# LAND at LITTLE UPTON UPTON CROSS, LINKINHORNE CORNWALL

**Results of a Geophysical Survey** 





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# Land at Little Upton, Upton Cross, Linkinhorne, Cornwall

#### Results of a Geophysical Survey

For

Deborah McCann (the Agent)

On Behalf Of

Greg Coombe (the Client)

Ву



SWARCH project reference: LLU15
National Grid Reference: SX 2791 7252
Planning Application Ref: Pre-planning
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October 2015

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#### **Summary**

This report presents the results of a Geophysical survey carried out by South West Archaeology Ltd. (SWARCH) on land at Little Upton, Upton Cross, Linkinhorne, Cornwall as part of the documentation for a proposed housing development.

The survey has identified one anomaly of probable archaeological origin that is representative of a trackway identified in the cartographic record and removed in the mid-20th century. The remaining three anomalies are of modern origin and represent ploughing activity, bonfires and ferrous debris/waste.

The objectives of the survey were to locate any anomalies which may relate to deposits, structures or artefacts of archaeological origin and accurately record their location. The results of the survey will inform any subsequent investigation or mitigation works prior to the development of the site. The results of this survey render it unlikely any significant archaeological remains or deposits will be encountered by any proposed development of the site.

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Deborah McCann (the Agent)

Greg Coombe and Mrs Coombe (the Client)

Staff at the Cornwall Record Office (CRO)

#### 1.0 Introduction

**Location:** Land at Little Upton, Upton Cross

Parish: Linkinhorne
County: Cornwall
NGR: SX 2791 7252
Type of survey: Gradiometer
Date of survey: 8.10.15
Area surveyed: 0.37ha

#### 1.1 Project Background

This report presents the results of geophysical survey carried out by South West Archaeology Ltd. (SWARCH) on land at Little Upton, Upton Cross, Linkinhorne, Cornwall (Figure 1). The work was commissioned by Deborah McCann (the Agent) on behalf of Greg Coombe (the Client) in order to identify any archaeological features that might be affected by the construction of a proposed housing development.

#### 1.2 Topographical and Geological Background

Upton Cross is located approximately eight kilometres north-north-east of Liskeard and twelve kilometres south-south-west of Launceston, on the east side of the B3254, just outside the boundary of Bodmin Moor (the B3254 forms the eastern boundary of the moor). The site is located to the north of Upton Cross, adjacent to Upyon, immediately south-west of Upton Hall and on the eastern slope of Caradon Hill. The site itself is a field with a gentle slope that runs to the north-east at an altitude of approximately 175m AOD (see Figure 1).

The soils of this area are the well drained fine loamy and fine silty soils over rock of the Denbigh 1 Association (SSEW 1983). These soils overlie the metamorphic bedrock of Hornfelsted slate, siltstone and sandstone of the Brendon Formation (BGS 2015).

#### 1.3 Historical Background

The parish of *Linkinhorne* is in the deanery and north division of the hundred of East Rillaton (*Risleston*). The principal manor of the parish, and indeed the hundred, was located to the north-east of the site at Upton, and was one of the 17 original ancient manors belonging to the Earldom of Cornwall. Prior to the conquest, it was held by Beorhtmær and was worth £30. In 1086, it was owned by the Count of Mortain and was worth £15. The settlement of Upton (HER No: 17474) (*Oppeton*) was first recorded in 1311. Its place-name is derived from Old English, meaning 'higher farm/settlement'.

Cartographic sources (see Appendix 2) show that the surrounding landscape has changed very little over the last 180 years. The 1841 tithe map, the first detailed cartographic source, records a field system of medieval origins with strip fields and curving boundaries, as suggested by the Cornwall Historic Landscape Characterisation Project which has characterised much of the area surrounding Upton as Anciently Enclosed Land (AEL). The tithe map also shows the main houses and barns at what is now Little Upton and Hall, and many of the fields immediately adjacent to the site were recorded as orchards (Apportionment No. 545). Field names listed in the 1838 tithe apportionment are all relatively prosaic and describe either the field's location, use, or a personal name. Examples include: 558 – The vineyard; 577 – Dugle's Marsh; and 538 – North Park. The lands belonging to a farm located at Upton were listed

as jointly owned and occupied by John and Henry Coombe. Unfortunately, the apportionment for the western half of the parish does not list the plots associated with the site (545, 547-551), although it is possible that these were part of John Coombe's portion of Upton. The eastern apportionment lists plot 545 as part of *Blackum*; owned by Edward Westlake and occupied by Robert Coombe.

The 1883 Ordnance Survey 1<sup>st</sup> edition shows very little change across the area. One change is a trackway depicted running from the southern corner of the site towards the north-east boundary. The settlement to the south of the site at Upton Cross had also developed by this point. One major change recorded in the 1907 Ordnance Survey 2<sup>nd</sup> edition is the absence of the farm at *Higher Lanhargie* to the south of *Little Upton*. In addition, buildings had been developed to the south-west of Little Upton. The outbuildings at Little Upton also underwent change during this period, although none are located within the bounds of the proposal site.

#### 1.4 Archaeological Background

To date, no archaeological fieldwork has been undertaken on the site. The Cornwall Historic Landscape Characterisation records the site as 'Medieval Farmland' – 'farming settlements documented before the 17<sup>th</sup> century and whose field patterns are morphologically distinct from the generally straight-sided fields of later enclosures'. Nearby earthworks/cropmarks that illustrate an early Medieval field system are included on the Cornwall Historic Environment Record (nos. 54858 and 54864). An undated mound is located *c*.300m north-east of the site (HER no. 54863). Upton Hall Farmhouse, located immediately to the east of the site, is a Grade II Listed building (1140495). It is a possible late 17<sup>th</sup> century building that was rebuilt in the 18<sup>th</sup> century and subsequently altered through the 19<sup>th</sup> and 20<sup>th</sup> centuries. It includes three bee boles (HER no. MCO56027). There is also a Grade II Listed milestone at the T-junction in Upton (HER no. 172651). Within *c*.2.5km east, north and south of the site are cropmarks and documentary evidence for a number of possible prehistoric sites including Iron Age/Romano-British 'rounds' (HER nos. 17412, 17418, 17419, 54872) and a Bronze Age barrow (HER no. 10013). West of the site, on Bodmin Moor, are a number of HERs for prehistoric settlements and medieval and post-medieval mining activity, particularly on Caradon Hill, on the eastern slope of which the site is located.

#### 1.5 Methodology

This document follows the methodology outlined in the Project Design (Appendix 1).

The gradiometer survey follows the guidance outlined in *Geophysical Survey in Archaeological Field Evaluation* (English Heritage, 2008) and *Standard and Guidance for Archaeological Geophysical Survey* (IfA, 2011, updated 2013).

'Archaeological geophysical survey uses non-intrusive and non-destructive techniques to determine the presence or absence of anomalies likely to be caused by archaeological features, structures or deposits, as far as reasonably possible, within a specified area or site on land, in the inter-tidal zone or underwater. Geophysical survey determines the presence of anomalies of archaeological potential through measurement of one or more physical properties of the subsurface.' (Standard and Guidance for Archaeological Geophysical Survey, 2011).

The results of the survey will as far as possible inform on the presence or absence, character, extent and in some cases, apparent relative phasing of buried archaeology leading to the formulation of a strategy to mitigate a threat to the archaeological resource.

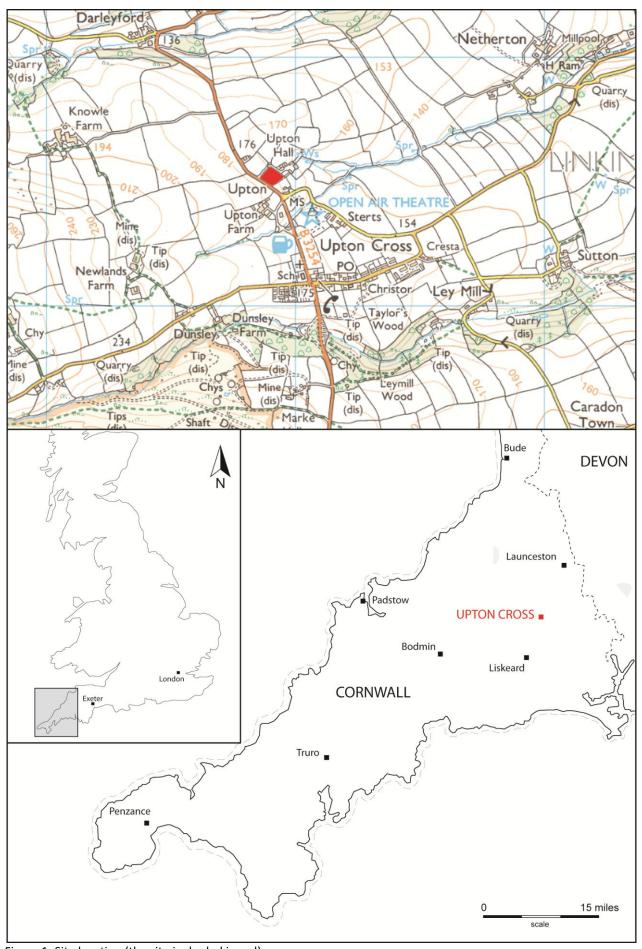


Figure 1: Site location (the site is shaded in red).

#### 2.0 Gradiometer Survey

#### 2.1 Introduction

The purpose of this survey was to identify and record magnetic anomalies. While the anomalies may relate to archaeological deposits and structures, the dimensions of recorded anomalies may not directly correspond with any associated archaeological features. The following discussion attempts to clarify and characterise any identified anomalies. A single field (c.0.4ha) was subject to the survey (see Figure 1). The survey was undertaken in October 2015 by SWARCH personnel in sunny conditions. The field was a meadow containing short grass with occasional patches of 'dock leaf'/Rumex scrub. The land sloped down gently-moderately to the east-north-east.

The survey identified one anomaly group of probable archaeological origin that is represented in the cartographic record. This group was comprised of a weak negative, linear anomaly, most likely a track depicted on late 19<sup>th</sup> and early 20<sup>th</sup> century maps. The remaining anomalies were of modern origin and represent deposition of ferrous objects and recent bonfires. Linear anomalies aligned parallel to the slope are indicative of natural variation or the ephemeral survival of ploughing activity.

#### 2.2 Methodology

The gradiometer survey follows the general guidance as outlined in: *Geophysical Survey in Archaeological Field Evaluation* (English Heritage, 2008) and *Standard and Guidance for Archaeological Geophysical Survey* (Institute for Archaeologists, 2011, updated 2013).

The survey was carried out using two twin-sensor fluxgate gradiometers (Bartington Grad601). These machines are sensitive to depths of up to 1.50m. The survey parameters were: sample intervals of 0.25m, traverse intervals of 1m, a zigzag traverse pattern, traverse orientation was circumstantial, grid squares of 30×30m. The gradiometer was adjusted ('zeroed') every 0.5-1ha. The survey grid was tied into the Ordnance Survey National Grid. The data was downloaded onto *Grad601 Version 3.16* and processed using *TerraSurveyor Version 3.0.25.0*. The primary data plots used in this analysis were *Shade* and *Metadata*. The details of the data processing are as follows:

Processes: Clip +/- 3SD; DeStripe all traverses, median; DeStagger, offset outbound by up to -2 interval (grids a1, a2, a6), offset outbound by up to -1 interval (grids a3, a4, a5; Interpolate X and Y, double resolution.

Details: 0.37ha surveyed; Max. 107.45nT, Min. -109.60nT; Standard Deviation 9.02nT, mean -0.16nT, median 0nT.

#### 2.3 Results

Figures 2 and 3 with the accompanying Table 1 show the analyses and interpretation of the geophysical survey data. Additional graphic images of the survey data can be seen in Appendix 3.

Anomaly	Class and	Form	Archaeological	Comments
group	Certainty		characterisation	
1	Negative, probable	Linear	Track-way	Post-medieval track-way. Very weak negative
			present on the	response is indicative of an increased amount of
			1907 OS	stone along the track. Natural rock was present
			mapping	in the topsoil across the field and it may be that
				the top soil is thinner across this anomaly
				allowing the underlying bedrock to give a
				stronger comparative response.
2	Dipolar, possible	Sub-	Modern bonfire	A modern area of disturbance was visible at this
		oval		location during the survey; the site of an old
				bonfire. Its moderately weak thermoremnant
				response (-24nT to +20nT) is further indicative
				of this.
3	Magnetic	Sub-	Modern rubbish	This area of the site contained a large amount
	disturbance,	oval	dump or bonfire	of dock-leaf scrub defining an oval shape. The
	Possible			response was indicative of a large ferrous object
				with surrounding magnetic debris. It may
				obscure a modern rubbish pit or represent
				spread bonfire waste.
4	Positive and	Linear	Ploughing or	Very weak linear anomalies may be of
	mixed, possible		geological	geological origin or the ephemeral remnants of
				ploughing activity. These responses
				intermittently run in striations parallel to the
				slope.

Table 1: Interpretation of Gradiometer Survey data.

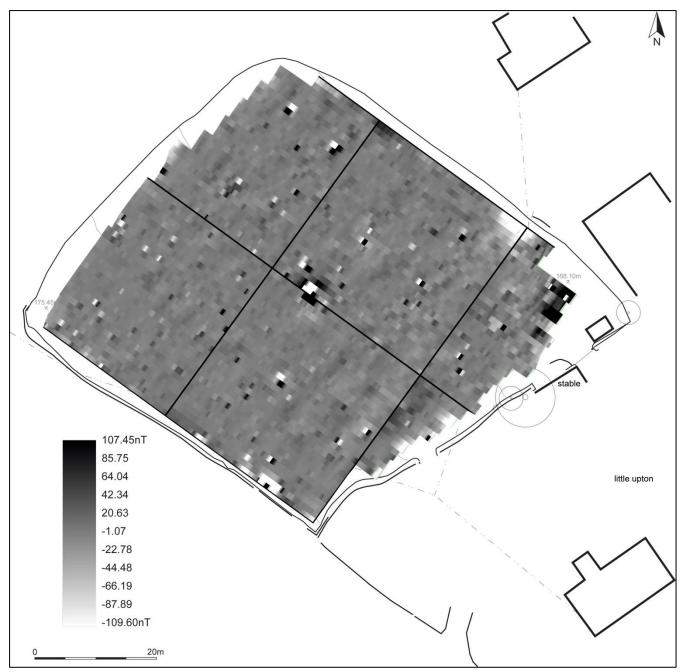


Figure 2: Shade plot of gradiometer survey results, minimal processing.

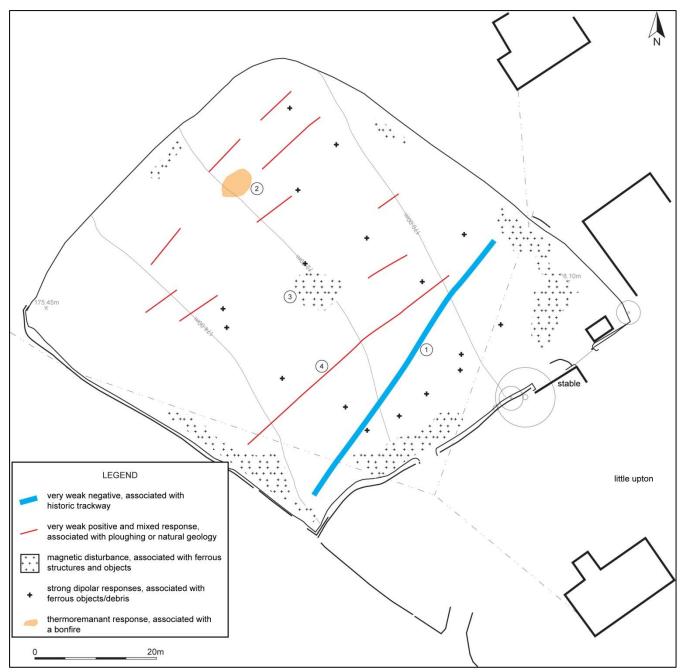


Figure 3: Interpretation of gradiometer survey data.

#### 3.1 Discussion

Anomaly Group 1 equates to a historic track that is present on the 1<sup>st</sup> (1883) and 2<sup>nd</sup> (1907) Edition Ordnance Survey maps. It is not visible on the earlier tithe map of 1841. The track way was still denoted on Ordnance Survey mapping in 1962, but was absent in 1976. The very weak negative response of the anomaly is indicative of either a slight increase in stone material that may have been spread across the trackway or the disturbance of the natural rock beneath a perhaps thinner or compacted topsoil compared to the rest of the field.

Anomaly Group 2 equates to an area of modern disturbance. During the survey it was clear that a bonfire had occurred on the location at some point in the recent past, although perhaps not this year. Its moderately weak thermoremnant response (-24nT to +20nT) is further indicative of this. It has been identified and explained as an anomaly to account for the response that is visible in the data shade plot.

The response of anomaly Group 3 is indicative of a large ferrous object with surrounding magnetic debris. The oval area it covers contained a lot of dock-leaf scrub and it may obscure a modern rubbish pit or represent spread bonfire waste. As with Group 2, it has been explained here to account for the response in the middle of the site.

The very weak linear anomalies of Group 4 are indicative of geological striations or the ephemeral remnants of ploughing activity. These responses intermittently run in striations parallel to the slope and probably represent ploughing activity.

The survey also identified a large amount of ferrous debris/objects across the site, which is not unexpected given the site's close proximity to the main farm buildings and use as a general yard area and more recently for keeping horses. A very subtle 'ring-shape' can also be discerned on the shade plot in the east corner of the site, but again this was associated with modern disturbance of on the surface.

#### 3.2 Conclusion

The geophysical survey indicates that there are relatively few features of archaeological origin present within the area of the proposed development. Those that are present relate to historic aspects removed in the 20<sup>th</sup> century.

Any development is unlikely to disturb any significant archaeological deposits or remains.

#### 4.0 Bibliography & References

#### **Published Sources:**

**English Heritage** 2008: *Geophysical Survey in Archaeological Field Evaluation.* 

Watts, V. 2010: The Cambridge Dictionary of English Place-Names. Cambridge University Press, Cambridge.

**Institute for Archaeologists** 2011: (updated 2013) *Standard and Guidance for Archaeological Geophysical Survey.* 

**Schmidt, A.** 2002: *Geophysical Data in Archaeology: A Guide to Good Practice.* ADS series of Guides to Good Practice. Oxbow Books, Oxford.

**Soil Survey of England and Wales** 1983: *Legend for the 1:250,000 Soil Map of England and Wales (a brief explanation of the constituent soil associations).* 

Williams, A & Martin, E.H. (eds.) 2002: Domesday Book. Penguin Books, London.

#### Websites:

**British Geological Survey** 2015: *Geology of Britain Viewer*.

http://maps.bgs.ac.uk/geologyviewer\_google/googleviewer.html [accessed 06.10.2015]

Cornwall Council 2015: Cornwall Council Interactive Map

http://map.cornwall.gov.uk/website/ccmap/?zoomlevel=1&xcoord=187430&ycoord=64380&maptype=basemap&wsName=ccmap&layerName=Libraries [accessed 06.10.2015]

**Historic Environment Records** 2015: *Heritage Gateway*.

http://www.heritagegateway.org.uk/Gateway/Results.aspx [accessed 06.10.2015]

#### Cornwall Record Office:

Linkinhorne Tithe Map (1841) and Apportionment (1838) Ordance Survey 1<sup>st</sup> Edition (published 1883) Ordance Survey 2<sup>nd</sup> Edition (published 1907)

#### Appendix 1

### PROJECT DESIGN FOR GEOPHYSICAL SURVEY ON LAND AT LITTLE UPTON, UPTON CROSS, LINKINHORNE, CORNWALL.

**Location:** Land at Little Upton, Upton Cross

Parish: Linkinhorne
County: Cornwall
NGR: SX 2791 7252

**Proposal:** 13 new homes on land adjacent to Little Upton

Date: 2<sup>nd</sup> October 2015

#### 1.0 INTRODUCTION

This document forms a Project Design (PD) which has been produced by South West Archaeology (SWARCH) at the request of Deborah McCann (the Agent) on behalf of Greg Coombe (the Client). It sets out the methodology for a geophysical survey to be undertaken in advance of the application for planning for the above development and for related off site analysis and reporting. The PD and the schedule of work it proposes were drawn up in line with best practice.

#### 2.0 ARCHAEOLOGICAL BACKGROUND

The proposal site lies approximately 100m north of the boundary with the Caradon Mining District World Heritage Site, and adjacent to the Grade II Listed Upton Hall Farmhouse with attached wall. This is a farmhouse with origins potentially in the late 17<sup>th</sup> century, but having been rebuilt in the late 18<sup>th</sup> century, before undergoing alterations in the mid 19<sup>th</sup> century and later. A heritage statement and impact assessment for the development have been carried out by Expedite Design Services. The site lies within an area characterised in the Cornwall HLC as Medieval Farmland, but with potentially prehistoric origins.

#### 3.0 AIMS

- **3.1** The principal objectives of the work will be to:
  - 3.1.1 To observe and identify archaeological features through geophysical survey.
  - 3.1.2 To analyse and report on the results of the project as appropriate.
  - 3.1.3 Provide a statement of the impact of the proposed development on the potential archaeological resource with recommendations for those areas where further evaluation and/or mitigation strategies may be required.

#### 4.0 METHOD

4.1 Geophysical Survey:

The programme of work shall include a magnetometer survey covering the field in which the proposed development would be located. The results of this survey will inform whether an archaeological evaluation or further archaeological recording of any potential buried remains or other mitigation is required.

- 4.2 The Client will provide SWARCH with details of the location of existing services and of proposed groundworks within the site area, and of the proposed construction programme.
- 4.3 Health and Safety requirements will be observed at all times by any archaeological staff working on site, particularly when working with machinery. As a minimum: high-visibility jackets, safety helmets and protective footwear will be worn.
  - 4.3.1 Appropriate PPE will be employed at all times.
  - 4.3.2 The site archaeologist will undertake any site safety induction course provided by the Client.

#### 5.0 REPORTING

- 5.1 The type of report produced will depend on the results. If a full report is produced it will include the following elements:
  - 5.1.1 A report number, date and the OASIS record number;
  - 5.1.2 A copy of this PD;
  - 5.1.3 A summary of the project's background;
  - 5.1.4 A description and illustration of the site location;
  - 5.1.5 A methodology of the works undertaken, and an evaluation of that methodology;
  - 5.1.6 Plans and reports of all documentary and other research undertaken;
  - 5.1.7 A summary of the project's results;
  - 5.1.8 An interpretation of the results in the appropriate context;
  - 5.1.9 A summary of the contents of the project archive and its location (including summary catalogues of finds and samples);
  - 5.1.10 A location plan and overall site plan including the location of areas subject to archaeological recording;
  - 5.1.11 A description of any remains and deposits identified including an interpretation of their character and significance;
  - 5.1.12 A consideration of the evidence within its wider context;
  - 5.1.13 Specialist assessment or analysis reports where undertaken.
- 5.2 A copy of the report detailing the results of these investigations will be submitted to the OASIS (*Online Access to the Index of Archaeological Investigations*) database under reference Southwes1-225373 within 3 months of completion of fieldwork.

#### 6.0 FURTHER WORK

Should the results of this Assessment indicate a need for further archaeological works to be undertaken this may need to be completed before validation of the Planning Application in order to enable the Local Planning Authority to make an informed

#### Land at Little Upton, Upton Cross, Linkinhorne, Cornwall

and reasonable decision on the application, in accordance with the guidelines contained within paragraph 141 of paragraph 128 of the *National Planning Policy Framework* (2012). This work would be subject to a separate Project Design.

#### 7.0 ARCHIVE

7.1 On completion of the project an ordered and integrated site archive will be prepared in accordance with the Management of Research Projects in the Historic Environment (MoRPHE)(http://www.english-heritage.org.uk/publications/morphe-project-managers-guide/).

The digital element of the archive will be transferred to the Archaeology Data Service (ADS) for long-term curation.

7.2

- 7.2.1 The archive, comprising the retained artefacts/samples and the hardcopy paper record (if requested) will be cleaned (or otherwise treated), ordered, recorded, packed and boxed in accordance with the deposition standards of the Royal Cornwall Museum (RCM), and in a timely fashion.
- 7.2.2 If the RCM wishes to retain the hardcopy paper archive, it will be deposited with the rest of the material archive under the same accession number. Should the RCM decline the hardcopy paper archive, that archive will be offered to other appropriate museum bodies or the Cornwall Record Office (CRO). If a suitable third party cannot be found, the hardcopy paper archive will be retained by SWARCH for 3 years and then destroyed.
- 7.3 SWARCH will, on behalf of the RCM, obtain a written agreement from the landowner to transfer title to all items in the material archive to the receiving museum.
- 7.4 If ownership of all or any of the finds is to remain with the landowner, provision and agreement must be made for the time-limited retention of the material and its full analysis and recording, by appropriate specialists.
- 7.5 SWARCH will notify the case officer upon the completion of deposition of the material (finds) archive with the museum.
- 7.6 The condition placed upon this development will not be regarded as discharged until the report has been produced and supplied to the Client or Agent to be submitted to the LPA, the site archive deposited and the OASIS form completed.
- 7.7 The archive will be completed within 3 months of the completion of the final report.

#### 8.0 CONFLICT WITH OTHER CONDITIONS AND STATUTORY PROTECTED SPECIES

Even where groundworks are being undertaken under the direct control and supervision of SWARCH personnel, it remains the responsibility of the Client - in consultation with SWARCH, the applicant or agent - to ensure that the required archaeological works do not conflict with any other conditions that have been imposed upon the consent granted and should also consider any biodiversity issues as covered by the NERC Act 2006. In particular, such conflicts may arise where archaeological investigations/excavations have the potential to have an impact upon protected species and/or natural habitats e.g. SSSIs, National Nature Reserves, Special Protection Areas, Special Areas of Conservation, Ramsar sites, County Wildlife Sites etc.

#### 9.0 PERSONNEL & MONITORING

9.1 The project will be managed by Dr. Bryn Morris; the geophysical survey will be undertaken by SWARCH personnel with appropriate expertise and experience. Where necessary, appropriate specialist advice will be sought (see list of consultant specialists in Appendix 1 below).

Natalie Boyd

South West Archaeology

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## Appendix 2 Cartographic Sources

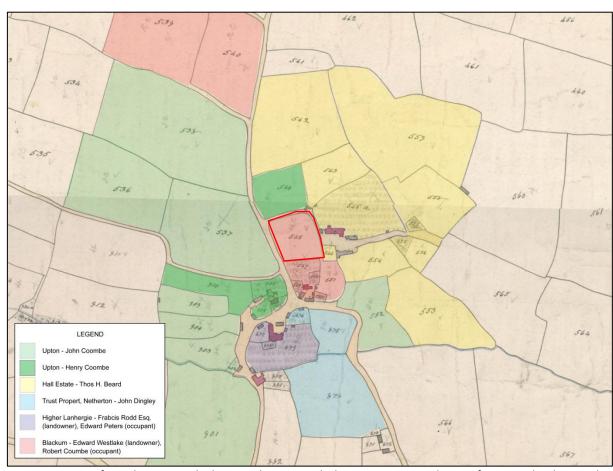


Figure 4: Extract from the 1841 Linkinhorne tithe map with the apportionment listings for estate landownership and occupancy (CRO) (the site is outlined in red).

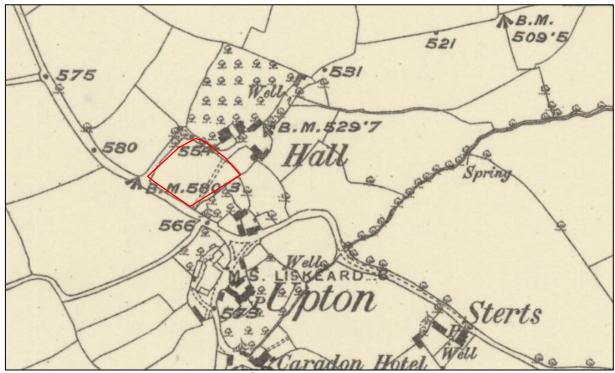


Figure 5: Extract from the Ordnance Survey 1<sup>st</sup> Edition Map, 1883 (CRO) (the site is outlined in red).

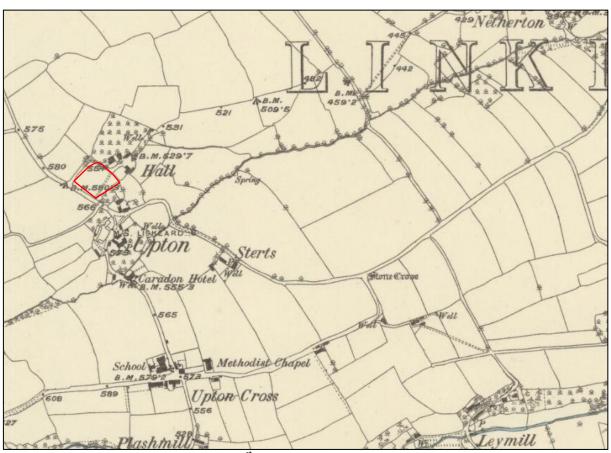


Figure 6: Extract from the Ordnance Survey 1<sup>st</sup> Edition Map, 1883 (CRO) (the site is outlined in red).

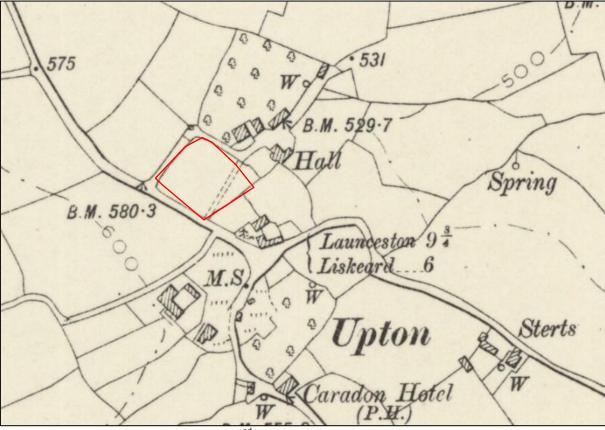


Figure 7: Extract from the Ordnance Survey 2<sup>nd</sup> Edition Map, 1907 (CRO) (the site is outlined in red).

Appendix 3
Additional Graphic Images of Gradiometer Survey Data



Figure 8: Gradiometer survey grid location and numbers.

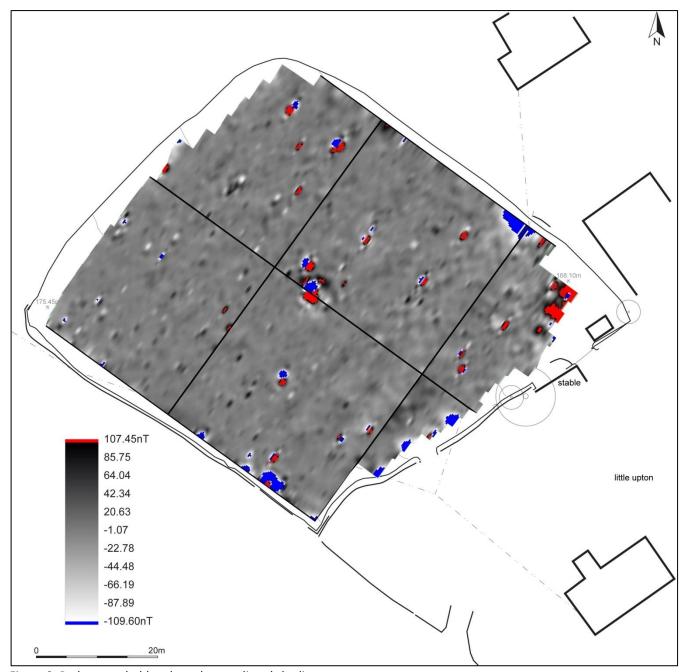


Figure 9: Red-greyscale-blue data plot: gradiated shading.

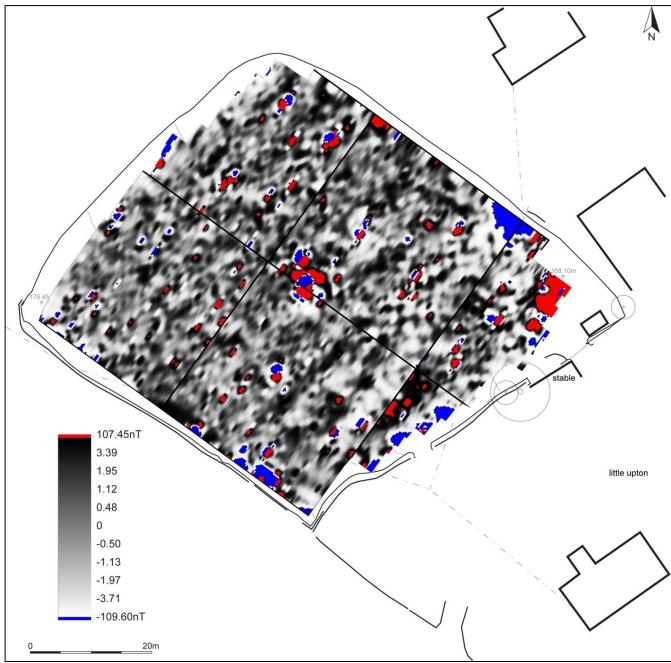


Figure 10: Red-greyscale-blue data plot; band weight equalised, gradiated shading.

## Appendix 4 Supporting Photos



Figure 11: View from the east corner entrance to the site, looking west.



Figure 12: View of the stone wall/Cornish hedgebank in the south corner of the site, looking south.



Figure 13: View across the middle of the site towards Upton Hall farmhouse, looking north-east.



Figure 14: View towards the eastern corner of the site, looking east.



Figure 15: View of the south-east entrance to the site towards Little Upton, Looking south-east.



Figure 16: View of a nearby tor, beyond Henwood, looking north-west.



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