University of Leicester

Archaeological Services

An Archaeological Topographic and Historic Building Photographic Survey at Land west of Stanton Road, Sapcote, Leicestershire (SP 489 939)

Matthew Beamish, James Harvey and Andrew Hyam

ULAS Report No 2015-039

An Archaeological Topographic and Historic Building Photographic Survey and LiDAR study at Land west of Stanton Road, Sapcote, Leicestershire (SP 489 939)

Matthew Beamish, James Harvey and Andrew Hyam

for:

Jelson Ltd.

Checked by:

Signed:……

Date: …09.03.2015

Name……Patrick Clay

University of Leicester

Archaeological Services

University Rd., Leicester, LE1 7RH

Tel: (0116) 252 2848 Fax: (0116) 252 2614

ULAS Report Number 2015-039

Contents

Figures

An Archaeological Topographic and Historic Building Photographic Survey at Land west of Stanton Road, Sapcote, Leicestershire (SP 489 939)

Matthew Beamish, James Harvey and Andrew Hyam

Summary

University of Leicester Archaeological Services (ULAS) carried out an archaeological investigation at Land west of Stanton Road, Sapcote, Leicestershire (SP 489 939) on the 4th February 2015. Previous based assessment indicated that the site contained faint ridge and furrow earthworks as well as later features associated with former granite quarrying activity. A Topographic and Historic Photographic Survey of these heritage assets was undertaken to fulfil a condition of planning permission prior to residential development of the site.

The topographic survey recorded faint traces of eroded ridge and furrow on the site and a subsequent LiDAR study was undertaken in order to clarify the results. The survey also recorded evidence of early 20th century quarry workings, including a wagonway and two large spoil heaps.

The Historic Building Survey studied an isolated concrete-built shed located to the east of the wagonway. The industrial style building was well-built with stop-chamfered corners. It also appears to be associated with the quarry works and may have served as a possible explosives or detonator store. The date of construction is likely to be in the first half of the 20th century.

The archive will be held by Leicestershire County Council under the accession number: X.A17.2015.

Introduction

Jelson Ltd. have been granted planning permission on appeal (APP/T2405/A/11/2164413) for residential development at Stanton Road, Sapcote, Leicestershire (SP 489 939). The implementation of a programme of archaeological work was a condition of the consent, and a written scheme of investigation (WSI) was issued by ULAS (ULAS 2015a; 2015b). A previous desk-based assessment of the site (Hunt 2009) highlighted that the site contained faint ridge and furrow earthworks as well as later features associated with former quarrying activity. These include the earthwork remains of a trackway or mineral railway connecting the quarry with a terraced area and a small concrete building, which was interpreted as an explosives store. The development proposals are likely to significantly impact these features and therefore the Senior Planning Archaeologist (SPA) at Leicestershire County Council, as advisor to Blaby District Council, has requested that a topographic survey of the earthworks and a historic building photographic survey of the building be undertaken prior to the residential development of the site. This work was undertaken by University of Leicester Archaeological Services (ULAS) on the 4th February 2015.

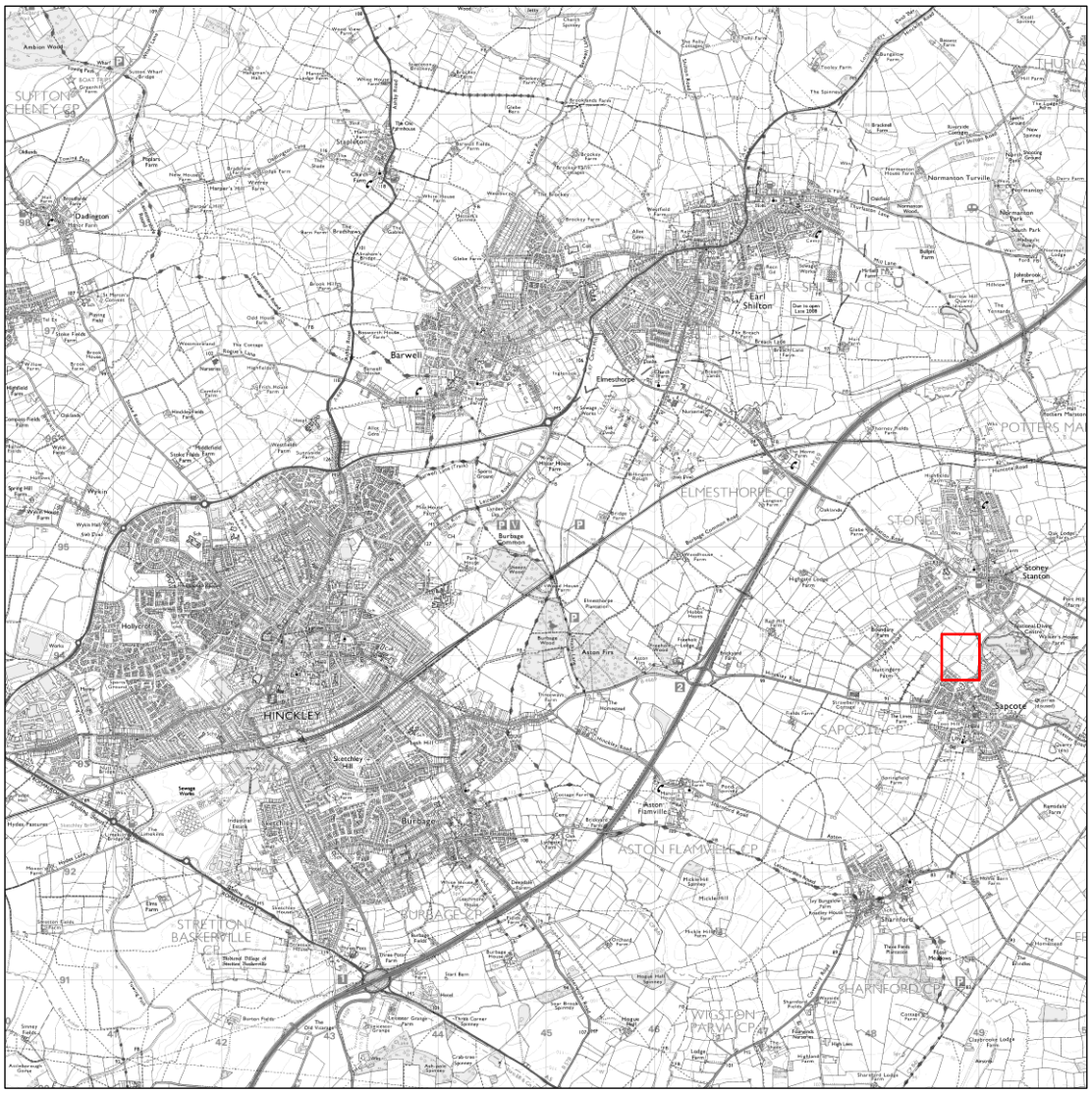


Figure 1 Site Location Plan

Site Location, Geology and Topography

Sapcote lies in the Blaby District of Leicestershire, approximately 10 miles south-west of Leicester and 4 miles east of Hinckley (figs. 1 and 2). The site lies to the north of Sapcote village on the western side of Sapcote Road.

The development area consists of two adjacent fields, one rectangular and one triangular. The hedge line between the two fields marks the parish boundary between Sapcote and Stoney Stanton with the northern field located in Stoney Stanton (fig. 2).

The total size of the assessment area (red line) is c.6.3ha and the land lies at a height of *c.*85m OD.

The Ordnance Survey Geological Survey of Great Britain Sheet 155 indicates that the underlying geology of the site is likely to consist of alluvium overlying Glacial Till and Mercia Mudstone Group clay.

The two fields are currently both under thick pasture and are surrounded by hedges and fences on all sides. The land falls slightly to the west, towards the stream, which runs along the edge of the two fields. The northernmost field undulates and a large terraced area lies in the south west corner of this field that is surrounded by trees on its northern and western sides. A further small terrace lies at the northern edge leading from the field entrance. There is also a narrow earthwork in this field running north east to south west. The southern field was generally flat in nature.

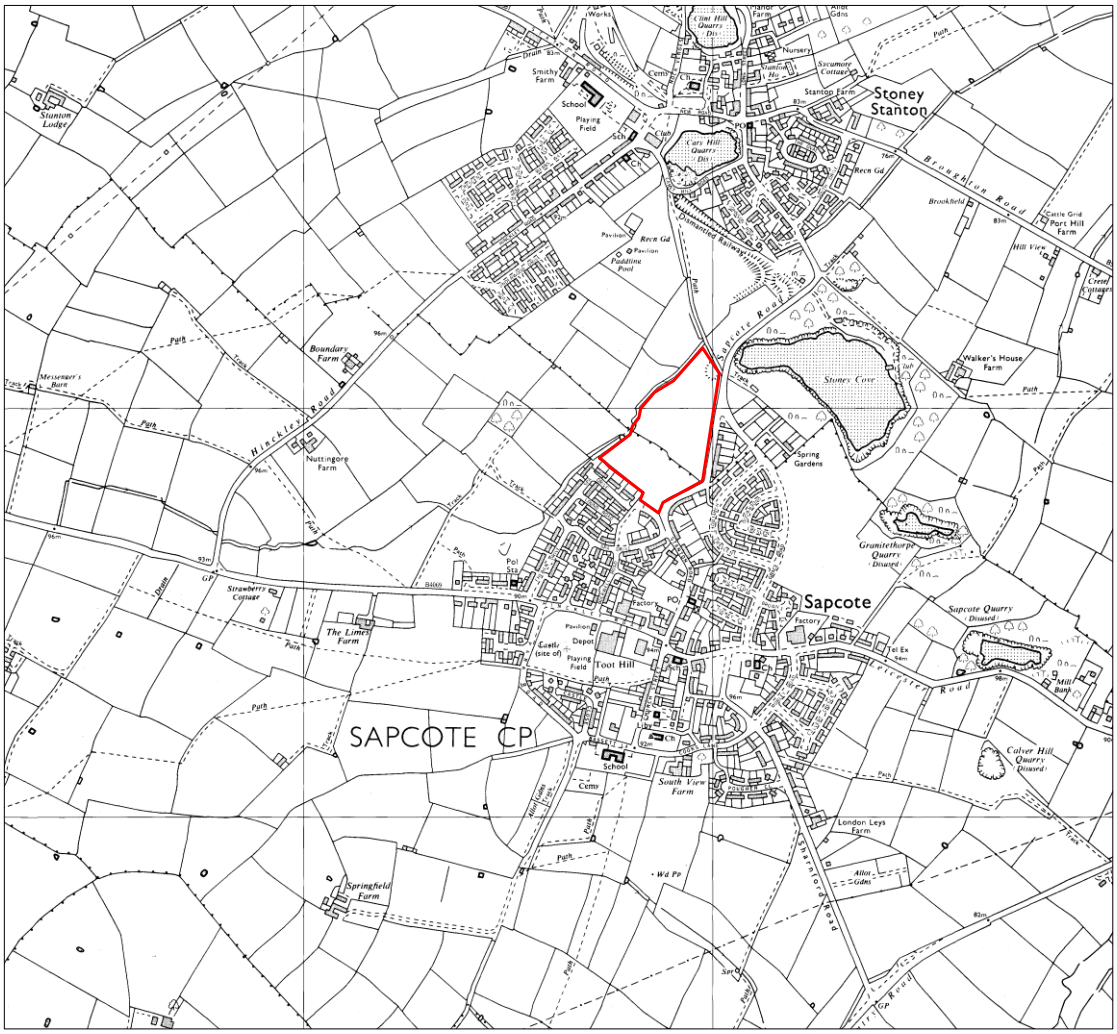


Figure 2 Site Location Plan

Historical and Archaeological Background

The earliest historical reference to Sapcote occurs in the Domesday survey of 1086. Here it is referred to as *Scepecote* (other versions include *Sapecote*, *Scepeote* and *Scopecote*) which is a version of the early English *Sceapcot* meaning 'a shelter for sheep' (Mills 2003).

At the time of the Domesday survey Sapcote was recorded under various separate land holders (Morgan, 1979). Uluric held 1½ ploughlands, worth 10 shillings; -There was one plough and a half with two socmen and one bordar. Hugo de Grentesmainel held 1 ploughland. The land was worth 10 shillings and equal to two ploughs. One was in the demesne and 3 villans with three socmen and two bordars had half a

plough. There were also two acres of meadow. Fulbert held 2 ploughlands under Hugo de Grentesmainell., worth 25 shillings. The land was equal to two ploughs; one was in the demesne while two villans with two bordars and two socmen had a plough and a hall. There was also a mill of 3 shillings value and a 16 acre meadow (Nichols 1811).

In 1163, William Basset, the fourth and youngest son, was seated at Sapcote manor as deputy to his brother Ralph as sheriff of Leicestershire and Sapcote. The manor passed through the Basset family until 1376. The manor was sold to John Turner in 1664 and the family were still lord of the manor when the village was enclosed in 1778 (Hunt 2009, 5).

In recent times the area has become an important source of high quality granite. Quarrying first began around the beginning of the nineteenth century. Granite from local quarries was used to repair roads. Around 1850, a railway line was built, linking Stoney Stanton with the busy Birmingham to Leicester line. Around the turn of the 20th century this was extended to move granite out of Top Pit/Lanes Hill Quarry, located immediately north-east of the site. The railway line ran through a tunnel and surfaced near St Michael's Church in the centre of Stoney Stanton.

Aims and Objectives

The main objectives of the topographic survey and historic building survey were to provide preservation by record of the affected heritage assets and to ensure the long-term preservation of the information through deposition of the record and a summary written report with an appropriate depository.

The purpose of the topographic survey was to create an adequate record of the surviving earthworks, including the identification and delineation of individual features to enable better understanding of the ridge and furrow system and facilitate the interpretation of the quarrying activity. In addition, a LiDAR study was undertaken in order to clarify the results of the topographic survey

The purpose of the Historic Building Recording photographic survey was to record and advance understanding of the significance of the concrete building, previously interpreted as an explosives store. The objectives of the Historic Building Recording programme were to provide a written, drawn and photographic record of the building prior to the commencement of works.

Methodology

Topographic Survey *James Harvey*

Photographs were taken of the earthworks prior to the survey work being carried out. The topographic survey was undertaken using a Topcon Hiper V GPS+ RTK System attached to a Topcon FC-236 controller. The data was processed using Magnet Software and the final plans completed with the aid of a CAD package.

The breaks of slope of earthwork features were recorded in order to provide a hachure plan of the site. Representative profiles were recorded across the earthworks where appropriate. The locations of these profiles are recorded on the plan. The survey is referenced to the Ordnance Survey National Grid (OSGB1936) and Ordnance Datum.

The survey was undertaken following guidance from the Royal Commission on the Historical Monuments of England (RCHME) 1999, *Recording Archaeological Field Monuments: A Descriptive Specification* and English Heritage 2007, *Understanding the Archaeology of Landscapes.*

Lidar Survey ***Matthew Beamish***

Due the weak results obtained during topographic survey in relation to the previously recorded ridge and furrow and following a discussion with the ULAS airborne LiDAR specialist it was agreed that an assessment should be made of available Environment Agency LiDAR data, as these datasets can be processed and interpreted to reveal very slight traces of earthworks that are not visible on the ground. Available data was limited to 2m resolution which does not record shallow archaeological features with clarity - 1m or 0.5m resolution data is advised for archaeological survey (Crutchley & Crow 2009). Nonetheless, some patterning was visible in this data and it was decided to include it in this study.

Provision of LiDAR Data

Composite aerial LiDAR data at 2m resolution was supplied electronically in ASCII file format by National Geomatics Unit of the Environment Agency. The data was flown in January 2001 and February 2008: details of the data source are given below (p32). The data was acquired in DSM (unfiltered) format. The DSM format was chosen as the area is not covered by trees, and unfiltered data provides a sharper response than the filtered interpolated data provided in DTM (filtered) format which is used where woodland obscures the ground.

The methodology used followed that set out by Hannon (Hannon *et al* 2014, 8).

LiDAR ASCII Data Processing

All operations were conducted in Esri ArcMap10.1 SP1 build 3143.

The two LiDAR tiles (SP4892 and SP4894) were imported into ArcGIS using the ASCII to Raster function (System Toolboxes>Conversion Tools>To Raster>ASCII to Raster), the output data type was set to ‘Float’ and the original ASCII filename was retained as the output raster name. These files were placed in a newly created file geodatabase called ‘15628_Sapcote.gdb’.

The two individual files were combined to form one continuous raster using the WorkspaceToRasterCatalog and RasterCatalogToRasterDataset tools using 'British National Grid' as the spatial reference, Mosaic Operator set to Mean; and Mosaic Colourmap Mode set to Match. The resulting raster was saved to the same file geodatabase.

Creation of Hillshade layers

To aid feature identification, four basic hillshade layers were generated. ‘Hillshades’ are a data processing method available in most GIS which allow an artificial sun to be shone from any chosen compass bearing and from angle above the horizon onto a DEM. This process helps identify ground features by casting an artificial shadow behind changes in elevation (for a full discussion of the process see Bewley et al 2005).

Each of these layers were created using the hillshade function (System Toolboxes>Spatial Analyst Tools>Surface>Hillshade). The input raster for each hillshade was the mosaicked DEM or the Clipped DEM if one was generated. Three basic parameters were utilised to generate the four different hillshade views and Z factor relating to the degree of exaggeration applied to the input DEM, with 1 indicating no exaggeration.

Each output raster was named to preserve the original input DEM information and include the hillshade parameters (e.g.'Sap_2m_HS_315_45_1') and saved to '15628_Sapcote.gdb'. Once each hillshade was generated they were grouped within the TOC to aid navigation.

Feature Identification

The hillshade layers that had been generated were systematically analysed for potential archaeological features, working from north to south and west to east. This was achieved by cycling through each of the hillshade layers individually. The shapefile layers containing both the HER and scheduled monument data were enabled to prevent re-identification of an already recorded archaeological feature.

Once the areas of ridge and furrow within the study area had been identified as part of the LiDAR analysis, the hillshade plots that contained the clearest representations of the different elements were combined using varying transparencies to produce figures contained in this report.

Profile

A profile (fig. 9) was generated with ARCGIS from the DSM data using the 3d Analyst tool, Interpolate line, choosing the profile line and Profile Graph options.

Images were processed in Standard Raster image and CAD packages

Photographic Survey ***Andrew Hyam***

Historic building surveys are defined in the English Heritage guidance document – *Understanding Historic Buildings: A guide to good recording practice* (2006).

Written record

A written record was maintained on site in the form of field notes and annotations on survey drawings.

The written component of the Level 2 report should include:

The precise location of the building, by name or street number, civil parish, town etc. and National Grid Reference.

A note on any statutory or non-statutory designations.

The date the record was made, the name of the recorder, and the location of project archive.

A summary of the building's type or purpose, historically and at present, its materials and possible date(s), materials and possible dates of construction and alteration.

Where appropriate, a note of the building's past and present relationship to its setting: for example, its relationship to local settlement patterns, to a field system to a park,

garden, moat, graveyard or other man-made landscape; its part in a larger architectural or functional group of buildings; its visual importance as a landmark etc.

A table of contents and list of figures or illustrations.

A gazetteer of photographs taken (this should list the photographs by format and subject) including thumbnail images.

Full bibliographic and other references, or a list of sources consulted.

Drawn Record

A measured survey of the buildings including floor plans and external elevations did not exist prior to the survey so had to be produced on site. These were transferred to a CAD package to conform to the architectural drawing conventions set out in the English Heritage guidelines.

The drawn record should normally comprise:

Site location plans at suitable scales indicating the position of the site within the county and a clear plan of the precise location/outline of the building(s) i.e. 1:1250.

Photographic record

A plan indicating the position and orientation of the photographs should be included in the report.

The photographic survey normally comprises of a general and detailed photographic record of the building to be altered/demolished using a 35mm format SLR camera with black and white print film and colour digital photographs taken with an SLR camera. This comprises of digital colour images of at least 10 megapixels, captured in a RAW format and converted into uncompressed TIFFs. A ranging rod is included in a selection of general shots to provide scale.

The photographic record should comprise:

General photographs of the interior, exterior and setting of the building;

A record of the building's exterior appearance including oblique views of external elevations to give an overall impression of size and shape and views at right angles to the plane of the elevation where appropriate;

External detail, which does not show adequately on general photographs including a photographic scale;

A record of interior space, fixtures and fittings including the overall appearance of principal rooms and circulation areas;

Any machinery, plant, or evidence for its former existence;

Any dates or other inscriptions, signage, makers' plates or graffiti which contribute to an understanding of the building or its fixtures or contents;

Any building contents or ephemera which have a significant bearing on the building's history.

Copies of any maps, drawings, views and photographs, present in the building and illustrating its development/use, or that of its site;

Photographs illustrating the building in its context and the main focus of the survey (for example, areas subject to alteration/demolition).

Results

Topographic Survey

Ridge and furrow (also see LiDAR Study)

The desk-based assessment recorded faint traces of ridge and furrow within both field fields (Hunt 2009, 10). No clear sections of ridge and furrow were evident during the survey, although a small number of broken sections were recorded within the southern corner of north-east field. These sections were generally north-north-west to south-south-east aligned (fig. 3). It is possible that the thicker vegetation may have screened the visibility of these faint earthworks or that further erosion by pasture grazing during the last five years have made the earthworks even less discernable than previously recorded. A long profile was recorded across this area of the field (Profile **U-V**, figs. 3 and 6) in an attempt to locate a sequence of ridge and furrow. The results of the profile appear relatively flat but a 5x exaggeration of the profile does record two potential ridges at the north-east end with a *c*.9m interval between ridge tops. Two further ridges were also recorded at the south-western end of the profile with *c*.8m interval between ridge tops. The only prominent ridge measured 0.34m from top of ridge to base of furrow. The others measured less the 0.2m but the majority of the height difference represents the slope of the topography rather than prominence of the earthworks.

Northern Terrace

A small terrace was recorded at the northern end of the field, next to the gated entrance (fig.3; Appendix 4, photos 2, 3 and 15). It measured *c*.50m long and *c.*35m wide and was butted up against the north-eastern field boundary. The top of the earthwork was relatively flat, extending from the level of the natural topography at 88.65m OD at its eastern side and sloping slightly to 88.17m OD at its western side where the natural topography of the land had fallen to 85.75m OD. The result is an earthwork with an increasing slope on its eastern and southern edge and a steep slope on its western edge (fig.4, Profiles **A-B**, **C-D** and **E-F**; Appendix 3 photos 48-50)

Southern Terrace

A larger terrace was recorded in the south-western corner of the field, butted against the field boundary (fig. 3; Appendix 4, photos 58-62). The earthwork measured *c*.100m x *c*.70m. Its construction is similar to the northern terrace. The top of earthwork is relatively flat and extends from the level of natural topography on its south-eastern side at 85.8m OD to 85.45m OD at its north-west side. The terrace does slope up slightly towards its northern edge to a height of 86.42m OD. At the north-west extent of the earthwork the natural topography has dropped to 84.01m OD. The result is an earthwork with an increasing slope on its north-east side and a steep slope on its north-west side (fig.4, Profile **U-V**; Appendix 4 photo 57)

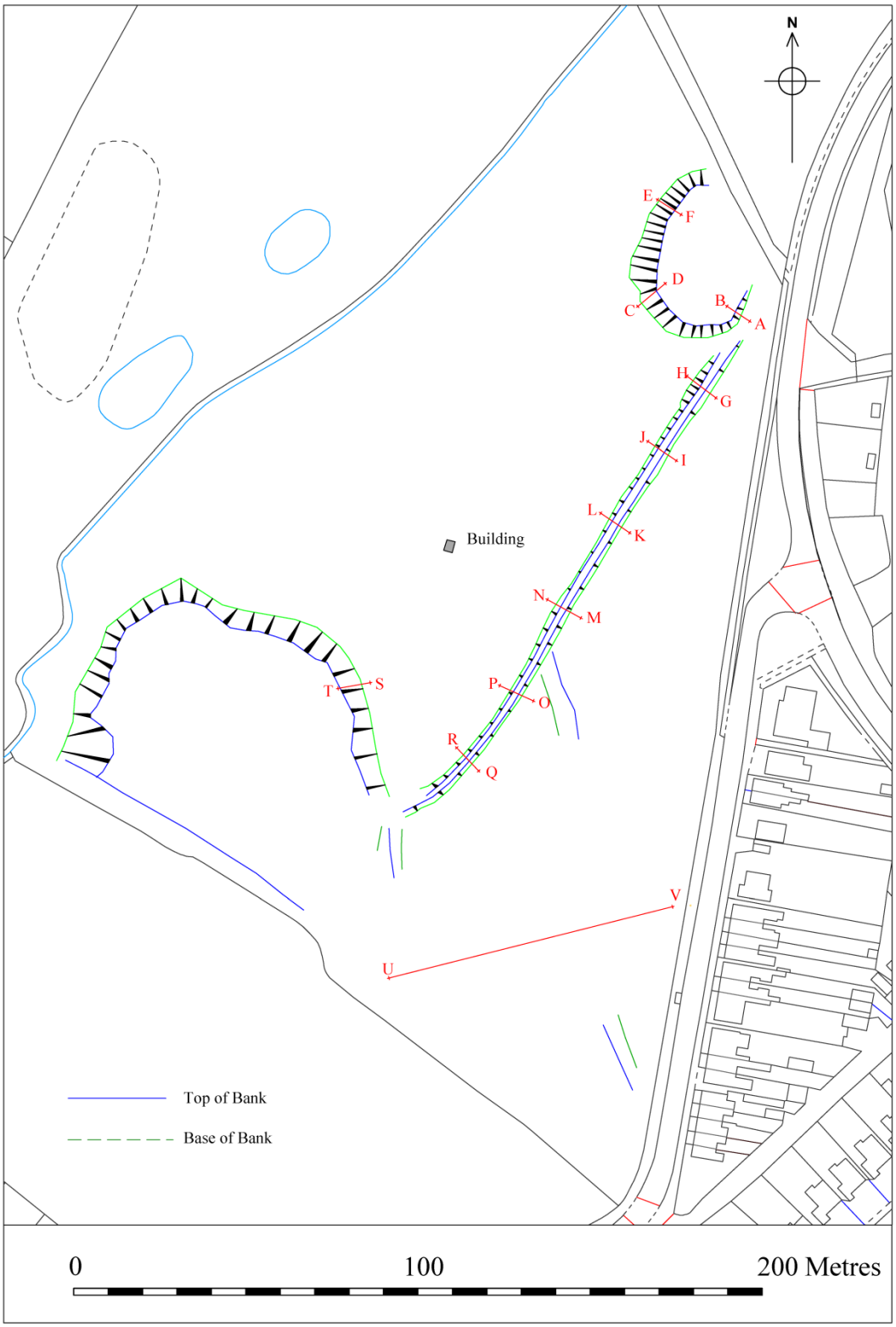


Figure 3 Hachure Plan of the recorded earthworks

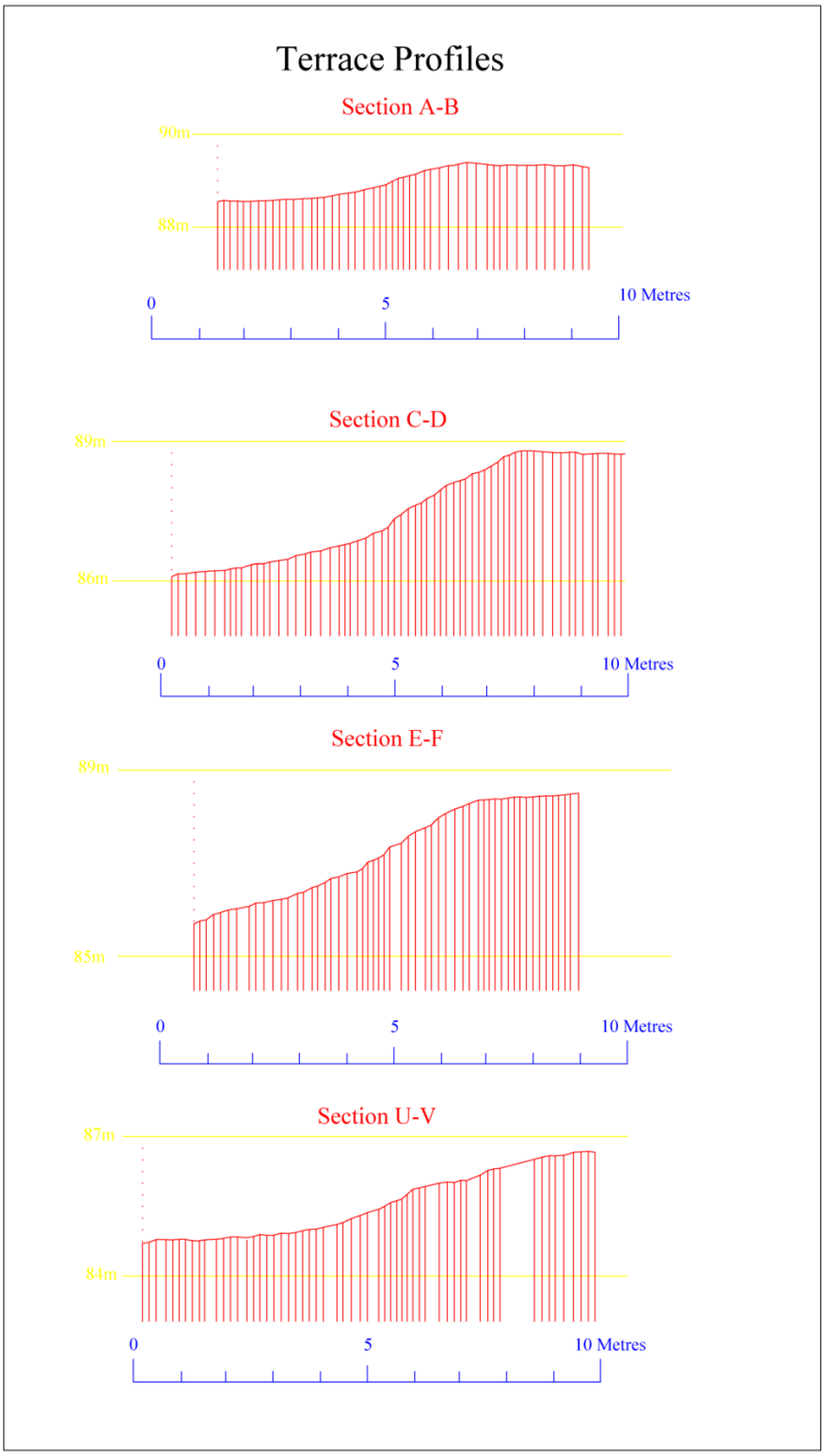


Figure 4 Recorded Profiles of site terraces

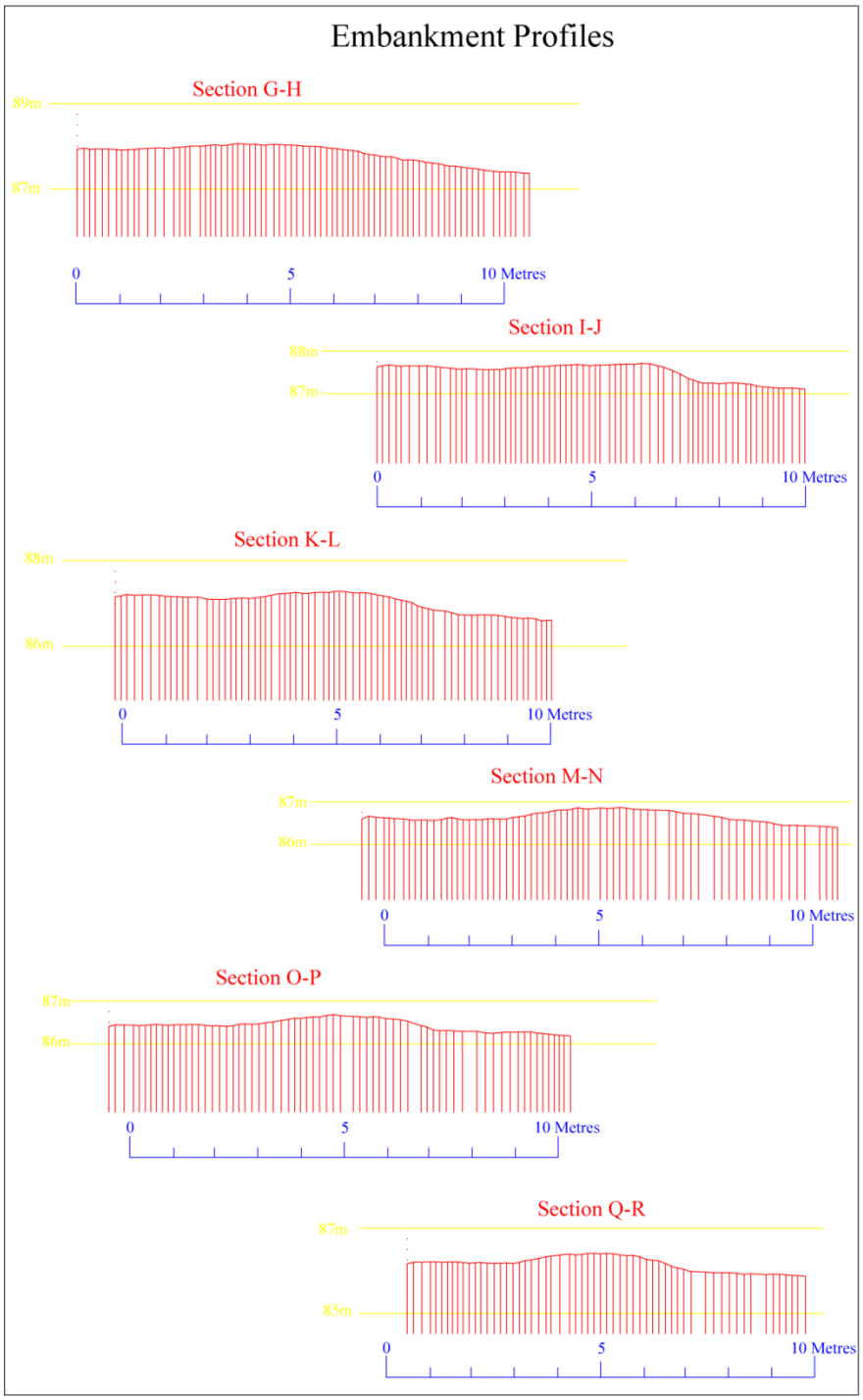


Figure 5 Recorded Profiles of the linear embankment

Figure 6 **Above**: Profile of the inclined plan (top of embankment). **Below**: Profile across area of faint ridge and furrow (includes 5x exaggeration)

Linear Embankment

A linear earthwork was recorded that extended from the south-eastern edge of the northern terrace (close to the gated entrance) to the south-east edge of the southern terrace (fig.3; Appendix 4, photo 4). The earthwork measured 165m long and varied in width between 3.85-6.36m. It was noticeably straight along the majority of its extent, curving immediately before reaching the southern terrace. The form of the earthwork is best described as an embankment that has been deliberately constructed in order to create a level plane, now measuring between 1.43-2.11m in wide. This means the embankment itself it quite varied in profile depending on the localised slope of the topography (fig.5 Profiles **G-H**, **I-J** and **K-L, M-N** and **O-P**; Appendix 4, photos 51-55). However it was recorded that generally the north-west side of the embankment exhibited a steeper slope to compensate the fall in ground level in that direction. The embankment has been constructed obliquely to the natural contour of the ground in order to create an inclined plane that gradually descends from 88.28m OD at its north-eastern extent to 85.79 at its south-western extent. The gradient of this slope is approximately 1 in 68 (fig. 6).

LiDAR Study

Figure 7 Composite hillshade plot of LiDAR 2m DSM data. DEM overlain by hillshade (HS270302)

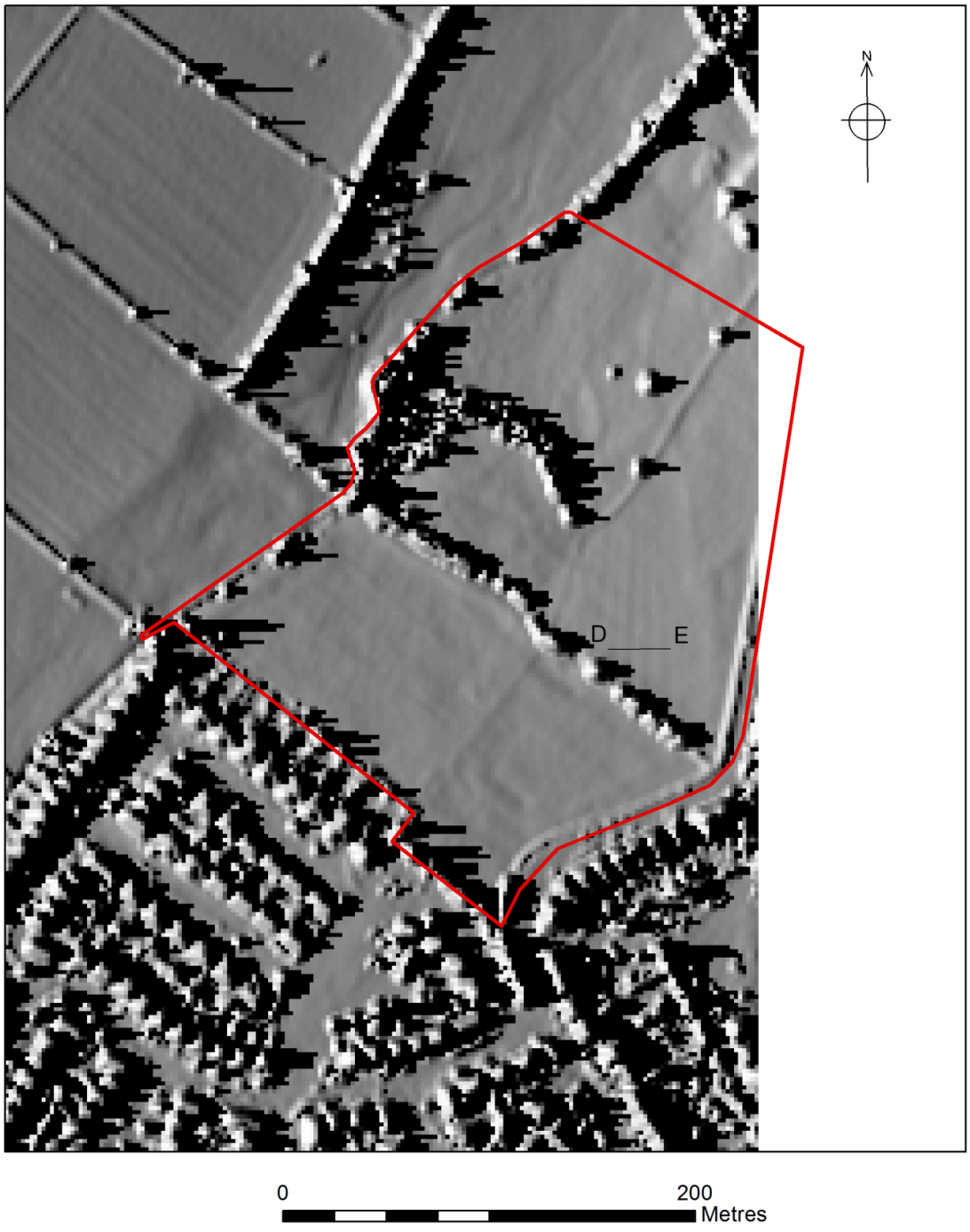
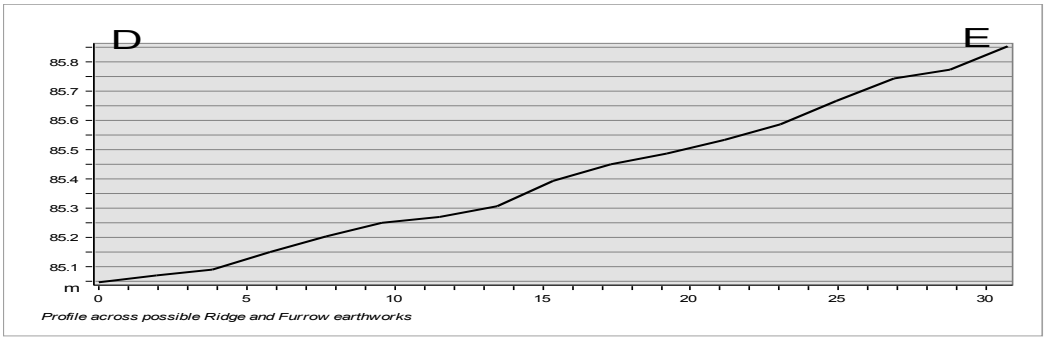


Figure 8: Composite hillshade plot. Profile D-E

The aerial LiDAR recorded very faint vestiges of north-south aligned ridge and furrow earthworks in the south of the site (fig. 7, A). A group of five furrows/ridges in all *c*. 40m wide, can be traced for *c*.80m north from the north-west to south-east field boundary that bisects the site. Slight breaks of slope indicate the location of the eroded furrows in a profile drawn across the LiDAR data (fig. 8, D-E and fig. 9).

More strongly surviving ridge and furrow earthworks are visible in the data to the west (B). Some of the patterning in the data is a result of data processing e.g. the linear forms north-west of the site (fig. 7, C) (cf. Crutchley & Crow, 2009, 27).



LiDAR Source – Environment Agency

Figure 9 Profile across area of shallow ridge and furrow. Vertical exage. x10

Photographic Survey

The rectangular concrete building is located approximately 35 metres to the east of the linear embankment (Fig. 3). The building stands alone in the middle of the field with no other buildings nearby (Figs. 10 and 11).

The First Edition County Series Ordnance Survey map published in 1887 shows the field but the building and none of the earthworks are shown. The subsequent edition, published in 1903, shows the southern terrace, but no other earthworks and has no trace of the building. All other Ordnance Survey editions up to and including the latest 1:25,000 edition fail to show the building. The ULAS Desk-Based Assessment produced in 2009 tentatively linked the building with the quarry works and suggested that it may have been built as an explosives store.

External detail

The building is constructed entirely of concrete with large lumps of granite visible within the walls (Fig. 12). The walls are 0.32m thick. It has a single entrance on the north-east facing elevation and has stop chamfered corners on each elevation which is an unusual decoration on an otherwise utilitarian structure (Figs. 13 to 17). The building sits on a small plinth of concrete and granite rubble (Fig. 18). The north-east and south-west facing elevations have a series of drilled holes to which something was attached to the walls. It is not clear what this was although is unlikely to have been a downpipe for a gutter as they are on the shortest sides of the building (see Figs. 12, 14 and 16). Evidence of casting marks from wooden shuttering can be seen on both the inside and outside walls. The building was cast in a number of pouring episodes as there are at least two clear lines where different batches of concrete were used. The large number of granite lumps used within the concrete probably necessitated a number of pouring lifts in a similar fashion to flint walls are constructed. The roof is cast in a single curving piece which also shows the casting lines from the timber shuttering.

Internal detail

The single doorway, which is on the north-east facing elevation, has the remains of a wooden door frame but the door has been removed. The hinges are still present and are made of brass which would normally be unusual in a simple agricultural building. Brass however is often used where it is necessary to prevent sparks, such as when dealing with explosives. Inside the doorway is a second doorway created by a wall built from concrete blocks (Fig. 19). There is evidence of wooden shelving being inserted between the block walls and the outer walls and is seen as stubs of planking built into the walls (Fig. 20). No trace of a secondary internal doorway can be seen.

The main room of the building is open with no evidence of any fixtures and fittings surviving (Figs. 21 and 22). The inner faces of the walls have large lumps of granite visible in the matrix of the concrete which act as reinforcement and also indicate that the builders had a relatively easy access to granite rubble (fig. 23).

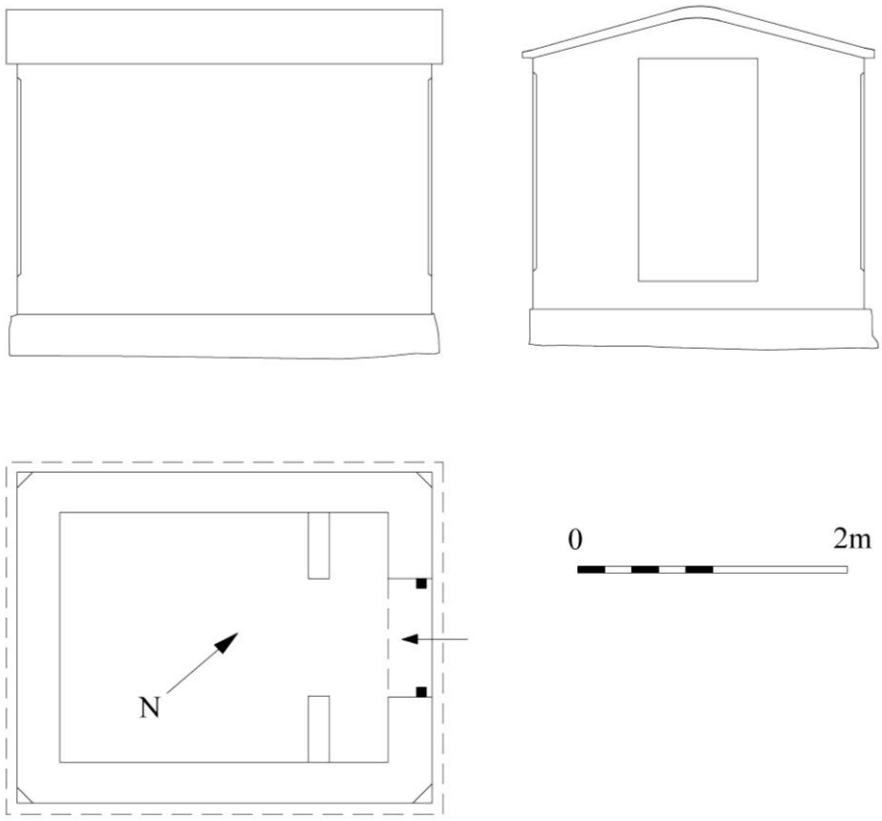


Figure 10 Building plan and elevations

Figure 11 Building location

Looking south-east. Building shown with red arrow. Yellow arrow indicates line of linear earthwork

Figure 12 Building location

Looking north-west

Figure 13 North-east facing elevation

Looking south-west. 1m scale

Figure 14 South-east facing elevation

Looking north-west. 1m scale

Figure 15 South-west facing elevation

Looking north-east. 1m scale. Note the horizontal shuttering lines cast into the concrete

Figure 16 North-west facing elevation

Looking south-east. 1m scale. Wavy line shows separate pours of concrete

Figure 17 Corner chamfer detail

Looking north-east. Note drilled holes for unknown attachment

Figure 18 Plinth detail

Looking north-east. 1m scale

Figure 19 Internal wall

Looking south-west

Figure 20 Alcove between inner and outer walls

Looking east. 1m scale. Inserted stubs of wooden planking can be seen either side of scale

Figure 21 Internal view
Looking south. 1m scale

Figure 22 Internal view
Looking north. 1m scale

Figure 23 Granite blocks visible within wall fabric

Discussion

Topographic Survey

The topographic survey undertaken at Stanton Road, Sapcote recorded only faint traces of ridge and furrow earthworks at the southern end of the north field, consisting of a small number of broken sections. These indicated the field system was aligned north-north-west to south-south-east. The LiDAR study was able to trace a group of five furrows/ridges in all *c*. 40m wide, for *c*.80m. Again, the profile of these earthworks was so faint that no further meaningful interpretations could be made about this field system apart from that the system appears to be parallel with the contour of the land, rather than running across it which if often found to be case in valley edge locations. The results indicate that the ridge and furrow has been severely eroded within the study area.

The other features recorded on the site during the topographic survey all appear to relate to the granite quarrying industry, known to have been taking place to the north-east of the site since the beginning of the 19th century. The two terraces are most likely to be spoil heaps from the quarry. Both have been deliberately engineered in order to infill the natural slope of the ground. The linear earthwork appears to be the remains of an embankment for a 'wagonway', a term used for light rail lines using horses or men to move small wagons. The wagonway served the southern spoil heap and is likely to have originally extended to its north-west end.

No evidence of the actual track for the wagonway was recorded, which is likely to have been lifted after the spoil heap became redundant. However it is likely that the wagonway was narrow gauge. These generally varied between 2-3 ft., for example the railway at Groby Granite Quarry was 2ft gauge (Farmer 1968, 269-281). The

remaining embankment was deliberately constructed in order to create a level plane, now measuring between 1.43-2.11m wide. It was reasonably straight, curving immediately before the start of the spoil heap and was constructed obliquely to the natural contour of the ground in order to create a gradual inclined plane. The gradient of this slope is approximately 1 in 68 (fig. 6). This engineering of the embankment would allow the full wagons to move across the field at a controlled speed under their own momentum and the curve at the spoil heap would facilitate their braking. It is not possible to interpret what type of track was used but these small scale lines were often of a simple plateway construction.

The actual dating of these features is uncertain although a date of around the start of the 20th century is suggested. None is shown on the First Edition Ordnance Survey Map of 1890. The southern terrace is present on the 1st Revision of 1904. The northern terrace is present on an aerial photograph dated to 1947. None of the maps show any railway line or path crossing the study area. The late 19th century marks a massive expansion period of the quarry in which the southern Top Quarry merged with the northern Lanes Hill Quarry. The 1890 OS map shows a railway track connecting Lanes Hill quarry to a large spoil heap within a small field on the northern side of Stanton Road (Hunt 2009, fig. 4). The spoil heap for Top Quarry is located immediately north of the pit and although rail lines are recorded on the western side of the quarry there are no clear links to the spoil heap. One of the rail lines links to a path/track leading up onto Stanton Road, presumably to meet carts to take the mineral to the railway line in the village. The 1904 OS map shows that the two quarries have merged. The railway line had also been extended from the village in order to take granite directly out of Lanes Hill Quarry where it ran through a tunnel and surfaced near St Michael's Church in the centre of Stoney Stanton. The lines to the west of Top Quarry no longer connected to the path/track by this time (Hunt 2009, fig. 5). Therefore it seems likely that the activity within the study area occurred prior to the production of the 1905 OS map. The spoil area to the north of Top quarry is likely to have filled up and the quarry expansion north and eastwards required a new spoil area. It is uncertain why the material was transported to the southern end of the field rather than closer to the quarry itself. Perhaps this could relate to different land ownership/land use or maybe this area was raised if it was prone to flooding. Certainly the area immediately north-east of the spoil heap was very wet when the site was visited. The subsequent expansion of the railway line to the quarry would have changed the logistics of spoil management with an area of land to the west of the railway line becoming the main spoil heap for the merged quarries.

The Building

The building is a well-built structure which has clearly had a degree of care and attention given to it during construction. Unfortunately it is difficult to give a precise date or even a precise function to it. As far as it function is concerned it seems likely that it is associated in some way with the quarry works. The use of thick concrete walls is far beyond that which would be expected for an agricultural building. This therefore leads to the possibility that it is an industrial building. The fact that it is relatively close to the railway line also reinforces the idea of a link to the quarry. If it is associated with the quarry then, as suggested in the desk-based assessment, it is possible that it is some form of explosives or detonator store. The use of heavy-duty brass hinges could be an indication that sparks were perceived as a problem. It has also been suggested that the internal wall was a blast protection wall. Against the idea

of it being an explosives store is the fact that it is so solidly built. Most buildings associated with explosive storage have flimsy roofs which direct the blast upwards rather than outwards. If this building exploded fragments of the solid roof and walls would be shot out in all directions. Possibly its isolated position countered this potential problem.

Because the building is not shown on any of the available maps it is difficult to give an age to it. As stated previously, the 1890 First Edition OS map doesn't show any of the earthworks which suggests that the field at that time was not being used by the quarry. The 1904 map shows the appearance of the southern terrace or spoil heap, so presumably the linear earthwork railway embankment was also present at this time. Whether the building appeared at this time is hard to prove. However, the general style of the building with its chamfered corners does also suggest an early 20th century construction date.

Conclusion

The fieldwork at Stanton Road Sapcote has recorded the severely eroded remains of a medieval or post-medieval ridge and furrow agricultural system as well as the remains of early 20th century quarry workings, including a small concrete building, a wagonway and associated quarry spoils heaps.

Archive and Publication

The site archive consists of:

- 1 Unbound copy of this report
- CD containing digital photographs in .tiff and .jpg format
- 2 A4 Contact prints of digital photographs
- 1A4 Photo Record
- CD of digital data and photographs concerning the LiDAR study, The EA LiDAR data and images derived from that data have been used under Licence from the EA, and are not included in an archive deposition.

The archive will be held by Leicestershire County Council under the accession number: X.A17.2015.

Deposition of the archive, assuming no further archaeological work is undertaken on the site beforehand, will be before 03.02.2017.

Assuming no further archaeological work is undertaken on the site beforehand, a summary of the work will also be submitted for publication in the local archaeological journal, the *Transactions of The Archaeological and Historical Society*, before 02.02.2017. The report will be included on the Online Access to the Index of Archaeological Investigations (OASIS) held by the Archaeological Data Service at the University of York. Available at: http://oasis.ac.uk/. A summary of this entry is recorded in Appendix 5.

Acknowledgements

This topographic survey was undertaken by James Harvey, the photographic survey was undertaken by Andrew Hyam. Matthew Beamish undertook the subsequent LiDAR survey. Dr Patrick Clay managed the project, all of ULAS.

Bibliography

Anderton, M. and Went, D, 2002, 'Turning the Plough: Loss of a Landscape Legacy', *Conservation Bulletin* 42, March 2002, 52-5. English Heritage website: http://www.english-heritage.org.uk/publications/turning-the-plough-loss-of-a-landscape-legacy/turningplough.pdf/ (Last accessed 14/08/2012)

Bewley, R.H., Crutchley, S.P. & Shell, C.A. 2005. New light on an ancient landscape: LiDAR survey in the Stonehenge World Heritage Site. *Antiquity* (79) 636-647

Brown, D., 2008 *Standard and guidance for the preparation of Archaeological Archives* (Institute for Archaeologists)

CIfA, 2014 *Standard and Guidance for Archaeological Investigation and Recording of Standing Buildings or Structures.*

CIfA, 2014 *Code of Conduct*

Campion, G., 2006 *'*The Modern period (1750-2000)*' in* N.J. Cooper (ed,) 237-258
Cooper, N., 2006 *The Archaeology of the East Midlands.* Leicester Archaeology Monograph 13

Crutchley, S. & Crow, P. 2009. The Light Fantastic. Using airborne lidar in archaeological survey. Swindon, English Heritage.

DCLG, 2012 National Planning Policy Framework (NPPF), Section 12 (conserving and enhancing the historic environment)

English Heritage, 2006 *Understanding Historic Buildings: A guide to good recording practice*

English Heritage 2007 *Understanding the Archaeology of Landscapes. A guide to good recording practice*

Farmer, Keith 1968 "Amalgamated Roadstone". I*ndustrial Railway Record (Industrial Railway Society)* **20**: 269–281/288

Hannon, N., Hyam, A., and Beamish M., 2014 *An Archaeological LiDAR study and Walkover Survey at Bradgate Park, Newtown Linford, Leicestershire***.** ULAS Report 2014-076

Hunt, L. 2009 *An Archaeological Desk-Based Assessment for land off of Sapcote Road, Sapcote, Leicestershire* ULAS Report 2009-024

Mills, A. D. 2003 "Sapcote" in *A Dictionary of British Place-Names*. Oxford University Press. Oxford Reference Online. Oxford University Press

Morgan, P. 1979. Domesday Book 22: Leicestershire. Phillimore

Nichols, J. 1811. *The History of the County of Leicestershire*. Volume IV, Pt.II. London

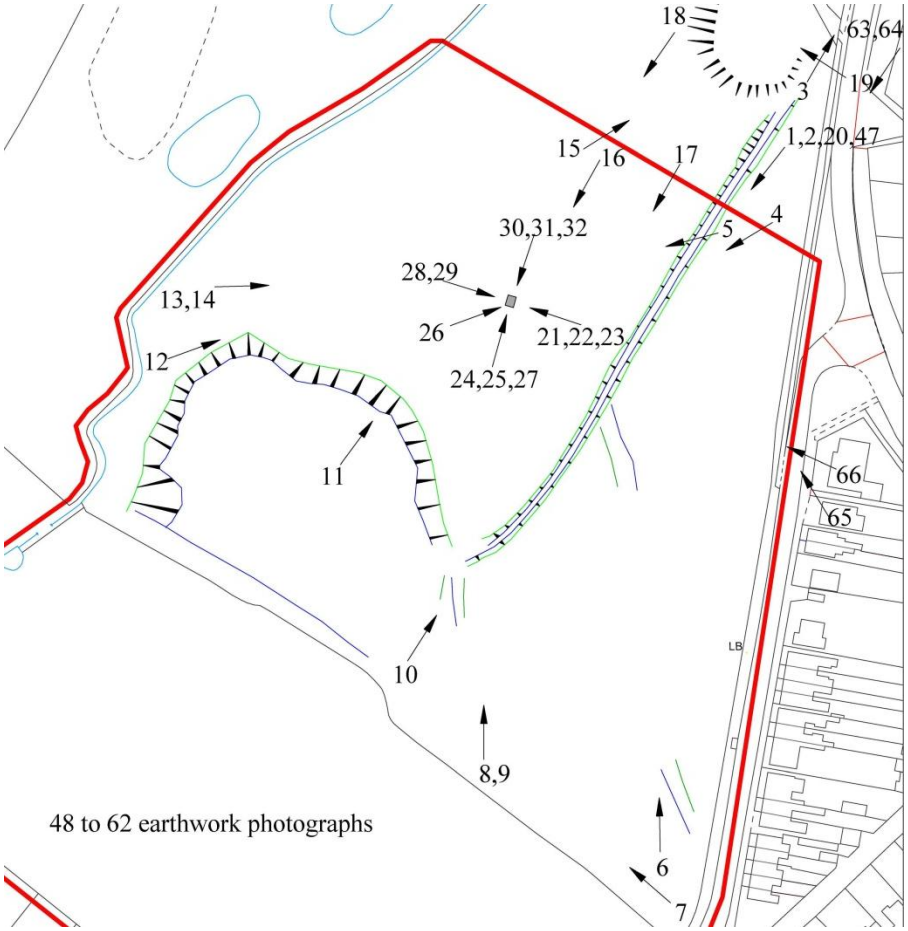
RCHME 1996. *Recording Historic Buildings; A Descriptive Specification Third Edition*, Royal Commission on the Historical Monuments of England

RCHME 1999, *Recording Archaeological Field Monuments: A Descriptive Specification,* Royal Commission on the Historical Monuments of England

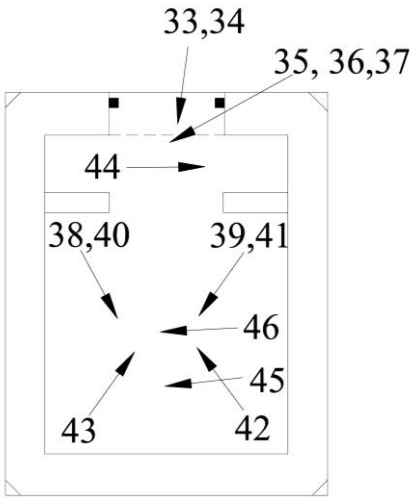
ULAS 2015a. *Written Scheme of Investigation for Earthwork survey: Land at Stanton Road, Sapcote, Leicestershire.* ULAS unpublished Design Specification

ULAS 2015b. *Written Scheme of Investigation for Historic Building Recording (Photographic survey): Land at Stanton Road, Sapcote, Leicestershire.* ULAS unpublished Design Specification

Appendix 1 Location of digital photographs taken during the survey

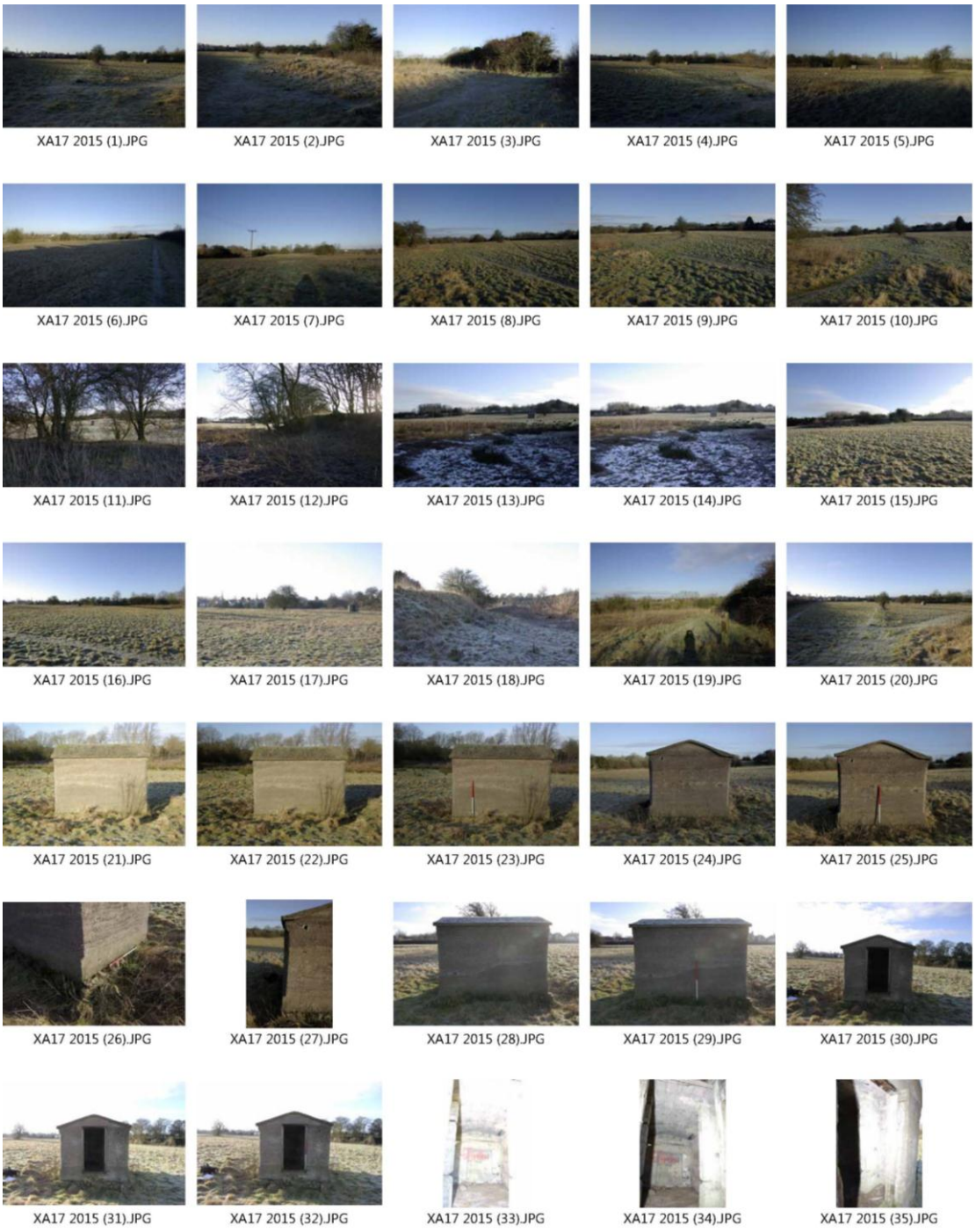


External location photographs



Internal photographs

Appendix 2 Digital photograph contact sheet




XA17 2015 (36).JPG


XA17 2015 (37).JPG


XA17 2015 (38).JPG


XA17 2015 (39).JPG


XA17 2015 (40).JPG


XA17 2015 (41).JPG


XA17 2015 (42).JPG


XA17 2015 (43).JPG


XA17 2015 (44).JPG


XA17 2015 (45).JPG


XA17 2015 (46).JPG


XA17 2015 (47).JPG


XA17 2015 (48).JPG


XA17 2015 (49).JPG


XA17 2015 (50).JPG


XA17 2015 (51).JPG


XA17 2015 (52).JPG


XA17 2015 (53).JPG


XA17 2015 (54).JPG


XA17 2015 (55).JPG


XA17 2015 (56).JPG


XA17 2015 (57).JPG


XA17 2015 (58).JPG


XA17 2015 (59).JPG


XA17 2015 (60).JPG


XA17 2015 (61).JPG


XA17 2015 (62).JPG


XA17 2015 (63).JPG


XA17 2015 (64).JPG


XA17 2015 (65).JPG


XA17 2015 (66).JPG

Appendix 3 Photograph gazetteer

B+W shot No	Digital shot No.	Description	Facing	Scale
1	-	Record shot	-	-
1 - 3	1 - 20	General site location shots	Various	-
4	21 - 23	SE facing elevation	NW	1m
5	24 - 25	SW facing elevation	NE	1m
-	26	Plinth detail	NE	1m
-	27	Chamfer detail	NE	-
6	28 - 29	NW facing elevation	SE	1m
7	30 - 32	NE facing elevation	SW	1m
-	33 - 34	General internal view	SW	1m
-	35 - 38	Doorway detail	SW	-
-	39 - 43	Internal view	Various	1m
-	44	Wooden inserts on side of doorway	NE	1m
-	45	Wall construction detail	SW	-
-	46	Ceiling detail	SW	-
-	47	General earthworks shot	S	1m
-	48	Earthwork survey: Profile A-B		1m
-	49	Profile C-D		1m
-	50	Profile E-F		1m
	51	Profile G-H		1m
	52	Profile I-J		1m
	53	Profile K-L		1m
	54	Profile M-N		1m
	55	Profile O-P		1m
	56	Ridge and furrow profile U-V		
	57	Terrace profile		
	58	Spoil heap/terrace profile S-T		
	59 - 62	General shots of spoil heap/terrace		
	63 - 66	General location shots		

Appendix 4 LiDAR metadata

Source of composite data used in the LiDAR analysis.

FILENAME	TILENAME	DATE_FLOWN	%_COVERAGE	POLYGON_ID	RESOLUTION (m)
D0013018	SP4892	9th Jan 2001	97	P_1558	2
D0013019	SP4894	9th Jan 2001	35	P_1558	2
D0093872	SP4892	2-13 Feb 2008	99	P_5619	2
D0093873	SP4894	2-13 Feb 2008	85	P_5619	2

Appendix 5 OASIS Information

Project Name	An Archaeological Topographic and Historic Building Photographic Survey at Land west of Stanton Road, Sapcote, Leicestershire
Project Type	Earthwork survey and Historic Building Photographic Survey
Project Manager	P Clay
Project Supervisor	J Harvey; earthworks, A Hyam; building
Previous/Future work	Desk-based assessment in 2009. Targeted watching brief to follow
Current Land Use	Pasture
Development Type	Proposed housing
Reason for Investigation	As a condition
Position in the Planning Process	Ongoing
Site Co ordinates	SP 489 939
Start/end dates of field work	4.2.2015
Archive Recipient	Leicestershire Museums
Study area	6.3ha

Contact Details

Richard Buckley or Patrick Clay
University of Leicester Archaeological Services (ULAS)
University of Leicester,
University Road,
Leicester LE1 7RH

T: +44 (0)116 252 2848
F: +44 (0)116 252 2614
E: ulas@le.ac.uk
w: www.le.ac.uk/ulas

INVESTOR IN PEOPLE

University of Leicester
Archaeological Services

The Queen's Anniversary Prizes
For Higher and Further Education
2013

Registered Organisation CIfA

2013 THE AWARDS
AWARD WINNER
Research Project of the Year