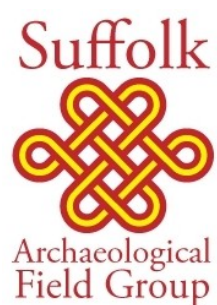


Survey of Nunnery Mount, Great Bricett, Suffolk and land adjoining Great Bricett Church

REPORT ON GEOPHYSICAL SURVEY, JUNE to DECEMBER 2016

John Rainer, on behalf of the Suffolk Archaeological Field Group



CONTENTS

1. Summary of results, contributors, HER references and other details.....	3
2. Introduction to the site	4
3. Method, including results processing.....	7
4. Results and overview analysis	9
4.1 Garden to north of church.....	9
4.2 Churchyard	11
4.3 Nunnery Mount and enclosure	12
5. References	15

1.1 SUMMARY

- 1.1.1 A magnetometer survey of land adjacent to Great Bricett Church and of the nearby Nunnery Mount earthwork, a scheduled monument, was carried out in two phases in 2016.
- 1.1.2 Great Bricett church formerly served a priory of Augustinian canons and Great Bricett Hall, which is attached to the north side of the church, incorporates structures associated with that priory. Nunnery Mount is an oval moated enclosure with an attached, but now infilled, pentagonal enclosure on its east side. The interior of the moated area is flat, but otherwise the site has a resemblance to a small castle with a dependent bailey. Medieval pottery has been found in the area of the pentagonal enclosure.
- 1.1.3 The intention was to ascertain the extent of any priory foundations in land adjacent to the church (the graveyard to the south and a private garden to the north) and to see if there was any evidence of structures in and around Nunnery Mount and its enclosure. The survey of Nunnery Mount was subject to a licence issued by Historic England.
- 1.1.4 The survey found evidence of a structure within the moated area of Nunnery Mount, it also determined the extent of most of the pentagonal enclosure, and found several ditch responses to the southwest of the Mount. However, the ability to clearly identify features in all the survey areas was severely limited by several factors:
- i. Ferrous material within the graveyard from gravestone dowels, cast-iron guttering and manhole covers largely wiped out any archaeological responses within that area.
 - ii. Deep border edging using an iron plate strip affected the responses in the garden immediately adjacent to the north side of the church, where the priory cloister was thought to be located.
 - iii. The Mount area was subject to much magnetic noise from modern activity associated with farm machinery storage and use, along with World War 2 activity and structures associated with the adjacent Wattisham Airfield. Within the Mount, the site of a former 20th-century structure magnetically obscured much of the interior, where it is likely that associated corrugated iron sheeting lies buried.
 - iv. Substantial iron fencing and modern barns obscured responses along the eastern side of The Mount site.

1.2 CONTRIBUTORS

- 1.2.1 Field work was conducted and assisted by John Rainer, Mary Pereira, Anne Dodds, Alison Brown, Pat Stewart, Lynda Bradley and Mike Theobald of the Suffolk Archaeological Field Group (SAFG). The SAFG is a sub-group of the Suffolk Institute of Archaeology and History.

1.3 ACKNOWLEDGEMENTS

- 1.3.1 The author wishes to thank Oliver Cooper for granting access to the site, Simon Picard and colleagues of Suffolk Archaeology CIC for gridding the site and Edward Martin, formerly of Suffolk County Council Archaeology Service, for extensive support and advice.

1.4 DATE OF FIELDWORK AND REPORT

1.4.1 The fieldwork was carried out in June (church sites) and November to December 2016 (Nunnery Mount).

1.5 SURVEY LICENCE

1.5.1 Ancient Monuments and Archaeological Areas Act 1979 - licence to carry out a geophysical survey at Great Bricett Moated Site, Great Bricett, Suffolk.

Case No: SL00144844

Monument ID: 1006048

Licence Reference: AA/040811/5 20 October 2016

1.6 SUFFOLK HER SITE REFERENCES

HER Parish Code: BCG 001. Priory of St Lawrence

HER Parish Code: BCG 002. Nunnery Mount

HER Parish Code: BCG 026. Event Number: ESF24124

1.7 CONTACT DETAILS

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2. INTRODUCTION TO THE SITE

2.1 Site description and background

2.1.1. Nunnery Mount is an unoccupied moated site that is probably the site of the residence of the medieval manorial lords of Great Bricett, the founders and patrons of the adjacent priory. The moat had an adjacent pentagonal enclosure, but this is now flattened. The name 'Nunnery Mount' is first recorded in 1725, but the site has no known connection with a nunnery.

2.1.2 The Priory of St Leonard in Great Bricett was founded c.1114-9 as a house of Augustinian canons. As a daughter-house of a French priory, it was classified as an 'alien priory' in 1414 and it and all its properties were granted to King's College in Cambridge in 1444. The remains of the priory are now incorporated partially in Bricett Hall and in the Church of Saints Mary & Lawrence.

2.2 Survey areas

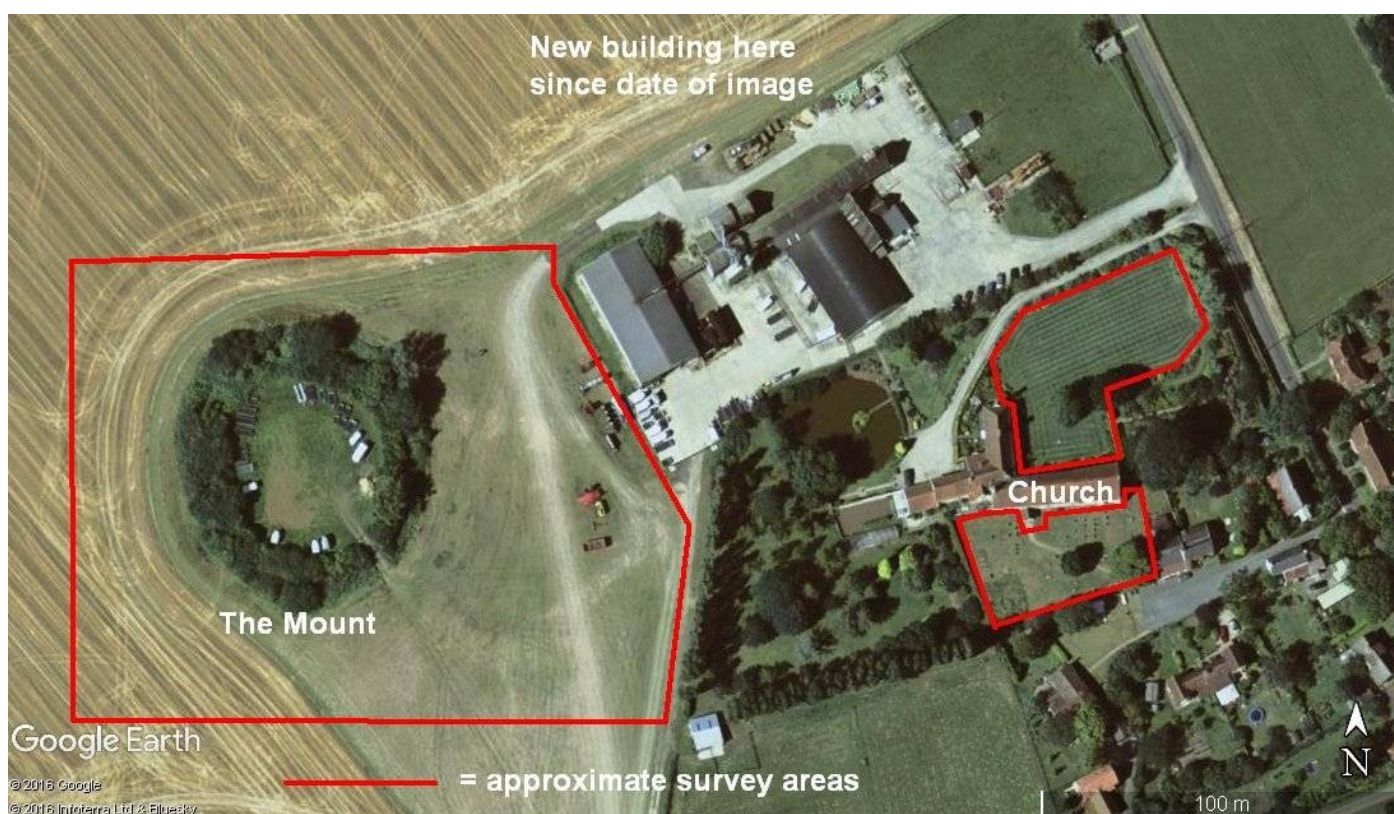


Figure 1: Survey areas

2.2.1 Traces of the pentagonal enclosure are visible as marks to the east of The Mount. The enclosure ditches were filled in within living memory and are thought to contain much modern debris. The Mount is encircled by a large ditch some 2m deep, with an entrance to the southeast.

2.2.2 The garden to the north of the church is a well-maintained close-cropped lawn with flower beds. The churchyard is mown and the gravestones fortuitously aligned with the intended survey walking direction.

2.3 Lidar image, 1m resolution

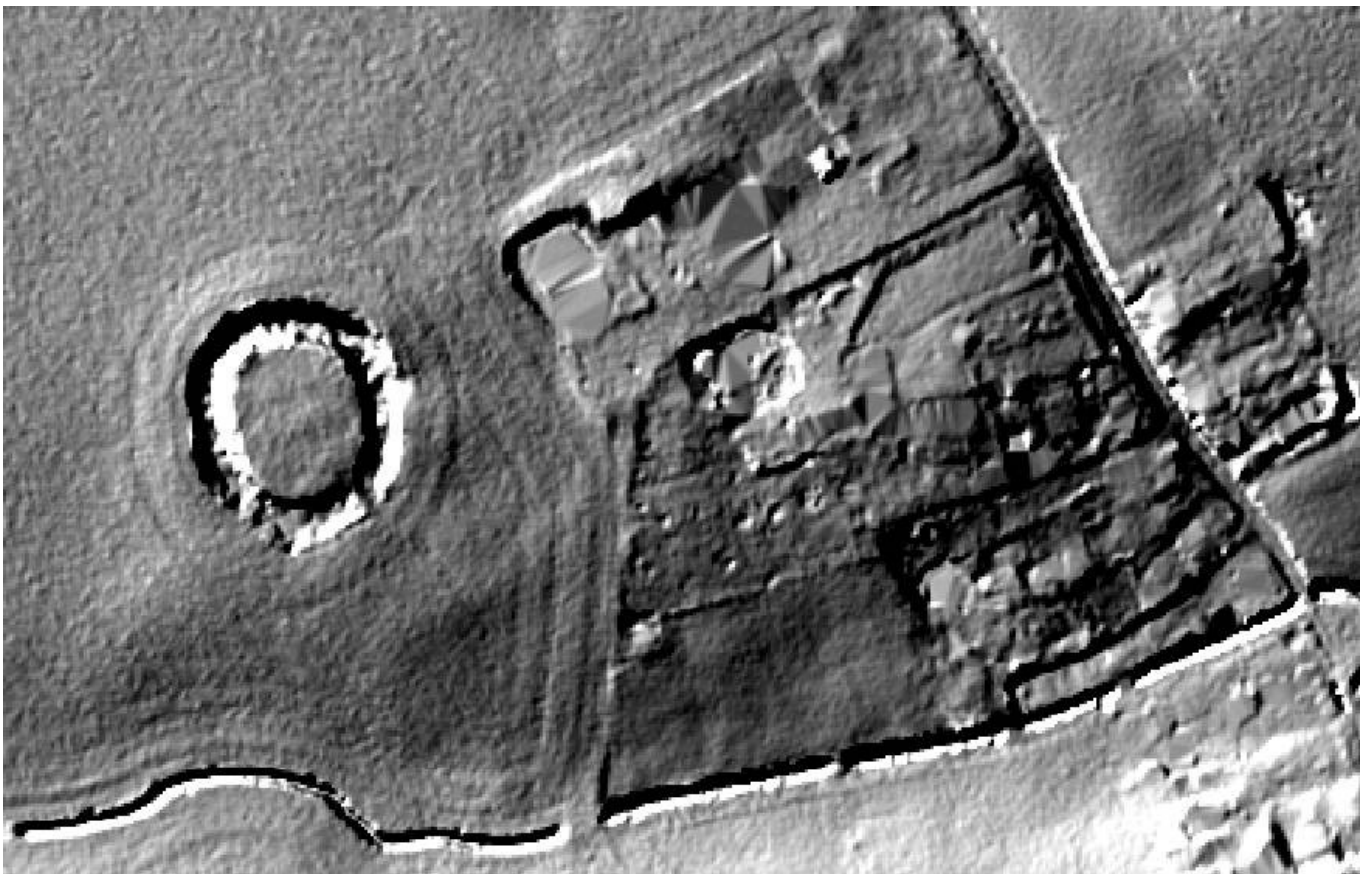


Figure 2: 1m resolution Lidar image

2.3.1 The extent of Nunnery Mount's ditch is clearly evident. What appear to be partial bridging areas are probably where dense bramble and scrub thickets were present at the time the data was gathered.

2.4 1884 Ordnance Survey six inch mapping

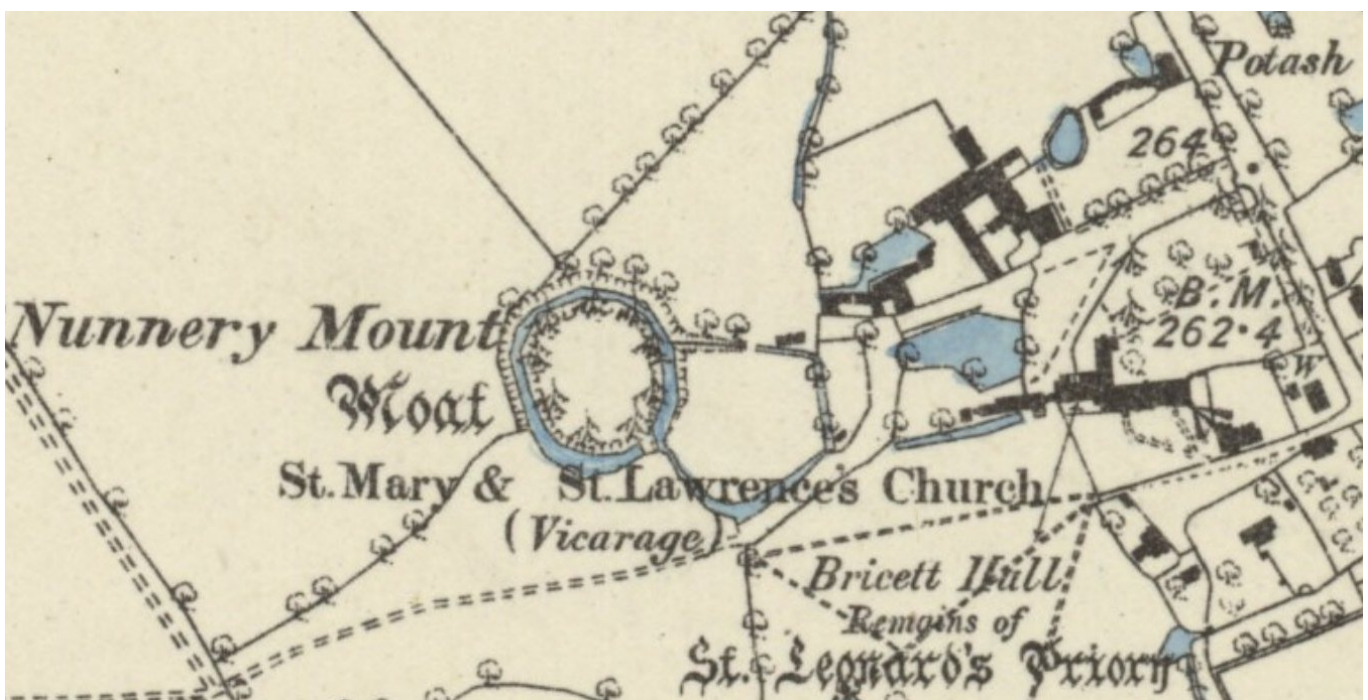


Figure 3: 1884 OS Six inch map

2.5 1945 aerial image



Figure 4: 1945 site image

2.5.1 There appears to be a structure in the southwest quadrant of the interior of the mount. Northeast of the mounts shows signs of active use that may contribute to magnetic noise in that area. The pentagonal enclosure is evident.

3. METHOD

3.1 Overview

3.1.1 Magnetometer surveys were carried out over the areas outlined in red on Fig. 1. The survey was carried out on 30m grids for The Mount and on 20m grids for the sites adjacent to the church. The Mount survey was gridded out by Suffolk Archaeology CIC using high accuracy GPS. The church areas were gridded out by tapes and the results overlaid onto Google Earth images that were georeferenced to Lidar data.

3.1.2 Grids were walked mainly in zig-zag mode except for a small number of narrow border areas that were surveyed in parallel mode.

3.2 Equipment

3.2.1 A Bartington Grad601 single boom gradiometer was used for the church survey areas and a twin boom unit for Nunnery Mount, set to 100nT range. Gradiometer balancing was carried out at single

points within each area where low noise levels were identified. Grids were walked at 1m intervals, 4 samples per metre, 1.5 or 1.3m/s pace, with sampling approximately 20cm above the ground surface.

3.3 Results processing

3.3.1. Data was downloaded from the meter and analysed using Snuffler geophysics software.

3.4 Major non-archaeological ferrous responses

3.4.1 The nature of the site made it likely that ferrous interference would be a significant problem and this was found to be the case. Prior to processing, obvious fence and building responses were removed from the grid data to maximise the appearance of any archaeological features. It was observed that in practice, this made very little difference to the output quality, so all results presented in this report have been left unaltered to illustrate the survey extents.

3.5 Plotting

3.5.1 All results were recorded in QGIS geographic information software using georeferenced images. All overlays have been produced by either production of georeferenced images or import of georeferenced raster or vector layers, such as Suffolk Archaeology CIC's survey grid.

3.5.2 The co-ordinate reference system used for all results was:

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"+proj=tmerc +lat_0=49 +lon_0=-2 +k=0.9996012717 +x_0=400000 +y_0=-100000 +ellps=airy +towgs84=375,-111,431,0,0,0,0 +units=m +no_defs"
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4. RESULTS AND ANALYSIS

4.1. Garden to north of church

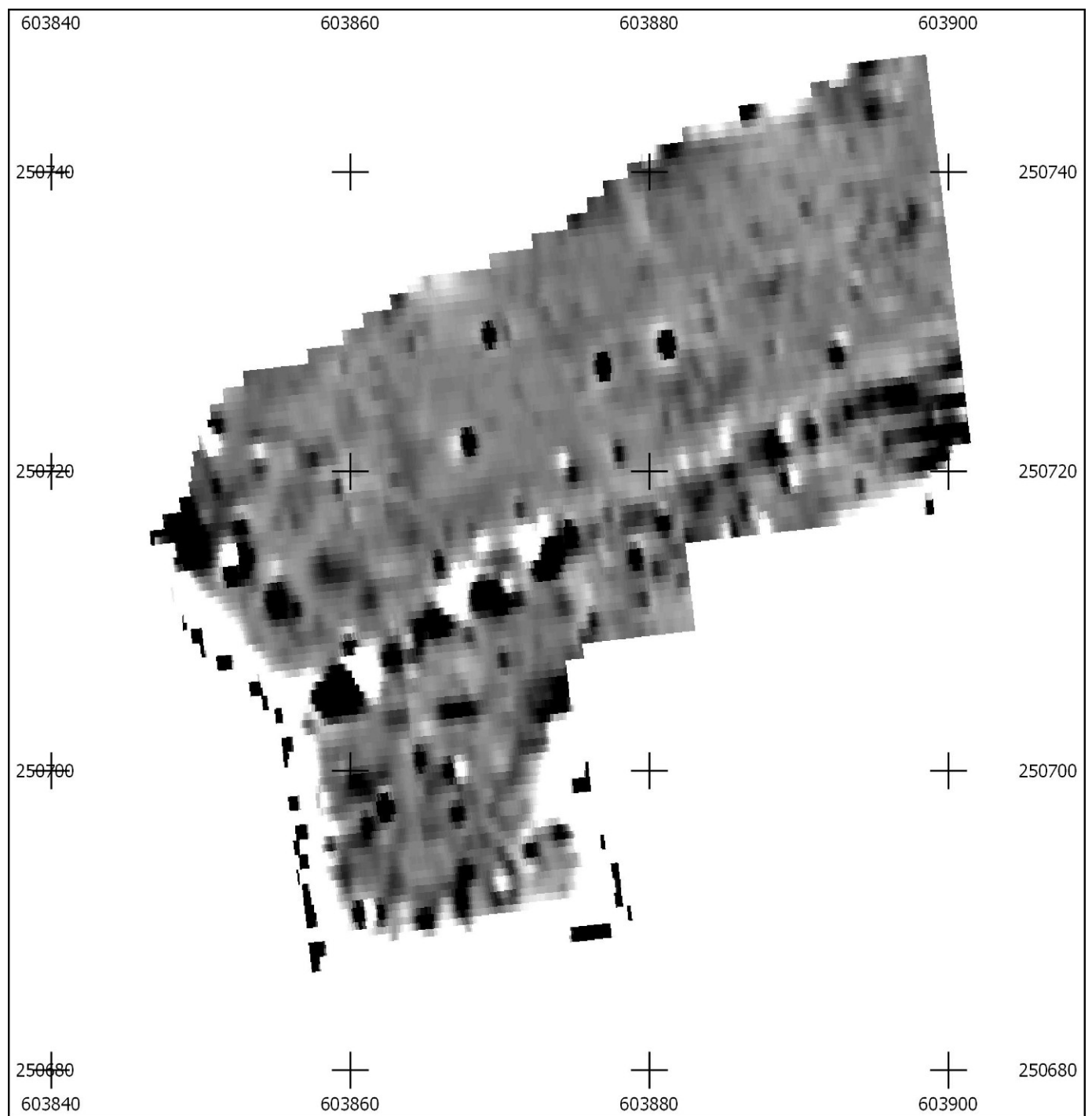


Figure 5: Results are clipped to +/-12nT due to high noise content.

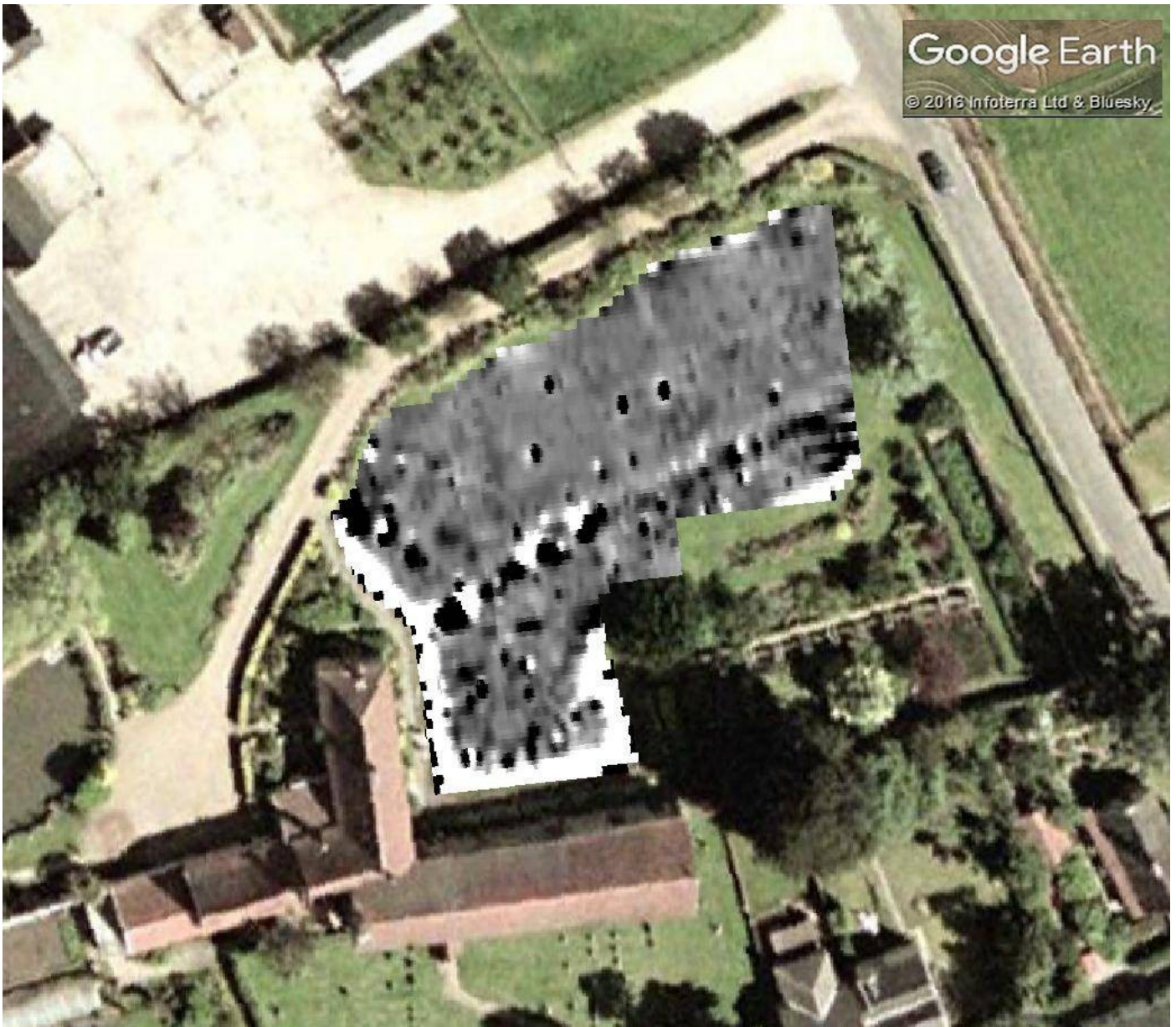


Figure 6: Google Earth overlay to give context to the garden results

4.1.1 Fringing, especially to the southwest was caused by steel edging to the lawn and other iron-containing features. A strong linear feature crossed the site which appears on the 1883 OS map (figure 3) as a dashed line indicating either a path or a boundary. In the western third of the plot, it is evident that noise levels are generally high. Excavations in the 20th century revealed foundations of chapels extending into this area (plan by PGM Dickinson 1957 in the church) and these could be partly responsible for this 'noise', but there is not enough detail for this to be diagnostic of any particular building or structure. No evidence was, however, found of the cloister and its associated structures as hypothesised by Dickinson.

4.2. Churchyard

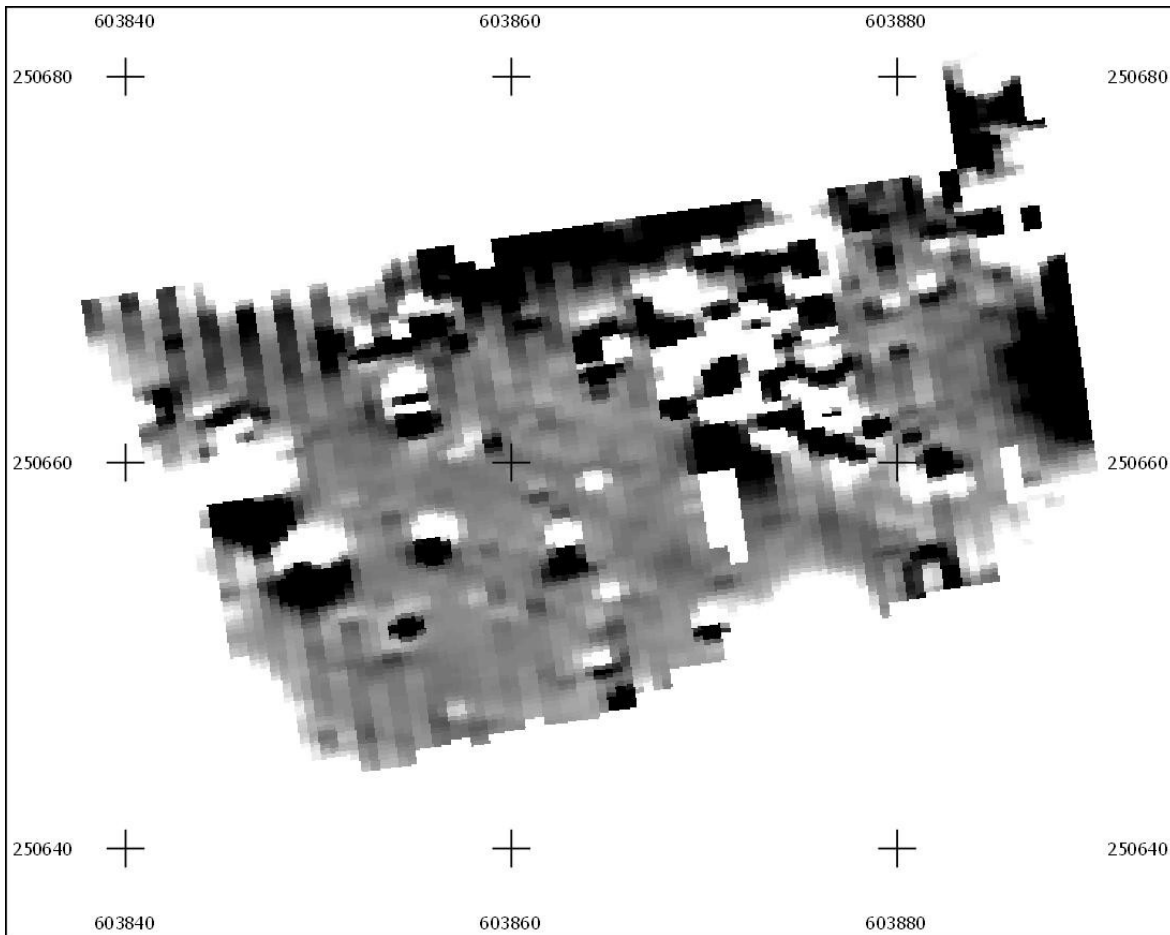


Figure 7: Churchyard, clipped to $\pm 15nT$ due to high noise content

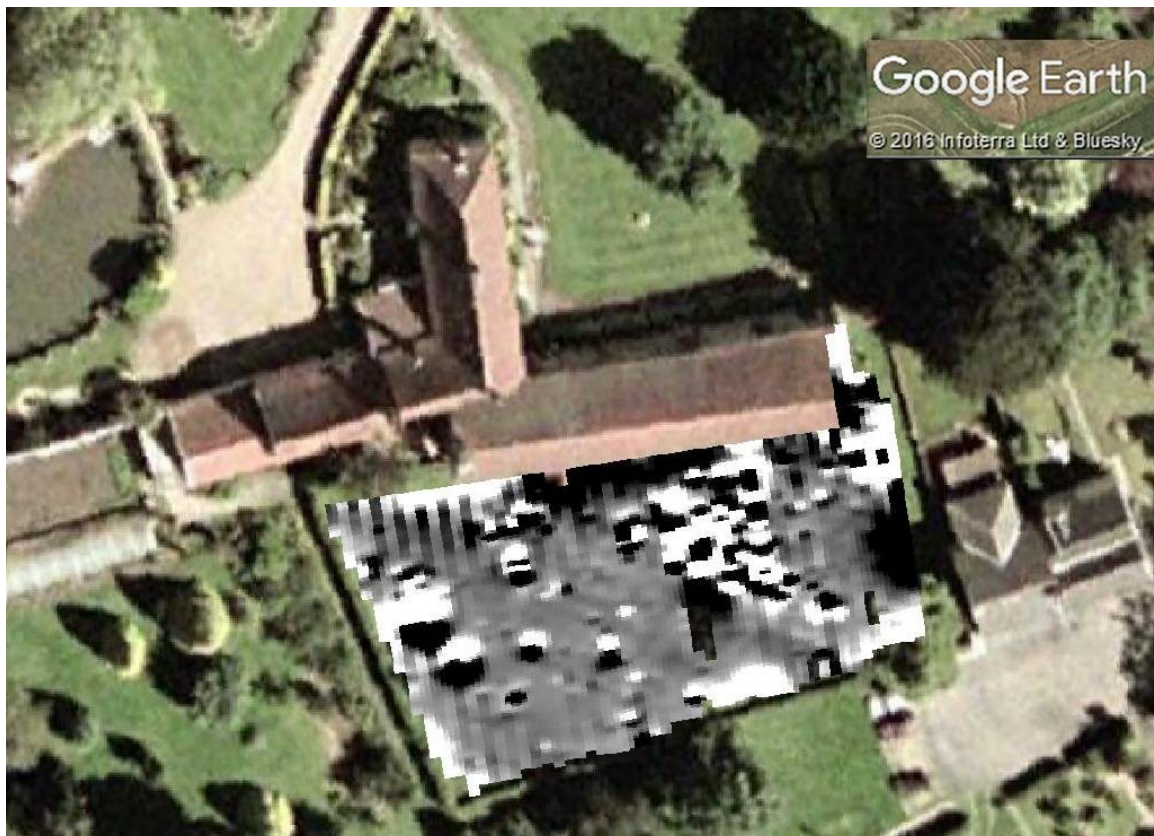


Figure 8: Google Earth overlay to give context to the churchyard results

4.2.1 The intention of the churchyard survey was to establish whether the Dickinson plan of the church, showing chapels extending to the south of the chancel, could be validated. However, as anticipated, ferrous material in the churchyard obscured any subtle detail.

4.2.2 The strong striping and polar response strip to the north of the churchyard was caused by the church roof's iron guttering. Gravestones, manhole covers and services accounted for the other ferrous responses. The cluster of iron responses in the eastern half of the output was from modern gravestones where metal dowelling is used to lock headstones to their bases.

4.3 Nunnery Mount

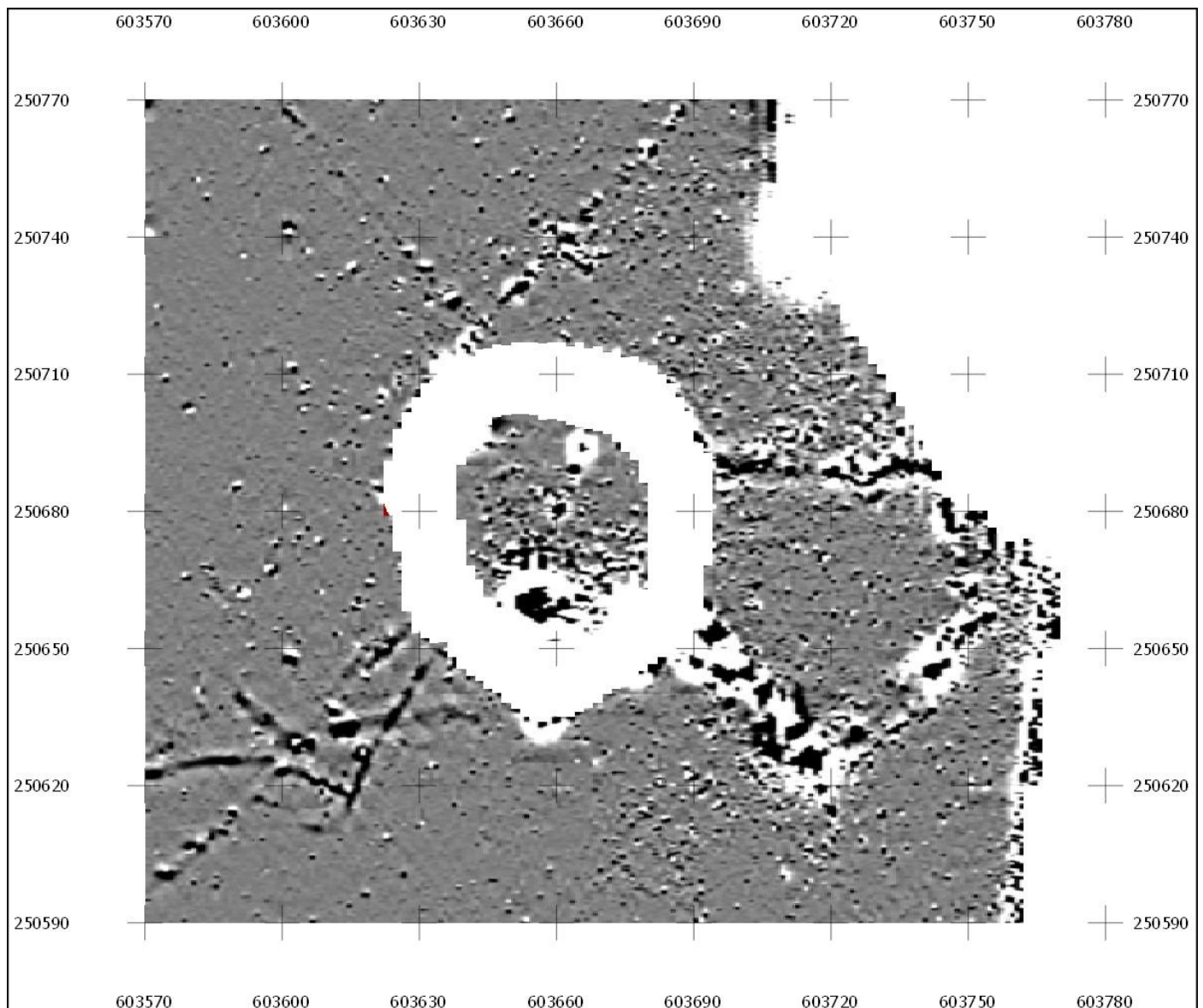


Figure 9: Nunnery Mount, clipped to $\pm 5\text{nT}$



Figure 10: Google Earth overlay to give context to the Nunnery Mount results



Figure 11: Results georeferenced to 1884 six inch mapping

- 4.3.1 Outside the Mount, the pentagonal enclosure is clear, although the line of the north eastern side is obscured by responses from fencing and buildings. Up to recent times the enclosure was open ditches and it is apparent that much ferrous debris is in their fill, particularly the southern arm, probably from scrap farm machinery and the like.
- 4.3.2 To the north, two linears running NW and NE are the lines of former field boundaries, as can be seen in figure 11.
- 4.3.3 In the southwest quadrant, a former field boundary runs southwest to northeast. Again, this is from a former field boundary, as can be seen in figure 11.
- 4.3.4 Crossing the southwest quadrant field boundary linear is one well-defined right-angled response line, which is probably a ditch. Alongside it is an irregular, broader and less well defined linear, whose line is part-filled in by a ferrous response. Rather than a single feature, it could be a small number of separate response areas. The ditch line is unusual and suggests that it is going round one side of a feature, which may be part obscured by the assumed later field boundary. Confidence in this interpretation is not high, though.

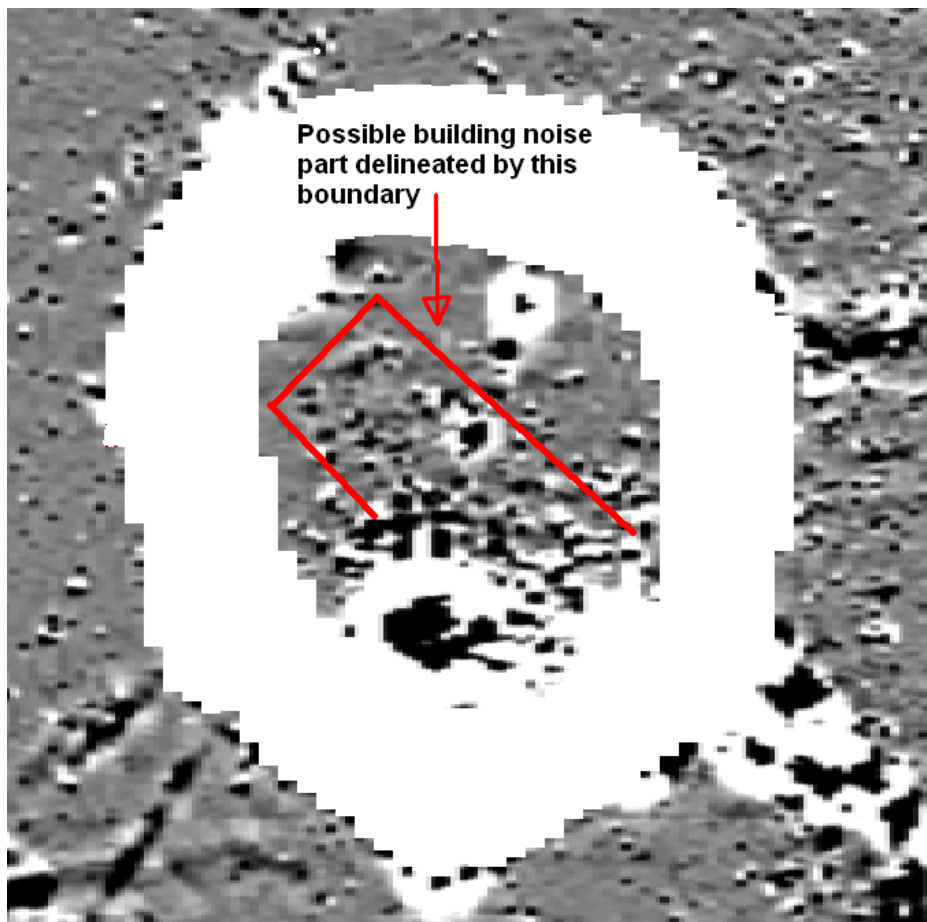


Figure 12: Nunnery Mount in close-up

- 4.3.5 Within Nunnery Mount is a central area of noise whose extent is unfortunately masked by a very large ferrous response to the south. Figure 4 shows that in 1945, an L-shaped shed or other structure stood here. The magnitude of the response suggests buried corrugated iron or the like. Outside this area, the magnetic noise is consistent, with reasonable confidence, with a structure aligned northwest to southeast. It is difficult to be sure but the north eastern end may be curved

5. REFERENCES

1. Historic England Pastscape record for Great Bricett Priory
http://www.pastscape.org.uk/hob.aspx?hob_id=386903
2. Historic England Pastscape record for Nunnery Mount
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