



**Geophysical survey of
Jubilee Field, Townsend Lane,
Upper Boddington,
Northamptonshire**

SP 48225364

CLASP Geophysical Report No.001

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Abstract

A geophysical (fluxgate gradiometer) survey was undertaken on Jubilee Field, Upper Boddington, Northamptonshire covering approximately an area of 1 hectare in the north-east of the village on the site of the intended village park to the south of Townsend Lane. A series of linear and rectilinear magnetic anomalies were detected in two areas denoting possibly the locations of medieval toft/close boundaries probably of Saxo-Norman date (850-1150 AD). These are situated along the north-eastern and south-western area of the site and appear to be associated with an irregular trackway aligned from the south-east to the north west of the field. The centre of the site is bisected by another larger unrelated hollow way probably dating from the high medieval period (1250-1400 AD).

1.0 Introduction

- 1.1 Mrs. Pam Stokes on behalf of Boddington Parish Council commissioned the community based archaeological charity - Community Landscape and Archaeological Survey Project (CLASP) to undertake a geophysical (fluxgate gradiometer) survey on land comprising village amenity open space in Jubilee Field, Upper Boddington, Northamptonshire, centered at SP 48225364 to meet the requirements of the archaeological planning brief for the site.
- 1.2 The site approximately 1 hectare is bounded to the north by Townsend Lane, to the east by London End Road and to the south and west by residential housing. At the time of the survey (14th November & 11th December 2014), the field was under grass and no general problems were encountered, although iron fencing around elements of the perimeter and modern areas of sub surface disturbance by indiscriminate modern infilling have affected the overall clarity of the probable medieval layout particularly on the central hollow way.
- 1.3 The fieldwork follows on from previous earthwork and geophysical survey and trial trenching undertaken by the Royal Commission for Historic Monuments England (circa 1982) and Albion Archaeology (2002) and is intended to provide a more detailed understanding of the extent and possible survival of the archaeological remains. This report also makes use of the proposed dating structure for the site derived from earlier trial trenching

when postulating the potential chronology development of the features described.

- 1.4 It will also inform an archaeological assessment concerning the integrity and state of preservation of the site prior to limited landscaping of the field as part of a parish initiative to develop a village park and to improve public access.
- 1.5 The survey methodology described in this report was based upon guidelines set out in English Heritage document Geophysical Survey in Archaeological Field Evaluation (David et al 2008).

2.0 Site Location and description

- 2.1 Situated in the north of the village the site is located on Jubilee Field, Upper Boddington Northamptonshire (Figs 1), centered at SP 48225364. The survey field is bounded to the north by Townsend Lane, to the east by London End Road and to the south and west by residential housing.
- 2.2 The underlying geology of the site consists of Middle Lias clays and silts (British geological survey sheet 185, published in 1980) and the aspect is dominated by a general and substantial sloping of the survey field from east to west. Jubilee Field lies between 144m and 152m. above OD.

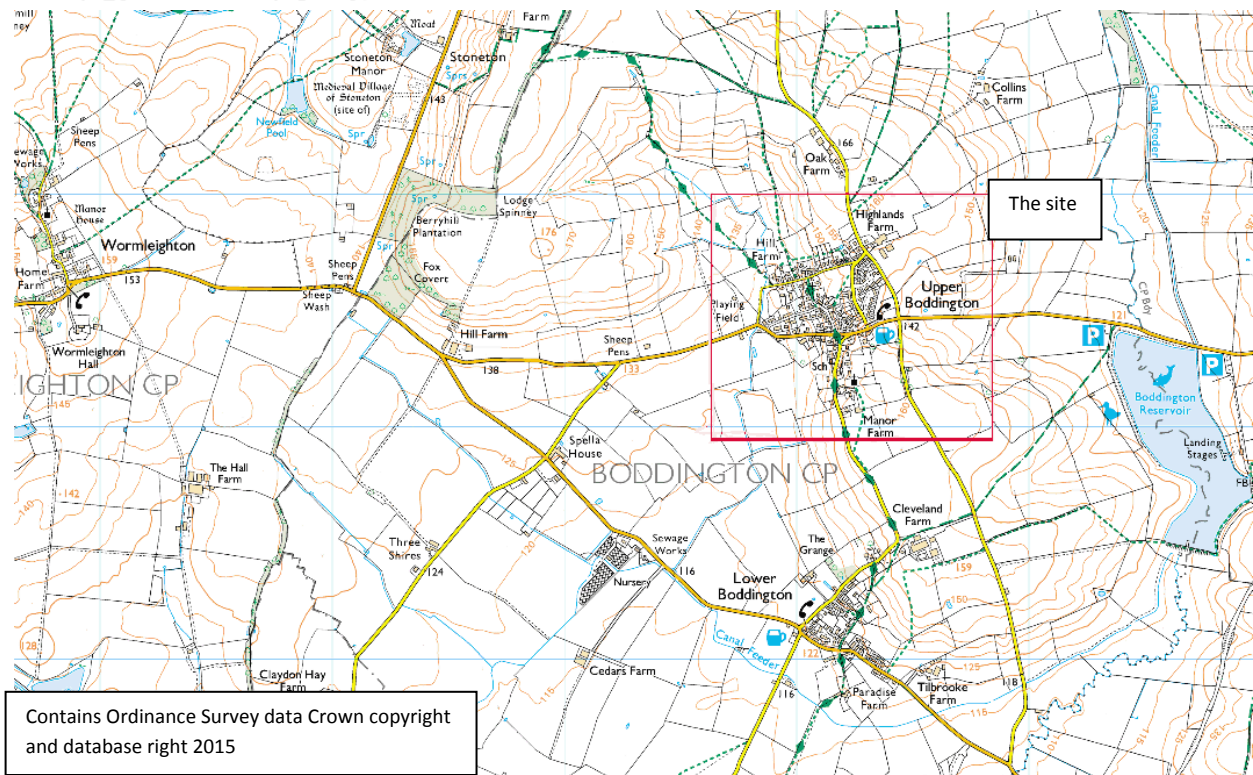
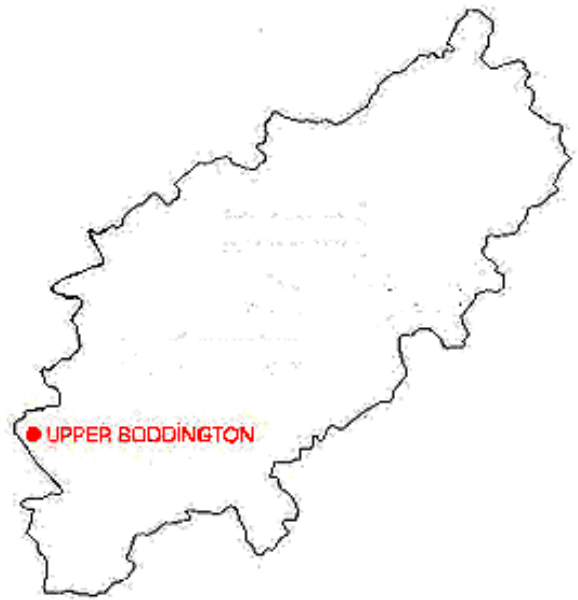


Fig 1. Site Location plan (scale: 1:50,000)

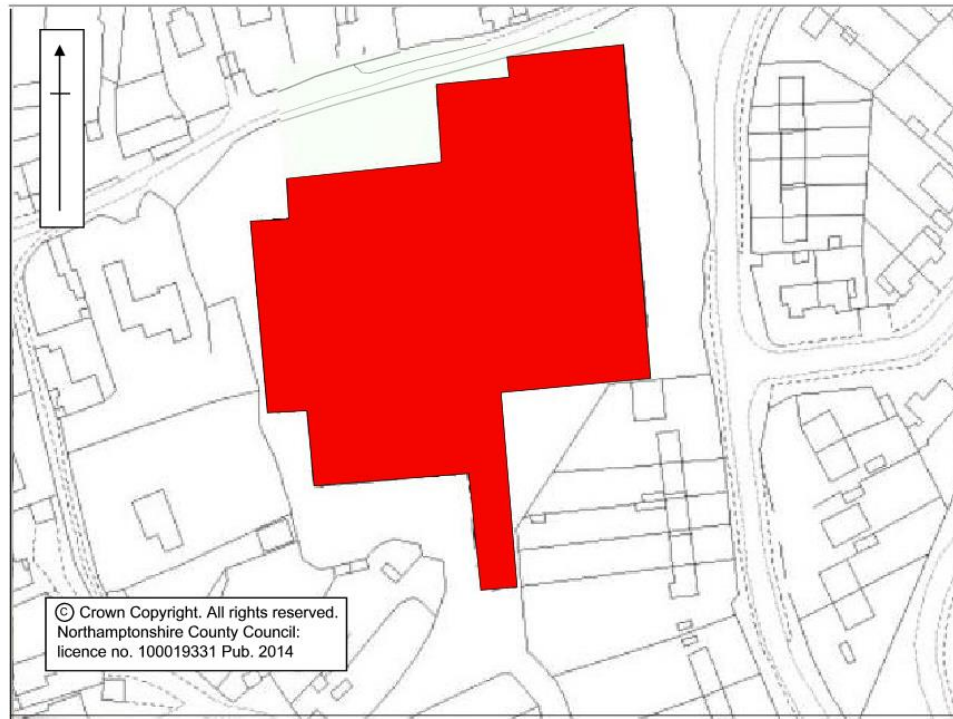


Fig 2. *Plan showing Gradiometer survey area, 1:2500*

3.0 Archaeological and historical background

- 3.1 Earthwork & geophysical surveys undertaken by the Royal Commission for Historic Monuments (England) and Albion Archaeology recorded a major hollow way running across the middle of the site aligned from west to east possibly associated with earthworks both to the north and south and it was thought that these may have contained building platforms reflecting the position of a series of 'medieval' tofts or closes.
- 3.2 Trial trenching by Albion Archaeology (2002) confirmed the main phase of archaeological activity dated from the Saxo-Norman period (850-1150) although activity continued into the high medieval era (1250-1400). In particular the pottery assemblage recovered during the excavation indicates the possibility that the tenement plots particularly aligned along the line of Townsend Lane to the north of the field were originally laid out and occupied in the Saxo-Norman age. The dating evidence could be argued as representing part of the first overall organized layout of the wider village

community during the 'Domesday' period or to a planned addition to the linear development centered on the southern core of the original village. The significant assemblage of high medieval pottery and its distribution on the site suggesting continued occupation with a decline in activity of the area before desertion of the 'tofts' which could be linked to a general shrinkage of the settlement by the late medieval period.

- 3.3 Unfortunately the limited nature of the Post-Medieval archaeological evidence made it difficult to characterize the subsequent occupation and usage of the site. Relatively recent indiscriminate infilling over the last few decades of elements of the site and specifically the main east/west hollow way illustrating a subsequent general agricultural role for the site that has obscured the earlier occupational activity.
- 3.4 It is also thought that the archaeological evidence from Jubilee Field reflects the wider regional pattern noted for Northamptonshire and the East Midlands. The hypothesis postulated being that the Saxo-Norman period is generally a time of renewal and development while the late 14th century is characterized more by a decline, shrinkage and desertion of elements of the overall size of settlement.
- 3.5 The desk top survey noted that Map evidence demonstrates the area had become open fields by the mid 19th century (CRO-Map 3133).

4.0 Field Methodology

- 4.1 The aim of the geophysical survey was to establish accurately the presence, extent and character of any geophysical anomalies within the survey area. It was also undertaken in order to clarify and enhance the previous fieldwork carried out on the site which only covered part of the area available for geophysical survey.
- 4.2 The gradiometer is a non-intrusive scientific inspecting technique used to determine the presence or absence of some types of subsurface archaeological features (e.g. ditches, trackways and building foundations). By scanning the soil surface geophysics can identify areas of varying magnetic susceptibility and interpret such variation by presenting data in a variety of graphical formats and identifying images that share morphological affinities with diagnostic archaeological remains (Clark 1990). In this case a magnetic survey was employed because it offered the best chance of locating the wider extent and character of the surviving archaeology.

- 4.3 The area survey was conducted using a Bartington grad 601 dual flux gate with the DL 601 data logger set to make four readings per metre (Sample interval of 0.25 m). The zigzag traversed method of survey was used with 1 m wide traverses on a north/south line across a series of grids varying in size from the largest at 30 x 30m (7 grids) through 20 x 20m (3 grids) to the smallest at 10 x 10m (10 grids) in order to maximize the area available for survey. The sensitivity of the machine was set to record and detect variation in the order of 0.1 nanoTesla.
- 4.4 The data was processed using Snuffler Version 1.3 and filtered to reduce geomagnetic striping and operator error due to ground irregularities etc. The gradiometer data is displayed as a grey scale map in fig 3 and an interpretation of the possible archaeological anomalies is shown in fig 4.

5.0 Field data analysis and interpretation of results

- 5.1 There is an East/West strip of strong magnetic disturbance across the central area of the site **(5)**. On the top of the slope at its eastern end this measures about 5m in width, expanding to 40m wide at the western end towards the bottom of the slope. Based on the evidence of the earthwork survey and trial trenching this is thought to be the location of a transverse hollow way. The feature has been indiscriminate backfilled obscuring any possible archaeology. This should not be interpreted as meaning the archaeology associated with the hollow way has been destroyed only obscured and future excavation may well be able to build on the information retrieved from Albion's trial trench 1.
- 5.2 Immediately south of the hollow way are a series of parallel linear anomalies orientated approximately north/south **(3)**. On average these anomalies are 20m long and probably represent the ditched boundaries of individual tofts/closes. The length of enclosure mirroring those identified in the north east quadrant of the site. The features appear to be capped or truncated at their northern end by another transverse anomaly probably another ditch **(6)**. Unfortunately other less distinct potential anomalies to the north of this feature make a more detailed interpretation of this sector of the field difficult to construct in any meaningful way.
- 5.3 Immediately east of these features and aligned with them running from north/south are two parallel drainage ditches either side of a possible trackway **(1)**. It is worth noting that Albion's Trench 5 revealed a metalled/cobbled surface nearly 2m wide on the trackway alignment to the south of the present survey area.

5.4 North of the hollow way the CLASP survey has little to add to the Albion survey. In fact some of the features identified by Albion are no longer visible, probably due to agricultural erosion or work carried out in the intervening years **(4)**. The East-West ditch identified in the North East corner, parallel to the Townsend Lane is visible and may possibly be a double ditch for part of its length **(2)**. It does not appear to extend to the West although there may be some pits aligned with it. There are traces of North South features between the alignment of the ditch and Townsend Lane **(4)**. Metal contamination in the hedge and from the mounting platform for a modern bench has obscured possible features to the West. It proved impossible to geophysical survey part of the area as a heap of top soil prevented access.

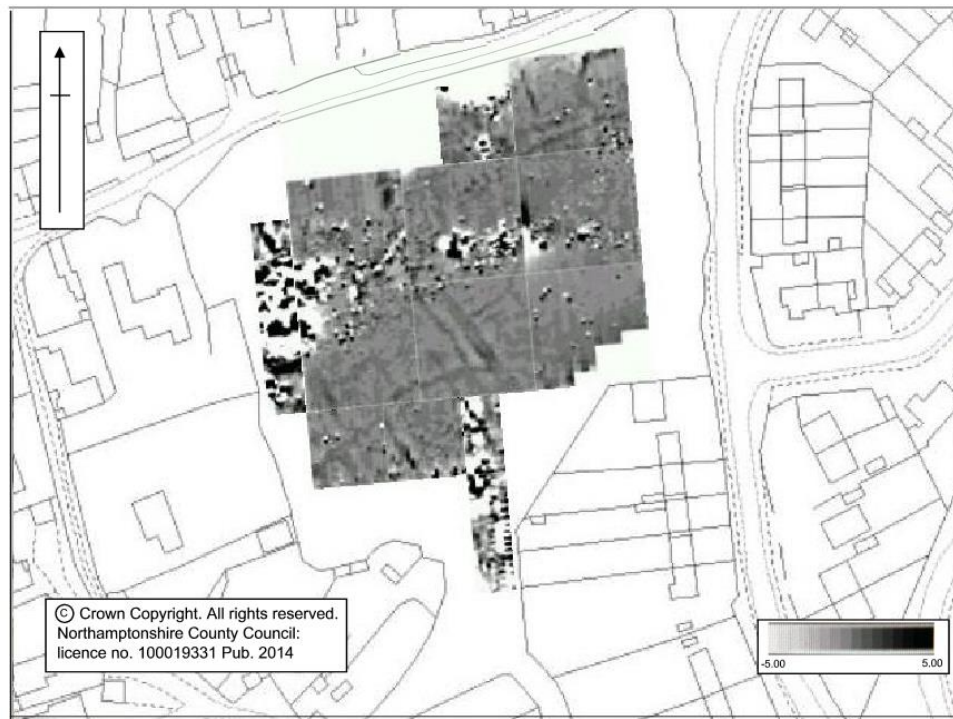


Fig 3. *Greyscale plot of raw and enhanced data, 1: 1:2500*

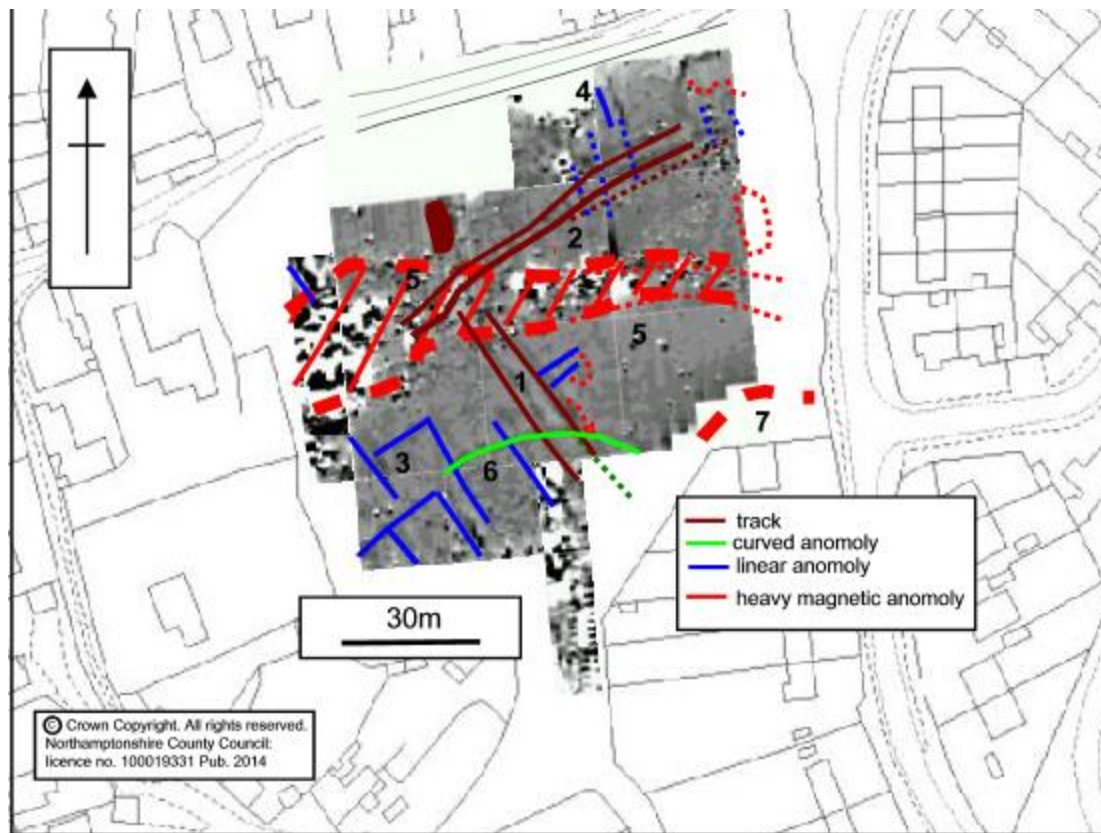


Fig 4. Interpretation of Greyscale plot 1:2500 (Including CLASP & WYAS survey data. WYAS shown dotted)

6.0 Conclusions

- 6.1 Importantly the geophysical survey has identified new anomalies over a wider area and confirmed the existence of known pre-existing remains as well as revealing a series of new anomalies in the south-west of the site which are believed to be medieval in date. Those anomalies detected probably represent two principal alignments of tofts/closes laid out in a relatively regular pattern in relation to Townsend Lane in the north and the possible original alignment of Frog Lane in the south-west of the site.
- 6.2 The arrangement and layout of the archaeological features here described as tofts/closes is indicative of an organized and carefully planned origin or extension of the medieval village of Upper Boddington probably in the Saxo-Norman period. These enclosures appear to be orientated along a frontage today composed by Townsend Lane and the possible original alignment of

Frog Lane. The attendant possible trackway facilitates access between the south east and north east elements of the site presumably to maintain communication with elements of the village further to the south.

- 6.3 Observation of these two sets of possible toft/close alignments appears to indicate perhaps there was more than one phase of development during the Saxo-Norman period in the distribution of tofts/closes within this part of the village, although this maybe reflects topology.
- 6.4 The alignment and general layout of the magnetic anomalies particularly those associated with the tofts/close enclosures and dependant trackway supported by the excavated evidence from trial trenching by Albion Archaeology indicate a major archaeological phase of development within Jubilee Field in the Saxo-Norman (850-1150) era the longevity of which appeared to have ceased before the creation of the main east west hollow way traversing the site at some stage in the high medieval period (1250-1400) which does not appear to be related to the earlier layout pattern.
- 6.5 The major hollow way bisecting the central area of the field although heavily obscured by indiscriminate landfill does not seem to mirror or relate to the layout of the tofts/close enclosures and almost certainly reflects a change of use for Jubilee Field in the late medieval period connected to socio-economic changes impacting on the village at this later date in the medieval period.
- 6.6 Unfortunately no distinctive anomalies were detected within the tofts/closes to indicate the presence of wall foundations for buildings although their survival archaeologically cannot be dismissed. It should be noted that the trial excavation work undertaken by Albion didn't reveal any wall foundations. Only further excavation will prove or disprove their existence and the wider interpretation placed on the geophysics obtained from the site.
- 6.7 By comparing the two geophysical surveys it can be seen that there is a positive synergy between the anomalies representing the individual property boundaries and that when the results from different surveys are combined a very clear understanding of the layout of this part of the village may be obtainable.
- 6.8 In general terms several factors can be deduced to have affected the clarity of the disposition and quality of the geophysical anomalies detected during the survey. It should be noted when comparing the results of the two geophysical surveys there is a strong indication of significant erosion in the quality of the archaeological features present notably in the area of the anomalies associated with the probable tofts/closes in north-west of the site. The geophysical survey has also made it possible to determine the extent of

the indiscriminate infilling of major archaeological features such as the main hollow way and demonstrated the extent of the subsurface disturbance in the south-eastern corner of the site where the archaeology, if it existed, has been destroyed most likely when the neighbouring garages were erected (**fig 4. (7)**).

- 6.9 The site is undoubtedly of importance for future research on the character and chronology of Medieval Upper Boddington but its damaged and disturbed status would probably restrict its capacity to be of seminal value to the wider regional research frameworks.
- 6.10 The geophysical surveys and trial trenching have complement each other's findings aiding to the veracity of the interpretive statements being offered.
- 6.11 One can state that based on the findings of the CLASP geophysical survey allied to the results of earlier fieldwork the site possess a mixed archaeological potential for engaging with the issues of medieval village development and evolution. However an important element of the overall findings is that a model of development can be postulated for the site which accords well with the accepted hypothesis of early village nucleation and evolution for Northamptonshire and the immediate region.
- 6.12 It is unlikely that the proposed landscaping and envisaged public use of the site will have any detrimental effect on the surviving archaeology especially as developments like the car park will be associated with an area of the site where if any archaeology had existed it has now definitely been destroyed in relation to earlier adjacent development. Similarly the envisaged planting regime is unlikely to interfere with the sub surface archaeology in the long term

Acknowledgements

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