

Geophysical surveying of the Knights Hospitallers' Preceptory site at Hogshaw in Buckinghamshire

English Heritage
Monument number
1405586
Case number SL00097304

PROGRESS REPORT AND RESULTS SO FAR | Peter Marsden

1: Historical background

Hogshaw is a deserted village and manorial site to the north-west of Aylesbury in Buckinghamshire. Today the area is pasture, used mainly for sheep. Apart from a modern caravan and its extensions, there is a single building on the site known as 'The Ox House', which dates from the 18th century. Two former fishponds also survive.

The manor of appears in Domesday Book as 'Hocsaga'. Documentary evidence shows that Hogshaw was held by the Order of Knights Hospitallers from 1180 until the early 16th century. In the late 15th century the manor was leased out by the Hospitallers and its villagers were dispossessed and evicted in favour of sheep. The former monastic buildings became a Tudor mansion, passing through several hands, but this was abandoned in the 18th century and its buildings fell derelict.

The chapel of the Knights Hospitallers survived as a parish church until the 17th century, but it was recorded as in ruins at the end of that century and the last recorded burial there was in 1683. Since that date the site has been used as farmland.

2: Previous archaeological finds

The most obvious feature of the site is a square platform surrounded by the dry ditches of a former moat, but aerial photography in 1954 also revealed less obvious earthworks, both to the east of the moated platform and in the large field to the south of the new driveway. The currently accepted interpretation is that the manorial buildings occupied the northern section of the site, to the east and south of the moated platform, with the medieval village further to the south.

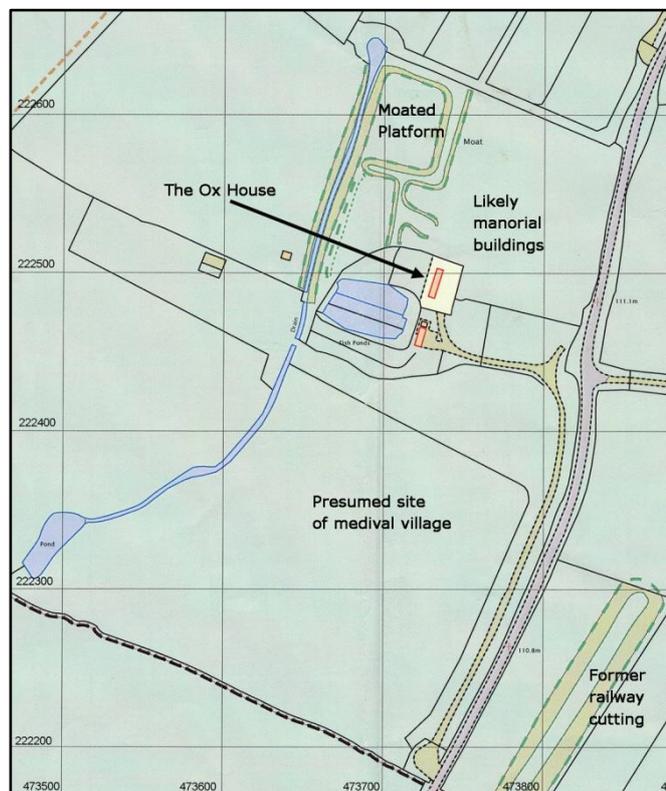


FIGURE 1: The Hogshaw site plan from the Buckinghamshire Historic Environment Record, with descriptions added.

More ...

In 2003 a watching brief identified the rudimentary stone foundations of seven buildings in the area of the presumed medieval village, including a hearth and medieval pottery, during the construction of a new entrance drive and service trench. This trench cut across sections of two substantial stone walls, 1.2 metres and 1.7 metres in width and 5 metres apart, which were interpreted as parts of the manorial buildings of the Knights Hospitallers.

Masonry has been unearthed by the present owner of the site, Robert Turner, while clearing ground for the family caravan and vegetable garden. This includes a 'dogtooth' moulding and pillar base dated to the 12th century – most likely from the former church, and a door or window-frame moulding dated to the 16th century – probably from the Tudor mansion.

3: Earthworks and geophysical surveys, 2014-15

Between October 2014 and July 2015 members of the Active Archaeology Group of the Buckinghamshire Archaeological Society conducted a complete measured earthworks survey of the field which includes the former moated platform. The earthworks to the south of the driveway, which had been revealed by aerial photography in 1954, were judged too vestigial to produce accurate measurements.

The proposal for a geophysical survey was submitted to English Heritage on 28 January 2015 and a Section 42 Licence was issued on 5 February 2015 (Case number SL00097304 – Monument number 1405586), with Dr Kris Lockyear, senior lecturer in archaeology at University College London, named as supervisor.

Documentary evidence indicates that the medieval village was depopulated between 1450 and 1487, and that the manorial complex, including the parish church, was abandoned before 1683. One source suggests that foundations from the church were broken up for road-building. The aim of our geophysical surveys, therefore, was to discover what indications of former buildings lie beneath today's undisturbed turf.

On 7 and 8 February 2015 resistivity and magnetometry surveys were carried out across a large section of the presumed manorial complex, and at the northern end of the presumed former medieval village. The surveys were carried out by members of the Buckinghamshire Archaeological Society's Active Archaeology Group and members of the Chess Valley Archaeological and Historical Society.

3.1 Techniques used

- Magnetometry using a Foerster Ferex hand-pushed cart system, taking readings at 0.5-metre transects and 10 readings per metre.
- Resistance survey using two TRCIA resistance meters at between one and four readings per metre.
- Grids were laid using a dGPS to approximately 2cm accuracy.
- Data processing was done using Terrasurveyor.
- The survey plots are superimposed on to images of the Hogshaw site from Google Earth.

More ...

3.2 The areas surveyed



FIGURE 2: Resistivity survey areas.



FIGURE 3: Magnetometry survey areas.

The Resistivity survey (above left) covered two areas: a section across the centre of the dry-moated platform, and an area south of the driveway track and on the edge of the likely site of the medieval village.

The Magnetometry survey (above right) was carried out over a large section of the northern area most likely to have been the manorial complex. The most southerly part of this area, north of the driveway, was not surveyed because of the presence of a large item of agricultural machinery whose metal would have skewed the magnetometry results.

Magnetometry was then used to re-survey the area south of the driveway previously surveyed for resistivity, in order to obtain comparative results between the two methods.

4: The Geophysical survey results

This section of the report is taken from the initial report by Dr Kris Longyear.

4.1 Interpreting the survey plots

Resistivity surveying measures electrical resistance in the ground. Solid features such as roads, walls, rubble spreads etc may show up as dark/black high-resistance features. Negative features such as ditches and pits show up as light/white low-resistance features.

Magnetometry measures magnetism in the ground. This may be caused by anything ferrous (such as farm machinery!), magnetic rocks, burnt iron-rich clays (for example bricks), and magnetically enhanced soils from rotting down organic materials, dung etc. The strength of this magnetism is significant. Big readings, for example in the 100s of nT, are likely to indicate modern metal. Ditches and pits are likely to produce more subtle results, anywhere between +/- 2nT and +/- 20 nT.

4.2 Plot 1: Resistivity on the dry-moated platform



FIGURE 4: The dry-moated platform as it appears on Google Earth.

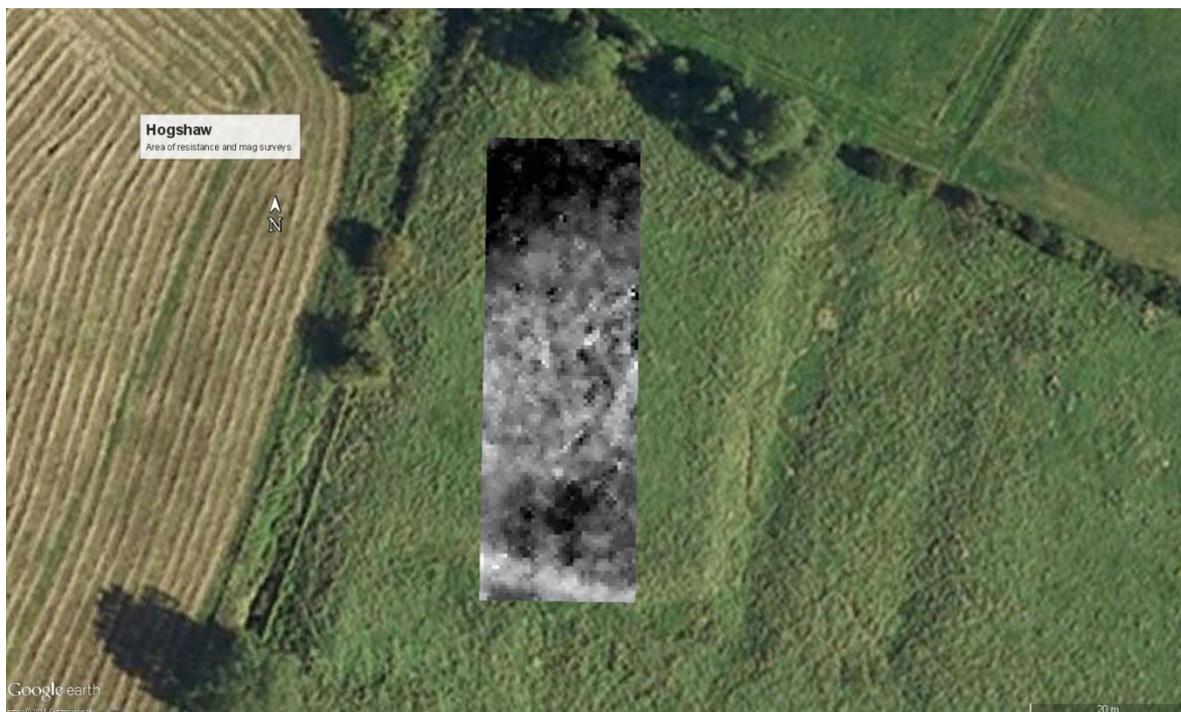


FIGURE 5: The platform with the Resistivity plot superimposed.

This Resistivity survey clearly shows the ditch that forms the southern arm of the dry moat, and a high-resistance area to the north which probably represents the moisture draining into the ditches to north and west. There are faint hints of linear features running at a slight diagonal to the grid, but nothing that definitively indicates a building. Drier weather might give clearer results.



FIGURE 8: The Magnetometry plot with the rectilinear features outlined in red.

On the dry-moated platform the Magnetometry has revealed a rectilinear feature which is faint, but definite. This is probably a ditch.

On the eastern side of the plot the survey has indicated a rectangular feature containing a cross-shape (see Figure 8.). This may be a formal garden feature with crossed paths which are edged with either magnetic rocks or perhaps brick.

4.4 Plots 3 and 4: Resistivity and Magnetometry on the edge of the medieval village?

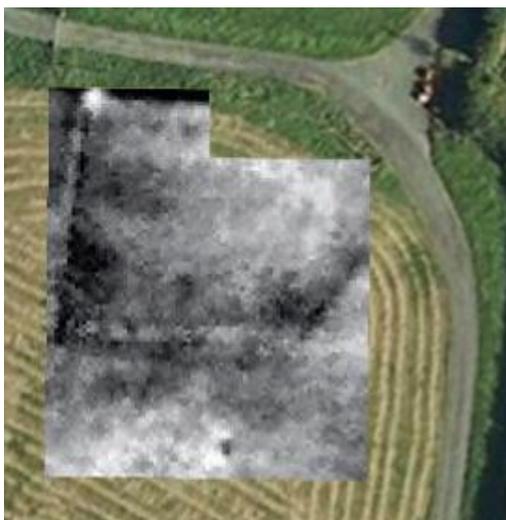
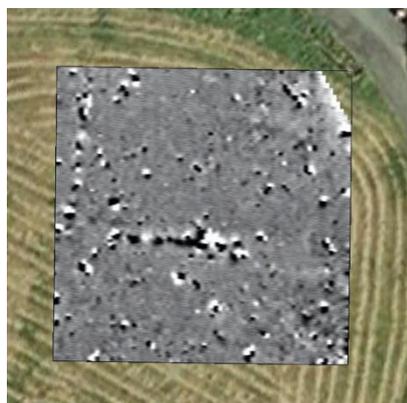


FIGURE 9 (left) shows the Resistivity plot of the area south of the driveway, while FIGURE 10 (below) shows the Magnetometry plot of the same area.



The Resistivity plot (Figure 9) shows some linear features, one running north-south and a second running east-west. These two ditches are not simple low-resistance features, but have high-resistance features at their edges. This may represent upcast from when the ditch was created, or something more interesting along the edges of the ditch.

On the Magnetometry plot (Figure 10) a short length of magnetic anomaly indicates the middle of the east-west ditch.

Both ditches line up with areas of green indicating ditches on the 2009 satellite images from Google Earth (Figure 11), and the north-south ditch is visible on the ground in low sunshine (Figure 12). Of more interest is the linear feature which runs diagonally NE-SW on the eastern edge of the Resistivity plot, which does not match any ditch visible on the ground and could be a wall.



FIGURE 11: Overhead image from Google Earth showing former ditches,



FIGURE 12: The line of the former north-south ditch made visible by the low sunshine.

4: What we have discovered, and what we have not

Summary by Peter Marsden

Three separate surveys of the Knights Hospitallers site at Hogshaw were carried out between October 2014 and July 2015: a detailed measured survey of all visible earthworks north of the central driveway, followed by partial Resistivity and Magnetometry surveys. Each has revealed a different aspect of the site - but together they reveal more.

The earthworks survey is not yet fully drawn up, but some conclusions can be made:

- The dry-moated platform has been locally known as the Bowling Green. There appears to be no other evidence for this function, the earthworks survey has revealed that the platform is remarkably flat.
- The exception to this is its north-west corner which rises to a mound around 0.5 metre higher. This shows on the resistivity survey as an area of high resistivity, and on the magnetometry plot as a rectangular outline. These could be former ditches, or perhaps the robbed-out foundations of a building.
- Both geophysical surveys show a group of dark features close to the centre of the platform's south side: high-resistivity and high magnetic anomaly.
- The most prominent features on the magnetometry plot are large areas of mixed high and low magnetism. These most likely indicate rubble left by manorial buildings which documentary sources say collapsed through demolition or dereliction. The rubble might be a mixture of non-magnetic medieval stone with magnetic Tudor brick, the remains of timber framing with metal door and window fixings.
- These areas of 'rubble' undoubtedly mask what little remains of the buildings.

- One building, at least, may be shown by the earthworks survey: two mounds on the eastern edge of the surveyed area face towards the road with a short holloway between them, perhaps indicating a gatehouse with central archway.

5: Completing the survey

The geophysical surveys are not completed, and there are good reasons for doing this:

- Two substantial masonry walls that were noted in a service trench during the watching brief of 2003. Their approximate position is known, but in February 2015 geophysical survey of the area was prevented by the presence of a large metal agricultural machinery close to the spot. This has since been moved, and the use of geophysics to find these walls would serve two purposes:
 - to discover the extent of the walls, and whether these are sufficient to identify a building'
 - because the geophysical responses from such a large known object would help calibrate earlier survey plots, perhaps allowing walls to be identified elsewhere.
- Completing the Magnetometry survey to the edges of the northern field might also yield significant results. In particular:
 - the unsurveyed triangle of ground to the east is likely to reveal the perimeter of the manorial site where it faced the public road;
 - the unsurveyed ground to the west, between the former moated platform and the surviving fishponds, may reveal further watercourses;
 - the small field on the north side of the driveway may reveal the boundary between the manor and the medieval village to its south.
- Finally, we do not know the site of the medieval church of St John the Baptist.

Peter Marsden | 14 November 2015

Please note the additional ENCLOSURE on the following pages...

ENCLOSURE:

English Heritage Geophysical Survey Database Questionnaire

1: Survey details:

Name of site: PRECEPTORY OF THE KNIGHTS HOSPITALLERS

County: BUCKINGHAMSHIRE

NGR Grid Reference: SP 73735 22412
(centre of survey to nearest 100m)

Start date: 7 February 2015

End date: 8 February 2015
(Please note that we were unable to survey the whole area, and intend to apply for a further EH licence to complete this task)

Geology at site: Bedrock = Weymouth Member – mudstone
(taken from British Geological Survey record)
Superficial = clay

Known archaeological sites/Monuments covered by the survey:

Scheduled Monument Number 1405586

Archaeological Sites/Monument types detected by survey:

- (1) Manorial site of Knights Hospitallers (1180 – circa 1498) then Tudor manor house until dereliction (recorded in C17).
- (2) Deserted medieval village to circa 1500.

Surveyor: Buckinghamshire Archaeological Society,
aided by Chess Valley Archaeology and History Society.
The survey was led by Dr Kris Lockyear, Senior Lecturer in Archaeology at University College London.

Purpose of survey: To identify buried remains of the former manorial buildings and former parish church.

Location of:

(a) Primary archive: Raw data and electronic archive are held by Dr Kris Lockyear at UCL.

(b) Full report: Paper copy in Buckinghamshire Archaeological Society Library, Bucks County Museum, Church Street, Aylesbury, Bucks HP20 2QP.

2: Technical details

SURVEY 1:

Type of survey: Magnetometry

Traverse separation: 0.5-metre transects

Reading interval: 10 readings per metre

Instrumentation: Foerster-Forex hand-pushed cart system

SURVEY 2:

Type of survey: Resistivity
Traverse separation: 0.5 metres
Reading interval: 0.5 metres
Instrumentation: Two TRCIA resistance meters
Probe configuration: Four probes in line
Probe spacing: Between 1 and 4 readings per metre

OTHER INFORMATION

Land use at time of survey: Grassland – pasture
Additional remarks: Grids were laid using a dGPS to approx 2cm accuracy.
Data processing by Terrasurveyor