

FORCE GARTH PASTURE

FOREST IN TEESDALE

COUNTY DURHAM

Archaeological Survey Report



Oxford Archaeology North

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Mr and Mrs Scott, and Natural England

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SUMMARY

Oxford Archaeology North (OA North) was invited by Tom Gledhill, Natural England, on behalf of Mr and Mrs Scott, the tenants of East Force Garth Farm, to undertake an archaeological survey and analytical study of the settlement remains at Force Garth Pasture, in Upper Teesdale, County Durham (centred at NY 8782 2854). The survey area comprised 36.49 hectares of land to the south and east of East Force Garth Farm. Over half of the survey area (20.35 hectares) forms a Scheduled Monument (SM 33490), consisting of a palimpsest of extant multi-period archaeological settlement features, field systems, and industrial remains. The area is also of exceptional ecological interest, including areas of both species-rich hay meadow and wood pasture and, consequently, forms part of the Moorhouse – Upper Teesdale National Nature Reserve. The survey and analytical study will guide and support the long-term management of the scheduled monument and surrounding land under an Uplands Higher Level Stewardship agreement.

Within the study area are two sites, Force Garth North and Force Garth South, which were excavated in the 1970s by Denis Coggins and Ken Fairless. The field systems surrounding the settlements were identified at the same time but were only subject to sketched survey rather than a detailed metric survey. Evidence for metalworking was identified during the excavations of both enclosed settlements, and was part of more widespread evidence for industrial extraction and working of iron resources in the Upper Teesdale valley. The area of Force Garth Pasture, and the immediately surrounding fields, contain extant remains of at least five (as yet undated) metalworking sites, located along watercourses. Smithing evidence was retrieved both in the excavation of hearths, within the round houses at Force Garth North (Coggins 1986, 46), but also from a slag heap adjacent to the nearby Simy Folds settlement.

The survey has highlighted a rich archaeological resource at Force Garth Pasture that is of national importance as befits the protective scheduling of the central areas of the field systems. The surviving surface remains consist of complex remains of both circular- and rectilinear-founded settlement sites associated with extensive field systems. The latter are of considerable archaeological importance, being multi-period and retaining evidence of considerable modification. In the survey area, various components of the field systems, in the form of both regular and irregular field plots and lynchetted strip fields, survive as an agglomerated patchwork of earthworks. These are evident not only within the semiimproved grazing land in the south but, importantly, are also found within the lowland improved areas. The field plots form a pattern of relatively regular, and similarly-sized, trapezoidal enclosures that were each sub-divided into smaller plots. There is also evidence for a simple small cairnfield in one of these enclosures; however, this may relate to industrial processes rather than field clearance. The provision of stock shelters and folds on the boundaries, would suggest that, subsequently, the regular field plots may have served as pastoral enclosures; it is probable that there has been mixed agricultural use within the field plots over an extended period.

The survey area also contains dispersed evidence for rectilinear building remains within the field systems, and the origins of these are, on morphological grounds, typically in the medieval period. There is a loose grouping of up to three platformed longhouses with associated ancillary structures, paddocks/yards and a droveway surviving to the east of the current farm. A single possible sub-rectangular shieling structure was identified which may

point to a transhumant occupation and was removed slightly from the areas of permanent settlement and agriculture that were potentially contemporary.

Putative industrial remains survive within the survey area and though they are a relatively small resource, they are potentially significant. There was excavated evidence for iron slag debris indicating that iron smithing was being undertaken at the enclosed settlements. Nearby are two separate earthwork sites that were located on the south side of Smithy Beck, consisting of a sub-rectangular enclosure surrounded by a small cairnfield and a scoop and adjacent spoil heap. Although they have not been thoroughly investigated, these sites could potentially be associated with, as yet undated, metalworking/smelting.

ACKNOWLEDGEMENTS

Oxford Archaeology North would like to thank Mr and Mrs Scott and Tom Gledhill, Natural England, for commissioning the project. We would also like to thank Durham County Council Historic Environment Record (HER) and the staff of the County Record Office, Durham, and Durham University Library Archives and Special Collections.

The desk-based research was undertaken by Alastair Vannan, and the survey was undertaken by Peter Schofield. The report was written by Peter Schofield and Alastair Vannan and the illustrations were by Anne Stewardson. The report was edited by Jamie Quartermaine, who also managed the project.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

1.1.1 Oxford Archaeology North (OA North) was invited by Tom Gledhill, Natural England, on behalf of Mr and Mrs Scott, the tenants of East Force Garth Farm, to undertake an archaeological survey and analytical study of the settlement remains at Force Garth Pasture, in Upper Teesdale, County Durham (centred at NY 8782 2854). The survey area comprised 36.49 hectares of land to the south and east of East Force Garth Farm. Over half of the survey area (20.35 hectares) forms a Scheduled Monument (SM 33490), consisting of a palimpsest of extant multiperiod archaeological settlement features, field systems, and industrial remains. The area is also of exceptional ecological interest, including areas of both species-rich hay meadow and wood pasture and consequently forms part of the Moorhouse – Upper Teesdale National Nature Reserve.

1.2 AIMS AND OBJECTIVES

- 1.2.1 **Aims:** the aim of the project was to provide analytical field survey of Force Garth Pasture that will inform the long-term management of the sites and monuments within the land holding and their immediate environs. The survey presents a thorough descriptive record of the archaeological monuments, and an understanding of the history and formation of the field systems and settlements which will aid the long-term management and interpretation of the scheduled monument and surrounding land under an Uplands Higher Level Stewardship agreement.
- 1.2.2 This was achieved by the production of a combination of a Level 3 survey (as defined by English Heritage (Ainsworth *et al* 2007)) in the core area of the Romano-British settlement sites within the Scheduled Monument (Fig 1) and a Level 2 Survey of the rest of Force Garth Pasture. The surveys were produced at scales from 1:500 to 1:2500 depending upon the detail level of survey. The result of the survey, were informed and augmented by a desk-based study in order to produce a descriptive and analytical report.
- 1.2.3 *Objectives:* the objectives of the project were the specific stages of work that would be necessary to enable the project aims to be fulfilled; these comprised:
 - Outline Desk-based Search: the outline desk-based search provides an appropriate archaeological and historical context for the landscape development of the survey area, and previous research therein and, therefore, a contextual basis for the analytical report and management recommendations;
 - Level 3 Survey at 1:500: a Level 3 analytical earthwork survey, as defined by English Heritage (Ainsworth et al 2007), of the 8.15 hectare core area of Force Garth Pasture centred upon the Iron-Age/Romano-British settlements and field system adjacent to Smithy Sike;
 - Level 2 Survey at 1:2500: a Level 2 analytical earthwork survey, as defined by English Heritage (Ainsworth et al 2007), of the 28.34 hectare area

- encompassing the parts of Force Garth Pasture surrounding the Level 3 core survey area;
- Report Production: a descriptive and analytical report, including plans and photographs, that presents the results of the surveys and the desk-based assessment, and subsequent management recommendations. A site archive produced to English Heritage guidelines (1991) and in accordance with the Guidelines for the Preparation of Excavation Archives for Long Term Storage (UKIC 1990);

2. METHODOLOGY

2.1 Introduction

2.1.1 The project comprised a programme of outline desk-based search, and analytical earthwork surveys at Levels 2 and 3, as defined by Ainsworth *et al* (2007).

2.2 OUTLINE DESK-BASED STUDY

- 2.2.1 This element of the study obtained pertinent background information, and drew upon historical mapping and database sources. These included an appraisal of the information held in the Durham County Council Historic Environment Record (HER), as well as appropriate sections of County histories, early maps, primary documentation, such as tithe and estate plans, and published documentary sources. The work accessed the following repositories: Durham County Council HER; Durham Record Office; Durham University Library; and the OA North library.
- 2.2.2 The outline study informs the discussion of specific points of interest and concern in relation to physical remains that will form the basis of the management recommendations for the site. A description and critical review of previous research, excavation, and conservation works was undertaken.
- 2.2.3 A study area that extended approximately 250m beyond the land holding was examined. All identified sites of archaeological interest have been integrated into the Historical and Archaeological Background (*Sections 3.2 and 3.3*) and the location of these sites is shown in Figure 2.
- 2.2.4 Several sources of information were consulted as part of the assessment, which have provided a good understanding of the developmental history of the study area. Archive sources that were consulted include:
 - **Durham County Council Historic Environment Record (DCCHER)**: the Historic Environment Record (HER) was consulted in order to establish the presence of previously identified heritage assets within a 250m radius of the land holding;
 - **Durham County Record Office, Durham**: the record office holds cartographic and documentary sources relating to the study area. These were examined to provide a general historical perspective on the sites;
 - **Durham University Library:** the special collections held by the library include documents relevant to the study area, such as the Forest and Frith tithe map were examined;
 - National Monument Record (NMR): the NMR is a national resource that holds data on the historic environment from a variety of sources. Baseline data on sites and excavations can be accessed via their internet portal. The resource is complementary to the HER and, although the two databases may hold the same information for the most part, the NMR may sometimes contain additional sites, particularly those recognised from aerial photograph interpretation, and also holds copies of historic aerial photographs;

- *OA North Library*: OA North has an extensive archive of secondary sources relevant to the study area, as well as numerous unpublished client reports on work carried out both as OA North and in its former guise of Lancaster University Archaeological Unit (LUAU). These were consulted where necessary.
- 2.2.5 Aerial Photographic and LiDAR plotting: Im resolution LiDAR mapping was available for the study area, which comprised very detailed terrain modelling data produced by laser scanning the ground from an aircraft. The LiDAR data was obtained in ASCII format, which allows considerable manipulation of the model, including exaggeration of the vertical axis to enhance the earthwork remains. The LiDAR has provided a basis for the interpretation and recording of the landscape.
- 2.2.6 A specially commissioned aerial photographic sortie was undertaken, using a motorglider, to provide oblique detailed aerial photographs of the study area. Selective images from this sortie illustrate the present report.

2.3 IDENTIFICATION SURVEY

- 2.3.1 The survey was undertaken at two different scales: Level 2 and Level 3 surveys as defined by Ainsworth *et al* (2007), each with a differing range of associated tasks and degrees of detail.
- 2.3.2 **Level 3 Survey at 1:500:** an 8.15 hectare area in the centre of Force Garth Pasture was subject to a highly detailed survey. The Level 3 detailed survey provided a record of all features of archaeological interest within the core area of the Force Garth Pasture (Fig 1), containing both Force Garth North and South settlements and their surrounding field systems. This has been output at a scale of 1:500.
- 2.3.3 *GPS Survey:* the Level 3 survey was undertaken using a survey grade differential GPS. The GPS is a Leica 1200 differential system and uses Ordnance Survey base stations in conjunction with a roving station to correct the raw data with corrections transmitted by mobile phone. The accuracy of the OA North GPS system is capable of +- 0.02m and provides for a quick and effective means of generating detailed survey data.
- 2.3.4 Drawing Up: the raw data from the GPS was combined with LiDAR data within a CAD system and plots were generated to enable the sites within the field to be drawn-up. The archaeological detail was drawn-up in the field as a dimensioned drawing on the plots with respect to survey markers. On completion of the field survey, the drawings were enhanced within the CAD environment to produce the final drawings. The earthworks were depicted with hachures and, where possible, the stratigraphic relationships between features have been indicated. Full ground modelling of the earthworks was not undertaken, although contours, from LiDAR data, can be depicted at appropriate intervals to show the relationship of the features of archaeological interest to the natural topography.
- 2.3.5 Level 2 Survey at 1:2500: a 28.3 hectare area, encompassing the rest of Force Garth Pasture outwith the centre of the landholding, was surveyed at a scale of 1:2500. The area had been noted previously as containing disparate surviving evidence of field systems and archaeological features. The survey of these additional elements aided in the construction of a contextual framework within which to understand the development and phasing of the rest of the field system.

- 2.3.6 LiDAR and GPS Recording: the level 2 survey was undertaken using a combination of LiDAR data and survey grade GPS recording. LiDAR has the ability to identify and record very subtle archaeological features and, in some instances, can identify features not evident from a ground inspection. It is particularly useful in recording within woodland as the DTM tiles will exclude vegetation and depict the underlying earthworks, whereas GPS recording techniques are severely limited by woodland cover. However, in other instances the 1m resolution LiDAR can omit obvious ground features. Using both the LiDAR and GPS ground survey provides an effective tool for recording features at Level 2.
- 2.3.7 **Photography:** in conjunction with the archaeological survey a photographic archive was generated, which recorded significant features, as well as aspects of the general landscapes. This photographic archive was maintained using black and white 35mm film and a digital camera with 8.0 mega pixel resolution.
- 2.3.8 **Description:** the site descriptions were written into a *pro forma* format and incorporated all pertinent details. The recording of the archaeological sites comprised a written description, including accurate ten figure National Grid References and a provisional interpretation of the function and chronology of the individual sites. The descriptions were linked to the historical records for individual features obtained through the documentary review. The description included the following fields:
 - HER number;
 - Form;
 - Site Name
 - NGR:
 - Site Description;
 - Monument Type;
 - Period:
 - Interpretation;
 - Dimensions;
 - Condition;
 - Surveyor;
 - Date of survey.

2.4 ARCHIVE

2.4.1 *Archive:* the results of the management programme form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (1991). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. This archive will be provided in the English Heritage Central Archaeological Services format. A synopsis (normally the index to the archive and the report) should be placed in the Durham County Historic Environment Record. The archive will include the raw

survey digital data in AutoCAD 2004 format. A summary of the work will be provided for OASIS (Online AccesS to the Index of archaeological investigations).

3. DESK-BASED ANALYSIS

3.1 Introduction

3.1.1 This section provides the background for the general area centred on Force Garth Pasture.

3.2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 3.2.1 Force Garth is situated *c* 7km to the north-west of Middleton-in-Teesdale, within the Upper Teesdale valley in County Durham. The study area encompasses approximately 0.36km² and comprises an area of enclosed woodland and improved pasture that rises gradually in height from 300m to 370m (aOD) within part of a loop of the River Tees. The river runs to the south of the study area and the improved fields of Ettersgill and Forest-in-Teesdale separate the study area from the open fells of Langdon Common. The local topography of the area comprises the gently sloping pastoral fields associated with Force Garth Farm, which are bounded to the north-west by conspicuous craggy outcrops.
- 3.2.2 The area is tightly constrained by the topography, including a fast-flowing river that is difficult to cross even in periods of low water, constraining access to the south. The bridges at Hill End and Holwick Head currently provide access across the river, but in antiquity the river would have presented a formidable natural barrier. The adjacent High Force waterfall would have restricted movement along the river and historically, communications along the Tees valley have been along the north-eastern side of the river, coinciding with the present day B6277 road.
- 3.2.3 *Geology:* the study area is within the geological area known as the Alston Block, which is a structural unit consisting of a succession of Carboniferous sedimentary rocks (Countryside Commission 1998, 45-7). Older, mainly Ordovician, mudstones and volcanic rocks underlie the Carboniferous rocks and outcrop along the foot of the Pennine escarpment and in a very small inlier in Upper Teesdale.
- 3.2.4 A large horizontal body of igneous dolerite rock, known as the Whin Sill, intrudes into the Carboniferous rock. The dolerite is extremely resistant to erosion and the outcrops are marked by striking sombre, dark, columnar-jointed crags, such as those nearby at Holwick Scars (*ibid*). The resistance of the dolerite to erosion means that, where crossed by the river Tees, the Whin Sill gives rise to well-known and spectacular waterfalls, such as High Force. The hard rock quartz dolerite is exploited by the nearby Force Garth Quarry, where the depth of the intrusive band is estimated to be 25m-30m thick (Cemex UK 1994) and forms the underlying geology across the extent of the study area.
- 3.2.5 The intrusion of the hot Whin Sill altered the adjacent rocks and, locally, in Upper Teesdale, wide areas of limestone were baked to form a coarse-grained marble, known today from its highly distinctive weathering as 'sugar limestone'. The rocks of the North Pennines also host numerous mineral veins which carry ores of lead, zinc and, in a few places, a little copper (*ibid*). These ores are associated with minerals, such as fluorite, baryte and witherite. The bedrock, ores, and minerals have all been historical *focii* of extraction (*ibid*).

3.2.6 **Soils and Geomorphology:** the rock is characterised as having a low primary permeability (Cemex UK 1994), which means that by comparison with adjacent limestone and sandstone areas it will not naturally drain water and encourages the development of peat in low lying areas. By contrast in higher areas there is a tendency for run-off and soils can be shallow and prone to dessication (T Gledhill pers comm). This contrasts with adjacent areas, such as in upper Lunedale, and in Teesdale below the Whin Sill, where there are deep deposits of rich glacially deposited tills which provide fertile soils, giving rise to biodiversity and has encouraged settlement (*ibid*). It is perhaps a reflection of the geological characteristics of the Force Garth area that has allowed the survival of its early settlement remains. Because lower Holwick, for example, has had better soils it has been more intensively exploited, particularly in the medieval period, whereas at Force Garth the absence of intensive subsequent cultivation has allowed the survival of Roman / prehistoric remains on the surface.

3.3 HISTORIC BACKGROUND

3.3.1 The following section presents a summary of the historical and archaeological background of the general area. This is presented by period, and has been compiled in order to provide a general context within which to understand the results of the landscape survey.

Period	Date Range
Palaeolithic	30,000 – 10,000 BC
Mesolithic	10,000 – 3,800 BC
Neolithic	4000 – 2,500 BC
Bronze Age	2,500 – 700 BC
Iron Age	700 BC – AD 43
Romano-British	AD 43 – AD 410
Early Medieval	AD 410 – AD 1066
Late Medieval	AD 1066 – AD 1540
Post-medieval	AD 1540 – <i>c</i> 1750
Industrial Period	cAD1750 – 1901
Modern	Post-1901

Table 1: Summary of British archaeological periods and date ranges

3.3.2 *Mesolithic Period:* during the Mesolithic period the inhabitants of the British Isles employed a subsistence strategy viewed traditionally as the exploitation of natural resources by activities based on hunting, gathering, and fishing. Only one excavated site in Upper Teesdale, at Middle Hurth, has yielded Mesolithic material, although numerous scatters of worked flints dating to this period have been identified (Coggins 1986, 10; 151-2). This site lay 2km to the north of the study area, and consisted of a low irregular mound located on a limestone shelf below Teesdale Cave, close to the boundary between enclosed fields and the open fells of Langton Common. The excavations revealed 350 late Mesolithic flints, including a whetstone, perforated stone hammer, and microliths (*op cit*, 10; 108). A probable temporary hunting camp, located at Staple Crag, which lies close to the River Tees 200m downstream of Wynch Bridge, incorporated over 200 flint and chert flakes and some microliths which were recovered from an area where erosion

- had occurred. The worked stone came from the sand and gravels that underlay alluvium in this area (op cit, 10; 118).
- 3.3.3 It has been suggested by pollen studies that Mesolithic activity in the area might have been associated with the exploitation of an open wooded environment; the Mesolithic population might have spent the winters on the coastal plains and utilised Upper Teesdale during the summer, when aurochs would have migrated into the area. The forest edge in Teesdale would have provided a rich and diverse environment for the exploitation of wild resources and base camps might have occupied lower ground, with hunting camps on higher ground where cattle grazed (*op cit*, 11-17).
- 3.3.4 **Neolithic Period:** there is little definitive evidence for sites of Neolithic date in Upper Teesdale, although a small field system at Strands Gill, on Holwick Scars, might represent Neolithic activity. However, several stone axes, utilising several different types of stone and flint, have been found within Upper Teesdale, including examples from Forest-in-Teesdale and the commons to the west and north-west of this area (*op cit*, 18-19; 152). Pollen evidence suggests that the relatively open local woodland that characterised the Mesolithic landscape was replaced by open grassland and peat from approximately 3000 BC and that this is likely to have resulted from clearances by people practising agriculture (*op cit*, 21). Neolithic settlement appears likely to have favoured the zone at the edge of the forest, on land lying between 305m and 457m (aOD); however, no Neolithic sites have been identified in the immediate vicinity of the study area.
- 3.3.5 **Bronze Age:** sparse artefactual evidence for Bronze Age activity in Upper Teesdale exists in the form of finds of a sherd of beaker pottery, two jet beads, eight barbed and tanged arrowheads, two flanged axes, and a socketed spearhead (op cit, 27-8; 33); one bronze axe (Site 10) was found at Force Garth Quarry. Although few artefacts of this date have been found, pollen analyses suggest that a period of woodland clearance began in the local area during the Early Bronze Age (op cit, 29). The morainic ridge of Bracken Rigg, on the southern bank of the River Tees and approximately 1km to the west of the study area, is occupied by a settlement of likely Middle-Bronze-Age date comprising an L-shaped enclosure and a round house (op cit, 30). Several settlement sites that have not yet been closely dated, but which could represent Bronze Age activity, occur at heights of between 335m and 457m in Upper Teesdale, although most of these lie to the south of the river.
- 3.3.6 No existing Bronze Age funerary or ritual monuments are known in Upper Teesdale, although a burial barrow was excavated (and apparently destroyed) in the Holwick area in 1867. A round barrow was once also located on a knoll at Kirk Carrion, to the south of Middleton, but has also been destroyed (Coggins 1986, 26-9). A large oval mound at Barney Byre, to the south-west of Middleton, might also be a barrow (*op cit*, 24). Carr Crags, to the north-east of the study area at Newbiggin Common, features groups of recumbent stone slabs forming a double row, a semi-circle, or damaged circle, and other irregular, or currently unrecognisable, patterns (*op cit*, 22-4). These stones feature cup-marks and appear to represent prehistoric megalithic monuments decorated with petroglyphs. At Wynch Bridge, near Holwick, was a Bronze Age type of round cairn and there is a possibility that the enclosed settlement there had its origins in the Bronze Age (OA North 2011, 65).

- 3.3.7 **Iron Age:** the consideration of late-prehistoric activity in Upper Teesdale by Coggins (1986, 33) suggests, as has been demonstrated in other areas, considerable continuity between the late Bronze Age and Early Iron Age, which could mean that sites of these dates are typologically indistinguishable. The paucity of finds of this period might reflect a preference for objects made from organic materials, which are rarely preserved in the archaeological record (*ibid*). However, there was identified the upper part of a quern stone without provenance but which is likely to have been found in Upper Teesdale, and could potentially be of Iron Age date; it is now situated in a garden in Newbiggin (*op cit*, 34). A possible vessel made from turned shale or jet was found at Simy folds, to the south of the River Tees (*ibid*).
- 3.3.8 Pollen evidence suggests that forest clearance became more widespread after the middle of the first millennium BC, and was almost certainly influenced by climatic changes (op cit, 35). Three excavated sites have demonstrated evidence of Iron-Age activity: a mound at Middle Hurth appears to have been used for the deposition of cremations during the Iron Age. Simy Folds is a multi-period site lying to the south of the River Tees that includes an extensive field system and evidence of farmsteads, and radiocarbon dating of charcoal from a hearth suggests that at least some of these features might be of Late-Bronze-Age or Iron-Age date (op cit, 35). Dubby Syke, now inundated by Cow Green reservoir, to the west of the study area, included a ring cairn and a complex of circular buildings with associated enclosures and charcoal which were dated to the Late Iron Age (op cit, 36). A cave in the vicinity of Middle Hurth, 2km to the north of the study area, was used as a site of undated occupation although it has been suggested (op cit, 37-8) that this could potentially have related to Iron Age activity. The assemblage within the cave included a wide variety of mammal bones, including charred sheep bones, and a decapitated human skeleton, the skull of which had been placed in a narrow fissure within the cave (*ibid*).
- 3.3.9 The long-term continuity of use of late-prehistoric settlements, and the style of such settlements, is demonstrated by Bracken Rigg, to the west of the study area, and Force Garth Pasture South and North (Sites 12 and 13, Plate 1). These sites have revealed evidence of enclosed and unenclosed circular houses with stone foundations dating to between 1200 BC and AD 250, which demonstrates the difficulty in closely dating such sites from field survey alone (*op cit*, 39).



Plate 1: an oblique aerial view of the settlements at Force Garth Pasture North (Site 13) and South (Site 12) (left and right sides of the image, respectively), looking north-east (Past Perfect 2011)

- 3.3.10 A field system of possible Iron-Age date (Site 8) lies to the north-east of Force Garth Farm. The putative and demonstrable sites of late-prehistoric date in Upper Teesdale are almost all between 330m and 549m (aOD). Pasture Foot (Site 17), to the south of the River Tees, might also include phases of occupation dating to the Iron Age.
- 3.3.11 **Romano-British Period:** few finds of Romano-British date are known from Upper Teesdale, although a hoard of early fourth-century coins was found close to High Force in the nineteenth century and a bronze shield boss of possible Romano-British date was also found in this area (*op cit*, 42-3). A pair of quern stones and fragments of two further querns of uncertain date (Sites **06**, **07**, and **09**) were found within the study area. Two of these were found within the area of Force Garth Quarry, to the north of the study area; it is possible that a further Romano-British settlement in this area was destroyed by High Force Quarry, to the north of the study area, as one house of the putative settlement is now visible near the quarry edge (*op cit*, 44; 47).
- 3.3.12 The most informative sites in relation to the Romano-British period in Upper Teesdale lie within the study area at Force Garth Pasture North and South (Sites 13 and 12, respectively). Excavations have been undertaken at both of these sites, and those at Force Garth Pasture North (Site 13; Plate 2) revealed details of a central house complex and surrounding enclosure bank. The walls of the house complex were built in regular courses and two hearths and evidence of metalworking were revealed (*op cit*, 45). It was suggested (*ibid*) that the enclosing bank had been surmounted by a stockade.



Plate 2: A view of the central house at Force Garth Pasture North (Site **13.4**), during the excavations in 1973 (Past Perfect 2011)

- 3.3.13 The presence of finds, all of which were of typical later prehistoric types, suggests that the site was established prior to the Roman occupation but charcoal from a late hearth was dated to the Romano-British period suggesting that the site continued in use, and possibly expanded, during this later period.
- 3.3.14 Force Garth Pasture South (Site 12; Plate 1) consisted of a partially scarped subcircular enclosure containing five round houses; the houses merged to form a contiguous irregular row. Earlier phases of timber structures were discovered beneath the cobbled floor of one of the houses and a wide range of artefacts which included Samian pottery sherds that are datable to the late-first to early-third centuries. Excavated hearths demonstrate use for iron-working at the site. Several field boundaries and putative settlements within the surrounding area (eg Sites 08 and 11) demonstrate further contemporary activity.
- 3.3.15 Another enclosed settlement, which contains between four and seven circular structures lies just to the south of the River Tees at Pasture Foot (Site 17). This site has not been closely dated but could date to the Romano-British period (*op cit*, 48). However, as with many later prehistoric sites, the continuity of settlement types means that it is extremely difficult to differentiate between Iron Age and Romano-British rural sites on typological characteristics alone.
- 3.3.16 *Early Medieval Period:* although archaeological evidence relating to the early medieval period is often sparse, Viking and Anglo-Saxon influence in the north of England is evident from place-name evidence. It should be remembered, however, that linguistic continuity, including otherwise incongruous colloquialisms, might be responsible for the introduction of certain place-names at much later periods than the initial arrival of the immigrant groups (Newman 2006, 95). For example, the use of the word *thwaite*, denoting areas of clearance, became part of the Cumbrian dialect and continued to be used in reference to new clearings into the thirteenth century (Winchester 1987, 41). Place-names can not, therefore,

- automatically be equated with the settlement of ethnic groups in the absence of accompanying historical or archaeological evidence.
- 3.3.17 Several place-names of Old English origin occur within the local area to the south of the River Tees, which demonstrate Anglo-Saxon influence that might have resulted from linguistic and cultural exchange, or from population incursions. For example, Holwick derives from hol or holegn, meaning hollow or holly respectively, and wic, which refers to a dairy farm (Ekwall 1966, 247). By contrast, the immediate environs of the study area feature numerous names of Norse origin. The element 'garth', which appears in names such as Force Garth and Wat Garth, derives from the Old Norse gardr, meaning an enclosure and is often associated with enclosed fields (eg Armstrong et al 1952; 474). The element 'holm', such as Dineholm, is also of Old Norse derivation, from holm, and relates to an islet or any piece of land isolated from its surroundings, such as a piece of land surrounded by a stream (op cit, 478). This is appropriate for Dinegarth, which is defined by a loop in the River Tees. Force, relating to a waterfall, is also of Old Norse origin and derives from Fors (op cit, 473). Gill, as appears in Ettersgill, is also of Old Norse origin (op cit, 475). Old English words are also apparent locally, such as Frith, which derives from fyrhbe, meaning wood, and the tun element of Middleton, relates to a village (op cit, 473; 495).
- 3.3.18 Although there have not been any finds of artefacts to demonstrate early medieval activity within Upper Teesdale, pollen evidence from Simy Folds, to the south-east of the study area, on the southern side of the River Tees, suggests that the use of agriculture may have been largely continuous until the Norman Conquest (Coggins 1986, 49). It has been suggested that the settlements that have been demonstrated to have been in use during the Romano-British period, including that at Force Garth Pasture South (Site 12), might have continued in use into the post-Roman period, with a lack of later finds reflecting a return to a largely aceramic material culture (*ibid*).
- 3.3.19 A circular embanked enclosure, of uncertain function, at Middle Hurth, 2km to the north of the study area, lay in an area that was suggested by pollen analyses to have been used for agriculture prior to the establishment of the enclosure (*op cit*, 50-1); two radiocarbon dates for this enclosure suggest a post-Roman date of *c* 590 (*ibid*). It has been suggested that two different rectangular building traditions have been identified in Upper Teesdale and some examples of, often irregular, single-celled structures with rounded corners have been dated to the late eighth century at Simy Folds (*op cit*, 54). However, all such structures cannot necessarily be attributed to this date and differing functions, as well as date, might have influenced their forms (*ibid*).
- 3.3.20 *Medieval Period:* following the Norman Conquest, Upper Teesdale fell within the Forest of Teesdale and Marwood and was held by Guy Baliol, the son of whom built an earlier phase of Barnard Castle (Coggins 1986, 76). The castle and estate passed through the hands of descendants of the Baliol family, and their spouses, until it was conveyed to Henry VII in 1485, after which it remained as a Crown holding until the seventeenth century.
- 3.3.21 The primary economy of Upper Teesdale, and the immediate vicinity of the study area, during the medieval period was agriculture (*op cit*, 62). The earliest documentary evidence for agriculture relates to pasture rights given to the monks

- of Rievaulx Abbey by Bernard Baliol for 60 mares and their foals within the Forest of Teesdale (*ibid*). This grant mentions *Etheresgilebec*, which appears to refer to the Ettersgill Beck that flows to the north-east of the study area.
- 3.3.22 Numerous sites associated with the mining, smelting, and smithing of iron are known in Upper Teesdale, including sites within the study area (Sites 1, 2, 4, and 5), although these sites have not been closely dated. It has been suggested (*op cit*, 60) that iron working in Upper Teesdale was undertaken in order to provide for the local area, rather than as an export industry, and began during the prehistoric or Romano-British periods and continued until at least as late as 1200 and possibly later (*ibid*). A bloomery slag heap from Simy Folds was radiocarbon dated to the medieval period (*op cit*, 57).
- 3.3.23 *Post-Medieval and Industrial Periods:* the Forest in Teesdale area was formerly a township known as 'Forest with Frith' or 'Forest and Frith' and comprised the three constituent parts of Ettersgill, Middle Forest, and Harwood (Lewis 1848, 250-53; Whelland and Company 1856). The township formed lay within the parish of Middleton and the southern division of County Durham (Lewis 1848, 250-53).
- 3.3.24 The influential land holders in the Middleton parish during the nineteenth century were listed in Whellan's directory (Whellan and Company 1856). These landowners included the Duke of Cleveland, who was cited as 'lord of the manor' and the London Lead Company. The local school in Forest and Frith was also described as being maintained by fees on attendance and from contributions by the Duke of Cleveland and the London Lead Company (ibid). The Duke of Cleveland purportedly owned the largest single estate in England, which included the holdings in Upper Teesdale (Northern Echo 1892). These estates were formed when Raby Castle and Barnard Castle and estates were purchased from the Crown in 1626 by the Vanes (Raby Castle 2011). Raby Castle was the principal seat of these estates until the later nineteenth century (Northern Echo 1892) and was held by the Barons and Lords Barnard from 1698 to the present, which included the Dukes of Cleveland between 1833 and 1891 (Raby Castle 2011). In the study area Force Garth Pasture was mentioned as being valuable grouse rearing land held by the Duke of Cleveland (The Newcastle Courant, April 16th, 1880).
- 3.3.25 Mixed farming was undertaken in Upper Teesdale during the post-medieval period and there are references within seventeenth and eighteenth century sources of the difficulties of ripening corn at such an altitude and in the local climate (Coggins 1986, 62). It has been suggested that, during the sixteenth century, Upper Teesdale was defined, in terms of its pastoral character, as an area of transhumant shielings (Winchester 2000, 98).
- 3.3.26 The holding of Force Garth was apparently held (possibly continuously) by the Robinson family and their relatives from the seventeenth to the early twentieth centuries. A Thomas Robinson, son of John Robinson of 'forsgarth', was a bound apprentice recorded by an Indenture of 15th October 1661 by the Gateshead Company of Drapers, Tailors, Mercers, Hardwaremen, Coopers and Chandlers (Dodds 1907, 39). Available parish records for Middleton-in-Teesdale record Robinson's at Force Garth from the mid-seventeenth to mid-nineteenth centuries (Joiner 1981a and b) and census records show the Robinson's at (East) Force Garth, farming 320 acres in 1861 (ancestry.co.uk). In the same census, West Force

- Garth was named as 'Westhouse' and was a subsidiary holding held by a gamekeeper and farming only 12 acres.
- 3.3.27 A selection of nineteenth century occupants of Forest and Frith showed numerous farmers, as well as grocers, school masters, a shoe maker, and a blacksmith (Whelland and Company 1856). Those listed included Isaac Robinson of Force Garth, both farmer and school master of the Endowed School. He was registered as having an old voting franchise (so was evidently a man of some means) in the Forest and Frith Ward 1869 elections that were conducted post-1867 Reform Act when new franchises were issued (Wilkinson 1869). In 1890 (Kelly and Company 1890) Amos Robinson was listed as the farmer at Force Garth and by the 1911 census Mary Robinson, aged 78, and her nephew Thomas Gibson were farming Force Garth (ancestry.co.uk).
- 3.3.28 Lead mining was a prominent element in the local landscape and industry throughout the post-medieval period and, although earlier exploitation has been suggested, the earliest definite evidence for this industry in the local area relates to the sixteenth century (Coggins 1986, 56). Nineteenth century accounts of the area emphasised the prominence of the local lead industry, in particular, the Harwood area, at the western side of Forest and Frith (Lewis 1848, 250-53; Whelland and Company 1856). The London Lead Company was a principal concern in the region during the nineteenth century (Whelland and Company 1856). Numerous sites relating to such activity exist in the vicinity of the study area, including a possible smelting site (Site 3) near Dineholm Quarry.
- 3.3.29 Mid-nineteenth century iron-prospection levels occur close to Langdon Beck and Ettersgill, and relate to a period when renewed mining was anticipated, but was not realised on any scale (Coggins 1986, 56). Iron working does not appear to have been undertaken extensively, if at all, in Upper Teesdale during the post-medieval period.

3.4 MAP REGRESSION

- 3.4.1 *Forest and Frith Tithe Map*: topographic features depicted on the 1840-dated map include the main B6277 road running up the valley, the course of the River Tees with High Force waterfall and the slate scars at Dine Holme to the south-west of the survey area. The area of the present survey was blank on the map and was within a large space covering almost all of the township, reflecting that none of the 'diverse farms, commons, woods & wastes' were recorded in the accompanying apportionment as being individually titheable. The main landowner for the area, almost the entire township, was the 'most noble Henry Duke of Cleveland'.
- 3.4.2 *Ordnance Survey Maps*: the early editions of the Ordnance Survey mapping (starting in 1861) depict virtually the same field pattern as the modern layout. No archaeological features associated with either the settlements or historic field systems were depicted, and most of the ground, whether enclosed or not, to the south of East Force Garth Farm was recorded as being rough grazing. Sun Wood was depicted adjacent to the River Tees and the trees were recorded as being scattered in clumps across the fields on the eastern end of Smithy Sike. The only real development in the area occurred following the construction of the Force Garth Quarry in 1932 (Site 15), when an access road was driven through the eastern side of the survey area.

3.5 Previous Archaeological Work

- 3.5.1 Archaeological investigation in the study area and the upper reaches of Teesdale, a hitherto unexplored valley, is dominated by the work of Denis Coggins that was undertaken in the 1950s-1980s (Coggins 1986). His work identified a dense multiperiod landscape of archaeological sites extending from the Mesolithic period through to the medieval period and reflects a remarkable survival for a remote valley located on the boundary of the historic counties of Durham and the North Riding of Yorkshire.
- 3.5.2 **Denis Coggins surveys and excavations:** Coggins' work in the region identified earthwork remains for multi-period field systems (including cairnfields and burnt mounds) and settlements on both the elevated commons of Holwick Fell and to a lesser extent within the valley floor itself. A lack of extensive excavations and archaeological dating has meant a reliance on the dating of sites from morphological indicators alone. A putative palisaded hilltop enclosure was identified on Harter Fell, consisting of an irregular-shaped enclosure occupying a pair of rocky knolls and the saddle of ground between them (*op cit*, 38 and 100). There are examples of both enclosed and unenclosed round house settlements and associated field systems in the region, such as those at Wynch Bridge (OA North 2011), and the two settlements within the study area at Force Garth, both of which have been partially excavated (Coggins 1986, 97).



Plate 3: A vertical aerial view of the settlements at Force Garth Pasture North (Site 13) and South (Site 12), looking north-west (Past Perfect 2011)

3.5.3 These sites were named Force Garth North and Force Garth South in the 1970s when they were investigated through archaeological excavation by Denis Coggins and Ken Fairless. The excavations at Force Garth North were undertaken between 1972-1974 (Plate 4) and those at Force Garth South between 1974-1975 (Fairless and Coggins 1980 and 1986). The field systems surrounding the settlements were identified at the same time but were only subject to sketched survey rather than a detailed metric survey (Plate 5). Both settlements were found to be located in

sheltered areas protected from the worst of the weather and each were typical of such enclosed settlements in the region, with enclosures measuring approximately 40m in diameter.



Plate 4: Force Garth Pasture North (Site 13) under excavation in 1974 (Past Perfect 2011)

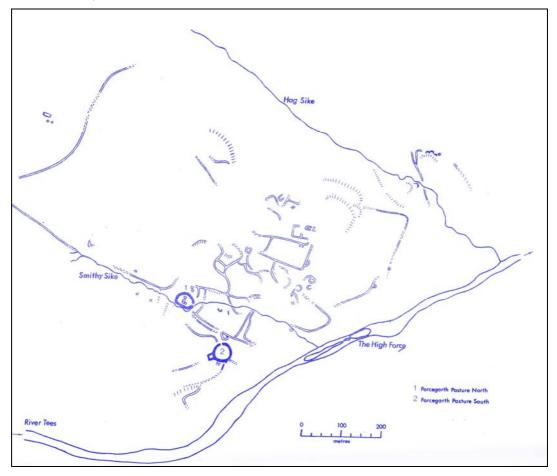


Plate 5: Early field systems sketch recorded at Force Garth Pasture (Coggins 1986; Fig 32).

- 3.5.4 Later settlements utilising rectilinear huts, in both permanent settlements of longhouses with attached field systems and isolated groups of transhumant shieling settlements, were identified surrounding the study area in relatively large quantities. Only one settlement, that at Simy Folds, has been excavated in the region and was found to contain rectilinear building foundations that were radiocarbon-dated to the mid-eighth century and is the only known early-medieval site in the region (Coggins *et al* 1983; Coggins 1986). The rectilinear settlement became more complex in form through the medieval period and into the post-medieval period with longhouses, and later farmhouses and attached barns, being evident throughout the wider area (OA North 2011).
- 3.5.5 Evidence for metalworking has been identified during the excavations of both enclosed settlements, Force Garth North and South (Fairless and Coggins 1980 and 1986). This was part of more widespread evidence for industrial extraction and working of iron resources in the Upper Teesdale valley, that dates from prehistory into the medieval period. The iron potentially derived from ironstone, which was a sedimentary rock formed by the chemical replacement of limestone that was adjacent to a hydrothermal vein, and contains a substantial proportion of an iron compound, such as Iron Carbonate (Siderite) or Iron Oxide (Haematite), that can be smelted (T Gledhill pers comm). The nearest source of ironstone was located upon Holwick Fell in two adjacent areas; the first at 'Ore Carr', and further to the south at an area named 'Ore Pit Holes' which is a complex of shafts, opencuts and hushes set along the line of the seam (Coggins 1986, 57; T Gledhill pers comm); a further area of early iron working was near to White Earth, above the Holwick Scars (Gledhill 2003). The area of Force Garth Pasture, and the immediately surrounding fields, contain extant remains of at least five (as yet undated) metalworking sites, located along watercourses (Sites 1-5). The placename of 'Smithy Sike' in the study area is indicative of bloomery sites in many areas and these were where the raw iron ore was smelted down into an impure iron for future smithing. Smithing evidence was retrieved both in the excavation of the hearths, within the round houses at Force Garth (Coggins 1986, 46), and in a single slag heap adjacent to the Simy Folds settlement (Coggins et al 1983, 14).
- 3.5.6 *Monuments Protection Programme:* Dennis Coggins (1986) identified 32 bloomery sites within about 3km of Ore Pit Holes, and further bloomeries have been identified as a result of an assessment for the English Heritage Monuments Protection Programme (Gledhill 2003), so that now more than 50 sites are known within this area. The bloomeries were identified by their tap slag heaps, which vary in size from 2m in diameter and 0.2m high to 13m in diameter and about 2m high; the smaller heaps were typically hemispherical in shape, while the larger slag heaps more often had crescent shapes. The bloomery slag heaps were usually not associated with other features, but at the foot of Skyer Beck a large bloomery slag heap was adjacent to a levelled working area, and a streamside revetment (*ibid*).
- 3.5.7 *Charcoal Pit Research:* a research programme was undertaken by Tom Gledhill in 2001 to investigate charcoal pits in Upper Teesdale and their relationship to other industrial and settlement remains (Gledhill 2003). The first phase of this project entailed a survey of an area (7km by 2km) on the south side of the Tees, to the south and west of Holwick. Here the use of pits for making charcoal (pitsteads) was discovered by Coggins and Fairless in the 1980s and independently by Tom

- Gledhill and Ros Nichol in 1999; charcoal pits have subsequently been discovered in Weardale and the Lake District (*ibid*).
- 3.5.8 Force Garth Quarry Archaeological Assessment: a desk-based assessment and a rapid walkover survey were undertaken at Force Garth Quarry (Site 15) by Northern Archaeological Associates in 1993. The desk-based assessment showed that there were no known archaeological sites in the proposed development area, but during the field survey four features were identified. These included two small mounds, which appeared to overlie the present ground surface and were not thought to be of great antiquity. Two features representing the remains of stone walls or earth and stone banks were also identified.

4. DETAILED SURVEY RESULTS

4.1 Introduction

4.1.1 The present combined Level-2 and Level-3 topographic surveys have identified and recorded a total of 55 groups or individual archaeological monuments and features within the relict field systems surviving on the Force Garth Pasture landholding (Figs 3-12; Plate 6). The grouped features are described thematically followed by a general discussion of the archaeological resource.



Plate 6: Field system complex - Site 8, and East Force Garth farm looking north

4.2 Prehistoric Enclosed Settlements

4.2.1 The survey area contains the earthwork remains of two discrete enclosed round house settlements, which are located approximately 109m apart, have a slightly sheltered aspect and are located on either side of an east/west orientated stream gully (Plate 7).



Plate 7: Aerial view of both Force Garth enclosed settlements looking south-east (Sites 12 and 13)

4.2.2 Force Garth North Settlement (Site 13): the Force Garth North settlement (Fig. 12; Plates 8-11) consists of a D-shaped earth and stone-banked enclosure, measuring 57m by 46.9m (Site 13.1; Plate 9), surrounding a group of at least five circular buildings (Sites 13.2-13.5; Plate 10). The enclosure is skirted by Smithy Sike to the south and has at least two, probable original, entrances visible on the north and east sides respectively. The enclosure bank has some intact stone-walled foundations evident within its construction, particularly on the external edge that would suggest a rampart-style wall, and there is evidence of kerbing stones either side of the northern entrance. Internally, the enclosure contains an L-shaped grouping of round houses/structures, all of which have east-facing entrances. The largest is on the northern end of the group (Site 13.5), followed by a slightly smaller circle to the south and three conjoined much smaller examples on the southern end of the group. Almost all of the foundations for the round houses were exposed during the archaeological excavations of 1972-4, although it is uncertain as to how much of the structures were excavated/reconstructed rather than just simply being recorded in situ. The distribution of the round houses leaves a small cleared area in the north-east quadrant of the enclosure which was found, during excavation, to contain stone flagging, and a larger curvilinear plot on the west half of the enclosure. There is no clear evidence of scooping into the hillside that would typically indicate animal trampling and clearance of manure from the enclosure.



Plate 8: Aerial view of Force Garth North settlement (Site 13) looking south

4.2.3 External to the north side of the main enclosure are the fragmentary remains of at least one, possibly two, round houses (Sites 13.7 and 13.8). The southern round house (Site 13.7) has a definite entrance on the east side and both structures are detached from the main enclosure and have a flat cleared area on the west side. To the east of the enclosure is a flat-topped natural mound that may have been used as a drying stand (Site 13.9). A sinuous sunken, and embanked, droveway originally ran roughly south-south-west/north-north-east upslope from the north entrance of the enclosure (Site 45).



Plate 9: Force Garth North settlement (Site 13)

4.2.4 Other than the modern enclosure wall crossing the site, elements of the complex that potentially post-date the original round house settlement include very fragmentary remains of U-shaped walls located within the western half of the main enclosure. These could possibly be the foundations of small walled stock shelters, as there is a definite single-celled square example located on top of the enclosure bank (Site 13.6); however, they may, alternatively, be spoil from the 1972-4 excavations. A group of stakeholes was identified just to the south of one of these features in evaluation Trench D. In addition, there were fragmentary linear walled foundations running north/south into the enclosure from the north, adjacent to the west side of the north entrance and running over the entrance on the east side of the northern round house (Site 13.5); this was clearly a later sub-divisional boundary. External to the north side of the enclosed settlement the damaged round house was probably overlain by foundations of at least one L-shaped stock shelter wall (Site 13.8).



Plate 10: Round houses at Force Garth North settlement (Site 13.2 - 13.5)

4.2.5 Force Garth South Settlement (Site 12): this settlement (Fig 11; Plates 11-14 and 17) consisted of an oval earth and stone-banked enclosure measuring 48.7m by 46m (Site 12.1; Plate 12) surrounding a group of five probable circular buildings (Sites 13.2-13.6). The enclosure is scooped into the moderately steep north-east-facing hillslope and the scooped material has been banked up to form a prominent platform and scarped bank on the east side of the site. The enclosure is skirted by a small stream gully to the north and also has one definite entrance on the north end. The enclosure bank has some intact kerbing stones surviving that may hint at an enclosing rampart wall foundation. Internally, the enclosure contains a loose linear grouping of round houses/structures that sub-divide the enclosure north/south; four of the structures are cut into the hillslope. The distribution of the round houses leaves a sloping cleared area in the western quadrant of the enclosure and a smaller yard area to the east of the round houses. The enclosure has clearly been

scooped out of the hillside, although whether this was undertaken in one construction phase to build the platform and bank downslope or whether it was a gradual process involving animal trampling and clearance of manure from the enclosure is not clear.



Plate 11: Aerial view of both Force Garth settlements and adjoining droveways looking west (Sites 12, 13, 46 and 47)

4.2.6 The round houses survive in a less well-preserved state than those at Force Garth North settlement, although at least two of them have east-facing entrances. Two of the foundations for the round houses (Sites 12.3 and 12.5) were exposed and partially excavated during the archaeological excavations of 1974-5. In at least one case, the stone foundations overlay the remains of an earlier wooden structure. A radiocarbon date suggested that the site was in use during the 3rd century AD. The southern round house adjoins the internal edge of the enclosure (Site 12.5), and was joined to the north by two larger round houses (Sites 12.4 and 12.3), and then a slightly smaller example (Site 12.2). A further, possibly damaged, detached example is in the north-eastern corner of the enclosure (Site 12.8) and is separated from the rest of the round houses by a linear embanked track that extends into the enclosure from the northern entrance.



Plate 12: Enclosure bank at Force Garth South settlement (Site 12.1)

4.2.7 The settlement has been re-used as the base for later rectilinear structures, and probably served as a farmstead with the enclosure functioning as a stock corral. There are various surviving elements that clearly post-date the original use of the site, and on morphological grounds would hint at a medieval date for the later phase of activity. There is one definite two/three-celled structure constructed on top of the upper south-west enclosure bank (Site 12.7: Plates 13 and 14) with two possible associated shelters located on the external edge of the enclosure further to the east (Sites 12.10 and 12.9). The latter site may, alternatively, be the remnants of the outer edge of an excavation trench. The north-east end of the enclosure (immediately to the east of the entrance) has been disturbed by later activity; there is at least one rectangular building platform built against the south edge of the stream gully (Site 12.8). It is possible that the adjacent round house (Site 12.6) has been modified forming a further sub-rectangular platform within the enclosure, which has a slight bank on its eastern side. The possible main domestic building for the farmstead is located to the north of the stream gully where there is a large two-celled platformed rectilinear structure set on two levels which would appear to have been a longhouse (Site 18).



Plate 13: Rectangular building platform at Force Garth South settlement (Site 12.7)



Plate 14: Rectilinear foundations (Site **12.7**) overlaying the enclosure bank of Force Garth South settlement

4.2.8 **Droveways:** there is surviving evidence for access and stock movement at/between both enclosed settlements in the form of sections of sinuous and linear sunken droveways (Figs 4 and 9; Plate 11). There is an obvious droveway running to the north-west from the Force Garth South enclosed settlement (Site 47; Plate 15). It measures approximately 130m long running roughly east-south-east/west-north-west from the interior of the settlement to give access to land on the south side of

Smithy Beck. Part of the route is marked by a dry stream gully running off Smithy Beck towards Sun Wood. The droveway does not adjoin both enclosed settlements but would take stock from immediately south of Smithy Beck towards the Force Garth Enclosure. This may suggest that if the enclosed settlements were contemporary then the land south and west of the beck was farmed by the Force Garth South settlement and the land north and east of the beck was farmed by the Force Garth North settlement. Along the same alignment, but just to the north of the sinuous droveway, is a straight drove route (Site 46; Plate 16), consisting of a well-defined hollow-way running along the south side of a rectilinear field system (Site 48). It is orientated roughly east-south-east/west-north-west and measures at least 180m long. The droveway is not directly linked with either enclosed settlement but straddles the ground in-between them. It may have formed a communal stock route for the enclosed settlements down (through Sun Wood) to the River Tees for watering purposes.



Plate 15: Field system and droveways located between both enclosed round house settlements (Sites 5, 20, 43 and 46-49)

4.2.9 There are fragmentary remains of a sinuous droveway running upslope to the north-east of Force Garth North enclosed settlement (Site 45). The droveway consisted of parallel banks orientated roughly south-west/north-east extending for at least 45m. The feature probably had the same function as the sinuous droveway at the other enclosed settlement and gave access to land farmed by Force Garth North settlement to the north of Smithy Beck.



Plate 16: A sunken droveway (Site **46**) looking north-west towards Force Garth North settlement

4.3 MULTI-PERIOD FIELD SYSTEM(S)

- 4.3.1 The remnants of field systems cover the entire surveyed area on the landholding of East Force Garth Farm. The scheduled area (SM 1017124), subject to Level 3 Survey, contains the best preserved concentration of boundary features on the property and the complex was recorded and characterised utilising Coggins' earlier work (1986; Figs 9 and 32). The area spans approximately 800m by 600m and is demarcated by the River Tees to the east, the B6277 road to the north, Force Garth Quarry (Site 15) to the south, and a line running roughly north/south from West Force Garth Farm on the west side.
- 4.3.2 The field system complex spread outside of the scheduled area, albeit in a more fragmentary fashion (Site 8: Plate 5). There is considerable variety in the form of the field boundaries, be they stone wall foundations, earthen and/or earth and stone-constructed banks, as well as large sub-rectilinear cultivation lynchets. The sections of field system were broken down into field types and construction methods for purposes of description rather than specifically by phasing. There are few clear relationships between the field systems and the settlements within them and there may have been considerable re-use of earlier elements of the field systems in later periods.
- 4.3.3 **Regular Field Plots:** the most obvious pattern found within the field system complex consisted a series of three/four large trapezoidal field plots distributed in a roughly south-west/north-east layout running upslope between Smithy Beck and East Force Garth Farm (Sites 48/49, 51 and 52; Figs 9 and 10; Plates 11 and 15). The field plots have regular widths and were demarcated by earth and stone-constructed boundary banks; each measure up to 120-150m long by 55-125m wide. The plots have been sub-divided at some point (such as Sites 48.1-3 and

- **51.5**) and/or contain different field system elements related to more irregular field boundaries. One field plot (Site **48/49**) is located on the east side of the Force Garth North enclosed settlement and the orientation of the eastern entrance from the settlement faced into the field system and would suggest that the field plots were farmed from this settlement.
- 4.3.4 Another two definite adjoining field plots (Sites 51 and 52; Figs 5 and 6) are located further to the north nearer to the modern farm. The former has a welldefined outer southern and eastern boundary (Site 51.1, 51.2 and 51.8), and its northern boundary divides it from the other field plot (Sites 51.6, 51.7 and 51.11). The feature continues to the north-west as a long sinuous boundary (Site 39) that may form a small part of a larger pastoral intake taking in most of Force Garth Pasture/Yearl Hill as identified by Coggins (Plate 5). The second field plot (Site 52) has no well defined edge other than that bordering the southern field plot (Site 51). The northern edge of the plot lies beneath the slightly irregular and curving field wall immediately to the north-east of East Force Garth Farm. There are several sub-divisional boundary banks (Site 52.4-52.6 and 52.8) and, in addition, there is a damaged sub-rectangular enclosure (Site 52.1) measuring 45m by 40m. It has large well-defined earth and stone-constructed banks on the west and south sides (Site 52.1 and 52.3) and there is a possible internal sub-divisional boundary with an associated stock enclosure (Site 52.2). The field plot contains several rectilinear platformed structures (Sites 30.4, 30.3, and 52.8), so at some point was used to contain one or possibly more farmsteads (Section 4.4).



Plate 17: Group of irregular-shaped field plots south of East Force Garth Farm (Site **50**)

4.3.5 *Irregular Field Plots:* there is one discrete area of small irregular bounded field plots measuring 160m by 110m that is located on the sloping ground to the northeast of Force Garth North enclosed settlement (Site **50**; Fig 10; Plate 17). The area consisted of a series of small curvilinear field plots located on the edge of rough semi-improved pasture (Site **50.1-50.12**). The field banks survive in places

variously as well-defined earthen lynchets, partially overlain by earth and stone constructed field banks or orthostatic wall foundations. The lynchets would suggest ploughing and arable agriculture rather than pastoral agriculture. This section of field system was not thought to be 'celtic fields' by Coggins (1986; Fig 9), although their morphology would suggest that they were possibly prehistoric in date.

4.3.6 Lynchetted Strip Fields: there is wide distribution of large areas of lynchetted field boundaries located throughout the survey area, in particular in the periphery of the property. Coggins identified them as being potential 'celtic fields' although recent work undertaken further down the valley at Holwick would define such monuments, on morphological grounds to being medieval-period strip lynchets (OA North 2011). The best preserved sections are located in the improved fields to the north of both West Force Garth and East Force Garth farms (Sites 38 and 40; Fig 3). The distribution seems to represent the northern ends of long strip fields that were, for the most part, orientated north/south running downslope towards Hag Sike. Other lynchet remains (Fig 4) include the eastern end of one of the rectilinear field plots (Site 49.6 and 49.7) and a pair of lynchets adjoining the south-west end of Force Garth South enclosed settlement (Sites 43.3 and 43.4; Plate 18). In addition, there are possible strips located to the west of Force Garth North enclosed settlement that were primarily identified by aerial photography (Site 20; Fig 4).



Plate 18: Lynchetted boundary (Site **43.4**) attached to the south of Force Garth South settlement (Site **12**)

4.3.7 The dating of the strip fields is problematic, because although these are typically of medieval date, they can be found in association with prehistoric settlements elsewhere in Northern England. There is a clear direct relationship, for example, between several of the lynchets (Sites 43.3 and 43.4) and the Force Garth South settlement (Fig 8; Plate 18), though it is not evident if this reflects a continued use into the medieval period. Experience from Holwick (OA North 2011) has shown

that some field boundaries, directly associated with a Romano-British enclosed settlement, have continued in use through to the present. So, by analogy, these may have had their origins as boundaries in the prehistoric period, but continued in use into the medieval period and acquired their distinctive terraced form in that later period.

- 4.3.8 **Ridge and Furrow Cultivation:** there is very little evidence for ridge and furrow cultivation in the survey area, and in part reflects that the medieval cultivation utilised terracing rather than ridge and furrow. There are, however, small disparate remains (Sites 33 -36) which probably relate to areas of post-medieval narrow ridge and furrow cultivation that clearly post-date the field systems; two areas (Sites 33 and 34; Fig 3) clearly overlie elements of the earlier field system. There is no evidence for medieval period wide ridge and furrow cultivation from ox ploughing which mirrors the absence further down the valley at Holwick (OA North 2011).
- 4.3.9 *Cairnfield:* there is a single discrete area located in the field plot to the east of Force Garth North enclosed settlement (Site 48) containing various small linear and circular clearance mounds (Site 5.2-5.6; Fig 9). The features may be associated with clearance within the field plot possibly associated with a rectilinear structure/earthwork (Site 5.1).
- 4.3.10 **Stock Management:** there are several stock management features directly associated with the field systems as they are built into the structure of the field enclosure banks. There are small single-celled D-shaped shelter-type structures (Sites 22-24 and 27), as well as stock folds, including a two-celled rectangular site (Site 19) and a single-celled square example (Site 26). Their distribution within both regular and irregular field plots would point to a phase of pastoral agriculture on the property, which would, in the case of the irregular field plots, be of a different period to the initial arable agriculture. There are, in addition, two post-medieval shelters that are associated with later sheep farming (Sites 44 and 54).

4.4 MEDIEVAL SETTLEMENT

- 4.4.1 Settlement in the region post-dating the Iron Age/Romano-British period, typically comprised singular and grouped rectilinear structures that functioned as small farmsteads, often with associated paddocks and fields or, often on more marginal land, more disparate shielings. These sites are numerous in Upper Teesdale and have been identified, on morphological grounds and some limited excavation (Coggins 1986), to be dated to the early medieval/medieval periods. Other than the rectilinear sites already described at Force Garth South enclosed settlement (Section 4.2.7) there are several other sites of interest.
- 4.4.2 The main focal point for settlement is located within the field plot on the east side of East Force Garth Farm (Site 52; Fig 5), and is a platformed, multi-celled longhouse (Site 28) that is partially overlain by the modern embankment for the access road to the present day farm. On the north end of the field plot, within modern forestry, is a further single-celled longhouse (Site 31.1) set within an area of small enclosures. The site is of some antiquity as the earthwork boundary to the north of the structure kinks around it forming a slight platform and the rear face of the structure has been cut into the hillslope. South of it is a disturbed area of ground which is partially overlain by modern ridge and furrow cultivation; it

contains a small fold, three conjoined, square-platformed structures and a possible single-celled structure (Sites 29 and 30). Associated with the site was a possibly damaged farmstead (Site 30.4) and associated ancillary structures (Sites 30.1 - 30.3); it was served by the fragmentary remains of a small sunken trackway on the west side. It is possible that one of these domestic sites evolved to become the named steading of Force Garth, predating East Force Garth, although at present the name is only associated with post-medieval documentary evidence.

- 4.4.3 There is indirect evidence for an early farmstead at West Force Garth Farm, although in the post-medieval period the extant farm was a later construction possibly built as an offshoot from the original farmstead (*Section 3.3.26*). There is a large curvilinear boundary running north-east from West Force Garth Farm (Site **38.3**: Fig 3). It is possible that this formed one side of a garth boundary surrounding an earlier farm site.
- 4.4.4 There is an isolated single-celled sub-rectangular structure located external to a field plot on the east of the property that may be associated with transhumant shieling-type activity (Site 25; Fig 6). A further rectilinear structure (Site 5.1: Fig 9) is located within the small cairnfield and may have had a domestic function, although it was recorded by Coggins as being purely industrial in nature.

4.5 INDUSTRIAL REMAINS

- 4.5.1 There is significant regional evidence for both extraction and metalworking sites from both the prehistoric and medieval periods that predate the widespread industrial period exploitation that Upper Teesdale is known for today. There is direct evidence for metalworking in the survey area that has been found in the excavations undertaken at the enclosed settlements, although this has not been closely dated (Section 3.3.22). The evidence consisted of iron smithing debris that had, judging by the intense heat needed for vitrification, been worked by bellows on the house hearths; possible furnace clay was also recovered from one of the houses at Force Garth North. Five other possible sites characterised as potential metalworking sites were recorded in the survey area (Sites 1-5), and these were located adjacent to the streams running through it. Site 2 was reported as a scatter of bloomery slag on field boundary 53 (T Gledhill pers comm), but both it and Site 1 were not identified by the present survey. The metalworking sites located on the south bank of Smithy Sike were found (Sites 3-5); bloomery tap slag had been identified at Site 5 identified in the course of the Monument Protection Programme survey, and at that time there was a slight bank surrounding a rectangular hole (T Gledhill pers comm). It was interpreted that a substantial slag heap had been removed within modern times, possibly to be used as track metalling.
- 4.5.2 The adjacent features to the north of Sun Wood (Sites 3 and 4; Fig 7) comprise a large mound of bloomery slag (Site 4), which was 9.5m x 9m in extent and a small semi-circular scoop (Site 3; 6.4m x 4.2m in size), which appears to be associated with lead slag but is not typical of other North Pennine lead smelting sites (T Gledhill pers comm).
- 4.5.3 The other putative metalworking site consisted of a rectilinear feature associated with a small cairnfield found within the field plot on the south side of Smithy Sike (Site **5.1**; Fig 9; Plate 19). Coggins identified it as a possible iron smelting site

with the remains of a roughly rectangular hollow with retaining walls made from iron slag. The present survey did not identify direct evidence for metalworking slag from the features, but as the rectangular feature, with a slight internal subdivision, has a sloping internal surface the structure is unlikely to have had a domestic function.



Plate 19: Rectilinear putative industrial structure on Smithy Beck (Site 5.1)

- 4.5.4 Any iron or lead working in the area would have required considerable amounts of charcoal, and often the bloomery sites are located in relation to supplies of wood rather than the iron ore. A survey of charcoal pitsteads (Gledhill 2003) on Holwick Fell, on the opposite side of the Tees from the present study area, identified large numbers of pitsteads scattered relatively uniformly across the area. These were charcoal pits, as opposed to charcoal burning platforms, and reflect an early, probably medieval, woodland industry that would have provided charcoal for bloomeries which were also identified in smaller quantities, but in broadly similar locations. These also provided an indication of where there was medieval woodland and would suggest that there was considerable areas of woodland across Holwick, but more specifically showed that the areas of woodland were on dryslopes, terraces and ridges (*ibid*).
- 4.5.5 While the survey did not extend to the northern sides of the Tees, there exists the possibility that there were comparable areas of medieval woodland management practised around Force Garth also. It is interesting to note, therefore, the place names of Hag Sike and Hag Plantation, to the north of the site, could potentially allude to early coppicing in the area (T Gledhill pers comm).

5. DISCUSSION

5.1 Introduction

5.1.1 The area of the Force Garth Pasture landholding presents a remarkable survival of a complex pattern of features relating to past multi-period pastoral and arable agriculture, settlements and industry. Its survival reflects that the landholding is part of a sparsely populated township, and has remained a relatively underdeveloped farming unit in the post-medieval period. It has some improved fields to the north but consists mostly of semi-improved grazing land sandwiched between a large area of rough grazed pasture and the River Tees. As such, the relatively static nature of development has allowed the fossilisation of the historic landscape, but because of the intensely conservative character of the remains in these Pennine uplands, there are concerns about relying too heavily upon the use of typological dating for these sites. Both the circular and rectilinear-founded settlements may have been in use for very extended periods, as was hinted at in the excavation reports for Force Garth North and South (Fairless and Coggins 1980 and 1986), and monument types may continue to have been constructed long after they had gone out of fashion in other parts of the county.

5.2 SURVIVAL AND SIGNIFICANCE

- 5.2.1 The survey has highlighted a rich archaeological resource at Force Garth Pasture that is of national importance as befits the protective scheduling of the central areas of the field systems. While it is evident that the site has had an extended multi-phased occupation, the present survey has found the complex nature of the field systems difficult to pick apart and assign the various chronological phases of development from the surface evidence alone. The surviving surface remains consist of complex remains of both circular and rectilinear founded settlement sites associated with extensive field systems, and elements of the field system have evidently been reused in subsequent periods.
- 5.2.2 *Field systems:* the field systems are of considerable archaeological importance, being multi-period and retaining evidence of considerable modification. The wider region of Upper Teesdale contains surviving surface evidence for many settlement sites, of both regional and national importance, the occupation of which potentially ranges over a considerable period of time. There are, though, relatively few identified areas of extensive agglomerated field systems surviving in a lowland context in the region, with the notable exception of the Wynch Bridge settlement near Holwick (OA North 2011). There is, however, extensive surface evidence for swathes of field systems on the unenclosed commons in Upper Teesdale, in particular around Simy Folds. These field systems must have had longevity of use but have not themselves been subject to absolute dating techniques; instead the associated settlements have been dated by radiocarbon assay and the fields have been dated by virtue of their association. This does not allow for the fact that the field systems may have continued in use long after the settlement was abandoned, or that they may have pre-dated the settlements.

- In the survey area various components of the field systems, in the form of both 5.2.3 regular and irregular field plots and lynchetted strip fields, survive as an agglomerated patchwork of earthworks. These are evident not only within the semi-improved grazing land in the south but, importantly, are also found within the lowland improved areas. Lynchetted fields are the product of ploughing for arable agriculture in both prehistoric and medieval contexts, resulting in soil slippage against the line of a plot boundary. Straight-sided lynchet boundaries are found throughout the area, but are concentrated mainly in the north, and are similar to extensive areas of such monuments found further down the valley at Holwick, where they were found to be of mainly medieval origin. The small irregular field plots in the centre of the survey area also had lynchetted boundaries, reflecting that these small plots were initially farmed as arable fields rather than as pastoral enclosures. The field plots form a pattern of relatively regular, and similarly-sized, trapezoidal enclosures that were each sub-divided into smaller plots. There is also evidence for a simple small cairnfield in one of these enclosures; however, this may relate to industrial processes rather than field clearance. The provision of stock shelters and folds on the boundaries, would suggest that, subsequently, the regular field plots may have served as pastoral enclosures, and it is probable that there has been mixed agricultural use within the regular field plots over an extended period.
- 5.2.4 The provision of droveways around the enclosed settlements would point to pastoral agriculture, and there is evidence of scooping, possibly from animal trampling and manure removal, in at least the eastern of the enclosed settlements. One linear droveway clearly passed both settlements and would have formed a funnel taking stock down to water on the side of the river. Importantly, this feature skirted the external edge of a regular field plot, which would suggest the exclusion of stock from the contemporary enclosures. The orientation of the other, more sinuous, droveways could, if both the enclosed settlements were contemporaneously occupied, point to a division of the farmed land to either side of Smithy Sike into separate different holdings using the stream as a boundary.
- 5.2.5 The landscape has changed gradually over time and there has probably been repeated reoccupation of favoured sites, and elements of prehistoric field system that have continued in use as part of the present day field layout. There has been no intrusive archaeological investigation on the property, or indeed in the wider region in Upper Teesdale, into the relationships between the various boundary types and to the adjacent settlements.
- 5.2.6 **Prehistoric Settlement:** the enclosed settlements, although partially excavated, remain the best preserved of the surviving archaeological features on the landholding. The present survey has provided for the first time an accurate record of the layout of the features within these sites. Excavation has elucidated several phases of occupation within the round houses, with hearths, metalworking, post holes, storage pits and probably significant amounts of organic debris associated with the house superstructure and roof. The construction of the enclosure walls, sub-division of the interior into yard/paddock, and the various entrances were also investigated (Fairless and Coggins 1980 and 1986). It is evident from artefactual remains that the latest stone-founded phase of the structures (at Force Garth South) was associated with Romano-British pottery. Single radiocarbon dates were retrieved from the 'main' house structures in the settlements leaving many

questions regarding the phased chronology of the buildings unanswered. There was a lack of investigation of the organic remains/deposits and any intrusive work within the surrounding field systems. The earlier investigations omitted to record the various shelters and rectilinear stone-founded building remains that have probably re-used both of these settlements in later periods, and it is also probable that both of the prehistoric enclosed settlements were reused in later periods as stock pounds.

- 5.2.7 **Medieval Settlement:** the survey area contains dispersed evidence for rectilinear building remains within the field systems, and the origins of these are, on morphological grounds, typically in the medieval period; however, there are also comparable examples found nearby in Upper Teesdale at Simy Folds that have provided early-medieval Radiocarbon dates (Coggins et al 1983). There is a loose grouping of up to three platformed longhouses with associated ancillary structures, paddocks/yards and a droveway surviving to the east of the current farm. The longhouses were probably dwarf-walled structures with an organic superstructure and thatched roof. It is possible that at least one of the sites originally formed the original farmstead within the garth enclosure that predated the present East Force Garth Farm. There are also three/four extant longhouse structures located in and around Force Garth South enclosed settlement, with definite examples on the south-west enclosure bank and slightly to the north of the settlement. Damaged features on the north-east bank of the enclosure may also represent rectilinear buildings. A single possible sub-rectangular shieling structure was identified which may point to a transhumant occupation and was slightly removed from the areas of permanent settlement and agriculture that were potentially contemporary. At present, none of the rectilinear buildings have been subject to intrusive archaeological investigation, and, as such, their precise dating, and indeed their direct relationships to the surrounding field systems remain unknown.
- 5.2.8 The documentary evidence points to the medieval agricultural economy in Upper Teesdale as being mixed, but, to judge by the scale of the extant strip lynchets found further down the valley, the emphasis was more on the arable than the pastoral side. The landholding at Force Garth Pasture was on the very fringe of the arable land and many of the relict field plots could have been used to hold stock. The elevated ground to the west of the property and inside the curve of the River Tees was possibly a large pastoral enclosure or area of open common grazing. Towards the end of the medieval period there was a general shift from arable to pastoral and former arable cultivated fields were put over to grazing animals. It is tempting to relate this change to the episode of the Black Death (1347-50, but recurring episodes throughout the fourteenth century), when the loss of a significant proportion of the population, meant that there was insufficient manpower to enable labour-intensive arable farming and there was a move to a more pastoral economy. This may be mirrored in the survey area, as it contains a number of abandoned medieval-type longhouses/farmsteads, but at present it is not possible to demonstrate when they were abandoned.
- 5.2.9 *Industrial Remains:* the putative industrial remains surviving within the survey area consist of a relatively small, yet potentially significant, archaeological resource. There was excavated evidence for iron slag debris indicating that iron smithing was being undertaken on hearths using bellows within certain houses. It is likely that this evidence related to prehistoric iron working for local needs,

- although the debris was not closely dated. The sources of any iron ore that were worked is very uncertain, although evidence of the much later working of ironstone sources on Holwick Fell (*Section 3.5.5*) does at least provide an indication that there were potential sources available.
- 5.2.10 Nearby are two separate earthwork sites that were located on the south side of Smithy Beck, consisting of a sub-rectangular enclosure surrounded by a small cairnfield and a scoop and adjacent spoil heap. Although they have not been thoroughly investigated, these sites could potentially be associated with, as yet undated, metalworking/smelting. The lack of dating of metalworking sites and their relationships to the settlements and surrounding field systems remain to be explored. The place name of Smithy Sike, however, does at least provide a potential indication of medieval iron working activity in the area; there is good evidence for the association of 'smithy' or 'smiddy' names with bloomeries (T Gledhill pers comm).
- 5.2.11 The survey results, coupled with the earlier work by Coggins (1986) and Gledhill (2003), has shown that there is a significant amount of iron working being undertaken in this locality and on adjacent Holwick Fell that extends back at least to the medieval period and probably much earlier, as indicated by relatively large numbers of bloomeries and charcoal burning pits. To an extent this reflects patterns of early settlement at Force Garth, Simy Folds and Holwick, but it would also appear to reflect an abundance of available resources, including deposits of ironstone on Holwick Fell; perhaps more significantly it entails the exploitation of an abundant woodland resource around the fringes of the North Pennine commons.

5.3 CONCLUSION

- 5.3.1 The study has identified a rich extant archaeological resource within enclosed lands. The archaeological survival on the property is probably mostly due to the remote and relatively secluded character of the holding having precluded widespread development and significant intensive modern exploitation. This has meant that the historic remains of both settlements and field systems survive as an agglomeration of surface earthwork features not only within the marginal land but importantly also within the lowland improved areas. The landscape has changed gradually over time and there has probably been repeated reoccupation of favoured sites, and elements of prehistoric field system have continued in use as part of the present day field layout. Because of the continuity and the survival of early remains, there is a remarkable opportunity to further examine the development of settlement and landscape on the property.
- 5.3.2 There would be clear scope, judging by the significance of the archaeological resource, to undertake further research-led work on the property. This could include detailed investigations on the field systems, settlements and industrial remains that may go some way to answering specific regional research questions.
- 5.3.3 Detailed investigations could be tailored towards key research themes that have been identified within the North East Regional Research Framework (Petts and Gerrard 2006). These could be targeted to answer specific questions regarding dating/phasing of archaeological monuments.

- 5.3.4 **Key Research Themes:** specific themes identified in the North East Research Framework are primarily associated with our lack of precise dating and understanding of settlements and industry in the region;
 - There is a perceived lack of excavated examples of later prehistoric settlements lending too much emphasis to the morphology of settlements as an indicator as to their age. Establishing firm chronologies through trial excavations and scientific dating is needed (Petts and Gerrard 2006, 137);
 - Focus of archaeological work has been on individual settlements in the Bronze Age and Iron Age, there is a need to look further at dating and understanding the landscape surrounding them, including field plots, cairnfields, boundaries and droveways etc (*ibid*);
 - The landscape and settlement hierarchies of the medieval period are poorly understood. Detailed work is needed to test conventional chronologies and morphologies of settlements (*op cit*, 169);
 - Environmental sampling is needed particularly from low-status rural sites to balance the environmental evidence already collected in the region which has predominantly been undertaken in upland contexts (*ibid*);
 - There are well preserved areas of medieval field systems, including strip lynchets, in the region, their formation processes and use over time is poorly understood (*op cit*, 170);
 - The early iron and lead industries are seriously under-recorded in the region and further detailed work is needed to gain a better understanding of these features and their associated landscapes (*op cit*, 223).

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APPENDIX 1: PROJECT BRIEF

Brief for an Archaeological Survey at Forcegarth Pasture, Upper Teesdale

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Introduction:

This brief is has been prepared to facilitate tendering by suitably experienced archaeological contractors for archaeological survey at Force Garth Pasture, Upper Teesdale. The project will be funded by Natural England under the Higher Level Stewardship agreement with R&M Scott.

Background:

Scheduled Monument SM33490 lies within an area of Upper Teesdale extending from Cronkley in the west to Crossthwaite in the east which includes one of the most archaeologically rich landscapes of the North Pennines. The archaeology of Force Garth is typical of the area in being a palimpsest of multi period remains including iron age / Romano-British settlement, field systems and medieval industrial remains. Much of this was initially mapped in outline by Dennis Coggins and Ken Fairless and was published in:

- Fairless, K. J., & Coggins, D. 1980: Excavations at the early settlement site of Forcegarth Pasture North, 1972-74, Transactions of the Architectural and Archaeological Society of Durham and Northumberland (new series), 5. and
- Fairless, K. J., & Coggins, D. 1986: Excavations at the early settlement site of Forcegarth Pasture South, 1974-75, DAJ 2.

The settlements were excavated by Dennis Coggins and Ken Fairless in the early 1970s. The results of these excavations were published as above. Most of the area has since been designated as a Scheduled Monument.

The area is also of exceptional ecological interest. This includes some of the most floristically rich hay meadows of the North Pennines and a significant area of species rich wood pasture. In recognition of this the area lies within the Moorhouse-Upper Teesdale National Nature Reserve.

Natural England is proposing to fund an archaeological survey of the area shown on the attached map under an Higher Level Stewardship agreement between Natural England and the tenants of Force Garth Farm, Mrs and Mrs Scott. This is both to inform the future archaeological and ecological management of the area, particularly with regard to tree planting and bracken control. It may also play a role in providing information for interpretation of this exceptional landscape.

It is imperative that the contractors undertaking the survey liaise closely with land managers RM Scott, the Raby Estate, and Natural England to ensure that the work does not disturb stock or ground nesting birds, or damage hay crops or important plants. In order to minimise the potential for such damage it is envisaged that the bulk of the fieldwork will take place in autumn 2011 or late winter 2012 finishing before early march to avoid disturbance of ground nesting birds.

Tender submission:

- Tenders must be based on the requirements set out in each section of this brief and each item of work costed separately.
- Tenders must allow for any statutory responsibilities arising as a result of the proposed works.

The submission must also include:

- · A method statement demonstrating how the work will be undertaken
- Identification of who will undertake the work and an outline of their professional expertise in archaeological survey.
- A draft project timetable for the completion of the work, including consideration of any key consultation/discussion stages

Copies of tenders should be sent by email to: RM Scott, and Tom Gledhill for Natural England (Contact details above).

Scope of Project:

To survey archaeological features in the study area

- To provide Natural England and Durham Historic Environment Record with information which can be used in the in the future management and interpretation of the area.
- To provide feedback to the local and academic communities.
- To liaise with RM Scott, the Raby Estate and Natural England to ensure that the work respects stock and hay crops and does not damage the ecological interest.

Detailed requirements:

- 1. Preparatory work:
 - Collation of existing information relating to the survey area
- 2. Liaison:
 - Liaise with Natural England at the start of the project to ensure that you are
 aware of the areas and times of year which are likely to be ecologically
 sensitive, and agree a methodology for addressing these issues. Particular
 areas of concern are likely to be disturbance to ground nesting birds in spring,
 and disturbance to hay meadow flora in spring/early summer.
 - Liaise with RM Scott and the Raby Estate to ensure that there is not damage
 to crops and stock and to minimise any disturbance to the farming
 businesses. Particular care should be exercised to avoid disturbance to
 lambing ewes in spring, and hay meadows in late spring/early summer. As
 the hay crop is dependent on weather, it will not be possible to give an
 accurate date in advance when individual fields will be cut and become
 available for survey.
- 3. Survey of Archaeological Features

Landscape survey (to English Heritage Level 1) of the area shown on the attached map using hand held GPS. Features should be recorded in sufficient detail to allow publication at a scale of 1:2500. It is suggested that features are also recorded in the field on a 1:2500 map overlay. The resulting survey will clearly depict the pattern of field boundaries, settlements, and other features within the survey area. (The contractor will need to supply OS base maps in digital form for use during the project).

Detailed survey (to English Heritage Level 3) of the two Romano-British settlement sites and their immediate environs (as shown on the attached map). This detailed survey must record all visible surface detail within the survey area.

An inventory of all features, recorded to a standard format, will be produced. As a minimum this will record the names of the survey team producing the record, the location, form, interpretation, probable date and dimensions of each feature, each numbered with a unique feature reference which is recorded on the survey map. Each feature must be described and mapped individually but multiple features that form a group, such as a coherent settlement or field system, must be designated with a single number to facilitate entry onto the HER. All information must be provided to the Durham HER to an agreed format to facilitate the transfer of data.

4. Reporting & Dissemination

- A comprehensive report will be produced at the end of the survey which will include:
 - i. A summary of the projects aims and results
 - ii. An analysis of the results including phase plans which illustrate the development of the landscape as far as possible on the basis of the survey results
 - iii. Clear maps at appropriate scales showing the survey results.
 - iv. A copy of the inventory

- A copy of this report will be sent to Natural England, Durham HER and English Heritage.
- A shorter version of the report will be given to the tenants on whose land the survey will take place, and to the Raby Estates. This will consist of parts i to iii above.
- Dissemination to the wider archaeological community will be via a
 presentation to an appropriate forum such as at Durham Archaeology Day,
 and an article in Durham Archaeological Journal
- A non-specialist summary will also be provided to the North Pennines AONB Partnership, suitable for publication on the AONB website.
- The Durham County Council Historic Environment Record supports the
 Online Access to Index of Archaeological Investigations (OASIS) Project.
 The overall aim of the OASIS project is to provide an online index to the mass
 of archaeological grey literature that has been produced as a result of the
 advent of large scale developer funded fieldwork. The archaeological
 contractor must therefore complete the online OASIS form at
 http://ads.ahds.ac.uk/project/oasis/ within 3 months of completion of the work.

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APPENDIX 2: PROJECT DESIGN

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

1.1.1 This project design is offered in response to a request for a tender and project design for an archaeological survey and analytical study of the settlement remains at Force Garth Pasture, in Upper Teesdale, County Durham (centred at NY 8782 2854), from Natural England, on behalf of R & M Scott, the tenants of Force Garth Farm. The survey area comprises 28.06 hectares of land to the south and east of East Force Garth Farm. The majority of the survey area (20.35 hectares) forms a Scheduled Monument (SM 33490) consisting of a palimpsest of extant multi-period archaeological settlement features, field systems and industrial remains. The area is of exceptional ecological interest including areas of both species-rich hay meadow and wood pasture and consequently forms part of the Moorhouse – Upper Teesdale National Nature Reserve. The survey and analytical study will guide and support the long-term management of the scheduled monument and surrounding land under an Uplands Higher Level Stewardship agreement.

1.2 BACKGROUND

- 1.2.1 The archaeological landscape of Force Garth Pasture includes evidence of a multi-phased field system demarcated in the north by the B627 road and to the south by the Force Garth Stone Quarry. The surviving evidence of the field system is predominantly located between the water courses of Hag Sike and Smithy Beck and contains two Iron Age/Romano-British enclosed settlements, each placed either side of Smithy Beck and placed some 110m apart.
- 1.2.2 The two Iron Age/Romano-British enclosed settlements had been identified in the 1940s-1950s and were recorded by the Ordnance Survey archaeology division. The sites were later named Force Garth North and Force Garth South in the 1970s when they were investigated through archaeological excavation by Denis Coggins and Ken Fairless. The excavations at Force Garth North were undertaken between 1972-1974 and those at Force Garth South between 1974-1975 (Fairless and Coggins 1980 and 1986). The field systems surrounding the settlement were identified at the same time but were only subject to sketched survey rather than detailed metric survey (Fig 1). Both settlements were found to be located in sheltered areas protected from the worst of the weather and each were typical of such enclosed sites in the region, with enclosures measuring approximately 40m in diameter.
- 1.2.3 **Force Garth North:** the site consisted of a rubble-banked sub-oval enclosure containing a series of five circular, oval and rectilinear building foundations that formed an L-shape. The excavations revealed the construction phases of the external bank (containing post-holes along it) with a cobbled entrance on the east side and a shallow discontinuous external ditch. The excavated foundation walls of the internal buildings were found to survive up to 0.5m in height and some contained extant paved floors.
- 1.2.4 *Force Garth South:* the site consisted of an internally scooped rubble-banked sub-circular enclosure containing five small building platforms. The enclosure has potential entrances on the north and south-west sides. There is also a later period rectangular steading located adjacent to the south-west side. The excavations, conducted in the south of the enclosure revealed that the enclosure bank was in fact a well-constructed palisaded stone wall measuring up to 2m-5.5m wide. A round house was also excavated and was found to be multi-phased, the latest phase equating to a stone flagged floor, post holes, beam slots and an external structural wall surviving up to 0.6m high.
- 1.2.5 **The Field system:** the complex field system surrounding the settlements at Force Garth Pasture forms one section of a vast agglomeration of putative early field systems surviving in Upper Teesdale (Coggins 1986; Fig 9). The Force Garth Pasture field system covers an area of some 50 hectares of semi-improved enclosed in-bye land and consisted mainly of lynchetted field boundaries (Fig 1). There are small irregular-shaped fields that probably functioned as arable plots or animal paddocks and with larger pastoral rough grazing enclosures with double walled settings that probably relate to cattle drifts (op cit, 46). Much of the field system may be overlain by later

field boundaries and cultivation associated with the presumably medieval steading located at Force Garth South settlement.

- 1.2.6 **Industrial Remains:** there is widespread evidence for elements of industrial extraction and working of iron resources in the Upper Teesdale valley, which has been documented from at least the sixteenth century but has apparent earlier long-lived exploitation into with evidence ranging from prehistory into the medieval period. The raw iron ore was sourced on Holwick Fell in two adjacent areas roughly 0.5km-1km to the south of, and above, Force Garth Pasture. The first area at 'Ore Carr', is a flat boggy area where conditions were suitable for the formation of 'bog-iron', and further to the south an area named 'Ore Pit Holes' unsurprisingly contains lines of extractive bell pits. (op cit, 57). The area of Force Garth Pasture and the immediately surrounding fields contain surviving remains of at least five (as yet undated) bloomery sites where the raw iron ore was smelted down into purer material for future smithing.
- 1.2.7 The five sites are located along the natural water courses, with two sites along the course of Hag Sike (one called Low Hag), two sites adjacent to Sun Wood on Smithy Beck, and the final bloomery also on the same water course but located further west and adjacent to Force Garth North Settlement (*op cit*, 142-6). The place-name 'Smithy Beck' is indicative of bloomery sites in many upland rural areas in the north of England (OA North 2003), The bloomery sites may reflect primary processing at the two enclosed settlements where smithing evidence was retrieved in the excavation of the hearths within the round houses (Coggins 1986, 46). Alternatively it may also reflect later working associated with putative medieval structures such as the rectangular steading located adjacent to the Force Garth South enclosed settlement.

1.3 OXFORD ARCHAEOLOGY NORTH (OA NORTH)

- 1.3.1 OA North has considerable experience of sites of all periods, having undertaken a great number of small and large-scale projects throughout Northern England during the past 30 years. OA North has considerable experience of the recording, assessment, and analysis of standing ancient monuments and is a specialist in the sphere of landscape survey and analysis. OA North has the professional expertise and resources to undertake the project detailed below to a high level of quality and efficiency. OA North is an Institute for Archaeologists (IfA) registered organisation, registration number 17, and all its members of staff operate subject to the IFA Code of Conduct (1994).
- 1.3.2 OA North has been undertaking extensive upland landscape surveys throughout Northern England since 1982, which include the Lake District National Park Survey, the Torver Common, Buttermere, and Nether Wasdale surveys (Cumbria), Haweswater and Thirlmere estate surveys (Cumbria), that of Lyme Park (Peak District), the whole of the Arnside / Silverdale AONB, much of the Forest of Bowland AONB and a multitude of smaller landscape projects. OA North is, therefore, one of the foremost specialists in the field of upland landscape recording. OA North also undertakes numerous intensive site surveys including prehistoric settlements and field systems, with most recent examples at Skipwith Common (North Yorkshire), Little Asby Common (Eden Valley), and ongoing work at Holwick (Teesdale).

2. OBJECTIVES

- 2.1.1 The following programme of works has been designed to best meet the work required as outlined in the project brief and aims to provide an analytical field survey of Force Garth Pasture that will inform the long-term management of the monument and its immediate environs. This will be achieved by the production of a combination of a Level 3 survey (as defined by Ainsworth *et al* 2007) in the core area of the Romano-British settlement sites within the Scheduled Monument (Fig 1) and a Level 2 Survey of the rest of Force Garth Pasture. The surveys will be at produced at scales from 1:500 to 1:2500 depending upon the detail level of survey. The results of the surveys, will be informed and augmented by a desk-based study in order to produce a descriptive and analytical report. The key aims of the survey will be to present a thorough descriptive record of the archaeological monuments, and an understanding of the history and formation of the field systems and settlements which will aid long-term management and interpretation of the scheduled monument and surrounding land under an Uplands Higher Level Stewardship agreement.
 - **Outline Desk-based Search:** an outline desk-based search will be undertaken in order to provide an appropriate archaeological and historical context for the landscape

development of the survey area, and previous research therein and, therefore, a contextual basis for the analytical report and management recommendations. The assessment will mainly be informed by information held in the local and national Historic Environment Records (Durham HER and NMR), analysis of historic maps, aerial photographs, and relevant secondary sources, which will include previous excavation reports (Fairless and Coggins 1980 and 1986), surveys, conservation initiatives, and histories.

- Level 3 Survey at 1:500: of a Level 3 analytical earthwork survey, as defined by English
 Heritage (2007), will be undertaken at a scale of 1:500 of the 8.16 hectare core area of
 Force Garth Pasture centred upon the Iron-Age/Romano-British settlements and field
 system adjacent to Smithy Sike.
- **Level 3 Survey at 1:2500:** a Level 2 analytical earthwork survey, as defined by English Heritage (2007), will be undertaken at a scale of 1:2500 of the 19.9 hectare area encompassing the parts of Force Garth Pasture surrounding the Level 3 core survey area.
- Report Production: a descriptive and analytical report, including plans and photographs, will be produced that presents the results of the surveys and the desk-based assessment, and subsequent management recommendations. A site archive will be produced to English Heritage guidelines (1991) and in accordance with the Guidelines for the Preparation of Excavation Archives for Long Term Storage (UKIC 1990).

3. METHODS STATEMENT

3.1 The following work programme is submitted in line with the stages and objectives of the archaeological work summarised above.

3.2 OUTLINE DESK-BASED SEARCH

- 3.2.1 An outline documentary search will provide an archaeological and historical context for thelandscape development of the survey area and, therefore, a contextual basis for the analytical report and management recommendations. The outline study will inform the discussion of specific points of interest and concern in relation to physical remains that will form the basis of management recommendations for the site. A description and critical review of previous research, excavation, and conservation works will be undertaken. The following will be undertaken as appropriate, depending on the availability of source material; exhaustive primary documentary research will not, however, be undertaken.
- 3.2.2 **Documentary and Cartographic Material:** this work will include consultation of the County Durham Historic Environment Record, in Durham, the County Durham Record Office and the Bowes Museum. Sources to be consulted will include:
 - published and documentary sources;
 - data held in local archaeological databases;
 - printed and manuscript maps;
 - reports from previous archaeological investigations
- 3.2.3 Durham County Council HER, Durham: the Durham HER is a database of known sites of archaeological interest within County Durham.
- 3.2.4 Durham Record Office (DRO), Durham: this office holds the main source of primary documentation; both maps and documents, as well as an extensive library of secondary sources, for Durham.
- 3.2.5 **Preview of previous investigations:** a descriptive and critical review of previous investigations will examine the extent and availability of data relating to previous investigations and analyse the reliability of the evidence and interpretations that form the basis for current understandings of the study area. This will draw upon the published accounts of the excavations and survey work by

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- Denis Coggins, copies of which are held in the OA North library (Coggins 1986; Fairless and Coggins 1980; 1986)
- 3.2.6 Aerial Photography: a survey of the extant air photographic cover will be undertaken, and will examine photographs held by the NMR, and the National Mapping Project, York. Photographs held by the HERs, which are not made available during the consultation of photographs at the English Heritage office in York and are considered likely to be of particular interest will also be consulted. Any features visible on aerial photographs, which were not visible during the survey, will be added to the survey plans.
- 3.2.7 Additional Aerial Photography: it is proposed to undertake a targeted aerial photographic sortie to obtain additional oblique aerial photography. The flight will be undertaken using a Motorfalke motorglider and will be undertaken from Sutton Bank, North Yorkshire. The timing of the flight will be subject to weather conditions.
- 3.2.8 *LiDAR plotting:* LiDAR at 1m resolution is available for the study area, which is of sufficient resolution to be able to inform the survey, and it is proposed to purchase one, possibly two, tiles of data as part of the project. There are two types of LiDAR available: two dimensional raster tiles, and an example of the raster tile is presented with the present document (Figs 2 and 3). There are also three dimensional Ascii tiles available which are more expensive, but can be manipulated in GIS, to enhance the vertical axis, change the light sources and change the viewing perspective. The latter considerably enhances the representation of the earthworks and it is proposed to purchase at least one tile of the Ascii data to facilitate the survey.

3.3 ANALYTICAL SURVEY

- 3.3.1 Survey will be undertaken at two different scales, Level 2 and Level 3 surveys as defined by English Heritage (2007), each with a differing range of associated tasks and degrees of detail.
- 3.3.2 **Level 3 Survey at 1:500:** the brief defines that a 8.16 hectare area in the centre of Force Garth Pasture will be subject to detailed survey. The Level 3 detailed survey will provide a record of all features of archaeological interest within the core area of the Force Garth Pasture (Fig 1), containing both Force Garth North and South settlements and their surrounding field systems. It is envisaged that this will be output at a scale of a scale of 1:500.
- 3.3.3 *GPS Survey:* the Level 3 survey will be undertaken using a survey grade differential GPS. The GPS is a Leica 1200 differential system and uses Ordnance Survey base stations in conjunction with a roving station to correct the raw data with corrections transmitted by mobile phone. The accuracy of the OA North GPS system is capable of +- 0.02m and provides for a quick and effective means of generating detailed survey data.
- 3.3.4 Drawing Up: the raw data from the GPS will be combined within a CAD system and plots will be generated to enable the drawing up of the sites within the field. The archaeological detail is drawn up in the field as a dimensioned drawing on the plots with respect to survey markers. On completion of the field survey, the drawings will be enhanced within the CAD environment to produce the final drawings. The earthworks will be depicted by hachures and, where possible, the stratigraphic relationships between features will be indicated. Full ground modelling of the earthworks will not be undertaken, although contours, from LiDAR data, can be depicted at appropriate intervals to show the relationship of the features of archaeological interest to the natural topography.
- 3.3.5 **Level 2 Survey at 1:2500:** a 19.9 hectare area, encompassing the rest of Force Garth Pasture outwith the centre of the landholding, will be surveyed at a scale of 1:2500. The area is already noted as having disparate surviving evidence of field systems and archaeological features. The survey of these additional elements will aid in the construction of a contextual framework within which to understand the development and phasing of the rest of the field system.
- 3.3.6 LiDAR and GPS Recording: the level 2 survey will be undertaken using a combination of LiDAR data and survey grade GPS recording. LiDAR has the ability to identify and record very subtle archaeological features and in some instances can identify features not evident from a ground inspection. It is particularly useful in recording within woodland as the DTM tiles will exclude vegetation and depict the underlying earthworks, whereas GPS recording techniques are severely limited by woodland cover. However, in other instances the 1m resolution LiDAR (that is available to the project) can omit obvious ground features. Using both the LiDAR and GPS ground survey will

- provide an effective tool for recording features at Level 2, which will define the outlines around the principle archaeological features.
- 3.3.7 **Photography:** in conjunction with the archaeological survey a photographic archive will be generated, which will record significant features as well as aspects of the general landscapes. This photographic archive will be maintained using black and white 35mm film and also a digital camera with at least 8.0mega pixel resolution.
- 3.3.8 **Description:** the site descriptions will be written into a proforma format and will incorporate all pertinent details. The recording of the archaeological sites will incorporate a written description, including an accurate ten figure National Grid Reference The description will incorporate a provisional interpretation of the function and chronology of the individual sites. The descriptions will be linked to the historical records for individual features obtained through the documentary review. The description will assess and interpret the monument and will include the following fields:
 - HER number
 - Form
 - Site Name
 - NGR
 - Site Description
 - Monument Type
 - Period
 - Interpretation
 - Dimensions
 - Condition
 - Surveyor
 - Date of survey

3.4 FINAL ANALYTICAL SURVEY REPORT

- 3.4.1 Copies of a draft report will be submitted to the Natural England historic environment advisor and English Heritage for comment within two months of the completion of the survey. One bound A4 printed copy will be provided to Natural England, with drawings included as folded A3 sheets. Further bound copies will also be produced, one each for English Heritage and Durham HER and a shorter version of the report for R & M Scott and the Raby Estate. A digital copy in PDF format will also be supplied to each party. A non-specialist summary will be provided to the North Pennines AONB Partnership, suitable for publication on its website and dissemination of final results of the project to a wider audience will be provided by a presentation at an appropriate forum and an article in Durham Archaeological Journal. The report will include the following:
 - a site location plan related to the national grid;
 - the dates on which the fieldwork was undertaken and by whom;
 - a concise, non-technical summary of the results;
 - the precise location, address and NGR will be provided;
 - a description of the methodology employed, work undertaken and results obtained;
 - analysis of the results with phase plans, sections drawings and photographs at appropriate scales:
 - a full site inventory;
 - the report will also include a complete bibliography of sources from which data has been derived;

- a copy of the Natural England project brief will be included in the appendices;
- a copy of this project design will be included in the appendices, and indications of any agreed departure from that design;
- 3.4.2 The report will outline the results of the research, and will include the desk-based assessment of the site, outlining the historical evidence and summary results from the previous excavations. It will present the descriptive and illustrative results of the topographic survey and present a discussion of the survey results within the context of the present understanding of the historic landscape development made available by the documentary study. Some of the key aims of the integrated survey results will be to present a phased understanding of the settlements and field systems, the nature of their construction, and provide a full inventory of archaeological monuments suitable for incorporation into the Durham HER. The report will help underpin future management and interpretation of the archaeological resource of Force Garth Pasture under a Higher Level Stewardship agreement.

3.5 ARCHIVE

- 3.5.1 The results of all archaeological work carried out will form the basis for a full archive to professional standards, in accordance with current English Heritage guidelines (MoRPHE English Heritage 2006). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. OA North conforms to best practice in the preparation of project archives for long-term storage.
- 3.5.2 This archive will be provided in the English Heritage Centre for Archaeology format and a synthesis will be submitted to the Durham HER (the index to the archive and a copy of the report). OA North practice is to deposit the original record archive of projects with the appropriate County Record Office.
- 3.5.3 The Arts and Humanities Data Service (AHDS) online database project *Online Access to index* of *Archaeological Investigations* (OASIS) will be completed as part of the archiving phase of the project.

3.6 CONFIDENTIALITY

3.6.1 All internal reports to the client are designed as documents for the specific use of the Client, for the particular purpose as defined in the project brief and project design, and should be treated as such. They are not suitable for publication as academic documents or otherwise without amendment or revision. Any requirement to revise or reorder the material for submission or presentation to third parties beyond the project brief and project design, or for any other explicit purpose, can be fulfilled, but will require separate discussion and funding.

4. SURVEY TRAINING / OUTREACH

4.1.1 There is considerable enthusiasm amongst the local community for undertaking archaeological studies, and it is recognised that the proposed project would have the potential for providing training in survey techniques for local people, both in the area and the wider AONB. It is therefore proposed, as an option, that OA North provides a number of training days for local groups. This would entail undertaking training in Level 2 or level 3 detailed surveys. The volunteers would undertake survey work under close supervision from the OA North project supervisor, and learn how to use the survey instruments and the differential GPS, the character and significance of the archaeological landscape will be explained. If required it can include, as a separate field based session, some training in survey techniques and will also take them round some of the known archaeological sites. On completion of the project a final presentation can be arranged for the local community as an evening talk.

5. OTHER MATTERS

- 5.1.1 **Access:** liaison for access to the structures during the work will be arranged with the client unless otherwise instructed prior to commencement of the archaeological investigation. Upon commencement of the works, it is assumed that OA North staff will have unfettered access to the survey areas.
- 5.1.2 **Project Monitoring and Liaison:** the project will be monitored by the Project Management Team in conjunction with the client. It is anticipated that there will be an initial site visit with

- representatives from Natural, a second visit near the end of the fieldwork programme to review findings, and then discussions to review the draft report.
- 5.1.3 Health and Safety: OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1997). A risk assessment will be completed in advance of any on-site works and copies will be made available on request to all interested parties. The principal archaeologist on site will hold a copy of the risk assessment at all times. A risk assessment will be prepared by OA North in advance of any survey works. All project staff will be CSCS qualified. OA North staff will assess the risks during the survey and if unacceptable health and safety risks arise, the OA North project manager will be informed and work will cease until measures taken to negate those risks can be arranged.
- Insurance: the insurance in respect of claims for personal injury to or the death of any person under a contract of service with the unit and arising out of an in the course of such person's employment shall comply with the employers' liability (Compulsory Insurance) Act 1969 and any statutory orders made there under. For all other claims to cover the liability of OA North, in respect of personal injury or damage to property by negligence of OA North or any of its employees, there applies the insurance cover of £ 10m for any one occurrence or series of occurrences arising out of one event.

6. QUALITY ASSURANCE

- OA is a Registered Archaeological Organisation with the Institute for Archaeologists (no 17). OA is not at present ISO certified but operates an internal QA system governed by standards and guidelines outlined by English Heritage and the Institute of Field Archaeologists.
- 6.1.2 **Standards:** it is OA's stated policy to adhere to current professional standards set by IFA, English Heritage, Association of Local Government Archaeological Officers, Museums Organisations.
- OA helps the profession to develop and establish standards by serving on national working parties (eg recently on archives). OA conforms with current legislation and national and local policy standards for archaeology health and safety and other relevant matters. OA has established technical manuals, procedures and policies which control its work covering field recording, finds retention and discard, finds storage and handling, environmental sampling and processing, archiving and post-excavation. These have been developed to conform with best professional practice.
- 6.1.4 **Staff:** OA ensures that its staff are fairly recruited, fairly employed, and properly qualified for their work whether by formal qualification or by established and verifiable experience. OA ensures that staff remain committed and enhance their abilities using annual staff appraisals, supporting formal and informal training and educational courses. OA have established terms and conditions of employment and a system of staff representation to ensure regular consultation on employment matters. To ensure that staff are kept informed of OA's activities OA has a quarterly staff newsletter and regular meetings of staff at all levels to deal with issues of technical quality control and management.
- 6.1.5 **Procurement of services and materials:** OA procures subcontracted work on the basis of value for money, considering quality, track record and service, as well as cost. OA regularly reviews quality of subcontracted work and uses tendering procedures for major sub-contracts. Procurement of materials is on the basis of quality and availability, as well as cost, especially in respect of long-term storage of archives (OA adheres to archive quality photographic materials and processes, archive quality boxes etc).
- 6.1.6 *Working Practices:* management procedures ensure that all work conducted within the Company and all end product reports to clients are monitored and evaluated whilst they are in progress, during compilation, and after completion.
- 6.1.7 **Data Acquisition and Security:** in gathering data from other sources OA has procedures to ensure that a record is made of all sources consulted (whether productive of information or not), the limits of search, and the date of search. Data is filed according to the project to which it relates. For fieldwork projects OA always removes records and finds from site every day, and ensures equipment is secured. OA has a networked computer system. In addition to providing standardised

- software suites for use by all personnel, the computer administration facility monitors logs and checks all activity on the network to ensure that operating quality is maintained. OA has daily backup of all computer systems and up-to-date anti-virus software.
- 6.1.8 **Archives:** OA has standard procedures for archiving records to professional archival standards, and has well established procedures for making arrangements with landowners and recipient institutions for the deposit of archives and finds in appropriate publicly accessible institutions.
- 7. WORK PROGRAMME

7.1 TIMETABLE

- **Documentary Study:** the documentarty study is estimated to take a week
- **Field Survey:** the field survey element is timetabled to take four days
- **Reporting:** the report production would typically take 15 day

8. STAFFING PROPOSALS

- 8.1.1 The project will be led by **Jamie Quartermaine** (BA Hons Surv Dip MIFA). Jamie has considerable involvement in the running of major landscape GIS projects in northern England, which included the Upland Peats project, and the ALSF-funded HLC enhancement projects for the Ribble Valley and Kirkham (Fylde). Jamie's academic speciality is the way in which landscapes develop, and this will be directly pertinent for the present project. He has 25 years of experience of upland landscape recording.
- 8.1.2 The core team will consist of two experienced landscape surveyors **Peter Schofield** and **Alastair Vannan**, and assisted by **David Marron**. The field survey will be directed in the field by **Peter Schofield**. Peter has considerable experience of site recognition and field survey work in the uplands, including prehistoric landscapes, and has familiarity with undertaking landscape analysis. He has been undertaking landscape survey full time since 2003 and has considerable experience of such work.
- 8.1.3 **Alastair Vannan** has a very broad experience of undertaking landscape surveys, having had a major part in the Buttermere and Nether Wasdale valley surveys for the National Trust. Alastair wrote the analytical landscape reports for both valley surveys. Alastair also has a broad experience of undertaking documentary studies and EIAs including a major EIA for the redevelopment of Liverpool.
- 8.1.4 OA North has a dedicated IT infrastructure and systems development team, as well as a successful graphics office, which can be utilised as necessary to provide support for the project. Further details are available in *Appendix Two*, and detailed CVs are provided in *Appendix Three* of this document.

APPENDIX 3

GAZETTEER OF SITES

Site Low Hag, Forest-in-Teesdale

Site number 1

NGR NY 87700 29000

HER number 489

Statutory

Designation Scheduled Monument (SM 1017124)

Period Romano-British?

Source DHER; Coggins 1986; OA North Field Survey 2011

Description An iron metalworking site comprising a heap of iron slag lying to the north of Hag Sike.

No features were identified during the present OA North Field Survey 2011.

Site Hag Sike, Forest-in-Teesdale

Site number 2

NGR NY 88115 28750

HER number 499 Period Medieval?

Source DHER; Coggins 1986; OA North Field Survey 2011; T Gledhill pers comm

Description An iron metalworking site comprising a small heap of iron slag on top of field boundary

53, which was discovered by Tom Gledhill in the course of an MPP survey. No features were identified during the present OA North Field Survey 2011. The area is covered in

fallen trees and brash.

Site Sun Wood A, Forest-in-Teesdale

Site number 3

NGR NY 87809 28370

HER number 501

Statutory

Designation Scheduled Monument (SM 1017124)

Period ?Romano-British

Source DHER; Coggins 1986 OA North Field Survey 2011; T Gledhill pers comm

Description A small hollow near Dineholm Quarry which is probably the remains of a lead smelting site

of unknown date. The site consisted of a semi-circular scoop located on the south side of Smithy Sike; it measures 6.4m by 4.2m. When examined by Tom Gledhill as part of an

MPP survey it seemed to be associated with lead slag.

Site Sun Wood B, Forest-in-Teesdale

Site number 4

NGR NY 87803 28378

HER number 502

Statutory

Designation Scheduled Monument (SM 1017124)

Period ?Romano-British

Source DHER; Coggins 1986; OA North Field Survey 2011; T Gledhill pers comm

Description A large heap of iron slag is probably the remains of an iron smelting site of unknown date.

OA North Field Survey 2011: the site consisted of an oval spoil mound located on the south

side of a Smithy Sike; it measures 9.5m by 9m.

Site Smithy Sike, Forest-in-Teesdale

Site number 5

NGR NY 87627 28425

HER number 506

Statutory

Designation Scheduled Monument (SM 1017124)

Period ?Romano-British

Source DHER; Coggins 1986; OA North Field Survey 2011; T Gledhill pers comm

Description The remains of a roughly rectangular hollow with retaining walls made from iron tap slag

may be the remains of an iron smelting site of unknown date; it was examined by Tom Gledhill in the course of an MPP survey. At that time there was a slight bank around a sloping rectangular hole and it was interpreted that a largish slag heap had been removed,

possibly to be used as track metalling.

OA North Field Survey 2011: the site consisted of a sub-rectangular banked structure located on the south side of Smithy Sike that measures 11.3m by 8.4m (Site 5.1). The structure is slightly sloping internally with a possible sub-division giving a smaller cell on the east end. The site is definitely not domestic in function. Adjacent to the south of the structure are various small linear and circular mounds that may be associated with metalworking (Site 5.2), as well as several clearance cairns that are either associated with clearance concerned with the structure or with the surrounding (prehistoric?) field plot (Site

5.3-5.6).

Site Quern stone, Force Garth Farm

Site number

6

NGR NY 87500 28525

HER number 567 **Period** Unknown

Source DHER; Coggins 1986

Description The remains of a stone quern were found at Force Garth Farm, which had traces of iron

handles. It is of uncertain date.

Site Quern stones, High Force Quarry

Site number 7

NGR NY 87850 29050

HER number 573 **Period** Unknown

Source DHER; Coggins 1986

Description A pair of quern stones of unknown date was found at the quarry in 1937.

Site Early field system, Force Garth East

Site number 8

NGR NY 87750 28525

HER number 2436

Statutory

Designation Scheduled Monument (SM 1017124)

Period Romano-British?

Source DHER; Coggins 1986; OA North Field Survey 2011

Description A group of fields are divided by several low earth banks, which surround small patches of ridge and furrow. The area was initially recorded by Coggins (1986; Figs 9 and 32) and he

ridge and furrow. The area was initially recorded by Coggins (1986; Figs 9 and 32) and he interpreted the fields as being a combination of prehistoric 'celtic' fields with later

medieval and post-medieval fields.

OA North Field Survey 2011: this is the overall complex number for all of the surviving multi-period field system elements surrounding East Force Garth Farm. Features have been recorded through detailed survey in an area centred upon (but also outside of) the Scheduled Monument (SM 1017124). The area spans approximately 800m by 600m and is demarcated at the edges by the River Tees to the east, the B6277 road to the north, Force

Garth Quarry (Site 15) to the south, and a line running roughly north/south from West Force Garth Farm on the west side.

Site Disc quern, Dineholm Quarry

Site number 9

NGR NY 87250 28200

HER number 2390 **Period** Unknown

Source DHER; Coggins 1986

Description The remains of a stone disc quern of unknown date were found at the quarry in 1937.

Site Bronze axe, Dineholm Quarry

Site number 10

NGR NY 87250 28200

HER number 2391

Period Bronze Age? **Source** DHER; Coggins 1986

Description A bronze axe was found at the quarry in 1958.

Site Romano-British settlement, High Force Quarry

Site number 11

NGR NY 88004 29036

HER number 3098

Statutory

Designation Scheduled Monument (SM 1017124)

Period Romano-British
Source DHER; Coggins 1986

Description The remains of a bank and a ditch enclosing a single, circular house foundation that is

probably the remains of a Romano-British settlement.

Site Romano-British settlement, Force Garth Pasture South

Site number 12

NGR NY 87635 28320

HER number 3107

Statutory

Designation Scheduled Monument (SM 1017124)

Period Romano-British

Source DHER; Fairless and Coggins 1986; Coggins 1986; OA North Field Survey 2011

Description A circular enclosure at this site contains the remains of at least five round houses; two of the

houses were excavated during the 1970s. In at least one case the stone foundations overlay the remains of an earlier wooden structure. A radiocarbon date suggested that the site was in

use during the 3rd century AD.

OA North Field Survey 2011: the settlement was surveyed at 1:250 scale.

Site Romano-British settlement, Force Garth Pasture North

Site number 13

NGR NY 87540 28445

HER number 3108

Statutory

Designation Scheduled Monument (SM 1017124)

Period Romano-British

Source DHER; Fairless and Coggins 1980; Coggins 1986; OA North Field Survey 2011

Description A D-shaped enclosure surrounds a group of several circular buildings. Two further circular

house foundations are present outside the enclosure and the remains of a large field system

(Site **08**) occupy the area adjacent. Excavations suggested that the site was in use during the 2nd century AD.

OA North Field Survey 2011: the settlement was surveyed at 1:250 scale.

Site Chapel Cottage, Forest-in-Teesdale

Site number 14

NGR NY 87570 29130

HER number 3467
Period Industrial
Source DHER

Description This former Baptist chapel now forms the outhouse to Chapel Cottage. It is reputed to have

been built in 1849 and to have been able to seat 150 people.

Site Force Garth Quarry

Site number 15

NGR NY 87250 28200

HER number 4534
Period Modern
Source DHER

Description This large quarry was established in 1932 and continues to be in use.

Site West Force Garth limestone quarry

Site number 10

NGR NY 87300 28950

HER number 4549

Period Post-medieval Source DHER

Description The site of a limestone quarry with an adjacent lime kiln.

Site Settlement, Pasture Foot, Holwick

Site number 17

NGR NY 87480 27985

HER number 5279

Statutory

DesignationScheduled Monument (SM 1017120)**Period**Prehistoric?, Romano/British and medieval

Source DHER; Coggins 1986

Description A Romano-British native settlement, including round houses, lying 160m north west of

Bleabeck Force. A rectangular building and a pile of slag are likely to represent the remains

of a medieval metalworking site. The settlement has a fragmentary enclosure wall.

Site Building Platform, Forest-in-Teesdale

Site number 18

NGR NY 87649 28359

HER number -

Statutory

Designation Scheduled Monument (SM 1017124)

Period Medieval?

Source OA North Field Survey 2011

Description Two-celled sub-rectangular platformed building foundation located on the north side of the

stream; it measures 19.8m by 10m. It was probably domestic in nature; the northern cell

platform is higher than the southern cell.

Site Building Foundation, Forest-in-Teesdale

Site number 19

NGR NY 87583 28392

HER number

Statutory

Designation Scheduled Monument (SM 1017124)

Period Medieval?

OA North Field Survey 2011 Source

Description Two-celled sub-rectangular building foundation, measuring 14m by 7m. There is an

> additional sub-circular annex to the east measuring 3.9m in diameter. The site is located between a stream in the south and a droveway (Site 46). The structure is probably a

sheepfold.

Site Clearance Cairns/Field Boundaries, Forest-in-Teesdale

Site number

NGR NY 87449 28459

HER number

Period Unknown

Source Coggins 1986; OA North Field Survey 2011

Description A series of five features located upstream to the west of the Force Garth North enclosed

settlement (Site 13). They consist of five sub-circular mounds (Sites 20.1-20.5), the largest measuring 6m by 4.6m, and a linear field boundary bank (Site 20.6). The bank is over 130m long, is orientated west/east and turns to the north-north-east at the eastern end. The circular features may be sat on top of linear cultivation ridges running upslope from the boundary. These features are of unknown function, but Coggins (1986; Fig 9) defined them

as prehistoric clearance cairns.

Site Quarries, Forest-in-Teesdale

Site number 21

NGR NY 87569 28587

HER number

Statutory

Designation Scheduled Monument (SM 1017124)

Period Post-medieval

OA North Field Survey 2011 Source

A pair of linear and sub-circular quarry scoops cut into the hillside; they measure 8.8m by **Description**

6m and 26m by 4m. They were probably used to obtain wall construction stone.

Site Stock Enclosure, Forest-in-Teesdale

Site number

NGR NY 87616 28518

HER number

Statutory

Designation Scheduled Monument (SM 1017124)

Period Unknown

OA North Field Survey 2011 Source

A single-celled sub-square stock enclosure measuring 10.7m by 10m. It is located on the **Description**

end of a field bank at the edge of a discrete series of curvilinear fields (Site 50).

Site Stock Shelter, Forest-in-Teesdale

Site number 23

NGR NY 87675 28549

HER number

Statutory

Designation Scheduled Monument (SM 1017124) Period Unknown

Source OA North Field Survey 2011

Description A single-celled D-shaped stock shelter measuring 6.9m by 8.4m. It is located on a field

bank within of a discrete series of curvilinear fields (Site 50).

Site Stock Shelter, Forest-in-Teesdale

Site number

NGR NY 87769 28502

HER number

Statutory

Scheduled Monument (SM 1017124) **Designation**

Period Unknown

Source OA North Field Survey 2011

Description A small sub-circular stock shelter measuring 6.4m by 4.9m. It is located at a possible

junction within relict field boundaries (Site 51).

Site Building Foundation, Forest-in-Teesdale

Site number

NGR NY 87792 28526

HER number Statutory

Designation Scheduled Monument (SM 1017124)

Period Medieval?

Source OA North Field Survey 2011

Description A single-celled, sub-rectangular building foundation located on the edge of scrubby

woodland on the south-eastern end of a series of rectilinear field plots (Site 51). The site

could possibly be domestic in function, such as a shieling.

Site Stock Enclosure, Forest-in-Teesdale

Site number

NGR NY 87694 28574

HER number

Statutory

Designation Scheduled Monument (SM 1017124)

Period Medieval to Post-medieval Source OA North Field Survey 2011

A single-celled rectangular stock enclosure, measuring 17m by 15m. It is located adjoining **Description**

the edge of two different phased field systems (Sites 50 and 51). The regularity of the

structure suggests it that is related to the present day field system.

Site Stock Enclosure, Forest-in-Teesdale

Site number 27

NGR NY 87837 28544

HER number

Statutory

Designation Scheduled Monument (SM 1017124)

Period

Source OA North Field Survey 2011

Description A single-celled D-shaped stock enclosure measuring 10.5mm by 7.3m. It is located on the

> external, eastern side of a field bank within a series of rectilinear field plots (Site 51). There is an entrance on the western side of the enclosure running through the field bank (Site

51.2).

Site Longhouse, Forest-in-Teesdale

Site number

NGR NY 87710 28663

HER number Statutory

Designation Scheduled Monument (SM 1017124)

Period Medieval

Source OA North Field Survey 2011

Description A two-celled rectilinear longhouse located immediately to the east of the current East Force

Garth Farm. The structure is partially obscured on the north end by a ramp of later material constructed to form an access into a yard on the east side of the modern farmstead. The longhouse is orientated roughly south-west/north-east, measures at least 11.5m by 6.9m and is platformed internally suggesting domestic occupation. There is a slight earthen lynchet surviving on the east side suggesting that the structure was keyed into the nearby field system (Site 52); the lynchet is masked on the eastern end by a large modern machine-

dumped clearance cairn.

Site Stock Shelter, Forest-in-Teesdale

Site number

NGR NY 87782 28667

HER number

Statutory

Designation Scheduled Monument (SM 1017124)

Period Medieval?

Source OA North Field Survey 2011

Description A roughly L-shaped two-celled stock shelter measuring 11.4m by 8.7m. The structure is

keyed into the external, southern side of an enclosure surrounding a domestic structure (Site 31.3), and is located within a field system (Site 52) adjacent to a series of building platforms

(Site 30).

Site Building Platforms, Forest-in-Teesdale

Site number 30

NGR NY 87801 28660

HER number

Statutory

Designation Scheduled Monument (SM 1017124)

Period Medieval?

Source OA North Field Survey 2011

Description The fragmentary remains of at least four building platforms located on the north side of a

field system (Site 52). There are three conjoined sub-rectilinear structures orientated north/south, overall measuring at least 22m by 9.5m (Sites 30.1-30.3). The northern structure (Site 30.1), measuring 8.4m by 7.9m, is well preserved and has an entrance on the east side. Although the structures are platformed internally they are more likely to be ancillary agricultural structures rather than domestic in function. The final single-celled subrectangular structure (Site 30.4) measures at least 9m by 5.4.m and is located to the east of the other structures. It is damaged and is overlain on the north end by a modern field wall,

but could possibly be a domestic site.

Site Building Platform and Enclosure, Forest-in-Teesdale

Site number 31

NGR NY 87775 28706

HER number Statutory

Designation

Period Medieval Source OA North Field Survey 2011

planting.

Description A single-celled domestic structure (Site 311) measuring 8.5m by 7m. It is orientated roughly

south-west/north-east; it is cut slightly into the hillslope on the west side and is platformed up on the east downslope side. The platformed structure is located within a sub-divided field plot (Site 31.2 and 31.3), the northern end of which is overlain by a modern field wall. The field plot is keyed into other surrounding parts of field system (Site 38.1) and is possibly associated with a stock enclosure (Site 29). The area is entirely masked by modern tree

Wall Foundation, Forest-in-Teesdale

Site number

NGR NY 87698 28720

HER number

Site

Period Post-medieval

Source OA North Field Survey 2011

Description A derelict section of field boundary wall. It measures over 30m long, and is located on the

north side of East Force Garth Farm. The junction of a small paddock on the north end of

the wall has been removed and survives as a modern clearance cairn.

Site Broad Ridge and Furrow Cultivation, Forest-in-Teesdale

Site number

NGR NY 87896 28615

HER number

Statutory

Designation Scheduled Monument (SM 1017124)

Period Medieval to Post-medieval OA North Field Survey 2011 Source

Description An area of wide ridge and furrow cultivation located on the east side of a series of

rectilinear building platforms (Site 30) and partially within a modern field. The cultivation ridges measure up to 5.5m wide between ridge crests and are orientated roughly east-northeast/west-south-west. The ridges survive best to the west of the modern field, and here part of the cultivation has been misinterpreted as a rectilinear building by Coggins (1986).

Site Narrow Ridge and Furrow Cultivation, Forest-in-Teesdale

Site number

NGR NY 87606 28745

HER number

Post-medieval Period

OA North Field Survey 2011 Source

Description An area of narrow ridge and furrow cultivation located in an enclosed field between West

Force Garth and East Force Garth farms. The cultivation is orientated roughly south-

west/north-east and measures up to 3-4m between ridge crests.

Site Narrow Ridge and Furrow Cultivation, Forest-in-Teesdale

Site number

NGR NY 87589 28900

HER number

Period Post-medieval

Source OA North Field Survey 2011

Description A small area of fragmentary narrow ridge and furrow cultivation located to the north-east of

West Force Garth Farm. It is orientated roughly west/east and measures up to 3-4m between

ridge crests.

Site Narrow Ridge and Furrow Cultivation, Forest-in-Teesdale Site number 36

NGR NY 87691 28922

HER number -

Period Post-medieval

Source OA North Field Survey 2011

Description A small area of fragmentary narrow ridge and furrow cultivation located to the north-east of

West Force Garth Farm. It is orientated roughly north/south and measures up to 3-4m

between ridge crests.

Site Cultivation Lynchets, Forest-in-Teesdale

Site number 37

NGR NY 87650 28963

HER number

Period Prehistoric to Medieval Source OA North Field Survey 2011

Description A series of cultivation lynchets located to the north-east of West Force Garth farm and

adjacent to Hag Sike. There is a large curvilinear lynchet demarcating the edge of a raised

hill, which would have been cultivated internally.

Site Cultivation Lynchets, Forest-in-Teesdale

Site number 38

NGR NY 87666 28809

HER number -

Period Prehistoric to Medieval Source OA North Field Survey 2011

Description A series of cultivation lynchets located to the north of both West Force Garth and East

Force Garth farms. There is a large curvilinear lynchet, which may demarcate the original northern garth boundary for the medieval Force Garth farmstead (Site **38.3**). The southern side of the garth may be aligned along the modern curvilinear wall running between both farms. In addition, there is a sinuous lynchet located on the top break of slope running between the two farms (Site **38.5**) which possibly continues as a sinuous boundary beneath the modern wall to the east (Site **31.3**). There are roughly parallel field lynchets running north/south, downslope away from the farms toward Hag Sike (Site **38.1**, **38.2** and **38.4**),

and there is a single possible clearance cairn (Site 38.8).

Site Linear Boundary Bank, Forest-in-Teesdale

Site number 39

NGR NY 87582 28755

HER number -

Period Prehistoric to Medieval Source OA North Field Survey 2011

Description A long linear but slightly sinuous boundary bank located running between West Force Garth

and East Force Garth farms. It measures over 104m long and is orientated roughly north-west/south-east. The boundary clearly predates the farms and modern enclosure, is seen as a cropmark in a small paddock on the west side of East Force Garth farm and continues to the

east as a cultivation lynchet associated with a field system (Site 51.7).

Site Cultivation Lynchets, Forest-in-Teesdale

Site number 40

NGR NY 87972 28674

HER number

Statutory

Designation Scheduled Monument (SM 1017124)

Period Prehistoric to Medieval

Source Coggins 1986; OA North Field Survey 2011

Description

A complex series of earthen field lynchets forming discrete field plots on the north-east-facing slope to the north-east of East Force Garth. Coggins interpreted these as sub-rectangular 'celtic fields' (1986, 70). There are at least twelve separate lynchets surviving within the two modern fields straddling the quarry road (Sites **40.1-40.12**) that cover an area of approximately 300m by 160m. The field plots are orientated south-west/north-east and are aligned with the direction of the slope. The plots are not obviously associated with any contemporary domestic or agricultural structures but seem likely to be either late prehistoric or medieval in origin.

Site Earthen Banks, Forest-in-Teesdale

Site number

NGR NY 88048 28534

HER number

Statutory

Designation Scheduled Monument (SM 1017124)

Period Unknown

Source OA North Field Survey 2011

Description A small disturbed area of earthen banks surviving on the south-east end of an extensive

complex of cultivation lynchets (Site 40). There is a single linear field bank orientated north-east/south-west and measuring 29m. The disturbed ground consists of several

curvilinear mounds and a possible circular tree throw.

Site Field Boundary Banks, Forest-in-Teesdale

Site number 42

NGR NY 87972 28487

HER number Statutory

Designation Scheduled Monument (SM 1017124)

Period Prehistoric to Medieval Source OA North Field Survey 2011

Description A pair of field boundary banks located in fields to the east of the modern quarry road. The

banks probably demarcate the eastern edges of cultivated field plots on the boundary of flat land before it descends steeply to the River Tees. These are clearly associated with field systems located to the west, although there is no direct connection with these. Each field boundary (Site **42.1** and **42.3**) forms the eastern end of a field plot measuring at least 80m by 60m. There is a single small standing stone on the east side of the boundaries which is of

unknown date (Site 42.2), and may have been used/re-used as a gate stoup.

Site Cultivation Lynchets, Forest-in-Teesdale

Site number 43

NGR NY 87573 28267

HER number

Statutory

Designation Scheduled Monument (SM 1017124)

Period Prehistoric

Source OA North Field Survey 2011

Description A series of boundary features located upslope and to the south-west of Force Garth South

enclosed settlement (Site 12). They consist of two earthen lynchets running orientated roughly east-south-east/west-north-west, forming a field plot measuring at least 140m by 60m. The western end of the plot is truncated by Force Garth Quarry (Site 15). The southern lynchet is large and marks the top-break of slope above the River Tees. There are two further sinuous boundary banks/field walls surviving on the slope beneath the southern lynchet (Site 43.2 and 43.3) which may form truncated enclosures, as well as a boundary

bank running downslope to the south-east of the enclosed settlement (Site 43.5).

Site Sheep Fold, Forest-in-Teesdale

Site number 44

NGR NY 87729 28491

HER number

Statutory

Designation Scheduled Monument (SM 1017124)

Period Post-medieval

Source OA North Field Survey 2011

Description The foundations of a single-celled rectangular sheepfold measuring 8m by 6m. It is in the

north-west corner of a post-medieval walled field plot located on the north side of Smithy

Sike.

Site Droveway, Forest-in-Teesdale

Site number 45

NGR NY 87568 28500

HER number Statutory

Designation Scheduled Monument (SM 1017124)

Period Prehistoric

Source OA North Field Survey 2011

Description The fragmentary remains of a sinuous droveway located running upslope to the north of

Force Garth North enclosed settlement (Site 13). The route consisted of the remains of parallel banks orientated roughly south-west/north east for at least 45m. The feature is partially overlain and masked by a collapsed modern field wall that crosses the settlement

Site Droveway, Forest-in-Teesdale

Site number 46

NGR NY 87605 28386

HER number Statutory

Designation Scheduled Monument (SM 1017124)

Period Prehistoric

Source OA North Field Survey 2011

Description A linear droveway consisting of a well-defined hollow running along the south side of a

rectilinear field system (Site 48). It is orientated roughly east-south-east/west-north-west and measures at least 180m long. The droveway is not directly linked with either enclosed settlement (Site 12 and 13) but straddles the ground in between them. It may have formed a communal stock route for both settlements down (through Sun Wood) to the River Tees for

watering purposes.

Site Droveway, Forest-in-Teesdale

Site number 47

NGR NY 87591 28377

HER number - Statutory

Designation Scheduled Monument (SM 1017124)

Period Prehistoric

Source OA North Field Survey 2011

Description A sinuous droveway running west from the Force Garth South enclosed settlement (Site 12).

It measures approximately 130m long running roughly east-south-east/west-north-west from the interior of Force Garth South enclosed settlement to land on the south side of Smithy Beck. Part of the route is marked by a dry stream gully running off of Smithy Beck towards Sun Wood. The droveway does not adjoin both enclosed settlements but would funnel stock to the south of Smithy Beck to a point adjacent to it. This may suggest that if the enclosed settlements were contemporary then the land south and west of the beck was farmed by Force Garth South and the land north and east was farmed by Force Garth North settlement.

Site Field Enclosures, Forest-in-Teesdale

Site number 48

NGR NY 87642 28429

HER number

Statutory

Designation Scheduled Monument (SM 1017124)

Period Prehistoric

Source OA North Field Survey 2011

Description A section of probable prehistoric rectilinear field system located to the east of Force Garth

North and north of Force Garth South enclosed settlements (Site 12 and 13) measuring approximately 150m by 120m. The orientation of an entrance from the Force Garth North settlement placed on the east side of the enclosure-facing into the field system would suggest that the field plots were farmed by this settlement. This section of the field system is that part on the south side of Smithy Beck, the north end of the field system is Site 49. There are perpendicular sub-divisional boundaries forming possibly four/five sub-divided plots (Site 48.1-48.5). The largest plot contains a metalworking site (Site 5) which may be contemporary with the settlement surrounded by slight remains of around eight clearance

cairns/banks (Site 5.2-5.6).

Site Field Enclosures, Forest-in-Teesdale

Site number 49

NGR NY 87637 28464

HER number -

Statutory

Designation Scheduled Monument (SM 1017124)

Period Prehistoric

Source OA North Field Survey 2011

Description A section of probable prehistoric rectilinear field system located to the east of Force Garth

North and north of Force Garth South enclosed settlements (Site 12 and 13) measuring approximately 150m by 120m. The orientation of an entrance from the Force Garth North settlement placed on the east side of the enclosure facing into the field system would suggest that the field plots were farmed by this settlement. This section of the field system is that part on the north side of Smithy Beck, and consisted of field banks 49.1-49.5 and two

curving lynchets 49.6 and 49.7. The south end of the field system is Site 48.

Site Field Enclosures, Forest-in-Teesdale

Site number 50

NGR NY 87669 28531

HER number

Statutory

Designation Scheduled Monument (SM 1017124)

Period Prehistoric

Source OA North Field Survey 2011

Description A complex series of small curvilinear field plots located on the edge of rough semi-

improved pasture (Site **50.1-50.12**). The field banks survive in places variously as well-defined earthen lynchets, earth and stone-constructed field banks or orthostatic wall foundations. Overall this portion of field system measures 160m by 110m. This section of field system was not thought to be 'celtic fields' by Coggins (1986; Fig 9), although their

morphology would suggest that they were possibly prehistoric in date.

Site Field Enclosures, Forest-in-Teesdale

Site number 51

NGR NY 87763 28582

HER number -

Statutory

Designation Scheduled Monument (SM 1017124)

Period Prehistoric to Medieval
Source OA North Field Survey 2011

Description A section of probable prehistoric or medieval rectilinear field system located to the north-

east of Force Garth North enclosed settlement (Site 13), and measuring approximately 135m by 125m. There is a well-defined rectilinear outer south and eastern boundary (Site 51.1, 51.2 and 51.8), and a northern boundary (adjoining field plot 52), consisting of sites 51.6, 51.7 and 51.11, which is attached to a longer sinuous boundary running away to the northwest (Site 39). In addition, there are several possible sub-divisional boundaries (Site 51.3-

51.5, 51.9 and **51.10**).

Site Field Enclosures, Forest-in-Teesdale

Site number 52

NGR NY 87773 28632

HER number Statutory

Designation Scheduled Monument (SM 1017124)

Period Prehistoric to Medieval Source OA North Field Survey 2011

Description A section of probable prehistoric or medieval rectilinear field system located to the east of

East Force Garth farm, and measuring approximately 125m by 55m. There are no well-defined edges to the field plot but to the south adjoins another field plot (Site 51) the other side of a boundary (Site 51.6). There are several sub-divisional boundary banks (Site 52.4-52.6 and 52.8), and a possible hollow way (Site 52.7) measuring 32m running into an area of building platforms (Site 30). In addition, there is a damaged sub-rectangular enclosure measuring 45m by 40m. It has been crossed by a farm access road and is truncated by medieval cultivation ridges (Site 33). The south and west ends of the enclosure are well-defined with large banks (Site 52.1 and 52.3) and there is a possible internal sub-divisional boundary with an attached stock enclosure (Site 52.2). The enclosure may be associated

with a putative domestic platformed site (Site 30.4) on its northern end.

Site Field Boundaries, Forest-in-Teesdale

Site number 53

NGR NY 88120 28768

HER number -

Period Medieval?

Source OA North Field Survey 2011

Description Fragmentary sections of field boundary banks straddling Hag Sike and located on the east

side of the modern quarry road. A roughly linear bank, orientated north-north-west/south-south-east runs for 107m across the stream. At its northern end, a shallow lynchetted bank runs further to the north towards rough scree-strewn ground. To the south of the bank are slight remains of the corner of the bank adjacent to a narrow gully that runs towards the

stream. The ground at this location south of Hag Sike is covered in trees and brash.

Site Sheep Shelter, Forest-in-Teesdale

Site number 54

NGR NY 87346 28528

HER number -

Period Post-medieval

Source OA North Field Survey 2011

Description The ruinous foundations of a post-medieval T-shaped sheep shelter. It is located on the

north side of Smithy Sike and measures 6m square with collapsed walls up to 2m wide.

Site Clearance Cairn, Forest-in-Teesdale

Site number 55

NGR NY 87782 28908

HER number

Period Post-medieval

Source OA North Field Survey 2011

Description A sub-circular clearance cairn located on the north side of Hag Sike. It measures

approximately 4m by 3.5m. Despite its proximity to the stream, the feature does not seem to

be a metalworking site.

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Plate 2:	A view of the central house at Force Garth Pasture North (Site 13.4), during the excavations in 1973 (Past Perfect 2011)
Plate 3:	A vertical aerial view of the settlements at Force Garth Pasture North (Site 13) and South (Site 12) (centre and bottom-right parts of the image respectively), looking north-west (Past Perfect 2011)
Plate 4:	Force Garth Pasture North (Site 13) under excavation in 1974 (Past Perfec 2011)
Plate 5:	Early field systems sketch recorded at Force Garth Pasture (Coggins 1986 Fig 32)
Plate 6:	Field system complex - Site 8, and East Force Garth Farm looking north
Plate 7:	Aerial view of both Force Garth settlements (Sites 12 and 13) looking southeast
Plate 8:	Aerial view of Force Garth North settlement (Site 13) looking south
Plate 9:	Force Garth North settlement (Site 13)
Plate 10:	Round houses at Force Garth North settlement (Site 13.2 - 13.5)
Plate 11:	Aerial view of both Force Garth settlements and adjoining droveways

looking west (Sites 12, 13, 46 and 47)

Plate 19:

Plate 12: Enclosure bank at Force Garth South settlement (Site 12.1) Plate 13: Rectangular building platform at Force Garth South settlement (Site 12.7) Plate 14: Rectilinear foundations (Site 12.7) overlaying the enclosure bank of Force Garth South settlement Plate 15: Field system and droveways located between both enclosed round house settlements (Sites 5, 20, 43 and 46-49) Plate 16: A sunken droveway settlement looking north-west towards Force Garth North (Site 46) Plate 17: Group of irregular-shaped field plots south of East Force Garth Farm (Site **50**) Plate 18: Lynchetted boundary (Site 43.4) attached to the south of Force Garth South settlement (Site 12)

Rectilinear putative industrial structure on Smithy Beck (Site 5.1)

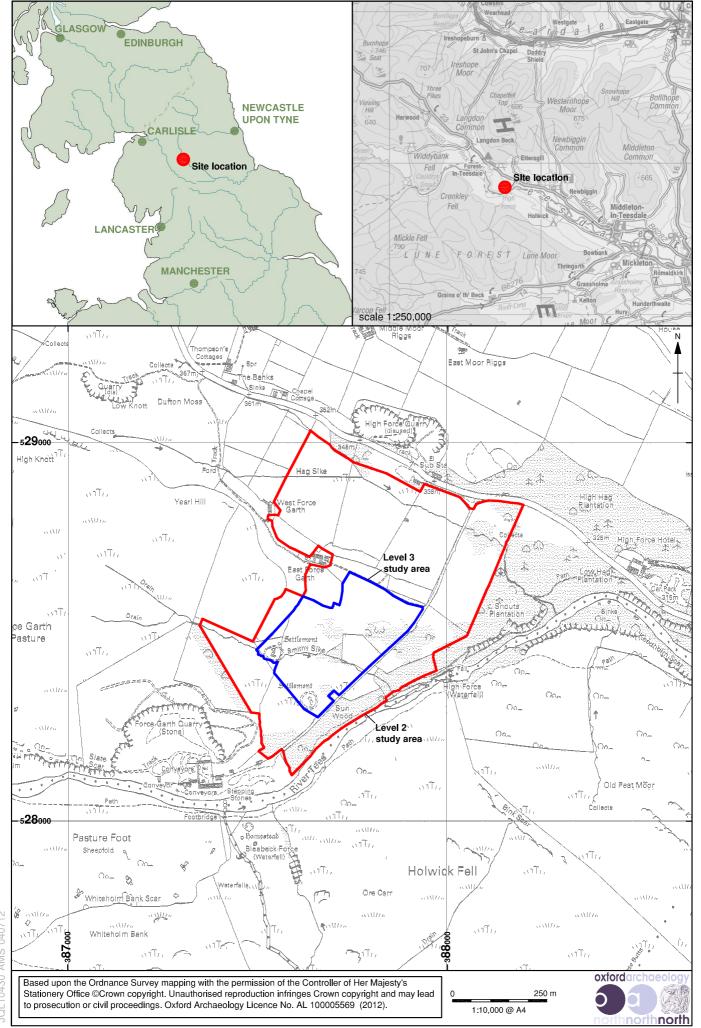


Figure 1: Site location

Figure 2: Overall location of topographic survey, showing areas covered in subsequent figures

Not to scale

northnorth

Level 3 study area

Figure location

Contour

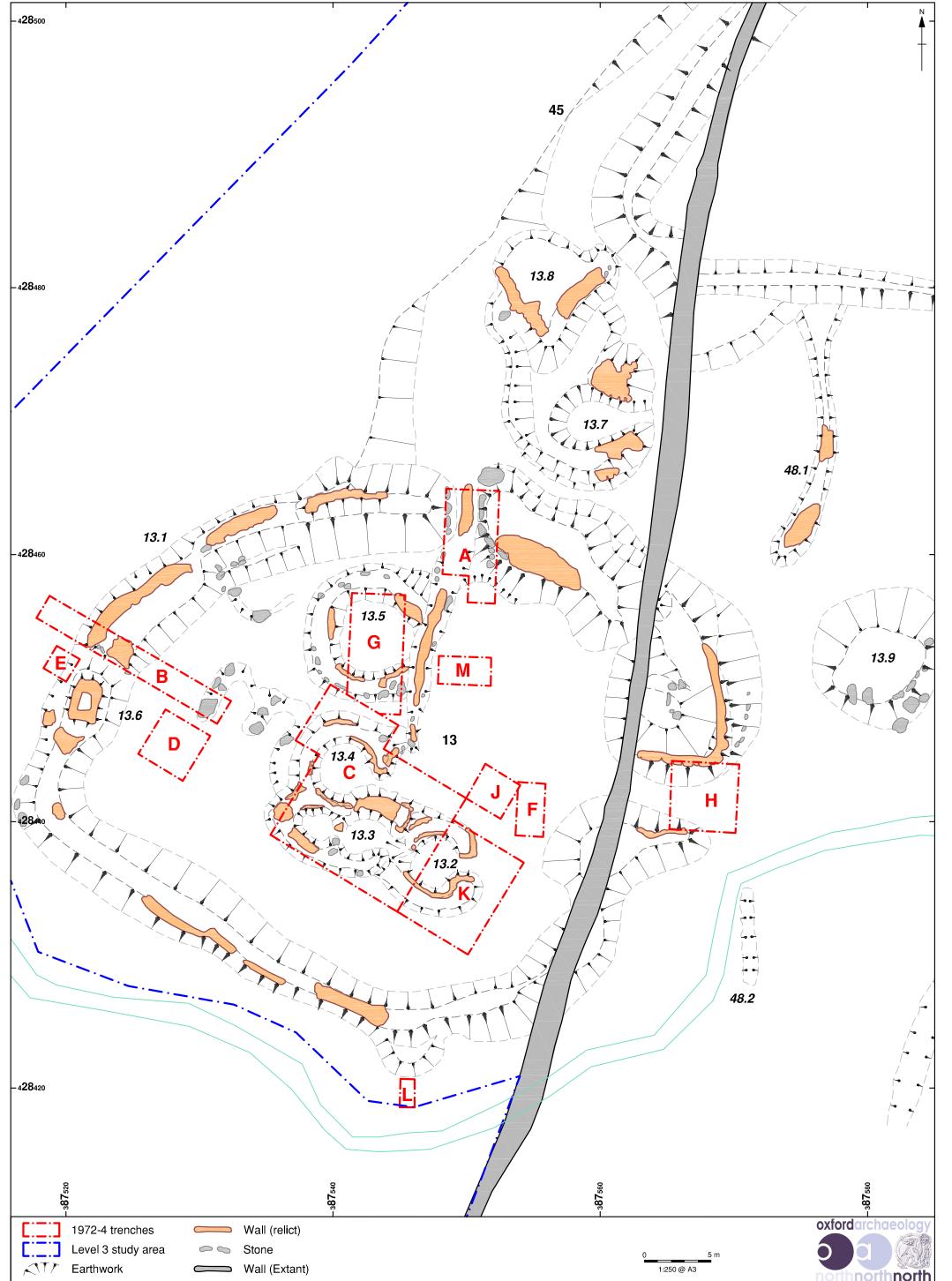


Figure 12: Detail of Force Garth north enclosed settlement, (Site 13)