

**AN ARCHAEOLOGICAL EXCAVATION AT
HILLTOP FARM, PITTINGTON LANE,
BROOMSIDE, DURHAM,
COUNTY DURHAM**

ASSESSMENT REPORT

MARCH 2013

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PRE-CONSTRUCT ARCHAEOLOGY

DOCUMENT VERIFICATION

**HILLTOP FARM, PITTINGTON LANE, BROOMSIDE,
DURHAM, COUNTY DURHAM**

**ARCHAEOLOGICAL EXCAVATION
ASSESSMENT REPORT**

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**An Archaeological Excavation at Hilltop Farm, Pittington Lane, Broomside,
Durham, County Durham**

Assessment Report

Central National Grid Reference: NZ 31401 43897

Site Code: HTF 12

Commissioning Client:

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March 2013**

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PART A: PROJECT SUMMARY

1. NON-TECHNICAL SUMMARY

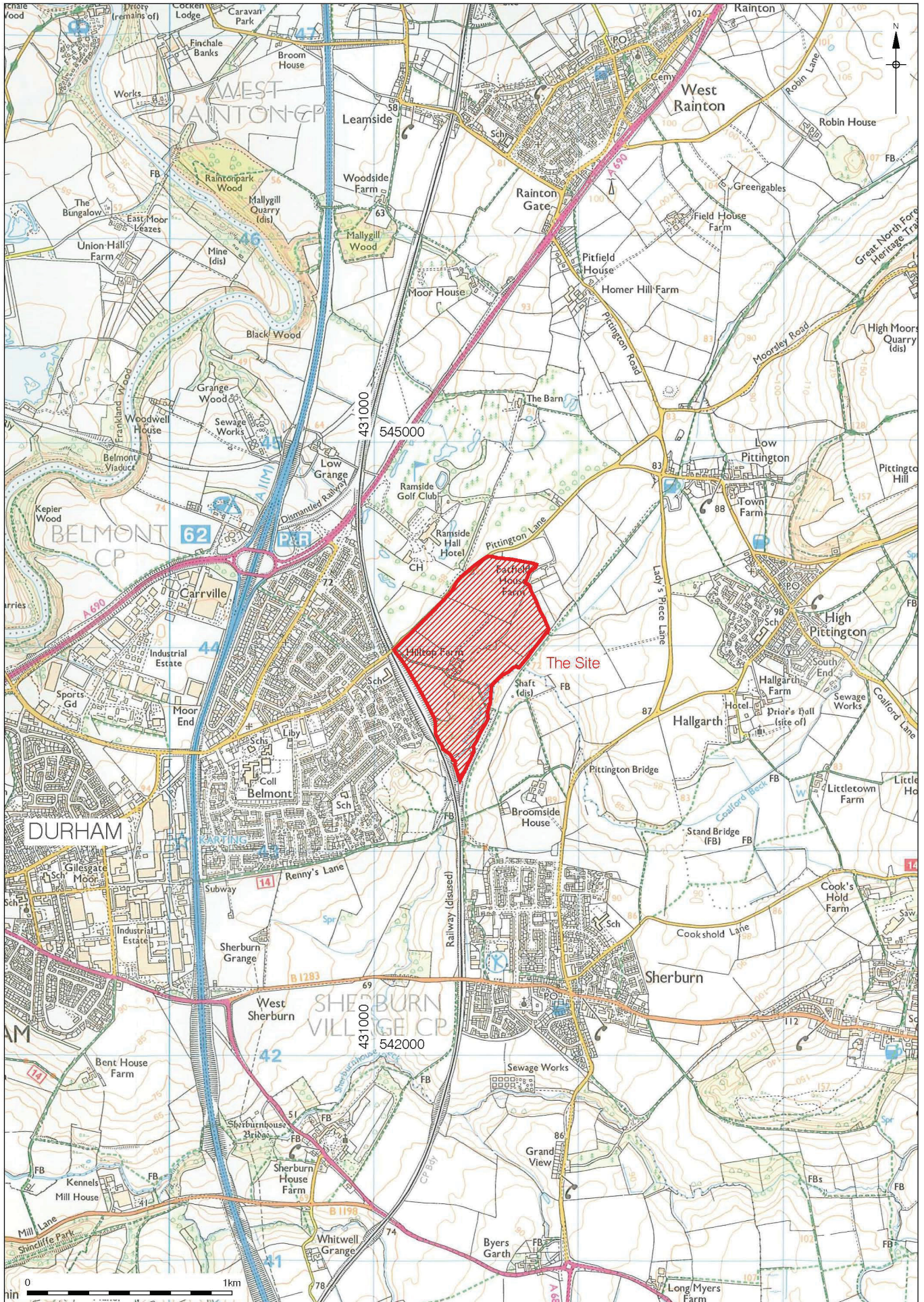
- 1.1 An archaeological excavation was undertaken during March-April 2012 by Pre-Construct Archaeology at Hilltop Farm, Pittington Lane, Broomside, Durham. The site, central National Grid Reference NZ 31401 43897, comprised an irregularly shaped parcel of land covering c. 40 hectares, which was being developed as an extension to the golf course of Ramside Hall Hotel. The site is bounded by Pittington Beck and then a former railway line to the south and east and by another railway line within Broomside Cutting to the west. Pittington Lane lies to the north-west, on the other side of which are the existing grounds of the Ramside Hall Hotel and Golf Club. At the time of the excavation, the majority of the site was undeveloped agricultural land, with a cluster of derelict farm buildings at Hilltop Farm accessed via a farm track off Pittington Lane.
- 1.2 The archaeological work was undertaken as part of the planning process ahead of the development of the site for the golf course extension. The site was known to be of archaeological interest due to a programme of archaeological work conducted in 2006-07. An initial desk-based assessment and geophysical survey established the archaeological potential of the site, with a subsequent trial trenching evaluation recording heritage assets of significance, namely archaeological remains of probable later prehistoric date. A particular focus of archaeological activity was recorded immediately to the north-west of the derelict buildings of Hilltop Farm and it was concluded that the evaluation had recorded a ditch-defined enclosure representing a settlement nucleus of later prehistoric, probably Iron Age, date. Numerous other archaeological features of uncertain date were also recorded, including what appeared to be elements of a widespread field system, delineated by a network of shallow ditches and gullies. These remains were generally located to the north-east and south-west of the settlement enclosure.
- 1.3 Although the golf course was designed to ensure that the most archaeologically sensitive parts of the site remained undisturbed, in a small number of cases crucial construction groundworks were considered to have the potential to disturb important archaeological remains. This necessitated the design and implementation of an archaeological mitigation strategy as a planning condition of the development. The required work entailed a 'strip, map and record' archaeological excavation in two archaeologically sensitive parts of the golf course layout.
- 1.4 Two areas, Areas A and B, lying to the north-east of the later prehistoric settlement enclosure, were investigated in order to record any archaeological remains encountered therein. Area A comprised a curving, roughly west-east aligned trench, c. 190m in length and c. 6m-wide, required as the corridor for the main drainage installation of the golf course. A concentration of archaeological features was revealed towards the south-eastern end of this area, requiring the trench to be extended to either side to further expose these remains, so that, in total, Area A covered c. 1,390m². Area B, located c. 200m to the north-east of Area A, comprised a rectangular trench measuring c. 60m by c. 10m, this required to sample the site of a lake feature within the golf course. Area B, covering a total of c. 580m², did not record any features of archaeological interest.
- 1.5 The archaeological features recorded by the work have been placed within six broad phases of activity (Phase 1-6). Natural geological material - Phase 1 - comprising glacially derived boulder clay, was exposed as the basal deposit within both areas of investigation,

- 1.6 The earliest evidence for human activity was represented by two narrow gullies recorded towards the south-eastern end of Area A. No artefactual material was recovered but these Phase 2 features are presumed to represent drainage gullies associated with the prehistoric agricultural use of the land. A small assemblage of charred plant remains recovered from bulk samples taken from these features provided evidence for arable crops grown in the vicinity.
- 1.7 An L-shaped ditch recorded towards the south-eastern end of Area A probably represents the north-eastern corner of a later prehistoric ditched enclosure (Enclosure 1). A fragment of charcoal recovered from the primary fill of this Phase 3 ditch produced a radiocarbon date of c. 450 BC, indicating activity dating from the beginning of the Late Iron Age. The enclosure ditch had infilled naturally and had subsequently been re-cut, indicating some degree of longevity of use.
- 1.8 Enclosure 1 was truncated by another L-shaped ditch, this interpreted as delineating the north-eastern corner of a later, Phase 4, enclosure (Enclosure 2). A single sherd of handmade pottery was recovered but this was not closely dateable and could be of Iron Age or Roman date. As with Enclosure 1, there was evidence for natural silting and re-cutting of the Enclosure 2 ditch. Charred plant remains recovered from soil samples taken from the ditch were suggestive of processing of crops typically cultivated in the region during the Late Iron Age and Roman period. No internal features or deposits were recorded within Enclosures 1 and 2, but it can be assumed by comparison with other sites that the features were used for habitation or associated agricultural activity.
- 1.9 Traces of the Enclosure 2 ditch appear to have survived within the landscape into the early post-medieval period. The upper part of the ditch was infilled with material of this date (Phase 5) and a cow and closely associated calf skeleton were exposed in the north-eastern corner of the former enclosure. Both skeletons were nearly complete and an absence of butchery marks indicated that these animals were interred as nearly complete carcasses, although the adult had been decapitated and the head placed on the stomach, presumably in order to fit the animal within the ditch. The burial circumstances suggest that these were diseased animals, disposed of away from the associated farmyard. A sample of bone produced a radiocarbon date of AD 1720 ± 35 and it is considered likely that these animals were infected with rinderpest, a virulent cattle disease known to have affected Britain at this time.
- 1.10 This Assessment Report is divided into three parts. Part A, the Project Summary, begins with an introduction to the site, describing its location, geology and topography, as well summarising the planning and archaeological background to the project. The aims and objectives of the work are then set out, followed by full descriptions of the archaeological methodologies employed during both the fieldwork and the subsequent post-excavation work. Part A concludes with an illustrated summary of the archaeological remains.
- 1.11 Part B, the Data Assessment, quantifies the written, graphic and photographic elements of the Site Archive and contains specialist assessments of all categories of artefactual evidence, with recommendations for any further work in each case. Part B then sets out an archaeological summary discussion before summarising the potential for further analysis of all elements of the collected project data.
- 1.12 Part C of the report contains acknowledgements and references. There are three appendices to the report, the third being a selection of photographs from the fieldwork.

2. INTRODUCTION

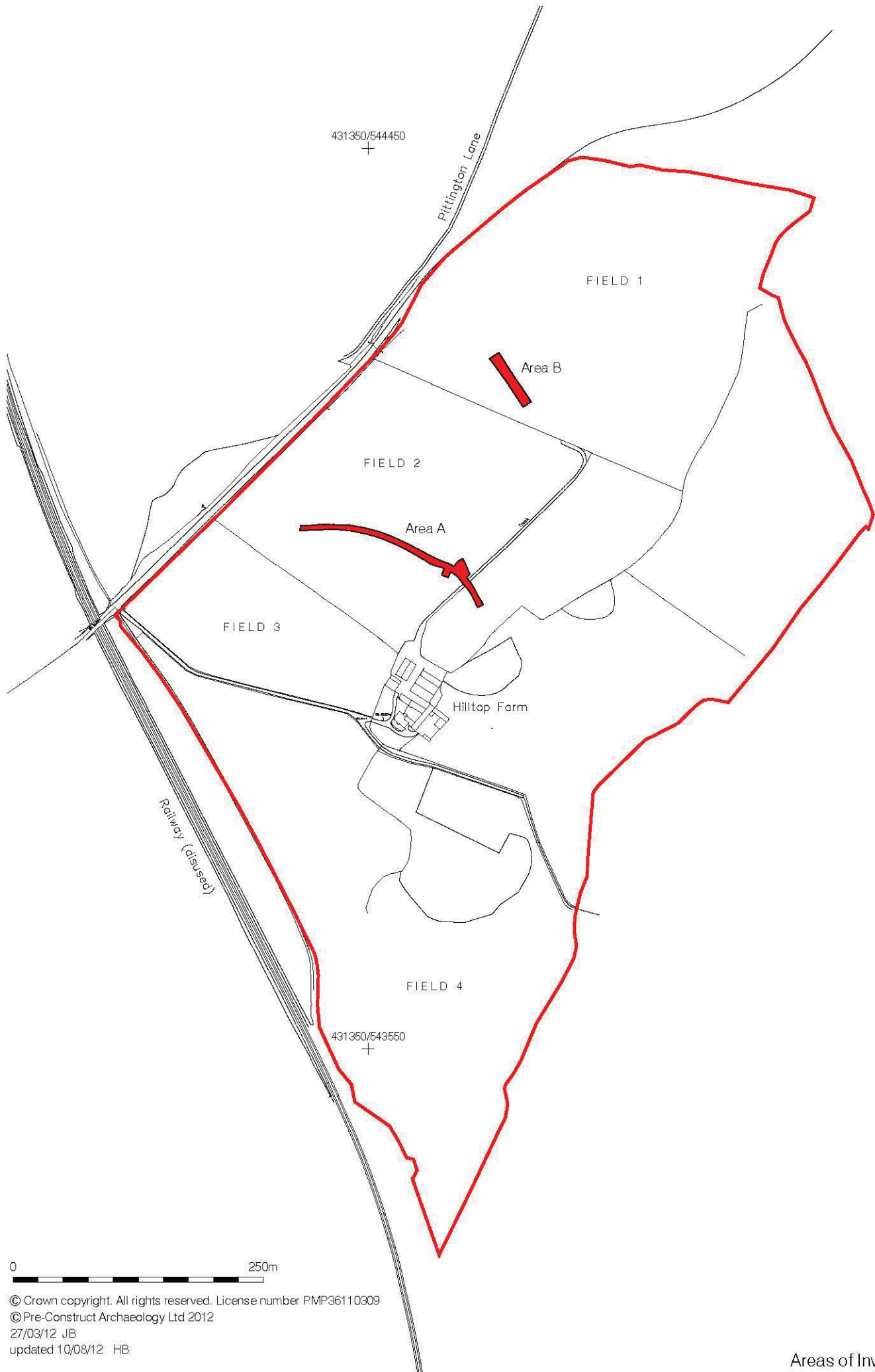
2.1 General Background

- 2.1.1 This report details the methodology and results of an archaeological excavation undertaken by Pre-Construct Archaeology Limited (PCA) 19 March - 24 April 2012, at Hilltop Farm, Pittington Lane, Broomside, Durham (Figure 1).
- 2.1.2 The excavation was commissioned by Ramside Estates Limited (the Client) with the work being carried out ahead of the development of the site as an extension to the golf course at Ramside Hall Hotel. The work was undertaken as a condition of planning permission on the recommendation of the Senior Archaeology Officer of Durham County Council Archaeology Section (DCCAS).
- 2.1.3 The archaeological potential of the site was first established by an archaeological desk-based assessment (DBA) (ASDU 2006) and geophysical survey (ASDU 2007). A trial trenching evaluation undertaken in May-June 2007 confirmed the presence of a substantial polygonal ditch-defined enclosure at the site, thought to be of later prehistoric date, along with associated features (PCA 2007).
- 2.1.4 The golf course was designed to ensure that the most archaeologically sensitive parts of the site – including the ditch-defined enclosure - remained undisturbed. Limited elements of the construction groundworks were considered likely to disturb important archaeological remains and the work detailed in this report was required to record any remains exposed in threatened areas. The work - a 'strip, map and record' archaeological excavation - was carried out according to a Project Design incorporating a Written Scheme of Investigation (WSI), prepared by PCA and approved by the Senior Archaeology Officer of DCCAS (PCA 2012).
- 2.1.5 The 'strip, map and record' archaeological excavation was undertaken across two areas, Areas A and B, located to the north of the derelict farm buildings of Hilltop Farm, which occupy a roughly central location in the overall site - the various fields within the site were assigned numbers during the previous phases of work (Figure 2). Area A in Field 2 was a curving, roughly west-east aligned trench, c. 190m in length and c. 6m-wide, required as the corridor for the main drainage installation of the golf course. Following some extensions to its outline, Area A covered a total of c. 1,390m². Area B, located c. 200m to the north-east of Area A in Field 1, comprised a rectangular trench measuring c. 60m by c. 10m; covering c. 580m² in total, this area sampled the site of a lake feature within the golf course.
- 2.1.6 The archaeological work herein described was designed according to the guidelines set out in *Management of Research Projects in the Historic Environment* (MoRPHE) (English Heritage 2006). In line with MoRPHE guidelines, this Assessment Report sets out a formal review of the data collected during the fieldwork.
- 2.1.7 At the time of writing, the Site Archive, comprising written, drawn, and photographic records and all artefactual material recovered during the excavation, is housed at the Northern Office of PCA, Unit N19a Tursdale Business Park, Durham, DH6 5PG. When complete, the Site Archive will be deposited at Bowes Museum, Barnard Castle, County Durham, under the site code HTF 12. The Online Access to the Index of Archaeological Investigations (OASIS) reference number for the project is: preconst1-145794.



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 10/08/12 HB

Figure 1
 Site Location
 1:25,000 at A4



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27/03/12 JB
updated 10/08/12 HB

Figure 2
Areas of Investigation
1:5,000 at A4

2.2 Site Location and Description

- 2.2.1 The site, centred at National Grid Reference NZ 31401 43897, lies on the eastern edge of the Carrville/Belmont suburb of Durham, c. 1 km to the south-east of Junction 62 of the A1(M) (Figure 1). The villages of Pitlington (sub-divided into High and Low Pitlington) and Sherburn lie c. 1.5 km to the east and south, respectively.
- 2.2.2 The overall development site comprises an irregularly shaped block of land covering c. 40 ha, bounded to the north-west by Pitlington Lane, beyond which are the existing grounds of the Ramside Hall Hotel and Golf Club, with Pitlington Beck and then a former railway line to the south and east and another railway line, running through Broomside Cutting, to the west (Figure 2).
- 2.2.3 Ahead of the work herein described, the site comprised open agricultural fields with a central cluster of derelict buildings – the former Hilltop Farm - accessed from Pitlington Lane via an unmade farm track. The various fields within the site were assigned numbers during the previous phases of work (Figure 2). When the work was undertaken, groundworks were under way for the development of the site as the golf course extension.

2.3 Geology and Topography

- 2.3.1 The solid geology of this part of County Durham is sandstone and sedimentary bedrock formed in the Carboniferous Period with overlying superficial glaciofluvial deposits of Devensian Till (*British Geological Survey* website). Till comprises a variety of alluvial silts, brown sands and heavy clays.
- 2.3.2 The site lies within an area described by the County Durham Landscape Character Assessment as Incised Lowland Valley with surrounding Lowland Valley Terrace (*Durham Landscape* website). Some of the key characteristics of the Incised Lowland Valley are gorges, denes, river floodplains and steep bluffs forming an enclosed landscape with occasional dramatic vistas.
- 2.3.3 The overall development site comprises land to the west of and upon a steep east-facing slope which falls away to Pitlington Beck, at c. 65m OD. The former farm land occupying the western portion of the site is largely situated above the 93m contour, with localised and almost imperceptibly higher areas to the south-west and north-east of the derelict farm buildings, which lie at c. 95m OD. Across the westernmost part of the site, the land falls away gradually towards Pitlington Lane, with ground level at the north-western corner of the site at c. 85m OD.

2.4 Planning Background

- 2.4.1 The Hilltop Farm development – planning application 06/00494/RM – has extended the existing golf course at the Ramside Hall Hotel & Golf Club to create a new 18-hole championship standard course. Holes 3 to 16 of the new course occupy the former farm site and development groundworks entailed construction of the new greens and tees, drainage and irrigation installation and shaping of fairways and water features. A new access tunnel below Pitlington Lane links the hotel side of the course to the new Hilltop Farm side.

- 2.4.2 The planning application for the development scheme was approved with the following condition (2): *'No development within the specified areas (including groundworks) shall commence until the applicant has submitted and carried out an agreed programme of archaeological works, to include publication of the results, for those specified areas as shown on drawing No. 206-03, revision 1, submitted by the applicant. These works must be in accordance with a written scheme of investigation approved in writing by the County Archaeologist on behalf of the Local Planning Authority. The specified areas may be released on an area-by-area basis subject to approval in writing from the County Archaeologist on behalf of the Local Planning Authority.'*
- 2.4.3 National planning policy guidance regarding archaeology was, at the time of planning application, set out in *Planning Policy Guidance Note 16: 'Archaeology and Planning'* (PPG16) (Department of the Environment 1990). By the time the work described herein was undertaken, PPG16 had been replaced (from 23 March 2010) by *Planning Policy Statement 5: 'Planning for the Historic Environment'* (PPS5), (Department for Communities and Local Government 2010). During the course of the work, PPS5 was itself replaced (from 27 March 2012) by the *National Planning Policy Framework* (NPPF) (Department for Communities and Local Government 2012) of which *Section 12 'Conserving and enhancing the historic environment'*, is of relevance with regard to sites containing archaeological remains.
- 2.4.4 The concept of 'heritage assets' was introduced by PPS5 as *'A building, monument, site, place, area or landscape positively identified as having a degree of significance meriting consideration in planning decisions. Heritage assets are the valued components of the historic environment. They include designated heritage assets and assets identified by the local planning authority during the process of decision-making or through the plan-making process (including local listing)'* and 'significance' was defined in PPS5 as *'...the value of a heritage asset to this and future generations because of its heritage interest. This interest may be archaeological, architectural, artistic or historic'*.
- 2.4.5 At a local level, the relevant planning document remains the 2004 *City of Durham Local Plan*. 'Saved' *Policy E24 'Ancient Monuments and Archaeological Remains'*, states:
- Archaeological remains of regional and local importance, which may be adversely affected by development proposals will be protected by seeking preservation in situ, and where preservation in situ is not justified by:*
- 1. Ensuring that in areas where there is evidence that significant archaeological remains exist, or reasons to pre-suppose such remains exist whose extent and importance is not known, pre-application evaluation or archaeological assessment will be required, and*
 - 2. Requiring, as a condition of planning permission, that prior to development an appropriate programme of archaeological investigation, recording and publication has been made, in cases where the preservation in situ of archaeological remains is not justified.*
- 2.4.6 The presence of non-designated heritage assets, *i.e.* archaeological remains of local or regional significance, at the site was demonstrated by the aforementioned phased programme of investigations, undertaken in 2006-2007. For the most part, the golf course was designed to ensure that the most archaeologically sensitive parts of the site remained undisturbed. However, in a small number of cases, unavoidable construction groundworks were considered to have the potential to disturb archaeological remains of significance, necessitating the design and implementation of a suitable archaeological mitigation strategy as a planning condition of the development.

- 2.4.7 The mitigation strategy was designed by the Senior Archaeology Officer of DCCAS, the body with responsibility for development control in matters relating to the historic environment in County Durham. The required work entailed a 'strip, map and record' archaeological excavation in two archaeologically sensitive parts of the golf course layout where development groundworks were unavoidable. The aforementioned Project Design, incorporating a WSI, was prepared by PCA and approved by the Senior Archaeology Officer of DCCAS ahead of the work.

2.5 Archaeological and Historical Background

(Information in this section is largely extracted from the 2006 DBA, the 2007 evaluation report and the Project Design; the research and writing of those responsible is acknowledged. Supplementary information has been added from various sources. Durham County Council Historic Environment Record entry numbers are distinguished by the HER prefix).

- 2.5.1 The archaeological potential of the site was first established by the 2006 DBA which identified a cluster of cropmarks (HER 2654, 2655, 3064 and 3065), known through aerial photography, in the Belmont area, c. 1 km south-west of the site, and two further cropmarks within the site itself (HER 2834 and 6727). All of unknown period of origin, they were thought to be most likely indicative of later prehistoric or Romano-British period activity.
- 2.5.2 Another cropmark (HER 389) within the site itself indicated a roughly square enclosure, with an internal area of c. 0.25 ha and least one entrance. A well-recognised later prehistoric settlement form in lowland areas of the North-East region, such enclosures are generally believed to have originated in the Iron Age. In County Durham, excavated examples of sites of this type include West Brandon (Jobey 1962) and West House, Coxhoe (Haselgrove and Allon 1982), with another example at Pig Hill, Haswell, as yet unpublished. Like Hilltop Farm, all these sites lie within a 10 km radius of Durham. Another cropmark (HER 3073) within the site was also assigned a broad prehistoric origin.
- 2.5.3 The 2007 geophysical survey identified anomalies strongly indicative of a ditch-defined enclosure of the aforementioned type immediately to the north-west of the derelict buildings of Hilltop Farm, underlining the high potential for the presence of archaeological remains of the later prehistoric and/or Romano-British period. The 2007 trenching evaluation confirmed the presence of a ditch-defined enclosure representing a settlement nucleus of later prehistoric, probably Iron Age, date. Numerous other archaeological features of uncertain date were also recorded, including what appeared to be elements of a widespread field system, delineated by a network of shallow ditches and gullies. These remains were generally located to the north-east and south-west of the settlement enclosure.
- 2.5.4 There was no direct evidence for Anglo-Saxon activity at the site or in its immediate vicinity, although the place-names of Ramside and Pittington could both have Old English origins. The name Ramside comprises *Ram*, meaning 'where wild garlic grows' and *side* meaning 'hillside'. The place-name Pittington – which refers to the villages of Low and High Pittington, located across the valley of Pittington Beck c. 1.5km to the east of the site - is possibly derived from the Old English 'Pytta's hill' or, 'the hill at or called Pytting, the place called after Pytta'.
- 2.5.5 St. Laurence's Church in the hamlet off Hallgarth, c. 1 km south of Pittington and the same distance to the east of the site across the valley of Pittington Beck, has long been believed to have a Saxon or Saxo-Norman origin, although the earliest structural fabric – the walls of the western four bays of the nave - is certainly Norman, with a date of c. 1100 considered possible.

- 2.5.6 The DBA found no direct evidence for medieval activity at the site or in its immediate vicinity. As part of the Kepier hospital manor land of Clifton, one of a number of 12th-century endowments by Bishop Flambard and Bishop du Puiset, the site would have lain within Belmont parish. Sometime after the dissolution of the monasteries, with Kepier hospital and its lands in secular hands, the Clifton manor was divided into two granges known as Low Grange and Ramside.
- 2.5.7 The aforementioned hamlet of Hallgarth was a relatively important medieval settlement (HER 1140). It contained the Prior's House, the manor house of the Prior of the monastery at Durham, of mid-13th century, possibly earlier, date. Archaeological investigations at nearby Hallgarth House have revealed evidence for medieval occupation dated to the mid-11th to early 13th century, including traces of buildings and a number of possible animal pens (HER 5029). Hallgarth Mill (HER 1139) was probably located between Hallgarth and Sherburn, less than 1 km east of the site, during the medieval period. The village of Sherburn (HER 4615), lying c. 1.5 km to the south of the site, is documented from the late 12th century and retains some early post-medieval structural fabric.
- 2.5.8 The place names of 'Piddington towne', 'Ramside' and 'ye Grang', appear on Christopher Saxton's map of 1576, with successive subsequent maps showing minor variations and further detail of roads in and around the area. A plan of the Ramside Estate from 1773 shows the main element to be an L-shaped range of buildings with courtyard to the west. John Carey's map of 1793 shows the area in more detail showing the road network with small settlements alongside.
- 2.5.9 Hilltop Farm, formerly Broomside Farm, appears on a plan dated 1806 relating to the sale of the Hallgarth Estate at auction. The farmstead is shown as a T-shaped range of buildings, with a large circular symbol – possibly a pond - immediately to the north-west. William Hobson's map of 1840 was one of the first to show the impact of industrialisation, through numerous pits and the Durham and Sunderland Railway, which skirted the eastern side of the golf course development site. The Tithe plan of the Hallgarth Estate from 1844 shows the Durham and Sunderland Railway and the Newcastle and Darlington Railway within Broomside Cutting, the latter delimiting the western extent of the site. All the land parcels at the site are named, for example, 'Half Close' encompassed the northern part of the site with 'Clover Field' to the south and a small 'Corner Whinney Field', being the southernmost portion.
- 2.5.10 Early editions of Ordnance Survey maps demonstrate mid-to-late 19th-century industrialisation of the rural north-eastern margin of Durham City. The village of Sherburn was developed to provide colliery housing for a pit sunk there in the 1850s and the adjacent village of Sherburn Hill was an entirely new creation to provide facilities for workers of another pit of that name, sunk in 1835. Other collieries were established at Pittington (1820s) and Broomside (1850s), the latter located on the lower valley side of Pittington Beck, immediately to the east of the site.
- 2.5.11 Successive editions of the Ordnance Survey map show minor variations to the field system at the site. The 1st edition, 1857, shows the first version of the existing farm track from Pittington Lane to the buildings of 'Broomside', as well as Lady Adelaide Pit of Broomside Colliery on the railway line in the valley bottom immediately to the east of the site,. It also appears to show a substantial pond immediately to the north-west of the farmstead. Later editions show variations to the layout of the buildings, with the 2nd edition, 1898, naming Hilltop Farm for the first time.

3. PROJECT AIMS AND RESEARCH OBJECTIVES

3.1 Project Aims

3.1.1 The project is 'threat-led' since the development scheme, despite extensive design and consultation to minimise the impact on sub-surface archaeological remains of significance, retained some potential to disturb or destroy such remains, these representing the non-designated heritage assets of the site.

3.1.2 Therefore, the broad aim of the project was to record archaeological remains of significance in specific areas of the site, prior to their destruction by construction groundworks.

3.1.3 Additional aims of the project were:

- to compile a Site Archive consisting of all site and project documentary and photographic records, as well as all artefactual and palaeoenvironmental material recovered;
- to compile a report that contains an assessment of the nature and significance of all data categories, stratigraphic, artefactual, etc.

3.2 Research Objectives

3.2.1 The 2007 archaeological evaluation determined, in broad terms, the location, form, extent, date, character, condition, significance and quality of archaeological remains at the site. Therefore, the principle objective of the strip, map and record excavation was to record archaeological remains of significance, ahead of their destruction by the development.

3.2.2 Site-specific objectives were:

- to identify all archaeological remains within specific areas of the golf course layout where there was to be ground reduction through a programme of archaeological monitoring of machine removal of topsoil/overburden;
- to map the locations of all archaeological remains thus exposed, in order to further clarify the location and extent of the site's archaeological activity;
- to define, sample excavate and record all exposed archaeological features, in order to clarify the character and date of the site's archaeological activity;
- to establish the palaeoenvironmental context of any archaeological activity.

4. ARCHAEOLOGICAL METHODOLOGIES

4.1 Fieldwork

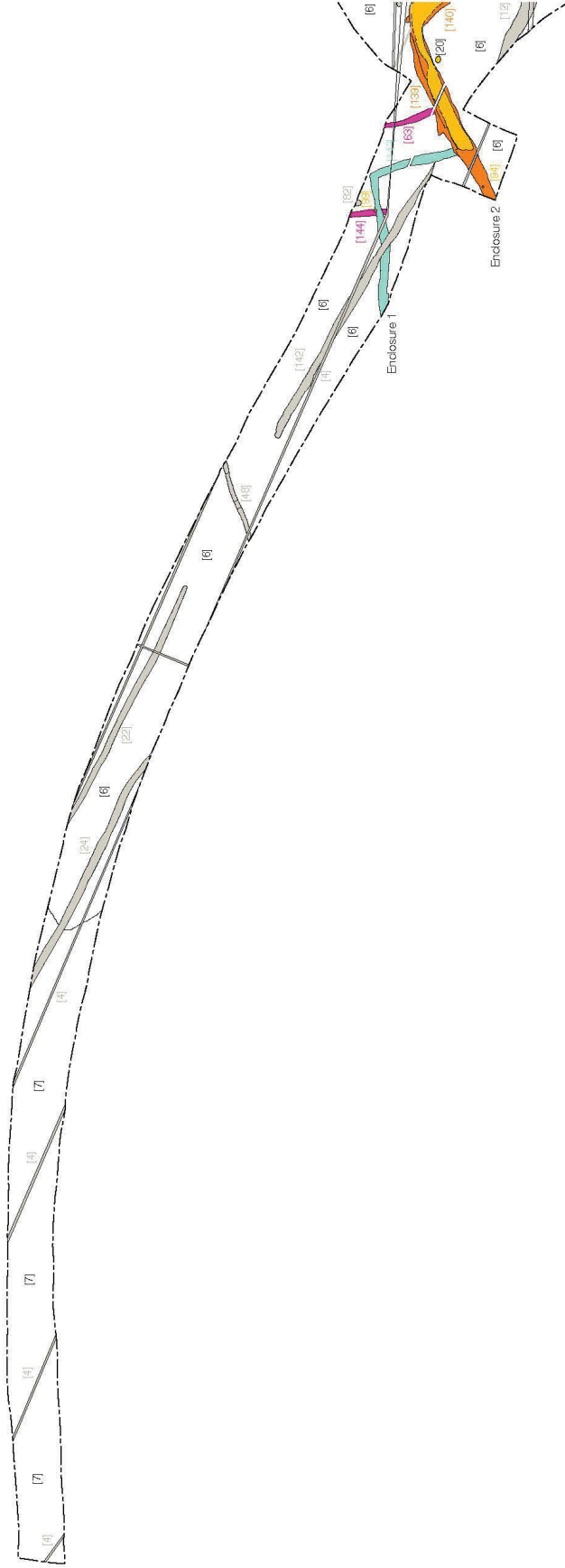
- 4.1.1 The archaeological excavation was undertaken 19th March to 24th April 2012. All fieldwork was undertaken in accordance with the relevant standard and guidance document of the Institute for Archaeologists (IfA) (IfA 2008a). PCA is an IfA-Registered Organisation.
- 4.1.2 The aforementioned Project Design set out the aims and objectives of the project and, in a series of detailed method statements for project execution, described the techniques and approaches to be employed to achieve those aims and objectives. The work comprised a strip, map and record excavation carried out within two areas (Areas A and B) where the development was considered to have potential to destroy important archaeological remains.
- 4.1.3 Area A was located to the north of the derelict farm buildings, extending across Field 2 and the former farm track (Figure 2). It comprised a c. 6m-wide trench which ran roughly west to east for c. 70m then curved south-eastwards for c. 120m. Investigation of this area was required as this was to be the corridor for the main drainage installation of the golf course. A concentration of archaeological features was revealed towards the south-east end of the area, necessitating widening of the trench on either side to further expose the remains. In total, Area A covered c. 1,390m².
- 4.1.4 Area B, lying in Field 1 to the north-east of Area A, was rectangular in shape, measuring c. 60m NW-SE by c. 10m wide with an overall area of c. 580m². Investigation of this area was required to sample the site of a lake feature within the golf course.
- 4.1.5 A tracked c. 13-tonne 360° excavator, using a wide toothless bucket, was utilised to remove overburden across Areas A and B, down to the first archaeologically sensitive deposits, or the natural sub-stratum. All work was undertaken under direct archaeological supervision.
- 4.1.6 Within the excavation areas all visible features, including post-medieval/modern field drains, were marked with spray paint. A Leica Global Navigation Satellite System (GNSS) was used to locate the limits of excavation and locate local survey grids in each area.
- 4.1.7 Investigation of archaeological levels was undertaken by hand, with cleaning, examination and recording both in plan and in section, where appropriate. Investigations followed the normal principals of stratigraphic excavation and were conducted in accordance with the methodology set out in PCA's field manual (PCA 2009).
- 4.1.8 An adequate proportion of archaeological features were excavated by hand in order to determine their form and function, where possible. The following sampling policy applied to archaeological features:
- Stakeholes – 100%
 - Postholes and pits – 50% (a complete cross-section was initially excavated across such features where possible, and then, following recording, the other half was excavated for finds retrieval)
 - Linear features – 10% minimum

- 4.1.9 In each area, an overall 'pre-excavation' plan of all archaeological features was compiled at a scale of 1:50. The sections of excavated portions of archaeological features were located using the site grid and recorded by drawing at a scale of 1:10. Plans of all excavated portions of archaeological features were drawn at a scale of 1:20. All deposits and cuts were recorded utilising pro forma context recording sheets.
- 4.1.10 A photographic record of the investigations was compiled using SLR cameras loaded with 35mm monochrome negative and colour transparency film, illustrating in both detail and general context the principal features and finds discovered. The photographic record also included 'working shots' to illustrate more generally the nature of the archaeological operation mounted. All record photographs included a legible graduated metric scale. Digital photography was used to supplement the 35mm film record.
- 4.1.11 The Leica GNSS was used to establish Temporary Bench Marks (TBMs) on the site. The height of all principal strata and features were calculated relative to Ordnance Datum using the TBMs and indicated on the appropriate plans and sections.

4.2 Post-excavation

- 4.2.1 The stratigraphic data generated by the project is represented by the written, drawn and photographic records. A total of 140 archaeological contexts were defined during the course of the strip, map and record excavation (Appendix 2). The contents of the paper and photographic elements of the Site Archive are quantified in Section 6. Post-excavation work involved checking and collating site records, grouping contexts and phasing the stratigraphic data (Appendix 1). The archaeological remains were assigned to six broad phases of activity (Figure 3). A written summary of the archaeological sequence was then compiled, as described below in Section 5.
- 4.2.2 Artefactual material from the investigations comprised only two fragments of pottery. An assessment report has been produced including a statement of potential for further analysis; the results are given in Section 7. No other categories of inorganic artefactual material were represented.
- 4.2.3 The palaeoenvironmental sampling strategy of the project 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, with specific reference to the objectives of the investigations. To this end, 29 bulk samples were recovered, twelve of which were assessed. The results of assessment of these samples are given in Section 8.
- 4.2.4 Bone was recovered from a single context, consisting of the remains of two bovine skeletons; an assessment report has been produced including a basic quantification of the material and a statement of potential for further analysis and the results are given in Section 9.
- 4.2.5 The complete Site Archive, in this case comprising the written, drawn and photographic records (including all material generated electronically during post-excavation) and the majority of the artefactual assemblage, will be packaged for long term curation.
- 4.2.6 In preparing the Site Archive for deposition, all relevant standards and guidelines documents referenced in the Archaeological Archives Forum guidelines document (Brown 2007) will be adhered to, in particular a well-established United Kingdom Institute for Conservation (UKIC) document (Walker, UKIC 1990) and an IfA publication (IfA 2008b). The depositional requirements of the body to which the Site Archive will be ultimately transferred will be met in full.

4.2.7 At the time of writing the Site Archive is housed at the Northern Office of PCA, Unit N19a Tursdale Business Park, Durham, DH6 5PG. When complete, the Site Archive will be deposited with the Bowes Museum, Barnard Castle, County Durham, under the site code HTF 12. The Online Access to the Index of Archaeological Investigations (OASIS) reference number for the project is: preconst1-145794.



- Phase 2: Linear
- Phase 3: Enclosure 1
- Phase 4: Enclosure 2
- Phase 5: Post-Medieval
- Phase 6: Modern



5. RESULTS: THE ARCHAEOLOGICAL SEQUENCE

During the investigations, separate stratigraphic entities were assigned unique and individual 'context' numbers, which are indicated in the following text as, for example, [100]. The archaeological sequence is described by placing stratigraphic sequences within broad phases, assigned on a site-wide basis in this case. An attempt has been made to add interpretation to the data, and correlate these phases with recognised historical and geological periods.

5.1 Phase 1: Natural Sub-stratum

- 5.1.1 The earliest deposits encountered at the site represent natural geological material, exposed as the basal deposit in both areas, representing the drift geology of this part of the Durham area where Devensian Till masks the underlying bedrock.
- 5.1.2 Probably the earliest natural deposit to be recorded comprised a layer of compact mottled purplish grey clay, [120], this recorded at a maximum height of c. 92.88m OD across a small area within the centre of Area A. This material was surrounded and overlain by another layer of compact clay, [6], ranging in colour from light bluish grey through to light brownish yellow which was observed throughout the central and eastern part of Area A (Figure 3).; it recorded at a maximum height of c. 93.28m OD, falling away to a minimum height of c. 91.10m at the south-eastern end of Area A. Similar material formed the basal deposit throughout Area B, where it was recorded at a maximum height of c. 93.60m. Throughout the western part of Area A (Figure 3), the basal deposit, [7], comprised firm mid yellowish pink clayey sand, recorded at a maximum height of c. 92.90m OD at its eastern extent, falling away to c. 90.13m OD at the western end of Area A.
- 5.1.3 All the natural deposits exposed had likely been subject to truncation as a result of agricultural activity from the medieval period onwards, so that their original upper interface was possibly not seen at any point

5.2 Phase 2: Late Iron Age Linear Gullies

Gully, group [144]: cut [77], fills [75] & [76]; cut [90], fills [88] & [89]; gully: cut [63], fills [74] & [62]

- 5.2.1 Phase 2 represents probably the earliest archaeological features recorded during the work, comprising two parallel gullies, [63] and group [144], recorded on a NNW-SSE alignment within the south-eastern part of Area A (Figure 4).
- 5.2.2 The westernmost feature, group [144], had a rounded terminal in the south and was recorded for a distance of 4m, continuing beyond the limit of excavation to the north. It was cut through by a Phase 3 ditch a short distance to the north of the terminal (Figure 3). In its excavated portions, [77] and [90], the gully had moderately sloping sides and a flat base and measured up to 0.72m wide and 0.33m deep (Sections 22 and 23, Figure 4). The top of the gully was recorded at a maximum height of 93.24m OD in the north, sloping down to 93.0m OD in the south. Two fills were recorded within each excavated slot with the primary fills, deposits [76] and [89], comprising brownish orange silty clay with a maximum thickness of 0.10m. The upper fill, deposits [75] and [88], comprised light grey clay. A bulk soil sample taken from the upper fill produced traces of barley, grass, seeds, heather and charcoal.

- 5.2.3 Approximately 8m to the east, was the second gully, [63], of similar profile and proportions and also with two fills (Sections 20 and 21, Figure 4). This ran on roughly the same alignment as the feature to the west, but curved to the south-east at its southern extent. It measured 0.42m wide and 0.32m deep and was recorded for a distance of over 5m, continuing beyond the limit of excavation to the north and truncated to the south by a Phase 4 ditch (Figure 3). The top of the gully was recorded at a maximum height of 93.42m OD in the north sloping down to 92.91m OD in the south. The primary fill, [74], comprised firm, mid brownish orange silty clay, up to 80mm thick. This was overlain by a firm, mid brownish grey sandy, silty clay fill, [62], up to 0.30m thick. As with the gully to the west, a bulk sample taken from the upper fill produced a variety of palaeoenvironmental evidence including traces of nuts, wheat, grass and heather along with occasional charcoal.
- 5.2.4 Although interpretation of the function of these gullies is not certain due to their limited exposure and survival, their profile and dimensions indicate that they are most likely to represent drainage gullies associated with later prehistoric agricultural land use.

5.3 Phase 3: Late Iron Age Enclosure 1

Enclosure 1 ditch, group [143]: cut [56], fills [54], & [55]; cut [66], fills [64], [65] & [73]; cut [80], fill [79]; cut [87], fills [85] & [86], cut [107], fills [105] & [106]; ditch re-cut [145], fills [53], [58], [78] & [84]

- 5.3.1 Phase 3 is represented by an L-shaped ditch, interpreted as representing the north-eastern corner of a ditch-defined enclosure (Enclosure 1) recorded towards the south-eastern end of Area A. Five slots were excavated through this feature, which has been allocated group number [143] (Figure 5). A single pit, [113], was recorded in section to the east of the enclosure, no internal features were observed.
- 5.3.2 The exposed portion of the Enclosure 1 ditch was recorded for a distance of 13.50m WSW-ENE, continuing beyond the limit of excavation to the west, with a right-angled return in the east which continued for a distance of c. 9m, truncated to the south by a Phase 4 feature, the ditch of Enclosure 2 (see Figure 3). No traces of the Enclosure 1 ditch were recorded to the south of the truncation. The excavated slots revealed that the ditch was originally steep-sided with a narrow, flat-bottomed basal slot and measured c. 1.10m wide by 0.52m deep (Sections 19 and 24, Figure 5), though in some areas this basal slot was not evident (Section 37, Figure 5). The slot excavated through the ditch adjacent to the western limit of excavation (Section 19) revealed a sequence of natural silting that indicated that the ditch had become largely infilled with re-deposited natural clay before being re-cut, [145], as a shallower ditch with a wider, flat base. The primary fill in this part, [65], comprised light grey clayey silt up to 0.16m thick which was overlain by a 0.10m thick deposit, [64], of greyish brown clayey silt. This was overlain by yellowish grey clayey silt, [73], which was only observed along the southern edge of the ditch, presumably having been largely truncated by the re-cut. The excavated portions of ditch to the east revealed a similar sequence of infilling, with two lower fills comparable to deposits [65] and [64] observed in each, deposits [55] and [54] and [86] and [85], respectively. The slot excavated through the corner of Enclosure 1 revealed a single primary fill, [79].
- 5.3.3 Re-cut [145] was observed in all excavated slots and this had maximum dimensions of c. 0.90m wide by 0.30m deep. A single fill was recorded, this generally comprising dark brownish grey clayey silt, recorded as deposits [53], [58], [78] and [84].
- 5.3.4 Bulk soil samples taken from a selection of fills from the ditch and its re-cut all produced trace evidence of heather, grass and charcoal, with one sample taken from the primary fill, [65], of the eastern ditch cut, [66], providing a radiocarbon age of 2,400 ± 30 BP.

- 5.3.5 A small pit, [113], was situated to the east of the enclosure close to the point where it was truncated. This was only seen in section having been overlain by a later occupation layer and then truncated to the south-east by the ditch of Enclosure 2. It contained a single grey silty clay fill, [112], and measured c. 0.45m wide with a maximum depth of 0.25m.

5.4 Phase 4: Late Iron Age Enclosure 2

Occupation layer, group [139]: deposits [72], [103], [129] & [132]; Enclosure 2 ditch, group [140]: cut [10], fill [9]; cut [45], fills [14], [17] & [44]; cut [70], fill [69]; cut [83], fill [96]; cut [102], fills [101], [136], [137] & [138]; cut [116], fill [118]; cut [131], fills [121], [122], [127]; ditch re-cut [146], fills [68], [97], [114], [115], [117], [128] & [130]

- 5.4.1 Phase 4 comprises a series of accumulated deposits, group [139], the subsequent group [140], representing ditch-defined Enclosure 2, this located to the south-east of Enclosure 1 (Figure 6).
- 5.4.2 An irregular shallow linear depression was recorded along the external north-western edge of the Phase 4 Enclosure 2 ditch for a distance of c. 14m (Figure 6). Its maximum width was c. 1m and maximum recorded depth was 0.18m (Section 18, Figure 7). Interpretation is uncertain, but the feature may have been formed during the construction of the enclosure, or alternatively it could represent a natural depression in the sub-stratum. Within the depression was an accumulated deposit, group [139], which was excavated in three areas, recorded as deposits [72], [103], and [129], all of which comprised brownish yellow or yellowish brown silty clay. Traces of coal, charcoal, heather and hazelnut were recovered from a bulk soil sample taken from deposit [103], located at the western extent of the feature. Adjacent to the external corner of the enclosure was a sandy silt deposit, [132], which may also have developed within a small depression.
- 5.4.3 The ditch defining the north-eastern corner of Enclosure 2 was more substantial than the Enclosure 1 ditch, with maximum dimensions of c. 2.10m wide and 0.65m deep, although the feature became markedly shallower and narrower towards both limits of excavation as a result of later plough truncation. The north-western side of the enclosure lay on a slightly different alignment to Enclosure 1 (see Figure 3) and was recorded for a distance of c. 20m, aligned roughly NE-SW, continuing beyond the limit of excavation to the west. The north-eastern side of the enclosure was recorded for a distance of c. 30m NNW-SSE, continuing beyond the limit of excavation to the south. The ditch generally had a U-shaped profile with a wide, flat or concave base (Sections 1, 4, 18, 28 and 36, Figure 7). Along the north-western side, a single primary fill was recorded within each excavated slot, [69], [97], [115], and [130], this generally comprising clay with some silt and of mixed colour, yellowish brown and bluish grey, this material indicative of silting of the ditch with re-deposited natural clay. The primary fill, [9], within the easternmost slot, cut [10], produced a single fragment of quartz-gritted local traditional ware pottery; such pottery is not closely datable as it was made in the Iron Age and continued to be produced throughout the Roman period. A bulk soil sample taken from this fill also produced small quantities of charred plant remains, including spelt wheat.

- 5.4.4 The ditch bounding the north-western side of the enclosure had been re-cut, [146], and this was most clear in Section 18 where the re-cut had stepped sides with a narrow, steep-sided slot in the base and was c. 1m wide by 0.40m deep (Figure 7). The re-cut was much less pronounced adjacent to the western limit of excavation, but in this area the ditch had been subject to severe horizontal truncation and survived with a total depth of only 0.20m. No evidence for a re-cut contemporary with the use of the enclosure was recorded along the NNW-SSE aligned element of ditch, but in this area later-activity had presumably destroyed all traces of a Phase 5 re-cut (see Figure 3).
- 5.4.5 The fills of re-cut [146] predominantly consisted of silty clays, however a clayey silt deposit, fills [68] and [128], was observed towards the corner of the enclosure. A soil sample from fill [68] produced trace amounts of a variety of materials including charcoal, heather and seeds along with a larger quantity of spelt wheat.

5.5 Phase 5: Post-Medieval

Various deposits, group [141]: cut [13], fill [8]; cut [43], fills [41] & [42]; cut [111], fills [108] & [109] & skeletal remains [110]; cut [119], fills [123] & [124], cut [125], fills [91] & [100]; cut [134], fill [67]; cut [135], fill [95]

- 5.5.1 Phase 5 represents post-medieval deposits recorded in the upper part of the Enclosure 2 ditch. The deposits have been assigned cut numbers to aid description, but it is uncertain whether the ditch was partially re-cut to allow the burial of two cattle carcasses in the early 18th century, or whether the upper part of the ditch simply survived as a low earthwork feature into the post-medieval period, with this convenient depression then being deliberately infilled following burial of the cattle carcasses.
- 5.5.2 The Phase 5 deposits were most extensive along the NNW-SSE aligned element and corner of the earlier enclosure where their maximum recorded combined dimensions were 1.48m wide and 0.31m deep (Sections 4, 1 and 36, Figure 7). No deposits were evident adjacent to the western limit of excavation, although this could be due to more severe horizontal plough truncation in this area since the post-medieval period. Two cow skeletons, an adult female and calf, were encountered in the corner of the former enclosure and the near completeness of the skeletons along with the lack of butchery marks indicate that these animals were interred as complete carcasses (see Section 10). The adult cow had been decapitated, presumably so that it would fit within the ditch, and the lack of gnaw marks on either animal suggests that they were buried quite rapidly after being interred in the ditch. A radiocarbon date of AD 1720 ± 35 was obtained from a sample of bone and this coincides with the period during which a cattle disease, rinderpest, swept through Britain. Following deposition of the carcasses, the ditch was backfilled.
- 5.5.3 Other features assigned to this phase of activity comprise a posthole, [94], and stakehole, [16], recorded within the ditch. A small pit, [20], located adjacent to the southern edge of the ditch, measured 0.54m wide and 0.68m long with a maximum depth of 90mm.

5.6 Phase 6: Modern

Sub-soil: [5]; gully, group [48]: cut [38], fill [37]; cut [47], fill [46]; drainage system (Areas A and B): group [4], including ceramic pipes, group [3]; drain (Area B): cut [29], ceramic pipes [28], fills [25], [26], [27]; 'machinery' impressions: impression [12], fill [11]; impression [22], fill [21]; impression [24], fill [23]; group [142]: impression [36], fill [35]; impression [40], fill [39]; impression [50], fill [49]; impression [52], fill [51]; 'root disturbance', Area A: cut [61], fill [60]; cut [82], fill [81]; Area B: group [32], fills [30 & [31]; ploughsoil: [1]

- 5.6.1 Activity in the modern era is represented by a developed sub-soil, the installation of a system of field drains, associated machine 'scars' and a single gully, as well as root disturbance, later intrusions and the overlying plough soil that formed the ground surface across both areas of investigation.
- 5.6.2 The developed sub-soil, [5], recorded within the limit of excavation sections in Area A, comprised soft, greyish brown silty clay up to 0.22m thick. This material likely formed in the medieval period or earlier then being subject to reworking throughout the post-medieval period and into the modern era as a result of agricultural activity.
- 5.6.3 In the central part of Area A, the sub-soil was truncated by a linear gully, group [48], which ran on a roughly NE-SW alignment and measured a maximum of 0.49m wide and 0.31m deep (Figure 3). It was recorded for a distance of c. 8.50m, continuing beyond the limits of excavation in both directions. It is interpreted as a drainage feature associated with the recent agricultural use of the land.
- 5.6.4 A system of field drains, group [4], was recorded in Area A, running predominantly on a NW-SE alignment with occasional connecting drains running NE-SW. The drain 'trenches' were on average 0.20m wide and c. 0.60m deep although the drain trench that cut across the corner of Enclosure 2 was noted to be much shallower. Where these drains were excavated they contained end-to-end small bore (80mm diameter) cylindrical red ceramic drain pipes, group [3].
- 5.6.5 A series of very shallow, rather indistinct, linear features, [12], [22], [24] and group [142] were recorded in the central portion of Area A, running on a NW-SE direction and revealed in the in the natural substratum. These are interpreted as the impressions left by machinery, possibly that which installed the aforementioned field drains, described above, as it crossed the field surface.
- 5.6.6 A system of field drains (also group [4]) was also recorded within Area B, where a more substantial drain trench, [29], was also recorded. This contained end-to-end large bore (160mm diameter) cylindrical red ceramic drain pipes, [28], with three separate backfills, [25], [26] and [27], recorded. The drain had been cut by the remains of a trench from the 2007 archaeological evaluation.
- 5.6.7 Area B also revealed a substantial areas of root disturbance, recorded as group [32], with dark brownish grey clayey silt fills, [30], and mixed leeching deposits, [31]. This disturbance was seen throughout the south-eastern part of Area B. Smaller patches of similar disturbance were also observed within Area A, recorded as features [61] and [82], with mixed fills, [60] and [81], respectively.
- 5.6.8 The uppermost deposit recorded within both areas was the existing ploughsoil, [1], consisting of loose, dark greyish brown sandy clayey silt. The maximum thickness of this deposit was 0.30m and it was recorded at a maximum (top) height of 94.12m OD in the north-east corner of Area B, and a minimum (top) height to 90.41m OD in the western extent of Area A.

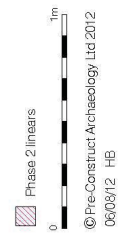
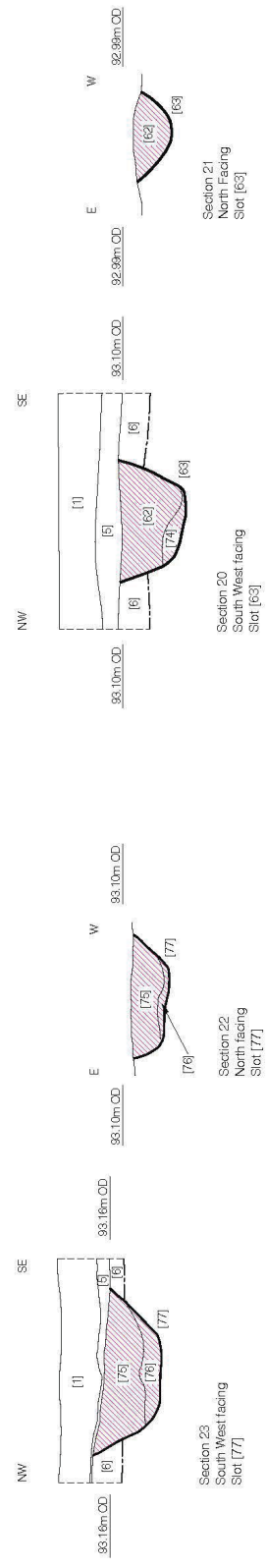
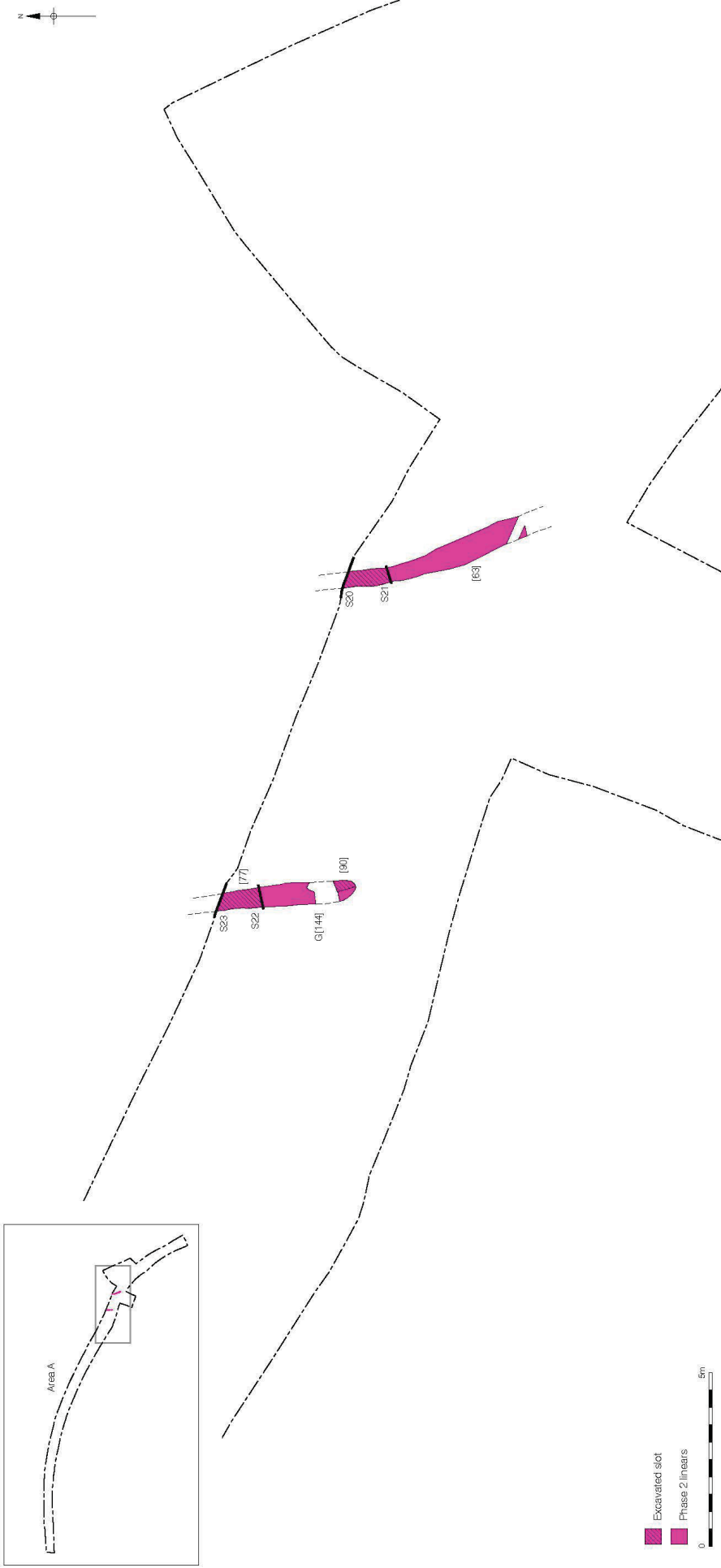


Figure 4
Area A: Phase 2 Plan and Sections
Plan 1:125 & Sections 1:25 at A3

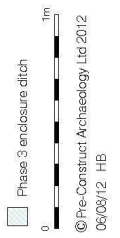
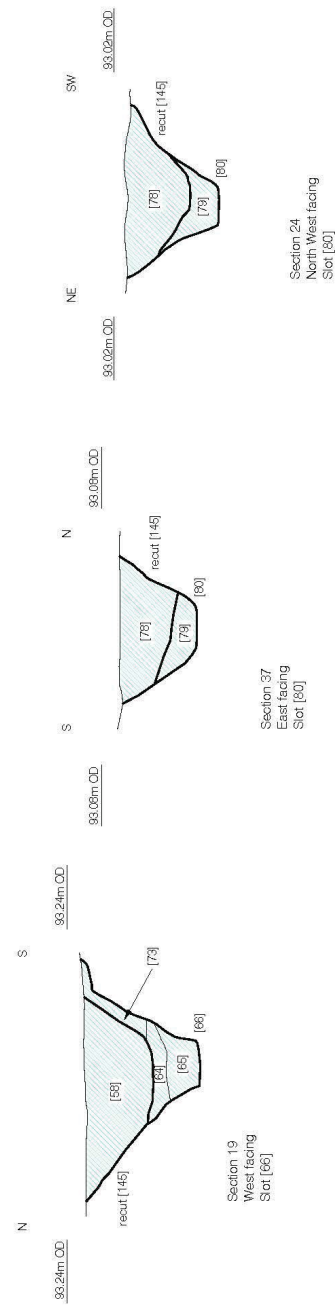
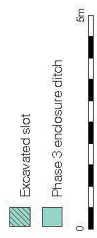
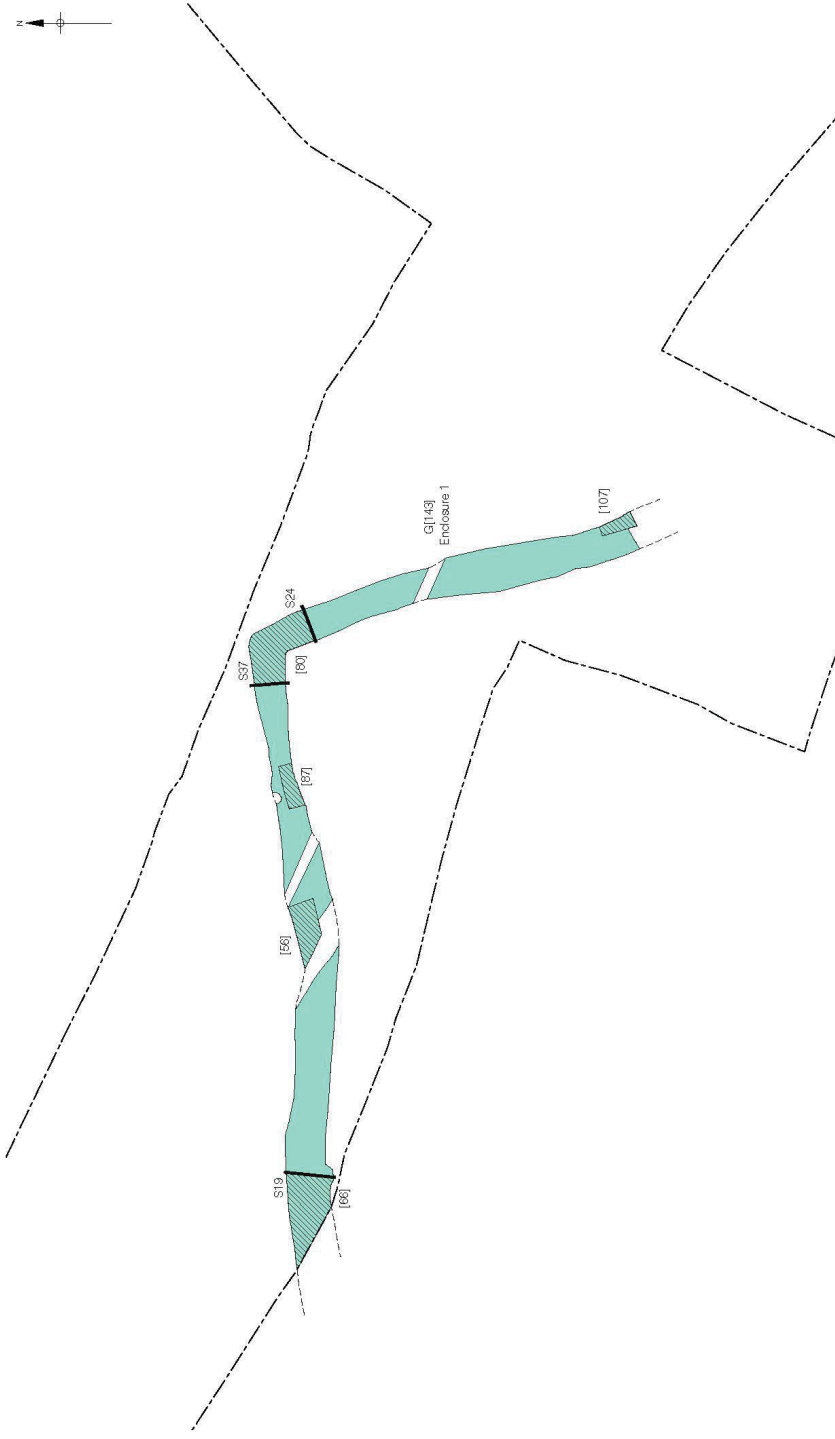
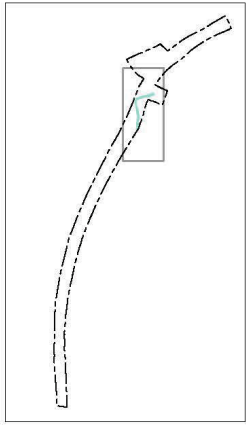
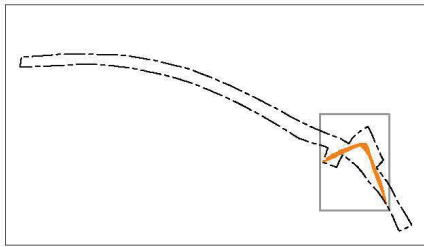





Figure 5
Area A Phase 3 Plan and Sections
Plan 1:125 & Sections 1:25 at A3

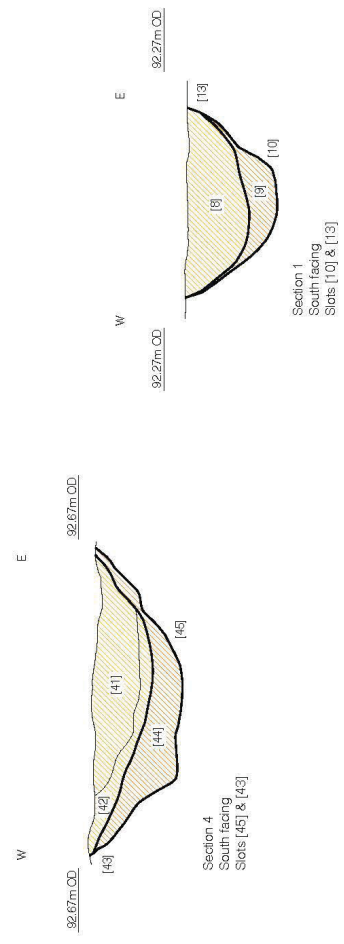
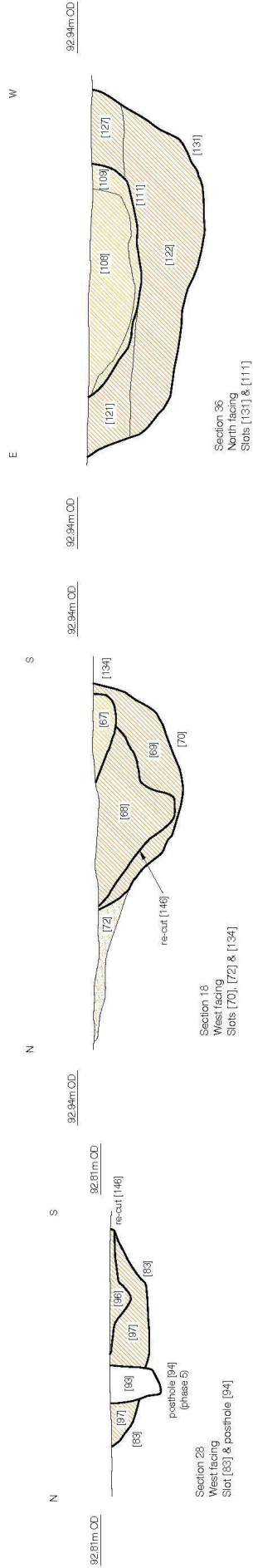


-  Excavated slot
-  Phase 4 enclosure ditch
-  Phase 4 accumulation layer

0 5m

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06/06/12 HB

Figure 6
Area A: Phase 4 Plan
1:125 at A3



Phase 5 ditch re-cut [141]

 Phase 4 enclosure ditch [140]

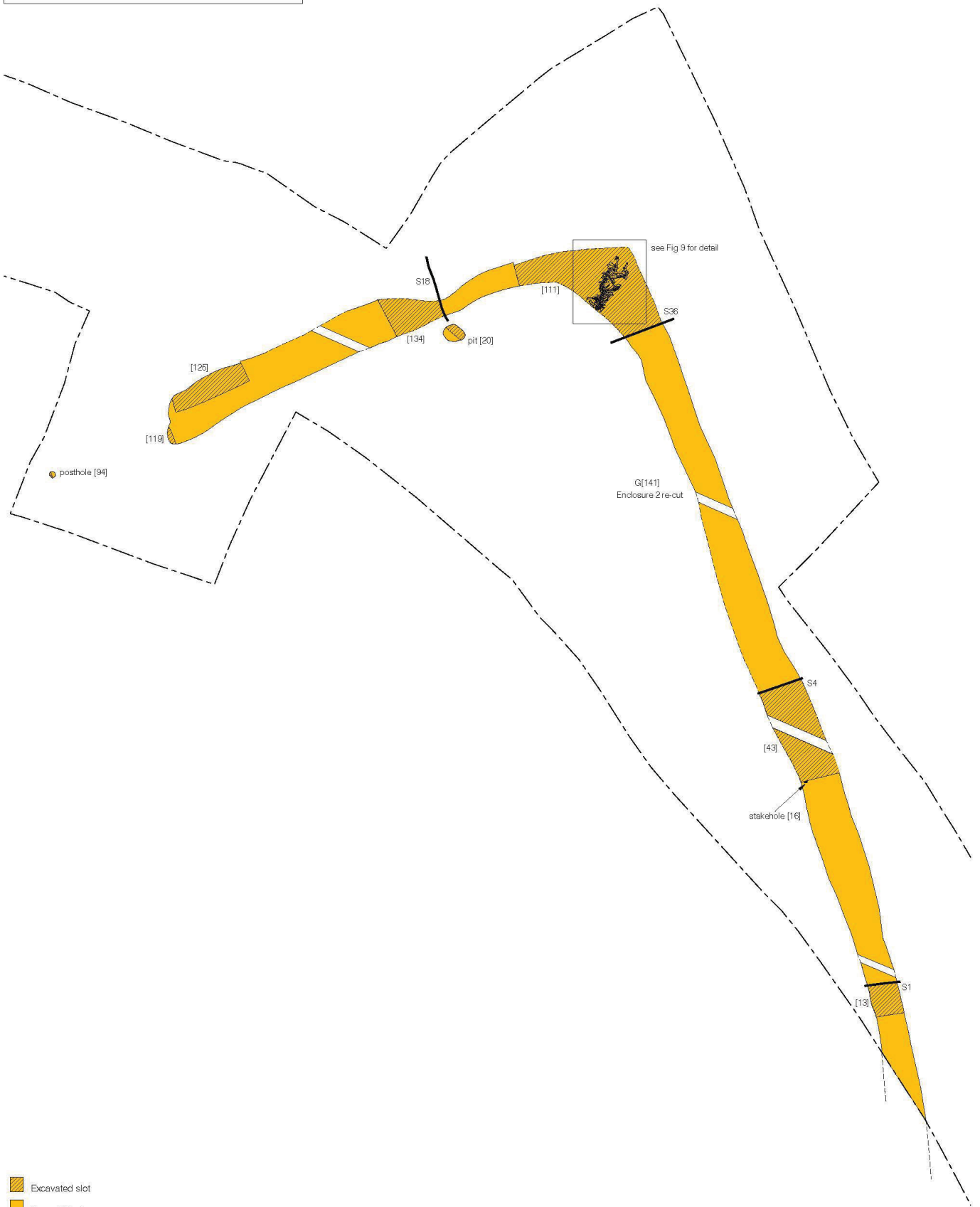
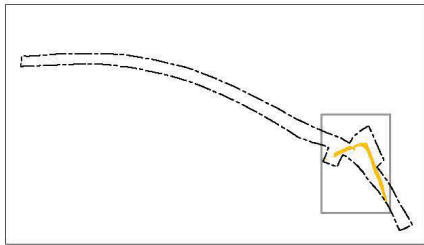
 Phase 4 accumulation layer [139]

 0 1m

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 10/08/12 HB

Figure 7
Area A: Phase 4 & 5 Sections
Sections 1:25 at A3



- Excavated slot
- Phase 5 features

0 5m

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Figure 8
Area A: Phase 5 Plan
1:125 A3

PART B: DATA ASSESSMENT

6. STRATIGRAPHIC DATA

6.1 Paper Records

6.1.1 The paper element of the Site Archive is as follows:

<i>Item</i>	<i>No.</i>	<i>Sheets</i>
Context register	1	4
Context/group sheets	140	140
Section register	1	1
Section drawings	36	17
Plans	37	94

Table 6.1: Contents of the paper archive

6.2 Photographic Records

6.2.1 The photographic element of the Site Archive is as follows:

<i>Item</i>	<i>No.</i>	<i>Sheets</i>
Monochrome negative/print registers	2	2
Monochrome prints	55	7
Monochrome negatives	55	2
Colour slide registers	2	2
Colour slides	55	4
Digital photograph registers	1	3
Digital photographs (on 1 no. CD)	81	N/A

Table 6.2: Contents of the photographic archive

6.3 Site Archive

6.3.1 The complete Site Archive, including the paper and photographic records, is currently housed at the PCA Northern Regional Office.

6.3.2 The Site Archive will eventually be deposited with the Bowes Museum, Barnard Castle, County Durham, under the Site Code HTF 12, for permanent storage and the requirements of the repository will be met prior to deposition.

7. POTTERY

By: Alex Croom

7.1 Introduction

7.1.1 One sherd and one scrap of pottery were recovered during the excavation. The sherd came from context [8], part of group [141], and the scrap of pottery was recovered during assessment of a bulk sample for palaeoenvironmental remains from ditch fill [9].

7.2 Pottery

7.2.1 The sherd of pottery recovered from context [8] is medieval in date.

7.2.2 The scrap of pottery from ditch fill [9] is of 'quartz-gritted local traditional ware'. Such pottery was made in the Iron Age and continued to be produced into the late Roman period.

7.3 Discussion and Recommendations

7.3.1 Due to the small size of this assemblage and the limited information that it provides, it is recommended that no further work is required.

8. PALAEOENVIRONMENTAL REMAINS

By: Archaeological Services Durham University

8.1 Introduction

8.1.1 Palaeoenvironmental assessment was undertaken of 12 bulk samples recovered during the excavation. Two samples were assessed from Phase 2 gullies, fills [62] and [75], and three were assessed from Phase 3 Enclosure 1 fills, [65], [78] and [85]. Five samples were assessed from Phase 4 features; four from Enclosure 2 ditch fills, [9], [68], [122] and [127], and one from the occupation layer, [103]. Two samples, fills [8] and [108], were assessed from the Phase 5 re-cut of Enclosure 2.

8.1.2 The objective of the work was to assess the palaeoenvironmental potential of the samples, establish the presence of suitable radiocarbon dating material, and provide appropriate recommendations.

8.1.3 Samples were received on 2 and 22 May 2012. Assessment and report preparation was conducted between 2 and 31 May 2012. Palaeoenvironmental assessment and report preparation were carried out by Lorne Elliott. Sample processing was undertaken by Lorne Elliott, Janet Beveridge and Dr. Charlotte O'Brien.

8.2 Methods

8.2.1 The bulk samples were manually floated and sieved through a 500µm mesh. The residues were examined for shells, fruitstones, nutshells, charcoal, small bones, pottery sherds, flint and industrial residues, and were scanned using a magnet for ferrous fragments. The flots were examined at up to x60 magnification for charred and waterlogged botanical remains using a Leica MZ7.5 stereomicroscope. Identification of these was undertaken by comparison with modern reference material held in the Environmental Laboratory at Archaeological Services Durham University. Habitat classification follows Preston *et al.* (2002). Plant nomenclature follows Stace (1997).

8.2.2 Where possible, charcoal fragments were identified. The transverse, radial and tangential sections were examined at up to x600 magnification using a Leica DMLM microscope. Identifications were assisted by the descriptions of Schweingruber (1990) and Hather (2000), and modern reference material held in the Environmental Laboratory at Archaeological Services Durham University.

8.3 Results

8.3.1 Charred plant remains were present in low numbers, in all of the samples apart from ditch fills [122] and [127]. Poorly preserved wheat grains were present in contexts [8], [9], [62], [78] and [85]. Spelt wheat chaff was identified in contexts [8], [9], [62], [65], [68], [78] and [108]. Barley rachis fragments occurred in [8], [62], [75], [78] and [108]. Heath-grass was present in [8], [9], [65], [68], [78] and [85] and caryopses of brome were recorded in [8], [62], [68] and [85]. Sedge nutlets or grass caryopses occurred in four contexts and arable weed remains of scentless mayweed and wild radish were noted in ditch fill [8]. Tubers of false oat-grass were recorded in [65] and [75]. Occupation layer [103] contained a fragment of hazel nutshell. Again, with the exception of fills [122] and [127], varying quantities of charred tuber/rhizomes, heather twigs and monocot stems were noted throughout the samples.

- 8.3.2 Small amounts of poorly preserved charcoal (due to mineral inclusions) were present in all of the samples except [122] and [127]. Identified fragments were predominantly oak and birch, with willow/poplar, alder, ash, hazel and cherry family (blackthorn, wild and bird cherry) also recorded.
- 8.3.3 Finds consisted of a small sherd of pottery from fill [9], and two tiny fragments of flint from [9] and [65]. Uncharred seeds of goosefoot, common chickweed, fool's parsley, knotgrass, and prickly sow-thistle were recorded in several of the contexts, although the non-waterlogged nature of the site and presence of roots suggest that these are modern intrusions. The results are presented in Table 8.1 and a list of material available for radiocarbon dating is presented in Table 8.2.

8.4 Discussion

- 8.4.1 The majority of the samples produced small quantities of charred plant macrofossils and charcoal, providing evidence of resources used in the region during the later prehistoric period. A total of eight contexts comprised a combination of spelt wheat chaff, brome and heath-grass remains, possibly reflecting a contemporary origin for these deposits. These assemblages are consistent with other archaeobotanical studies that suggest spelt wheat was widely cultivated during the Iron Age and Roman periods (Greig 1991; Huntley and Stallibrass 1995). Brome grass is frequently associated with spelt wheat, and is believed to have been brought to the British Isles in imported spelt (Godwin 1975). It has been suggested that this large grass seed was deliberately included to bulk up harvests (Jones 1984). Traces of spelt glume bases, barley rachis fragments and arable weed remains such as wild radish and scentless mayweed possibly suggest crop processing activities nearby.
- 8.4.2 Most of the samples comprised charred remains of heather twigs, tuber/rhizomes, monocot stems and seeds/nutlets of grasses and sedges. These remains often occur in contexts of prehistoric origin and have been associated with evidence of burnt turves (Hall 2003), used either as fuel or building material.
- 8.4.3 Tubers of false oat-grass (*Arrhenatherum elatius ssp bulbosum*) occurred in ditch fill [65] and gully fill [75]. These tubers are a common occurrence from Bronze Age and Neolithic contexts, and in particular have frequently been recorded in Bronze Age cremations, possibly representing the use of turves in the pyre construction (Archaeological Services 2011). However, recent studies at nearby sites at Bowburn and Haswell (Archaeological Services 2008; 2012) have revealed that they are also present in Iron Age contexts.
- 8.4.4 The charcoal assemblages, albeit small and in poor condition, indicate at least seven different taxa were used at the site. The most commonly recorded were birch and oak. The common occurrence of birch charcoal, heather twigs and heath-grass remains may reflect a local landscape of lowland heathland. The few fragments of ash charcoal in two of the contexts containing spelt chaff is of interest, as recent work at the multi-phased site at nearby Haswell (Archaeological Services 2012), recorded ash charcoal first appearing in Iron Age contexts.

Context	8	9	62	65	68	75	78	85	108	122	103	127
Sample	1	2	5	8	9	10	11	15	18	19	20	22
Feature	ditch	ditch	gully	ditch	ditch	gully	ditch	ditch	ditch	ditch	layer	ditch
Material available for radiocarbon dating	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	-
Volume processed (ml)	7	15	9	19	15	19	14	8	9	10	10	9
Volume of flint (ml)	25	65	40	50	60	60	30	30	20	25	30	15
Residue contents												
Charcoal	+	+	+	+	+	+	++	++	+	-	++	-
Coal / coal shale	-	-	-	-	-	-	-	-	-	+++	+	++
Flint? (number of fragments)	-	1	-	1	-	-	-	-	-	-	-	-
Plot (number of fragments)	-	1	-	-	-	-	-	-	-	-	-	-
Flint matrix												
Charcoal	+	+	+	+	+	+	+	++	-	-	+	-
Clinker / cinder	-	-	-	-	-	-	-	-	-	-	-	-
Coal / coal shale	++	++	++	++	++	++	++	++	++	++	+	++
Heather twigs (charred)	+++	+	+	+	++	++	+	++	+	-	+	-
Monocot stems (charred)	++	-	-	-	-	-	-	-	-	-	-	-
Roots (modern)	-	+	+	-	+	+	+	+	+	+	++	++
Tuber / rhizome (charred)	+++	+	+	+	+	+	+	++	+	-	+	-
Uncharred seeds	+	+	-	-	(+)	+	+	-	-	-	-	-
Charred remains (total count)												
(a) <i>Bromus</i> sp. (Bromes)	1	-	1	-	2	-	-	3	-	-	-	-
(a) <i>Raphanus raphanistrum</i> (Wild Radish)	1	-	-	-	-	-	-	-	-	-	-	-
(a) <i>Tripleurospermum inodorum</i> (Scientific Mayweed)	1	-	-	-	-	-	-	-	-	-	-	-
(c) <i>Cerealia</i> indeterminate	1	-	-	-	-	-	-	-	-	-	-	-
(c) <i>Hordeum</i> sp. (Barley species)	1	-	1	-	-	1	1	-	1	-	-	-
(c) <i>Triticum spelta</i> (Spelt Wheat)	5	1	7	2	8	-	2	-	3	-	-	-
(c) <i>Triticum</i> sp. (Wheat species)	-	1	-	2	-	-	-	-	-	-	-	-
(c) <i>Triticum</i> sp. (Wheat species)	1	1	1	-	-	-	1	1	-	-	-	-
(g) <i>Armenanthemum elatius</i> ssp. bulbosum (False Oat-grass)	-	-	-	1	-	1	-	-	-	-	-	-
(h) <i>Dianthium decumbens</i> (Heath-grass)	2	1	-	2	2	-	1	2	-	-	-	-
(t) <i>Corylus avellana</i> (Hazel)	-	-	1	-	-	-	-	-	-	-	1	-
(w) <i>Carex</i> sp. (Sedges)	1	-	-	-	1	-	-	-	-	-	-	-
(w) <i>Carex</i> sp. (Sedges)	2	1	1	-	1	-	-	-	2	-	-	-
(x) Poaceae undifferentiated (Grass family)	-	-	-	-	-	-	-	-	1	-	-	-

Key: a-arable; c-cultivated plant; g-grassland; h-heathland; t-trees/shrub; w-wet/damp ground; x-wide niche, (+) trace; +: rare; ++: occasional; +++: common; ++++: abundant, (□) there may be insufficient weight of carbon available for radiocarbon dating

Table 8.1: Data from palaeoenvironmental assessment

Context	Sample	Context information	Single Entity 1	Weight	Single Entity 2	Weight	Notes
8	1	fill of ditch	oak charcoal	118mg	cherry family charcoal	38mg	Fragment of charred heather (42mg) is also available for C14 dating. Oak charcoal is small branchwood. All charcoal contains mineral inclusions (affecting weight of carbon). Grains are too small and poorly preserved for C14 dating.
9	2	fill of ditch	hazel charcoal	79mg	birch charcoal	51mg	Fragment of charred heather (70mg) and oak (52mg) are also available for C14 dating. All charcoal contains mineral inclusions (affecting weight of carbon). Grains are too small and poorly preserved for C14 dating.
62	5	fill of gully	birch charcoal	37mg	charred hazel nutshell	14mg	Fragment of charred heather (145mg) is also available for C14 dating. All charcoal contains mineral inclusions (affecting weight of carbon). Grains are too small and poorly preserved for C14 dating. Tiny fragments of oak charcoal also noted.
65	8	fill of ditch	alder charcoal	112mg	birch charcoal	39mg	Fragment of charred heather (26mg) is also available for C14 dating. All charcoal contains mineral inclusions (affecting weight of carbon). Tiny fragments of oak and ash charcoal also noted.
68	9	fill of ditch	oak charcoal	18mg	willow/poplar charcoal	10mg	Fragment of charred heather (36mg), hazel charcoal (8mg) and oak charcoal not single entity (61mg) are also available for C14 dating. All charcoal contains mineral inclusions (affecting weight of carbon). Oak charcoal is small branchwood.
75	10	fill of gully	false oat-grass tuber	14mg	hazel charcoal	77mg	Fragments of charred heather (90mg + 80mg) and oak charcoal (401mg + 59mg) are also available for C14 dating. Oak charcoal anatomy indicates presence of charred reaction wood or root material.
78	11	fill of ditch	birch charcoal	63mg	willow/poplar charcoal	33mg	Fragment of charred heather (25mg), birch (61mg), alder (11mg), willow/poplar (30mg) and oak (25mg) are also available for C14 dating. All charcoal contains mineral inclusions (affecting weight of carbon). Grain is too small and poorly preserved for C14 dating.
85	15	fill of ditch	birch charcoal	141mg	hazel charcoal	126mg	Fragment of birch charcoal (40mg) is also available for C14 dating. All charcoal contains mineral inclusions (affecting weight of carbon).
108	18	fill of ditch	ash charcoal	41mg	cf. hazel charcoal	48mg	Fragment of charred heather (14mg) is also available for C14 dating. All charcoal contains mineral inclusions (affecting weight of carbon).
122	19	fill of ditch	-	-	-	-	No material is available for C14 dating.
103	20	occupational layer	birch charcoal	153mg	charred hazel nutshell	16mg	Fragment of oak charcoal (51mg) is also available for C14 dating. Presence of tyloses in oak charcoal indicates stemwood/heartwood not normally recommended. All charcoal contains mineral inclusions (affecting carbon weight).
127	22	fill of ditch	-	-	-	-	No material is available for C14 dating.

Table 8.2 Material available for radiocarbon dating

8.5 Recommendations

- 8.5.1 Any unprocessed soil samples from the Enclosure 1 and 2 ditches should be processed for recovery of additional charred plant remains.
- 8.5.2 In a review of charcoal and wood recovered from excavations in northern England, Huntley (2010) highlights a lack of charcoal investigations from prehistoric sites, as charcoal has been collected primarily for dating purposes. With this in mind, and the occurrence of small assemblages of charcoal in many of the samples, any additional samples should be retained for future charcoal analysis, in order to provide further evidence of the changing local woodland resources during the prehistoric period. If additional work is undertaken at the site, the results of this assessment should be added to any further palaeoenvironmental data produced.
- 8.5.3 The flots should be retained as part of the physical archive of the site. The residues were discarded following examination.

9. RADIOCARBON DATING

By: *Scottish Universities Environmental Research Centre*

9.1 Introduction

9.1.1 Two Accelerator Mass Spectrometry (AMS) Radiocarbon Dates were measured, at the Scottish Universities Environmental Research Centre AMS Facility, on materials recovered during the excavation. Analysis of the skeletal remains, context [110], took place on the 9 July 2012, and charcoal recovered during palaeoenvironmental assessment of ditch fill [65] was carried out on 13 August 2012.

9.2 Methods

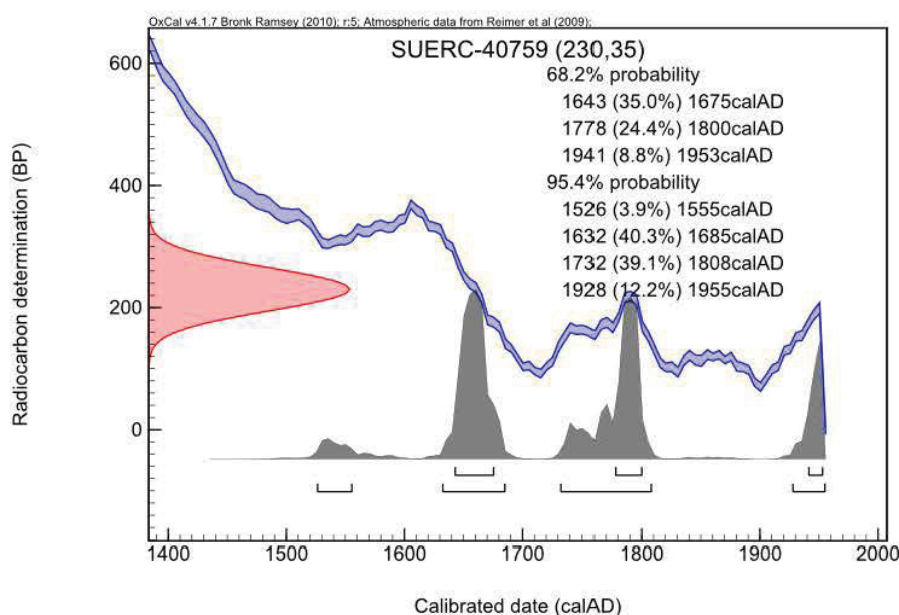
9.2.1 The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

9.2.2 The results of each material are set out below in Tables 9.1 and 9.2 along with their associated Calibration Plots, 9.1 and 9.2.

9.3 Results

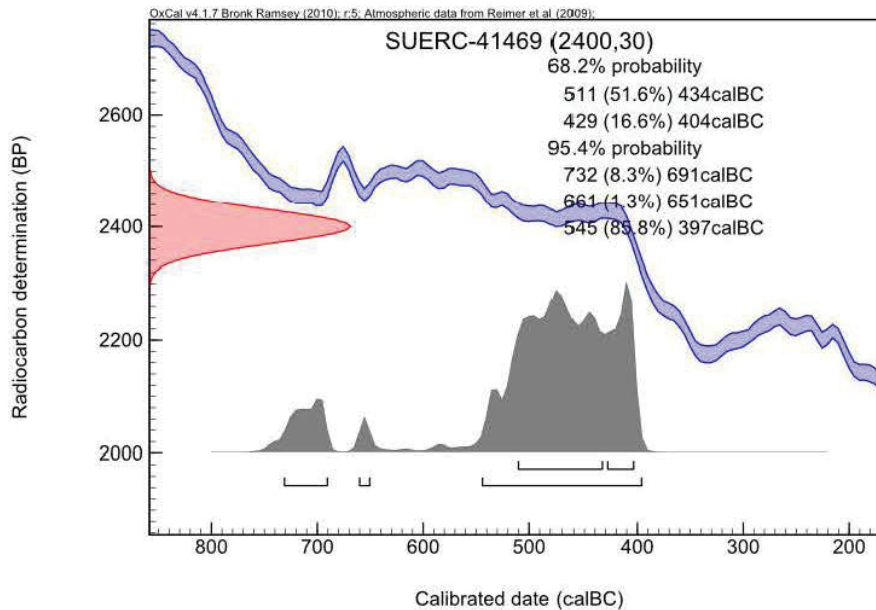
Laboratory Code	SUERC-40759 (GU27540)
Context Reference	110
Material	Bone: cattle femur
$\delta^{13}\text{C}$ relative to VPDB	-22.9 ‰
$\delta^{15}\text{N}$ relative to air	6.0 ‰
C/N ratio (Molar)	3.5
Radiocarbon Age BP	230 ± 35

Table 9.1 Context [110] Radiocarbon Dating Certificate



Laboratory Code	SUERC-41469 (GU27864)
Context Reference	65
Sample Reference	8
Material	Charcoal: <i>Alnus glutinosa</i>
$\delta^{13}\text{C}$ relative to VPDB	-26.8 ‰
Radiocarbon Age BP	2400 ± 30

Table 9.2: Context [65] Radiocarbon Dating Certificate



9.4 Discussion

- 9.4.1 The above ^{14}C ages are quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

10. FAUNAL REMAINS

By: *Kevin Rielly*

10.1 Introduction

10.1.1 The remains of an adult cow with a young calf within the torso were uncovered within the corner of the former prehistoric Enclosure 2 ditch, traces of which seem to have survived into the post-medieval period, with the ditch possibly partially reinstated during this period. A notable feature of the adult skeleton was the location of the head, which had been 'placed' over the body just posterior to the ribcage.

10.1.2 The possible 'ritual' connotation of this displacement activity would strongly suggest a prehistoric or possibly Roman date of deposition. Unfortunately no datable artefacts were recovered. However, the ¹⁴C age achieved from one of the femurs of the adult skeleton gave a date of 230 ± 35 BP (SUERC-40759, GU27540), which can be translated as AD 1720 ± 35 (where BP refers to the number of years before 1950).

10.2 Description of the Bones

10.2.1 The following description is based on the bone records, Table 10.1, as well as the field records of the skeletons *in situ* (Figure 9 and Plate 10.2). Certain recorded parts do not appear in the pictorial representations, no doubt excavated prior to the drawing/photograph or else hidden beneath 'upper' bones. It is assumed that the position of these parts will relate to the known location of their articulating neighbours.

The Adult Skeleton

10.2.2 This consists of a complete vertebral column, from the atlas through to the sacrum, although with just one of the caudal vertebrae surviving. The greater part of each hindleg is in place, including the pelves through to the tibia, with the calcaneus and astragalus on the left and possibly on the right as well. The metatarsals have been displaced; the left recovered resting on the anterior end of the right pelvis, parallel and similarly aligned to the right femur, while the right was found close to the distal end of the right femur. The left metatarsus was in articulation with a full set of toe bones (two 1st, 2nd and 3rd phalanges). There is a greater level of displacement within the anterior part of the skeleton, most notably concerning the recovery of the head just posterior to the ribs and overlying the lumbar vertebrae. While displaced it is still in the correct alignment concerning the vertebral column. The right foreleg is in approximately the correct place, although positioned on the medial rather than the lateral side of the right ribcage. The head of the scapula can be seen beneath the 7th rib (approximately) as shown in Figure 9, while the humerus, radius/ulna and some carpals then extend parallel and immediately adjacent to the thoracic column with the distal radius close to the turn of the cervical vertebrae. The left foreleg, in contrast, is out of position and misaligned. The scapula was positioned beneath the distal end of the right femur, the rest of the limb, including humerus and radius/ulna then extending either beneath or between the two sides of the ribcage. There was just one metacarpus, the left, and this was found, along with a full set of toes, adjacent to the neck vertebrae.

- 10.2.3 It can be seen that the majority of the skeleton was present in this deposit and that most of the parts are complete or nearly complete. There are omissions, most notably the right metacarpus, and, in the recorded list, Table 10.1, a series of smaller bones, which are probably absent due to recovery bias. Some bones are clearly damaged, which in the recorded collection is undoubtedly the result of recovery, and perhaps due to the noted re-deposition within the *in situ* skeleton. A notable aspect of the bones is the lack of any gnawing marks, which suggests an absence of scavenger activity, in turn indicative of fairly rapid and probably deep burial. This may contradict the shallow burial observed during the excavation process, however, the upper layers may well have been truncated in the years following their deposition in the early 18th century. Of some interest, concerning the various damaged bones is the obvious absence of the nuchal area of the skull. This would include the horncores, assuming this animal wasn't polled *i.e.* hornless. It is highly unlikely that this part would be absent for any reason other than deliberate removal.
- 10.2.4 There are two instances of butchery marks, with cleaver cuts to the anterior atlas and a major chop, possibly through the shaft of the right tibia close to the proximal end. The first exhibits grazing marks on the anterior/lateral margin chopped from a ventral direction, which undoubtedly resulted in the separation of the skull from the neck vertebrae. It is peculiar that no corresponding cuts were noticed on the occipital condyles, although the cleaver may have cut into the surrounding occipital bone rather than the condyle. Notably, much of the cranium was heavily fragmented during excavation, this breakage possibly obscuring the identification of cut marks. The tibia shaft was chopped from the medial side, at least two-thirds of the way through, possibly snapping through the remainder. In this case, unlike the skull, there was no apparent displacement, as shown by the articulation of this bone with the right femur (Figure 9 and Plate 10.2). It is unfortunate that the proximal end of this bone is in a poor state and thus it cannot be confirmed if the bone was indeed snapped through. However, the broken part of the shaft does appear to show new breakage.
- 10.2.5 This individual was clearly a moderately sized adult cow. Its sex is shown by the characteristics of the pelvis (after Grigson 1982) and no doubt confirmed by the presence of the calf skeleton (see below). The mandibular teeth are well worn (the first, second and third molars were at wear stages 'm', 'l' and 'l' respectively, after Grant 1982) indicative of an animal in excess of 5 years (after Maltby 1981, 182) and here confirmed by the state of fusion of the vertebrae, denoting an animal older than 7 to 9 years (Schmid 1972, 75). Size can be estimated from the average of the shoulder heights calculated from the various complete limb bones, which works out at 1264.1mm. This animal can be placed within the larger cattle entering the meat markets from the early post-medieval period, comparing for example the late medieval and 17th/18th-century cattle from Lincoln (Dobney *et al.* 1996, 143).
- 10.2.6 Finally, an additional note on the teeth, there is a congenital aspect, concerning the absence of the second mandibular adult premolar; and a pathological aspect, with an extended posterior wear surface in both the left and right maxillary adult molars seriously reducing the posterior cusps of the mandibular third adult molars (Plate 10.1); as well as marked alveolar depression on the lateral side of the right first and second adult molars.

<i>Skeletal Part</i>	<i>Description</i>	<i>Pathology/Modifications</i>
Skull/Mandible	Skull complete with exception of nuchal area, pair of mandibles.	Left and right - mandibular P2 congenitally absent and maxilla/mandibular M3 with exaggerated crown height; Right – notable alveolar depression on lateral side of mandibular M1 and M2.
Ribs	A total of 12 right, 8 left and 5 left/right counting proximal ends	
Vertebrae	A full complement of 7 cervicals, 13 thoracic and 6 lumbar, all fused, including the atlas and axis, all fused. Plus the sacrum and one caudal vertebra.	Heavy grazing chops to anterior/lateral margin on left hand side of atlas; and slight exostoses on anterior/ventral margin of one thoracic.
Foreleg - upper	Pair of scapulas and humerii, missing L scapula proximal end and proximal humerii fragmented. All fused	
Foreleg – lower	Pair of radius/ulna, 7 carpals, left metacarpus and two 1st, 2nd and 3rd phalanges, all fused	
Hindleg - upper	Pair of pelvis and femurs, former definitely female, all fused including pubic symphysis. Plus a pair of patellas	
Hindleg - lower	Pair of tibia and calcanei, left astragalus and navicular cuboid, two smaller tarsals, a pair of metatarsals and two 1st, 2nd and 3rd phalanges, all fused.	Chop almost through shaft of right tibia close to proximal end.

Table 10.1: Skeletal details of the adult skeleton



Plate 10.1: Detail of the mandibular pathology of the adult skeleton

The Calf Skeleton

- 10.2.7 This is less complete relative to the adult skeleton, although absences in this case are undoubtedly related to recovery. Most parts of the skeleton are represented but all are heavily fragmented, fresh breakage clearly suggesting that this took place at the lifting and processing stages. In addition, a variety of the smaller parts are absent, namely most of the carpals, tarsals and phalanges. The skeleton was found within the ribcage of the adult individual (note the mandible visible in Figure 9 and Plate 10.2) possibly continuing into the lumbar region. Its location, allowing some movement following decomposition, would appear to suggest that it was buried with the adult *in utero*. However, while this individual is clearly very young, as shown by the unfused state of the limb bones and in particular of the vertebrae, it does not show any typical foetal attributes (as displayed in Prummel 1987). The metapodial shafts are fused and most importantly, the mandibular deciduous teeth are all erupted, thus suggesting an age of about 1 month (after Simonds 1854, 62). Furthermore, while the first adult molar is at wear stage 'V' (visible but not yet erupted, after Grant 1982), the fourth deciduous premolar exhibits a slight degree of wear, indicative of an animal within about 1 and 4 months of age (after Higham 1967 in Amorosi 1989, 56).

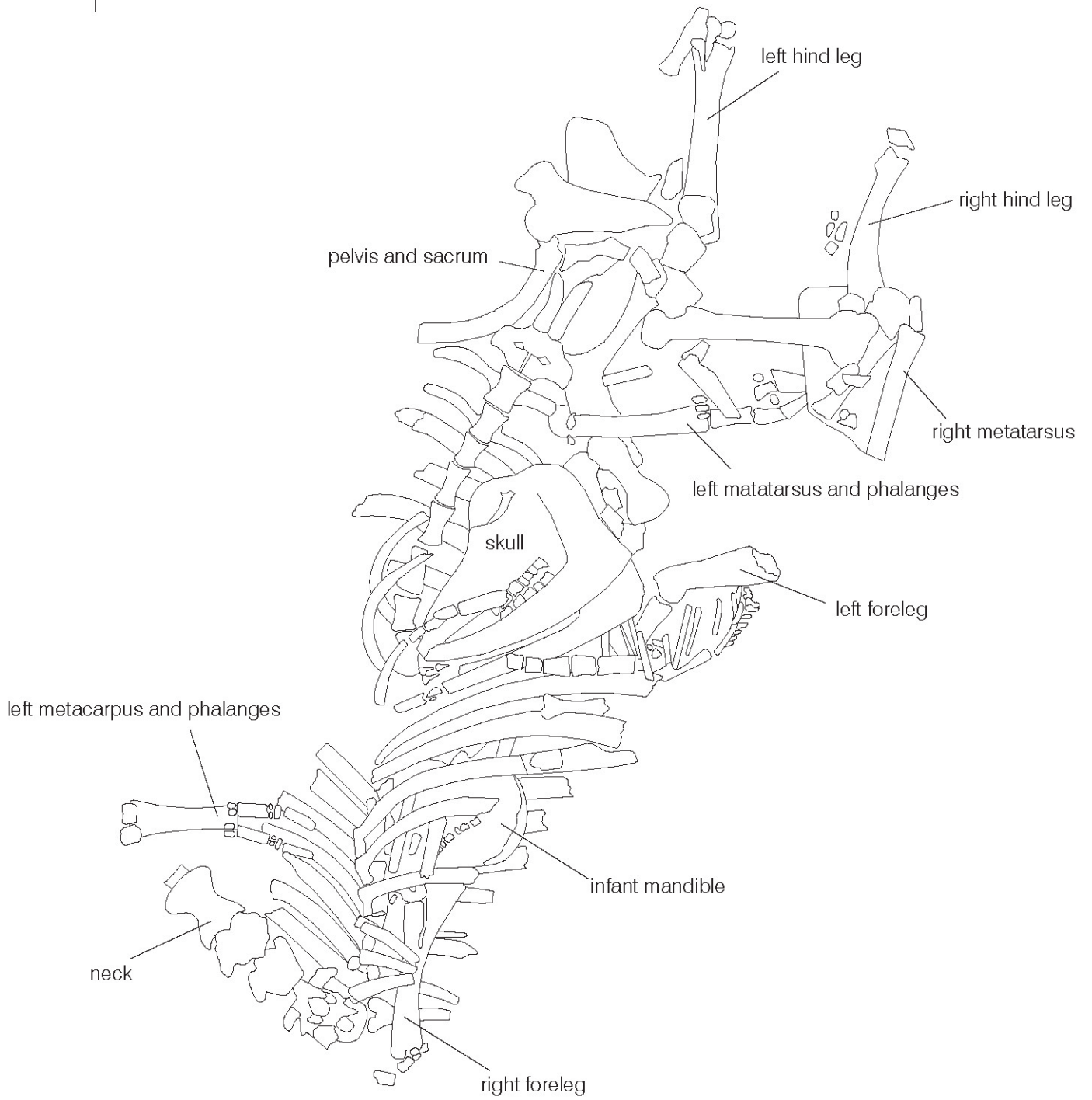
10.3 Discussion and Conclusions

- 10.3.1 The possible sequence of events leading up to the position of these two skeletons as revealed by this excavation, can be deduced from the distribution of the bones, the probable omissions and the butchery evidence. It was observed that the lumbar region of the vertebral column and the pelvic area is upside down *i.e.* with the ventral aspect of these bones uppermost. This would suggest that the carcass was deposited in such a way that the legs were pointing up. The head may have been removed prior to deposition and the same may also be true of the forelegs. It was noted that the calf skeleton was within the ribcage. To achieve this juxtaposition it would be necessary for this animal to be placed onto the ventral (underside) of the torso, the younger then entering the older animal as each carcass decomposed. The ribcage was found on its right side so it can be assumed that at some point, following decomposition, this part of the carcass rolled onto its side. The detached right foreleg appears to have followed the same route, whereas the left foreleg was placed alongside the right hindleg, which, again following decomposition, came to rest on top of the foreleg. The neck vertebrae are clearly unnaturally bent in respect to the rest of the vertebral column and this may relate to the shape of the hollow in which this animal was dumped. It is to be wondered if the head was removed at this point and then placed alongside or over the calf. This may have occurred following removal of the horns, probably in one piece including the nuchal area of the skull. Such butchery may be connected with skinning and it is perhaps significant in this respect that the metapodials were set apart from the rest of the carcass. It is well known that skins intended for the tanner during this period were removed from the carcass with the horns and feet still attached (Serjeantson 1989, 137). In this case, there was the usual separation of the skin by cutting through the posterior skull as well as through the carpal and tarsal joints, but the skin was sent off with just the horns and the feet were buried with the rest of the flayed carcass.

- 10.3.2 This must obviously remain a matter of conjecture owing to the absence of cut marks within the respective parts of the skeleton, however, as stated; it is difficult to envisage how the horns might have been removed by any other agency. There is also evidence to suggest the intention of further sub-division, as shown by the chop through or almost through the shaft adjacent to the right proximal tibia. Alternatively, the metapodials may have been displaced and, in the case of the right metacarpus, removed/destroyed by plough activity.
- 10.3.3 Whether the horns and/or skin were separated from the adult carcass, there is little doubt that little use was made of its post-mortem products. This would suggest that the meat was deemed unpalatable, perhaps diseased. Amongst various diseases afflicting domestic cattle during this period, the most likely culprit is rinderpest, a highly contagious virus disease of cattle, which has been thought to have been the cause of three long pandemics in 18th-century England (see Broad 1983, 104). The first, between 1709 and 1720 appears to have been centred on London and the Home Counties, while the second, 1742 to 1760 covered the entire country, with local sources noting cases in Northumberland by 1750. This date would clearly fit with the ^{14}C estimate, allowing for the 35 year margin of error. English outbreaks in the 18th and 19th centuries had mortality rates as high as 90% with death occurring between about 12 and 21 days of infection. Such a virulent disease would certainly account for the death and subsequent burial of these two animals, presumably representing a milch cow and her young calf. As the pandemic progressed, stringent laws were enforced, following the earlier outbreak, whereby all infected animals were slaughtered with compensation provided to the farmers so long as the infected animals were killed as soon as the symptoms appeared (*ibid.*, 106). Clearly this practise would not necessarily comply with the noted removal of certain parts of the carcass. However, it would appear, even when the virulent state of the contagion is plain to see, that certain farmers could not be prevented from making some use out of the condemned carcasses. A large collection of cattle skeletons, representing at least 42 adult animals, almost certainly culled during the early 18th-century rinderpest pandemic, were found at the British Museum in London. Notably, at least three of these showed butchery marks, generally interpreted as skinning cuts (Rielly 2011).



Plate 10.2: Overview of skeletal remains, looking west (scale 1m)



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Figure 9
Detail of cow skeleton
1:10 at A4

11. SUMMARY DISCUSSION OF THE ARCHAEOLOGICAL FINDINGS

11.1 Phase 1: Natural Sub-stratum

11.1.1 Glacially deposited Till represents the natural sub-stratum at the site.

11.2 Phase 2: Drainage Gullies

11.2.1 The earliest evidence for human activity recorded in Area A was represented by two narrow NNW-SSE aligned gullies located towards the south-eastern end of this area. No artefactual material was recovered, but soil samples produced traces of barley, wheat, including spelt wheat chaff, heath grass, heather and charcoal, including fragments identified as hazel and birch. These palaeoenvironmental remains give an indication of the crops that may have been cultivated in the area and some of the resources exploited. Interpretation of the function of these gullies is not certain due to their limited exposure and survival, but their profile and dimensions indicate that they are most likely to represent drainage gullies associated with prehistoric agricultural land use.

11.3 Phases 3 and 4: Enclosures 1 and 2

11.3.1 The drainage gullies were truncated by ditches interpreted as representing the north-eastern corners of two enclosures. Enclosure 1, the earlier of the enclosures, was bounded by a ditch which had evidently silted naturally and had become largely infilled, before being re-cut as a shallower feature. Soil samples from Enclosure 1 produced a similar range of palaeoenvironmental remains to those from the Phase 2 gullies. A fragment of alder charcoal recovered from a primary fill produced a radiocarbon age of 2,400 ± 30 BP (450 BC ± 30).

11.3.2 The ditch defining Enclosure 2 lay to the south of and was larger than the Enclosure 1 ditch, though it became markedly shallower and narrower towards both limits of excavation as a result of later plough truncation. Its north-western side lay on a slightly different alignment to that of Enclosure 1. A single fragment of quartz-gritted local traditional ware pottery was recovered from the primary fill of the ditch and a bulk soil sample produced small quantities of charred plant remains, including spelt wheat. As with Enclosure 1, the Enclosure 2 ditch appeared to have largely infilled with re-deposited natural material before being re-cut.

11.3.3 The evidence recovered from the 2007 geophysical survey and trenching evaluation recorded a small habitation enclosure to the north of the derelict buildings of Hilltop Farm, occupying a prominent position overlooking the steeply-sloping valley side of Pittington Beck. Such ditched enclosures, generally with east-facing entrances and containing one or two circular structures, are a well-recognised later prehistoric and Roman period settlement form in lowland areas and a concentration of this type of settlement occupies the coastal plains of Northumberland and Durham (Petts and Gerrard 2006, 36; Hewitt 2011, 52–61). Excavated examples in the near vicinity of Hilltop Farm include West House, Coxhoe, c. 8km south (Haselgrove and Allon 1982) and West Brandon, c. 12.5km south-west (Jobey 1962).

- 11.3.4 The two enclosures identified during the work herein described lay within c.100m to the north-east of the feature recorded in 2007 and it is reasonable to suggest that they were a closely associated, perhaps being ancillary enclosures associated with the habitation enclosure to the south-west. Little of the internal areas of the two enclosures were exposed, and scant artefactual material was recovered from their ditches, therefore it is not possible to be certain about their function. Recent extensive excavations at sites such as Pegswood Moor, located near Morpeth on the south Northumberland coastal plain, have shown that some settlements were set within wide complexes of fields systems and enclosures, which were evidently used for a variety of purposes (Proctor 2009). Ancillary enclosures thought to be for stock were also recorded at the Iron Age settlement at Thorpe Thewles, near Stockton-on-Tees (Heslop 1987). Alternatively, Enclosures 1 and 2 at Hilltop Farm may represent additional habitation enclosures; excavations at both East and West Brunton ahead of the Newcastle Great Park development revealed interconnecting habitation enclosures as well as habitation enclosures in close proximity to each other (Hodgson *et al.* 2012).
- 11.3.5 The palaeoenvironmental remains recovered from Hilltop Farm, which included wheat chaff and arable weeds, suggested that spelt wheat and barley were cultivated and processed at the site. This fits in with evidence from the wider region; the replacement of emmer wheat by spelt wheat represents agricultural intensification in the lowland region during the Iron Age period (van der Veen 1992). The charcoal assemblages indicate that several different species of wood were exploited, most commonly birch and oak, but with ash, hazel, alder willow/poplar also recorded. The common occurrence of birch charcoal, heather twigs and heath-grass remains may reflect a local landscape of lowland heathland. Scant artefactual evidence was recovered, and whilst this is no doubt largely due to the limited areas excavated, it is likely also to be a reflection of the limited material culture of the settlement; the nearby excavations at West Brandon and Coxhoe were noteworthy for the very small artefactual assemblages which they produced.

11.4 Phase 5: Post-Medieval

- 11.4.1 Traces of the Enclosure 2 ditch may have remained visible in the landscape into the post-medieval period, possibly as a shallow linear depression. The ditch was evidently not deliberately backfilled following disuse in the Late Iron Age/early Roman period, simply being left to naturally silt following abandonment.
- 11.4.2 Two cow skeletons, a calf and an adult female around 7–9 years old, were encountered in the upper part of the ditch in the corner of the former enclosure. The near completeness of the skeletons and a lack of butchery marks suggest that these animals were interred as nearly complete carcasses and the lack of gnaw marks on either animal suggest that they were buried quite rapidly after disposal. The adult cow had been decapitated with the head placed over the body behind the ribcage and the young calf was situated within the torso. While this individual was clearly very young, as shown by the unfused state of the limb bones, it was not in utero as it did not show any typical foetal attributes and the teeth suggest an age of at least one month. The adult carcass was deposited with legs pointing up and the calf had then been placed on the underside of the torso, so that upon decomposition the calf 'sank' into the adult body.

- 11.4.3 There were some butchery marks to suggest that the horns and/or skin were separated from the adult carcass, but there is little doubt that minimal use was made of its post-mortem products. This would suggest that the meat was deemed unpalatable, perhaps diseased. Radiocarbon dating carried out on a sample of the bone has given a date in the early to mid 18th century. Amongst various diseases afflicting domestic cattle during this period was the viral disease rinderpest, which has been thought to have the cause of three long pandemics in 18th-century England (see Broad 1983, 104). One of these, which ran from 1742 to 1760 covered the entire country, with local sources noting cases in Northumberland by 1750. Such a date would fit with the radiocarbon estimate, allowing for the 35 year margin of error.
- 11.4.4 Rinderpest is a highly infectious and lethal bovine disease that has been described as 'the most dreaded above all of animal contagions' (Spinage 2003). A physician noted in 1751 that, '*of late, we have had a very fatal experience of a most raging pestilential fever among our horned cattle, from a particular pollution in the air*' (Robinson 1751). In an attempt to control the spread of the disease, stringent laws were enforced whereby all infected animals were slaughtered with compensation provided to the farmers so long as the infected animals were killed as soon as the symptoms appeared (Broad 1983, 106). Any depression representing the ditch of the long abandoned enclosure would have provided a convenient location for the burial of the Hilltop Farm slaughtered animals, and subsequently the last remains of the ancient ditch would have been backfilled in order to bury the infected animals.
- 11.4.5 Very similar treatment of cattle has also been observed during excavations at St. Giles by Brompton Bridge, North Yorkshire. Five complete cattle skeletons of mid-18th-century date were found within pits; the legs of some of these had been chopped through in order to force them into the burial pits (Stallibrass 1993). The completeness of the skeletons and their location away from the inhabited buildings, as with Hilltop Farm (if the farmstead was in place by that date), made it apparent that these cattle had also died of some cause that meant their meat was considered unfit for consumption.

12. SUMMARY OF POTENTIAL FOR FURTHER ANALYSIS

- 12.1 The excavation undertaken at Hilltop Farm revealed archaeological remains dating from the Late Iron Age to early Roman period along with remains of post-medieval date that are of significance at a local and regional level. This assessment has demonstrated that further analysis of the archaeological data set is warranted, leading to publication of the results.
- 12.2 The archaeological results have the potential to target some of the key research priorities for the Iron Age period outlined in *Shared Visions: the North-East Regional Research Framework* (NERRF), particularly in regards to chronology (Research Priority Ii), settlement (Iii) and landscapes (Iiii) (Petts and Gerrard 2006, 135-138). The relative lack of closely datable material culture in the region during this period means that absolute scientific dating methods provide the best opportunity to establish a robust chronological framework. Recent work in the region has also shown that simple models of settlement morphology provide an inadequate chronology for later prehistoric settlement, further emphasising the need for absolute dating. The single sample of charcoal from Enclosure 1 produced a crucial result, giving a date at the beginning of the later Iron Age. The assessment has demonstrated that there is additional charred material available for AMS dating and it is recommended that a range of samples from Phases 2-4 features should therefore be submitted as part of the further phase of work, with the results detailed in a proposed publication.
- 12.3 The assessment has demonstrated the potential of bulk samples to contain small quantities of charred plant remains and these assemblages can provide information about the range of arable crops grown and processed at the site as well as information about the range of habitats in the vicinity of the site and the range of resources exploited across the wider landscape by the inhabitants of the Hilltop Farm settlement. Further analysis of the palaeoenvironmental assemblage is therefore recommended; the remaining unprocessed samples from Enclosures 1 and 2 should be processed for the recovery of charred plant remains, with the results detailed in the proposed publication.
- 12.4 The NERRF has highlighted the fact that little work has been carried out on lowland post-medieval rural sites or agricultural landscapes and the bulk of animal bone assemblages from the region have been recovered from urban sites (Petts and Gerrard 2006, 90). In lowland areas, particularly south-east Northumberland and southern Durham, agriculturalist experimenting with new crops, animal breeding, model farms and other agricultural innovations quickened the pace of agricultural change. The archaeology of post-medieval agriculture is of particular importance to understanding agrarian reform (Hewitt 2010, 91). The adult cow slaughtered and interred at Hilltop Farm was of a stature indicative of larger cattle entering the meat markets from the early post-medieval period. No further analysis work is needed on the cattle skeletons, but a detailed specialist report should be included with the proposed publication.
- 12.5 Some limited further analysis is required of the stratigraphic data, particularly the full integration of all phases of archaeological work undertaken at the site, *i.e.* the 2007 geophysical survey and trenching evaluation, focusing in particular on the evidence from the habitation enclosure.
- 12.6 The proposed further analysis of the data set will lead to the publication of a final paper in an academic outlet. This paper is required to place the findings in a broader archaeological context.

12.7 The proposed academic outlet is the *Durham Archaeological Journal*. The publication report/paper would, as a minimum, contain the following:

- Abstract: an introductory paragraph summarising the publication, particularly the main archaeological periods represented and the main findings and their significance.
- Introduction: the introduction will include the site location, and will set out the overall background to the investigations and outline the main methodologies employed.
- Geological and topographical background: this section will detail the geology and topography of the site.
- Archaeological background: this section will set the archaeological results in local and regional context, with particular focus on excavated enclosed settlements of the period.
- Excavated evidence: this core section of the paper will detail the results of the investigations and will include a synthesised description of all phases of archaeological investigation.
- Discussion: the discussion will propose an interpretation of the archaeological remains based on the recorded features.
- Illustrations: the paper will be illustrated, including: site and excavation area location plans; plan and section drawings of features; interpretative plans and photographs.

PART C: REFERENCES AND ACKNOWLEDGEMENTS

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- Durham Landscape* website, at: <http://www.durhamlandscape.info>

15. ACKNOWLEDGEMENTS AND CREDITS

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Faunal Assessment: Kevin Rielly

Other Credits

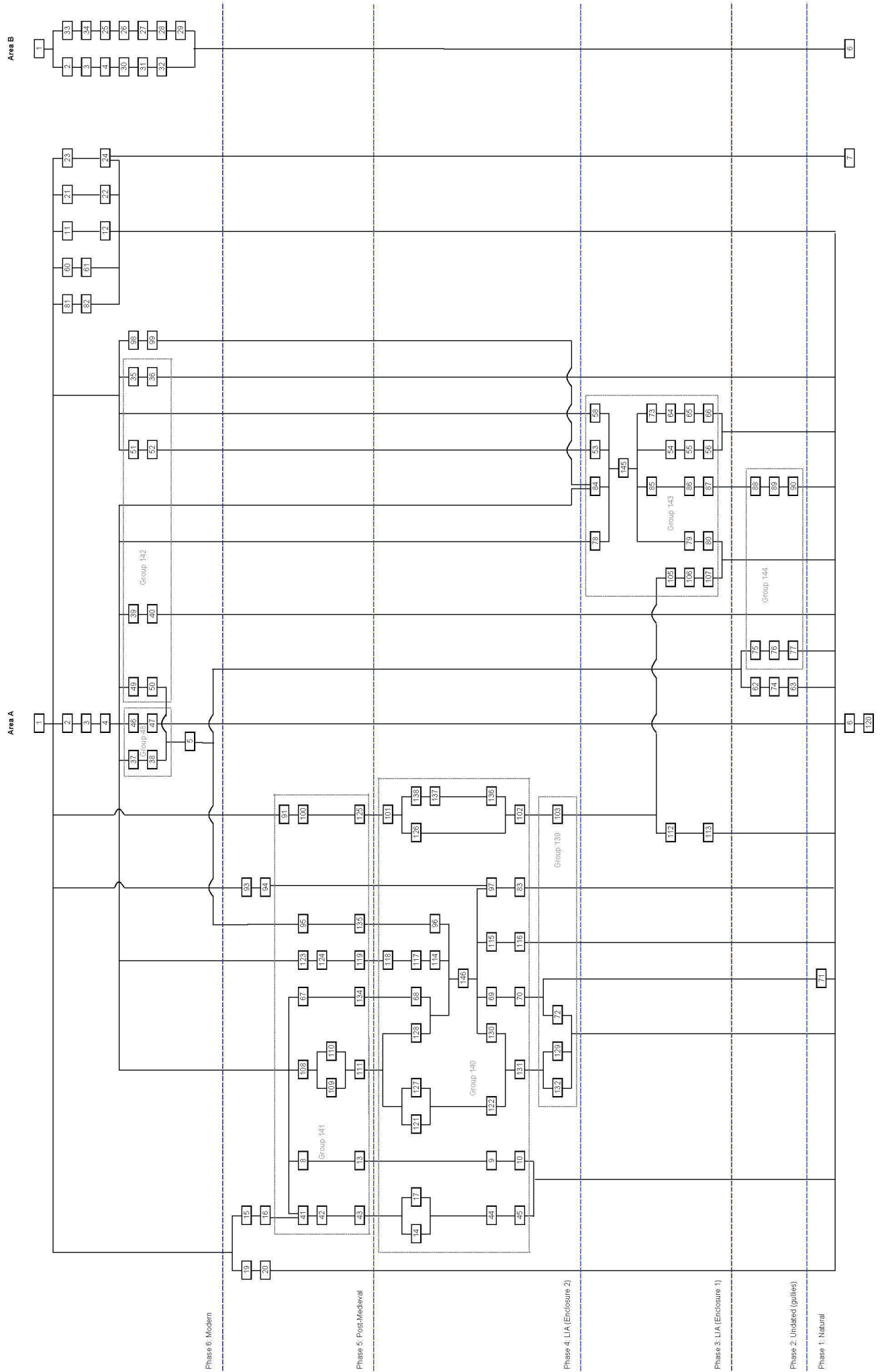
Pottery: Alex Croom (Tyne and Wear Museums and Archives)

Palaeoenvironmental Remains Assessment: Archaeological Services Durham University (work coordinated by Dr. Charlotte O'Brien)

Radiocarbon Dating: Scottish Universities Environmental Research Centre

APPENDIX 1
STRATIGRAPHIC MATRICES

HTF 12: STRATIGRAPHIC MATRICES



APPENDIX 2
CONTEXT INDEX

HTF 12: CONTEXT INDEX

Context	Same As	Group	Phase	Type 1	Type 2	Interpretation
1	-	-	6	Deposit	Layer	Ploughsoil
2	-	4	6	Deposit	Fill	Backfill of field drain system [4]
3	-	4	6	Deposit	Fill	Ceramic drains within field drain system [4]
4	-	4	6	Cut	Linear	System of field drains, with drains [3] and backfill [2]
5	-	-	6	Deposit	Layer	Sub-soil
6	-	-	1	Deposit	Layer	Natural clay sub-stratum
7	-	-	1	Deposit	Layer	Natural sub-stratum
8	41	141	5	Deposit	Fill	Fill of ditch re-cut [13]
9	44	140	4	Deposit	Fill	Fill of enclosure ditch [10]
10	45, 70, 83, 102, 116,	140	4	Cut	Linear	Enclosure ditch segment, filled by [9]
11	-	-	6	Deposit	Fill	Fill of machine impression [12]
12	-	-	6	Cut	Linear	Impression left by machinery, filled by [11]
13	43, 111, 119, 125, 134, 135	141	5	Cut	Linear	Re-cut of enclosure ditch [10], filled by [8]
14	17	140	4	Deposit	Fill	Fill of ditch segment [45]
15	-	-	5	Deposit	Fill	Fill of stakehole [16]
16	-	-	5	Cut	Discrete	Stakehole, filled by [15]
17	14	140	4	Deposit	Fill	Fill of ditch segment [45]
18	void	void	void	void	void	void
19	-	-	5	Deposit	Fill	Fill of pit [20]
20	-	-	5	Cut	Discrete	Pit, filled by [19]
21	-	-	6	Deposit	Fill	Fill of machine impression [22]
22	-	-	6	Cut	Linear	Impression left by machinery, filled by [21]
23	-	-	6	Deposit	Fill	Fill of machine impression [24]
24	-	-	6	Cut	Linear	Impression left by machinery, filled by [23]
25	-	-	6	Deposit	Fill	Fill of drain [29]
26	-	-	6	Deposit	Fill	Fill of drain [29]
27	-	-	6	Deposit	Fill	Fill of drain [29]
28	-	-	6	Deposit	Fill	Ceramic drainpipes within drain [29]
29	-	-	6	Cut	Linear	Drain trench, filled by [25], [26], [27] & [28]
30	-	32	6	Deposit	Fill	Root disturbance within boles [32]
31	-	32	6	Deposit	Fill	Root disturbance within boles [32]
32	-	32	6	Cut	Discrete	Group of tree root boles, filled by [30] & [31]
33	-	-	6	Deposit	Fill	Backfill of evaluation trench [34]
34	-	-	6	Cut	Discrete	2007 evaluation trench, filled by [33]
35	39, 49, 51	142	6	Deposit	Fill	Fill of machine impression segment [36]
36	40, 50, 52	142	6	Cut	Linear	Impression left by machinery segment, filled by [35]
37	46	48	6	Deposit	Fill	Fill of ditch segment [38]
38	47	48	6	Cut	Linear	Ditch segment filled by [37]
39	35, 49, 51	142	6	Deposit	Fill	Fill of machine impression segment [40]
40	36, 50, 52	142	6	Cut	Linear	Impression left by machinery segment, filled by [39]
41	8	141	5	Deposit	Fill	Fill of ditch re-cut [43]
42	-	141	5	Deposit	Fill	Fill of ditch re-cut [43]
43	13, 111, 119, 125, 134, 135	141	5	Cut	Linear	Re-cut of enclosure ditch [45], filled by [41] & [42]
44	9	140	4	Deposit	Fill	Fill of enclosure ditch [45]
45	10, 70, 83, 102, 116, 131	140	4	Cut	Linear	Enclosure ditch segment filled, by [14], [17] & [44]
46	37	48	6	Deposit	Fill	Fill of ditch segment [47]
47	38	48	6	Cut	Linear	Ditch segment, filled by [46]
48	-	-	6	Feature	Ditch	Group number for ditch
49	35, 39, 51	142	6	Deposit	Fill	Fill of machine impression segment [50]
50	36, 40, 52	142	6	Cut	Linear	Impression left by machinery segment, filled by [49]
51	35, 39, 49	142	6	Deposit	Fill	Fill of machine impression segment [52]
52	36, 40, 50	142	6	Cut	Linear	Impression left by machinery segment, filled by [51]
53	58, 78, 84	143	3	Deposit	Fill	Fill of enclosure ditch re-cut [145]
54	-	143	3	Deposit	Fill	Fill of enclosure ditch segment [56]
55	-	143	3	Deposit	Fill	Fill of enclosure ditch segment [56]

HTF 12: CONTEXT INDEX

Context	Same As	Group	Phase	Type 1	Type 2	Interpretation
56	66, 80, 87, 107	143	3	Cut	Linear	Enclosure ditch segment, filled by [54] & [55]
57	void	void	void	void	void	void
58	53, 78, 84	143	3	Deposit	Fill	Fill of enclosure ditch re-cut [145]
59	void	void	void	void	void	void
60	-	-	6	Deposit	Fill	Fill of root disturbance [61]
61	-	-	6	Cut	Discrete	Root disturbance, filled by [60]
62	-	-	2	Deposit	Fill	Fill of gully [63]
63	-	-	2	Cut	Linear	Gully, filled by [62] & [74]
64	-	143	3	Deposit	Fill	Fill of enclosure ditch segment [66]
65	-	143	3	Deposit	Fill	Fill of enclosure ditch segment [66]
66	56, 80, 87, 107	143	3	Cut	Linear	Enclosure ditch segment, filled by [64], [65] & [73]
67	108	141	5	Deposit	Fill	Fill of ditch re-cut [134]
68	128	140	4	Deposit	Fill	Fill of enclosure ditch re-cut [146]
69	130	140	4	Deposit	Fill	Fill of enclosure ditch segment [70]
70	10, 45, 83, 102, 116, 131	140	4	Cut	Linear	Enclosure ditch segment, filled by [69]
71	-	-	1	Deposit	Layer	Root disturbed natural clay
72	103, 129	139	4	Deposit	Layer	Occupation layer
73	-	143	3	Deposit	Fill	Fill of enclosure ditch segment [66]
74	-	-	2	Deposit	Fill	Fill of gully [63]
75	88	144	2	Deposit	Fill	Fill of gully [77]
76	89	144	2	Deposit	Fill	Fill of gully [77]
77	90	144	2	Cut	Linear	Gully, filled by [75] & [76]
78	53, 58, 84	143	3	Deposit	Fill	Fill of enclosure ditch re-cut [145]
79	86, 106	143	3	Deposit	Fill	Fill of enclosure ditch segment [80]
80	56, 66, 87, 107	143	3	Cut	Linear	Enclosure ditch segment, filled by [79]
81	-	-	6	Deposit	Fill	Fill of root disturbance [82]
82	-	-	6	Cut	Discrete	Root disturbance filled by [81]
83	10, 45, 70, 102, 116, 131	140	4	Cut	Linear	Enclosure ditch segment, filled by [96] & [97]
84	53, 58, 78	143	3	Deposit	Fill	Fill of enclosure ditch re-cut [145]
85	-	143	3	Deposit	Fill	Fill of enclosure ditch segment [87]
86	79, 106	143	3	Deposit	Fill	Fill of enclosure ditch segment [87]
87	56, 66, 80, 107	143	3	Cut	Linear	Enclosure ditch segment, filled by [85] & [86]
88	75	144	2	Deposit	Fill	Fill of gully terminus [90]
89	76	144	2	Deposit	Fill	Fill of gully terminus [90]
90	77	144	2	Cut	Linear	Gully terminus; filled by [88] & [89]
91	-	141	5	Deposit	Fill	Fill of ditch re-cut [125]
92	void	void	void	void	void	void
93	-	-	5	Deposit	Fill	Fill of posthole [94]
94	-	-	5	Cut	Discrete	Posthole; filled by [93]
95	-	141	5	Deposit	Fill	Fill of ditch re-cut [135]
96	114, 137	140	4	Deposit	Fill	Fill of enclosure ditch segment [83]
97	115, 136	140	4	Deposit	Fill	Fill of enclosure ditch segment [83]
98	-	-	6	Deposit	Fill	Fill of posthole [99]
99	-	-	6	Cut	Discrete	Posthole; filled by [98]
100	123	141	5	Deposit	Fill	Fill of ditch re-cut [125]
101	118	140	4	Deposit	Fill	Fill of enclosure ditch segment [102]
102	10, 45, 70, 83, 116, 131	140	4	Cut	Linear	Enclosure ditch segment, filled by [101], [126], [136], [137] & [138]
103	72, 129	139	4	Deposit	Layer	Occupation layer
104	void	void	void	void	void	void
105	-	143	3	Deposit	Fill	Fill of enclosure ditch segment [107]
106	79, 86	143	3	Deposit	Fill	Fill of enclosure ditch segment [107]
107	56, 66, 80, 87	143	3	Cut	Linear	Enclosure ditch segment, filled by [105] & [106]
108	67	141	5	Deposit	Fill	Fill of ditch re-cut [111]

HTF 12: CONTEXT INDEX

<i>Context</i>	<i>Same As</i>	<i>Group</i>	<i>Phase</i>	<i>Type 1</i>	<i>Type 2</i>	<i>Interpretation</i>
109	-	141	5	Deposit	Fill	Fill of ditch re-cut [111]
110	-	140	5	Deposit	Skeleton	Cow skeletons, within ditch [131]
111	13, 43, 119, 125, 134, 135	141	5	Cut	Linear	Ditch re-cut, filled by [108] & [109]
112	-	-	3	Deposit	Fill	Fill of pit [113]
113	-	-	3	Cut	Discrete	Pit, filled by [112]
114	96, 137	140	4	Deposit	Fill	Fill of enclosure ditch segment [116]
115	97, 136	140	4	Deposit	Fill	Fill of enclosure ditch segment [116]
116	10, 45, 70, 83, 102, 131	140	4	Cut	Linear	Enclosure ditch segment, filled by [114], [115], [117] & [118]
117	126, 138	140	4	Deposit	Fill	Fill of enclosure ditch segment [116]
118	101	140	4	Deposit	Fill	Fill of enclosure ditch segment [116]
119	13, 43, 111, 125, 134, 135	141	5	Cut	Linear	Ditch re-cut, filled by [123] & [124]
120	-	-	1	Deposit	Layer	Natural clay sub-stratum
121	127	140	4	Deposit	Fill	Fill of enclosure ditch segment [131]
122	-	140	4	Deposit	Fill	Fill of enclosure ditch segment [131]
123	100	141	5	Deposit	Fill	Fill of ditch re-cut [119]
124	-	141	5	Deposit	Fill	Fill of ditch re-cut [119]
125	13, 43, 111, 119, 134, 135	141	5	Cut	Linear	Ditch re-cut, filled by [91] & [100]
126	117, 138	140	4	Deposit	Fill	Fill of enclosure ditch segment [102]
127	121	140	4	Deposit	Fill	Fill of enclosure ditch segment [131]
128	68	140	4	Deposit	Fill	Fill of enclosure ditch re-cut [146]
129	72, 103	139	4	Deposit	Layer	Occupation layer
130	69	140	4	Deposit	Fill	Fill of enclosure ditch segment [131]
131	10, 45, 70, 83, 102, 116	140	4	Cut	Linear	Enclosure ditch segment, filled by [110], [121], [122], [127], [130]
132	-	139	4	Deposit	Layer	Occupation layer
133	void	void	void	void	void	void
134	13, 43, 111, 119, 125, 135	141	5	Cut	Linear	Ditch re-cut, filled by [67]
135	13, 43, 111, 119, 125, 134	141	5	Cut	Linear	Ditch re-cut, filled by [95]
136	97, 115	140	4	Deposit	Fill	Fill of enclosure ditch segment [102]
137	96, 114	140	4	Deposit	Fill	Fill of enclosure ditch segment [102]
138	117, 126	140	4	Deposit	Fill	Fill of enclosure ditch segment [102]
139	-	-	4	Feature	Layer	Occupation layer
140	-	-	4	Feature	Ditch	Enclosure ditch
141	-	-	5	Feature	Ditch	Enclosure ditch re-cut
142	-	-	6	Feature	Linear	Machine impression?
143	-	-	3	Feature	Ditch	Enclosure ditch
144	-	-	2	Feature	Linear	Machine impression?
145	-	143	3	Cut	Linear	Re-cut of Enclosure 1, filled by [53], [58], [78] & [84]
146	-	140	4	Cut	Linear	Re-cut of Enclosure 2, filled by [68], [97], [114], [115], [128] & [130]

APPENDIX 3
PHOTOGRAPHIC PLATES



Plate 1: Phase 2, gully [63], looking south (*scale 1m*)



Plate 2: Phase 2, south-west facing section of gully [77] (*scale 0.5m*)



Plate 3: Phase 3, Enclosure 1 ditch [66], looking WSW (*scale 1m*)



Plate 4: Phase 3, Enclosure 1 ditch [80], looking south-west (*scale 1m*)



Plate 5: Phases 4 & 5, Enclosure 2 ditch, [131] with post-medieval deposit in upper part of ditch, looking south-east (*scale 1m*)



Plate 6: Phases 4 & 5, NNW facing section of Enclosure 2 ditch [131] with post-medieval deposit in upper part of ditch (*scale 1m*)



Plate 7: Phase 5, cattle burial [110], looking north-west (*scale 1m*)



Plate 8: Working shot, excavation of cattle burial, looking south-west



Plate 9: Working shot, machine clearance of overburden for Area A extension, looking south



Plate 10: Working shot, recording Enclosure 2, looking south-east

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