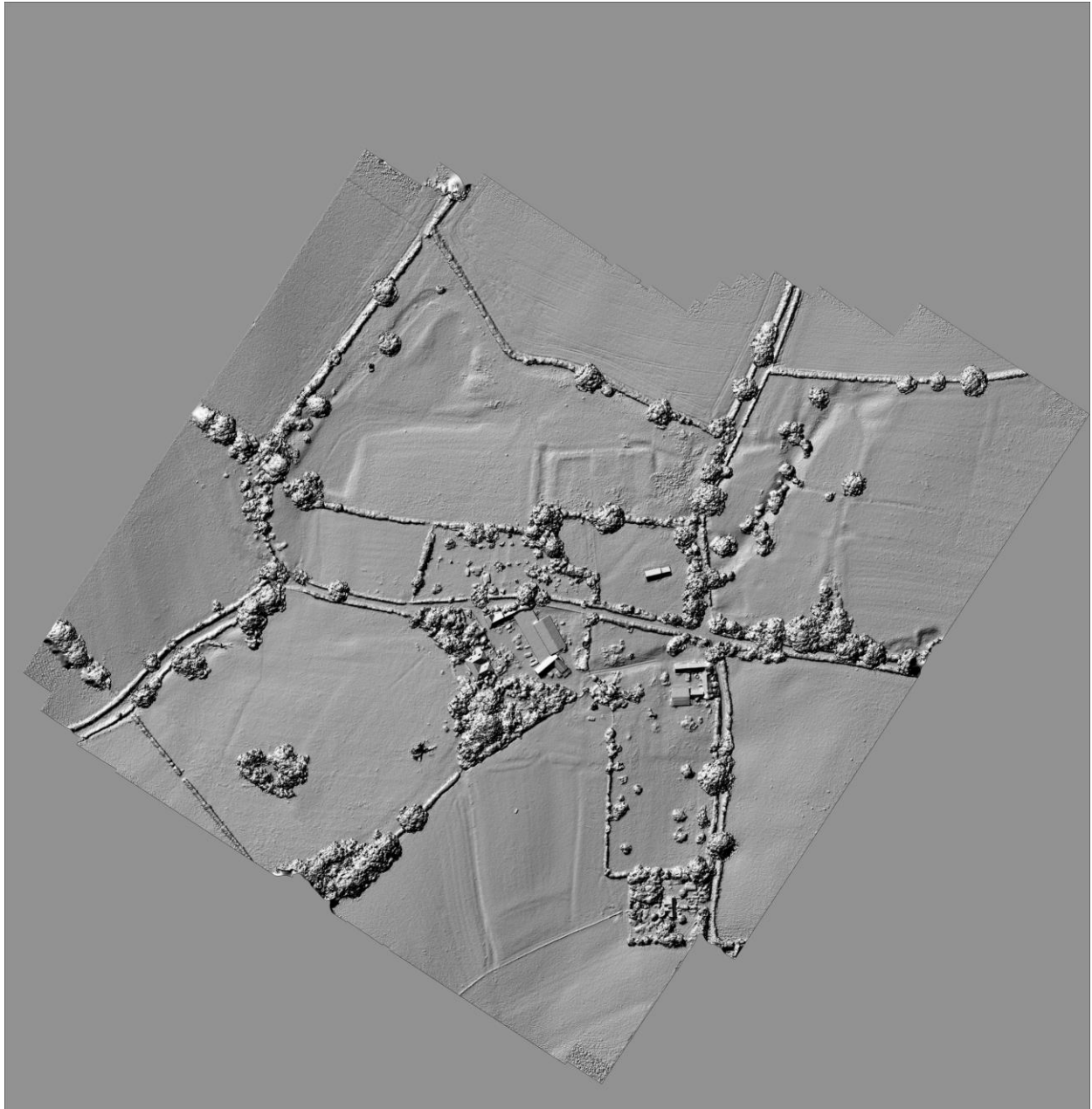


**Geophysical Survey at The Heath, South Shropshire.
June 17th, 18th and 19th of June**

**Peter Cornah
July 2018**



Terrain Model of Heath Chapel, Shropshire and associated earthworks acquired by photogrammetry in 2017.

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Introduction; This project was conceived during and after the completion of a dissertation on the Medieval Settlement Pattern in the ancient Forest of Clee, completed by Peter Cornah in Autumn of 2017 for an MSc in Applied Landscape Archaeology at the University of Oxford.

The Heath with its presumptive near deserted settlement was taken as an exemplar of the many similar settlements within the characteristic area which are around the flanks of The Brown Clee Massif, now a part of The Shropshire Hills Area of Outstanding Natural Beauty.

The technical aspects of this investigation were led by Dr. William Wintle of the University of Oxford, with assistance rendered by the Peter Cornah and three other assistants who are mentioned in the appendix at the foot of this document.

Geographical / Geological Context; The Heath lies on near plateau land, at a little less than 250 meters in height. The modern hamlet consists of a scattering of farms and houses, the focal point being a modern Cross-Road junction of quiet lanes, with the adjacent Chapel of Heath (SO557 856) being present in an adjacent field. Most of the farm land is permanent pasture or meadow though there is some arable farming and of recent years leguminous 'break-crops' are also to be noted in the locale.

The geology is The St. Maughan's Series of The Old Red Sandstone, which weathers into a dark brown soil. This is generally well draining. There are also areas of glacial drift surface geology with accounts for a blacker soil which may be found in some of the area.



Figure 1; Sketch map of the 'Heath Chapelry' (green line) in geographic context.

Heath 'Chapelry' consists of the near deserted settlements of The Heath and Upper and Lower Norncott. These always since medieval times, and still, under the ecclesiastic control of Stoke St. Milborough, are now a part of the modern civil parish of Abdon with Heath.

Historical Context; This area of South Shropshire is thought to have been settled relatively late in Anglo-Saxon, Early Medieval Period. The chapel (c.1100 A.D.) and village which is represented by abundant earthworks is felt to date from the Post-Conquest Middle Ages. The Heath was held, along with the 'mother' parish of Stoke St. Milborough by the Cluniac Monks of Much Wenlock from the end of the 11th century A.D, though the Heath was sub-infeudated to the powerful Barony of Holdgate, by the late 13th century A.D. Up till the mid 12th century it was under forest law as part of The Forest of Clee, and thereafter became the Chase of Clee administered from near-by Corfham Castle.

Documentary evidence from the presumed period of the village 'hey-day' (this is thought to be c. 1080 to 1280 A.D.), is limited though it is known that in 1301, when the village may have already been in substantial decline, there was a "Chief House and 4 Farmhouses", though of cottages there is no mention.¹

In respect of the agrarian history in The Middle Ages that there were 3 open fields to the south of Heath Chapel and village. The use of the area to the north of the village, which in the later Middle Ages became Heath Park is not known, though there is evidence of assarting on the northern margin of the chapelry abutting The Parish of Tugford.

The village itself, as represented by earthworks, shows apparent tight nucleation and is extensive, being up to 14 acres.

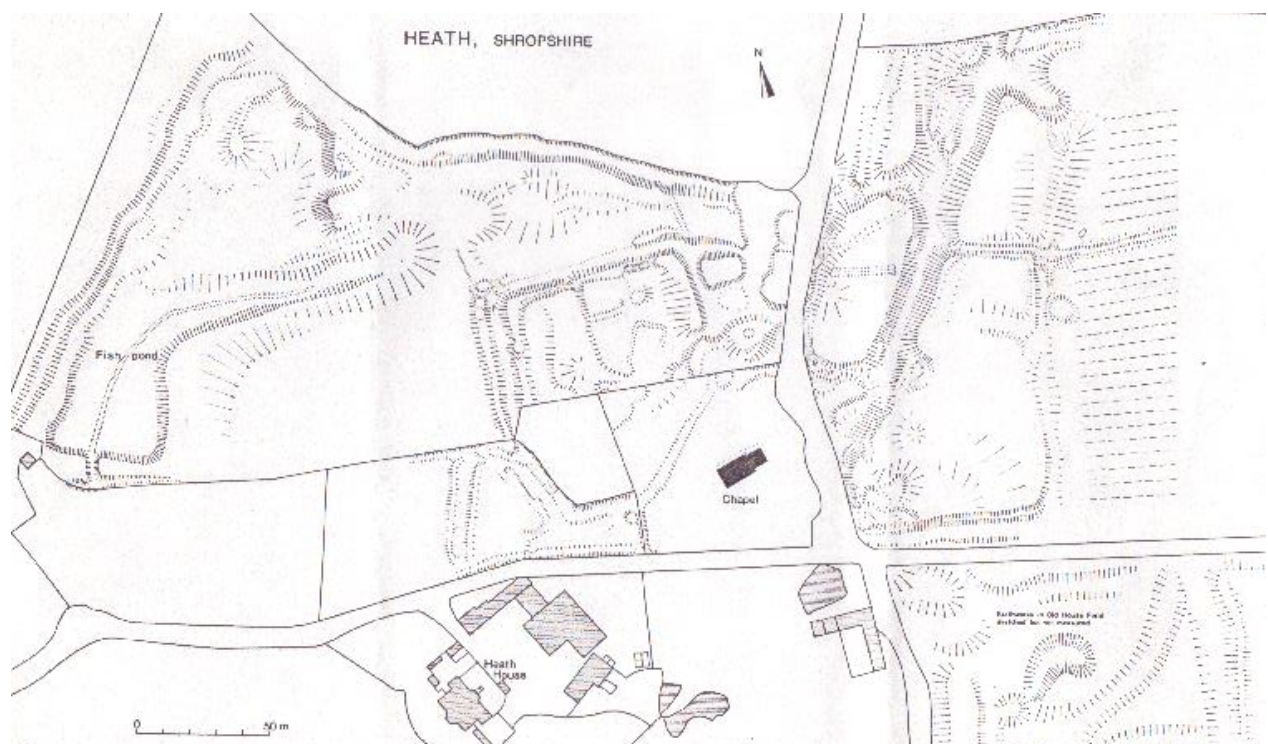


Figure 2; *Sketch of Earthworks at Heath. Reduction of Survey by James Bond c. 1981.*

¹ Victoria County History of Shropshire, Volume 10 pp. 383-390. (Available via British History On-line)

Another important historical context is the remarkable wool trade that existed in the given period with short wool sheep grazing on poor land on high ground producing a fine wool of exceptional quality. The Counties of Herefordshire and Shropshire between the Severn and the Welsh border were pre-eminent in this respect². This trade is exemplified through the carriers of the de Ludlowe merchants of Shropshire, who in Lawrence de Ludlowe, in particular, rose to remarkable merchantile, social, financial and political heights in the late 13th century.³

The Survey;

The survey of The Heath was carried out on the 17th to the 19th of June 2019. The technique employed was that of magnetometry using a GRAD 607-2 dual sensor gradiometer, manufactured by Bartington Instruments

Two fields were surveyed, one to the north of Heath Chapel (Area 1) and to the east of the chapel separated from it by the lane running north-south. (Area 2). The directions of traverse for Area 1 was west-east and for Area 2 it was north-south. Prior laying out of a 30-meter square grid was undertaken and the position of the 30 meter and sub-30 meter 'squares' was confirmed by the use of multiple readings of the grid corner points using Leica 'Viva' survey grade Global Positioning System equipment. The survey grids were then imposed upon Google Earth satellite imagery using Quantum Geographic Information System software (version 17).

Results;



Figure 3; Area 1 and 2 superimposed on satellite imagery, Heath Chapel being visible in lower central position.

² The Wool Trade in English Medieval History, Eileen Power, Oxford University Press 1941, p21.

³ The Sheepe Hath Payed for All, The Ludlows of Stokesay, Christopher Train, Scenesetters, 2005 for the Ludlow Historical Research Group.

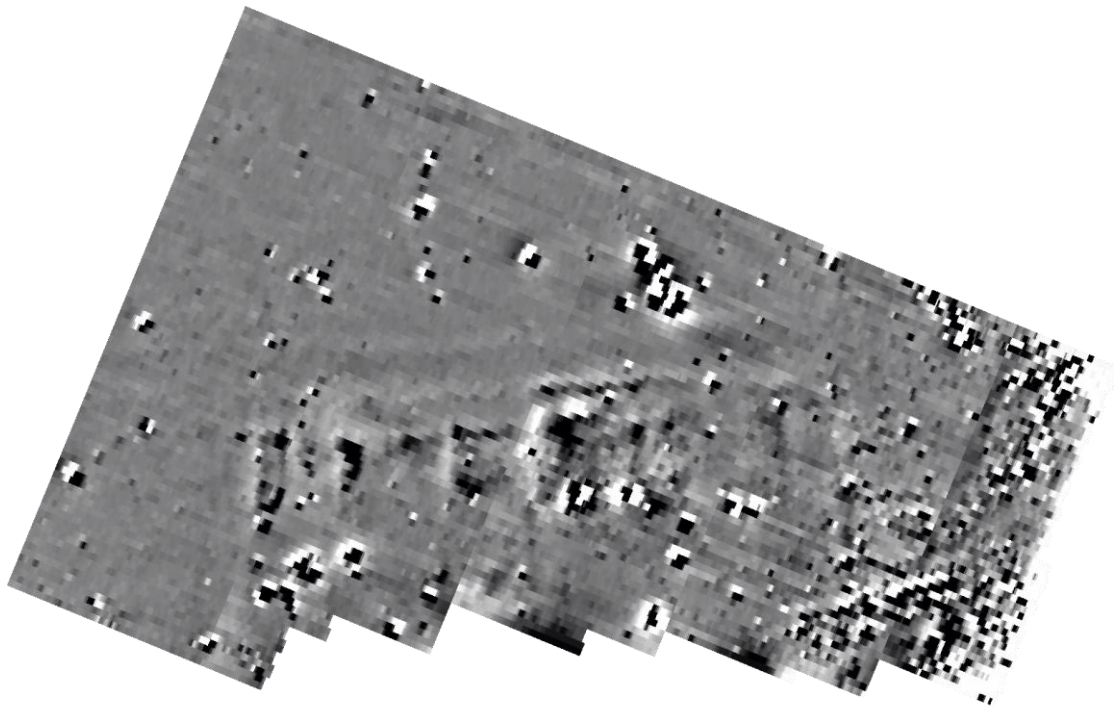


Figure 4; Magnetometry Area 1

Area 1.

The above is a modified image using various processing techniques such as 'de-stripping' and interrogation of the magnometric data of the survey to obtain a refined image within the range of archaeological interest, this being done with the ranges of +5 to -5 n. Tesla and +3 to -3 n. Tesla. The data download and manipulation were achieved with the use of Terra Surveyor Soft-Ware.

The survey of Area 1 attested to **no previously unknown cut features or areas of previous burning**. However, it did show areas of very high (in excess of + and – 100 n. Tesla) on the eastern margins of the field some of which correspond to known earthworks. These are felt to be compatible with building rubble, presumably associated with previous structures which stood in the area.

Also, clearly visible within a rectangular structure, corresponding to the known presumed moat are similar areas of very high and low intensity. These constitute quite clearly seen rectangular structures, within the presumed moat, although these are also clearly visible on the terrain model, and therefore this is not 'new' information.

It is also known an engraving exists of a former building on the possible moated site.⁴

It is notable that a known earthwork, clearly visible during scanning and readily identifiable on both the terrain model and earthwork survey, previously suggested to be a moat (see terrain model on page 1 and Figure 4, above) is also visible on this survey. This is felt to be due to 'topographic effect' with the sensors having a variable height from the ground on entering or leaving a ditch.

⁴ Klein, P, A Guide to the Heath Chapel, Shropshire, (1990)

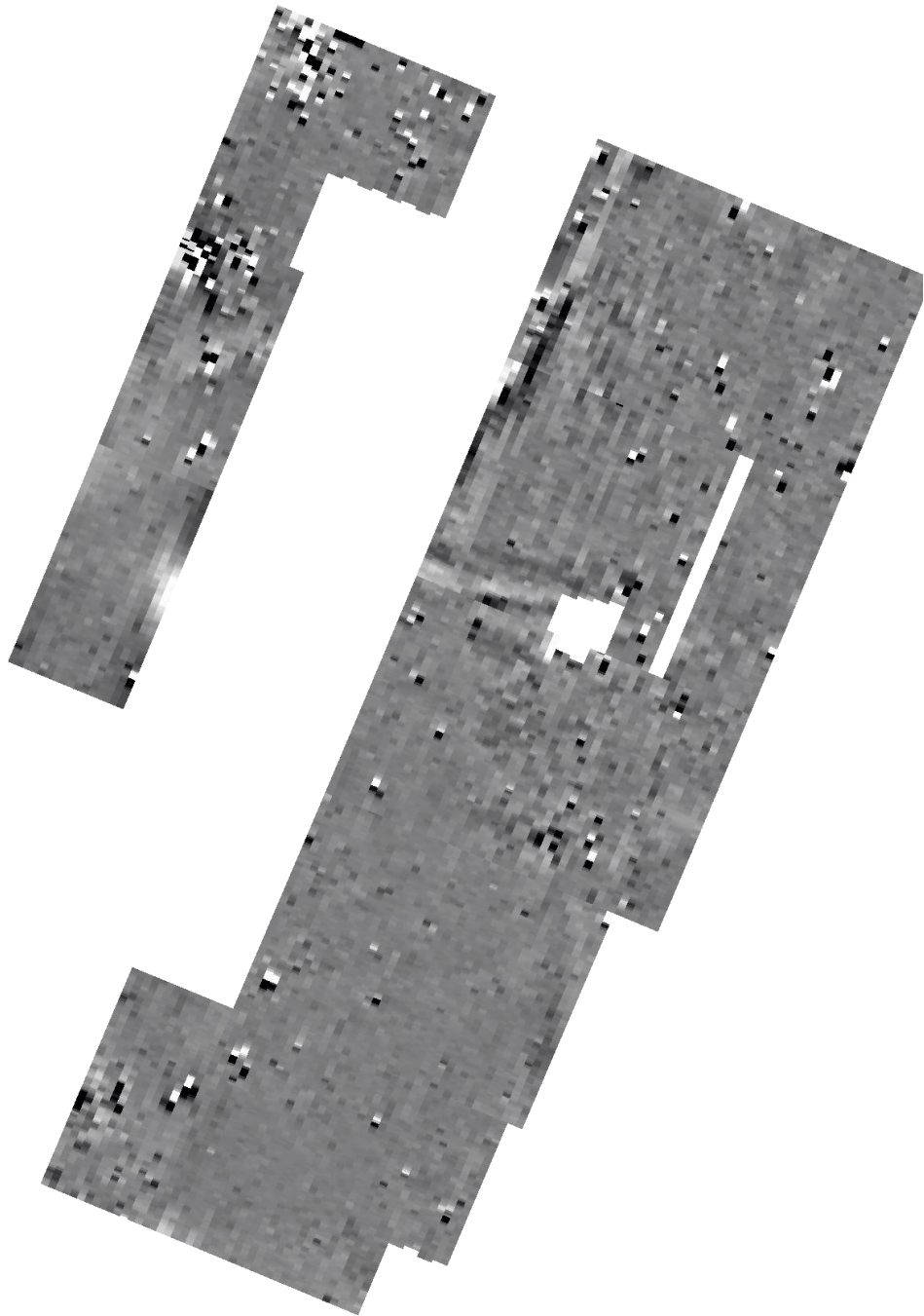


Figure 5; Magnetometry Area 2.

Area 2

The processing procedures mentioned above in respect to Area 2, were repeated in Area 2. The central survey gap seen in Area 2 was caused by the presence of substantial holloways, largely filled with shrubs and small trees, which rendered surveying this area impractical.

Again, this area revealed on survey, **no previously known archaeological features.**

In particular, an area in the southern portion of the survey Area 2, which had on the prior photogrammetry terrain model been thought to be suggestive of covert earthworks in the form of a roughly orthogonal pattern of ditches and platforms, showed no such features on this survey. As in Area 2 scattered high and low intensity (+ or – 100 n. Tesla), were thought to be buried ferrous object.

Power lines which were visually noted to cross Area 2 roughly in a north-east / south-west orientation with a number of standing poles supporting these in the survey area, show no evidence of associated ferrous sub-soil cables, and therefore it seems doubtful if a previous utility company trench has been dug across the site.

Conclusions;

This survey gives no substantial new information such as the position or density of peasant crofts and tofts in the medieval village.

This negativity is not however in any sense an indication that such did not exist associated with the relatively substantial early 12 century A.D. chapel or substantial earthworks distributed over a large area, some 14 acres. In a modern development such a site might have a resident population of several hundred people, and it is possible that the medieval village at the zenith of its size and activity could have been home to rather more than this. Failure to find evidence of this may be an inherent feature of the magnetic properties of the soil and sub-soil, and it is known that not all soils show the small variations in flux needed for this technique to enable the demonstration of 'cut-features' such as ditches which have infilled with top-soil over a long period of time.

The fact that some ditches known to be present from inspection and topographical survey are demonstrated on this survey may be due to 'topographical effect', where the magnetometer detectors have an inconstant relationship to the ground as the surveyor walks into and out of an existing ditch, as occurred with the rectangular shaped ditch feature known to be present in Area A, previously interpreted as a moat.

Another explanation for the absence of any evidence for habitation on the survey was that it did not exist within the medieval village. Whilst of course this is possible, this does not seem to be a likely explanation.

It is widely assumed that peasant dwellings in the middle ages were ephemeral, so leaving little or no trace into present times. Indeed, it used to be believed that no peasant medieval houses have survived into the present⁵. This now known not to be true due the practice of dendrochronology on 'ordinary' houses⁶. Nevertheless, it is very possible that considerable

⁵ A Deserted Medieval Village in England. Maurice Beresford. Scientific American. Vol 235 No.4 (October 1976), pp.116-130

⁶ Peasant houses in Midland England. Chris Catlin. Current Archaeology. May 2013

numbers of peasant dwellings were present at Heath but have left no trace that might be detected by magnetometry.

Afterword;

A case can be made for further investigation site, should the necessary permissions be granted, and with the continued approbation and understanding of the land-owners and farmers.

With reference to Area 1 (above), it may well be that this was a 'seigneurial' area with a moated manorial site or hunting lodge, and fish ponds. Further geophysics, possibly electrical resistivity, on the presumed moated site might well be productive. It might also direct further investigation.

Selective 'test pits' might also be invaluable in determining the scatter of medieval artefacts retrieved on the this roughly 14 acre extent. Augering or coring in the presumed moat and fish-ponds to ascertain if silting is present might radically change views on the nature of site by indicating extensive water engineering.

It is apparent that there is a rich multiplicity of such sites in South Shropshire, and relatively very little investigation has been done to provide insight into the nature of these deserted villages in this area.

Appendix;

Heath Chapel;

Map reference, SO 557 856

Scheduled Ancient Monument 1006272

Entry Number for the National Heritage List, England 138722

Additional Helpers; June 17th Guy Cholmoley. June 18th Mark Williamson and June 19th Andrew Freeman.