An Archaeological Evaluation at Hawthorne Terrace, Blucher, Newcastle Upon Tyne

ARS Ltd Report 2013/56

July 2013

Archaeological Research Services Ltd

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Executive Summary

In July 2013 Archaeological Research Services Ltd were commissioned by Northumbrian Water to undertake an archaeological evaluation on farmland adjacent to Hawthorne Terrace, Blucher in Newcastle. This scheme of works relates to a wider scheme of trunk main cleaning works, to be carried out by Northumbrian Water. The site lies within Hadrian’s Wall mile 8, a part of the wider Hadrian’s Wall Scheduled Ancient Monument and World Heritage Site. The works involved the excavation of a single 15m x 1m trench and an additional area of monitored soil stripping of the surrounding area (375m2). The proposal had the potential to impact on significant remains associated with the SAM.

The works were carried out as a requirement of Scheduled Monument Consent (ref. S00053440) under the Ancient Monuments and Archaeological Areas Act 1979 (as amended); Section 2 control of works. Northumbrian Water proposed the trial archaeological investigation in order to determine the position and extent of remains of Hadrian’s Wall, the results of which will inform a S.A.M application for cleaning works later in the year.

During the soil stripping and trench excavation, no archaeological features were uncovered and no archaeological evidence was present. The soil stripped area highlighted the high frequency of modern services in the immediate locale, as well as the shallow depth of the natural clay and bedrock in this location, intimating that any archaeological remains that may have been present have been lost.
1. Introduction

1.1. In July 2013 Archaeological Research Services Ltd were commissioned by Northumbrian Water to undertake an archaeological evaluation on farmland adjacent to Hawthorne Terrace, Blucher in Newcastle. This scheme of works relates to a wider scheme of trunk main cleaning works, to be carried out by Northumbrian Water. This site lies within Hadrian’s Wall mile 8, a part of the wider Hadrian’s Wall Scheduled Ancient Monument (SAM) and UNESCO World Heritage Site. The works involved the excavation of a single 15m x 1m trench and an additional area of monitored soil stripping of the surrounding area (375m²). The proposal had the potential to impact on significant remains associated with the SAM.

1.2. The works were carried out as a requirement of Scheduled Monument Consent (ref. S00053440) under the Ancient Monuments and Archaeological Areas Act 1979 (as amended); Section 2 control of works. Northumbrian Water proposed a trial archaeological investigation in order to determine the position and extent of any remains of Hadrian’s Wall, the results of which would inform a S.A.M application for cleaning works later in the year. Previous excavations along the line of the wall have proven that the survival of the Wall and its features is very variable. All work relating to the Scheduled Ancient Monument should contribute to the Research Framework for Hadrian’s Wall (Symonds and Mason (eds.) 2009).

Fig. 1 Site location Ordnance Survey data copyright OS, reproduced by permission, Licence no. 100045420
2. **Location and Geology**

2.1. The site is located at NGR NZ 1812 66060. The underlying geology is composed of the Pennine Middle Coal Measures Formation – Sandstone, with an overlying drift geology of glacial till.

3. **Historical and Archaeological Background**

3.1. The site lies directly along the route of Hadrian’s Wall, evidence for which is abundant in the regional landscape. The site lies in the immediate vicinity of Milecastle 9, which would have been a fairly substantial building; however no evidence of this exists.

3.2. Evidence of Hadrian’s Wall is scant in the immediate locale, as a high percentage of the remains have been removed by modern roadworks and pedestrian pavements, as well as ‘robbing’ for local buildings.

3.3 A relatively intact section of Hadrian’s Wall exists approximately 3 miles to the west at Heddon-on-the-Wall and is largely undisturbed, showing the relative width and make up of the wall.

3.4 The small of village of Blucher was largely built to service Blucher Colliery, which was in operation up until 1956 and was a functioning pit for 140 years. The associated winding house is still present in the village.

3.5 The adjacent village of Walbottle is known to have been in existence from at least the 13th century. The medieval village was built around the green and was surrounded by strip-cultivated open fields.

4. **Aims and Objectives**

4.1 The purpose of the work was to gain information about the archaeological resource, including its presence or absence, character, extent, date, integrity, state of preservation and quality, in order to formulate an appropriate mitigation strategy to ensure an appropriate recording, preservation or management of the resource. In particular:

i) the presence or absence of archaeological features their quality, depth and preservation.

ii) an assessment of their significance and importance in line with NPPF (CLG 2012)

iii) the likely impact of the works upon any such features

iv) the appropriate mitigation of the development’s impact upon those remains.

5. **Methodology**

5.1 The archaeological evaluation comprised one trench and an associated area of monitored topsoil strip (Fig. 2). The trench was dug in order to establish whether or not the water main works would have any impact upon buried archaeological remains or deposits.
5.2 The trench was opened by machine using a toothless ditching bucket in level spits until the natural level was reached, at which point the trenches were examined and cleaned by hand. All machine excavation was carried out under careful archaeological supervision.

5.5 The deposits were recorded according to the normal principles of stratigraphic excavation. Each context was recorded on pro-forma records which included the following: character and contextual relationships; detailed description (dimensions and shape; soil components, colour, texture and consistency); interpretation and phasing as well as cross-references to the drawn, photographic and finds registers.

5.6 The trench was planned at 1:50. Trench sides were also drawn in section at a scale of 1:50. All deposits and the base of each trench were levelled and heights are expressed in metres above Ordnance Datum.

5.7 A photographic record was maintained including photographs of each trench. All images were taken in digital format, and contain a graduated photographic scale.

![Fig 2. Location of Trench 1 (H3)](image_url)
6. Evaluation results

6.1. An area of approximately 25m x 15m (fig 2) was topsoil stripped, with the purpose of identifying any features of archaeological interest. No archaeological features were apparent in the selected area. Bedrock in the stripped area was relatively close to the surface, varying from 0.25 metres to the south-east, through to 0.45 metres in the south-west section of the site (Fig 3).

6.2. Trench 1 was excavated from north-east to south-west (Figs 4 & 5). The trench measured 15m in length and 1.05m at its widest point and 0.75m at its deepest (Fig. 2). The trench was dug through a topsoil layer (101), with a maximum remaining depth of 0.25m. At the northern most point of the trench there was a modern debris/backfill layer (102) which seems to have been associated with the creation of the road and pavement immediately adjacent to the site. This deposit continued 3.2m along the length of the trench, measured from its northern extent, and had a small lens of topsoil immediately beneath it (106), indicating that the natural geology (103) has always been relatively near to the surface. This layer (102) had a maximum thickness of 0.51m (evident in fig 5) and was a very distinct deposit, containing modern broken brick, large stones and general rubble. The natural stratum was a rich yellow boulder clay (103), upon which the topsoil layer (101) sits. A water main was found approximately 4.5 metres from the northern extent of the trench, and was left in place with a baulk of approximately 2m in width covering it. The cut of the service (104) was filled with a silty soil material (105). Another probable water main was encountered 12.15m from the northern extent of the trench. Trench 1 contained no remains of any archaeological significance.
Fig 4. Trench 1 looking to south-west, 2m scale
Fig 5. North-west facing section of Trench 1, showing modern make up layer to the left, overlying buried topsoil deposit.
7. Discussion

7.1 The majority of deposits encountered in the trench during the evaluation were created when various modern services, footpaths and road surfaces were laid. It was evident during the evaluation that a substantial amount of disturbance had been caused to the ground in the study area, particularly adjacent to the road where a significant depth of modern made ground was observed, cutting into the natural substrate. Therefore it is unlikely that Hadrian’s Wall, or features associated with the Wall, would have survived in this immediate vicinity. Associated service trenches and road works have more than likely completely removed any evidence of Hadrian’s Wall in this area. Further to this, the shallow depth of the natural substrate in this area suggests that the site holds little potential for survival.

8. Publicity, Confidentiality and Copyright

8.1 Any publicity will be handled by the client.

8.2 Archaeological Research Services Ltd will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).

9. Statement of Indemnity

9.1 All statements and opinions contained within this report arising from the works undertaken are offered in good faith and compiled according to professional standards. No responsibility can be accepted by the author/s of the report for any errors of fact or opinion resulting from data supplied by any third party, or for loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in any such report(s), howsoever such facts and opinions may have been derived.

10. Acknowledgements

10.1 Archaeological Research Services Ltd would like to thank all those involved with this work, in particular Ben Ralston from Northumbrian Water and Rob Young and Mike Collins of English Heritage.

11. References

British Geological Survey http://www.bgs.ac.uk/
Keys to the Past http://www.keystothepast.info
Tyne and Wear Sitelines http://www.twsitelines.info
Written Scheme of Investigation for Archaeological Evaluation and Soil Strip

1. Introduction

1.1. This scheme of works relates to a wider scheme of trunk main cleaning works, to be carried out by Northumbrian Water. This site lies within Wall mile 8, a part of the wider Hadrian’s Wall Scheduled Ancient Monument and World Heritage Site (Fig.1). The proposal involves the excavation of a single 15m x 1m trench and an additional area of monitored soil stripping of the surrounding work area (c.375m²) (see Fig.1.). The impact of the existing water main on archaeological remains has not been established and the survival of remains in this area cannot be fully discounted. The proposed cleaning works therefore have the potential to impact on significant remains associated with the SAM.

1.2. English Heritage have been consulted by the clients at a pre-application stage concerning the archaeological issues involved with the works. English Heritage have advised that archaeological evaluation is required. Scheduled Monument Consent has been obtained for the works (ref. S00053440).

1.3. This document is a written scheme of investigation (WSI) confirming the nature of the archaeological works to be undertaken by Archaeological Research Services Ltd (ARS Ltd) at Hawthorne Terrace, Blucher for approval by Mike Collins, English Heritage.

2. Archaeological Background:

2.1 Hadrian’s Wall is a Scheduled Ancient Monument and World Heritage Site. There are a substantial numbers of sites and findspots of Roman date within the area surrounding the study site due to the close proximity of the wall.

2.2 It is beyond the scope of this WSI to replicate a full history of Roman occupation of the Hadrianic Frontier. For more detail see Housesteads: A Fort and Garrison on Hadrian's Wall (Crow 2004).

3. Objectives

3.1. The purpose of the work is to gain information about the archaeological resource, including its presence or absence, character, extent, date, integrity, state of preservation and quality, in order to formulate an appropriate mitigation strategy to ensure appropriate recording, preservation or management of the resource. In particular:

i) the presence or absence of archaeological features their quality, depth and preservation.

ii) an assessment of their significance and importance in line with NPPF (CLG 2012)
iii) the likely impact of the works upon any such features
iv) the appropriate mitigation of the development’s impact upon those remains

3.2. The research aims for any further work required following the evaluation will be developed in an additional WSI.

3.3. If significant archaeological remains are identified during the evaluation that require further examination, a site meeting will be arranged with the clients, Mike Collins of English Heritage and ARS Ltd in order to agree the requirement and timetable for further evaluation work.

3.4. Any changes to the agreed WSI will be discussed with, and agreed with Mike Collins, English Heritage, Historic Environment Adviser: Hadrian’s Wall before implementation.

4. Fieldwork Methodology

4.1. The proposals involve a series of minor interventions to allow access pits for pump cleaning works to the existing water main. The impact of the existing main on archaeological remains has not been established and the survival of remains in this area cannot be fully discounted. The proposed development therefore has the potential to impact on significant remains associated with the SAM.

4.2. Given the above, the evaluation requirement therefore reflects the archaeological potential of the site and the extent of previous and proposed groundworks. The evaluation will comprise:

- One 15m x 1m trench.
- An area of monitored topsoil strip to allow a made surface for the works to be installed. This area of topsoil strip is c.375m².

See Figure 1 for locations. Any alterations to trench size or location due to the presence of services will be confirmed with English Heritage and the clients. A CAT scan will be used to determine the presence of services on site.

4.3. All archaeological fieldwork, recording of archaeological features and deposits and post-excavation analysis will be carried out to acceptable standards as set out in the Institute for Archaeologists’ Code of Practice (2000) and Standard and Guidance for Archaeological Evaluation (2008).

4.4. Evaluation Trenching Methodology

4.5. Trench to be machine stripped under continuous archaeological supervision to the first archaeological horizon in successive level spits or to a level where it is possible to assess the presence or absence of archaeological features. A toothless bucket will be used.

4.6. Following the excavation, recording and monitoring of the trench it will be backfilled using excavated material.

4.7. The trench will be cleaned by hand sufficiently to allow the identification and planning of archaeological features. Where archaeological features appear to be absent, sufficient work will be done to demonstrate this. Each trench will be planned at an appropriate scale; 1:20 where complex deposits are present or 1:50 in areas of lesser complexity (to be omitted if the trench is completely blank). One representative long section of each trench will be produced, at an
appropriate scale, if necessary. Sections and profiles of each feature sampled will be drawn at 1:10 or 1:20, depending on the size of the feature. Spot levels relative to ordnance datum in metres will be taken as appropriate.

4.8. Identified archaeological features will be sufficiently sampled by manual excavation to allow their date, nature and degree of survival to be ascertained. All features thus investigated will be recorded in plan and section and all finds recovered retained for analysis.

4.9. If brick structures are encountered, the record should include details of brick dimensions and type (handmade/machine-made, plain/frogged), mortar (colour, composition, hardness) and the extent of structures (number of courses, thickness in skins).

4.10. All identified archaeological features will be accurately fixed using an EDM/Total Station, surveying in either the planning baselines or the features themselves.

4.11. The site archive will include plans and sections at an appropriate scale, a photographic record, and full stratigraphic records on recording forms/context sheets. Each context will be recorded on pro-forma records which will include the following: character and contextual relationships; detailed description (dimensions and shape; soil components, colour, texture and consistency); associated finds; interpretation and phasing as well as cross-references to the drawn, photographic and finds registers. Each context will be recorded on an individual record.

4.12. A photographic record will be maintained including photographs of all significant features and overall photographs of each area or trench. All images will be taken in black and white print, and digital format, and will contain a graduated photographic scale. The main photographic archive will comprise 35mm b/w and colour SLR print film, supplemented by digital SLR (minimum 12 megapixels).

4.13. All stratified finds will be collected by context or, where appropriate, individually recorded in 3 dimensions. Unstratified finds, which are likely to be of singular importance in this context, will be collected where they contribute significantly to the project objectives or are of particular intrinsic interest. All pottery of Nineteenth century or earlier will be retained, whether stratified or un-stratified. Deposits that have the potential for providing environmental or dating evidence will be assessed while the work is in progress. Every archaeological context with potential for organic remains will be sampled. A bulk sample of at least 40 litres will be taken from each feature unless the context contains less than this. Initially only 10 litres from each context will be assessed so that those deposits that are worth further analysis can be identified and those that are not discarded. Pit features will be initially sampled and flotated through graduated sieves. If the context has the potential to contain organic residues then further sampling will take place as appropriate. So, for example, a Medieval pit with evidence for cereal production will be 100% sampled, given the rarity of such features. The sampling of contexts such as linear ditch fills will target the primary ditch silts as these have the potential to inform on the contemporary farming landscape at the time the ditch was initially cut and in use, but given the taphonomic problems associated with secondary ditch fills and their potential for intrusive and residual material, these will not be assessed in the same level of detail. However, samples will be taken where, for example, they may inform about the re-use or change in use of a feature.

4.14. The field method will include putting 100% of all samples through a 10mm mesh and then collecting the residue (this will remove the larger pebbles in the gravel as well as maximise finds recovery of lithics and pottery). However, where there is a possibility of human or animal remains being present, including cremated human remains, the whole sample will be flotated. Of the remaining material 10 litres (or all of the material if it is less) will then be flotated and
the flots and residues collected. These will be collected in graduated brass sieves with the smallest having a minimum mesh size of 300 microns.

4.15. Once the deposits have been assessed those that show good potential for further results will be flotated in full. This strategy will ensure that all deposits with potential for containing palaeoenvironmental residues (such as botanical macrofossils, animal bone and invertebrates) are assessed while at the same time ensuring that excessive time is not wasted on sterile deposits that will add nothing to furthering understanding. Furthermore, it will mean that any further work can be targeted specifically to those deposits that have demonstrable potential.

4.16. Samples for Pollen Analysis will be taken from any archaeological contexts that are suitable for providing an accurate indication of past environmental conditions and/or land use in the vicinity of the site. However, due to the taphonomic issues surrounding pollen samples a decision on whether to take samples will be taken on a feature by feature basis. For example, primary ditch silts, buried land surfaces and intact floor surface deposits would be considered suitable contexts to sample whilst secondary ditch deposits affected by bioturbation or root action that will have mixed pollen from different horizons would not. Secondary ditch fills will be sampled where there is the chance that they could inform about the re-use or change in use of a feature. If waterlogged deposits are identified, for example in deep cut features, separate samples for analysis will be taken for invertebrates, vegetative plant remains etc.

4.17. Samples will be assessed by a suitable specialist with provision for further analysis as required. Specialist advice on the collection of industrial residues will be sought and their strategies implemented. The advice of the English Heritage Scientific Adviser will be followed in relation to the collection of palaeoenvironmental evidence.

4.18. All retained finds and palaeoenvironmental samples will be treated in accordance with the English Heritage guidance document *A Strategy for care and investigation of finds (1995)* and the UKIC’s document *Guidelines for the preparation of excavation archives for long term storage*.

4.19. Provision will be made for additional specialist advice, e.g. for finds analysis and conservation.

4.20. Finds of "treasure" will be reported to the Coroner in accordance with the Treasure Act procedures.

4.21. If grave cuts are discovered on site, then they will be sampled through hand excavation to determine the presence/absence, depth and preservation of the uppermost burials, with every effort made to maintain the burials in-situ. If excavation of human remains is deemed essential through consultation with NNPA and NT, a license will be obtained from the Ministry of Justice and work will be carried out under appropriate environmental health regulations and, if appropriate, in compliance with the Disused Burial Grounds (Amendments) Act 1981.

4.22. Disarticulated human bone will be quantified and characterised prior to reinerrment on site.

4.23. The record of the extent and vulnerability of features will be sufficiently detailed to facilitate discussions regarding the need for preservation beneath any future potential development, or any other mitigation measures including further excavation or recording.

4.24. A risk assessment will be undertaken before commencement of the work and health and safety regulations will be adhered to at all times.

4.25. During fieldwork, signage will be displayed on the exterior of site hoardings/fencing, giving
details of the archaeological work in progress in order to keep the public informed.

4.26 Soil Stripping Methodology

4.27 Topsoil will be removed under continuous archaeological supervision, by machine, using a toothless ditching bucket. No machinery will track over stripped areas until they have been passed by the attending archaeologist. Any archaeological features discovered will be dealt with as above.

5. Monitoring Arrangements

5.1. The trenching is programmed to last for three working days but will be ultimately dictated by the nature of the below ground archaeology. Should complex archaeological features be discovered, requiring detailed recording, a contingency may be required. The allocation of this contingency will be agreed with the client and English Heritage. Consultation between the client, English Heritage and ARS Ltd will be required at the end of the archaeological trenching and stripping to ensure that all the below ground archaeology has been adequately recorded.

5.2. ARS Ltd will liaise with Mike Collins of English Heritage at regular intervals throughout the course of the work:

Mike Collins
Historic Environment Adviser: Hadrian’s Wall
English Heritage North East Region
Bessie Surtees House
41-44 Sandhill
Newcastle upon Tyne
NE1 3JF
Direct Dial: 0191 2691212

7. Report

7.1 Following completion of the evaluation ARS Ltd will produce a report which will include:

- Non-technical summary
- Introductory statement
- Aims and purpose of the project
- Methodology
  - A location plan showing all excavated areas and any archaeological features with respect to nearby fixed structures and roads
  - Illustrations of all archaeological features with appropriately scaled hachured plans and sections.
- An objective summary statement of results
- Conclusions
- Supporting data – tabulated or in appendices
- Index to archive and details of archive location
- References
- Statement of intent regarding publication
• Confirmation of archive transfer arrangements
• A copy of the approved WSI
• A copy of the OASIS form

7.2 Within the report:
• All plans will be clearly related to the national grid.
• All levels will be quoted relative to ordnance datum.

7.3 If significant archaeological remains are identified the report will include
• Detailed description and plans (at 1:50 scale) of any areas which provided significant archaeological information, all feature plans and sections (at 1:10 or 1:20 scale), select artefact illustrations, photographs and an overall site plan showing all recorded archaeological features.
• Finds quantification and assessment.
• Assessment of any palaeo-environmental samples taken.
• A summary of the extent, depth and state of preservation of archaeological deposits across the site.

7.4 Copies of the final report will be deposited with the Tyne and Wear Historic Environment Record, and will be submitted to English Heritage within six weeks of the completion of fieldwork. The client will receive one copy of the report plus one digital copy.

8 Archive Deposition

8.1 A digital, paper and artefactual archive, which will consist of all primary written documents, plans, sections, photographs and electronic data will be submitted to the a suitable repository museum, in a format agreed in discussion with Northumberland National Park Authority.

8.2 All artefacts and associated material will be cleaned, recorded, properly stored and deposited in the archive (see above).

8.3 If they are forthcoming as a result of the work, a full set of annotated, illustrative pictures of the site, excavation, features, layers and selected artefacts will be supplied to the HER and deposited with the archive as digital images on a CD ROM.

8.4 English Heritage will be notified on completion of fieldwork, with a timetable for reporting and archive deposition.

8.5 Written confirmation of the archive transfer arrangements, including a date (confirmed or projected) for the transfer, will be included as part of the final report.

8.6 An OASIS online record http://ads.ahds.ac.uk/project/oasis/ has been initiated and the watching brief data will be added to this record. Key fields will be completed on Details, Location and Creators forms. All parts of the OASIS online form will be completed for submission to the HER. This will include an uploaded .pdf version of the entire report (a paper copy will also be included within the archive).

8.7 English Heritage will be notified of the final deposition of the archive.
8.8 Publication of the results, in summary form, will be included in *Archaeology in Northumberland* and, depending on the results, in *Archaeologia Aeliana* or a relevant specialist journal.

### 9 Changes to Methodology or Work Programme

9.1 Changes to the approved methodology or programme of works will only be made with the prior written approval of the clients and English Heritage.

### 10 Publication

10.1 In the event of significant remains being encountered and excavated, there will be the need for a more formal publication than in the summary form. In this instance a suitable programme and timetable for publication and dissemination will be discussed and agreed upon by all stakeholders.

### 11 References


Figure 1: Proposed Trench Location Plan (trench H3 only)