

**An Archaeological Watching Brief at Bradley Hall, near Wolsingham,
Wear Valley District, County Durham**

Central National Grid Reference: NZ 1083 3623

Site Code: BHW 08

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November 2008**

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1. NON-TECHNICAL SUMMARY

- 1.1 An archaeological monitoring and recording exercise was undertaken during groundworks associated with the refurbishment of an overhead electricity supply at Bradley Hall, near Wolsingham, Wear Valley District, County Durham. The central National Grid Reference for the site is NZ 1083 3623.
- 1.2 The archaeological investigation was commissioned by Northern Electric Distribution Limited and undertaken by Pre-Construct Archaeology Limited in April 2008.
- 1.3 The investigation involved monitoring the excavation of small trenches to house three new poles, one with a supporting stanchion, to carry an overhead electricity supply cable. The area where the groundworks were undertaken lies within an area designated as a scheduled ancient monument, including Bradley Hall fortified house and moated site, which lies north of the A689 to the south-east of the village of Wolsingham.
- 1.4 The works were undertaken as condition of the granting of scheduled monument consent by the Department of Culture Media and Sport, on the recommendation of English Heritage. The aim of the archaeological monitoring was to examine and record any archaeological remains affected by the works.
- 1.5 No features or deposits of proven archaeological significance were encountered within the areas of investigation. The natural sub-stratum, comprising material of glacial origin, was recorded at each location at depths varying between 0.30m and 0.90m below existing ground level. Trenches 1 and 2 both contained what appeared to be dump layers incorporating building rubble, but the material was of uncertain date in each case. The uppermost deposit in each trench was topsoil and turf.

2. INTRODUCTION

2.1 General Background

- 2.1.1 An archaeological monitoring and recording exercise (hereafter 'watching brief') was carried out at Bradley Hall, near Wolsingham, Wear Valley District, County Durham. The work comprised monitoring machine excavation of a series of small trenches ahead of the installation of new poles to carry an overhead electricity supply. The area in which the work was undertaken has scheduled ancient monument status.
- 2.1.2 The watching brief was commissioned by Northern Electric Distribution Limited (NEDL). The fieldwork was undertaken 1st April 2008 by Pre-Construct Archaeology Limited (PCA).
- 2.1.3 The work was undertaken as a condition of scheduled monument consent following a recommendation by English Heritage (EH) to the Department of Culture, Media and Sport (DCMS). Both EH and Durham County Council's Archaeology Section (DCAS) advised that intrusive groundworks within the scheduled area were monitored by an archaeologist so that any remains of significance thus exposed could be examined and recorded. A Brief for the work was issued by DCAS.¹
- 2.1.4 At the time of writing, the project archive is housed at the Northern Office of PCA, at Unit N19a Tursdale Business Park, Durham. The completed project archive, comprising written, drawn, and photographic records will be ultimately deposited at the County Durham Archaeological Archive, Bowes Museum, Barnard Castle, County Durham, under the site code BHW 08. The Online Access to the Index of Archaeological Investigations (OASIS) reference number is: preconst1-46607.

2.2 Site Location and Description

- 2.2.1 The site is located within the curtilage of Bradley Hall, which is situated on the north side of the A689, c. 3km to the south-east of the town of Wolsingham, in the Wear Valley District of County Durham. The central National Grid Reference for the area of investigation is NZ 1083 3623 (Figure 1).
- 2.2.2 The archaeological monument comprises the remains of an irregular four-sided moated site, the ruins and remains of a fortified house, a pillow mound and a series of fishponds of medieval date, these situated on the left bank of the Bradley Burn, a tributary of the River Wear.
- 2.2.3 The area of investigation comprised a corridor of open ground along the line of the overhead electricity supply, extending from the north-eastern corner of a yard area to the north of the core buildings of Bradley Hall. This area of investigation ran approximately east-west across the southern portion of the moated site for a distance of c. 100m. Three trenches, to house new poles to carry the overhead supply, were excavated within this area (Figure 2).

¹DCAS 2007.



Figure 1. Site location
Scale 1:25,000

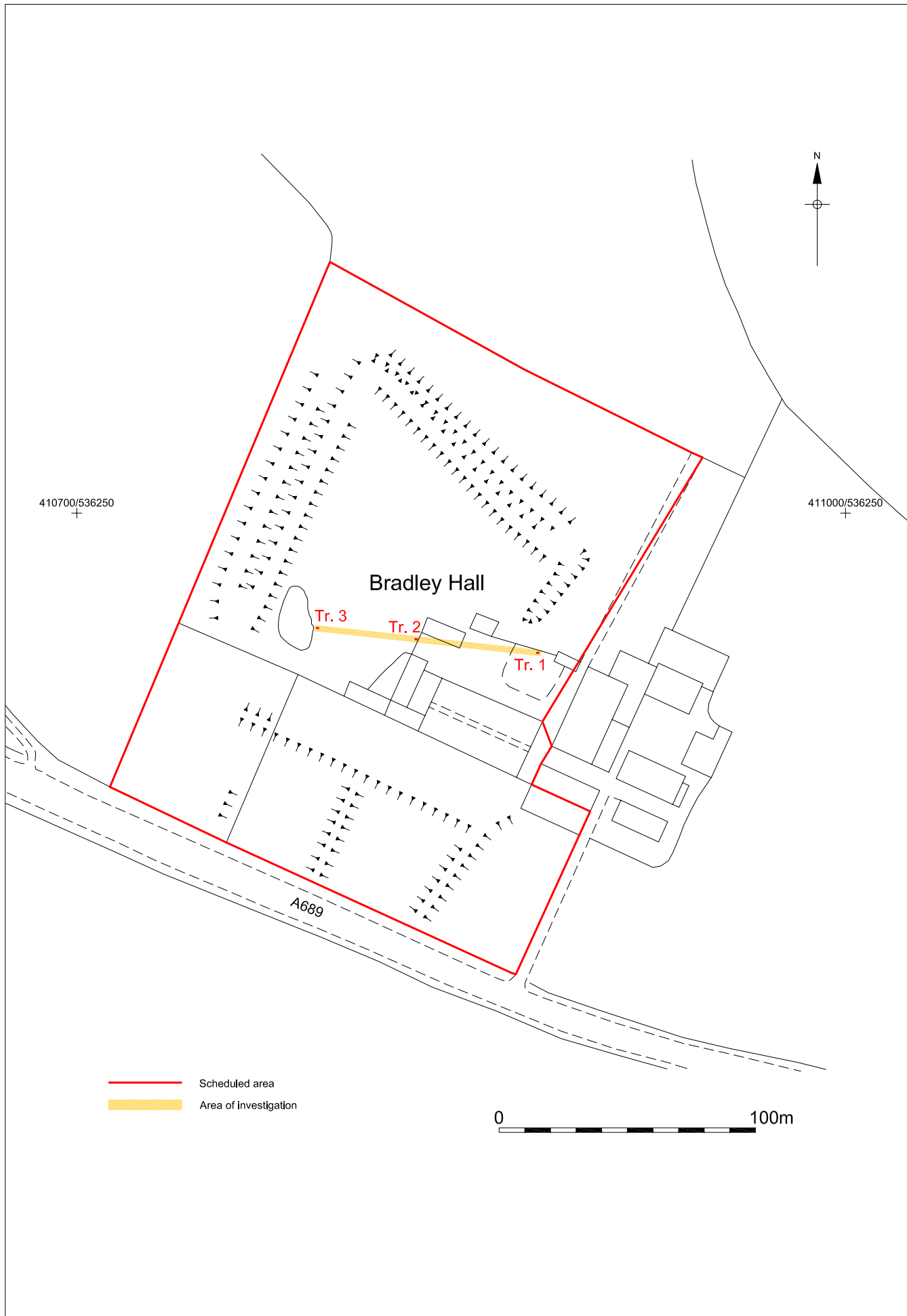


Figure 2. Areas of investigation
Scale 1:2,000

2.3 Geology and Topography

- 2.3.1 The site comprises a roughly square area of land located on the northern side of the River Wear Valley, lying on predominantly level ground between the 130m and 135m contours. The River Wear is located c. 0.5km to the south of the site and the Bradley Burn, a tributary of the Wear, runs c. 150m to the west.
- 2.3.2 The solid geology of the area comprises Coal Measures of Carboniferous age represented by thinly bedded sandstones, mudstones and coal seams. The overlying drift geology is boulder clay or till deposited during the last glacial period.

2.4 Planning Background

- 2.4.1 NEDL applied (letter dated 30/10/2007) to the DCMS for scheduled monument consent to undertake the overhead line refurbishment at the site. After consultation with English Heritage, DCMS decided that the works could proceed because they were unavoidable and warranted and would not significantly compromise the integrity of the monument, nor prejudice substantially its longer term preservation.
- 2.4.2 A condition of consent (set out in a letter from DCMS dated 12/11/2007) was that:
'No groundworks shall take place until the implementation of a programme of archaeological work has been secured in accordance with a written scheme of investigation which has been submitted to and approved by the Secretary of State advised by English Heritage. This programme of work shall be a watching brief carried out by a recognised professional archaeological consultant to IFA standards.'
- 2.4.3 As previously described, a Brief for the archaeological recording work was compiled by DCAS on the recommendation of English Heritage. The Brief outlined the justification for the investigation, its objectives and the strategy and procedures to apply to the programme of archaeological recording. A 'written scheme of investigation' (WSI) was required by the condition of scheduled monument consent and accordingly a Project Design² was compiled by PCA – as the appointed archaeological contractor – this incorporating the required WSI. The Project Design – appended to this report - set out the background to and the aims of the archaeological project and described the methodologies to be employed both during the fieldwork and 'post-excavation' phases of the project.

2.5 Archaeological and Historical Background

- 2.5.1 This section of the report has been compiled from information contained within 'Keys to the Past',³ the online Sites and Monuments Record for County Durham.
- 2.5.2 No evidence for prehistoric activity is known in the immediate vicinity of the site.
- 2.5.3 No evidence for Roman activity is known in the immediate vicinity of the site. The nearest Roman activity is located c. 1km east of Crook, where the Dere Street Roman road ran northwards towards Hadrian's Wall.

² PCA 2008.

³ Available online at www.keystothepast

- 2.5.4 In 1183 the estate was mentioned in the Boulden Book, when it was held by the Bradley family. In Bishop Hatfield's 14th century survey it was held by Rodger Eure of Witton. The son of the latter was granted licence to crenellate the house in 1431 by Bishop Langley. The estate later passed to the Tempest family and after the Rebellion of 1580 Elizabeth I granted it to the Bowes family, with who it remained until 1844.
- 2.5.5 It is for the medieval period that the site has the most potential due to the presence of scheduled ancient monument 28599, '*Bradley Hall fortified house and underground passages, moated site, pillow mound and fishponds*'. The moated site is trapezoidal in plan measuring up to c. 110m east-west by c. 125m north-south, enclosed by a substantial ditch up to 7m wide by a maximum of 1.8m deep. The earthworks associated with the enclosure are evident on the west, north and north-eastern sides with the eastern remainder infilled but surviving below ground levels. The south side has also been infilled but is still evident as an earthwork.
- 2.5.6 An inner bank, this constructed of earth and stone, flanks the full extent of the ditch measuring up to 9m wide and up to 1.6m high. Also an outer discontinuous bank measuring up to 10m wide and up to 1.6m high is evident as earthworks. The entrance is presumed to be located at the north-west corner of the enclosure where there is a pronounced rise in ground level and a higher frequency of earthworks, this possibly suggesting a higher density of structures located near the entrance.
- 2.5.7 Located to the south of the moated site is a row of at least three roughly rectangular low banked enclosures measuring c. 8m wide and c. 0.5m high which have been interpreted as fish ponds; the water supply is presumed to have been sourced from the south side of the moat. Within each enclosure there is evidence of broad ridge and furrow measuring up to 5m wide indicating cultivation of the land during the medieval or post-medieval period when the enclosures were disused.
- 2.5.8 Located c. 25m north of the moated site is a linear mound measuring c. 8m in length, c. 2.5m wide and c. 1m high, which has been interpreted as a medieval pillow mound, this type of earthwork - used to farm rabbits - is often surrounded by a shallow ditch.
- 2.5.9 Located at the south-east corner of the moated site are standing and earthwork remains of a fortified manor house of possibly 14th century origins, the barrel-vaulted ruin is the only visible part of the structure which is of c. 15th century date. The house was extensively remodelled during the late 16th to early 17th century during its conversion into a mansion and further altered during the late 18th century, at which point the present dwelling (a Grade II listed building) was effectively created.
- 2.5.10 There is evidence that the medieval fortified house was a three- or four-sided courtyard building with the current L-shaped farmhouse today forming the east range of that structure. A geophysical survey undertaken in the 1990s largely confirmed this by recording evidence of remains interpreted as the west and north range of the medieval courtyard manor house.
- 2.5.11 The remains of extensive underground passages have been recorded at the site, of which two branches survive. The lower passages are thought to be an integral part of the water management system associated with late 16th to early 17th century occupation. The main east-west passage is thought to be a drain for the house, although the purpose of a higher arched passage and its destination has not been established.

- 2.5.12 Previous archaeological work at Bradley Hall comprised clearance of vegetation and a programme of earthwork and building recording of the south range, this formed by a row of vaulted cellars undertaken in 1992. This was followed by a second season of work in 1995, comprising four small trenches across the vaulted cellars prior to consolidation work.
- 2.5.13 Located just east of Bradley Hall is a Grade II listed building comprising a barn, loose-boxes and lofts, of 17th century origin, constructed using coursed rubble with quoins. Located c. 0.2km north-west of Bradley Hall at Bradley Bridge are two Grade II listed buildings, Bradley Burn farmhouse, formerly known as Low Bradley, which is of 17th century origin with 19th century additions, and Granary Cottage and adjoining farm buildings of Bradley Burn farmhouse, comprising a cart shed, barns and byres forming three ranges round a courtyard, these of late 18th–early 19th century origin, with the cart shed currently the dwelling.

2.6 Aims and Objectives

- 2.6.1 The broad aim of the watching brief was to allow the preservation by record of any archaeological remains exposed as a result of groundworks associated with refurbishment of the overhead electricity supply. Such remains could encompass buried structures, deposits and features and any associated artefactual and ecofactual evidence. Remains of the medieval through to the post-medieval periods could reasonably be expected at this location.
- 2.6.2 Recording of archaeological remains of the medieval period formed the site-specific project objective, given the setting at Bradley Hall moated site. The project had the potential to make a significant contribution to archaeological knowledge of the area.

3. ARCHAEOLOGICAL METHODOLOGY

3.1 Fieldwork

- 3.1.1 The archaeological investigations conducted in association with the refurbishment of the overhead electricity supply in the vicinity of Bradley Hall were undertaken on the recommendation of EH and DCAS. The fieldwork was undertaken in accordance with the relevant standard and guidance document of the Institute of Field Archaeologists (IFA).⁴ PCA is an IFA-Registered Organisation (RAO 23).
- 3.1.2 The groundworks comprised the excavation of three trenches to house new poles, one with a supporting stanchion, to carry the overhead supply north of Bradley Hall. These trenches were located along a corridor of open ground extending from the north-eastern corner of a yard area and running approximately east-west across the southern portion of the moated site (Figure 2).
- 3.1.3 Trench 1 was located at the eastern end of the area of investigation, a short distance east of the eastern side of the moated enclosure, on a grassed area beside a tarmac car park and south of a stone wall. Trench 2 was located in the central portion of the area of investigation, to the west of a NE-SW aligned boundary wall that adjoined the north-western corner of the farmhouse to the south. Trench 3 was located in an open area in the western extent of the area of investigation on the eastern edge of a pond within the ancient moated site.
- 3.1.4 Each trench measured 1m east-west by 0.50m north-south and was excavated to a depth of 2.50m below existing ground level. The trenches were excavated by a tracked 360° mechanical excavator of c. 3 tonnes size, using a toothless ditching bucket and this work was carried out under archaeological supervision.
- 3.1.5 The trenches were recorded on *pro forma* trench recording sheets.

3.2 Post-excavation

- 3.2.1 The stratigraphic data for the project is represented by the written and drawn record. A written summary of the archaeological sequence was compiled, as described below.
- 3.2.2 No artefactual or organic material was recovered from the site. The project's palaeoenvironmental sampling strategy was to recover bulk samples where appropriate, from well-dated (where possible), stratified deposits covering the main periods or phases of occupation and the range of feature types represented. To this end, no features of significance were encountered to warrant the recovery of bulk samples. No material was recovered that required specialist stabilisation or an assessment of potential for conservation research.
- 3.2.3 Survival of all materials from archaeological fieldwork depends upon suitable storage. The complete project archive, in this case comprising only written and drawn records (including all material generated electronically during post-excavation), will be packaged for long term curation. The depositional requirements of the receiving body, in this case the Bowes Museum, will be met in full.

⁴ IFA 2001.

4. THE ARCHAEOLOGICAL SEQUENCE

4.1 Trench 1

- 4.1.1 The basal deposit exposed across Trench 1 comprised mid greyish brown clayey sand and gravel which was first encountered at a depth of 0.90m below ground level with a maximum thickness of 1.60m of the deposit being excavated to achieve the required depth. This deposit is interpreted as the natural sub-stratum of glacial origin.
- 4.1.2 Overlying the natural sub-stratum was a 0.60m thick deposit comprising loose, dark grey clayey silt with thin lenses of grey mortar throughout. This material, which is interpreted as a dump deposit containing some building rubble, was encountered at a depth of 0.30m below existing ground level.
- 4.1.3 The uppermost deposits within Trench 1 comprised topsoil and turf, with a combined thickness of 0.30m.

4.2 Trench 2

- 4.2.1 The basal deposit exposed across Trench 2 comprised mid orange brown sandy clay interpreted as the glacial natural sub-stratum. This was encountered at a depth of 0.60m below existing ground level with a maximum thickness of 1.90m of the deposit being excavated to achieve the required depth.
- 4.2.2 The natural sub-stratum was overlain by a 0.25m thick deposit comprising dark grey clayey silt with a large quantity of broken stone throughout, this being interpreted as probable building demolition rubble. This deposit was encountered at a depth of 0.35m below existing ground level.
- 4.2.3 The uppermost deposits in Trench 2 comprised topsoil and turf, with a combined thickness of 0.35m.

4.3 Trench 3

- 4.3.1 The natural sub-stratum exposed across Trench 3 comprised mid yellowish brown sandy clay. This deposit – again of likely glacial origin - was encountered at a depth of 0.30m below existing ground level and excavated for a maximum thickness of 2.20m.
- 4.3.2 The uppermost deposits within Trench 3 comprised topsoil and turf, with a combined thickness of 0.30m.

5. CONCLUSIONS

- 5.1 No features or structures of archaeological significance were recorded during the investigations. No artefactual material was recovered or noted within any of the deposits exposed.
- 5.2 Natural glacially-derived material was encountered throughout the areas investigated. In Trenches 1 and 2 this was overlain by dumped material incorporating building rubble, but each such deposit was of uncertain date. The uppermost deposits in all three trenches comprised topsoil and turf.
- 5.3 It is recommended that no further work be undertaken on the information recovered from the investigations associated with the refurbishment of the electricity supply at Bradley Hall, Wolsingham, County Durham.

6. REFERENCES

Institute of Field Archaeologists, 2001. *Standard and Guidance for Archaeological Watching Brief*, IFA unpublished.

DCAS, 2007. *Brief for Archaeological Recording Work: Bradley Hall, Wolsingham, Co. Durham*, DCAS unpublished.

Pre-Construct Archaeology Limited, 1999. *Field Recording Manual*, PCA unpublished.

Pre-Construct Archaeology Limited, 2008. *Project Design for an Archaeological Investigation in Association with OHL Refurbishment at Bradley Hall, Wolsingham, Co. Durham*, PCA unpublished.

Internet Sources

Archaeology Data Service website: <http://ads.ahds.ac.uk/catalogue/terms.cfm>

Keys to the Past website (the online Sites and Monuments Record of County Durham and Northumberland): www.keystothepast.info/

7. **ACKNOWLEDGEMENTS AND CREDITS**

Acknowledgements

Pre-Construct Archaeology Limited would like to thank NEDL for commissioning the project herein described. The liaison role of Caroline Gray is acknowledged.

The roles of Lee White, Durham County Archaeological Section, and Rob Young, English Heritage, are acknowledged.

PCA Credits

Fieldwork: Robin Taylor-Wilson

Report: Robin Taylor-Wilson and Jenny Proctor

Project Management: Robin Taylor-Wilson

CAD: Adrian Bailey

APPENDIX
PROJECT DESIGN

PROJECT DESIGN FOR AN ARCHAEOLOGICAL WATCHING BRIEF IN ASSOCIATION WITH OHL REFURBISHMENT AT BRADLEY HALL, WOLSINGHAM, CO. DURHAM

Prepared on behalf of NEDL by Pre-Construct Archaeology Limited

March 2008

PCA Reference: PCA/BHW08/WSI DOC 1

1. INTRODUCTION

- 1.1 Overhead electricity supply lines (OHL) are to be refurbished in the vicinity of Bradley Hall moated site, near Wolsingham in County Durham. English Heritage's North East Historic Environment Archaeology Adviser (EH HEA) and Durham County Council's Archaeology Section (DCAS) have requested that an archaeologist monitors intrusive groundworks at the site and archaeological remains of significance exposed are recorded prior to their destruction.
- 1.2 The works are located within an area of high archaeological sensitivity, passing through the Bradley Hall moated site, a scheduled ancient monument (Monument No. 28599).
- 1.3 Northern Electric Distribution Limited (NEDL) or their appointed contractor will undertake the relevant groundworks, which will include removal of existing power line supports and replacement with new structures.
- 1.4 Archaeological input is to be provided by Pre-Construct Archaeology Limited (PCA), acting under instruction from NEDL. In consultation with EH HEA, DCAS has issued a Brief for the work. PCA has compiled this Project Design, incorporating a 'written scheme of investigation' for the archaeological project, as required by a condition of scheduled monument consent for the work to be undertaken.

2. SITE LOCATION AND DESCRIPTION

- 2.1 Bradley Hall lies in central County Durham, located on the north side of the A689 at NZ 1083 3623, c. 3km to the south-east of the town of Wolsingham.
- 2.2 The site comprises a roughly square area of land situated on predominantly level ground within the Wear Valley. The archaeological monument comprises the remains of an irregular four sided moated site, the ruins and remains of a fortified house, a pillow mound and a series of fishponds of medieval date, these situated on the left bank of the Bradley Burn, a tributary of the River Wear.

3. PLANNING BACKGROUND

3.1 NEDL applied (letter dated 30/10/2007) to the Department for Culture, Media and Sport for scheduled monument consent to undertake the OHL refurbishment at the site. After consultation with English Heritage, DCMS decided that the works could proceed because they are unavoidable and warranted and will not significantly compromise the integrity of the monument, nor prejudice substantially its longer term preservation.

3.2 A condition of consent (set out in a letter from DCMS dated 12/11/2007) was that:

'No groundworks shall take place until the implementation of a programme of archaeological work has been secured in accordance with a written scheme of investigation which has been submitted to and approved by the Secretary of State advised by English heritage. This programme of work shall be a watching brief carried out by a recognised professional archaeological consultant to IFA standards.'

3.3 A 'Brief for Archaeological Recording Work. Watching Brief: Bradley Hall, Wolsingham, Co. Durham' was compiled by DCAS on the recommendation of English Heritage. The Brief outlines the justification for the investigation, its objectives and the strategy and procedures to apply to the programme of archaeological recording. That Brief however, does not constitute the 'written scheme of investigation' (WSI) required by the condition of scheduled monument consent. Accordingly, this Project Design, compiled by the appointed archaeological contractor, incorporates the required WSI. It sets out the background to and the aims of the archaeological project and describes the methodologies to be employed both during the fieldwork and 'post-excavation' phases of the project.

4. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

4.1 This section has been compiled from information contained within the online Sites and Monuments Record 'Keys to the Past'.¹

4.2 No evidence for prehistoric activity is known in the immediate vicinity of the site.

4.3 No evidence for Roman activity is known in the immediate vicinity of the site. The nearest Roman activity is located c. 1km east of Crook, where the Dere Street Roman road ran northwards towards Hadrian's Wall.

4.4 In 1183 the estate was mentioned in the Boulden Book, when it was held by the Bradley family. In Bishop Hatfield's 14th century survey it was held by Rodger Eure of Witton. The son of the later was granted licence to crenellate the house in 1431 by Bishop Langley. The estate later passed to the Tempest family and after the Rebellion of 1580 Elizabeth I granted it to the Bowes family, with whom it remained until 1844.

¹ Available online at www.keystothepast.

- 4.5 It is for the medieval period that the site has the most potential due to the presence of scheduled ancient monument 28599 '*Bradley Hall fortified house and underground passages, moated site, pillow mound and fishponds*'. The moated site is trapezoidal in plan measuring up to c. 110m east-west by c. 125m north-south, enclosed by a substantial ditch up to 7m wide by a maximum of 1.8m deep. The earthworks associated with the enclosure are evident on the west, north and north-eastern sides with the eastern remainder infilled but surviving below ground levels. The south side has also been infilled but is still evident as an earthwork.
- 4.6 An inner bank, this constructed of earth and stone, flanks the full extent of the ditch measuring up to 9m wide and up to 1.6m high. Also an outer discontinuous bank measuring up to 10m wide and up to 1.6m high is evident as earthworks. The entrance is presumed to be located at the north-west corner of the enclosure where there is a pronounced rise in ground level and a higher frequency of earthworks, this possibly suggesting a higher density of structures located near the entrance.
- 4.7 Located to the south of the moated site is a row of at least three roughly rectangular low banked enclosures measuring c. 8m wide and c. 0.5m high which have been interpreted as fish ponds; the water supply is presumed to have been sourced from the south side of the moat. Within each enclosure there is evidence of broad ridge and furrow measuring up to 5m wide indicating cultivation of the land during the medieval or post-medieval period when the enclosures were disused.
- 4.8 Located c. 25m north of the moated site is a linear mound measuring c. 8m in length, c. 2.5m wide and c. 1m high, which has been interpreted as a medieval pillow mound, this type of earthwork - used to farm rabbits - is often surrounded by a shallow ditch.
- 4.9 Located at the south-east corner of the moated site are standing and earthwork remains of a fortified manor house of possibly 14th century origins, the barrel-vaulted ruin is the only visible part of the original structure of c. 15th century date. This was extensively remodelled during the late 16th to early 17th century during its conversion into a mansion and further altered during the late 18th century, which is now the present dwelling (a Grade II listed building).
- 4.10 There is evidence that the medieval fortified house was a three- or four-sided courtyard building with the current L-shaped farmhouse today forming the east range. A geophysical survey undertaken in the 1990s largely confirmed this by recording evidence of remains interpreted as the west and north range of a medieval courtyard manor house.
- 4.11 The remains of extensive underground passages have been recorded, of which two branches survive. The lower passages are thought to be an integral part of the water management system associated with late 16th to early 17th century occupation. The main east-west passage is thought to be a drain for the house although the purpose of a higher arched passage and its destination has not been established.
- 4.12 Previous archaeological work at Bradley Hall comprised the clearance of vegetation and a programme of earthwork and building recording of the south range, this formed by a row of vaulted cellars undertaken in 1992. This was followed by a second season of work in 1995, comprising four small trenches across the vaulted cellars prior to consolidation work.

- 4.13 Located just east of Bradley Hall is a Grade II listed building comprising a barn, loose-boxes and lofts, of 17th century origin, constructed using coursed rubble with quoins. Located c. 0.2km north-west of Bradley Hall at Bradley Bridge are two Grade II listed buildings, Bradley Burn farmhouse, formerly known as Low Bradley, which is of 17th century origin with 19th century additions, and Granary Cottage and adjoining farm buildings of Bradley Burn farmhouse, which comprises a cart shed, barns and byres forming three ranges round a courtyard, these of late 18th–early 19th century origin, with the cart shed currently the dwelling.

5. RECOMMENDED SCHEME OF WORKS

5.1 Aims and Objectives

- 5.1.1 In broad terms, the archaeological investigation will aim to record the character of any archaeological remains exposed as a result of groundworks associated with refurbishment of the OHL. Such remains could encompass buried structures, deposits and features and any associated artefactual and ecofactual evidence. Remains of the medieval through to the post-medieval periods can reasonably be expected at this location.
- 5.1.2 Recording of archaeological remains of the medieval period forms the site-specific project objective, given the setting at Bradley Hall moated site.

5.2 Fieldwork: General Standards

- 5.2.1 All archaeological work at the site will be carried out in compliance with the codes and practice of the Institute of Field Archaeologists (IFA) and will follow the IFA '*Standards and Guidance for Archaeological Watching Brief* (2001).
- 5.2.2 All archaeological staff will be suitably qualified and experienced for their project roles.
- 5.2.3 All staff will be aware of the work required, as detailed in this Project Design, and will understand the project's aims and methodologies.

5.3 Archaeological Methodology

- 5.3.1 There will be archaeological monitoring of all intrusive groundworks associated with refurbishment of the OHL at Bradley Hall moated site. It is intended that this will involve the replacement of several power line supports along the current OHL route.
- 5.3.2 The foundation pits for new supports to carry the OHL will be excavated by hand and/or mechanically by personnel from NEDL or their appointed contractor. Modern surfaces, existing stanchions, 'overburden', undifferentiated soil horizons and 'made ground' are to be removed under archaeological supervision. Where at all possible, delays to the groundwork timetable should be avoided. Nevertheless, if archaeological remains of note are uncovered, the attendant archaeologist must be given the opportunity to investigate and record such remains before they are destroyed.

- 5.3.3 At all locations, excavation will cease at the required depth or when significant archaeological deposits are encountered, whichever is soonest. If the removed material is entirely of low archaeological significance, the attendant archaeologist will make a brief record of the excavated 'trench'. Removal of archaeological deposits of potential significance must only be undertaken by the attendant archaeologist. Where such remains are encountered, there will be a requirement for cleaning, examination and recording of the trench, both in plan and in section. Further archaeological investigations may be necessary subject to characterisation of the exposed remains.
- 5.3.4 All archaeological features (layers, cuts, fills, structures) will be recorded using the 'single context recording' method on *pro forma* sheets. Plans and sections will be drawn at an appropriate scale. Photographs on both colour slide and black and white print will be taken as appropriate. The stratigraphy of each 'trench' will be recorded even where no archaeological deposits of note have been identified. A 'Harris' matrix will be compiled where stratified deposits are encountered.
- 5.3.5 Features and structures worthy of preservation will not be unduly excavated. In the event of the discovery of archaeological remains, which are considered to be of far greater number, extent or significance than could have been reasonably anticipated in advance of the work, investigations will cease and DCAS will be notified immediately. An assessment of the importance of the remains will be made at an appropriate stage and a methodology for the recording or preservation *in situ* of the remains will be discussed and agreed by all parties.

5.4 Finds and Samples

- 5.4.1 During the works, a high priority will be given to dating any archaeological remains. Therefore, all relevant artefacts and finds will be retained. Consideration will also be given to the recovery of specialist samples for scientific analysis, particularly samples for cultural/environmental evidence, structural materials and absolute dating. Different sampling strategies may be employed according to established research targets and the perceived importance of the strata under investigation.
- 5.4.2 Deposits will be assessed for their potential for radiocarbon and archaeomagnetic dating and, if appropriate, samples will be recovered for these purposes. Specialist analysis of the recovered material will be a requirement.
- 5.4.3 Any *in situ* human remains should be removed in an archaeological manner, although this can only take place under appropriate regulations. Prior notice must be given to the DCAS Archaeologist. If human remains were only partially located within the excavated trench, then it will be enlarged accordingly, if practical, to allow the removal of complete burials. All burials that have to be removed from site during the course of the fieldwork will be adequately recorded first and then carefully removed for scientific study, and long-term storage with an appropriate museum, unless the burial licence specifies reburial or cremation. Human remains will be recorded by photography and the use of *pro forma* skeleton recording sheets.
- 5.4.4 All gold and silver will be removed to a safe place and reported to the local coroner according to the procedures relating to the '*Treasure Act 1997*'. Where removal cannot be effected on the same working day as the discovery suitable security measures will be taken to protect the finds from theft.

- 5.4.5 The overall aim of the fieldwork with respect to archaeological science will be to determine the types of material preserved and in what quantity and condition, thus enabling the aims and objectives of the project as a whole to be addressed. The advice of Jacqui Huntley, English Heritage's Regional Advisor for Archaeological Science (EH RAAS) will be sought, as appropriate.
- 5.4.6 Sample size will take into account the frequency with which material is likely to occur. In general, however, samples will be of the order 20–30 litres although with the expectation that smaller quantities (c. 5 litres) will be initially processed and assessed as part of the post-excavation work. There may be a requirement for further processing and full analysis of the remaining material recovered from the site.

5.5 Treatment of Recovered Materials

- 5.5.1 Specialists will examine all levels of finds (e.g. organic, ceramic, metallic) that are recovered during the fieldwork. All finds will be treated in a proper manner and will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the guidelines set out in *'First Aid for Finds'* (Watkinson and Neal, 1998, 3rd edition) and the United Kingdom Institute for Conservation (UKIC), Archaeology Section's *'Conservation Guidelines No.2. Packaging and storage of freshly excavated artefacts from archaeological sites'* (1983).
- 5.5.2 Preliminary conservation and stabilisation of all objects will be undertaken as soon as possible during or upon completion of the fieldwork. Vulnerable materials that require specialist archaeological conservation will be transported to appropriate facilities without delay. There will be an assessment of long-term conservation and storage needs of all excavated material.
- 5.5.3 All metal objects will be X-rayed and then selected for conservation. All iron objects will be X-rayed, along with a selection of non-ferrous artefacts (including all coins) and a sample of any industrial debris relating to metallurgy.
- 5.5.4 Waterlogged organic materials will be dealt with following guidelines set out in English Heritage's documents, *'Guidelines for the care of waterlogged archaeological leather'* (1995) and *'Waterlogged wood. Guidelines on the recording, sampling, conservation and curation of waterlogged wood'* (1996).
- 5.5.5 All processing of artefacts and ecofacts will be undertaken away from the site. Assessment of artefactual and ecofactual material will be undertaken by suitably qualified personnel. For each category of artefact and ecofact an assessment report will be produced, that will include a basic quantification of the material, a statement of its potential for further analysis and recommendations for such work.
- 5.5.6 A programme of pottery dating and analysis will be undertaken by a nominated specialist(s), as necessary.

5.6 Project Archive

- 5.6.1 The data collected during monitoring of groundworks will be integrated into the existing project archive. The project archive has been prepared to the standard specified in Appendix 3 of *'Management of Archaeological Projects'* (English Heritage, 1991) and in accordance with the *'Guidelines for the Preparation of Excavation Archives for Long Term Storage'* (UKIC, 1990).

- 5.6.2 All artefacts and ecofacts recovered and retained from the site constitute part of the archive and these will be packed and stored in the appropriate materials and conditions.
- 5.6.3 The project archive will be deposited with an appropriate body at the conclusion of the reporting stage of work. The archive will be presented to the archive officer or relevant curator within 6 months of the completion of fieldwork, unless alternative arrangements have been agreed in writing with DCAS.
- 5.6.4 PCA agree to complete an Online Access to Index of Archaeological Investigations (OASIS) form for the project.

5.7 Reporting

- 5.7.1 The findings of the archaeological investigation will be summarised in a bound report, with each page and paragraph numbered.
- 5.7.2 The report will include the following information specific to the work:
- a summary statement of the results of the investigations;
 - the aims and methods adopted in the course of the work;
 - NEDL and OASIS reference numbers;
 - illustrative material (cross-referenced within the text), including an overall site location plan and a plan showing the location of excavated trenches, both tied into the Ordnance Survey grid and at recognisable scales, plans and sections of archaeological deposits at recognisable scales, and photographs, as appropriate;
 - a section of text detailing the nature, extent, date, condition and significance of any archaeological remains.
 - a copy of this Project Design, included as an appendix.
- 5.7.3 The report will give in the 'Introduction' the NGR for the site and will set out the dates when the fieldwork was undertaken and name the archaeological personnel involved.
- 5.7.4 Copies of the report will be sent to NEDL (one hardcopy), DCAS (one hardcopy and in electronic format), English Heritage (one hardcopy).
- 5.7.5 A précis of the work will be supplied for '*Archaeology County Durham*' magazine which is produced annually by DCAS.

5.8 Access and Health & Safety

- 5.8.1 Reasonable access to the site will be granted to representatives of DCAS who wish to be satisfied, through site inspections, that the archaeological works are being conducted to proper professional standards and in accordance with the agreements made.
- 5.8.2 All relevant Health and Safety legislation, regulations and codes of practice must be respected. PCA is a sub-contractor and will have no responsibilities (including preparation of a Health and Safety Plan) as a Principal Contractor or CDM Co-ordinator under the '*Construction (Design and Management) (CDM) Regulations 2007*'.
- 5.8.3 PPE will be used by all archaeological personnel, as appropriate.

5.9 Further Information

- 5.9.1 Guidance on the archaeological action recommended and any further information can be obtained from:

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The Rivergreen Centre
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