 William Wordsworth visited Long Meg in 1883, noting that '*Though it will not bear a comparison with Stonehenge, I must say, I have not seen any other relique of those dark ages which can pretend to rival it in singularity and dignity of appearance.*' He wrote a very fine poem about it:

*A weight of awe, not easy to be borne,
Fell suddenly upon my Spirit--cast
From the dread bosom of the unknown past,
When first I saw that family forlorn.
Speak Thou, whose massy strength and stature scorn
The power of years--pre-eminent, and placed
Apart, to overlook the circle vast--
Speak, Giant-mother! tell it to the Morn
While she dispels the cumbrous shades of Night;
Let the Moon hear, emerging from a cloud;
At whose behest uprose on British ground
That Sisterhood, in hieroglyphic round
Forth-shadowing, some have deemed, the infinite
The inviolable God, that tames the proud!*

3.9 An important development in the mid-nineteenth century was the recognition of rock art on the east face of Long Meg. This was first recorded by Sir Gardner Wilkinson in 1835, and a fine lithograph of the motifs was included in J Y Simpson's *Archaic Sculpturings* (1867). This art, including spirals and concentric circles, is still clearly visible in low sunlight. It has recently been accurately recorded using modern laser imaging equipment. Stan Beckensall (2002) has produced accurate drawings of all the motifs. This art is an important element of the Long Meg complex, though its chronological relationship to the rest of the site remains unclear. Paul Frodsham (1996) notes that it is quite possible that the motifs were applied to the rock before (possibly long before) Long Meg was quarried from the nearby red sandstone river cliffs; similarly decorated river cliffs are known from three other places in northern England and Scotland. Whatever its detailed chronology (which it

may be possible to establish through future fieldwork) this art provides an intriguing link with similarly decorated sites close to Long Meg (Little Meg and Glassonby) and many others further afield in northern England, Scotland and Ireland. The three spirals recorded on Long Meg are all anti-clockwise; in Ireland it has been suggested anti-clockwise spirals at Neolithic sites were linked to the winter solstice, which is fascinating given that the circle's architecture undeniably incorporates an alignment on the winter solstice (see below). As recently as 1999, carved motifs were recognised on other stones of the circle, though due to the nature of the rock and erosion of the rock surface, these can be impossible to see under all but optimum light conditions; indeed, some have questioned their existence. There is, therefore, still work to be done to assess the nature of these possible motifs, as well as the potential for further such discoveries.

3.10 A number of surveys of the circle have been produced, of varying degrees of accuracy. Shown here are those by Dymond (1875), Thom (1954) and Hood (2004). Various ingenious explanations have been put forward to account for the asymmetry of the 'circle', but it is doubtful that any are correct. It seems now that the circle was slightly squashed in order to align neatly with the south side of the adjacent enclosure (discussed below). Intriguingly, it has recently been suggested that the northern arc of the circle's perimeter may be defined by a shadow cast by Long Meg at the winter solstice; this is something that requires checking on the ground.

3.11 Aubrey Burl (1999) has collated the fascinating legends associated with site, now an important part of its history. He explores the origins of the name 'Long Meg', but is unable to reach a firm conclusion. Long Meg is supposed to be a witch, and her daughters her coven all turned to stone for dancing on the Sabbath. The name may date from the 15th century, a time of general hysteria about witches and witchcraft. There is another legend that the stones are uncountable, and that anyone who counts the same number twice will themselves be turned to stone. Alternatively, anyone who counts the correct number will bring the entire coven back to life. Burl notes that in the late 18th century, the landowner, Lt-Col Samuel Lacy attempted to remove the stones by blasting, presumably to improve the land for farming, but that a violent thunder storm caused his labourers to run for their lives, vowing never again to meddle with the site. In the mid 19th century, some stones were shifted, after which nothing would grow, so the stones were replaced.

3.12 Throughout the twentieth century there were occasional references to Long Meg in books and academic papers but nothing of great importance through until the 1980s, when a large earthwork enclosure immediately north of the stone circle was recognised from air photographs. This is now ploughed flat, with its ditch backfilled, so that virtually no trace of it is visible on the ground surface. The chronological relationship between this enclosure and the stone circle is unclear, but the facts that some stones of the circle appear to have toppled onto the infilled ditch of the enclosure, and that the arc of the circle is flattened where it abuts the enclosure, have led to the suggestion that

the enclosure is earlier than the circle. However, alternative interpretations are possible. It seems certain that both must have been in use concurrently, as the air photographs appear to show an entrance in the south side of the enclosure, and an adjacent one (with one surviving portal stone) in the north side of the stone circle, the two together providing a passage between the enclosure and the circle.

3.13 Other sites and features have also been recorded by air photography in the immediate vicinity. These include a possible cursus approaching the stone circle's south-west entrance from the west, though it is possible that this is a much later feature, possibly field boundaries of post-medieval date.

3.14 Tom Clare has published a contour survey off the site that emphasises the relationship between the earthwork enclosure and a natural spring that flows into a valley heading north-westwards to the Eden. This valley shows up very clearly on the lidar image, and may well be a key feature underlying the location of the entire Long Meg complex. Clare has also noted the pinch-point in the Eden's flood plain adjacent to Long Meg, where the river is forced through a narrow channel between river cliffs, forming rapids. It is possible that the Eden was navigable up to this point all the way from the Solway and the Irish Sea, though this requires careful analysis before it can be said for certain.

3.15 Further recent work of importance to the current project is that by Hood (2004) who has drawn attention to variation in the stones of the circle. For example, he describes four of the stones as 'non-local quartz crystal stone' and notes that these seem to have been carefully positioned within the perimeter at places linked to potentially significant sunrises and sunsets, marking particular calendrical events. The geological analysis of the stones, linked to the recent detailed AA topographic survey, will allow these intriguing observations to be tested. (At a later stage, but not as part of this project, it is proposed to merge the new survey with an astronomical model, allowing the heavens as seen from within the circle to be recreated for any moment in time and thus enabling possible astronomical alignments within the architecture of the circle to be further investigated).

3.16 In March 2007, Sarah Potter, a student at Manchester University, undertook a geophysical (resistivity) survey of the stone circle as her dissertation project. Her report is not published. Unfortunately, it is difficult to form any definite conclusions from her results, although she does make some interesting observations such as the suggestion that there may have been a second outlier (and possibly more) in association with Long Meg, forming an elaborate approach to the circle's south-west entrance. The recent AA geophysical survey was at greater resolution than Potter's, and found nothing in support of her suggestions regarding possible further outliers in addition to Long Meg.

3.17 The links between the wider landscape, the Eden, the enclosure, the stone circle and Long Meg herself all require further analysis in order to better our understanding of the Long Meg complex. In the context of the Altogether Archaeology project, the links with the natural route up into the North Pennines, and through to Northumberland and Durham, are of particular importance.

3.18 Description of the site

Taking on board the results of all the above work, the Long Meg complex may be briefly summarised as follows.

The huge stone circle, the third largest in England and fifth largest in the British Isles, measures c110 by 93 metres, with a flattened arc to the north. It is currently impossible to know the original number of stones, and hard to be sure about the current number given that some are broken and partly buried, but recent analysis suggests a total of 68 surviving stones in the circle, of which 26 are still standing, plus Long Meg herself standing some 20 metres outside the circle's south-west entrance, in line with setting sun at the winter solstice as seen from the centre of the circle. The entrance is framed by two outlying 'portal stones'. Long Meg is of local red sandstone, presumably quarried from the nearby river cliffs

Within the circle, some of the extremely large stones appear to mark significant points around the circumference, for example in relation to sunrise at particular times of year. The recent AA survey will enable such ideas to be accurately investigated. The largest stone is a huge block in the SSW, about 3.3 metres wide and weighing some 28 tons; it has been estimated that it would have taken 120 people to set it up. Two similarly sized massive boulders are located at opposite each other in the circle's east and west arcs.

In some places, notably on the western side, it appears that the stones are set within a low bank. If original, this is an interesting architectural feature that may suggest links with henge monuments elsewhere, but it may be a result of ploughing in more recent times. The proposed excavation will hopefully clarify the nature of this feature.

Long Meg herself stands 3.8 metres above the turf, and weighs some 9 tonnes. She is of red sandstone and displays incised spirals and concentric circles in her east face; she may have been quarried from an already decorated river cliff (though we currently have no clear evidence for this). Other motifs have been recorded on some of the circle stones, but given the rough, eroded nature of the volcanic rock surface, it is not known for certain whether these are artificial or natural.

The stones of the circle appear to be rhyolite (a form of granite) and are usually assumed to have been deposited in the general area when the glaciers melted at the end of the Ice Age. There appears to be some variation

in the geological structure of the boulders, for example some contain much more quartz than others. Those with large amounts of quartz may be located at significant places around the circle.

The great enclosure, of which there appears virtually no sign on the ground, lies immediately north of the circle and measures 210 metres north-south by 200 metres east-west. Much of the interior is now taken up by Long Meg Farm, and no ancient features are visible within it. The enclosure appears to be earlier than (or, at latest, contemporary with) the stone circle. There appears to be an entrance between the two in the north-west of the circle/south-west of the enclosure.

A possible cursus has been recorded from air photographs running 600 metres from the entrance of the stone circle westwards towards the cliffs above the east bank of the Eden. Whether this is a genuine feature contemporary with the stone circle, rather than later field boundaries, will probably require excavation to resolve.

The whole complex sits on a wide sandstone terrace above the east bank of the Eden. The general location is clearly of great significance, and may have been so long before the monument was constructed. Some of its significance presumably relates to the nearby red sandstone river cliffs and rapids, possibly marking the highest navigable point on the Eden. The possible local exploitation of gypsum (apparently used to great effect within the great henges at Thornborough in North Yorkshire) may also be a significant factor.

It is hoped that the current project will add much detail to this account, building on the results of the recent AA survey. It will also provide a sound basis on which to consider the possibility of further carefully targeted small-scale investigation of what is undoubtedly one of northern England's most spectacular and enigmatic ancient monuments.

The Scheduled Monument description (appendix 1) includes further description of the site, together with a map of the legally protected scheduled area.



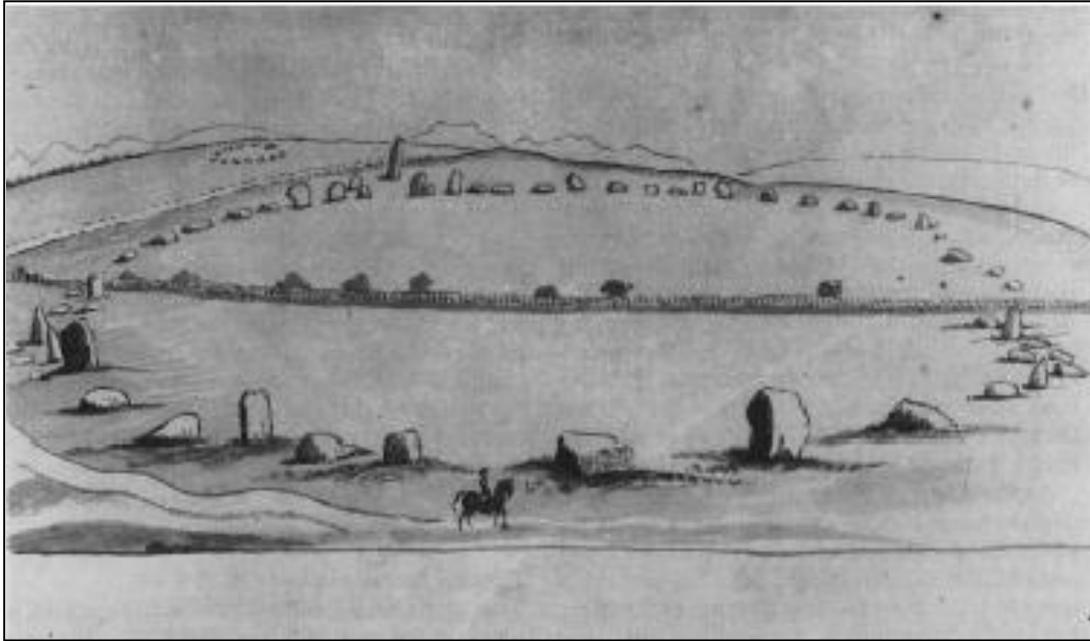
Long Meg and some of her Daughters, looking north-eastwards.



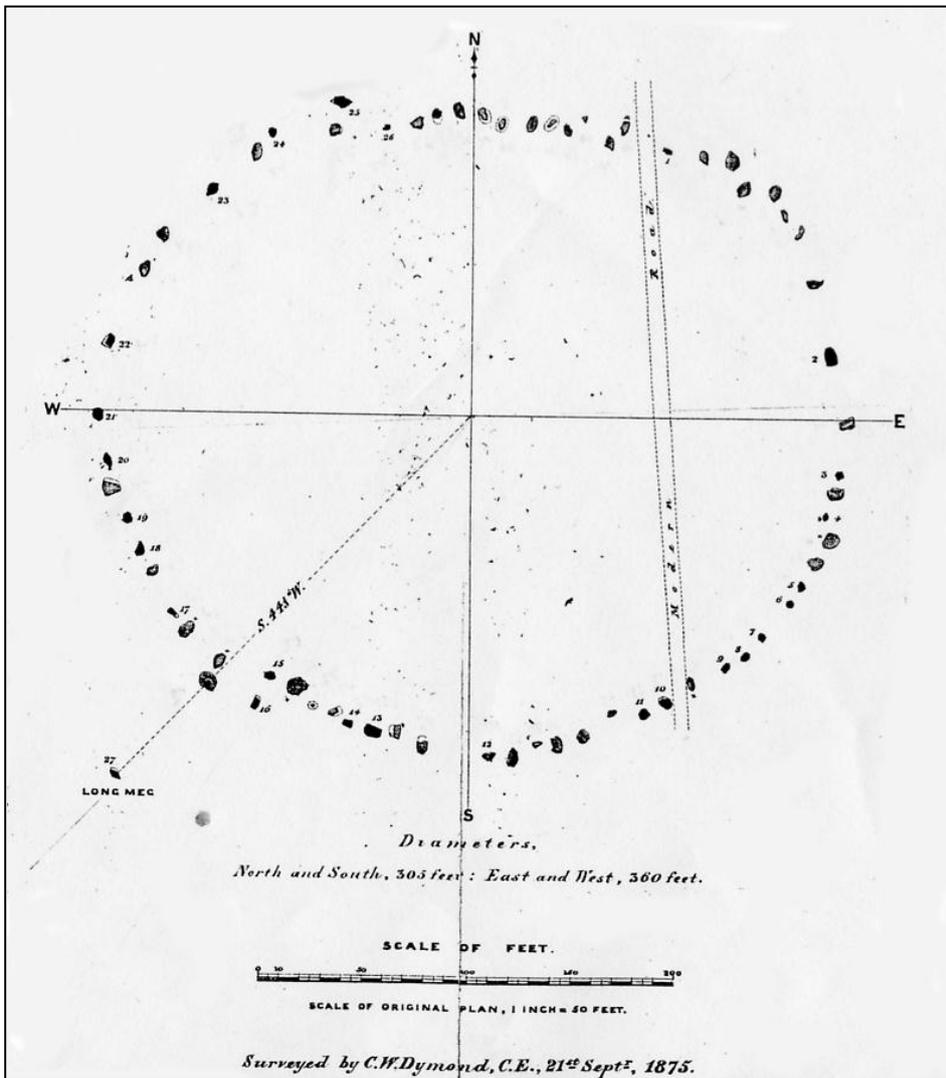
Aerial view of the stone circle from the south-west, taken in May 2005. Photo: Simon Ledingham/Wikimedia Commons.



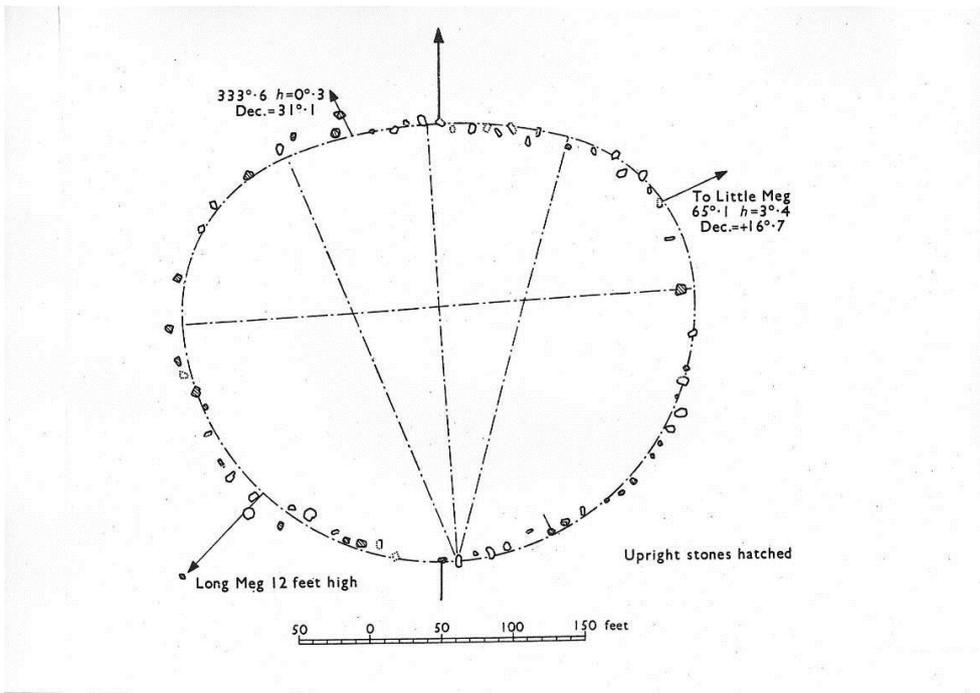
Aerial view of Long Meg from the north.



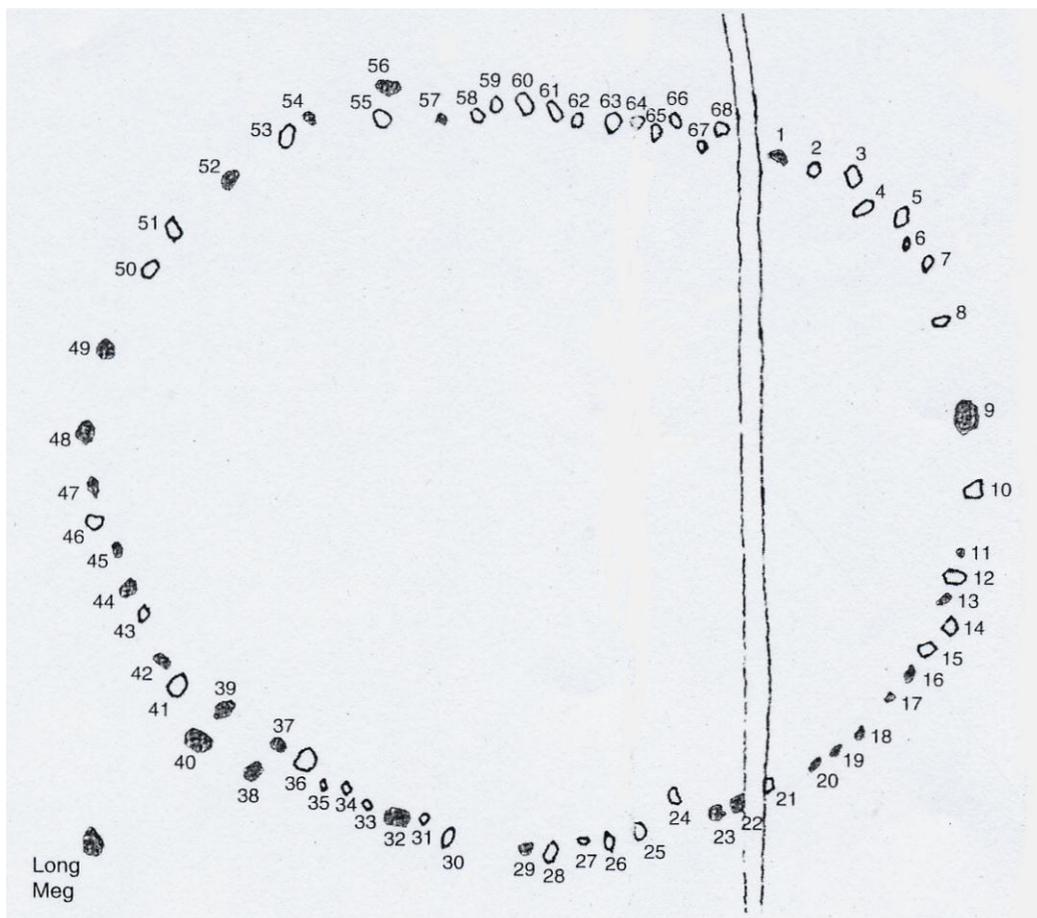
Drawing of Long Meg by Stukeley, 1725.



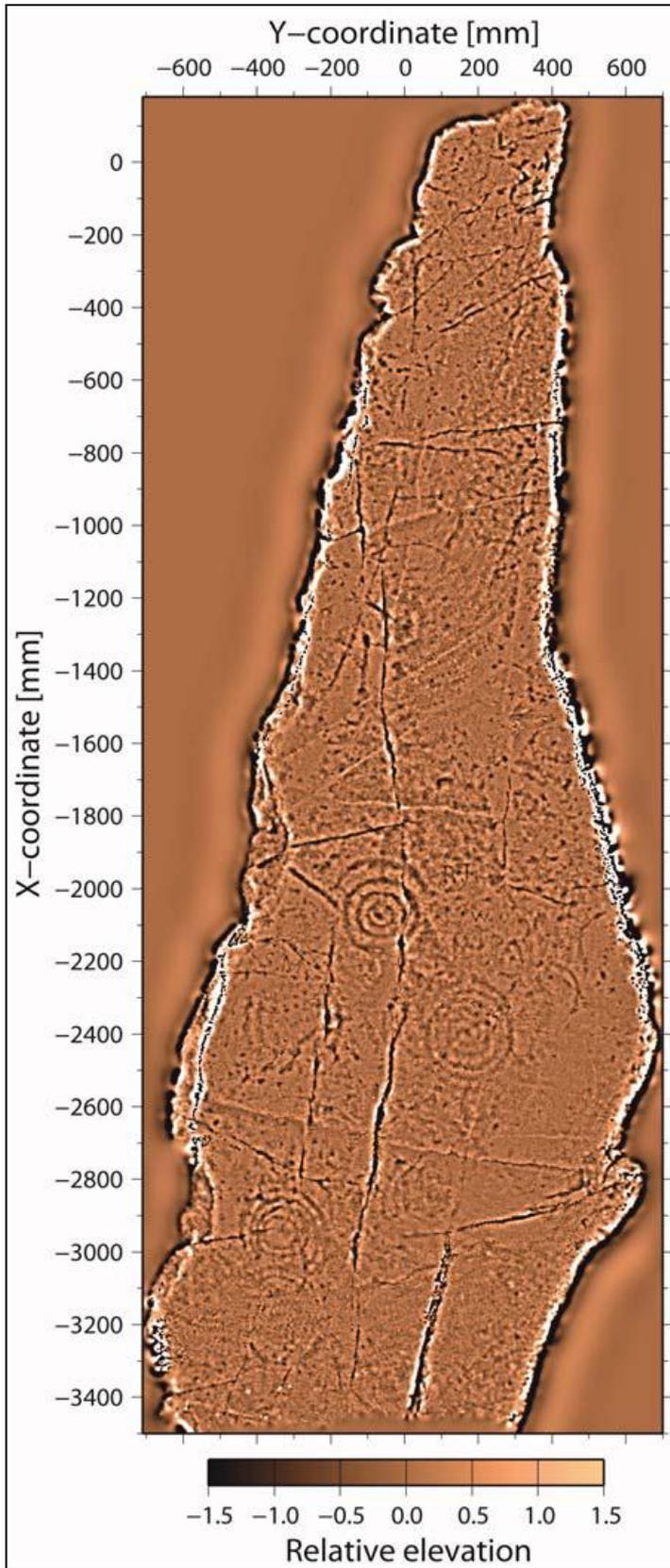
Survey of the stone circle by Dymond, 1875.



Survey by Thom (1965).



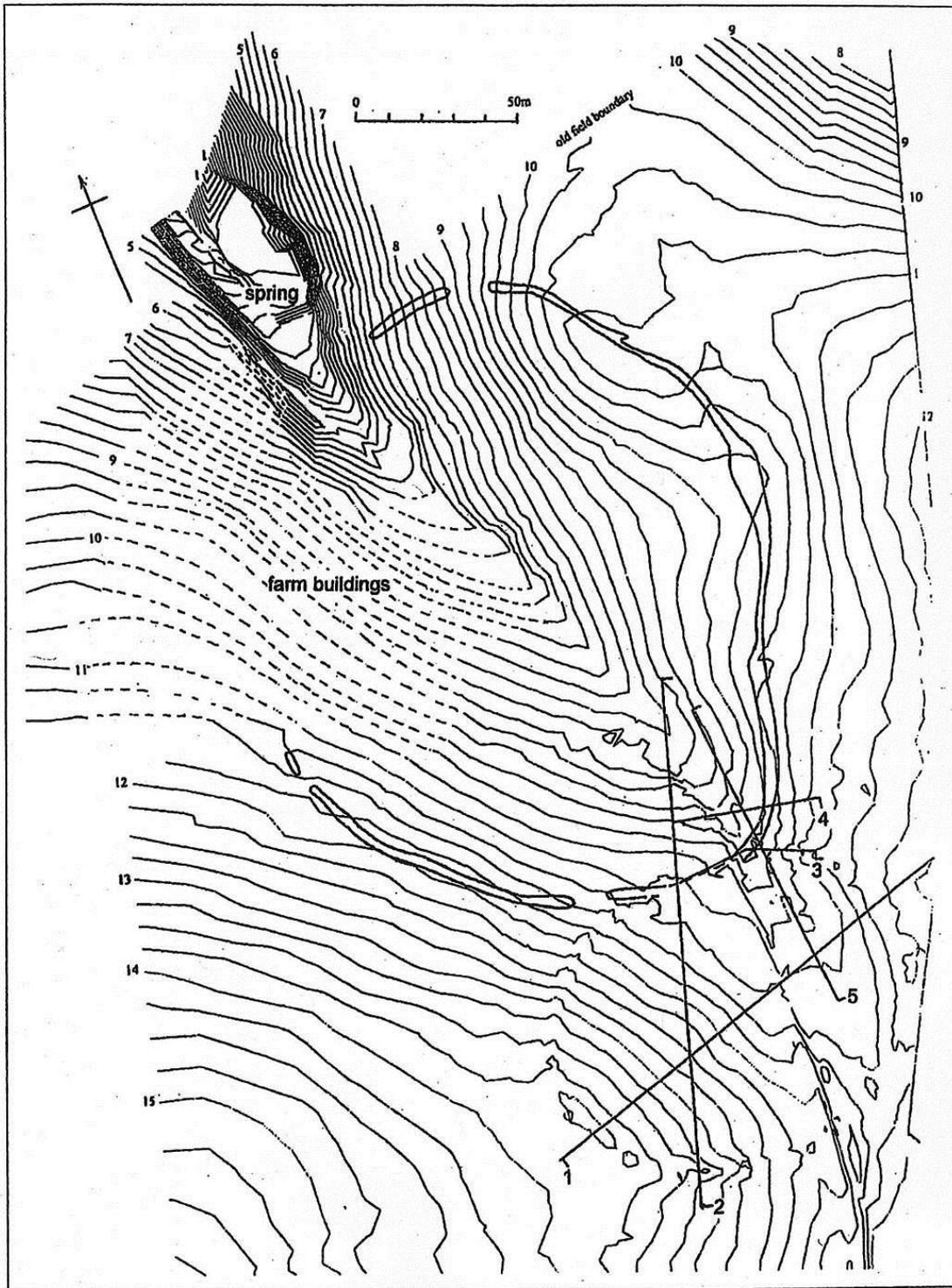
Survey by Hood (2004).



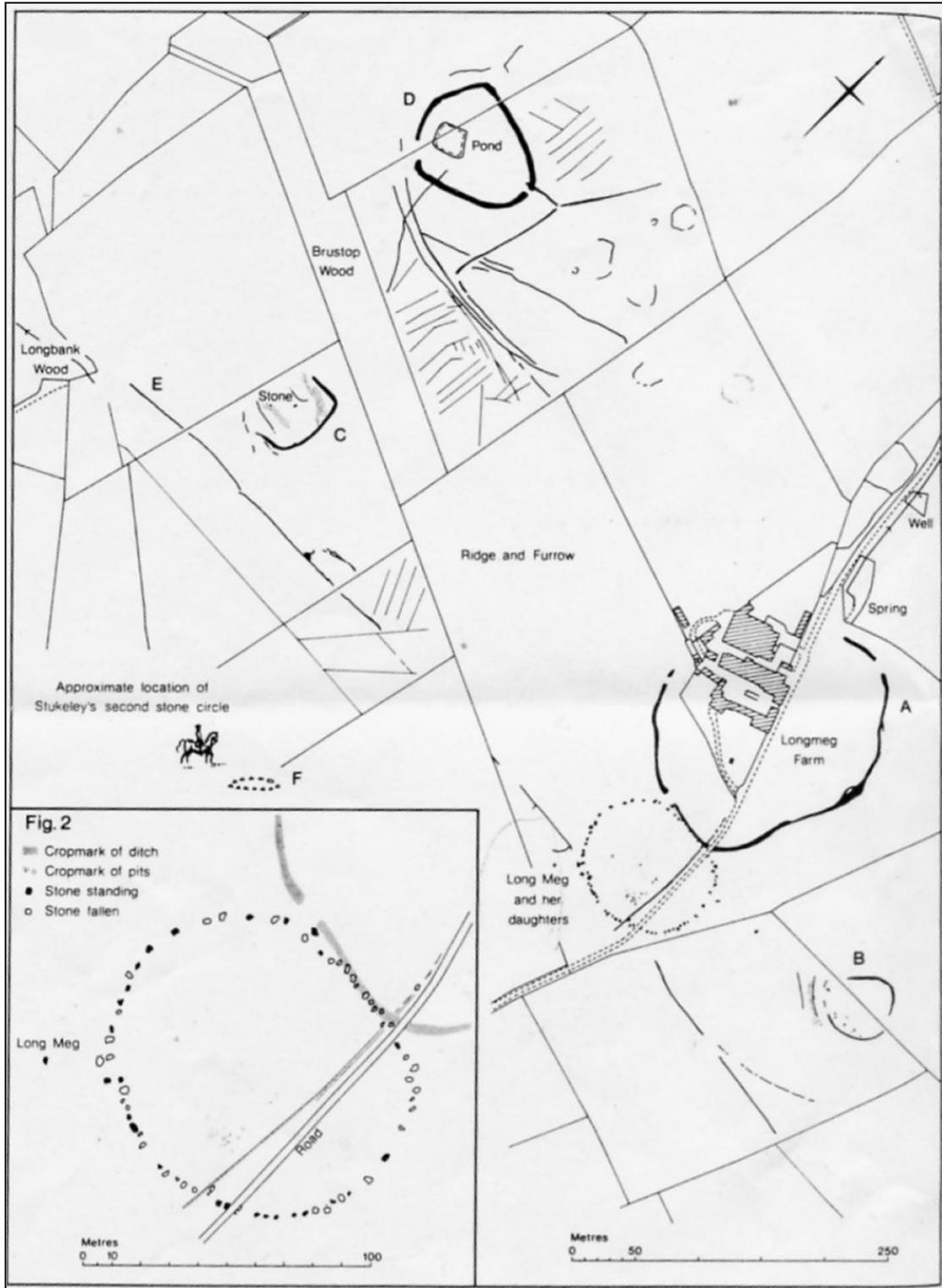
Rock art on Long Meg, recorded by laser scanning (reproduced from Diaz-Andreu et al, 2005).



Two infra-red aerial views of Long Meg, showing the stone circle and adjacent earthwork enclosure surrounding the farm buildings.



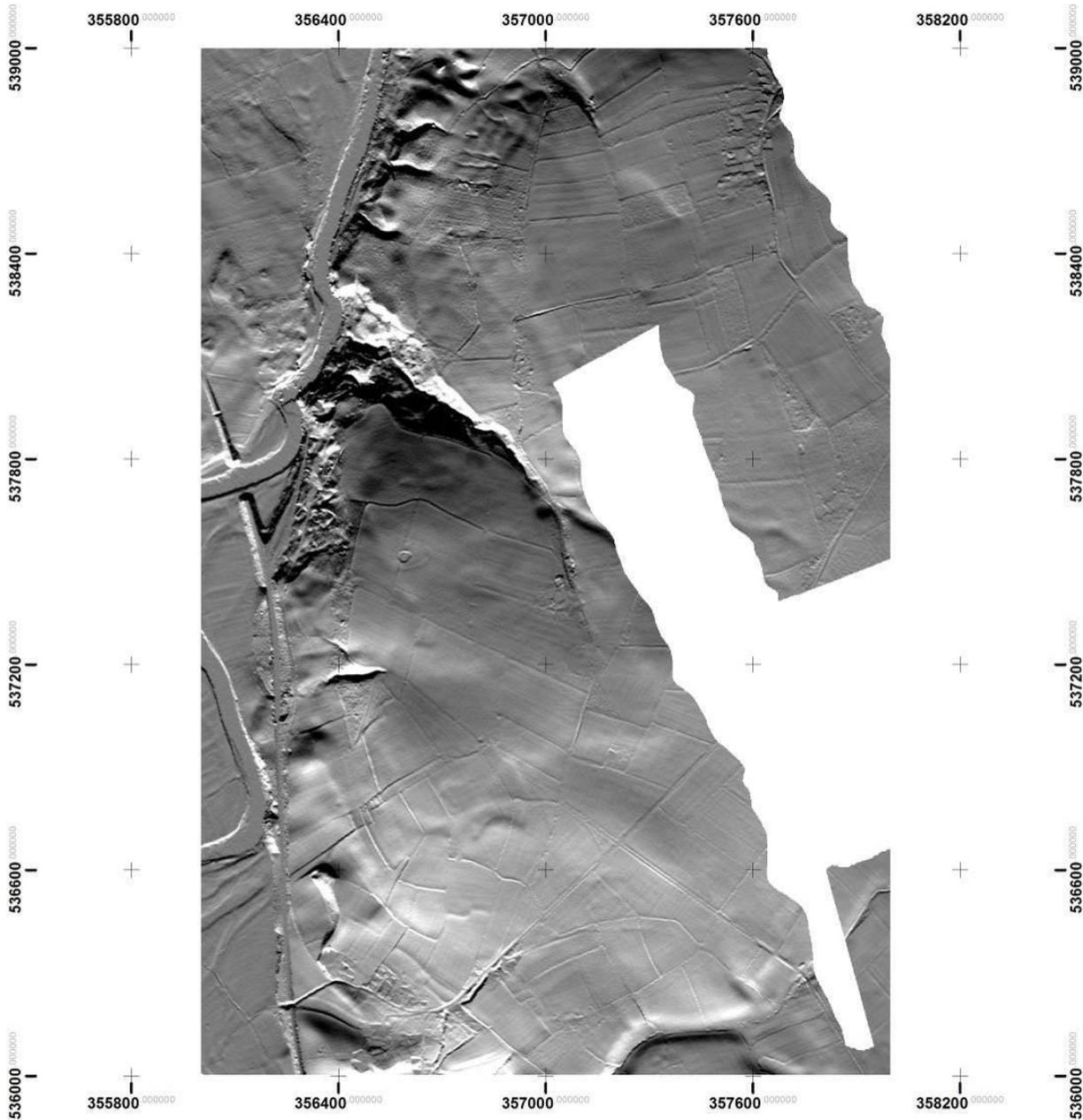
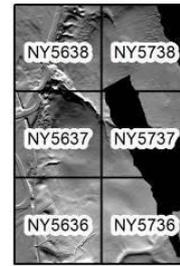
Topographic survey of the stone circle and enclosure by Tom Clare. (Reproduced from Clare 2007). Note that the sections shown towards the south-east of the plan are not reproduced here.



Survey of the stone circle, enclosure, and other adjacent features including the possible cursus. Reproduced from Soffe & Clare 1988).

Little Salkeld

Lidar DTM (2m) - Hillshade PCA



0 100200 400 Metres

LittleSalkeld_DTM_HS PCA_b8

Value
High : 533
Low : 0



Lidar (DTM) image of the Long Meg area. The stone circle is visible just below the centre of the image. Produced at Durham University using 2m resolution lidar data provided by the Environment Agency.

4. Long Meg. The 2013 Altogether Archaeology survey

4.1 In March 2013, a team of Altogether Archaeology volunteers completed a campaign of survey work at Long Meg. This included:

1. High resolution topographic survey of stone circle and enclosure, enabling production of contour map (fig 4.1) and digital terrain models.
2. Resistivity survey of stone circle and enclosure (fig 4.2).
3. Geomagnetic survey of stone circle and enclosure (fig 4.3).
4. 3D modelling off the entire stone circle (using a camera mounted on a remote controlled mini helicopter) and of selected individual stones. (fig 4.4).
5. Detailed recording of all stones of the circle.

Items 1-3 were undertaken in partnership with Archaeological Services Durham University, while item 4 was done with Jamie Quartermaine of Oxford Archaeology North.

4.2 This work is reported in detail elsewhere. In summary, the topographic and geophysical surveys recorded a number of features of potential interest, including confirmation of the presence of the enclosure ditch which appears better preserved in some places than in others. Unsurprisingly, the survey was not able to establish the relationship between the stone circle and enclosure; it was always expected that small-scale excavation would be necessary to resolve this.

4.3 The topographic and resistance surveys support the observation that the stones of the circle seem to have been set within a bank; if so then this is a fascinating feature with a range of implications regarding the original design and links with other sites elsewhere. However, its presence can only be checked for certain by excavation.

4.4 The geophysical surveys have suggested the possible presence of features within the stone circle and enclosure, and elsewhere within the complex, but the nature, condition and chronology of these cannot be determined without excavation. A key question remains the extent to which the Neolithic ground surface remains undisturbed throughout the complex; this has major implications for future site management, including possible future research, but can only be resolved through excavation.

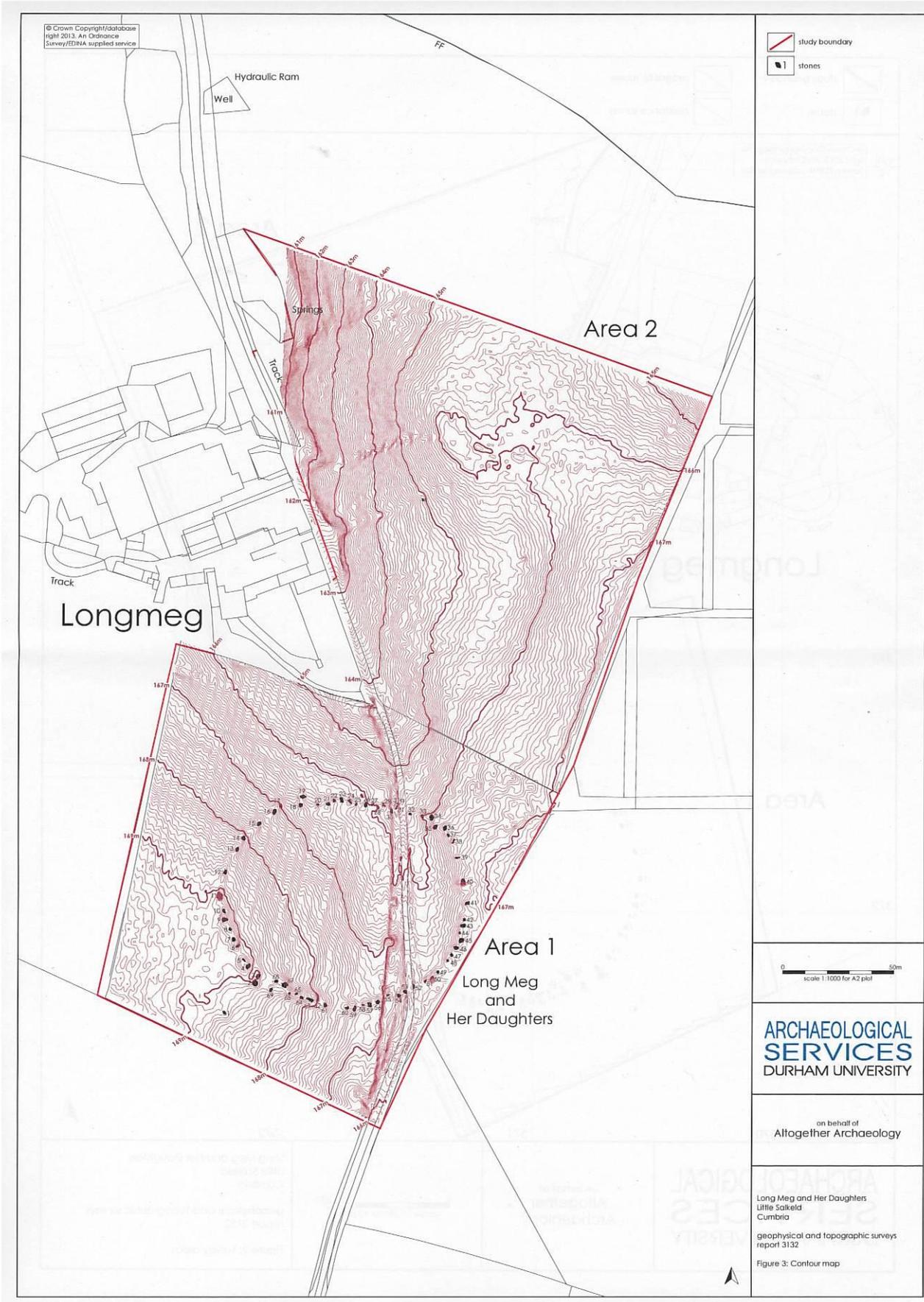


Fig 4.1. Contour map produced by the 2013 Altogether Archaeology survey. (Reproduced from ASDU 2013).



Fig 4.2. Resistivity survey; plan produced by the 2013 Altogether Archaeology survey. (Reproduced from ASDU 2013).

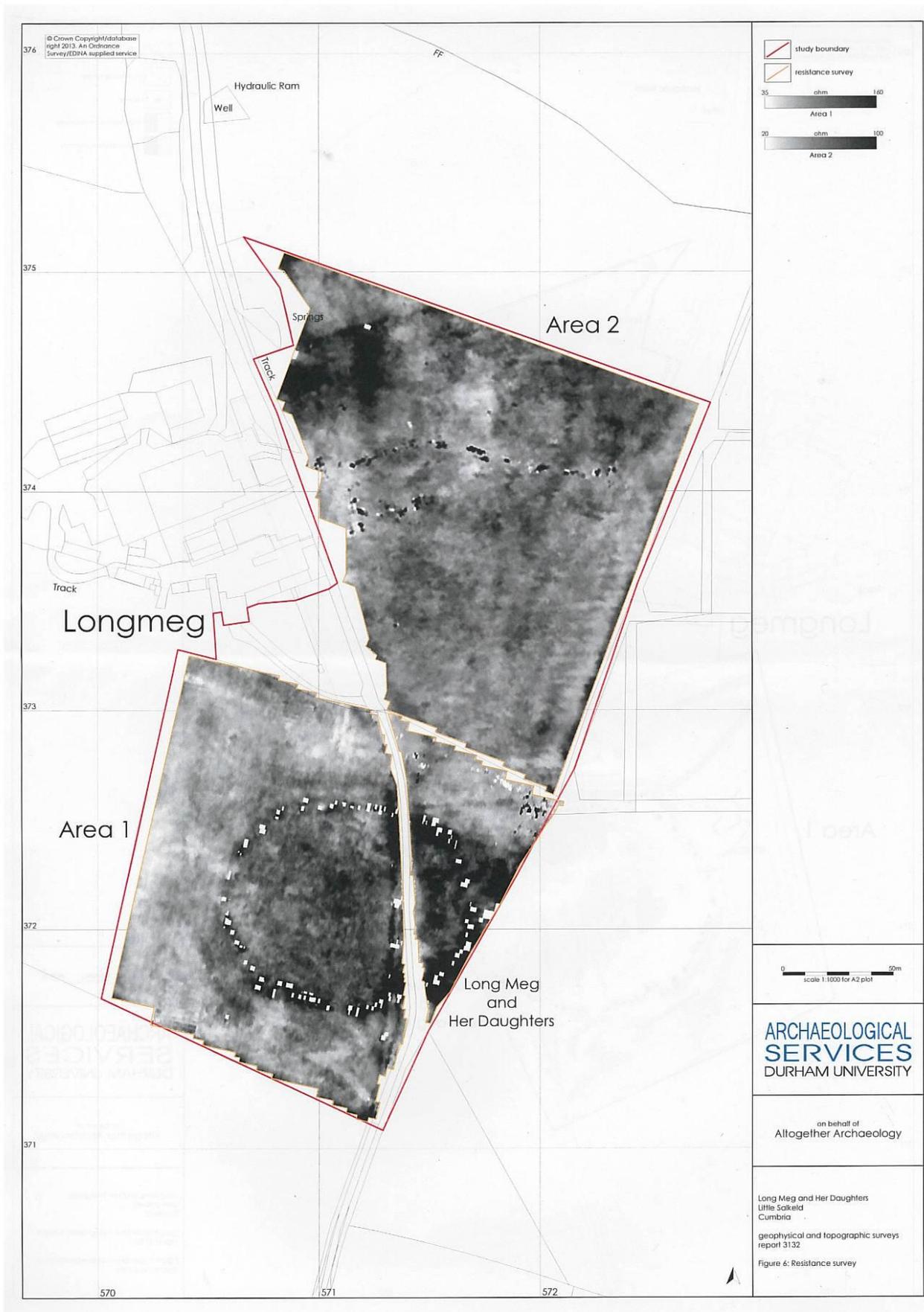


Fig 4.3. Geomagnetic survey; plan produced by the 2013 Altogether Archaeology survey. (Reproduced from ASDU 2013).

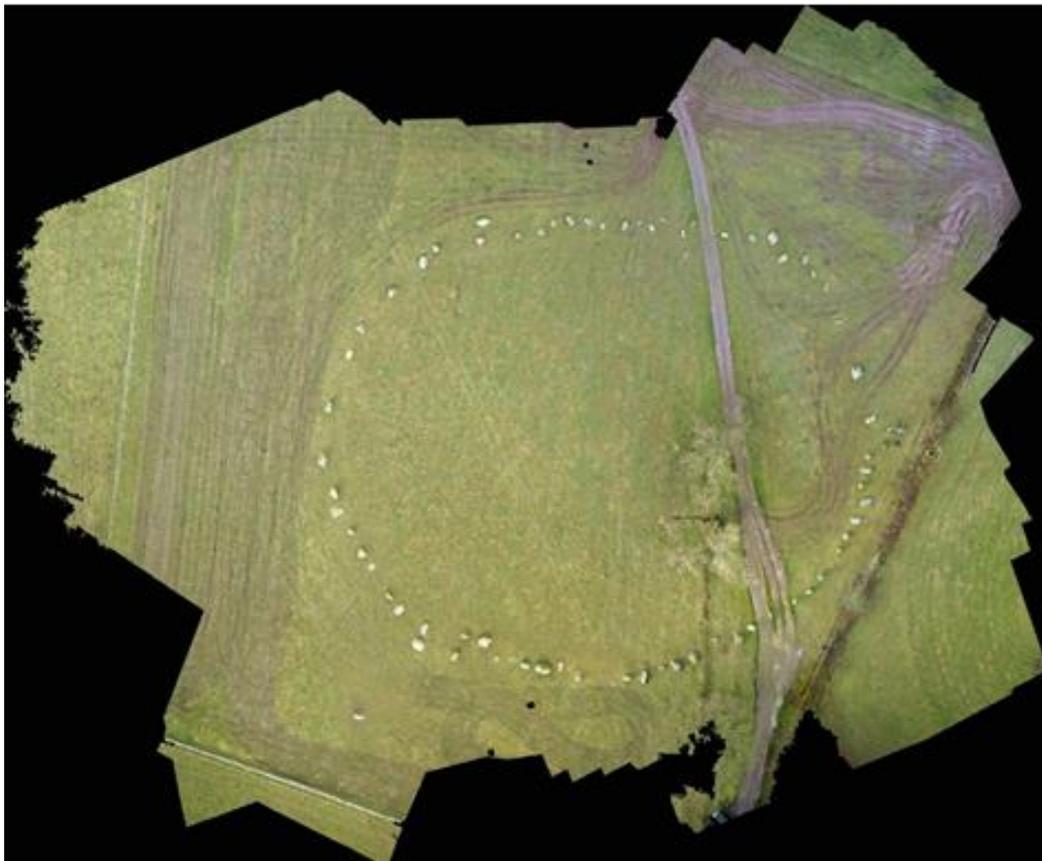


Fig 4.4a (top). The decorated face of Long Meg, reproduced from the 3D model created by the 2013 Altogether Archaeology survey.

Fig 4.4b (bottom). Aerial view of Long Meg stone circle, reproduced from the 3D model created by the 2013 Altogether Archaeology survey.

5. Research Aims and Objectives

4.1 Building on the 2013 topographic and geophysical survey, this project seeks to complete a small-scale excavation phase. The main aims are twofold:

1. To assess the nature and condition of buried archaeological deposits at specific locations, providing information that should prove fundamental to the effective future management of the site while also enabling informed decisions to be made regarding potential future campaigns of investigation. Issues to be addressed include the extent to which the Neolithic ground surface survives, or has been ploughed away or otherwise destroyed; the potential survival of important deposits within the ditch of the enclosure; the potential survival of flint and other artefacts within different parts of the site.
2. To seek to recover information about the chronology, form and function of the monument from its origin through until recent times. The three proposed trenches have been located to address specific questions while minimising disturbance to the monument, as discussed further in Section 10, below.

4.2 A further key objective is to provide a wonderful opportunity for the Altogether Archaeology volunteers to build on their commendable efforts in producing the site surveys, and to use their archaeological experience gained through numerous other recent projects throughout the North Pennines to complete a project of undoubted national importance. The project will enable the further development of the already significant working relationship between the volunteers and academics and professional field archaeologists at Durham University, a relationship that has already generated exceptional results through other Altogether Archaeology modules. All experience gained by volunteers at Long Meg will potentially be of value to future projects, here and elsewhere.

4.4 The results of this work, combined with the success of the recent topographic and geophysical surveys, will represent a key episode in the study of this crucially important site. They will potentially be of great value in their own right, but will also provide a basis for future conservation, interpretation and research.

4.5 While the project is in progress, volunteers will be encouraged to discuss the potential for future fieldwork. The project report will include a brief assessment of the potential for further work, along with observations regarding site management including suggestions relating to any particular problems noted during fieldwork.

6. Business Case

5.1 The *Altogether Archaeology* project provides an ideal and timely opportunity to undertake this proposed work at Long Meg, engaging local volunteers directly in the work and therefore raising public awareness of the site and concern for its future management.

5.2 In general terms, the strong desire amongst local people to better understand the archaeology of the North Pennines and protect it for the future provides clear impetus to complete this project at this time. Once equipped with skills obtained through the project, local volunteers will be at liberty to plan further works to enhance the historic environment throughout the North Pennines.

5.3 The project is supported by English Heritage. It will thus contribute to the aims of the joint accord signed between English Heritage and the National Association of AONBs to work together to further the understanding, conservation, enhancement and public enjoyment of the historic environment within the AONB (English Heritage 2005b).

5.4 With regard to SHAPE 2008 (A Strategic Framework for Historic Environment Activities & Programmes in English Heritage), this project, although small in scale, contributes to several of English Heritage's stated corporate objectives. The project could fit into several of the Sub-Programmes within SHAPE 2008, but the most appropriate is sub-programme number 51311.110:

Sub-programme name	Community Involvement and Awareness Projects
Sub-programme number	51311.110
Corporate Objective	5A. Increase public awareness of the historic environment
Sub-programme description	Projects raising community awareness of historic environment through direct communication, engagement and participation. (eg Community-led research programmes)
Reason for EH support	Builds direct support and engages enthusiasm from which multiple benefits flow. Encourages knowledge transfer through enjoyment.

It should also be noted that the project has multiple benefits and a sound case could also be made for including it within any of the following SHAPE sub-programmes:

Understanding Place: Analysis of specific historic assets and locales (11111.130).

Community Training Projects (12211.110).

Protected Landscape Research (23111.110).

Guidance for Volunteer and Community Groups. (43215.110).

5.5 This project at Long Meg will contribute directly to the following objectives within the *North Pennines AONB Management Plan (2014-2019)*:

Objective 5. To ensure an increase in professional and public knowledge and understanding of the AONB's historic environment.

Objective 13. To ensure that a wide range of opportunities exists for everyone to get involved in conserving and celebrating the North Pennines.

7. Project scope and interfaces

This is self-contained project, the results of which, linked to those of the earlier survey phase, will be produced and disseminated accordingly. Further work to merge the results with those of other *Altogether Archaeology* fieldwork modules, and other work elsewhere, does not form part of this module. The project report will include outline recommendations for further work aimed at better understanding and management of the Long Meg complex.

This work forms part of the wider *Altogether Archaeology* project which aims to improve understanding of, and direct public involvement with, the archaeological heritage of the entire North Pennines. Links between this module and the wider project will be maintained through the project web pages, and the results will be discussed at the *Altogether Archaeology* public conference in 2015. The results will also be incorporated into the Cumbria HER, and the report will be available via the AONB website. Results will be further disseminated through the members of the Project Team, and various organisations with which they are associated.

8. Project team

8.1 Given the nature of this project, and the importance of the site, the Project Team is rather larger than most other Altogether Archaeology project teams.

The Project Team consists of:

Paul Frodsham	North Pennines AONB Partnership Historic Environment Officer and Altogether Archaeology Project Manager	Overall project management/coordination
Chris Scarre	Professor of Archaeology, University of Durham	Overall academic direction.
Peter Carne	Manager, Archaeological Services Durham University	Direction of project fieldwork.
Rob Young	Archaeological Advisor, English Heritage North-East.	General liaison with English Heritage.
Andrew Davison	Archaeological Advisor, English Heritage North-West.	Provision of Scheduled Monument Consent & quality control.
Mark Brennand	Cumbria County Archaeologist (Cumbria County Council).	Link with Cumbria County Council and the Cumbrian HER.
Tom Clare	Previously Cumbria County Archaeologist and Archaeology Lecturer at Liverpool John Moores University	Benefit of many years' experience working at and around Long Meg.
Jamie Quartermaine	Archaeologist, Oxford Archaeology North	Survey specialist and director of 2013 Long Meg 3D survey work.
Annie Hamilton Gibney	Freelance archaeologist. Manager, Living Amongst the Monuments Project	Links with the local landscape, especially with regard to recent fieldwalking.
Aaron Watson	Freelance archaeologist. Manager, Living Amongst the Monuments Project	Links with the local landscape, especially with regard to recent fieldwalking, and also links with recent relevant projects elsewhere.

8.2 Overall project management will be by Paul Frodsham, assisted if appropriate by other members of the North Pennines AONB Historic Environment Working Group (HEWG). The HEWG is the designated advisory group for the whole of the *Altogether Archaeology* project; it includes the Cumbria County Archaeologist and English Heritage North-West Region Inspector of Ancient Monuments. Paul Frodsham will be responsible for co-

ordinating volunteer involvement in the project, and for preparatory work including liaison with the landowner and the provision of site facilities.

8.3 The project is being delivered in partnership with the Department of Archaeology at Durham University. Various members of staff and students may become involved, but the two key University staff are those shown in the above chart. Professor Chris Scarre, who has completed survey and excavation projects at several Neolithic sites in Britain and overseas, will provide academic direction, while fieldwork on the ground, including provision of training to volunteers, will be directed by Peter Carne assisted by other appropriately experienced professional staff from Archaeological Services Durham University.

8.4 Fieldwork will be undertaken by *Altogether Archaeology* volunteers with training and supervision provided by the above named individuals. It is expected that Paul Frodsham will also be on site for much of the time, but his role will be to assist the fieldwork directors rather than to direct the fieldwork himself. Peter Carne and Chris Scarre will be responsible for the writing up of the project report. Paul Frodsham will produce a risk assessment, and will be responsible for health and safety on site throughout fieldwork.

8.5 The *Altogether Archaeology* project has a pool of some 600 volunteers, of whom about 60 are expected to participate actively in this module. Although there must be some flexibility with regard to volunteer involvement, up to 25 volunteers are expected on site each day. Paul Frodsham will draw up a rota showing which volunteers expect to be on site each day, and fieldwork can then be planned accordingly. Some volunteers are more experienced in excavation than others, but all will receive an appropriate level of training and supervision. Their experience should then be of value to future projects.

9. Communications

9.1 Paul Frodsham maintains a volunteer database of all *Altogether Archaeology* volunteers, and information about the project will generally be disseminated by email or telephone using contact details contained within this database. For ease of communication, any local people wishing to take part in the project who have not registered with the *Altogether Archaeology* project will be asked to do so, at least temporarily. All communication with volunteers will then be via the *Altogether Archaeology* volunteer database.

9.2 Paul Frodsham, Peter carne and Chris Scarre will be in daily contact during the fieldwork phase, and will communicate as necessary by email, telephone and face to face meetings as necessary during project planning and post-excavation phases.

9.3 The North Pennines AONB Historic Environment Working Group (the advisory group for the *Altogether Archaeology* project) meets quarterly. A draft report on the results of this project will be presented by PF for discussion at the first meeting following completion of the project.

10. Methods statement.

10.1 General

10.1.1 All work will be completed according to relevant professional standards and guidelines. Fieldwork will be undertaken by volunteers from the Altogether Archaeology project, with training and constant on-site supervision provided by highly experienced professional staff from Archaeological Services Durham University, assisted by Paul Frodsham.

10.1.2 The Project Design incorporates a degree of flexibility; decisions will be taken according to factors such as ongoing results, numbers of volunteers attending, and the weather. Volunteers will be encouraged to take part in discussion and debate about the project design while work is in progress and during lunch breaks.

10.1.3 This excavation was originally proposed for October 2014, but was reprogrammed due to pressure of other work at that time. It is now expected that fieldwork will take place over 9 days from Sat 21 to Sun 29th March 2015. A volunteer programme will be prepared, with a maximum of twenty-five volunteers on site each day. Full training will be provided to all volunteers, who will be closely supervised throughout the fieldwork.

10.1.4 Since the site is a Scheduled Monument, the necessary legal consent will be obtained from English Heritage well in advance of fieldwork. In addition, access arrangements will be clarified with the landowner and tenant well in advance.

10.1.5 The general HQ for the project will be at Hunsonby Village Hall, c2km south-east of the stone circle. On-site car parking space at Long Meg is strictly limited, so volunteers should gather at 9.45 each morning at the village hall and will travel to site in as few vehicles as possible. There will be a briefing for volunteers at the village hall at the start of each day. The working day will be from 10am through until 4.30pm, with breaks. Depending on the weather, lunch may be taken in the village hall.

10.2 Pre-start planning and start-up meeting

10.2.1 An initial on-site project planning meeting was held by Prof Chris Scarre, Aaron Watson, Mark Brennand, Annie Hamilton-Gibney and Paul Frodsham in advance of the survey phase in 2013. Subsequent discussions, including with Andrew Davison of English Heritage (NW Region), were held on site during the survey phase, during which details of the proposed excavation phase were discussed. A further meeting was held between Prof Scarre, Paul Frodsham, Peter Carne and Duncan Hale to discuss the results of the topographic and geophysical surveys and agree proposals for the excavation. The results of various discussions held during these meetings are incorporated into this document.

10.2.2 There will be an on-site project start-up meeting, including an introduction to the site and health and safety induction, at 10am on Saturday 21 March. Participating volunteers will be encouraged to attend this meeting, although numbers may dictate that not everyone can attend on the first day, in which case all relevant information will be made available to the volunteers on the first occasion that they attend.

10.3 Fieldwork: excavation strategy and methods.

10.3.1 The excavation plans are flexible, and the amount of work completed during the project will be dependent on factors such as the weather, the numbers of volunteers attending, and the complexity of the archaeological deposits encountered. It will be possible to amend the plans during fieldwork should this become necessary, subject to agreement with English Heritage, but the basic proposal is for the excavation of three trenches (see fig 10.1). There are many places where excavation could be justified to investigate potentially significant features suggested by the geophysics, but this project will focus on just three which have been carefully chosen in the attempt to maximise potential results from minimal areas of disturbance. It is important to stress that this is to a large extent an evaluation rather than a full excavation; depending on available resources, some features encountered during the work may be recorded on plan, and perhaps sampled, without being fully excavated.

Trench 1. A trench measuring up to 20 x 10 metres, located to include half of the suggested 'entrance gap' between the circle (including the two eastern 'portal stones', stones 18 and 19) and the enclosure. This will enable the detailed examination of the relationship between the stone circle and the enclosure, including whether or not a passage between the two existed at this point (air photography suggests one did, but this is not supported by the geophysics). It will also enable an assessment of whether or not the stones of the circle were originally set within a bank at this point. The nature of the enclosure ditch will be recorded, and samples will hopefully be recovered from it for analysis including dating. It may also be possible to ascertain whether or not a bank existed in association with the ditch. Information will also be gleaned as to the surviving nature of the Neolithic ground surface within the stone circle and the ditch, albeit over quite small areas, and any difference between the two will be noted. Although this trench is small in relation to the size of the site, the results will be potentially crucial to our interpretation of the site.

Trench 2. A linear trench measuring approximately 20 x 2 metres, extending from the interior of the circle through its northern perimeter, (between stones 25 and 26) and northwards into the enclosure. This is effectively a 'control' for Trench 1, given that the stratigraphy there may have been disturbed through its use as a passageway between the stone circle and

the enclosure. It will examine the same basic questions as trench 1, other than those specifically relating to the possible presence of a passageway.

Trench 3. A linear trench up to 25 x 2 metres, located to examine what is suggested by the geophysics to be the best preserved section of enclosure ditch, in the east. This will enable the nature of the ditch to be ascertained, including any evidence for an accompanying bank, while also enabling comparisons between the ground within and outside the enclosure. The results here will be important in assessing the effects of post-Neolithic agricultural activity on the survival of buried remains within the site. Depending on results, this trench may be extended further into the enclosure interior to examine possibly significant features suggested here by the geophysics; alternatively, a further trench may be located here to examine these potential features.

10.3.2 Turf and overburden will be excavated by hand; the turfs and spoil will be stored directly adjacent to the trenches and following completion of the excavation the trenches will be backfilled and re-turfed so that the ground profile upon completion of the work will be as close as possible to that prior to commencement of work. The area will be hand-cleaned for the identification of archaeological deposits and recorded in plan. Features will be sampled excavated in order to characterise the nature and extent of the archaeological deposits.

10.3.3. Excavation of archaeological deposits identified will proceed by hand, using standard archaeological procedures in accordance with the Archaeological Services Recording Manual (v.5.3 2011).

10.3.4 All suitable deposits will be subject to an environmental sampling strategy.

10.3.5 Archaeological features will be sectioned, excavated and recorded in plan and section. Plans will be drawn at 1:20 and sections at 1:10. The excavations will be tied in to the site boundary and related to an OS benchmark. Bracketed 35mm monochrome prints and colour digital photographic images will be taken. A site diary will be maintained, to which volunteers will be encouraged to contribute.

10.3.6 All excavation locations will be surveyed, together with plans, sections and levels, using a Leica Viva GS15 global navigation satellite system (GNSS), with real time kinematic (RTK) correction, typically providing accuracy of approximately 10mm.

Sampling

10.3.7 It is Archaeological Services' policy to collect bulk samples from the fills of all cut features, and from other deposits that have the potential to provide palaeoenvironmental information. Industrial residues and waste from craft and manufacturing processes are also routinely sampled. Sample size will depend on the apparent potential value of the deposits, but the minimum volume collected from a context will be 40 litres or 100% of the available material. Unsecure deposits may also be sieved for artefactual retrieval.

Assessment of processed material will be conducted by Dr Charlotte O'Brien, the Environmental Archaeology Service Manager. The English Heritage Regional Science Advisor will be consulted in relation to any unusual sampling requirements.

Artefact recovery

10.3.8 Archaeological Services operates a 100% finds collection policy, including post-medieval, 19th century and modern material. Bulk finds such as pottery and animal bone will be collected by context. Where unusually large quantities of finds, or very small types of material are encountered (e.g. fish bones), such that recovery by hand is not practicable, soil samples will be sieved. Finds will be removed from site to a secure location at the end of each working day. All finds that are retained will be washed, marked and bagged in a manner suitable for long-term storage. Where finds fall under the Treasure Act (1996) relevant procedures will be followed.

Conservation

10.3.9 All Archaeological Services field personnel are trained in artefact first aid and procedures for the recovery, packing and transportation of artefacts, following First Aid for Finds (2nd Edition) and UKIC's Conservation Guidelines No. 2. Where delicate artefacts are uncovered, appropriate immediate measures will be taken, and the artefacts transferred to the Conservation Laboratory at Durham for stabilisation. Should particularly complex conservation requirements become apparent, an appropriately qualified and experienced specialist will be called to site to excavate and package the object.

Scientific dating

10.3.10 Samples of material suitable for scientific dating techniques including AMS C14 dating, archaeomagnetism (for example, charcoal or in situ burnt clay from appropriate contexts) or thermoluminescence will be collected where appropriate. The value of these will be assessed during the post-fieldwork assessment phase and a suitable recommendation made.

Human remains

10.3.11 It is not envisaged that human remains will be excavated as part of this project. Should it become necessary for bones to be lifted then appropriate permissions will be sought from the Ministry of Justice before any work is begun.

Liaison and monitoring

10.3.12 Monitoring of the project will be undertaken by Paul Frodsham (North Pennines AONB), Mark Brennand (Cumbria County Council) and Rob Young/Andrew Davison (English Heritage).

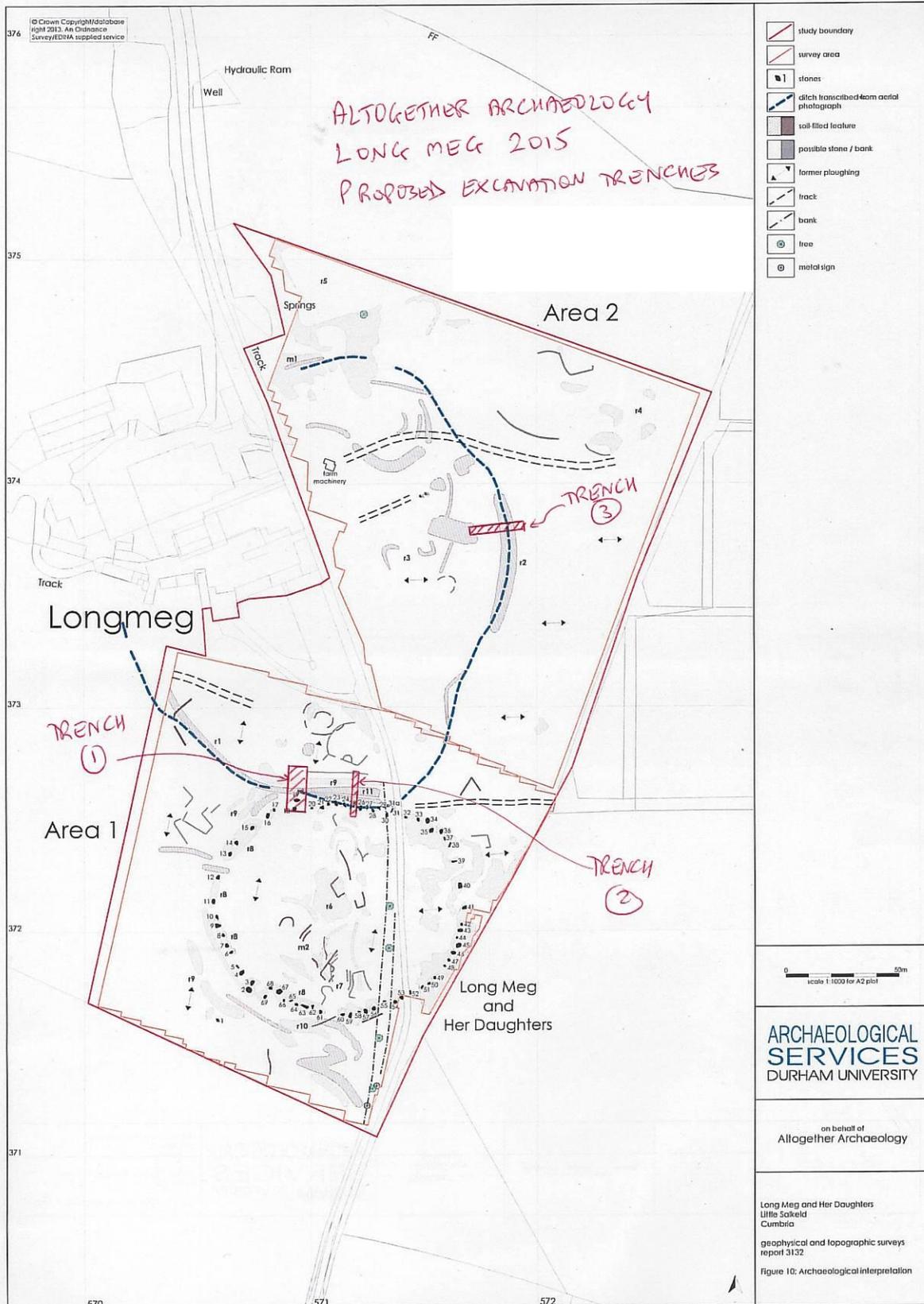


Fig 10.1. Location of proposed excavation trenches in relation to a base plan showing the interpretation of features recorded during the 2013 geophysical survey. Note that these are subject to extension or alteration during fieldwork, subject to agreement with English Heritage under the terms of the Ancient Monuments and Archaeological Areas Act. See text for further details. (Scale of trenches is only approximate).

10.4. Report and Archive

Post-excavation assessment and reporting

10.4.1 A report will be prepared in a form suitable for use by the North Pennines AONB Partnership. A digital copy will be provided in pdf format, suitable for use with the AONB website. Reporting will adhere to the reporting requirements for Cumbria County Council. This will include the deposition of one bound copy with the Historic Environment Record (HER). The report will include relevant plans and sections and will be based on the following format:

1. Executive summary
 - 1.1 The project
 - 1.2 Results
 - 1.3 Recommendations
 2. Project background
 - 2.1 Location
 - 2.2 Development proposal
 - 2.3 Objective
 - 2.4 Specification summary
 - 2.5 Dates
 - 2.6 Personnel
 - 2.7 Acknowledgements
 - 2.8 Archive
 3. Archaeological and historical background
 4. Landuse, topography and geology
 5. The trenching
 - 5.1 Introduction
 - 5.2 Trench 1
 - 5.3 Trench 2
 - 5.4 Trench 3(other trenches if appropriate)
 6. Discussion
 7. Recommendations for further work
 8. Sources
- Appendix 1: Context data
Appendix 2: Stratigraphic matrices

Archive

10.4.2 The project archive will be prepared to the standard specified in Appendix 3 of MAP2 (English Heritage 1991) and in accordance with the Guidelines for the Preparation of Archaeological Archives for Long Term Storage (UKIC 1990). The archive will be deposited at Tullie House Museum or Penrith Museum by agreement with the Cumbria County Archaeologist.

OASIS

10.4.3 Archaeological Services Durham University is registered with the Online AccesS to the Index of archaeological investigationS project (OASIS). An OASIS form will be completed for this project. It is understood that after validation by the HER, and with the agreement of all the parties concerned, the project report may become a publicly accessible document.

Publication

10.4.4 Recommendations for publication will be made if required following completion of the works (including any further schemes of works): this may include a submission to the *Transactions of the Cumberland & Westmorland Antiquarian & Archaeological Society*. The nature and extent of the publication will be dependent on the results of the work.

Copyright

10.4.5 Copyright in all material produced will reside jointly with the University of Durham and the North Pennines AONB Partnership.

11. Publicity and Outreach.

11.1 It is anticipated that there will be great local public interest in this project, and also much general interest from further afield. However, it is not proposed to generate any advance publicity for the work. Decisions regarding publicity will be made, subject to the nature of results, during and after fieldwork. Any publicity relating to the site will only occur following consultation with the landowner. Should such publicity be considered desirable, it will be arranged through the AONB Partnership's Publicity Officer. Depending on results, a press day and a public tour of the site may be arranged towards the end of fieldwork.

11.2 Once the survey is complete, and the results assessed, consideration will be given to the production of a press release, to be organised through the North Pennines AONB Publicity Officer.

11.3 At a time to be agreed with the local community, a public lecture about the results, within the context of the wider Altogether Archaeology 'Early Farmers' module, will be given at Hunsonby Village Hall or other appropriate local venue.

11.4 Discussion of the results will be worked into numerous talks given by AONB Partnership staff each year to local audiences throughout the North Pennines and further afield. They will also be discussed during occasional public walks to Long Meg arranged by the AONB Partnership.

11.5 A brief summary of the work will be placed on the AONB website, along with a link to the full project report via OASIS..

12. Stages, Tasks and Timetable

This project is divided into three stages and 15 tasks as shown in the table below. Following the approval of this project design by English Heritage, dates for the fieldwork phase will be finalised with the landowners and volunteers. Fieldwork is planned to extend over nine days from Saturday 21st - Sunday 29th March 2015. Results analysis and report production will take up to four months following the completion of fieldwork.

STAGE or Task No.	STAGE/Task	Person(s) responsible	Dates (all 2015)
S 1	PREPARATION		
T 1.1	Drafting of MORPHE compliant project design and approval by Project Team members.	PF/PC/PT	31 Jan
T 1.2	Finalise Project Design and apply for Scheduled Monument Consent	PF	10 Feb.
T 1.3	Obtain Scheduled Monument Consent,	PF/DH/RY(AD)	28 Feb.
T 1.4	Agree health & safety provision and complete risk assessment.	PF	28 Feb
T 1.5	Confirm booking of Hunsonby village hall	PF	28 Feb
T 1.6	Finalise all access arrangements etc with landowner and tenant.	PF	28 Feb
T 1.7	Circulate Project Design to AA volunteers, inviting volunteers to register.	PF/volunteers	1 Mar
T 1.8	Closing date for volunteer registration	Volunteers	10 March
T 1.9	Agree volunteer participation rota - inform volunteers.	PF	15 March
T 1.10	On site start-up site meeting	Volunteers/PF/PC	21 March
S 2	FIELDWORK		
T 2.1	Site set-up	Volunteers/PF/PC	21 March
T 2.2	Fieldwork	Volunteers/PF/PC	21-29 March
S 3	REPORT, ARCHIVE & PUBLICITY		
T 3.1	Production of interim project report	PC/CS	April/May
T 3.2	Post-excavation work (finds analysis, sample processing, dating etc)	PC	April - July
T 3.3	Production of final report	PC/CS	Aug - Sept
T 3.4	Presentation of final report to HEWG	PF	Sept
T 3.5	Deposition of archive, dissemination of final report to HER & OASIS	PF/PC	June
T 3.6	Link to Project Report placed on AONB website.	PF	June
T 3.7	Contribution to Altogether Archaeology annual public conference.	PF/CS/PC	tbc

PF = Paul Frodsham (North Pennines AONB Partnership)

RY = Rob Young (English Heritage)

AD = Andrew Davison (English Heritage)

CS = Chris Scarre (Professor of Archaeology, Durham University).

PC = Peter Carne (Archaeological Services Durham University).

PT = all Project Team members

13. Project review.

13.1 The project will be subject to continuous review by the Project Manager and Fieldwork Directors who will be on site throughout the fieldwork. Should any changes to the proposed programme become desirable during the course of the project then it will be necessary for these to be approved by Andrew Davison, who has the authority to approve such changes on behalf of English Heritage.

13.2 Upon project completion, volunteers will be asked to complete a questionnaire outlining their experience of working on the project and highlighting anything they would like to see done differently in future projects. Thus, in addition to fulfilling its own stated aims and objectives, this project will also play a positive role in planning future *Altogether Archaeology* modules.

13.3 The Core Team will also hold a review meeting upon completion of the project. This may lead on to suggestions for the development of a programme of further investigation at Long Meg, though this lies outside the scope of this project.

13.4 The project will also feature in the external *Altogether Archaeology* Project Review which will be completed towards the end of 2015 as a condition of HLF funding.

14. Land Ownership

The land on which fieldwork will take place is owned by Mr & Mrs Rowley of Glassonby Lodge, Glassonby, CA10 1DT, and tenanted by Mr & Mrs Morton of Long Meg Farm, Little Salkeld, CA10 1NW, who have granted permission for this project to take place. If further work is arranged in other fields, full permission from the relevant owners/tenants will be obtained prior to commencement of work.

15. Health & Safety and Insurance

15.1 Full consideration will be given to matters of health and safety throughout this project. All work will be undertaken in accordance with the 1974 *Health and Safety Act* and its subsequent amendments, the 2007 *Construction Design and Management Regulations*, and the Standing Conference of Archaeological Unit Managers (SCAUM) Health and Safety Manual (2007). Work will also take place under the terms of the Durham University *Health and Safety Policy* and *Code of Practice for Safety in Fieldwork*.

15.2 A full risk assessment will be undertaken to assess all real and potential hazards prior to the commencement of fieldwork. A comprehensive health and safety induction will be given to all volunteers at project start-up, and all will be required to read a written statement on health and safety which will be kept on site and which all volunteers partaking in the project will be required to sign, stating that they have read and understood it and that they will abide by its terms. A generic Risk Assessment for Altogether Archaeology fieldwork is included herewith as Appendix 2, and a specific Risk Assessment for this module forms Appendix 3.

15.3 Paul Frodsham will ensure that at least one qualified First-Aider and appropriate first aid supplies are on site at all times while fieldwork is in progress. Staff members will be supplied with appropriate safety clothing and equipment, and advice as to appropriate clothing and equipment will be provided to volunteers.

15.4 Welfare facilities, including toilets, washing facilities and a kitchen and dining area, will be available at Hunsonby Village Hall, about 2km from the site. The hall will be available to volunteers throughout fieldwork, and transport to/from it will be provided at lunchtimes and at other times on request.

15.5 All aspects of the Altogether Archaeology project are covered by Durham County Council's comprehensive insurance policy. In addition, Durham University and Oxford Archaeology North staff are covered by insurance provided by their own institutions.

16. References

The following references, by no means a complete Long Meg bibliography, were consulted during the production of this Project design.

Archaeological Services Durham University. 2013. *Long Meg and her Daughters, Little Salkeld, Cumbria. Altogether Archaeology geophysical and topographic surveys*. Unpublished report (no 3132) for North Pennines AONB Partnership.

Barrowclough, D. 2010. *Prehistoric Cumbria*. Stroud: History Press.

Beckensall, S. 2002. *Prehistoric Rock Art in Cumbria*. Stroud: Tempus.

Burl, A. 1976. *The Stone Circles of the British Isles*. New Haven: Yale Univ Press.

Burl, A. 1999. *Great Stone Circles*. New Haven: Yale Univ Press.

Clare, T. 2007. *Prehistoric Monuments of the Lake District*. Stroud: Tempus.

Cumbria HER site ref 6154.

Dymond, C.W. 1881. A Group of Cumberland Megaliths. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* (1) v:39-57.

English Heritage. Scheduled Monument ref 1007866.

Farah, RWE. 2008. *A Guide to the Stone Circles of Cumbria*. Kirkby Stephen; Hayloft.

Frodsham, P. 1996. Spirals in Time. *Morwick Mill and the spiral motif in the British Neolithic*. Northern Archaeology 13/14, 101-138.

Hood, S. 2004. Cumbrian stone circles, the calendar and the issue of the Druids. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* (3) 4:1-25.

Potter, S. 2007. Geophysical survey at Long Meg. Unpublished thesis, Liverpool University.

Soffe G. & Clare, T. 1988. New evidence of ritual monuments at Long Meg and her daughters, Cumbria. *Antiquity* 62, 552-557.

Thom, A. 1967. *Megalithic Sites in Britain*. Oxford: Oxford University Press.

Waterhouse, J. 1985. *The Stone Circles of Cumbria*. Phillimore.

Appendix 1 Scheduled Monument List Entry Summary and Map

This monument is scheduled under the Ancient Monuments and Archaeological Areas Act 1979 as amended as it appears to the Secretary of State to be of national importance. This entry is a copy, the original is held by the Department for Culture, Media and Sport.

Name: Long Meg and Her Daughters stone circle, associated cursus and prehistoric enclosure

List Entry Number: 1007866

Location

The monument may lie within the boundary of more than one authority.

County: Cumbria

District: Eden

District Type: District Authority

Parish: Hunsonby

National Park: Not applicable to this List entry.

Grade: Not applicable to this List entry.

Date first scheduled: 18-Aug-1882

Date of most recent amendment: 08-Mar-1994

Legacy System Information

The contents of this record have been generated from a legacy data system.

Legacy System: RSM

UID: 23663

Asset Groupings

This List entry does not comprise part of an Asset Grouping. Asset Groupings are not part of the official record but are added later for information.

List Entry Description

Summary of Monument

Legacy Record - This information may be included in the List Entry Details.

Reasons for Designation

Stone circles are prehistoric monuments comprising one or more circles of upright or recumbent stones. The circle of stones may be surrounded by earthwork features such as enclosing banks and ditches. Single upright stones may be found within the circle or outside it and avenues of stones radiating out from the circle occur at some sites. Burial cairns may also be found close to and on occasion within the circle. Stone circles are found throughout England although they are concentrated in western areas, with particular clusters in upland areas such as Bodmin and Dartmoor in the south-west and the Lake District and the rest of Cumbria in the north-west. This distribution may be more a reflection of present survival rather than an original pattern.

Where excavated they have been found to date from the Late Neolithic to the Middle Bronze Age (c.2400-1000 BC). It is clear that they were designed and laid out carefully, frequently exhibiting very regularly spaced stones, the heights of which also appear to have been of some importance. We do not fully understand the uses for which these monuments were originally constructed but it is clear that they had considerable ritual importance for the societies that used them. In many instances excavation has indicated that they provided a focus for burials and the rituals that accompanied interment of the dead.

Some circles appear to have had a calendrical function, helping mark the passage of time and seasons, this being indicated by the careful alignment of stones to mark important solar or lunar events such as sunrise or sunset at midsummer or midwinter. At other sites the spacing of individual circles throughout the landscape has led to a suggestion that each one provided some form of tribal gathering point for a specific social group. Large irregular stone circles comprise a ring of at least 20 stone uprights. The diameters of surviving examples range between 20 and 40 metres, although it is known that larger examples, now destroyed, formerly existed. The stone uprights of this type of circle tend to be more closely spaced than in other types of circle and the height and positioning of uprights also appears not to have been as important. They are widely distributed throughout England although in the south they are confined largely to the west. Of the 250 or so stone circles identified in England only 45 examples of large irregular circles are known. As a rare monument type which provides an important insight into prehistoric ritual activity all surviving examples are worthy of preservation.

Prehistoric rock art is found on natural rock outcrops and standing stones in many areas of upland Britain. It is especially common in the north of England where its most common form of decoration is the 'cup and ring' marking where expanses of small cup-like hollows are pecked into the surface of the rock. These cups may be surrounded by one or more 'rings'. Single pecked lines extending from the cup through the rings may also exist, providing the design with a 'tail'. Other shapes and patterns also occur, but are less frequent.

Carvings may occur singly, in small groups, or may cover extensive areas of rock surface. They date to the Late Neolithic and Bronze Age periods (2800 - 500 BC) and provide one of the most important insights into prehistoric 'art'. The exact meaning of the designs remains unknown, but they may be interpreted as sacred or religious symbols. Frequently they are found close to contemporary burial monuments and the symbols are also found on portable stones placed directly next to burials or incorporated in burial mounds.

A cursus is an enormously elongated linear earthwork ranging from about 250m to 5.6km in length and whose proportions are such that the long axis is more than ten times the short axis. The sides are generally defined by a bank and external ditch, with the ditch usually varying between 1.5m - 4m wide and 0.6m - 2m deep, and banks anything from 1.5m - 3m high. The terminals are either round ended or square ended. Access to the interior was restricted and commonly occurs near one end of the long sides but may also be found in the centre of the long side or at both ends. The two long sides run roughly parallel and may incorporate or be spatially associated with other classes of prehistoric monument. The function of a cursus is not known, although they are presumed to be ritual/ceremonial monuments of the Middle and Late Neolithic date (3300 - 2500 BC). Around 40 cursuses are currently known in England and these are widely scattered across central and eastern parts of the country. On present evidence this class of monument must be regarded as being very rare nationally.

Prehistoric enclosures are plots of land usually enclosed by stone walls or banks of stone and earth in upland areas, and banks of earth with an external ditch in lowland areas. Many date to the Bronze Age (c.2000 - 500 BC) though earlier and later examples also exist. They were constructed as stock pens or as protected areas for crop growing and were sometimes subdivided to accommodate animal shelters and hut circle settlements. The size and form of enclosures may therefore vary considerably, depending on their particular function. Their variation in form, longevity and relationship to other monument classes provide important information on the diversity of social organisation and farming practices among prehistoric communities. Taken individually Long Meg and Her Daughters stone circle, the cursus, and the prehistoric enclosure are each of major archaeological importance. The stone circle is the largest irregular stone circle in Cumbria and is considered, on the basis of its form, to belong to an early period in the tradition of stone circle construction. The outlying stone, Long Meg, displays a well preserved and complex arrangement of prehistoric rock art. The cursus is the only known example of this class of monument in north west England, and the prehistoric enclosure is considered, on the basis of the arrangement of stones in the adjacent stone circle, to predate the circle and thus represents a rare survival of a Neolithic enclosure. Taken collectively the site represents a unique combination of spatially associated monuments of the Late Neolithic - Early Bronze Age date. This association suggests that use of these individual monuments probably overlapped for at least some of their respective periods of use and attests to the importance of this area as a major gathering point for the wider populace for religious, ritual and ceremonial purposes during many centuries.

History

Legacy Record - This information may be included in the List Entry Details.

Details

The monument is the stone circle known as Long Meg and Her Daughters, together with an associated cursus or linear earthwork to the west of the stone circle, and a prehistoric enclosure to the north. It is located on the edge of a wide sandstone terrace above the east bank of the River Eden. The monument includes an oval enclosure of stones with an outlying stone known as Long Meg to the south west. The cursus and prehistoric enclosure have been identified from cropmarks visible in aerial photographs which clearly show the infilled ditches of these two monuments, neither of which are visible at ground level.

The stone circle includes 69 large stones, some standing and some fallen, which are granitic glacial erratics arranged in a slight oval flattened to the north. The stones enclose an area measuring approximately 109m east-west by 94m north-south. An entrance at the south west side of the circle has two stones outside the main circle forming a portal or doorway into the circle. A short distance beyond the entrance is Long Meg, an outlying monolith of red sandstone 3.4m tall aligned from the centre of the circle on the mid-winter sunset. It is decorated with cup and ring marks - a relief sculpture produced by pecking and considered to be a form of religious symbolism - together with numerous other motifs including spirals, concentric circles, ovoids and curved lines.

Immediately to the north of the stone circle, and partly overlain by Longmeg Farm, aerial photographs have identified the infilled ditch of a roughly circular enclosure measuring some 210m north-south by 200m east-west. At the point where the stone circle and the enclosure virtually touch, the stone circle has been flattened slightly in shape suggesting that the enclosure was already in existence and the stones arranged so as not to disturb this earlier feature.

To the west of the stone circle aerial photographs have identified two infilled ditches of a cursus running for approximately 600m from the cliff above the River Eden to the entrance on the south western side of the stone circle. The ditches are virtually parallel and c.40m-50m apart. The western end of the cursus is terminated by an oblique ditch also visible on aerial photographs. The eastern end is less clear; the northern ditch appears to run to the edge of the stone circle, the southern ditch, however, cannot be traced quite this far on existing aerial photographs but it is reasonable to assume that it also continues at least to the stone circle.

The designs of the rock art depicted on Long Meg, together with dating evidence from other stone circles and cursuses suggest use of this monument as a religious or ritual gathering point from the Late Neolithic to the Early Bronze Age, c.2400 - 1000 BC.

Antiquarian reports indicate that two round cairns were located within the stone circle in the 17th century, and local tradition states that bones were also found.

The surface of the road to Longmeg Farm and the track beyond the farm, and all walls, fences, gateposts, field boundaries and telegraph poles are excluded from the scheduling, although the ground beneath all these features is included.

MAP EXTRACT

The site of the monument is shown on the attached map extract. It includes a 5 metre boundary around the archaeological features, considered to be essential for the monument's support and preservation.

Selected Sources

1. **Book Reference** - *Author:* Beckensall, S. - *Title:* Cumbrian Prehistoric Rock Art: Symbols, Monument & Landscapes - *Date:* 1992 - *Page References:* 7-13 - *Type:* DESC TEXT
2. **Book Reference** - *Author:* Bowman, A. - *Title:* MPP Single Monument Class Desc - Large Irregular Stone Circles - *Date:* 1990 - *Page References:* 5 - *Type:* DESC TEXT
3. **Book Reference** - *Author:* Cumbria County Council - *Title:* Long Meg - *Type:* AERIAL PHOTOGRAPH - *Description:* AP No. CCC 2514,15
4. **Book Reference** - *Author:* Cumbria County Council - *Title:* Long Meg - *Type:* AERIAL PHOTOGRAPH - *Description:* AP No. CCC 2514,18
5. **Book Reference** - *Author:* Cumbria County Council - *Title:* Long Meg - *Type:* AERIAL PHOTOGRAPH - *Description:* AP No. CCC 2522,21
6. **Book Reference** - *Author:* Cumbria County Council - *Title:* Long Meg - *Type:* AERIAL PHOTOGRAPH - *Description:* AP No. XPI 2517,5
7. **Book Reference** - *Author:* Cumbria County Council - *Title:* Long Meg and Her Daughters - *Type:* AERIAL PHOTOGRAPH - *Description:* AP No. CCC 2514,15
8. **Book Reference** - *Author:* Cumbria County Council - *Title:* Long Meg and Her Daughters - *Type:* AERIAL PHOTOGRAPH - *Description:* AP No. CCC 2514,18
9. **Book Reference** - *Author:* Cumbria County Council - *Title:* Long Meg and Her Daughters - *Type:* AERIAL PHOTOGRAPH - *Description:* AP No. CCC 2522,21
10. **Book Reference** - *Author:* Cumbria County Council - *Title:* Long Meg and Her Daughters - *Type:* AERIAL PHOTOGRAPH - *Description:* AP No. XPI 2517,5
11. **Book Reference** - *Author:* Cumbria County Council - *Title:* Long Meg and Her Daughters - *Type:* AERIAL PHOTOGRAPH - *Description:* CCC 2514,18
12. **Book Reference** - *Author:* Cumbria County Council - *Title:* Long Meg and Her Daughters - *Type:* AERIAL PHOTOGRAPH - *Description:* XP1 2517,5
13. **Book Reference** - *Author:* Darvill, T. - *Title:* MPP Single Monument Class Description - Cursus - *Date:* 1988 - *Page References:* 6 - *Type:* DESC TEXT

