

An Archaeological Evaluation at Middle Herrington Farm, Foxcover lane, Sunderland



View to Hastings Hill from the study area

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EXECUTIVE SUMMARY

In January 2008 Archaeological Research Services Ltd were commissioned by Smith Marston Llp. to undertake an archaeological evaluation at Middle Herrington Farm, Foxcover Lane, Sunderland. The work was carried out prior to the development of a new farm house. After discussions with the Tyne and Wear County Council Archaeologist, two trenches were placed over the prospective build areas but contained no features of archaeological interest. It is likely that previous developments associated with the construction and demolition of farm buildings on the site, have destroyed any archaeological remains that may have been present.

1. INTRODUCTION

1.1 Location and Scope of Work

1.1.1 In January 2008 Archaeological Research Services Ltd were commissioned by Smith Marston Lp. to undertake an archaeological evaluation at Middle Herrington Farm, Foxcover Lane, Sunderland (Fig. 1).

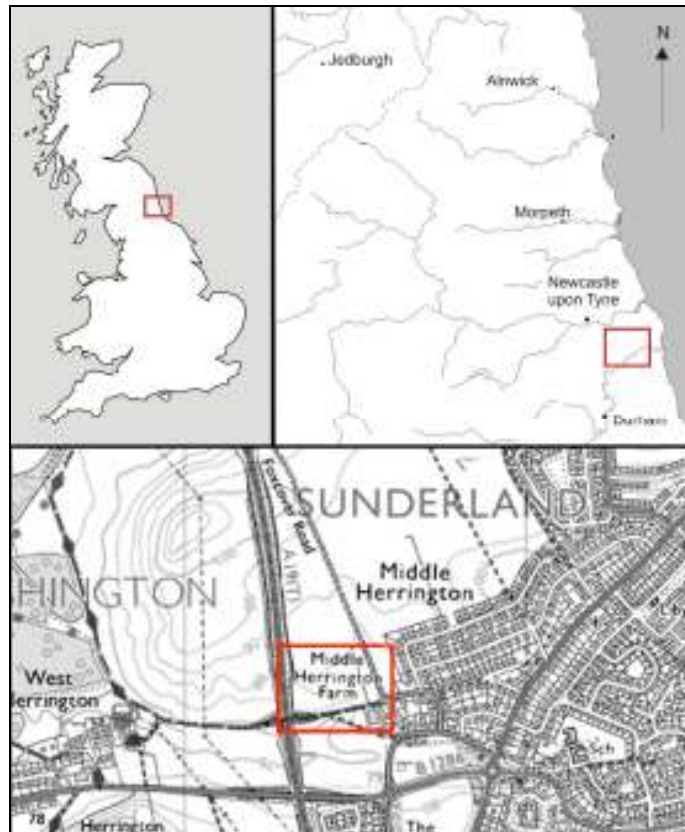
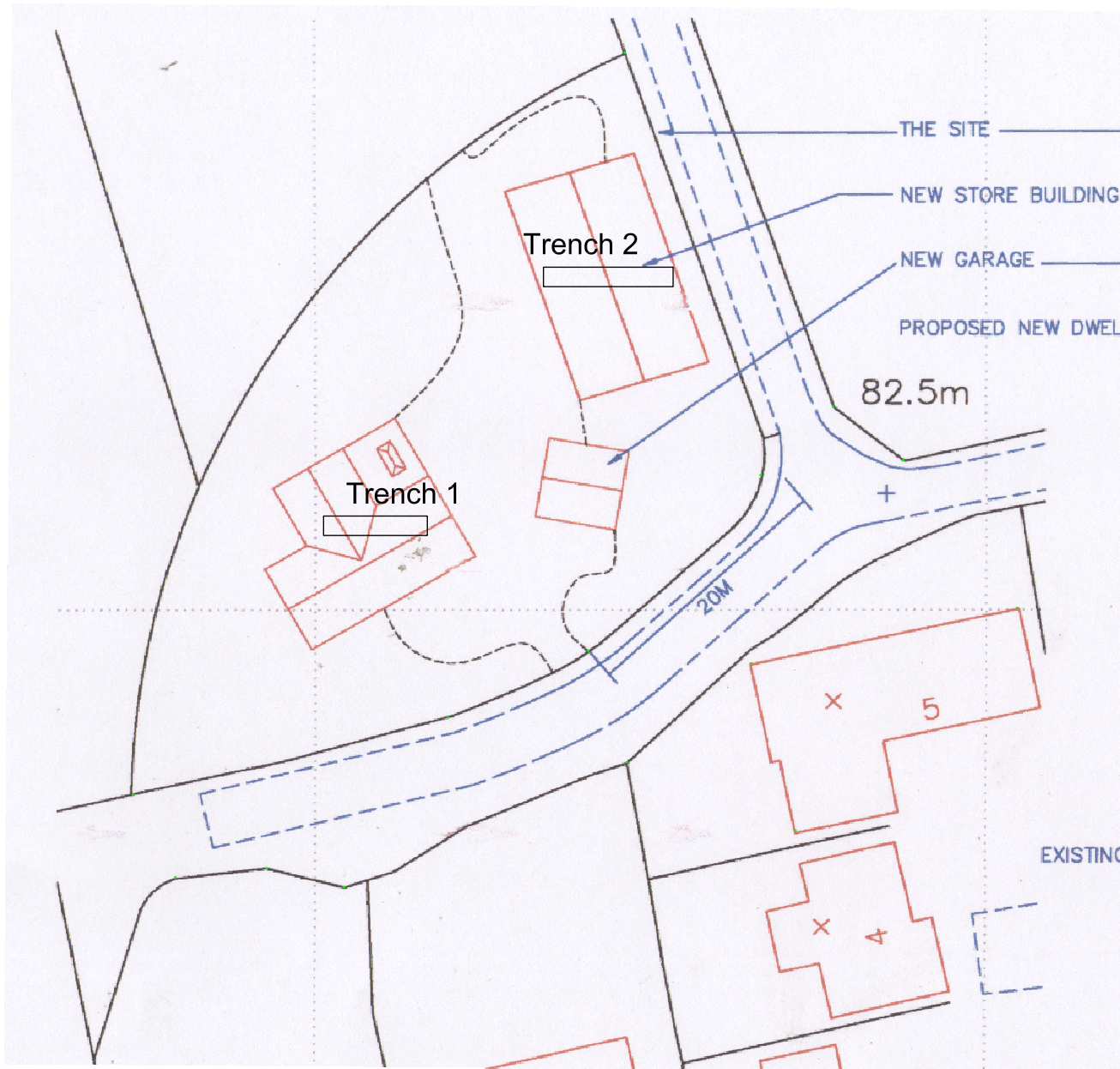


Fig. 1 Location of site. Ordnance Survey data copyright OS, reproduced by permission, Licence no. 100045420

1.1.2 The village of Middle Herrington stands between Sunderland and Washington and the site is located on the former site of farm buildings centred at NZ357531. The site lies southwest of Sunderland city centre, approximately 250 meters from the A19, and approximately 3 kilometres southeast of Penshaw Monument, on land approximately 60m above Ordnance Datum (aOD).

1.2. Geology and soils

1.2.1. The solid geology of the site consists of magnesium limestone which is overlain by glacial till and clay with pockets of sand (British Geological Survey 2007).



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Figure 2: Site plan

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2. METHODOLOGY

2.1. An archaeological investigation was undertaken out in order to determine whether there were any archaeological remains within the proposed development area. This involved the excavation of two trenches, as shown in Figure 2. Trench one was laid out over the proposed footprint of the new house, and trench two was laid out over the footprint of the barns.

2.2. In plan at the base the dimensions of the trenches were as follows:

Trench One: 8m by 1.5m

Trench Two: 10m by 1.5m

2.3. The trenches were opened by machine using a toothless ditching bucket and the earth was removed in level spits until the natural level was exposed. This process was monitored by an archaeologist from Archaeological Research Services Ltd. in order to assess whether any significant archaeological features were exposed during the process.

2.4. Each separate layer encountered was given a unique context number (a Harris matrix can be found in Appendix I and a full context register can be found in Appendix II) and the whole trench was then cleaned using hand tools in order to expose any potential archaeological features or deposits.

2.5. The trenches were photographed using colour transparency film, black and white print and digital formats (a photograph register is shown in Appendix III). The trenches were recorded with above ordnance datum (aOD) levels and a section drawing was completed at a scale of 1:50.

3. HISTORICAL BACKGROUND

3.1. *Prehistory*

3.1.1. To the North of the study area is Hastings Hill, where two Scheduled Ancient Monuments are located. The first Scheduled Ancient Monument (SAM 32044) comprises a round barrow (HER 112), 230m west of Hastings Hill farm. It occupies the highest point on the hill at its western end, above a magnesium limestone quarry. The barrow was excavated by Trechmann in 1911 where ten burials (HER 482) were found interred in the barrow, along with pottery of Neolithic and Bronze Age date (HER 483) and bone and flint tools. The second Scheduled Ancient Monument (SAM 32070) includes a cursus (HER 110), a causewayed enclosure (HER 109) and round barrows (HER 111), which have been identified through aerial photography, lying 600m to the south of Hastings Hill farm. No upstanding earthwork remains survive but the evidence of aerial photography, and limited excavations, have confirmed that significant remains survive beneath the present ground surface. The HER records that a flint scatter (HER 238) was found at the north-east corner of the area covered by the monument. Unfortunately the collection is now lost.

3.2. *Romano-British*

3.2.2. There has been no evidence found to suggest any Romano-British occupation within the study area. Wearside was less Romanised than other parts of Britain, comprising only a militarised zone. The closest town at Corstopitum (Corbridge) was many miles away and the nearest definite known villa was just to the south of present day Durham City (Dodds 1995). At this time Newcastle was only occupied by a station point and bridge (Pons Aelius). In contrast to other towns and villas however, military installations are to be found to immediate north of the study area at Arbeia (South Shields) and Congangium (Chester-le-Street). A small bronze statue of the smith god Jupiter Dolichenus was discovered in Wearside but nothing has been recovered from the study area.

3.3. *Medieval*

3.3.1. During the 1300's John Denum held some 14 acres of land in Middle Herrington from the land owner Rodger de Eshe (HER 245). John Pynchard had 2 acres and later John de Herrington held 40 acres. Between West and Middle Herrington, either side of the Herrington Burn there can be seen evidence of ridge-and-furrow with field boundaries and a suggested township boundary with 5 fields divided between 3 farms (HER 487).

3.4. *Post-Medieval*

3.4.1. It is believed that there has been a hall at Middle Herrington since the time of the Tudors in the 15th century, although there is no evidence to support this. It is known however, that for many generations it was owned by a local minor gentry's family called Robinson. In the early 19th century Middle Herrington was sparsely populated. In 1847 according to the Tithe map only 5 homesteads existed in the village. During the late 19th and 20th centuries, areas of housing were developed to accommodate the increasing population of Sunderland with barn buildings being erected in the study area itself.

4. **RESULTS**

4.1. **Trench one**

4.1.1. Trench one (Fig. 3) measured 8m by 1.5m at its base and was orientated east-west. The trench was located to the west of the site in area that has been proposed for development. The stratigraphy (Fig. 4) consisted of topsoil (001) across the whole length of the trench, which measured 0.20m in depth at the east end and 0.35m at the west end. The topsoil (001) consisted of a silty, dark brown soil containing modern debris including industrial rope and rubble. Directly underlying the topsoil (001) was a layer of modern infill (005) across the whole length of the trench, which measured 0.10m deep at the east end to 0.15m at the west end. The infill consisted of modern debris including brick, glass, slag and charcoal, likely to be the remnants of the barn building which used to occupy the site. Directly underlying the modern infill (005) was a layer of re-deposited natural sand and gravel (003) across the length of the trench, which measured 0.40m deep at the east end to 0.45m deep at the west end. (003) consisted of light

orange/brown sand and gravel, containing modern brick and slag. Directly underlying the re-deposited sand (003) was natural orange/brown sand (004) and gravel which continued beyond the depth of excavation. 4.48m from the western side of the trench a linear feature (006) was identified cut into the natural on a northwest-southeast alignment. (006) was 1.9m in width and continued beyond the trench edges. A 0.50m long section through (006) was excavated at the northern side of the trench which confirmed that the linear had a maximum depth of 0.47m and contained modern brick (Fig. 4). There were no features of archaeological interest in the trench.

4.2. Trench two

- 4.2.1. Trench two (Fig. 5) measured 10m by 1.5m at its base and was orientated east-west. The trench was located to the northeast of the site in the location that a new barn had been proposed for development. The stratigraphy (Fig. 6) consisted of topsoil (001) across the whole length of the trench, which measured 0.16m deep at the east end and 0.30m at the west end. The topsoil (001) consisted of a silty, dark brown soil containing modern debris including industrial rope and rubble. Directly underlying the topsoil (001) was a layer of modern infill (002) across the whole length of the trench, which measured 0.25m deep at the east end to 0.40m at the west end. The infill consisted of modern debris including brick, glass, slag and charcoal, likely to be the remnants of a barn building which used to occupy the site. Directly underlying the modern infill (002) was a layer of re-deposited natural sand and gravel (003) across the length of the trench, which measured 0.26m deep at the east end to 0.60m deep at the west end. The re-deposited sand (003) consisted of light orange/brown sand and gravel, containing modern brick. Directly underlying the re-deposited sand (003) was natural orange/ brown sand and gravel (004) which continued beyond the depth of excavation. There were no features of archaeological interest in the trench.



Fig 3. Trench one facing west. Scale 2m



Fig 4. South facing section of trench one showing half section of linear (006). Scale 1m



Fig 5 Trench Two facing west. Scale 2m



Fig. 6. South Facing section of Trench Two. Scale 1m x 2m

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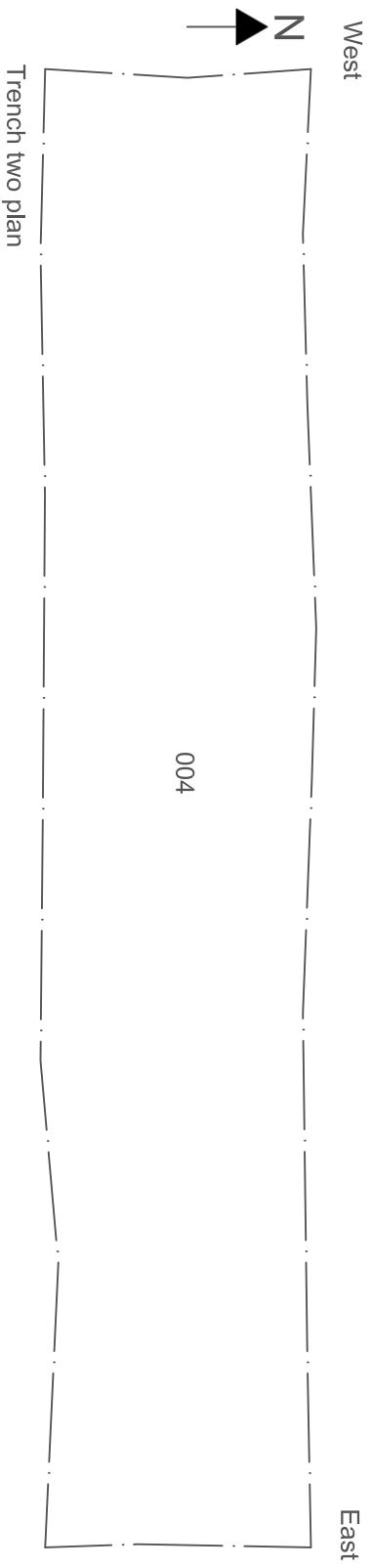
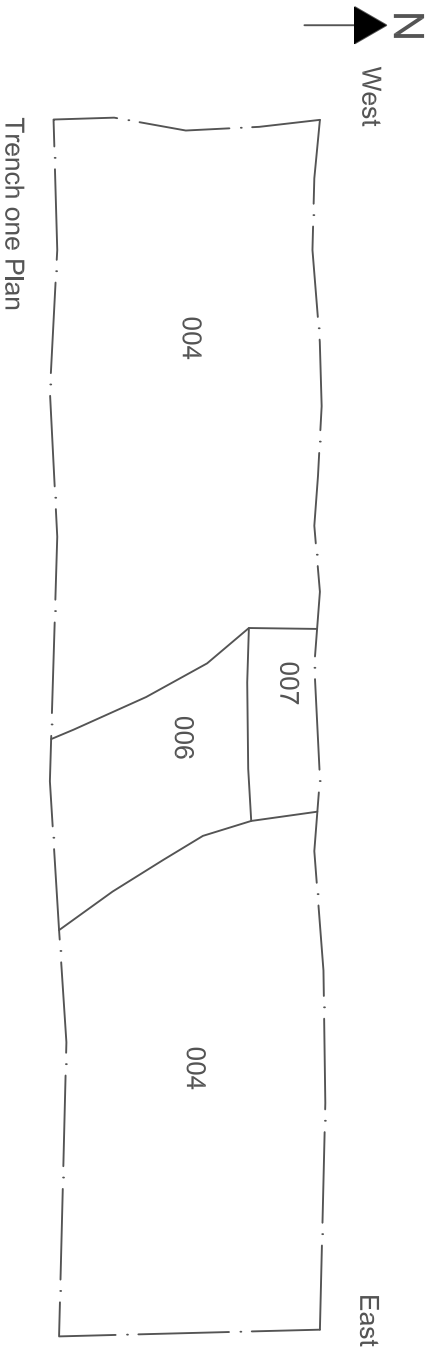
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Figure 7: Trench plans

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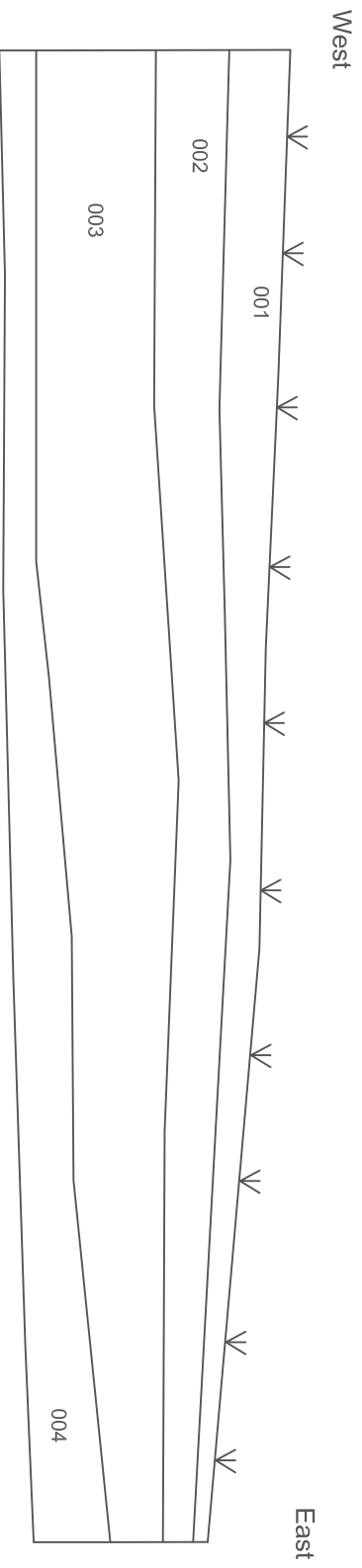
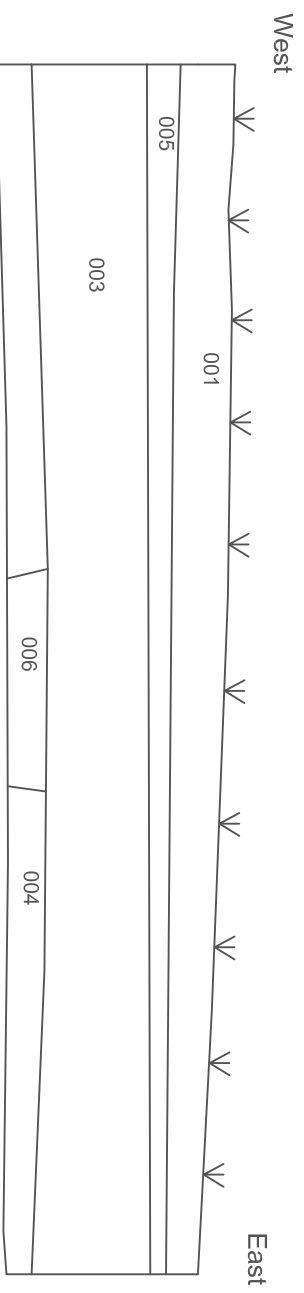
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 Figure 8: Trench sections

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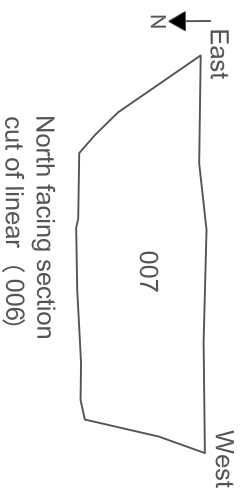
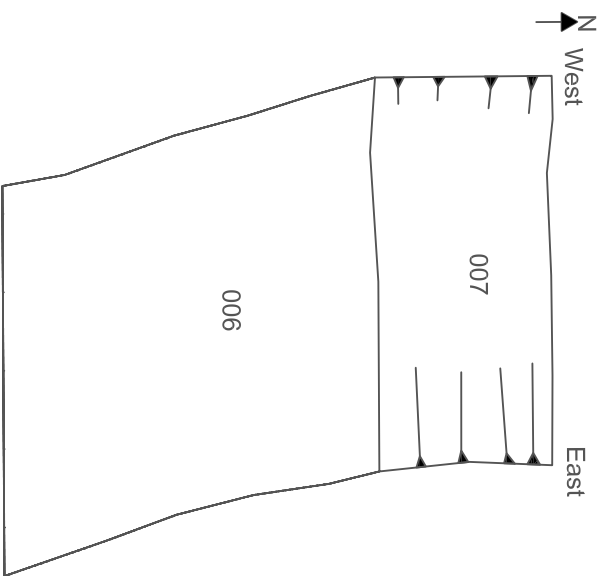
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Figure 9: Linear (006)
and cut (007)

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5. CONCLUSION

- 5.1. Given the close proximity to areas of known archaeological importance, namely Hastings hill, it was likely that the study area may have contained features of archaeological interest. Two evaluation trenches were placed within the proposed development area but no features of interest were recovered. It appears that with the vast amount of re-deposited natural (003) and infill (002 & 005) in both trenches, anything of archaeological interest would have been destroyed in previous ground workings, construction and consequent demolition on the site. The natural (004) level was found at depths ranging between 1.6m to 0.70m deep in both trenches and was truncated in trench one by a linear (006). The linear (006) was half-sectioned but nothing of archaeological value was found, and the inclusion of brick fragments the linear (006) suggests a modern date for the feature.
- 5.2. As the ground has already been heavily disturbed in the past, it is highly likely that any archaeology that was present within the study area will have been removed during those works. It is, therefore, unlikely that the ground works for the erection of the new house and barn structures will place archaeological remains at risk of damage.

6. PUBLICITY, CONFIDENTIALITY AND COPYRIGHT

- 6.1. Any publicity will be handled by the client.
- 6.2. Archaeological Research Services Ltd will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).

7. STATEMENT OF INDEMNITY

- 7.1 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.

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NMR <http://www.english-heritage.org.uk>

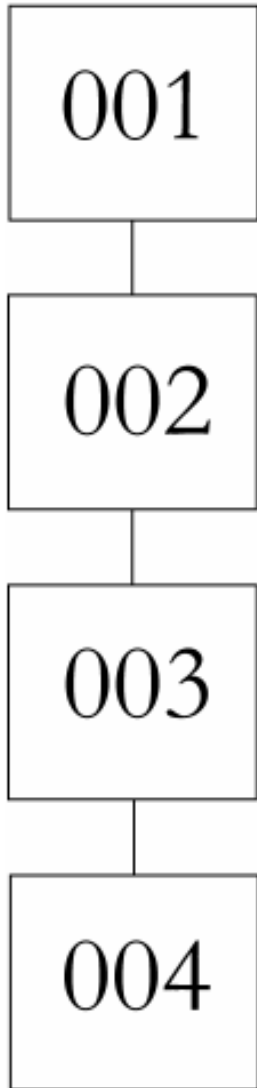
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British Geological Survey <http://www.bgs.ac.uk>

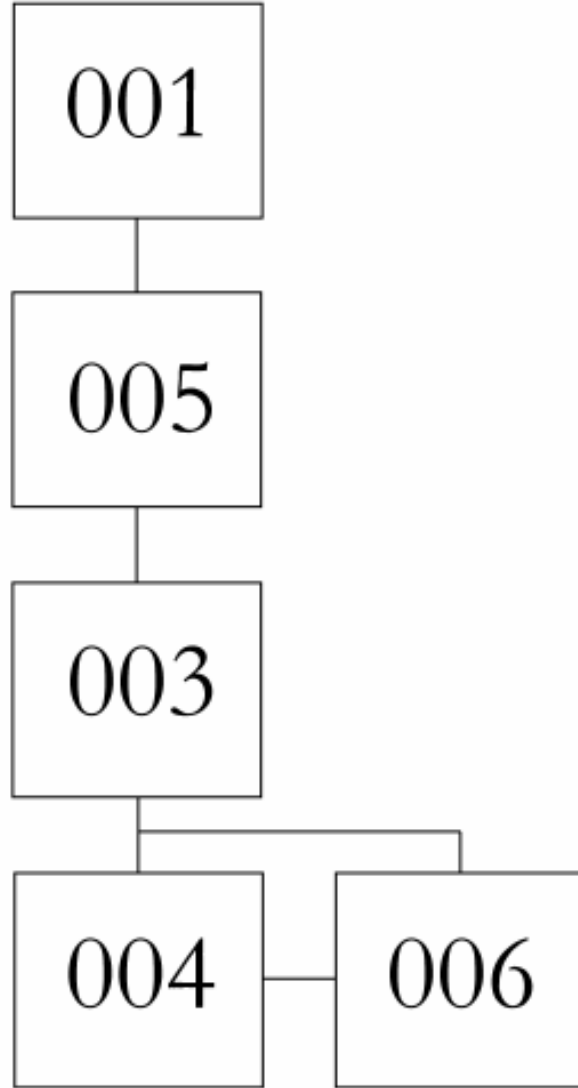
Durham Records Office <http://www.durham.gov.uk/recordoffice>

Appendix I: Harris matrices

TRENCH TWO



TRENCH ONE



Appendix II: Context register

Context number	Trench	Finds	Description
001	1,2	-	Topsoil
002	2	-	Modern Infill
003	1,2	-	Re-deposited sand/gravel
004	1,2	-	Natural sand/gravel
005	1	-	Modern Infill
006	1	-	Modern Linear
007	1	-	Cut of Modern Linear

Appendix III: Photograph register

Film One: Black and White

Shot No.	Photograph content
1	Trench One, scale 2 x 2m
2	Trench One, scale 2 x 2m
3	South facing section of trench one, scale 2 x 1m
4	South facing section of trench one, scale 2 x 1m
5	Working shot
6	Working shot
7	Trench Two, scale 2 x 2m
8	Trench Two, scale 2 x 2m
9	South facing section of trench two, Scale 2x 1m
10	South facing section of trench two, Scale 2x 1m
11	South facing section of trench one showing half section of linear (006), scale 2 x 1m
12	South facing section of trench one showing half section of linear (006), scale 2 x 1m

Film Two: Colour Transparency

Shot No.	Photograph content
1	Trench One, scale 2 x 2m
2	Trench One, scale 2 x 2m
3	South facing section of trench one, scale 2 x 1m
4	South facing section of trench one, scale 2 x 1m
5	Working shot
6	Working shot
7	Trench Two, scale 2 x 2m
8	Trench Two, scale 2 x 2m
9	South facing section of trench two, Scale 2x 1m
10	South facing section of trench two, Scale 2x 1m
11	South facing section of trench one showing half section of linear (006), scale 2 x 1m
12	South facing section of trench one showing half section of linear (006), scale 2 x 1m

Appendix IV: Specification

Introduction

A new house and barn are proposed for the above site, which lies immediately north of the original farm site.

The site lies within an area designated as being of potential archaeological importance (Sunderland City Council UDP, policy B14) because it lies at the foot of Hastings Hill, where there is a Bronze Age barrow which is protected as a Scheduled Ancient monument (SAM 32044), a sub-circular interrupted ditched enclosure and a cursus, the only recorded example in Tyne and Wear, which are also Scheduled (SAM 32070).

Hastings Hill Barrow HER 113

A small round barrow, on the highest point of Hasting Hill, at its west end. It was described by Trechmann as low, flat and slightly bowl-shaped, with the dimensions 40 feet diameter, c. 2 ft 9 in high in the middle, 3 ft at the edge. There is some inconsistency in the measurements: HBMC 12-15 m diam, 1 m high; Young 19.85 m diam, 1.95 m high. It appears to be of cairn construction, consisting of earth and stones, some large, of limestone, sandstone, whin and erratics, and to lack a surrounding bank and ditch. There is an O.S. trig pillar on top of the mound. It was excavated by Trechmann in 1911 and he found in the make-up of the mound scattered human bones of at least ten individuals, animal bones and flint chippings.

Hastings Hill, antler pick HER 467

"A pick formed of a stag's antler, 16 inches in length. It was found among limestone rubble a few feet NW of the primary grave and a few inches above the limestone rock. This is the type of implement apparently in general use in constructing barrows. The brow tine nearest the skull of the animal has been used as the point of the pick and has the end broken off or worn away. The fragment of stag's antler found in the primary grave may very possibly be the end of this pick broken off and left in the grave by accident. The pick has a part of the skull attached, showing it to be the antler of a killed stag and not merely a shed antler".

Hastings Hill, cremations HER 452

Calcined bones in a cist, mixed with fragments of a food vessel, a pygmy cup and flints. Trechmann suggested that the two vessels were thrown on the pyre with the body, and some of the fragments were then gathered up with the bones. A secondary burial.

Hastings Hill, food vessel HER 480

On the level of the limestone, and about 16 inches from the feet of a skeleton but apparently not associated with that or any other burial, Trechmann found the rim of a food vessel. "Finely decorated with incised herringbone interrupted by single encircling twisted cord lines. Red-brown fabric".

Hastings Hill, inhumations HER 451

Before his excavation of the barrow in 1911, Trechmann was informed by the tenant, Mr. Thomas Brown of East Herrington, that on 5 October 1827, "a contracted skeleton had been found there having the hair on its head, and that the finders concluded that a murder had been committed. The supposed hair on the head was probably some small fibrous roots of plants grown round the skull, and as the skeleton was found in the contracted position it was undoubtedly British".

Hastings Hill, antler pick HER 325

"Antler pick (cervus elephas) found 'a quarter of a mile W of Hasting Hill'".

Hastings Hill, circular features HER 111

There are a number of circular and sub-circular features visible as cropmarks in the same field as HER 109 and 110. Two might be cut by 109. Some have been described as ring ditches, and one such is clear outside the south end of HER 110. They might be barrows.

Hastings Hill, cursus HER 110

A rectangular structure, marked by ditches has been tentatively identified as a cursus. Its square north end is c. 30 m wide, and close to but not touching the south-east side of Site no. 109. It is aligned roughly north-south, and its parallel sides are visible for a length of some 200 m. In 1980, a little to the south of Site no. 109, the cursus ditch was located and excavated. "It is about 1 m wide and 40 cm deep, with a V shape of asymmetrical profile and some sizeable stones in the bottom".

Hastings Hill, interrupted ditched enclosure HER 109

The enclosure measures c. 100 m x 60 m, and is marked by a single interrupted ditch. In 1980 the ditch was tested in 2 places. On the west side it was preserved to a width of 2.20 m, and showed up as a compact silty brown soil against the whitish limey natural soil. Its depth was not explored, but the deposits appear to be well preserved. On the south side the ditch was barely 1 m wide and only 20 to 30 cm deep, i.e. it had been severely damaged by ploughing. A small amount of animal bone came from just below the modern plough soil. The gradiometer survey showed the main ditch, with gaps, and internal features including "a circular ditched thing".

Hastings Hill, Neolithic pottery HER 112

In 1911 Trechmann excavated the Hasting Hill barrow. In the material of the mound he found, among other things, frags of 2 Neolithic pots. 1. 3 sherds of a shallow semi-globular bowl, 4+ diam., in dark orange fabric with vertical incised lines around exterior and shallow indentations on rim bevel. Rim sherd in Peterborough Ware. T-shaped profile forming an internal bevel. Hard red fabric, much grit, decorated with deeply scored lines on rim bevel and neck, fingernail impressions on exterior of rim. Reason for the deposition of this pottery uncertain. Small bowl might have originally accompanied a burial or burial deposit scattered by the insertion of the numerous Bronze Age burials. Alternatively,...with the flints and animal bones also in the mound, it "could have been derived from an earlier occupation preserved by the erection of the barrow mound".

North Hill, flints HER 238

"A leaf-shaped arrowhead, flakes etc." were found near the surface of a field at North Hill, Middle Herrington. "The area is a small knoll on the East Durham Plateau, less than eight hundred yards west of the barrow on Hasting Hill and the grouping of Neolithic/Bronze Age 'ritual' sites there".

The proposed development site lies on the projected course of the cursus. Other prehistoric features could also be present.

The site also lies adjacent to Middle Herrington medieval village:

Middle Herrington Village HER 245

Middle Herrington is not explicitly mentioned until 138 x 1333 when it was coupled with East Herrington, both being the property of Roger de Eshe. Both were held from him by John Denum, Middle Herrington by drengage service. The latter does not seem to have become a separate township, and the two remain as part of the same estate, passing to the Lambton family in 1825. In 1855 the village had a vaguely 2-row, east-west, form with Fox Cover Lane running north in a dog leg from the north side. By then it probably consisted of two farms, one at each end of the north row, and - on the south side - Herrington Hall, ancillary buildings and park. The park survives, but the hall has gone and its site has been grassed over. A farm remains at the north-west end, but the remainder of the village is covered by modern houses.

Middle Herrington, medieval ridge and furrow HER 487

Between West and Middle Herrington, on both sides of the Herrington Burn, which here flows from W to E, and also in the Park S of Middle Herrington, there is fine ridge and furrow, without extant field boundaries. The Tithe Awards for both settlements of 1847 suggest that the township boundary ran N-S across the first of these areas, leaving a single field (W Herrington no. 60, Battle Field) to the W. On the E side of the line there were apparently 5 fields divided between 3 farms, nos. 62 The Meadows, 63 Blakeless and 75 in the Middle Herrington west farm, no. 64 West Blakeless in John Gibson's Farm, and no. 74 with the land attached to Middle Herrington Hall. All at that time were down to grass. In the second area, no. 80 The Park was grass, no. 98 Far Park was arable.

In accordance with PPG16 and UDP Policies B13 and B14 a programme of archaeological evaluation trenching is required.

The appointed archaeologist must familiarise themselves with the archaeological background of the site **before starting work** – the HER holds the Scheduled and HER entries and plans showing the course of the cursus. There is also a useful desk based assessment (Northern Counties Archaeological Services, 1999) and evaluation (Archaeological Services Durham University, 2000) report which were completed in advance of a housing scheme at Middle Herrington Farm.

All staff on site must understand the project aims and methodologies.

All work must be carried out in compliance with the codes of practice of the Institute of Field Archaeologists and must follow the IFA Standard and Guidance for Archaeological Field Evaluations, Excavation or Watching Briefs as appropriate.

The North-East Regional Research Framework for the Historic Environment (2006) notes the importance of research as a vital element of development-led archaeological work. It sets out key research priorities for all periods of the past allowing commercial contractors to demonstrate how their fieldwork relates to wider regional and national priorities for the study of archaeology and the historic environment. The aim of NERRF is to ensure that all fieldwork is carried out in a secure research context and that commercial contractors ensure that their investigations ask the right questions.

Two evaluation trenches are needed to inform the Planning Authority of the character, nature, date, depth, degree of survival of archaeological deposits on this site. The excavation must be carried out by a suitably qualified and experienced archaeological organisation. The work will record and environmentally sample any archaeological deposits of importance found on the plot. The purpose of this brief is to obtain tenders for this work. The report must be the definitive record for deposition in the Tyne and Wear HER, and it must contain recommendations for any further work needed on this site.

Archaeological Brief

The work can be split into two sections;

- 1) evaluation of archaeologically sensitive deposits
- 2) post-evaluation analysis and report production including recommendations for further work on the site, if appropriate

1) Archaeological evaluation

Before starting work the appointed archaeologist will provide a trench location plan to the County Archaeologist for approval.

The commissioning client will provide a site location plan and a proposed site plan showing the location of the house and barn.

One trench 1.5m x 8m in plan is to be excavated on the site of the proposed house.
One trench 1.5m x 10m in plan is to be excavated on the site of the barn.

It is advised that the trenches are positioned west-east in order to best pick up any evidence of the north-south cursus ditches.

Trenches can be widened in order to step the sides to reach depths over 1.2m where necessary.

Trench positions should be accurately surveyed prior to excavation and tied in to the national grid.

The trenches should be excavated to the depth of natural subsoil.

Tasks

Hand excavation, recording and environmental sampling (as stipulated below) of deposits down to the depth specified above.

Any modern overburden or levelling material can be machined-off using a wide toothless ditching bucket under strict archaeological supervision and the remaining deposits are to be excavated by hand.

Excavation is to be carried out with a view to avoid damage to any archaeological features which appear to worthy of preservation in-situ.

Excavation is to be carried out by single context planning and recorded on *pro forma* context sheets. Features over 0.5 m in diameter can be half sectioned.

The spoil can be kept close-by and rapidly backfilled into the trenches at the conclusion of this work.

Fieldwork - General Conditions

The Archaeological Contractor will provide an outline methodology of excavation and provide details of recording procedures employed.

The Archaeological Contractor must detail measures taken to ensure the safe conduct of excavations, and must consult with the client's structural engineers concerning working in close proximity to the foundations of the surrounding buildings. The Client may wish to see copies of the Archaeological Contractor's Health and Safety Policies.

The Archaeological Contractor must be able to provide written proof that the necessary levels of Insurance Cover are in place.

The Archaeological Contractor must maintain a Site Diary for the benefit of the Client, detailing the nature of work undertaken on a day by day basis, with full details of Site Staff present, duration of time on site, etc. and contact with third parties.

All staff employed by the Archaeological Contractor shall be professional field archaeologists with appropriate skills and experience to undertake work to the highest professional standards.

Recording

A full written, drawn (accurate scale plans, elevations and section drawings) and photographic record (of all contexts in black and white print and colour transparency with clearly visible graduated metric scale) will be made.

Pro-forma context sheets will be used.

All deposits and the base of the trench will be levelled. Levels will be expressed as metres above Ordnance Datum.

Stratigraphy shall be recorded even when no archaeological features have been recognised.

A 'Harris' matrix will be compiled where stratified deposits are recorded.

Environmental Sampling and Scientific Dating

This is a compulsory part of the evaluation exercise.

Scientific investigations should be undertaken in a manner consistent with "The Management of Archaeological Projects", English Heritage 1991 and with "Archaeological Science at PPG16 Interventions: Best Practice for Curators and Commissioning Archaeologists", English Heritage, 2003.

Aims of environmental sampling – to determine the abundance/concentration of the material within the features and how well the material is preserved, to characterise the resource (the site) and each phase, to determine the significance of the material and its group value, what crop processing activities took place on the site? What does this tell us about the nature of the site? Is there any evidence for changes in the farming practice through time? How did people use this landscape? Can we place certain activities at certain locations within the site? Function and date of individual features such as pits, hearths etc. Are the charred assemblages the result of ritual deposition or rubbish? Is the charcoal the result of domestic or industrial fuel?

Advice on the sampling strategy for environmental samples and samples for scientific dating etc. must be sought from Jacqui Huntley, English Heritage Regional Advisor for Archaeological Science (0191 3341137 or 07713 400387) **before** the evaluation begins. The sampling strategy should include a reasoned justification for selection of deposits for sampling.

Deposits should be sampled for retrieval and assessment of the preservation conditions and potential for analysis of biological remains (English Heritage 2002). Flotation samples and samples taken for coarse-mesh sieving from dry deposits should be processed at the time of fieldwork wherever possible. Sieving recovers fish, amphibian, small bird and mammal bone, small parts of adult mammals and young infused bones which may be under-represented otherwise. However it is noted that clay soils in this region make sieving difficult. Discuss the potential for sieving with Regional Advisor for Archaeological Science.

Environmental samples (bulk soil samples of 30 litres volume, to be sub-sampled at a later stage) will be collected by the excavator from suitable (i.e. uncontaminated) deposits. It is suggested that a large number of samples be collected during evaluation from which a selection of the most suitable (uncontaminated) can be processed. All tenders will give a price for the full analysis, report production and publication per sample.

Deposits will be assessed for their potential for radiocarbon, archaeomagnetic (guidance is available in the Centre for Archaeology Guideline on Archaeometallurgy 2001) and Optically Stimulated Luminescence dating. Timbers will be assessed for their potential for dendrochronology dating. Sampling should follow procedures in “Dendrochronology: guidelines on producing and interpreting dendrochronological dates”, Hillam, 1998. All tenders will quote the price of these techniques per sample.

The following information should be provided with the environmental samples to be processed – brief account of nature and history of the site, aims and objectives of the project, summary of archaeological results, context types and stratigraphic relationships, phase and dating information, sampling and processing methods, sample locations, preservation conditions, residuality/contamination etc.

Laboratory processing of samples shall only be undertaken if deposits are found to be reasonably well dated, or linked to recognisable features and from contexts the derivation of which can be understood with a degree of confidence.

A range of features, and all phases of activity, need to be sampled for charred plant remains and charcoal. Ceramic features should not be avoided as the plant remains from these features may help to date them. Deep features should be sampled in spits to pick up changes over time. Part, or all of each of the contexts should be processed. In general samples should be processed in their entirety. All flots should be scanned, and some of the residues.

Pollen samples can be taken from features such as lakes, ponds, palaeochannels, estuaries, saltmarshes, mires, alluvium and colluvium, and from waterlogged layers in wells, ditches and latrines etc. Substances such as honey, beer or food residues can be detected in vessels. Activities such as threshing, crop processing and the retting of flax can be identified. When taken on site, pollen samples should overlap. Your regional science advisor can advise on the type of corer or auger which would be most appropriate for your site. Samples need to be wrapped in clingfilm and kept dark and cool. Make a description of the sediments in which the pollen was found, and send this with the sample to be assessed.

Coastal or estuary sites (even those which are now well drained) are suitable for sampling for foraminifera. Diatoms can also be found on marine sites, but also in urban settings (sewers, wells, drains, ditches etc). They only survive in waterlogged conditions. These aquatic microfossils are used as proxy indicators of the former aquatic ecological conditions on site, changes in sea levels and temperature, salinity, PH and pollution. Forams are taken from cores, monolith tins or bulk samples. Diatoms are cut from monolith tins or cores or taken as spot samples.

Insects, which are useful as palaeoenvironmental indicators, survive best in waterlogged deposits such as palaeochannels and wells. They can provide information on climate change and landscape reconstruction as some species are adapted to particular temperatures, habitats or even particular trees. Certain insects can indicate the function of a feature or building (eg. Weevils, which were introduced by the Romans, often indicate granary sites, parasites will indicate the presence of particular animals such as sheep or horse, latrine flies survive in the mineral deposits in latrines, or in the daub of medieval buildings etc). Samples need to be sealed (eg. in a plastic box).

Where there is evidence for industrial activity, macroscopic technological residues should be collected by hand. Separate samples should be collected for micro-slugs (hammer-scale and spherical droplets). Guidance is available in the English Heritage “Archaeometallurgy” guidelines, 2001.

Buried soils and sediment sequences should be inspected and recorded on site by a recognised geoarchaeologist. Procedures and techniques in the English Heritage document “Environmental Archaeology”, 2002 and “Geoarchaeology”, 2004 should be followed.

Sampling strategies for wooden structures should follow the methodologies presented in “Waterlogged wood. Guidelines on the recording, sampling, conservation and curation of waterlogged wood” R. Brunning, 1996. If timbers are likely to be present on your site, contact a wood specialist beforehand. Pre-excavation planning – determine questions to ask, agree on a sampling strategy, allocate reasonable time and budget. Soil samples should be taken of the sediments surrounding the timber. Keep the timbers wet! Record them asap on-site – plan, photograph, record the size and orientation of the wood (radial, tangential, transverse), any toolmarks, joints, presence of bark, insect damage, recent breaks, and if another piece of wood was on top of or below the piece sampled. Both vertical and horizontal positioning of wattling must be recorded. Wood samples can provide information on woodland management such as medieval coppicing, type of taxa (native or foreign), conversion technology (how the wood was turned into planks), building techniques and type of tools used.

Waterlogged organic materials should be dealt with following recommendations in “Guidelines for the care of waterlogged archaeological leather”, English Heritage and Archaeological Leather Group 1995.

Animal Bone

Animal bone can explore themes such as hunting and fowling, fishing, plant use and trade, seasonality, diet, age structures, farrowing areas, species ratios, local environment.

Animal bone assemblages should be assessed by a recognised specialist.

The specialist will need to know a brief account of the nature and history of the site, an account of the purpose, methods (details of sampling) for recovery of animal bones, and the main aims and results of the excavation, details of any specific questions that the excavator wants the animal bone specialist to consider, information about other relevant finds from the excavation (e.g. bone tools, fishing equipment, weaving equipment), specific information about each context that has produced significant quantities of animal bone (recovery method, phase, context type, position in relation to major structures, contamination by more recent material, some indication of the amount of bone (by weight or by container size). See “Ancient Monuments Laboratory Advisory Note, “Assessment of animal bone collections from excavations”, Sebastian Payne, 1991 and “The Assessment of a collection of animal bones”, S. Davis, n.d., Ancient Monuments Laboratory.

Human Remains

Human remains must be treated with care, dignity and respect.

Excavators must comply with the relevant legislation (essentially the Burial Act 1857) and local environmental health concerns. If found, human remains must be left in-situ, covered and protected. The archaeological contractor will be responsible for informing the police, coroner and County Archaeologist. If it is agreed that removal of the remains is essential, the archaeological contractor will apply for a licence from the Home Office and their regulations must be complied with.

Site inspection by a recognised osteologist is desirable for isolated burials and essential for cemeteries. The remains will be recorded in-situ and subsequently lifted, washed in water (without additives). They will be marked and packed to standards compatible with “Excavation and post-excavation treatment of cremated and inhumed human remains”, McKinley and Roberts, 1993. After excavation, the remains will be subject to specialist assessment.

Analysis of the osteological material should take place according to published guidelines “Human Remains from Archaeological Sites, Guidelines for producing assessment documents and analytical reports, English Heritage, 2002.

Some of the potential benefits from the study of human skeletons – demography, growth profiles, patterns of disease, genetic relationships, activity patterns, diet, burial practices, human evolution. New scientific techniques available include DNA and stable isotope analyses.

The final placing of the remains after scientific study and analysis will be agreed beforehand.

Further guidance is available in:

“Guidance for best practice for treatment of human remains excavated from Christian burial grounds in England”, The Church of England and English Heritage, 2005 (www.english-heritage.org.uk/upload/pdf/16602_HumanRemains1.pdf)

“Church Archaeology: its care and management”, Council for the Care of Churches, 1999

The Advisory Panel on the Archaeology of Christian burials in England can provide free well-informed advice with consideration of relevant religious, ethical, legal, archaeological and scientific issues. Panel’s website:

<http://www.britarch.ac.uk/churches/humanremains/index.html>

or email the secretary simon.mays@english-heritage.org.uk

Treasure

Defined as:

- Any metallic object, other than a coin, provided that at least 10% by weight of metal is precious metal and that is at least 300 years old when found
- Any group of two or more metallic objects of any composition of prehistoric date that come from the same find
- All coins from the same find provided that they are at least 300 years old when found, but if the coins contain less than 10% gold or silver there must be at least ten
- Any object, whatever it is made of, that is found in the same place as, or had previously been together with, another object that is Treasure
- Any object that would previously have been treasure trove, but does not fall within the specific categories given above. Only objects that are less than 300 years old, that are made substantially of gold or silver, that have been deliberately hidden with the intention of recovery and whose owners or heirs are unknown will come into this category

If anything is found which could be Treasure, under the Treasure Act 1996, it is a legal requirement to report it to the local coroner within 14 days of discovery. The Archaeological Contractor must comply with the procedures set out in The Treasure Act 1996. Any treasure must be reported to the coroner and to The Portable Antiquities Scheme Finds Liaison Officer, Rob Collins (0191 2225076 or Robert.Collins@newcastle.ac.uk) who can provide guidance on the Treasure Act procedures.

2) Post-excavation and report production

Finds Processing and Storage

Finds shall be recorded and processed in accordance with the IFA Guidelines for Finds Work

Finds will be assessed by an experienced finds specialist.

The Archaeological Contractor will process and catalogue the finds in accordance with Museum and Galleries Commissions Guidelines (1992) and the UKIC Conservation Guidelines, and arrange for the long term disposal of the objects on behalf of the Client. A catalogue of finds and a record of discard policies, will be lodged with the finds for ease of curation.

Assessment should include x-radiography of all iron objects (after initial screening to exclude recent debris) and a selection of non-ferrous artefacts (including all coins). Refer to “Guidelines on the x-radiography of archaeological metalwork, English Heritage, 2006.

If necessary, pottery sherds and bricks should be recommended for Thermo-luminescence dating.

Finds processing, storage and conservation methods must be broadly in line with current practice, as exemplified by the IFA “Standard and guidance for the collection, documentation, conservation and research of archaeological materials”, 2001. Finds should be appropriately packaged and stored under optimum conditions, as detailed in the RESCUE/UKIC publication “First Aid for Finds” (Watkinson and Neal 1998). Proposals for ultimate storage of finds should follow the UKIC publication “Guidelines for the Preparation of Excavation Archives for Long-term Storage” (Walker 1990). Details of methodologies may be requested from the Archaeological Contractor.

Other useful guidance – “A Strategy for the Care and Investigation of Finds”, English Heritage, 2003, “Finds and Conservation Training Package”, English Heritage, 2003.

All objects must be stored in appropriate materials and conditions to ensure minimal deterioration. Advice can be sought from Jacqui Huntley of English Heritage (0191 3341137 or 07713 400387) where necessary.

The report

1. The Archaeological Contractor must produce an interim report of 200 words minimum, two weeks after the completion of the field-work, for the Client and the Planning Authority, with a copy for information to the County Archaeologist. This will contain the recommendations for any further work needed on site.
2. The production of Site Archives and Finds Analysis will be undertaken according to English Heritage Guidelines (Managing Archaeological Projects 2nd Edition).
3. A full report with the following features should be produced within six months of the completion of the field-work. All drawn work should be to publication standard. The report must include:
 - * Location plans of trenches and grid reference of site
 - * Site narrative – interpretative, structural and stratigraphic history of the site
 - * Plans showing major features and deposit spreads, by phase, and section locations
 - * Sections of the two main trench axes and through excavated features with levels
 - * Elevation drawings of any walls etc. revealed during the excavation
 - * Artefact reports – full text, descriptions and illustrations of finds
 - * Tables and matrices summarising feature and artefact sequences.
 - * Archive descriptions of contexts, grouped by phase (not for publication)
 - * Deposit sequence summary (for publication/deposition)
 - * Colour photographs of trenches and of archaeological features and finds
 - * Laboratory reports and summaries of dating and environmental data, with collection methodology.
 - * A consideration of the results of the field-work within the wider research context (ref. NERRF).
 - * Recommendations for further work on site, or further analysis of finds or environmental samples
 - * Copy of this specification

4. Three bound and collated copies of the report need to be submitted:
 - one for the commissioning client
 - one for the planning authority (Sunderland City Council)
 - one for deposition in the County HER at the address below. A digital copy of the report on CD is also required by the HER in a plastic case. Please do not attach this to the report.

The report and CD for the HER must be sent by the archaeological consultant or their client directly to the address below. If the report is sent via the planning department, every page of the report will be stamped with the planning application number which ruins the illustrations. The HER is also often sent a photocopy instead of a bound colour original which is unacceptable.

5. If significant archaeological features are found during the evaluation, the results may also warrant publication in a suitable archaeological journal. The tender should therefore include an estimated figure for the production of a short report of, for example 20 pages, in a journal such as *Archaeologia Aeliana* or *Durham Archaeological Journal*. This is merely to give the commissioning client an indication of potential costs.

Site Archive

The site archive (records and materials recovered) should be prepared in accordance with *Managing Archaeological Projects*, Second Edition, 5.4 and appendix 3 (HBMC 1991), “Archaeological documentary archives” IFA Paper No. 1, “Archaeological Archives – creation, preparation, transfer and curation” *Archaeological Archives Forum* etc. and *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990).

This should include indexing, ordering, quantification and checking for consistency of all original context sheets, object records, bulk find records, sample records, skeleton records, photographic records, drawing records, photographs, drawings, level books, site note-books, spot-dating records and conservation records etc. All artefacts and ecofacts retained from the site must be packed in appropriate materials. A summary account of the context record, prepared by the supervising archaeologist, should be included.

The archive will be placed in a suitable form in the appropriate museum (typically Museum of Antiquities, Newcastle for sites north of the Tyne and Tyne and Wear Museums for sites south of the Tyne, but there are different rules for Roman sites etc. check with these institutions) with the landowner’s permission.

A letter will be sent to the County Archaeology Officer within six months of the report having been submitted, confirming where the archive has been deposited.

OASIS

The Tyne and Wear County Archaeologist supports the Online Access to the Index of Archaeological Investigations (OASIS) project. This project aims to provide an online index/access to the large and growing body of archaeological grey literature, created as a result of developer-funded fieldwork.

The archaeological contractor is therefore required to register with OASIS and to complete the online OASIS form for their evaluation at <http://ads.ahds.ac.uk/project/oasis/>. Please ensure that tenders for this work takes into account the time needed to complete the form.

Once the OASIS record has been completed and signed off by the HER and NMR the information will be incorporated into the English Heritage Excavation Index, hosted online by the Archaeology Data Service.

The ultimate aim of OASIS is for an online virtual library of grey literature to be built up, linked to the index. The unit therefore has the option of uploading their grey literature report as part of their OASIS record, as a Microsoft Word document, rich text format, pdf or html format. The grey literature report will only be mounted by the ADS if both the unit and the HER give their agreement. The grey literature report will be made available through a library catalogue facility.

Please ensure that you and your client understand this procedure. If you choose to upload your grey literature report please ensure that your client agrees to this in writing to the HER at the address below.

For general enquiries about the OASIS project aims and the use of the form please contact: Mark Barratt at the National Monuments Record (tel. 01793 414600 or [oasis@english-heritage.org.uk](mailto: oasis@english-heritage.org.uk)). For enquiries of a technical nature please contact: Catherine Hardman at the Archaeology Data Service (tel. 01904 433954 or [oasis@ads.ahds.ac.uk](mailto: oasis@ads.ahds.ac.uk)). Or contact the Tyne and Wear Archaeology Officer at the address below.

The tender

Tenders for the work should contain the following:-

1. Brief details of the staff employed and their relevant experience
2. Details of any sub-contractors employed
3. A quotation of cost, broken down into the following categories:-
 - * Costs for the excavation, incl. sub-headings of staff costs on a person-day basis, transport, materials, and plant etc.
 - * Post-excavation costs, incl. storage materials
 - * Cost of Environmental analysis and scientific dating per sample
 - * Estimated cost for full publication of results in an archaeological journal
 - * Overheads
4. An indication of the required notification period (from agreement to start date) for the field-work; the duration of fieldwork and the expected date for completion of the post-excavation work (a maximum of 6 months after completion of the fieldwork)

Monitoring

The Archaeological Contractor will inform the County Archaeologist of the start and end dates of the excavation to enable the CA to monitor the work in progress.

Should important archaeological deposits be encountered, the County Archaeologist must be informed. If further archaeological evaluation is required on this site, then the archaeological contractor must submit a written scheme of investigation for approval by the CA before extending the size of the trenches.

Jennifer Morrison

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