

HARDKNOTT FOREST AND GRASSGUARDS

Cumbria



Archaeological Assessment and Survey



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SUMMARY

A desk-based assessment and archaeological survey were undertaken in April 2002 on the study area of Grassguards and Hardknott Forest, centred on SD 220 980 and NY 230 000 (Fig 1). The work was carried out by Oxford Archaeology North (OAN) on behalf of the Lake District National Park Authority and Forest Enterprise.

The assessment comprised a desk-based survey of available documentary and cartographic sources, and highlighted the archaeological resource within and around the study area, which is owned and managed by Forest Enterprise. In total, nine sites are recorded in the Sites and Monuments Record (SMR), of which seven are of unknown date, one is of Roman date and the other of medieval to post-medieval date. The Roman site is a section of the road extending through Hardknott Pass, between the forts at Ambleside and Hardknott and the medieval site is a potash kiln at Hollin How (SMR 30080). The remaining seven SMR sites include two enclosures, a settlement/field system, two possible buildings, a putative fortification (SMR 1459), and a second potash kiln, which was probably of similar date to the first.

Following on from the assessment, a field survey of the study area was undertaken. This identified 87 sites, of which nine were recorded in the SMR. Almost all of these are associated with agricultural activity belonging to three settlement areas: the first centred around Castle How in the north; the second was in the area of Birks Farm; and the third was to the immediate south of Grassguards in the southern part of the study area. The character of this third settlement suggests that it pre-dated the post-medieval farms and would appear to represent non-intensive medieval settlement. There were also two sites relating to industrial activity, the potash kiln at Hollin How and a bloomery mound, both of which are probably of medieval date.

The study area is immediately to the north of Ulpha Fell, which has extensive prehistoric remains, typically in the form of cairnfields; however, within the study area only a single, small cairnfield of prehistoric character was identified.

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Oxford Archaeology North (OAN) would like to thank the staff of the Cumbria Sites and Monuments Record, and Miles Johnson and the staff of the Cumbria Record Office in Barrow. In addition, thanks should go to Nigel Williams and Mark Hartnett of Forest Enterprise. Special thanks are due to John Hodgson of the Lake District National Park Authority (LDNPS) for his help and support during the project.

The desk-based study was undertaken by Vix Hughes, the fieldwork by Daniel Elsworth and Peter Schofield, and the report was jointly written by Vix Hughes and Daniel Elsworth. The detailed survey of the Grassguards Bloomery was undertaken by Jamie Quartermaine, John Hodgson (LDNPA) and Eleanor Kingston (LDNPA). The illustrations were produced by Emma Carter and Daniel Elsworth. The project was managed by Jamie Quartermaine, who edited the report along with Rachel Newman.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 Oxford Archaeology North (OAN) was invited by John Hodgson of the Lake District National Park Authority (LDNPA) to undertake a desk-based assessment and survey of Grassguards and Hardknott Forest, centred on SD 220 980 and NY 230 000 (Fig 1). The project aimed to provide valuable information concerning visible archaeological remains in the Hardknott Forest and Grassguards Forest areas which would allow Forest Enterprise to manage the area in sympathy with the archaeological heritage. The archaeological survey was undertaken in accordance with the requirements of the brief prepared by John Hodgson (*Appendix 1*), and it examined an area of 5.2km², which comprised deciduous/coniferous woodland, open fields and unimproved moorland.
- 1.1.2 The desk-based study consisted of a search of both published and unpublished records held by the Cumbria Sites and Monuments Record (SMR) in Kendal, the Cumbria County Record Office in Barrow (CRO(B)), the National Monuments Record (NMR), the library and archives at OAN's offices in Lancaster, and the Local Studies Library in Barrow.
- 1.1.3 This report sets out the results of the work in the form of a short document which outlines the survey results and potential of the area, with recommendations for further work. A gazetteer of sites recorded in the survey is provided in *Appendix 3*.
- 1.1.4 *Layout of Report:*** the report provides for a methodology statement (*Section 2*) outlining the approach and the sources for the assessment. The topographic, geological and historical background (*Section 3*) examines the background to the region (the Upper Duddon Valley); the historical background aiming to deal with developments on a regional scale and providing a general chronological picture of major events, conditions and influential sites. The Assessment Results (*Section 4*), concerns itself with evidence relating specifically to the study area and is again dealt with in chronological order. The Field Survey (*Section 5*) is also related to the confines of the study area and presents the results of the identification survey. The conclusion (*Section 6*) summarises the results, highlights the more significant elements of the landscape and makes recommendations for further work.

2. METHODOLOGY

2.1 PROJECT DESIGN

2.1.1 A project design (*Appendix 2*) was submitted in March 2002 by OAN in response to a brief (*Appendix 1*) from LDNPA for a programme of survey to record the archaeological landscapes within four Lake District forests in order to enhance the existing archaeological record and to enable appropriate management and interpretation strategies to be enacted. In the event, OAN was commissioned to survey Grassguards and Hardknott Forests only. In addition to the identification survey of the area, a detailed contour survey was undertaken of a bloomery site at Grassguards. In all other respects the work was carried out in accordance with the project design.

2.2 DESK-BASED ASSESSMENT

2.2.1 **Sites and Monuments Record (SMR):** the Cumbria Sites and Monuments Record, a database of archaeological sites within the county maintained by Cumbria County Council and the LDNPA, both in Kendal, was accessed. A brief record, including grid reference and description, was obtained for the various sites within the defined area. Each record was studied and information was extrapolated concerning possible sites within the study area. The records held by both Cumbria County Council and the LDNPA were examined to ensure that all pertinent information for the study area was noted. The location of these sites is shown in Figure 4.

2.2.2 **Aerial Photographs:** parts of the study area have been recently subject to forest plantation, and an examination of historical aerial photographs was pertinent to investigate these areas prior to recent planting. Aerial photographs held at both the Cumbria County Council SMR office and at the LDNPA office were examined. The photographs at LDNPA were exclusively vertical aerial photographs, whereas those from the County Council included some obliques. An electronic enquiry was made of the National Monuments Record (Swindon) for aerial photographs but the results of the search are not forthcoming at the time of the submission of the present report. The study area had been examined as part of a Vertical Air Photographic survey undertaken by the Cumbria and Lancashire Archaeological Unit (now OAN) in the early 1980s; this involved the examination of photographs taken typically from altitudes of 10,000 ft. Field verification of the sites identified from aerial photography was carried out, adding considerably to the reliability of the sites' interpretation. The sites identified by the programme were incorporated within the county SMR.

2.2.3 **County Record Office (Barrow):** the County Record Office at Barrow was visited primarily to consult documents specific to the study area. Historical maps, including any Tithe or Enclosure maps and early Ordnance Survey (OS) maps, were also examined (eg Figs 1 and 2). Particular emphasis was placed on the early cartographic evidence, which has the potential to provide information on medieval and post-medieval occupation and landuse of the area (*Section 7.1*). A search was made for any relevant historical documentation, particularly regarding the use of the area, drawing on the knowledge of the archivists. Most sources were primary and provided information concerning landuse and ownership, population and the

general local history of the study area (*Section 7.2*). Several secondary sources and archaeological or historical journals were also consulted. Collections briefly examined for any references included Business records (CRO(B) DB), Miscellaneous Records (CRO(B) DX), Enclosures (CRO(B) Q/RE) and Tithes and other documents in Diocesan records (CRO(B) DRC). The only records located in the collections were a 1849 tithe map for Dunnerdale and Seathwaite, and other Tithes for the Millom parish, including Ulpha, and the Enclosure Award of 1824, none of which covered the area of the forest.

- 2.2.4 **Local Studies Library (Barrow):** numerous pertinent secondary sources and copies of primary published documents were available at this location, as well as in the library and archives of OAN in Lancaster. All such sources were consulted (*Section 7.3*).
- 2.2.5 **World Wide Web:** some information about the study area, particularly concerning parish records and census data, was gained from sites relating to archives and local histories on the web (eg Genuki sites).

2.3 IDENTIFICATION SURVEY

- 2.3.1 An identification survey to OAN Level 1 (2002) was undertaken across the Hardknott Forest and Grassguards areas and 87 sites were identified. The identification survey represents the minimum standard of record for field investigation, and is appropriate to exploratory survey aimed at the discovery of previously unrecorded sites. Its aim is to record the existence, location and extent of any archaeological site. The emphasis of the record lies on the written description, which in this instance includes comment on character and condition; sites have also been graded in terms of condition and archaeological significance.
- 2.3.2 Each area was walked in transects of between 10m and 30m, depending on local topography and ground cover. The archaeological detail was mapped using Leica differential GPS equipment, which used post-processed corrections from a base station to achieve an accuracy of $\pm 0.25\text{m}$. The digital survey data were transferred, via DXF file format, into a CAD system (AutoCAD14), and were then superimposed onto the digital OS data (Figs 5 and 6). The descriptive records were input on-site into a database on a Psion portable palm computer; the more complex sites were also sketched onto paper *pro-forma* sheets. A photographic record of the sites was maintained in 35mm black and white print format, colour slides and digital colour photography. The digital photographs have been used to accompany the present report.
- 2.3.3 It was not possible to examine the entire area because of dense tree cover in some parts, and the uneven and unsafe nature of ground cover and topography in areas where recent felling has taken place. Where possible, the areas which could not be surveyed directly were examined from a distance, and where linear sites ran through areas which could not be walked, these were traced as far as possible. The areas covered during the survey are shown on Figure 7.

2.4 GAZETTEER OF SITES

2.4.1 All of the information concerning archaeological sites within the assessed area has been collated into a gazetteer (*Appendix 3*), which provides details of their location, period, and character. Locations are given as eight-figure National Grid References where possible, and the position of each site is indicated in Figure 4. A summary description of each site is provided in conjunction with a reference to the source of the information (SMR, cartographic, documentary, field inspection) with appropriate references, and an assessment of the interpretation and archaeological potential of the site is given. The sites have been marked onto digital maps showing their positions (Figs 5 and 6). Other sites beyond the extent of the study area, which were considered to be of background relevance, are mentioned in the text with appropriate SMR references.

2.5 ARCHIVE

2.5.1 A full archive has been produced to a professional standard in accordance with current English Heritage guidelines (1991) and the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (Walker 1990). The archive will be deposited with the Lake District National Park Authority with an additional copy of the report being lodged with the Cumbria SMR at Kendal. A synthesis of the archive has also been made available for deposition in the National Monuments Record.

3. TOPOGRAPHICAL, GEOLOGICAL AND HISTORICAL BACKGROUND

3.1 TOPOGRAPHY AND GEOLOGY

- 3.1.1 **Topography:** the study area is situated in the rural districts of what is now south-west Cumbria. The area lies on the borders of several wards and parishes, and in the past it has been on the border of several counties. In modern-day Cumbria, the land is situated within the townships of Ulpha, Dunnerdale-with-Seathwaite and Eskdale. All are in different parishes; Ulpha lies in Millom, Dunnerdale-with-Seathwaite is part of Kirkby Ireleth, and Eskdale is part of St Bees. The area is bounded mostly by the upper reaches of the River Duddon, which was a boundary between the former counties of Cumberland and Lancashire North-of-the-Sands for a considerable period of the area's history. Most of the study area lies in Millom parish, which is part of the Allerdale-above-Derwent ward. The small part of the study area which lies to the east of the Duddon is in Dunnerdale-with-Seathwaite and thus was originally part of Lonsdale North-of-the-Sands ward, in the county of Lancashire.
- 3.1.2 The area occupies land along the western side of the River Duddon's upper valley around SD 220 980 and NY 230 000. The land is surrounded by the summits of Hardknott and Harter Fell to the north, the moorland areas of Birker and Ulpha Fells to the west, and the Duddon valley to the south and east. The Duddon River extends through the north-eastern part of the study area and the land slopes steeply from the valley bottom at about 150m OD up to 350-400m OD in the western part of the area, at the base of Harter Fell, and on the eastern side to about 250m OD at the base of adjacent Troutal Fell.
- 3.1.3 The landscape is a product of the glacial and post-glacial geomorphological processes, resulting in the deep U-shaped valley of the upper Duddon. This landscape is characteristic of the Lake District and the subsequent fluvial activity has done little to change the scenery. The general nature of the area includes steep-sided, open rugged fellsides with rocky outcrops, and fields which are strewn with erratic boulders. This means that, historically, the best use of the land has been either unimproved rough grazing or forest/woodland (Countryside Commission 1998), although the in-bye and out-bye system was also practised in upland areas, so that there was some degree of agriculture nearer the farm at lower altitudes and pastoral activity further away in the fells.
- 3.1.3 **Geology:** the solid geology of the study area is complex, lying in an area of various igneous volcanic deposits, formed by extrusion from magmas, and then subject to varying degrees of erosion and metamorphism. There are several types of solid geology underlying the study area and the type is broadly related to altitude. Harter Fell itself is of acidic Rhyolitic Lava, with intermediate Andesite lava on the lower slopes and intermediate Tuff at the base (BGS 1982). All of these igneous deposits were formed in the Ordovician period (the Palaeozoic Era) some 440 million years ago. The drift geology is largely a product of glacial activity common in the northern counties, being mostly boulder clays deposited in the post-glacial period, although the valley bottoms do also contain fluvial deposits (Countryside Commission 1998). The overlying soils are a direct reflection of the underlying

geology and this again relates to the topography. On Harter Fell the soils are of the Bangor series, which are brown rankers; the lower slopes are of the Malvern series, which are typical brown podzolic soils, and finally, along the valley bottoms, are soils of the Endborne series, which are typical alluvial gleys (Lawes Agricultural Trust 1983).

3.2 HISTORICAL BACKGROUND

- 3.2.1 **Prehistoric:** there is plentiful evidence of prehistoric activity from the environs of the study area. This comprises cairnfields, field systems and settlement remains. The study area lies on the northern edge of the south-west Fells, which has the highest density of such remains in northern England (Quartermaine and Leech forthcoming). Extensive cairnfields have been identified on nearby Devoke Water and Birkby Fell, and smaller cairnfields have been identified on Ulpha Fell just to the south-west of the study area (*ibid*). However, despite the extensive character of the cairnfields across the south-west Fells, very few of these or relict remains have been subject to modern excavation and the chronology is still uncertain. They are typically dated to the Bronze Age, on the basis of spatial association between the settlement/field system remains and Bronze Age funerary monuments, and on the grounds of a limited number of excavations, for example a cairn from Birrel Syke, west Cumbria (Richardson 1982, 17) which has produced a date of 2213-1963 cal BC (3950 ±95BP; BIRM-1063). The cairnfields reflect the clearance of unwanted surface stone into piles to enable the use of the land for agriculture. This is a practice that has been undertaken since the prehistoric period and into the historic period. However, the key characteristic of these cairnfields is that they have a random distribution. This has been demonstrated by Walker (1965), from excavations at Barnscar, also on the south-west Fells, to relate to episodes of primary forest clearance. Palaeobotanical evidence shows that the cairns were preceded by woodland, followed by open grassland; they directly overlay pits which have been interpreted as craters from the removal of tree stumps (*ibid*). In some areas, particularly at Barnscar, the initial cairnfield was developed into a field system and was associated with settlement remains (Quartermaine and Leech forthcoming), whereas in other areas, particularly Ulpha Fell, the smaller cairnfields were not developed after the initial exploitation of the land.
- 3.2.2 This extensive prehistoric landscape indicates that there was settlement and exploitation of the area from the Neolithic period, when construction of clearance cairns began, and continuing up until the late Bronze Age. There are relatively few Iron Age-type settlements, which may reflect either that the area was abandoned during the climatic decline of the early Iron Age, or that the character of sites (monuments) from the Iron Age was broadly similar to their 'Bronze Age' counterparts and are difficult to distinguish from them. This paucity of Iron Age activity is similar to the pattern throughout the North West, and is partly due to the problematic nature of remains from this period. In particular, there is a lack of definable and distinct 'Iron Age' material culture in the North West and relatively few acknowledged sites exist which can be attributed to this period (Haselgrove 1996). The phenomenon is typified by hillforts, which are common in southern regions but scarce in the North West.

- 3.2.4 **Roman:** there is considerable evidence for Roman military activity around the study area (Shotter 1997). One major Roman road, (Road 740, Margary 1973) runs approximately east/west to the north of the study area (Site 92) and is the main road from the Roman fort at Ambleside to the fort at Ravenglass in the west. At this point the road goes through the Hardknott and Wrynose passes and the fort at Hardknott was served by this road, which linked it to the military communications network.
- 3.2.5 The fort at Hardknott has been extensively studied and the evidence points to its being constructed at about AD 119-138, while Hadrian was emperor (Bidwell *et al* 1999). It appears to have been abandoned for a brief time, around AD 136-160, and then reoccupied for perhaps three years between AD 160 and 163. At the end of the second century, or start of the third, the fort was permanently abandoned. Hardknott fort is known as *Mediobogdum* and epigraphic evidence indicates that it was the base, for at least part of its occupation, of the Fourth Cohort of Dalmatians, consisting of a 500-strong infantry body.
- 3.2.6 Generally, there are relatively few rural settlement remains from the Romano-British period in western Cumbria, contrasting with the considerably higher density in the eastern part of the county. However, there is a (very) notable Romano-British enclosed settlement at Barnscar, superimposed on earlier Bronze Age remains (Quartermaine and Leech forthcoming). The settlement site was excavated in about 1957 by G de G Sieveking, yielding a Romano-British brooch; the results have not been published to date (C Richardson pers comm). This settlement coincides with an episode of upland cereal cultivation identified from nearby Devoke Water, dated to c20 cal BC-cal AD 592 (1750 +/-130BP, NPL-117) (Pennington 1970, 72).
- 3.2.7 **Early Medieval:** as is the case throughout Cumbria, evidence for early medieval activity is extremely limited. Once Roman administration ceased (c AD 410) the area became autonomous, however fragmented the polities. The region is thought to have been part of the kingdom of Rheged, which was under the control of the British king Urien at the end of the sixth century AD (Higham 1986, 266), and from the seventh century came under the sway of the expanding kingdom of Northumbria (Kirkby 1962). By the tenth century Hiberno-Norse cultural and political influences began to affect the area. The place-name evidence indicates the presence of people of Hiberno-Norse extraction in the landscape throughout Cumbria (Fellows-Jensen 1985).
- 3.2.8 More tangible evidence of early medieval activity comes from the few known sites and finds, including stone sculpture which is prevalent in the west Cumbrian area, notably the Anglo-Saxon cross at Irton in Eskdale, which is one of the most highly-decorated crosses in Cumbria and dates from the first half of the ninth century (Bailey and Cramp 1988). More local evidence of early medieval upland activity derives from a clearance cairn, excavated by Wimble and Olivier at Devoke Water in 1985. Peat samples from beneath the cairn were subject to radiocarbon dating, and these were unexpectedly found to be of early medieval date (cal AD 689 - cal AD 888 (1230 +/-70BP, CAR-912) (G Wimble pers comm), suggesting renewed clearance or agricultural activity on the site during this period.
- 3.2.9 Further evidence of Norse activity is demonstrated by the Thingmount at Little Langdale (LUAU 1994), which is a rectangular, stepped mound comparable to Tynwald on the Isle of Man. It would have served as a meeting place or local

government centre. Such monuments were typically located on principal lines of communication; in this case it was on the line of the Hardknott/Wrynose Pass, close to the centre of the Lake District, and would have been accessible from all parts of the region, including the south-west Fells.

- 3.2.10 **Medieval:** in the early eleventh century most of present-day Cumbria was an area of dispute between the expanding kingdoms of England and Scotland (Kirkby 1962). Malcolm III of Scotland invaded Cumbria in 1070 and was still in possession of much of the area at the time of the Domesday Survey of 1086. The area saw the arrival of the Normans when William Rufus moved north in 1092 to fortify land against the Scots, and planted a castle and colony at Carlisle (Rowley 1983, 50). In fact, there are suggestions that some of the accompanying Normans were encouraged to settle throughout Cumbria (Bingham 1995, 46) and place-name evidence indicates either adoption of Norman names or the establishment of new settlements (Armstrong *et al* 1971). A large amount of land in the immediate area came under the control of Furness Abbey, both to the north in Upper Eskdale and to the east in the northern Furness Fells, from the late twelfth century (Rollinson 1967, 78-80). Between 1140 and 1170 William I of Lancaster granted lands at Seathwaite and Dunnerdale to Roger, son of Orm, of Kirkby Ireleth (*op cit*, 81), which are likely to include the study area.
- 3.2.11 The late thirteenth to early fifteenth centuries was a period of economic depression in the area, caused by three major natural and manmade factors (Winchester 1987). The first was the Wars of Independence with Scotland which, from 1296 onwards, caused devastation to much of the north. The second was the outbreak of plagues and murrains among the human and animal population, and the third factor was the deteriorating climate which affected those marginal agricultural areas that had been colonised in the twelfth and thirteenth centuries. Collectively, these factors caused the effects of each to be more severe than may ordinarily have been the case, and economic recovery is not in evidence until the mid fifteenth century.
- 3.2.12 Large areas of the Lake District did, however, remain as forest, either as Royal Forests, such as Inglewood, or private forests held by manorial lords. These private forests included that of Copeland and possibly a Millom Forest (Liddell 1966, 111), including the area around Harter Fell and what is now Dunnerdale Forest (which would have been part of the Barony of Millom). This Barony appears to have been created around AD 1100 and it may originally have been part of the Barony of Copeland held by the Earls of Egremont (Winchester 1987, 16). The earliest known Lord of Millom was a Godard de Boivill in about 1125 (Wilson 1915, 492, 531). There is evidence of a rent known as 'forest male' being paid at Ulpha in Millom forest in the sixteenth century, the rent being for rights to common pasture within the manor and forest (Winchester 1987, 84). The upland areas, with both fellside and forested zones, provided a useful resource for both timber and grazing, and numerous small-scale industries are known based on woodland products, including building and ship construction, tanning, brewing, manufacture of domestic items and implements, barrels, staves, fuel for domestic or smelting purposes and so on (Rollinson 1989, 116). Hunting was also an important aspect of the forested landscape and remained an important feature of the area. Later, in the sixteenth century, there is documentary evidence for the importance of areas such as Miterdale and Eskdale, which lie to the immediate north of the study area, where the tenants of Eskdale, Miterdale and Wasdalehead, 82 names in all, appealed to

the lord of the manor against the enclosure of the commons for hunting, without payments of compensation (CRO(W) D/Lec/265/551, 1618-32).

- 3.2.13 **Post-medieval:** work by Winchester (1978) on the area of Miterdale, based on the Percy Survey of 1578 (CRO(W)/D/Percy, 1578), and on the *Eskdale Twenty-Four Book* of 1587 (CRO(W)/D/Lec/94, 1587), demonstrates that the situation there was comparable to that in the Hardknott/Dunnerdale Forest area to the south. Winchester's work (1978) established that the settlement pattern in Miterdale in the late sixteenth century consisted of small farms with holdings of only c80 acres of enclosed land. More than 50% of this land would have been shared, and the tenants would have relied heavily on the common grazing rights on the fell (Winchester 1987, 10). The importance of the grazing rights is reflected in the *Eskdale Twenty-Four Book* of 1587 (CRO(W) D/Lec/94), which details the tenants' pasture rights on the fell for sheep and cattle, and shows that they were heavily regulated. Comparisons between the 80 acres enclosed at this date and that shown on the OS first edition map (1868) reflects that farmer has enclosed those areas over which he had grazing rights (Winchester 1978, 12). It is not possible to date these later enclosures, but they presumably occurred in a piecemeal fashion, as documents from the mid eighteenth century reveal that individual holdings had grown (*ibid*). A similar situation may be envisaged for the Hardknott/Dunnerdale Forest area, and in particular the farms of Grassguards and Birks. However, around these farms the intakes were relatively small, for example the total intake for Grassguards is only 49 acres, and they do not display the same evidence for expansive later enclosures. Both farms comprise discrete, localised intakes at distinct remote upland locations and it is therefore possible that they developed from transhumant shielings, their primary use having been the farming of sheep to produce wool for the local cloth industry.
- 3.2.14 Potash was an essential ingredient in making soft detergents used in the washing process in the woollen industry. The potash was obtained from burning bracken or green twigs in specially built kilns, which were often masonry-lined or purpose-built stone kilns, generally 3-4m diameter and set into sloping ground (Lowe 1989, 119). Over 200 have been identified in the Lake District and many seem to date to the late medieval or early post-medieval periods (Davies-Shiel 1974). Two kilns have been documented in the survey area (Sites 54 and 81), although examination in the locations reported in the SMR by the present survey did not identify any kilns.
- 3.2.15 In the nineteenth century, minerals were considered an important source of revenue. In general this is indicated by the bias of maps such as Cary's *Map of Cumberland*, 1829 (CRO(C)DMH/3/2/4), which pays particular attention to the geological resources of the county. Copper mines are clearly shown on the first edition OS 1868 along the Esk (Fig 3), just north-west of the study area, where copper ore was reasonably plentiful. Iron-working was clearly prevalent in the area; there are recorded a bloomery and a bloom-smithy further down the Duddon River near Ulpha (Marshall and Davies-Shiel 1977, 122), as well as known iron ore mining on the Seathwaite Fells since Elizabethan times (Lowe 1989, 113). In particular, however, there is the very substantial bloomery from Grassguards (Site 67) which is one of the larger ones in the region. Other industries include the stone, slate and Copper Stone Quarry, to the east of Hinning House, which is shown as a slate quarry on the OS first edition map of 1868.

- 3.2.16 **Communications:** communications in the valley have always been relatively poor, since the area is essentially upland fell. Historically most of the area was accessible using well-worn paths suitable for pedestrian transport. In particular, to the north of the study area, Hardknott Pass was a significant route across the southern Lakes, providing access to the coast. The route has its origins at least in the Roman period, when it was followed by the Hardknott/Ambleside Road (Margary 1973, 740), but it was probably an important route in the prehistoric period as well, as it provided a natural pass through the mountains. Even into the post-medieval period the road was inadequate for wheeled vehicles, and various raw materials and goods were typically carried through the pass by packhorse. Snuff brought into Whitehaven was known to have been taken across Hardknott in this way (Marshall and Davies-Shiel 1977, 100-101).
- 3.2.17 There is some information to indicate the demographic trends in the valley in the post-medieval period. For instance, lists in local directories show varying patterns in the population levels, although these do not change by any great amount considering the size of the settlements (Whellan 1860). The area was made famous during the nineteenth century through the poems of William Wordsworth, who was particularly fond of the Duddon Valley (The Wordsworth Poetry Library 1994). Wordsworth also made famous 'Wonderful Walker' (1709-1802), who lived in Seathwaite, immediately to the south of the study area. He was a man of many parts who acted as a teacher, brewer, preacher, and jack of all trades throughout his long and eventful life (Bell and Patterson 1970, 6).

4. ASSESSMENT RESULTS

4.1 INTRODUCTION

41.1 The study area comprises a remote, upland and, in many respects, hostile topographic setting on the lower slopes of Harter Fell. The terrain is not ideally suited to settlement, and this is partially shown in the documentary assessment, which demonstrates that there was little settlement activity within the area prior to the establishment of the isolated, dispersed farms of Grassguards, Birks and Hinning House. It is perhaps significant, on examining the distribution of SMR sites for the area (Fig 4), that there are substantial numbers of reported archaeological sites in the area of the Duddon Valley, to the south of the study area, but relatively few within the study area itself, although this may be an artefact of research. Figures 5 and 6 show the position of the sites referred to in the text which follows.

4.2 PRE-MEDIEVAL

4.2.1 The only definitive pre-medieval site was the Roman road (Site 82; Road 740 Margary 1973) extending through Hardknott Pass, running between the forts at Ambleside and Ravenglass and serving Hardknott Fort. The long, linear stretch of road extends just north of the study area, as it zigzags down the Hardknott Pass and then extends along Wrynose Bottom, overlapped in places by the modern road. Accounts of this section suggest that it is in good condition and survives as a 7m wide causeway (Hindle 1998, 25).

4.2.2 Of the other SMR sites (Sites 05/08, 54, 63, 64, 81 and 85-87), most were classified as of unknown date, but were probably post-medieval. There were no reported prehistoric sites within the study area despite the proximity to the extensive prehistoric landscapes of Birker and Ulpha Fells.

4.3 MEDIEVAL / POST-MEDIEVAL

4.3.1 The post-medieval activity of the area was centred on the three discrete upland farms within the study area: Grassguards, Birks and Hinning House, but there is some uncertainty over whether any, or all, of these farms had medieval origins. The character of the area was generally regarded as wasteland, and this means that there are few pertinent documentary sources relating to it. In the records of St Bees Priory there is a grant, dating to about 1220, between William, Lord of Millom and a man named Benedict concerning hunting and pannage rights, and there is an indication of a Millom Forest, which would have included the study area (Wilson 1915). By 1510, a Millom rental (CRO(W) D/Lons/W.5) indicates, that at that stage, the Upper Duddon valley, including the study area, was still a part of the Millom Forest. However, the rental does not record whether there were then localised intakes into the forest or when significant intakes and settlement had become established.

4.3.2 Examination of the documentary sources held at the Cumbria Record Office (Barrow) does provide some limited insight into the development of the landscape;

however, the only document of use was of recent date. This was a study of the inhabitants of the farms and houses of Seathwaite and Ulpha. There was no clear date on the document, which exists as a typed copy of the original bound manuscript (CRO (B) DX). The copy was typed up in 1977 and an introduction was added, although not by the original author. The document details the findings and gives a clear indication of early occupation of the farms in and around the study area. High Birks in Ulpha is shown to have been owned and occupied by a William Gibson by 1681 and the subsequent occupiers to date are also listed. Long House has Sarah Gibson and John Wilson as the first occupants in 1738. Sarah Gibson may have been a relative of William Gibson, indicating that the family lived in the area for several generations. Grassguards was occupied by Nicholl Brocklebank in 1693. In the north of the area, Hinning House was occupied by a William Stephenson in 1737 and he is described as a yeoman, a yeoman being a man owning and cultivating a small estate or freeholder below the rank of gentleman. The house was held in private ownership, the last owner being a Mrs Dorcas Tyson in 1911, until being bought by the Forestry Commission in 1935 when it was used as a workshop. New cottages were added for Forestry Commission workers in about 1950.

- 4.3.3 Although this document indicates occupation of the farms in the late seventeenth century (or eighteenth century for Hinning House) this simply provides a *terminus ante quem* for their establishment, and it is possible, indeed probable, that there was some earlier occupation of the sites, although not necessarily as permanently occupied farms. Many remote upland farms developed out of shielings, which were small, seasonally-occupied huts, typically of medieval date, and there exists the possibility that the medieval antecedents of the farms were of such a form. The presence of potash kilns at Fickle How (Site 54), and potentially also at Hollin How (Site 81), further hint at the possibility of some degree of medieval activity within the Grassguards environs.
- 4.3.4 **Map Regression:** the post-medieval history of the study area can be most effectively represented by examination of the historic mapping. Early county maps are not of an appropriate scale to show any detail of the area but they do indicate the existence of sites and their perceived importance at the time. Some were available as original documents and some were consulted from published sources. In various instances identical places are subject to variable spellings.
- 4.3.5 **The Gough Map (Parsons 1958):** dating to the early fourteenth century, this map of Britain portrays the area of Cumbria, but it is highly stylistic and is mostly concerned with religious institutions. Although it shows Inglewood Forest, there is no such detail in the area corresponding to the study area.
- 4.3.6 **Donald's Map of Cumberland - 1777 (Fig. 2):** Donald's map is a clear printed map showing the majority of the study area. It is somewhat stylistic in terms of the way the topography is shown, with the buildings depicted simply as dots in approximately the correct position, although names are often given. Rivers and tributaries are shown, as are some roads and tracks. In other areas, the map does give portrayals of some archaeological sites, showing that, where sites were known, and were given some regard, they were marked, but none are shown for the study area. Grassguards and Birks are shown within the study area, although only Birks is named. Hinning House is named, but is shown as being located further to the east of the study area than on later maps.

- 4.3.7 ***Hutchinson's Map of Cumberland – 1794***: this map is part of his published work, and almost certainly relied upon earlier engravings, but has additional enhanced information on it. The map shows the same places as Donald's map. What is of greater importance than the location of the various settlements, is the fuller illustration of the road system of the area, and in particular the turnpikes and drove roads.
- 4.3.8 ***Cary's Map of Cumberland – 1829, CRO (C)DMH/3/2/4***: at a slightly smaller scale, this is a later version of his 1787 map and shows very little detail of the study area. However, it does show the roads and the rivers and, more interestingly, geological and mining resources, which illuminates the principal use of this map.
- 4.3.9 ***Tithe Maps/Enclosure Maps***: the tithe maps are all hand-drawn to scale and are easily decipherable. All are accompanied by their schedule, which provides information on the field names, size, landuse, ownership and tenancy. None of the mid nineteenth century tithe maps for either Dunnerdale-with-Seathwaite (CRO(B)/DRC/1849) or Millom (CRO(B)/DRC/1844) cover the area in question. The enclosure maps again provide highly informative and reliable information concerning field names, size, landuse, ownership and tenancy, but the Millom Enclosure of 1824 (CRO(B) Q/RE/ did not cover the study area.
- 4.3.10 ***First Edition Ordnance Survey, 1:10,560 –1868***: (Fig. 3) this is the first published, widespread cartographic source available for the area and was published between 20 and 50 years after the Tithe and Enclosure maps. The area is covered by three separate sheets, each surveyed at a slightly different date but all published in 1868. The maps are an excellent source since they were done by a professional cartographic institution and the scale allows great detail to be seen reliably. They show the settlements clearly, including individual buildings and wooded or planted areas, as well as the roads and rivers and topographical information. Various anthropogenic features, including sheepfolds, bridges, buildings, bench marks and so on, are shown. Of most interest is Birks Bridge which is known to be a packhorse bridge and may have been built sometime between 1660 and 1760 (Hindle 1998, 125).
- 4.3.11 In terms of the visible landscape, there appear to be organised, roughly square, small parcels of land around Hinning House and possibly a larger area around Grassguards.
- 4.3.12 ***Second Edition Ordnance Survey, 1:2500***: there are numerous sheets which cover the area and far too many to examine in detail in the scope of this project. The extremely late date of the survey, 1913, means that they are of limited use in terms of identifying potential archaeological sites.
- 4.3.13 ***Modern OS 1:10,000 Maps (c1977)***: these remain of high quality and the portrayal of increasing levels of detail make them easily readable. In addition, copies held by OAN include information from previous surveys, but the area in question, on sheet NY 20 SW, has no additional information.

5. FIELD SURVEY RESULTS

5.1 INTRODUCTION

- 5.1.1 The survey identified 87 sites, ranging in date from the prehistoric to the post-medieval periods. Some of these are individual sites, such as a single wall or cairn, but many are larger collections of structures, which have been combined for ease of numbering or because there was an apparent relationship between them (Figs 5 and 6).
- 5.1.2 **SMR Sites:** the assessment identified eight SMR sites within the study area, and an additional one on the extreme north-western edge, near Harter Fell (Fig 4), making a total of nine (Sites 05/08, 54, 63, 64, 81, 82 and 85-87). It should be noted that several other sites were assessed as background to this study, since they are of particular relevance to the potential nature of archaeological remains in the study area. Some of the SMR sites have been confirmed by the identification survey while others, despite extensive searching, could not be located. The confirmed sites include that on Castle How (SMR 1360; Crawford and George 1983; Sites 05/08) in the north-east corner of the Hardknott Forest area, and a series of field boundaries in the centre of the Grassguards area (SMR 7757; Site 64). Both of these sites proved to be more extensive on the ground, especially Castle How, which was revealed to be an extremely large complex of boundaries, cairns and enclosures (Sites 1-18; Plates 1-3). An enclosure at Grassguards (SMR 7702) is matched by Site 63 (Plate 11), although the description with the SMR entry does not precisely correlate. Site 54, a potash kiln, appears to correspond to a kiln reported by M Davies-Shiel (SMR 30081), except that the location of the SMR would appear to be in error by c 200m. Similarly, there is some degree of confusion over SMR 7816, which reports a complex of banks, enclosures and structural remains within the Grassguards intake (Site 86), which was an area excluded from the present survey. However, a field system and settlement complex (Site 60) was identified to the south of the intake which is broadly similar to the description for Site 86 and may be the same site. Two SMR sites are just beyond the study area and were therefore not confirmed by the identification survey: the Roman road (SMR 3599; Site 82) and the reported defensive site of Maiden Castle at Brandy Crag (SMR 1459; Crawford and George 1983; Site 85). Two further SMR sites that could not be confirmed by the identification survey were a building (SMR 7828; Site 87) and a potash kiln (SMR 30080; Site 81).
- 5.1.3 **General Character of the Monuments:** the majority of the sites fall within one of three categories: linear features such as boundary walls; cairns; and enclosures such as sheepfolds and fields. In some cases types of sites were grouped together either because of their close proximity (to simplify numbering) or because they appeared to relate to each other. Forty-five linear features were identified, the majority of which were sections of rough dry-stone walls. Twenty-one individual cairns or groups of cairns were recorded, and 17 enclosures. The notable exceptions to the general pattern were Sites 29, 38 and 32, which were quarries; Site 54, a potash kiln; Site 73, an area of peat cutting; Site 28, a possible orchard; Site 30, a loading platform; Site 71, an area of coppiced woodland; and Site 34, a possible charcoal burner's pitstead.

- 5.1.4 Almost all of the sites identified are of a dry-stone build, generally utilising the nearest source of stone. Relatively few are of earth construction or even particularly earthfast. Many of the dry-stone linear features utilise natural features such as crags in their construction, either running between them so that they act as natural barriers, or running along them, thus increasing the effectiveness of the boundary (Plate 4). In many cases large areas have been enclosed by boundaries running between opposing crags. There are several examples of fields (Plate 13) and sheepfolds that also make use of the crags to form, in effect, one or more walls.
- 5.1.5 **Prehistoric Activity:** despite the proximity to Ulpha and Birker Fells where considerable numbers of prehistoric cairnfields and similar remains have been identified (Quartermaine and Leech forthcoming), there was a marked absence of archaeological remains that would appear to have had a prehistoric origin. The only site that displays characteristics reminiscent of early remains elsewhere on the south-west Fells is the cairnfield to the south-east of Castle How (Site 11), on the flood plain of the River Duddon. The cairns here have a random distribution, are not associated with any field system, comprise mainly small and medium stones, which are earthfast. They are typically 2-3m across and between 0.3m and 0.45m in height. The cairns contrast with the large cairns, with large stone material, that are associated with medieval/post-medieval field systems elsewhere within the study area (eg Site 04), but are similar in character to the small cairnfields of Ulpha Fell (*ibid*).
- 5.1.6 **Site Groups:** three substantial groupings of sites were identified: one centred around Castle How; another centred around Birks and Birks Bridge; and the third in Grassguards. The Birks and Grassguards groups are centred upon the historic medieval/post-medieval settlements, and all three are in areas where forestry plantation has apparently never taken place, or has only recently begun, and where vegetation cover is low (Fig 7).

5.2 CASTLE HOW

- 5.2.1 Castle How is a small field system and settlement within the gently sloping saddle between the steep prominent crag of Castle How and Saddlebacked How (Figs 1 and 5). It has two partially enclosed fields; the westernmost of these is an irregularly-shaped field defined by decayed dry-stone walls (Sites 05, 14 and 15) and extending across a small beck. The south-eastern end of the field butts against the crags of Castle How. The discontinuity of the western walls of the field appears to be the result of the area being recently felled, and the now decaying brash still covers much of the ground, obscuring the walls. A small group of three cairns in the western part of the field (Site 14) demonstrates a certain amount of clearance activity/land improvement within the field. The eastern 'field' is more erratically and discontinuously defined; its western side is the eastern boundary of the western field, the southern edge utilises the crags of Castle How and its eastern side follows a sinuous line of decayed walling (Site 06) which extends across the saddle towards Saddlebacked How, but stops short of linking with a decayed wall (Site 02) extending out from Saddlebacked How. The northern side follows the line of Saddlebacked How, and the discontinuous wall (Site 02). The largest discontinuity in the field boundary is between the western edge of Saddlebacked How and Site 15 of the western field. The discontinuity of the walls may either indicate that these

fields were only partially defined by stone walls and in other places were edged by hedges or fences, or that the walls were formed by the deposition of cleared stone and the gaps reflect a lack of clearance activity.

- 5.2.1 Within the north-western part of the eastern field was an area of cairnfield (Site 04), comprising small, prominent cairns with mainly medium and large stones, indicating localised clearance activity. Adjacent to the south of these was a rectangular area of ground (c24m x 26m in extent) which has been cleared of stone, and has a smooth surface, with short, lighter grass that contrasts with the tufted matt grass around. It is edged to the south by a marked break of slope, which is in part natural, but seems to include a lynchet component. This would appear to be a small cultivated plot and, as such, complements the cairnfield to its immediate north.
- 5.2.2 Associated with the field system are three structures, although none of these are well-constructed huts. Just to the north of the cairnfield (Site 04) is a three-sided rectangular structure (Site 03) with dry-stone walls, measuring 4m x 3m and up to 1.5m in height. Associated with the western side is an area of tumble and it is possible that this is the remains of a fourth wall. There is no evidence of an entrance, window or flue. The structure could potentially be a small temporary hut, but could equally be no more than a bield.
- 5.2.3 Site 07 is an irregularly orientated dry-stone wall to the immediate east of the eastern 'field'. Associated with it is a rather curious structure comprising a well-built dry-stone end wall, c 3m in length and 1m in height. Extending out from it is an irregular, poorly-constructed, low wall in a broad curve which extends up to 10m out from the northern end of the well-built wall. A further stub of poorly-made wall extends in a curve from the southern end of the well-made wall, forming an irregular small enclosure only c 1.8m in width. This latter structure was clearly no more than a small bield for a shepherd, and the larger length of walling would have provided shelter for stock. However, the well-built section of wall is an incongruous element of the complex, being apparently earlier than the other two sections of wall, and given its superior construction, it could have belonged to a domestic hut; there are no other comparable walls surviving. It is possible that the bields were constructed from the partially surviving remains of an earlier hut.
- 5.2.4 Butted onto the northern crag of Castle How is a structure (Site 06) with an approximately rectangular plan, with well-built walls, which uses large *in situ* boulders as an end wall. Opposite the large boulders is a surviving well-built gable wall, albeit somewhat degraded in places, which has clear indications of surviving roof pitch. Consequently, the building must have been roofed, suggesting that this was a poorly-built hut rather than a temporary shelter. The structure was only 2.5m x 4.8m and therefore extremely small for domestic activity.
- 5.2.5 **Conclusion:** this group comprises the remains of a field system, parts of which have been improved, as evidenced by the associated cairns/cairnfield, and small cultivated plot. The buildings associated are very small, insubstantial and either incomplete or severely degraded; one has clearly served as a bield (Site 07), but may formerly have been a hut. The settlement remains accord with temporary, non-intensive exploitation of the area, possibly transhumant activity, and consequently there is the potential that these rather degraded, small huts were very simple

shielings. The considerable decay of the walls and structures indicate that the site is not of recent date, and it is probably medieval or potentially earlier.

5.3 BIRKS

- 5.3.1 The survey examined all of the intake for Birks Farm, which was first documented in 1681 (*Section 4.3.2*, Figs 1 and 5). The topography of the area is very undulating and there are considerable amounts of surface stone and localised crags within the extent of the intake. Birks farmhouse is located on a raised, natural terrace, and the ground drops sharply to the north into a stream valley that feeds into the River Duddon, and which defines the eastern edge of the Birks intake. The internal walls of the enclosure intake (Site 40) are typically high and relatively thick, having absorbed a substantial amount of waste stone from the land. In the sloping area to the north of the farm is an area of cairns and discontinuous walls. The cairns are both extremely large and are made of very large stones and boulders (eg Site 40). The walls are also extremely thick, have flat tops and are made of large stones, having also served as repositories for cleared stone. They are generally discontinuous and do not form a cohesive enclosure or general pattern, and it is possible that they were simply intended to absorb cleared stone. Two of the walls are 'overlain' by internal walls of the intake (Site 40) and it is evident that this clearance debris pre-dates the establishment of the internal boundaries of the Birks intake; however, it is entirely possible that they have been expanded subsequent to the construction of the internal field system. In the adjacent field is a comparable set of cairns (Site 41) which are also made up of large stones and extend in a curved line down the slope away from Birks farmhouse. The alignment of the cairns could potentially show that this was on the line of a former boundary. Further substantial clearance cairns are located in the field to the south of Birks Farm.
- 5.3.2 Located to the west of the farm, within a small field on the western edge of the intake, is a small site group (Site 52) comprising cairns, field walls and a rectangular dry-stone structure with an entrance in the eastern wall. The structure is *c* 4m x 4m in size and survives to a height of *c* 1m (five courses). It is either a very poorly-constructed hut or a bield, but it is nevertheless associated with a localised area of clearance/land improvement and a relict wall. Whether a bield or a hut, the structure would have been superfluous if it were contemporary with Birks Farm, as this lies only 130m away, and this suggests that it pre-dated the farm.
- 5.3.3 Other elements within the landscape, such as sections of walling (Sites 36 and 44) and a complex sheepwash (Site 51), which is conveniently named Washfold (Plate 7), are all post-medieval elements relating directly to Birks Farm and its intake.
- 5.3.4 **Conclusion:** within the landscape there are elements which do not directly relate to Birks Farm and its intake, and which appear to pre-date elements of the Birks field system. It would appear, therefore, that remains of an agricultural system that preceded the post-medieval Birks farm survive. There is no direct indication for the date of this system, however, although it is possible that it extends back to the medieval period.

5.4 GRASSGUARDS

- 5.4.1 The survey specifically did not cover the main area of the Grassguards intake, and was not able to examine the relationship between the farmstead and the associated field system. However, a significant resource was identified on the moderately sloping land to the south of the intake (Fig 6). While the other areas to the north and east of the farmstead were examined, this was limited by dense forestry, which resulted in poor site visibility. The principal settlement remains were in the north-western part of this area (Site 60), which was within the Grassguards intake, albeit on the southernmost edge. This comprised the relict, dry-stone walls of an earlier field system, which was eventually supplanted by the present intake fields (Plates 9 and 10). The system comprises a series of curving, interlinked enclosures and decayed, but nevertheless intact, structures, possibly bields. The earlier enclosure walls do not respect the later enclosure walls, and indeed, one of the boundary walls is truncated by the eastern end of the present day field walls. In the southernmost part of the group is a rectilinear dry-stone building, set into the corner of the present day intake boundary. The building (Site 60) is two-celled, has a sloping roof, with some *in situ* slates, and a window on the western side. A rectangular yard extends around it and a related stock enclosure is set adjacent to, but outside, the intake boundary wall which extends through the complex. The building, the yard and the associated intake enclosure wall stand almost to full height, only the stock enclosure to the outside of the intake boundary being decayed. The excellent condition of the structures indicates that they have been maintained and, by implication, used until relatively recently. However, their relationship with the intake wall, which appears to have been latterly inserted through the complex, and their general form suggest that in origin they pre-date the intake boundary. The character of the site is of a small, shieling-type structure, with associated yard, stock enclosure and nearby enclosure field system, which had an origin that was independent of the main Grassguards farm; indeed, it would appear to pre-date parts, or even all, of that farm. The only curious aspect is why such a small domestic building should be so comprehensively maintained through to the recent past, despite its proximity to the post-medieval farmstead of Grassguards. Although the extant character of the structure is post-medieval, it would appear to have its origins as a medieval farmstead or even shieling.
- 5.4.2 Other features within the group comprise decayed enclosure walls (Sites 59, 64 and 66) of a now relict field system. The terminal of wall 64 extends towards the southernmost part of the present-day intake boundary and suggests a former relationship, possibly that part of the earlier field system was incorporated into the later intake boundary. Other elements include small groups of cairns, stubs of walls and bields (Sites 56-58, 61 and 62). The cairns are typically small but made up of large stones, and the groups number no more than five cairns. This would appear to represent erratic, localised clearance and land improvement of small natural terraces. A large, semi-circular enclosure (Site 63) is to be found near the River Duddon, in the eastern part of the area. The eastern side is open, exposed against a sharp break of slope; however, there is possibly a very slight indication of stone work which may indicate a closing wall on this side. The walls are about 0.35m high and there is very little associated tumble, so the whole superstructure was not particularly high, perhaps implying a timber superstructure on top of the masonry, possibly along the open eastern side. Such a stock enclosure could be of almost any period and there are comparable examples from the Iron Age (eg Hesk Fell

(Quartermaine and Leech forthcoming). However, the relatively good condition of the masonry would suggest a later date, either medieval or post-medieval.

- 5.4.3 **Bloomery:** in addition to the agricultural features, a large bloomery was identified on the side of the moderately sloping hillside (Site 67). This was identified as a result of mounding for new forestry planting. The tree mounds were excavated every 2-3m, which exposed slag and charcoal both on and adjacent to a large, gently sloping mound (Fig 8). The bloomery mound was 27.3m x 16.1m in size, but the wider area of iron-working waste (mainly slag and charcoal) covered a more extensive area of 45m x 31m. The low mound had two separate sections; the higher part was a prominent raised section (17m x 8m) edged to the east by a distinct break of slope, overlying a lower, fanned-out section. Recent work undertaken by the Lake District National Park Authority on bloomeries within Southern Lakeland has involved detailed geophysical surveys of such sites and radiocarbon dating of the charcoal material (J Hodgson pers comm). The geophysical surveys have commonly been able to identify the location of hearths within the mound and have demonstrated that the morphology of the mounds typically reflect the character of waste material from the later stages of operation, rather than the location of hearths; indeed, there may be more than one hearth situated within the extent of the sites. The dates of the bloomeries often fall within a narrow range within the twelfth to thirteenth centuries, and, by implication, this bloomery is likely to be of a comparable date.
- 5.4.4 **Potash kiln:** built into the slope on the west riverbank of Grassguards Gill, on the north side of the Grassguards intake, is a potash kiln (Site 54). It is c3m in diameter and 2m tall, and has a small opening on the east side formed by two large edge-set boulders. The site corresponds to the potash kiln (SMR 30081) recorded by M Davies-Shiel; such sites are typically of late-medieval date, for the burning of bracken to produce potash (Davies-Shiel 1974).
- 5.4.4 **Conclusion:** the relict features within the site group appear to be part of an erratically and non-intensively exploited agricultural landscape, that appears to pre-date the intake for Grassguards. They are spatially associated with a bloomery (Site 67) which is potentially of medieval origin, and are likely to be contemporary. The character of the post-medieval maintained/rebuilt hut (Site 60) is not dissimilar to the form of shielings (Ramm 1970) and it is possible that this was a transhumant forerunner of the Grassguards farm.

6. DISCUSSION

6.1 PHYSICAL RESOURCE

- 6.1.1 ***Prehistoric Activity:*** the survey has highlighted what would potentially appear to be an isolated area of prehistoric cairnfield, but no other remains, which is unusual, given the amount of prehistoric activity elsewhere on the south-west Fells. However, the terrain is not typically that exploited by prehistoric activity, which tends to be located on elevated, but gentle slopes, natural terraces or plateaux, whereas the terrain of the study area is mostly steep to moderate valley sides. It must also be borne in mind that there was poor site visibility over substantial areas of the study area as a result of dense forestry cover which may have biased the results.
- 6.1.2 ***Castle How, Birks and Grassguards Groups:*** the field survey revealed a large number of sites, concentrated in three particular areas (Castle How, Birks and Grassguards). Two of these were on the sites of later farms (Birks and Grassguards) and all were associated with rectangular, dry-stone structures, which survive in some cases to considerable heights (eg Site 06). While some elements of the sites, such as the presence of cairnfields, may hint at prehistoric origins, the character of these cairns contrasts markedly with those traditionally interpreted as prehistoric cairnfields, as these cairns are not particularly earthfast, and comprise very large stones.
- 6.1.3 The sections of dry-stone wall associated with the early field systems are in relatively good condition, and the number of surviving courses perhaps suggests a later rather than earlier date, medieval rather than prehistoric. The majority consist of little more than a single or double thickness of stones, often butted against crags to form a convenient end. Medieval records, describing the laying out of walls, often state that they run between named crags (Rollinson 1991, 22-23), much as they do between Castle How, Saddlebacked How and the foothills of Harter Fell within the study area. The use of short sections of wall, as was found across the study area, served to prevent sheep from becoming 'crag-bound', and to funnel them down to the lower fields for shearing and lambing (*op cit*, 5-6). The walls tend not to follow any of the standard methods of later medieval and post-medieval stone-wall building techniques (*op cit*, 11; Brooks 1997). Many of the walls identified by the survey incorporate large orthostats (Plate 8); this style is thought to be medieval in date and in parts of Yorkshire, is often associated with abbey land holdings (Cale 1998, 3-4). There are also other walls incorporating large 'cyclopean' boulders still standing nearby at Ulpha (Rollinson 1991, 16). This would tend to suggest that the majority of sites within the study area relate to the medieval period, perhaps the twelfth to fourteenth centuries.
- 6.1.4 The only datable components within the landscape are the bloomery (Site 67) and the potash kiln (Site 54). Bloomeries are charcoal-fuelled smelting furnaces, which were used for the direct reduction of iron ore to produce a spongy mass of wrought iron, or 'bloom'. Bloomeries usually consisted of hand-worked domed hearths, made of burnt clay, often strengthened around the base with a circle of stones (Marshall and Davies-Shiel 1977, 31), and are typically datable to the medieval period (J Hodgson pers comm); comparable examples to Site 67 have been identified from nearby Ulpha (Marshall and Davies-Shiel 1977, 31). The potash

kiln (Site 54) is likely to be relatively late medieval in date, when the manufacture of potash for soap and glass was widespread (*op cit*, 94). Neither the bloomery nor the kiln have a direct association with any of the early monuments of Grassguards, but they demonstrate medieval activity in the area. At Birks and Grassguards, the settlement remains clearly pre-date the intakes of the farms, which were first documented in the seventeenth century, so while there are no features that directly provide a precise date for the settlements, their survival, association and character would suggest a medieval, or at latest an early post-medieval, date. They probably belonged to the medieval forerunners of the Birks and Grassguards farms.

- 6.1.5 If the settlement remains were of medieval date, then this would suggest that there had been some, albeit limited, exploitation and incursion into the Millom Forest, which was documented as still including the head of the Duddon Valley in 1510 (CRO(W) D/Lons/W.5). The physical remains indicate that the exploitation was of a very localised and non-intensive nature, and indeed was probably seasonal. In the case of Castle How, this non-intensive agricultural exploitation did not develop, but that around Birks and Grassguards apparently developed into permanent settlements, with the formalised intake of the former forest and the construction of farmhouses.

6.2 IMPACT

- 6.2.1 The plantation of coniferous forest across the study area has had an impact on the archaeological resource and has restricted the identification survey. Firstly, the archaeological monuments have been damaged by the planting process (eg Site 67; Plate 5), although the modern automated mounding techniques have a less severe impact than the deep-ploughing techniques of the past. Secondly, site visibility is severely restricted by the woodland operations; monuments are difficult to identify in dense woodland and also in areas where trees have been felled, due to the resulting thick carpet of organic brash. Access is also very restricted to some areas, further restricting site visibility. The inability to identify the resource severely restricts attempts to manage and conserve it.

6.3 SIGNIFICANCE

- 6.3.1 Relatively few individual sites/monuments can be regarded as archaeologically important in their own right, but those that are include the bloomery (Site 67) and the potentially prehistoric cairnfield (Site 11). However, there are large numbers of sites within the study area that have considerable importance, by virtue of their group association with surrounding sites. The monuments within the Castle How, Birks and Grassguards settlement areas, for the most part are of lesser significance, being sections of walls or cairns, but the fact that they are component parts of early settlement remains means that they have a high significance classification in the site gazetteer (*Appendix 3*).

6.4 FURTHER WORK

- 6.4.1 The survey has highlighted a significant, and localised, resource that would warrant further analysis and recording. The prehistoric remains (Site 11) are small

by comparison with those identified elsewhere on the south-west Fells, but nevertheless warrant detailed recording.

- 6.4.2 The Castle How, Birks and Grassguards settlements represent an important early occupation of the landscape and all three settlement areas warrant further recording. The area of Grassguards intake was excluded from the present study, and undoubtedly contains a significant resource to complement that outside. Given the opportunity, a basic level of survey should be undertaken of this area. The bloomery has already been investigated by detailed topographical and geophysical, survey (J Hodgson pers comm); it is also proposed to undertake radiocarbon dating of the mound.

6.5 MANAGEMENT

- 6.5.1 The survey has highlighted a resource which is generally of regional significance. The archaeological resource should therefore be appropriately protected in the course of any woodland management and felling. It is recommended that the sites be marked physically and any movement of machinery and vehicles be diverted around the sites. The bloomery (Site 67) has saplings planted within its fabric (Plate 12), and as this is a site of national importance it is recommended that they be removed before their roots can do more substantial damage to the structure of the bloomery.

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APPENDIX 1
PROJECT BRIEF

APPENDIX 2
PROJECT DESIGN

**Oxford
Archaeology
North**

March 2002

**GRASSGUARDS, CROPPLE HOW, HIGH LOFT AND HARDKNOTT
FORESTS**

LAKE DISTRICT NATIONAL PARK

ARCHAEOLOGICAL SURVEY

PROJECT DESIGN AND SPECIFICATION

Proposals

The following project design is offered in response to a brief from the Lake District National Park Authority. The proposed project involves a programme of survey to record the archaeological landscapes of Grassguards, Cropple How, High Loft and Hardknott Forests, the purpose of which is to enhance the existing archaeological record and enable appropriate management and interpretation strategies to be enacted.

1. INTRODUCTION

1.1 Lake District National Park Authority have offered the opportunity for Oxford Archaeology North (OAN) (formerly Lancaster University Archaeological Unit (LUAU)) to submit a specification for a programme of landscape survey at Grassguards, Cropple How, High Loft and Hardknott Forests, Cumbria. All four are areas of forestry within the Lake District National Park, and are owned by Forest Enterprise.

1.2 The proposed programme is intended to provide for the conservation management of the landscape and archaeological resource and also to provide an interpretation of the archaeological landscape for display and interpretation.

1.3 GRASSGUARDS, CROPPLE HOW, HIGH LOFT AND HARDKNOTT FORESTS

1.3.1 The area contained by these forests is of considerable archaeological potential, as the general area has been subject to intensive agricultural exploitation from at least since the Bronze Age. The Hardknott Forest / Grassguards areas extend around Harter Fell and includes both gentle sloping and steep sloping land on the South-West fells. This is an area of considerable archaeological potential and includes part of Ulpha Fell which was surveyed by LUAU in 1983 and was found to have a rich resource of Bronze Age cairnfields. Such cairnfields are typically found across much of the marginal lands facing the coastal plain, where there is moderate or gently sloping ground and below 1000' AOD. The apparent absence of sites from the SMR reflects that no archaeological investigation has been undertaken of the area not that it has only limited archaeological potential. Cropple How plantation is very close to the exceptionally important Barnscar and Devoke Water cairnfield complexes (Surveyed by LUAU in 1982 and 1987), and because it has been a plantations for some considerable period this area has never been subject to archaeological investigation. However, the plantation has been subject to agricultural improvement and the archaeological resource may have been degraded by both agricultural and forestry operations..

1.3.2 In addition to the unimproved lands the study areas include localised areas of improved agricultural land which have been farmed during the medieval and post-medieval period, such as Birks within the Hardknott area and at Cropple How..

1.4 OXFORD ARCHAEOLOGY NORTH

1.4.1 OAN has considerable experience of the evaluation, survey and excavation of sites of all periods, having undertaken a great number of small and large scale projects during the past 17 years. One of its particular specialisms is in the sphere of landscape recording and assessment. OAN has the professional expertise and resource to undertake the project detailed below to a high level of quality and efficiency. OAN and all its members of staff operate subject to the Institute of Field Archaeologists (IFA) Code of Conduct.

1.4.2 OAN has undertaken a large number of upland landscape surveys for a variety of clients (both private and national agencies such as English Heritage and Royal Commission on the Historical Monuments of England (RCHM(E)) and employs a qualified surveyor (James Quartermaine, BA, DipSurv, MIFA) who has many years experience of the identification and survey of upland landscapes, having worked closely with the RCHM(E) and the Lake District National Park Authority on a number of projects.

1.4.3 Since 1982 OAN has been undertaking extensive upland landscape surveys throughout Northern England but mainly in the Lake District. Surveys include the Lake District National Park Survey, the Torver Common surveys (Lake District), Haweswater and Thirlmere estate surveys (Lake District), Lyme Park (Peak District), most of the Forest of Bowland AONB, Lancashire, and a multitude of smaller landscape projects which include the Otterburn Range surveys in the Lake District National Park. In particular OAN has undertaken the detailed survey of Barnscar to the immediate south of the Cropple How Plantation and the Devoke Water survey to the east of the plantation. OAN has also undertaken the Ulpha Fell survey to the west of the Hardknott Area. To date OAN has undertaken archaeological field surveys of over 610sqkm of upland landscapes and has recorded over 21,000 field monuments. On the Arnside/Silverdale project, in 1992, OAN was the first archaeological organisation in Britain to use GPS (Global Positioning System) survey techniques and since then has considerably advanced its skills in this area. OAN can therefore claim to be one of the foremost specialists in the field of upland landscape recording.

- 1.4.4 Of relevance to the proposed project are the extensive detail surveys (Level 2b) undertaken of the forested Ennerdale Valley for the Lake District National Park and Forest Enterprise, and also a recently completed survey of the forested Simonside Hills, Rothbury, which belongs to Forest Enterprise and which was undertaken on behalf of the Northumberland National Park. Both surveys were intended as the basis for a management plan to allow for the preservation of the archaeological resource during proposed felling programme, and were also intended to provide interpretation for a heritage trail linking the more significant, stable and visually impressive sites. The present survey is most comparable to the surveys of the Whitbarrow, Brigsteer and Hampsfield Allotment woods and the Miterdale and Giggle Alley Forests for LDNPA. All these surveys were undertaken for the most part in dense coniferous forest, an extremely difficult environment in which to undertake both extensive and intensive survey work. This required the innovation of some sophisticated survey techniques in order to achieve an acceptable level of accuracy and efficiency. Experimentation was undertaken with various different GPS systems, before a successful methodology was established.
- 1.4.5 OAN has also had an involvement in Landscape Characterisation programmes and has acted as a consultant to English Heritage on landscape conservation issues.

1.5 PROJECT DESIGN

- 1.5.1 The following project design specification sets out the objectives of the project, provides a methods statement demonstrating how these can be met, defines the resource implications of the methods statement and links these to a timetable and costings. Details of quality standards and monitoring procedures are also included.

2. OBJECTIVES

- 2.1 The primary purpose of the project is to inform future management decisions with regard to conservation matters relating to the archaeological and historical content of the forested landscape. The aims of the project are set out in the brief supplied by the John Hodgson, Lake District National Park Archaeologist. They are as follows:
- to establish sufficient information to establish the location, extent, character, period, condition, fragility and potential of the surviving archaeological features;
 - to provide an accurate level 1 survey of all identified monuments;
 - to provide a preliminary grading of all recorded sites and features to indicate relative significance.
 - to provide a basis for the preparation of detailed management prescriptions by Forest Enterprise and the National Park Archaeologist.
 - to provide information for display and interpretation.
- 2.2 The following programme has been designed to provide an accurate archaeological survey of the four upland areas, set within their broader landscape context. It is important that the individual sites are not simply viewed as isolated points on a map, but that the archaeological record reflects their group value and their importance to the historical fabric of landscape character areas within the areas.

3. METHODS STATEMENT

- 3.1 The following work programme is submitted in line with the objectives of the archaeological work summarised above. It is divided into three elements, desk based research (including aerial photographs), archaeological field survey, and reporting.

3.2 DESK-BASED RESEARCH

- 3.2.1 The data generated during the desk-based study will provide the basis for an assessment of the nature and significance of the known surface and subsurface remains. It will also serve as a guide to the archaeological potential of the four survey areas, and provide a basis from which historical narratives for each area can be constructed. It is proposed to undertake a detailed documentary study for the Grassguards and Hardknott areas, but only a basic map search for the smaller High

Loft and Cripple How areas. The basic map search will provide SMR details and the OS 1st edition and tithe map details, which will serve to provide information for the site gazetteer, but a detailed historical assessment of these two smaller areas will not be compiled.

- 3.2.2 The following will be undertaken as appropriate, depending on the availability of material and with due regard to budgetary and timetable constraints. The method statement is based on the *Standard and Guidance for Archaeological Desk-based Assessments* compiled by the IFA.
- 3.2.3 The documentary study will consult the Cumbria Sites and Monuments Record and also documentary and cartographic records held by the County Record Office at Barrow and Kendal. The emphasis will be on cartographic records as these have the potential to provide the locations of sites and will include early maps (including estate plans and tithe maps etc).
- 3.2.4 The following will be undertaken for Grassguards and Hardknott areas only, and will involve a search on rentals, and post-medieval deeds, as well as photographs, topographic prints and eighteenth and nineteenth century antiquarian histories and topographic guides. It will also be important to identify the history of planting and forest management and the records held by Forest Enterprise will be consulted. Published secondary sources will also be considered. Attention will be paid to place-names recorded on early cartographic sources as these often provide important evidence of archaeological activity.
- 3.2.4 A rapid compilation of geological (both solid and drift), pedological, topographical, and palaeoenvironmental information will be undertaken, using information available from the Ordnance Survey and ADAS. This will not only set any archaeological features in context but also serves to provide predictive data, that will increase the efficiency of the field investigation.
- 3.2.5 **Aerial Photography:** a survey of the extant air photographic cover will be undertaken. This will aid the identification of surviving archaeological and structural features, that are not obscured by forestry or which have been obscured by forestry subsequent to the photography. Aerial photographic collections to be consulted will include obliques and verticals held by the Royal Commission on the Historical Monuments of England based in Swindon, the Cambridge University Collection of Air Photographs and photographs held by the County SMR and the Lake District National Park Authority.

3.3 FIELD SURVEY METHODOLOGY

- 3.3.1 The survey will be undertaken as an enhanced Level 1 type survey (details of OAN's survey levels are contained in Appendix 1). Sites already identified on the Cumbria SMR will be checked and recorded at the same level of consistency as other newly discovered monuments.
- 3.3.2 The survey will involve four elements: Reconnaissance, Mapping, Description and Photography.
- 3.3.3 **Reconnaissance:** the reconnaissance will consist of close field walking, varying from 10m to 45m line intervals dependent on visibility (as affected by tree density), terrain and safety considerations. The reconnaissance will exclude areas of extreme tree density and also areas of extreme topography, such as inaccessible scree, and cliffs, the level of exclusion, however, will be subject to discussions with the National Park Archaeologist. The survey will aim to identify, locate and record archaeological sites and features on the ground and thus all sites noted will be recorded. The extent of any areas where there is no access will be defined on maps and depicted on the CAD mapping. There is the potential that some areas will subsequently become available following forestry thinning operations. All sites identified from the Sites and Monuments Record and also the OS first edition maps will be investigated.
- 3.3.4 **Survey mapping:** because of the constraints of working within forested conditions a Satellite Global Positioning System (GPS) will be utilised to satisfy the Level 1 survey requirements. GPS uses electronic distance measurement along radio frequencies to satellites to enable a positional fix in latitude and longitude which can be converted mathematically to Ordnance Survey national grid. The accuracy of an uncorrected GPS fix is only +/- 70m and there is a requirement to use differential GPS systems to correct the fix, and in this way producing accuracies of up to +/- 0.01m (with some equipment). There are different methods of applying the corrections either using post-processed or real time systems. Experience of using GPS within the forests of Ennerdale, Miterdale and Whitbarrow has demonstrated that only some GPS techniques are workable and can provide an adequate level of accuracy (+/- 1m). The problem is that forest canopy cover reduces incoming radio signals and the lower the altitude angle of the transmitting satellite, the greater the

interference. Any real time correction signal transmitted from a ground based transmitter is lost and similarly real time correction signals from a geo-stationary satellite are usually lost, because these satellites are inevitably at a relatively low altitude angle. Experience of survey within these conditions has shown that only post-processed differential GPS can be relied upon to provide a reliable fix and even then it needs to be undertaken in an area with thin canopy cover or in clearings. The canopy cover will reduce the number of satellites that can be received but will usually always provide at least a low level fix ($c \pm 2\text{m}-5\text{m}$ accuracy); the accuracy will be more than sufficient for a 1:10,000 output. Where a site is in an area that has dense canopy cover and there is not adequate satellite reception, then a bearing and distance measurement will be obtained from a nearby location which does have adequate reception. The GPS techniques will be used to record the extent of the site.

3.3.5 **Site Description and Assessment:** the key to economy of survey is being able to compile a descriptive record for each site in a fast and accurate manner, which can be implemented in all weather conditions. It is proposed that the data be directly input on site into a palm computer, which is within a weatherproof case. The data will be incorporated into an Access 97 compatible database. The data will be backed up daily onto a portable computer running Access 97. The proposed system has the advantage that it can be input in adverse weather conditions, unlike conventional pro-forma sheets, and saves on the subsequent transcription of the data into the database; however, it is slightly slower to create the entry in the field by comparison with a conventional pro-forma. Details, such as parish and district, will be incorporated in the office.

3.3.6 The textual description will record details of location, land-use, extent, period, character, condition, fragility, group value, potential, rarity, sources, diversity and accessibility. Each category will be given high, medium or low scores in the field. At the post-fieldwork stage a similar score will be placed on amenity potential. This can be calculated against its accessibility, its potential for interpretation, and its importance as a visual feature in the landscape. These values will be averaged to provide an overall grade for the site at the data analysis stage. The grading will be defined as follows:

- Grade 1 Archaeological sites of the highest importance, and will include Scheduled Ancient Monuments and sites of national importance.
- Grade 2 Archaeological Sites of regional significance
- Grade 3 Archaeological Sites of local significance
- Grade 4 Non extant sites or sites which are not authentic

The computerised database (Access 97) will be digitally transferred along with the CAD drawings within a MapINFO format.

3.3.7 The description will incorporate a provisional interpretation of the function and purpose of a site, where possible, and similarly will provide a provisional interpretation of the site's chronology where possible.

3.3.8 **Photographic Survey:** a photographic archive will be generated in the course of the field project, comprising landscape and detailed photography. Detailed photographs will be taken of all sites using a scale bar. All photography will be recorded on photographic *pro-forma* sheets which will show the subject, orientation and date. The photography will be primarily undertaken within black and white 35mm format for archival purposes and will be maintained to archival standards. Photography will also be undertaken within digital and transparency formats for presentation purposes. The use of a digital camera will allow the incorporation of a digital image of specific sites into the Access database form, if required. The use of photography in this way considerably enhances the usability of a database and greatly assists the analysis of the landscape.

3.4 PROJECT ARCHIVE AND REPORTING

3.4.1 **Archive:** the results of the fieldwork will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*Management of Archaeological Projects, 2nd edition, 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 Centre for Archaeology format, both as a printed document and digitally. Digital survey data will be provided in a suitable format for incorporation into the MapInfo Geographical Information System (GIS). A synopsis (normally the index to the archive and the report) should be placed in the Cumbria Sites and Monuments Record.

- 3.4.2 **Digital Presentation:** the survey data will be digitally transferred into a CAD system (AutoCAD) and superimposed with Raster digital OS 1:10,000 mapping to be provided by LDNPA. The dimensioned site drawings will be digitally superimposed onto the raw survey data, thereby ensuring a high level of both numeric and representational accuracy. The use of CAD dispenses with the manual production of drawings and considerably increases the efficiency of the preparation of completed drawings, as well as enhancing the flexibility of map output. The final output drawings will be output in DXF, and MapInfo format, which will incorporate the textual descriptive data. The drawings can be output at any required scale, although the accuracy of generation assumes that the drawings will not be reproduced at scales of greater than 1:50,00. A digital copy of the archive will be passed to LDNPA on completion of the survey alongside the final report. A copy of each plan will be supplied on polyester film at a standard scale.
- 3.4.3 **Photographic Presentation:** sets of black and white prints (7" x 5") will be provided and the report will incorporate high quality prints of digital images in colour and black and white. The negatives will be deposited with the Lake District National Park Authority.

3.5 REPORTING

- 3.5.1 The report will identify areas of defined archaeology and an assessment and statement of the actual and potential archaeological significance of the material, within the broader context of regional and national archaeological priorities, will be made. The potential for further archaeological fieldwork will be examined both in relation to individual sites and for the estate as a whole. The report will make a clear statement of the archaeological potential of the individual sites within the study area.
- 3.5.2 **Content:** the full report will consist of an acknowledgements statement, lists of contents, executive summary, introduction summarising the brief and project design and any agreed departures from them, methodology, geomorphological and historical background, interpretative account of remains found, conclusions, a gazetteer of sites with grading of significance, assessment of potential for future work (in accordance with English Heritage guidance 1991), list of archive contents and bibliography. Illustrative material will include location maps and plans.
- 3.5.3 **Summary Landscape History:** the report will be presented on the basis of the results of the field and documentary study. It will examine the factual evidence for all periods of activity and in the absence of any environmental or absolute dating an attempt will be made to identify the date, character and function of the principal monument groups on the basis of local and national typologies. The narrative will be presented chronologically and will seek to define the development of the landscapes from the earliest activity through to the present.
- 3.5.4 **Assessment of Potential for Further Work:** the report will examine the archaeological condition, survival, stability and significance of the archaeological monuments and landscapes. On this basis the report will make recommendations for further recording or archaeological investigation that will be compatible with the overall research and management aims for the survey areas. These proposals may include selective excavation or more detailed survey works in specific areas of the landscape, geochemical works or environmental analysis, use of GIS and Digital Terrain Models to enhance the understanding and perception of the archaeological resource and the landscape.
- 3.5.5 **Publication:** The results of the survey will be summarised for publication within the *Transactions of the Cumberland and Westmoreland Antiquarian and Archaeological Society*. This will incorporate up to two illustrations which will be generated specifically for the publication format. The costs for this are incorporated within the overall programme..
- 3.5.6 **Output:** three bound and one unbound copies of the full report will be submitted to the Lake District National Park Authority. Each report will be illustrated by a selection of prints and maps.
- ### 3.6 CONFIDENTIALITY
- 3.6.1 The report is designed as a document 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; it is not suitable for

publication as an academic report, 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. OTHER MATTERS

4.1 ACCESS

4.1.1 In the first instance the Forest Enterprise should contact any tenants or commoners in writing, before the start of field work. OAN request that a map detailing the properties of all landholders is made available to them so that their representatives can make contact on the ground with the landholders prior to entering land as a matter of courtesy.

4.2 HEALTH AND SAFETY

4.2.1 Full regard will, of course, be given to all constraints (services) during the excavation, as well as to all Health and Safety considerations. The OAN Health and Safety Statement conforms to all the provisions of the SCAUM (Standing Conference of Unit Managers) Health and Safety manual, as well as the Lancaster University Health and Safety Statement. Risk assessments are undertaken as a matter of course for all projects, and will anticipate the potential hazards arising from the project. In particular action will be taken to protect against eye injury from working in low, dense woodland undergrowth. Eye protection will be worn by field workers at all times.

4.3 INSURANCE

4.3.1 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 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 OAN in respect of personal injury or damage to property by negligence of OAN 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.

4.4 WORKING HOURS

4.4.1 Survey works will be undertaken on the basis of a five day week, within daylight hours only. It is anticipated that because of the use of academic members of staff and volunteers for certain aspects of the project, some works will be conducted during weekends.

4.5 PROJECT MONITORING

4.5.1 Monitoring meetings will be established with the LDNPA at the outset of the project. It is anticipated that these will involve a preliminary meeting at the commencement of the project and possibly progress meetings during fieldwork.

4.5.2 OAN will inform the LDNPA of all significant developments, and any potential departures from the agreed programme will be discussed and agreed with them prior to implementation.

5. WORK TIMETABLE

5.1 The phases of work will comprise:

5.1.1 *Desk Top Study*

An 12 day period is required to collate all the available data.

5.1.3 *Field Survey*

Grassguards (0.4sqkm): 1 day will be required for the field survey
Cropple How (0.23 sqkm): 1 day will be required for the field survey
High Loft (0.39sqkm): 1 day will be required for the field survey
Hardknott (4.82sqkm): 10 days will be required for the field survey

5.1.4 *Archive and Reporting*

20 days would be required to complete this element.

5.1.5 OAN can execute the project within two weeks receipt of written notice.

6. OUTLINE RESOURCES

6.1 STAFFING

- 6.1.1 The project will be under the management of **Jamie Quartermaine BA DipSurv** (OAN Project Manager) to whom all correspondence should be addressed. He will monitor the progress of the project ensuring adherence to all agreed programmes and timetables. He will also provide technical back-up, advice, and will have editorial control over the compilation of the full report. He has many years experience of surveying upland landscapes, particularly in the Lake District and Yorkshire Dales National Parks.
- 6.1.2 The field survey will be led by **Dan Elsworth** who has considerable experience of field survey work, including prehistoric landscapes, and has undertaken considerable survey work throughout Cumbria and was a team leader on the recent major survey of the Nidderdale AONB (examining 200sqkm of marginal land), and undertook a landscape survey of a major sixteenth / seventeenth century Millstone quarry at Harbottle Hill, Northumberland.
- 6.1.3 It is proposed that the documentary study be undertaken by **Vix Hughes BA**. Vix has considerable experience of documentary studies and is very familiar with all the relevant sources having undertaken similar studies for many of the recent landscape projects.

APPENDIX 3 GAZETTEER OF SITES

Site Number	1	Site name	Saddlebacked How
Location	Hardknott Forest	NGR	32366 50082 - 32360 50078
Site Type	Field Boundary	Period	Medieval/post-medieval
Land use	Pasture	Source	OS current map; Identification Survey
Potential	Low	Rarity	Low
Group value	Medium	Fragility	Low
Significance	3	Condition	Medium

Part of the enclosing field boundary (including Sites 13, 17 and 20) running along the west side of the valley. At this part there is a dog-leg to the north-east where the wall is exposed away from forestry planting. It is 1-1.5m wide by 0.5m in height, and is constructed of medium to large rounded boulders. The wall is up to three courses high.

Site Number	2	Site name	Saddlebacked How
Location	Hardknott Forest	NGR	323629 500764 - 323687 500675
Site Type	Field boundary	Period	Medieval/post-medieval
Land use	Pasture	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	High	Fragility	Medium
Significance	2	Condition	Medium

Part of the enclosure boundary system joining Saddlebacked How to Castle How. This is the northernmost portion of the system (there is no evidence of it joining Site 1 but it runs east towards Site 6). It consists of short sinuous sections of enclosure boundary wall running north-west/south-east joining outcrops of rock and in some cases overlying and using the topography of the bedrock on the east slope of Saddlebacked How. There are two possible clearance cairns located between the south end of the site and Site 3. The enclosure boundary wall is 1-1.5m in width, and is 1m in height. It was constructed with a mix of small-medium rounded and sub-angular stones with occasional medium boulders and bedrock base. The wall is up to four courses high.

Site Number	3	Site name	Saddlebacked How
Location	Saddlebacked How	NGR	323619 500643
Site Type	Bield/Structure	Period	Medieval/post-medieval
Land use	Pasture	Source	OS; Identification Survey
Potential	Medium	Rarity	Low
Group value	Medium	Fragility	Low
Significance	1	Condition	Medium

A small structure between Saddlebacked How and Castle How which was probably associated with the enclosure boundary walls (Sites 2 and 6). The layout is rectangular with three extant walls remaining, the fourth side has tumble, possibly indicative of a wall. The remaining walls are 0.5-1m in width, 1.5m in height, and up to six courses high. The structure was constructed of angular scree/bedrock up to 0.5m x 0.5m in size. The building style is different from the enclosure walls.

Site Number	4	Site name	Saddlebacked How
Location	Hardknott Forest	NGR	323601 500594
Site Type	Cairnfield	Period	Medieval?
Land use	Pasture	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	High	Fragility	Low
Significance	1	Condition	Medium

A cairnfield and associated features between Saddlebacked How and Castle How. To the north and east are enclosure boundary walls (Sites 2 and 6) and to the south is an enclosure (Site 5). Feature 4a is a denuded sub-rectangular enclosure wall with the west portion being better preserved, 1.5-2m in width and 0.2m in height. It is constructed of small-medium rounded packed stones up to two courses high. Features 4b, c, d, f, g and h are clearance cairns of various shapes which cluster around and on top of outcropping bedrock. They are made up of medium-large stones with occasional large boulders. They are between 2-3m wide, 3-5m long

and 0.3-0.6m high. Feature 4e is a flat, possibly cleared/cultivated area to the south of the cairns; its south edge coincides with the break of slope downhill towards an enclosure (Site 5). Its size is 20m x 20m and it is up to 0.6m deep along the north-west edge.

Site Number	5	Site name	Castle How
Location	Hardknott Forest	NGR	323663 500479-323598 500544
Site Type	Enclosure	Period	Medieval/post-medieval
Land use	Pasture	Source	SMR 1360; Identification Survey
Potential	Medium	Rarity	Medium
Group value	High	Fragility	Medium
Significance	1	Condition	Medium

A large, elongated oval enclosure oriented north-west/south-east running from the crag of Castle How in the east. It runs downslope and across the stream in the base of the valley and up the other side. The south-west corner of the enclosure is defined as Sites 14 and 15. The wall is constructed of medium-large sub-angular stones with occasional bedrock foundations and large boulder inclusions. At one point, at the south-east corner, the wall dog-legs in order to incorporate a large boulder. The walls are 0.7-1.5m wide and up to 1.2m in height. The walls are more substantial in close proximity to Castle How, where they are up to five courses high. Downslope from Castle How to the south of the enclosure wall near the stream, there is a small section of revetment following a flat pathway, which has boulders and stone placed up and downslope of it.

Site Number	6	Site name	Saddlebacked How
Location	Hardknott Forest	NGR	323724 500655-323708 500531
Site Type	Field boundary and enclosure	Period	Medieval/post-medieval
Land use	Pasture	Source	SMR 1360; Identification Survey
Potential	High	Rarity	Medium
Group value	High	Fragility	Medium
Significance	1	Condition	Medium

An enclosure boundary wall between Castle How and Saddlebacked How and possibly a continuation of Site 2. The wall forms a part of the north-east side of the complex of walls around Castle How, and is 0.5-1m in width and 1-1.5m in height. It comprises sub-angular medium stones running along the contours of the slope, and uses some bedrock foundations and medium-sized boulders for foundation. It can be up to five courses high. The wall runs from an outcrop on Saddlebacked How to the north along to Castle How in the south, where it butts against a group of large boulders, and it runs to the north and east of a flat, clear and boggy area. Where the wall butts against the boulders, there is a rectangular structure which uses Castle How as its south wall and the boulders as its north-east corner. The more substantial and better surviving walls of this structure are packed against and under the boulders, with small sub-sections at the corners. There is what appears to be the remains of a gable opposite the crag, probably corresponding to SMR Site 1360. The structure is 0.7-1m wide and 1-2.0m in height; it is of well-constructed, dry-stone masonry using medium-large stones built over large boulders, and it is up to nine courses high.

Site Number	7	Site name	Castle How
Location	Hardknott Forest	NGR	323753 500613-323764 500556
Site Type	Enclosure Boundary	Period	Medieval/post-medieval
Land use	Pasture	Source	Identification Survey
Potential	Low	Rarity	Medium
Group value	High	Fragility	Medium
Significance	2	Condition	Medium

An enclosure boundary wall that is part of the Castle How complex, to the north of Castle How. The enclosure wall runs east/west from next to the wall of Site 6, up and along the natural contours, using bedrock and occasional boulder foundations. The wall then dog-legs south towards Castle How, with a structure on the corner. There is also a small, sub-oval enclosure on the wall. The wall is constructed from sub-rounded, medium stones, and is 0.5-1m in width and 0.5-1m in height. It has a maximum of six courses in the end wall, which is made up of well-constructed dry-stone masonry, but the rest is poorly built, using large stones, and is of the same quality as the enclosure walls. The structure has an internal cell in its south corner next to an area of collapse.

Site Number	8	Site name	Castle How
Location	Hardknott Forest	NGR	323662 500469-323667 500442

Site Type	Enclosure	Period	Medieval/post-medieval
Land use	Pasture	Source	SMR 1360; Identification Survey
Potential	High	Rarity	Medium
Group value	Medium	Fragility	Medium
Significance	2	Condition	Low

A small enclosure which is part of the Castle How complex. It hugs the western edge of Castle How and only the north and west walls, presumably of a rectangular structure, now survive. The walls are 1-2m wide and 0.5m high, and consist of sub-angular, medium stones, poorly packed, with occasional large stone inclusions. The wall is up to four courses high.

Site Number	9	Site name	Castle How
Location	Hardknott Forest	NGR	323666 500357
Site Type	Cairn	Period	Unknown
Land use	Pasture	Source	Identification Survey
Potential	Low	Rarity	Medium
Group value	Medium	Fragility	Low
Significance	2	Condition	Medium

A small cairn located to the south of the Castle How complex and to the north-west of a boundary wall (Site 10). The cairn is in close proximity to other features but is to the immediate south of an area of general scree. It is 2m wide by 2-3m long and 0.4m high, and is constructed of rounded, medium boulders tightly packed together.

Site Number	10	Site name	Castle How
Location	Hardknott Forest	NGR	323645 500304-323732 500385
Site Type	Field Boundary	Period	Post-medieval
Land use	Pasture	Source	OS; Identification Survey
Potential	Low	Rarity	Low
Group value	Low	Fragility	Medium
Significance	3	Condition	Medium

A long field boundary wall starting at a fence in the south and running in a linear north-west direction for 50m, stopping some way south of the Castle How complex. The wall is 0.7-1m wide and 0.7m in height. It is made up of small-medium rounded stones, moderately compacted, and up to five courses in height.

Site Number	11	Site name	Duddon Valley
Location	Hardknott Forest	NGR	323877 500267
Site Type	Cairnfield	Period	Prehistoric?
Land use	Pasture	Source	Identification Survey
Potential	High	Rarity	Medium
Group value	Low	Fragility	Low
Significance	1	Condition	Medium

A group of eight clearance cairns on a flat valley bottom to the east of the slope up to Castle How. Half of the cairns are covered in a layer of grass but stones are exposed on the others. There is potential for more cairns to be discovered in the area. It is significant that the cairns are surviving on good agricultural land with an essentially random distribution, which implies that the cairnfield was primary in nature, possibly related to the initial clearance of woodland. The cairns consist of small-medium stones with a build-up of smaller stones packed in around them. Their morphology is somewhat indistinct in places but all are either sub-oval or sub-circular. They are 1-2m wide by 2-3m long and 0.3-0.6m high. One cairn is different, being 3m wide by 5m long and 0.7m high; it is circular with a depression in the centre, and has probably been robbed.

Site Number	12	Site name	Castle How
Location	Hardknott Forest	NGR	323843 500541 323851 500500
Site Type	Enclosure	Period	Medieval?
Land use	Pasture	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	Medium	Fragility	Medium
Significance	2	Condition	Medium

A sub-circular, walled enclosure located on the steep east slope of Castle How, with a sub-oval shape. It has an internal dividing wall with a small enclosure or structure on the east side. There is a wall extending away

to the north for a short distance from the north-west corner. The walls are of variable condition and height, with the south-west corner being the most prominent at six courses, where it is 0.5-1m wide by 2-2.5m in height. The rest is in poor condition and only up to 0.3m in height. The walls are constructed from medium, and occasional large, sub-angular stones. The courses are well packed in the south-west corner but patchy elsewhere. The wall extending away from the enclosure to the north-west may be part of an external field wall. There are several narrow, flat clear natural terraces on the east slope of Castle How which may have served for cultivation.

Site Number	13	Site name	Saddlebacked How
Location	Hardknott Forest	NGR	323553-500776
Site Type	Field Boundary	Period	Medieval/post-medieval
Land use	Clearing in coniferous plantation	Source	OS, Identification Survey
Potential	Low	Rarity	Low
Group value	Medium	Fragility	Low
Significance	3	Condition	Medium

Part of the enclosing field boundary (including Sites 1 and 20), which runs east/west along the line of the south end of the dog-leg in Site 1. The boundary does not survive where it turns south-west into Site 20. It is constructed of large angular stones which are moderately well packed together. The boundary survives better to the south where it is up to four courses in height. It is 1-1.5m in width and 2m in height to the south, but denuded elsewhere.

Site Number	14	Site name	Castle How
Location	Hardknott Forest	NGR	323499 500596
Site Type	Enclosure	Period	Medieval/post-medieval
Land use	Felled coniferous plantation	Source	Identification Survey
Potential	High	Rarity	Medium
Group value	High	Fragility	Medium
Significance	2	Condition	Low

The south-west corner of a boundary wall which is part of the Site 5 enclosure. The wall runs from a stream in the south, in a north-westerly direction up to a corner, then north over a stream, turning north-west along the contour of the hill up towards Saddlebacked How. It is constructed of more rounded, medium stones than the same enclosure wall to the south-east (Site 5). The wall here is 1.5m wide and 0.5m in height, with three surviving courses. There is a group of at least three cairns located to the east of the wall, built of medium-large rounded, moderately-packed, stones. The biggest cairn is 3.5-4m in width and 0.5m in height. The two other cairns are located north-west of the first at distances of 6m and 12m away respectively.

Site Number	15	Site name	Castle How
Location	Hardknott Forest	NGR	323515 500531
Site Type	Enclosure	Period	Medieval/post-medieval
Land use	Felled coniferous plantation	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	High	Fragility	Medium
Significance	2	Condition	Medium

An enclosure wall, part of the north wall of the enclosure (Sites 5 and 14). The wall runs downhill from north-west / south-east on the valley side opposite to Castle How. It turns south and follows the line of the stream in the valley bottom. It is constructed of rounded, medium-sized stones, which are mostly beneath the surface of the undergrowth among the trees. The wall here is 0.7-1m wide by 0.1-0.3m in height, with no visible courses.

Site Number	16	Site name	Castle How
Location	Hardknott Forest	NGR	323556 500564
Site Type	Cairn	Period	Unknown
Land use	Felled coniferous plantation	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	High	Fragility	Low
Significance	2	Condition	Medium

A clearance cairn to the west of Castle How next to a stream. It is constructed of medium-large boulders with small sub-angular bedrock pieces within. It is sub-circular, 2.5-3m across, and 0.3m in height.

Site Number	17	Site name	Skelly Crag
Location	Hardknott Forest	NGR	323439 500732
Site Type	Field Boundary	Period	Medieval/post-medieval
Land use	Coniferous plantation	Source	OS; Identification Survey
Potential	Low	Rarity	Low
Group value	Medium	Fragility	Medium
Significance	3	Condition	Medium

Part of the enclosing field boundary (including Sites 1, 13 and 20). This element is a small section of extant boundary wall running north-east/south-west. The wall is constructed of sub-rounded, medium stones with occasional large stone inclusions. It is moderately well packed with up to five courses. The wall stands 1.5m in width and 0.8m in height.

Site Number	18	Site name	Skelly Crag
Location	Hardknott Forest	NGR	323364 500534
Site Type	Cairn	Period	Unknown
Land use	Felled coniferous plantation	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	Low	Fragility	Low
Significance	3	Condition	Medium

A small clearance cairn, 2.5m long by 2m wide, and 0.7m in height. The cairn is constructed of small/medium, sub-rounded bedrock boulders.

Site Number	19	Site name	Dropping Crag
Location	Hardknott Forest	NGR	322604 500056-322646 499843
Site Type	Enclosure Boundary	Period	Medieval/post-medieval
Land use	Unplanted crag	Source	Identification Survey
Potential	Medium	Rarity	Low
Group value	Low	Fragility	Low
Significance	3	Condition	Medium

An enclosure boundary wall running north-west/south-east approximately 100m below the summit of Dropping Crag. It runs from outside the forestry area in the north, dog-legging around and meeting the crag face to the south-east. The wall is constructed of angular scree roughly piled into a dry-tone wall using the contour and is earthfast. It is three courses high in places, and 1-1.5m in width and 1.5m in height. The wall continued on the east side of the crag with at least two short sections between bedrock faces.

Site Number	20	Site name	Dropping Crag
Location	Hardknott Forest	NGR	323865 499775-323049 499916
Site Type	Field Boundary	Period	Medieval/post-medieval
Land use	Felled coniferous plantation	Source	Identification Survey
Potential	Medium	Rarity	Low
Group value	Medium	Fragility	Medium
Significance	3	Condition	Low

Part of the enclosing field boundary (including Sites 1, 13 and 17). At this point the boundary wall runs downslope from Dropping Crag from west-east. In the east it has been destroyed by planting, covered in a thick layer of branches, and crossed by a footpath. It has been heavily truncated by forest clearance and replanting. The wall is constructed of sub-angular and rounded, medium stones and small scree pieces. It is 2-2.5m in width and 0.5-0.8m in height, but no courses are evident as it is very jumbled and poorly packed.

Site Number	21	Site name	Hinning House
Location	Hardknott Forest	NGR	324078 499901
Site Type	Sheepfold	Period	Medieval/post-medieval
Land use	Coniferous plantation	Source	Identification Survey
Potential	Medium	Rarity	Low
Group value	Medium	Fragility	Medium
Significance	3	Condition	Medium

A rectangular sheepfold located on the eastern side of the Duddon valley, approximately 75m east of, and across the road from, Hinning House. It utilises the south wall of an enclosure running up the slope (shown on current OS mapping). The north/south and north-west/north-east walls survive with a maximum of five

courses standing. The walls are roughly constructed of rounded, medium-large stones and small stone packing. They are 1-1.5m in width by 1.5-2m in height. Site 21a is a smaller, rectangular structure of the same build located next to the road. It uses the corner of a field wall as two sides, the west and south walls of the structure survive up to five courses.

Site Number	22	Site name	North-east of Hinning House
Location	Hardknott Forest	NGR	324095 499940
Site Type	Sheepfold	Period	Medieval/post-medieval
Land use	Coniferous plantation	Source	Identification Survey
Potential	Low	Rarity	Low
Group value	Medium	Fragility	Medium
Significance	3	Condition	Medium

A rectangular sheepfold located on the eastern side of a valley, approximately 75m east of, and across the road from Hinning House. It utilises the north wall of an enclosure running up the slope (which is shown on current OS mapping), and is parallel to a similar sheepfold (Site 21) to the south. All four walls survive to some degree but there is a collapse in the middle of the east/west wall. It is roughly constructed with medium-large, rounded stones and smaller, sub-rounded packing. The wall is 1-1.5m in width by 1.5-2m in height, with five courses surviving.

Site Number	23	Site name	Hinning House Close
Location	Hardknott Forest	NGR	323771 499505-323906 499296
Site Type	Field Boundary	Period	Medieval/post-medieval
Land use	Coniferous plantation	Source	OS; Identification Survey
Potential	Low	Rarity	Low
Group value	Low	Fragility	Medium
Significance	3	Condition	Medium

A boundary wall running south-west from the valley bottom, diagonally up the hill past Hinning House Close. The wall extends over the crest of the hill and goes into the next valley and out of the survey area. It is predominantly constructed of angular fragments of scree, firmly packed up to seven courses high, and it occasionally uses large earthfast boulders as a base. The wall is 1-1.5m wide by 1.5-2m in height.

Site Number	24	Site name	White How
Location	Hardknott Forest	NGR	323920 499312-323938 499361
Site Type	Boundary Wall	Period	Medieval/post-medieval
Land use	Coniferous plantation	Source	Identification Survey
Potential	Low	Rarity	Low
Group value	Low	Fragility	Medium
Significance	3	Condition	Medium

A short section of boundary wall running along the valley bottom between White How and Hinning House Close. The wall is at right angles to Wall 23, but does not join it. It is of jumbled construction (generally denuded of stone) and consists of rounded, moderately-loosely packed small-medium stones. There are up to three courses and the wall is 1-1.5m wide by 0.5-0.7m in height. The wall might not be related to the same phase as wall 23, because of the different styles of construction. It may have been longer originally, but the erection of electricity pylons to the north-west may possibly have truncated it.

Site Number	25	Site name	Birks Bridge
Location	Hardknott Forest	NGR	323510 499597
Site Type	Cairn	Period	Unknown
Land use	Scrub	Source	Identification Survey
Potential	Low	Rarity	Medium
Group value	Low	Fragility	High
Significance	3	Condition	Low

A possible clearance cairn located north-east of Birks Bridge on the west bank of the river. It has been heavily truncated by a footpath to the east. It is constructed of rounded medium-sized stones that are moderate/firmly packed. The cairn is 3.5m wide, 8m long and 0.4m in height.

Site Number	26	Site name	Black Beck
Location	Hardknott Forest	NGR	323765 500021
Site Type	Wall?	Period	Unknown

Land use	Coniferous plantation	Source	Identification Survey
Potential	Low	Rarity	Low
Group value	Low	Fragility	High
Significance	3	Condition	Low

A linear alignment of stones located on flat, boggy ground between the River Duddon in the east and Black Beck in the west. It is possibly a heavily truncated wall in an area where several cycles of tree planting have taken place. The linear feature is 0.2-0.5m in width and 0.2-0.4m in height. The construction is extremely fragmentary with no packing of stones, and only one course of medium, sub-rounded stones survives.

Site Number	27	Site name	Black Beck
Location	Hardknott Forest	NGR	323635 500144
Site Type	Cairnfield	Period	Unknown
Land use	Coniferous plantation	Source	Identification Survey
Potential	High	Rarity	Medium
Group value	Low	Fragility	Medium
Significance	2	Condition	Medium

A group of six cairns on the western valley slope in a clearing. They are just off the flat boggy land to the east with Black Beck to the west. There are densely packed firs surrounding them but they have probably survived because they are in an area of well-spaced beech. The construction is of medium-large, rounded, well-packed stones with a moss covering. Cairn 27a is a long cairn, 2m wide, 4m long and 0.5-0.75m high; 27b is a long cairn or part of a collapsed wall. The body of the cairn is 2m wide, 7m long and 0.5m high. At its east end there is 3.5m of wall extant up to four courses high on a base of boulders. The wall is constructed of medium-large rounded stones, moderately packed; it is 1.5m wide, and 1.5-2m high. 27c is a long cairn, 2.5m wide, 3.5m long and 0.3m high. 27d is a sub-oval cairn, 2.5m wide, 3m long and 0.5m high. 27e is a circular cairn, which as well as the medium-large, rounded stones, has medium-large, boulder inclusions. It is 3.5m diameter and 0.5m high. Cairn 27f is a sub-circular cairn with rounded, medium-large stones surrounding and covering a large boulder. It is 2.5m in diameter and 0.7m high.

Site Number	28	Site name	Duddon Valley
Location	Hardknott Forest	NGR	323887 500084
Site Type	Earth Bank	Period	Post-medieval
Land use	Deciduous woodland	Source	Identification Survey
Potential	Medium	Rarity	High
Group value	Low	Fragility	Medium
Significance	3	Condition	Medium

A curvilinear, earthen bank located on the western bank of the River Duddon flood plain. It has been truncated to the west by forestry tracks and to the east by a footpath, a quarry (Site 29), and the river channel. The bank is round topped, is 2m in width at the base, and 0.75m in height. It encloses ground possibly used for an orchard or small-scale woodland management.

Site Number	29	Site name	Duddon Valley
Location	Hardknott Forest	NGR	323882 500005
Site Type	Quarry	Period	Post-medieval?
Land use	Scrub	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	Low	Fragility	Low
Significance	3	Condition	Medium

A series of quarry scoops located next to the western bank of the River Duddon. They cut an earlier earthen bank (Site 28). The quarry scoops are approximately 10m wide by 14m long and 1-1.5m deep. The quarry is orientated east/west with a bay at each end.

Site Number	30	Site name	Hinning House
Location	Hardknott Forest	NGR	324035 499935
Site Type	Loading Platform	Period	Post-medieval
Land use	Yard	Source	Identification Survey
Potential	Low	Rarity	Medium
Group value	Low	Fragility	Low
Significance	3	Condition	Medium

A loading platform located by the side of road on the corner opposite Hinning House. It is constructed behind a thickened stone wall of medium-large stones. It is 2m wide by 18m long and 1m in height. The top is capped with concrete, and is ramped to the north-east. A maximum of six courses survive.

Site Number	31	Site name	South of Hinning House
Location	Hardknott Forest	NGR	323989 499828
Site Type	Sheep Intake	Period	Post-medieval
Land use	Pasture	Source	Identification Survey
Potential	Low	Rarity	Medium
Group value	Low	Fragility	Low
Significance	3	Condition	Good

An enclosed walled area leading from the wall to the west side of the road running up to Hinning House. It is constructed of a mix of sub-rounded and sub-angular, small-medium stones that are well packed into a dry-stone wall. Six courses are surviving with occasional earthfast boulders as a base. The wall is 1-1.5m in width and 1-1.5m in height.

Site Number	32	Site name	Hinning House
Location	Hardknott Forest	NGR	323950 499795
Site Type	Quarry	Period	Post-medieval
Land use	Coniferous plantation	Source	Identification Survey
Potential	Low	Rarity	Medium
Group value	Low	Fragility	Low
Significance	3	Condition	Good

A large stone quarry on the east side of the road running up to Hinning House. It is shaped like a horse-shoe with a narrow entrance onto the road to the west. It is *c* 15m in diameter and extends 6m deep back into the hillside. There are spoil heaps around the sides of the entrance.

Site Number	33	Site name	Great Wood
Location	Hardknott Forest	NGR	323439 499263-323439 499141
Site Type	Enclosure Boundary and Building	Period	Medieval/post-medieval
Land use	Deciduous woodland	Source	OS; Identification Survey
Potential	Medium	Rarity	Medium
Group value	High	Fragility	Medium
Significance	2	Condition	Medium

A sub-triangular boundary wall enclosing land in the east of Great Wood, using the curve of the River Duddon to the west as its boundary. It has been variably truncated with a denuded wall easily seen running next to the course of the river. The western boundaries of the enclosure are only extant in several areas. The northern section has a small internal annex (possibly a hut foundation) built onto it. The annex has a small footing wall surviving on two other sides (but not in the south). The boundary wall is constructed of moderately packed, sub-rounded, small-medium stones with occasional medium boulder inclusions. It survives to a maximum of four courses high and is 1.5m in width and 0.5-0.7m in height. North-east of the southern section of extant boundary wall are two sub-circular features, at a distance of 10m and 15m away respectively. These could possibly be cairns or small sections of another wall. They are constructed from loosely packed, rounded, medium stones. Both measure approximately 2-2.5m in diameter and are 0.3m in height.

Site Number	34	Site name	Long Coppice
Location	Hardknott Forest	NGR	323414 499007
Site Type	Charcoal Burning Platform?	Period	Post-medieval
Land use	Deciduous woodland	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	High	Fragility	Low
Significance	2	Condition	Good

A flat, sub-circular platform located between levels of the crag running east from Gold Rill Crag. It overlooks the western bank of the River Duddon, and is 6m in diameter. It is a natural shelf that has been cleared.

Site Number	35	Site name	Gold Rill Crag
Location	Hardknott Forest	NGR	323389 499012

Site Type	Wall	Period	Medieval/post-medieval
Land use	Deciduous woodland	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	Medium	Fragility	Medium
Significance	3	Condition	Low

A possible wall located on the steep eastern slope of Gold Rill Crag. It is difficult to see due to the scree fallen from Gold Rill Crag, but it appears to run east/west downslope. It utilises loosely-packed, angular, medium-large stones in its construction. The wall is 1-1.5m in width and 0.7-1m in height, and a maximum of three courses survive. It probably relates to the complex of boundary walls on top of the crag in Long Coppice.

Site Number	36	Site name	Gold Rill Crag
Location	Hardknott Forest	NGR	323249 499036-323240 498967
Site Type	Enclosure Boundary	Period	Medieval/post-medieval
Land use	Pasture	Source	OS; Identification Survey
Potential	Medium	Rarity	Low
Group value	Medium	Fragility	Medium
Significance	2	Condition	Medium

A low, dry-stone built enclosure wall, covered in turf. It is part of the complex of enclosure walls around Long Coppice and the east end of Birks Farm, and is shown on the current OS maps. The wall runs sinuously north-east from the topmost crag of Gold Rill Crag, and down to the corner of another boundary wall to the north. The wall is constructed of moderately packed, sub-rounded medium-sized stones, is generally 1-1.5m wide, 0.3-0.5m in height and survives up to four courses. Near the corner of the northern boundary wall, the style of construction changes and here the wall stands up to six courses, being 1.5-2m wide and 0.7-1m in height. It is made up of medium-large boulder inclusions and a lot of angular scree added to the top. At the junction of the walls beneath the collapse there could possibly be a small enclosure against the walls.

Site Number	37	Site name	Birks
Location	Hardknott Forest	NGR	323274 499171
Site Type	Enclosure Boundary	Period	Medieval/post-medieval
Land use	Deciduous woodland	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	Medium	Fragility	Medium
Significance	2	Condition	Medium

A small section of enclosure wall running east/west, located east of Birks Farm. It consists of a mixture of rounded stones and angular scree that is denuded and loosely packed, although surviving to a maximum of four courses. The wall is 0.5-1m in width and 0.7-1m in height.

Site Number	38	Site name	Birks
Location	Hardknott Forest	NGR	323310 499283
Site Type	Quarry	Period	Post-medieval
Land use	Deciduous woodland	Source	Identification Survey
Potential	Low	Rarity	Medium
Group value	Low	Fragility	Low
Significance	3	Condition	Good

A quarry scoop located next to the east side of the track running north from Birks Farm. This was possibly the quarry for the farm buildings. There is a spoil heap in the centre of the quarry, with a bay at either side. It is 15m wide by 25m long (east/west) and 1.5m deep.

Site Number	39	Site name	Birks
Location	Hardknott Forest	NGR	322995 499130-323002 499081
Site Type	Enclosure Boundary	Period	Medieval/post-medieval
Land use	Pasture	Source	Identification Survey
Potential	Medium	Rarity	Low
Group value	Medium	Fragility	Medium
Significance	2	Condition	Medium

An enclosure boundary wall located directly to the west of Birks Farm. It is not on the current OS maps but looks like it is one of the later phases of walls around Birks Farm. The wall runs north/south and is constructed of rounded, large stones and medium-sized boulders, packed loosely on large, earthfast boulders.

It is 1.5-2m in width by 0.5-0.7m in height. There is also a well, located against the eastern side of the wall, constructed of stone with a concrete lining.

Site Number	40	Site name	Birks
Location	Hardknott Forest	NGR	323087 499205
Site Type	Cairnfield and Enclosure Walls	Period	Medieval/post-medieval
Land use	Pasture	Source	Identification Survey
Potential	Medium	Rarity	High
Group value	High	Fragility	Medium
Significance	1	Condition	Medium

A series of cairns and walls located in a field directly north of Birks Farm. This complex is directly related to the cairnfield (Site 41) to the east, and possibly to the structures around Washfolds to the west, (Sites 51 and 52). The walls in this field have been altered, truncated and destroyed in many places, but there are six remaining stretches of wall. Walls 40a and 40b run parallel downslope north-south away from Birks Farm with a boggy drainage channel between them. Wall 40c runs east/west under a later field boundary that is on the current OS map. Walls 40d and 40e are short stretches of wall running east/west and north-south respectively. Wall 40d also runs under a later boundary wall. Wall 40e joins onto a later boundary wall at its west end. Wall 40f is a natural large mound with a flattened top. It has been cleared and is bounded and kerbed on its north side by a retaining wall. All the walls have a basic construction of medium, sub-rounded and sub-angular, moderate-poorly packed stones. They are all approximately 1.5m wide by 1-1.5m in height and up to a maximum of six courses. There are at least ten clearance cairns within this field; most are small and sub-circular with medium-large stones clustered together. They have a diameter of 2m and are 0.7m high. Some cairns are slightly larger, being 3-4m diameter. Cairn 40g is a large cairn, 4m wide by 6m long and over 1.5m in height. It is constructed of medium-large angular stones, with smaller stones towards the top. The bottom of the cairn seems to be kerbed along the northern edge.

Site Number	41	Site name	Birks
Location	Hardknott Forest	NGR	323169 499126
Site Type	Cairnfield	Period	Medieval/post-medieval
Land use	Pasture	Source	Identification Survey
Potential	Medium	Rarity	High
Group value	High	Fragility	Medium
Significance	1	Condition	Medium

Eight cairns (41a-h) located to the east of Birks Farm, slightly removed from Site 40. They are constructed of medium-large stones packed together with smaller rounded stones. Cairn 41a is beyond a later wall and in the same field as Site 40. It is oriented north-east/south-west and is 2m wide by 4m long and 0.8m high. Cairns 41b-41e are all sub-circular with a diameter of 2m and are 0.8m high. Site 41f is a long cairn oriented east/west. It is 2m wide by 3m long and 0.6m high. Cairn 41g is sub-circular with a diameter of 2m and is 0.6m high. Cairn 41h is slightly removed to the south behind the east/west boundary wall coming directly from Birks Farm. It is 4m wide by 6m long and about 1m high. It is constructed of large, sub-rounded stones well packed at the base, with smaller stones in the centre and filling the space up to the wall in the north. The cairn could possibly be part of a collapsed structure placed up to the wall. In the same field as Site 41, to the east of the cairns, is a low, linear earth bank, which is 0.4m in width, 20m long and 0.1m in height. The wall runs south-west/north-east and has no stone in its construction. The bank was possibly a service trench/bank for the farm.

Site Number	42	Site name	Birks
Location	Hardknott Forest	NGR	323150 499046
Site Type	Cairn	Period	Medieval/post-medieval
Land use	Pasture	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	High	Fragility	Low
Significance	2	Condition	Medium

A cairn located directly to the east of Birks Farm. The cairn material has been collected up against the western side of a rocky outcrop and is made up of medium-large sub-rounded and rounded stones, which incorporate dry-stone design. It is 4m in width by 5m in length and 1-1.5m in height. The wall retains smaller cairn material behind it.

Site Number	43	Site name	Birks
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Location	Hardknott Forest	NGR	323083 499013
Site Type	Cairn	Period	Unknown
Land use	Pasture	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	High	Fragility	Low
Significance	2	Condition	Medium

A cairn located directly to the south-east of Birks Farm and orientated east/west. It is constructed from medium-large stones packed together with smaller stones in the gaps. It is 2m in width by 4m long and 1m in height.

Site Number	44	Site name	Birks
Location	Hardknott Forest	NGR	322981 499255-323119 499376
Site Type	Boundary Wall	Period	Medieval/post-medieval
Land use	Coniferous plantation	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	High	Fragility	Medium
Significance	2	Condition	Low

A length of boundary wall running north from Birks Farm. This wall is part of the extreme outer boundary (along with Site 39), demarcating Birks Farm and the wooded land towards the River Duddon. It runs north/south, curving slightly to the west, and is truncated heavily by forestry tracks. It joins a wall running east/west downslope, which then turns north-east into a felled area (again heavily truncated), where the wall runs down to a stream. Its construction is of medium sub-rounded stones packed with occasional medium boulders. It also often uses earthfast boulders as its base. Where the wall is truncated it is 1.5-2.5m in width and 1m in height, with two courses remaining. The better surviving sections are 1.5m in width and 1.5m in height, with six courses remaining. This is a former, now abandoned, section of intake boundary wall for Birks Farm.

Site Number	45	Site name	Birks
Location	Hardknott Forest	NGR	323144 499485
Site Type	Bield	Period	Post-medieval
Land use	Coniferous plantation	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	Low	Fragility	Medium
Significance	3	Condition	Medium

A bield to the north of Birks Farm on the side of the slope to the east of the forestry road. It is at the edge of a band of planted forestry. It has a large earthfast boulder with two walls built on the western side, of well-packed angular stone, and the southern wall is fairly substantial. It is 1m wide by 1.5m long, and 1.3m in height, seven courses high. The northern wall is fragmentary with only two courses surviving on the boulder base.

Site Number	46	Site name	Crook Crag
Location	Hardknott Forest	NGR	323299 499744
Site Type	Bield	Period	Post-medieval
Land use	Coniferous plantation	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	Low	Fragility	Medium
Significance	3	Condition	Good

A bield placed against a massive earthfast boulder located directly to the south-east of Crook Crag. It is made up of seven courses of half sub-rounded and half angular, medium stones built into a wall. It is 1m wide by 1.5m in height. From the south end, 3m to the north in the eastern face of the wall, is a small hole built into the wall with a possible shelf.

Site Number	47	Site name	Buck Crag
Location	Hardknott Forest	NGR	323089 499570
Site Type	Cairn	Period	Unknown
Land use	Coniferous plantation	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	Low	Fragility	Low
Significance	3	Condition	Medium

A small cairn located to the north-east of Buck Crag. It is oval in shape and is constructed of medium sub-angular stones, which are moderate-loosely packed. It is 1.2m wide by 2m long and 0.4m high. The stones are covered in moss and the forest brash masks much of it.

Site Number	48	Site name	Buck Crag
Location	Hardknott Forest	NGR	322987 499528-323009 499444
Site Type	Enclosure Boundary	Period	Medieval/post-medieval
Land use	Coniferous plantation	Source	Identification Survey
Potential	Low	Rarity	Medium
Group value	Low	Fragility	Medium
Significance	3	Condition	Low

A linear wall running north-south along the contour of the slope and turning downslope to the south-east on the east slope of Buck Crag. It is constructed of three courses of a mixture of medium sub-angular stones, small-medium boulders and smaller stone packing utilising earthfast boulders as a base. The wall is 1-1.5m in width by 0.7-1m in height. This wall is running in the direction of boundary wall 44, and could be another part of the enclosure system associated with it.

Site Number	49	Site name	Buck Crag
Location	Hardknott Forest	NGR	322982 499378
Site Type	Enclosure Boundary	Period	Medieval/post-medieval
Land use	Coniferous plantation	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	Low	Fragility	High
Significance	3	Condition	Low

A small section of linear boundary wall running from Buck Crag downslope from west-east towards a forestry road. The wall is truncated by the forestry road and the replanting of trees. It is constructed of moderately- packed medium, sub-angular stones, small-medium sub-rounded stones and occasional small boulders. The wall is 2m wide and 0.5-0.7m in height. Up to four courses survive.

Site Number	50	Site name	Washfolds
Location	Hardknott Forest	NGR	322861 499240
Site Type	Enclosure Boundary Wall	Period	Post-medieval
Land use	Felled coniferous plantation	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	Medium	Fragility	Medium
Significance	3	Condition	High

A linear enclosure boundary wall at the south-west end of Buck Crag and following the edge of the crag. The wall consists of a well-built dry-stone wall of compacted medium, angular stones, with occasional small boulders included. It survives to four courses and is 0.75-1m in width by 1.5-1.7m in height.

Site Number	51	Site name	Washfolds
Location	Hardknott Forest	NGR	322879 499201
Site Type	Building Complex	Period	Post-medieval
Land use	Clearing in coniferous plantation	Source	OS; Identification Survey
Potential	Medium	Rarity	Medium
Group value	High	Fragility	Low
Significance	2	Condition	High

A complex of building structures to the south of Buck Crag, next to the stream. One pen has concrete-lined walls and a trough to the south, with a course of flat slates above it. The general construction of the complex walls is of well-packed, small-medium, sub-rounded stones up to nine courses high, often surviving to their original height with a finishing course. Architectural details (doorways and hog holes have been picked out with angular stones. The walls are approximately 0.8m in width and 1.7m in height. The complex is associated with the post-medieval walls around the west end of the Birks Farm complex. The pens lead into the adjacent stream and it is evident that this is a rather complex sheepwash. The place name Washfolds, confirms its function.

Site Number	52	Site name	Washfolds
Location	Hardknott Forest	NGR	322895 499120

Site Type	Cairns, Structure, Wall	Period	Medieval/post-medieval
Land use	Clearing in coniferous plantation	Source	Identification Survey
Potential	High	Rarity	Medium
Group value	High	Fragility	Medium
Significance	1	Condition	Medium

A group of features immediately to the south of Washfolds on the west side of the forestry track. It includes a section of boundary wall, running east/west downslope, which is constructed of sub-rounded, small-medium stones moderately packed and occasionally bedrock based. The wall survives up to three courses and is 1-1.5m in width by 0.4m in height. There are three clearance cairns which are 1.5m wide by 2-3m long and 0.4-0.6m in height. All are constructed of moderately compacted medium-large rounded stones. The site includes a square structure with an entrance in the south-east wall. It is extant to five courses and is constructed of sub-rounded medium-large stones and occasional medium boulders. The western corner is set against an earthfast boulder. The walls of the structure are 0.8-1m in width by 4m long and 1.2m in height. The building is either a poorly constructed hut or a well-built field.

Site Number	53	Site name	Fickle Crag
Location	Hardknott Forest	NGR	322879 497731-322812 497562
Site Type	Enclosure Boundary	Period	Medieval/post-medieval
Land use	Deciduous woodland	Source	Identification Survey
Potential	Low	Rarity	Low
Group value	Medium	Fragility	Medium
Significance	3	Condition	Medium

An enclosure boundary wall extant in two parts, located to the east of Fickle Crag following the line of the River Duddon in the valley bottom. It is constructed of tightly packed, sub-rounded and occasional sub-angular, medium-large stones with occasional medium-large boulder inclusions; the wall also occasionally uses large earthfast boulders as a base. Four courses survive and the wall is 0.8m in width by 1-1.5m in height. The wall has a field (Site 80) built into it and, along with enclosure wall (Site 55), it demarcates the south and east boundaries of the deciduous woodland south of Fickle Crag.

Site Number	54	Site name	Fickle Crag
Location	Hardknott Forest	NGR	322559 497862
Site Type	Kiln	Period	Medieval/post-medieval
Land use	River bank	Source	SMR 30081; Identification Survey
Potential	High	Rarity	High
Group value	High	Fragility	Medium
Significance	1	Condition	High

A semi-circular kiln built into the slope on the west riverbank of Grassguards Gill. The kiln walls are approximately 3m in diameter by 2m tall; there is a small opening on the east side formed by two large edge-set boulders. The kiln is constructed from medium-large rounded boulders. To the north is a field boundary with a large mound of stones against it, although this does not appear to be structural and may just be field clearance. The site corresponds to the potash kiln (SMR 30081) recorded by M Davies-Shiel as having overall dimensions of 9 x 9 x 6 ft (2.7 x 2.7 x 1.8m).

Site Number	55	Site name	Gill Spout
Location	Hardknott Forest	NGR	322694 497610-322713 497593
Site Type	Enclosure Boundary Wall	Period	Medieval/post-medieval
Land use	Deciduous woodland	Source	Identification Survey
Potential	Low	Rarity	Medium
Group value	Medium	Fragility	Medium
Significance	3	Condition	Medium

A small section of retaining wall located on a steep valley cliff overlooking the eastern bank of Grassguards Gill. It is linear with a north-west/south-east alignment, and is constructed of angular stones. It is 1m high, 1.8m in length and 0.4m wide. It is possible that other sections of this wall survive west to Grassguards Farm and east to the river, but the cliff was too precipitous to survey. Along with Site 53, this wall probably demarcates the southern boundary of the deciduous woodland south of Fickle Crag.

Site Number	56	Site name	Gill Spout
Location	Grassguards	NGR	322498 497565
Site Type	Field	Period	Post-medieval

Land use	Unplanted forestry	Source	Identification Survey
Potential	Low	Rarity	Medium
Group value	High	Fragility	Medium
Significance	2	Condition	Medium

An H-shaped field located in the north of the Grassguards area downslope from the farm track to the west. It consists of two short sections of parallel wall running downslope west-east and a short cross wall between them. The construction is roughly built of moderate-loosely packed medium-large stones. These are a mixture of angular and sub-rounded stones. The parallel walls are 3-5m long by 1m high, and the whole area is 5m² x 8m². There is no evidence of enclosing walls and there is only limited collapse.

Site Number	57	Site name	Spout Gill
Location	Grassguards	NGR	322454 497552
Site Type	Cairn	Period	Unknown
Land use	Unplanted forestry	Source	Identification Survey
Potential	Low	Rarity	Medium
Group value	High	Fragility	Medium
Significance	2	Condition	High

A small clearance cairn located to the east of the farm track. It is directly south of and possibly associated with the cairns in Site 58. It is sub-square and is constructed of moderately-well-packed, small-medium, sub-angular stones. The cairn is 1.5m² x 0.5m in height.

Site Number	58	Site name	Spout Gill
Location	Grassguards	NGR	322452 497597
Site Type	Bield, Wall and Cairns	Period	Medieval/post-medieval
Land use	Unplanted forestry	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	High	Fragility	Medium
Significance	2	Condition	Medium

A group of stock management and clearance features next to the north wall of the Grassguards area and to the east of the farm track. Site 58a is a small circular hut or bield backing on to a craggy outcrop with an entrance to the east. It is approximately 4m in diameter and roughly constructed of medium-large angular stones. The walls are 0.5m wide and 0.7m high. Sites 58b-c are two small clearance cairns to the east of the bield. They are constructed of angular scree placed on or around larger earthfast stones. They are 1m in diameter by 0.4m in height. Site 58d is part of an enclosure boundary wall that is located to the north of the bield. The wall is oriented north-west/south-east and runs from the foot of a craggy outcrop downslope, turns to the north at an earthfast boulder and heads towards the northern boundary wall of the Grassguards area. Its construction is of roughly packed, sub-angular, medium-large stones up to three courses high. The walls are up to 1m wide and 0.7m in height.

Site Number	59	Site name	Basin Barrow
Location	Grassguards	NGR	322360 497625
Site Type	Enclosure Boundary Wall	Period	Medieval/post-medieval
Land use	Unplanted forestry	Source	Identification Survey
Potential	Low	Rarity	Medium
Group value	High	Fragility	Medium
Significance	2	Condition	Medium

An enclosure boundary wall located on the east side of a crag that is north-west of Basin Barrow. It is near the northern boundary wall of the Grassguards area and on the west side of the farm track. The wall runs north-south around the contour of the side of the crag. It is constructed of medium, angular scree stones placed roughly and horizontally, with four courses surviving. The wall is 0.5m in width and 0.5-0.7m in height. The wall is possibly earlier than the other enclosure wall on the south side of the crag, which is of more regular build and survives better. To the north of the wall, near the northern boundary of the Grassguards area, are two possibly modern cairns. These are 1m in diameter by 0.4-0.6m in height and are well-built.

Site Number	60	Site name	Basin Barrow
Location	Grassguards	NGR	322264 497656
Site Type	Enclosure Walls, Structures, Cairns	Period	Medieval/post-medieval

Land use	Unplanted forestry	Source	SMR 7828/7816?; Identification Survey
Potential	High	Rarity	High
Group value	High	Fragility	Medium
Significance	1	Condition	High

A large complex of boundary and internal walls running between two parallel north-south aligned walls of a later enclosure. They are constructed of large, rounded, moderately well-packed stones with occasional large boulder inclusions. The walls are up to 1.5m wide by 1m in height. They form a pattern of curving enclosures with small sections of wall extending out from them and, presumably, relate to truncated stock enclosures and structures. In some places they do not seem to respect the orientation of the later enclosure walls; indeed, one wall is truncated by the eastern enclosure wall. To the south of these walls, but still within the later enclosure, is a group of at least six sub-circular cairns. These are mostly small, being up to 2m in diameter and up to 0.6m in height. Their construction is of moderately packed, medium-large, rounded boulders. A sheepfold was identified (shown on the OS first edition map (1868)) on the west side of the west boundary wall of the Grassguards area. The structure used the corner of the boundary wall as two sides and has two segments of the west and north walls making up the rest of the sheepfold. There is also a narrow entranceway facing north through both parts of the structure. The sheepfold is closely related and possibly contemporaneous with a post-medieval building on the other side of the enclosure wall. This is at the junction of the small enclosure, the west wall of the Grassguards area, and two other enclosure boundary walls. The building is almost complete and probably relates to the record for SMR 7828. It has a small walled yard on three sides with an opening to the next field to the south-west. The building is nestling against the north-west wall of the yard and has two small rooms separated by a partition wall. The slate roof is partially surviving and slopes to the south-east, away from the yard wall, and there is a small window in the south-west wall. The construction of the building, yard and sheepfold is of well-constructed, sub-angular and sub-rounded, medium stones. The walls of the structure are up to original height, but the sheepfold is very decayed. The medieval structures are possibly related to other enclosures and structures of a similar date and construction to be found outside the survey area in the southern fields of Grassguards Farm.

Site Number	61	Site name	Spout Gill
Location	Grassguards	NGR	322542 497492
Site Type	Cairnfield	Period	Unknown
Land use	Unplanted forestry	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	High	Fragility	Medium
Significance	2	Condition	Medium

Several features located on the valley side sloping east/west down to the River Duddon, in the north of the Grassguards area. They are all constructed of moderately packed, small-medium, sub-rounded stones. Feature 61a is a linear cairn about 1m wide by 2m long and 0.4m in height, and the remainder are small sub-circular cairns about 1.5m in diameter and 0.6m in height. To the south is 61d, which is a short stretch of wall oriented north/south, 1m in width by 6m in length and 0.7m in height. Feature 61e, further to the south, is a curved bield, 2.5m in diameter and 0.7m in height. The site is closely related to the cairns found downslope (Site 62) and the clearance features to the north (Sites 56, 57 and 58).

Site Number	62	Site name	Spout Gill
Location	Grassguards	NGR	322643 497478
Site Type	Cairns	Period	Unknown
Land use	Deciduous woodland	Source	Identification Survey
Potential	Medium	Rarity	Medium
Group value	High	Fragility	Medium
Significance	2	Condition	Medium

Three cairns located on the valley side sloping east/west down to the River Duddon, in the north of the Grassguards area. All the cairns are constructed from moderately packed, small-medium, sub-rounded stones. Feature 62a is a sub-oval cairn with a trackway truncating it through the middle. It is 2m in width by 3.5m in length and 0.5m in height. Site 62b is a sub-circular clearance cairn, 2m in diameter and 0.5m in height. Site 62c is a sub-circular clearance cairn, 1.5m in diameter and 0.5m in height.

Site Number	63	Site name	Rowantree How Enclosure
Location	Grassguards	NGR	322764 497492-322753 497466
Site Type	Enclosure	Period	Medieval/post-medieval?

Land use	Unplanted forestry	Source	SMR 7702; Identification Survey; Air Photos VAP/OS/72 008, 379/3, 72
Potential	High	Rarity	High
Group value	High	Fragility	Medium
Significance	1	Condition	Good

A U-shaped enclosure recorded in the SMR as 7702. It is located on the western valley slope running down to the River Duddon, the slope flattening out into a natural terrace with a boggy area at the west. To the east, the ground is slightly higher and better drained before it drops downslope to the river. The enclosure is placed on the lip of the terrace overlooking the river, away from the boggy area to the west. It consists of a sub-rectangular stone wall, open on the east side, with a small entranceway in the south-west corner. The wall is constructed of moderately-poorly packed, sub-rounded, small-medium stones with up to three courses surviving. It is 0.7-1m in width by 0.4m in height. The SMR entry for 7702 describes an extra wall extending south from the east end, which could not be found in the course of the survey. The site is possibly a stock enclosure with this extra wall forming the first part of a field wall running away from it. The east side of the enclosure would then presumably have had a fence to complete the circuit. There is no evidence of any hut associated with the enclosure.

Site Number	64	Site name	Basin Barrow
Location	Grassguards	NGR	322270 497454-322231 497271
Site Type	Boundary Walls, Enclosure	Period	Medieval/post-medieval
Land use	Recent coniferous plantation	Source	SMR 7757; Identification Survey; Aerial photo: VAP/OS/72 008, 379/4, 72
Potential	Medium	Rarity	Medium
Group value	High	Fragility	Medium
Significance	2	Condition	High

A section of enclosure boundary wall running along the east slope of Rowantree How. The wall runs east/west downslope from near the enclosure to the north. It then turns south at a crag and follows the farm track on its west side. At the corner is a small sub-circular enclosure with an entrance to the west and possible internal walls. The wall continues south and meets the farm track, where it turns west and travels upslope to butt against the craggy side of Rowantree How. The wall is constructed of moderately well-packed, medium-large, sub-rounded stones with occasional medium boulders and angular stones. It is a maximum of 1.2m in width by 1.5m high and survives up to five courses high, especially in the sub-circular enclosure. The site spatially corresponds to the description for SMR 7757, but this also describes the remains of four small enclosures which were not found by the present survey.

Site Number	65	Site name	Basin Barrow
Location	Grassguards	NGR	322073 497307-322138 497335
Site Type	Enclosure Boundary	Period	Medieval/post-medieval
Land use	Unplanted forestry	Source	OS; Identification Survey
Potential	Low	Rarity	Medium
Group value	High	Fragility	Medium
Significance	2	Condition	Medium

Apparently part of Site 64. This section extends around the front of a small crag and up to Basin Barrow then south towards Rowantree How. It is constructed of a mixture of medium packed, sub-rounded, small-medium stones and angular scree with occasional medium boulders. It is 1m wide and 0.9m in height.

Site Number	66	Site name	Rowantree How
Location	Grassguards	NGR	322305 497209-322496 497085
Site Type	Enclosure Boundary	Period	Unknown
Land use	Unplanted forestry	Source	Identification Survey
Potential	Low	Rarity	Medium
Group value	Medium	Fragility	Medium
Significance	2	Condition	Medium

An enclosure boundary wall running north-south in line with the southern end of Site 64. It starts across the road from this site, then curves to the east downslope, missing a small crag and running sinuously round the north side of it, then it butts against the next crag and round the west side of it, possibly carrying on further. It survives to four courses high, and is of the same construction as Site 64.

Site Number	67	Site name	Hollin How
Location	Grassguards	NGR	322511 497229
Site Type	Bloomery	Period	Medieval
Land use	Recent coniferous forestry	Source	Identification Survey
Potential	High	Rarity	High
Group value	High	Fragility	Medium
Significance	1	Condition	Medium

A teardrop-shaped, mounded patch of land under grass. This contains heather but no bracken. There is exposed slag visible across most of mound where new trees have been planted. The feature runs downslope (east from the narrow end at the west) and is approximately 25m long by 12m wide, with the mound up to 0.8m high.

Site Number	68	Site name	Grassguards Gill
Location	Hardknott Forest	NGR	321773 498330
Site Type	Cairn	Period	Unknown
Land use	Clearing in coniferous plantation	Source	Identification Survey
Potential	Low	Rarity	Medium
Group value	Low	Fragility	Medium
Significance	3	Condition	High

A sub-oval cairn located to the west side of Grassguards Gill near the footpath. It is constructed of small-medium, sub-angular stones with moss covering 80% of it. It is 2.5m in length, 1.5m wide and 0.6m in height.

Site Number	69	Site name	Wallowbarrow Heald
Location	Hardknott Forest	NGR	320953 497963
Site Type	Enclosure Boundary	Period	Unknown
Land use	Clearing in coniferous plantation	Source	Identification Survey
Potential	Low	Rarity	Low
Group value	Low	Fragility	Medium
Significance	3	Condition	Medium

A small section of wall running east/west between earthfast rock on the north side of a crag. It is constructed of roughly constructed angular stone, with small-medium stones and occasional large stone inclusions. It survives to four courses high, is 1m in height and 1m in width.

Site Number	70	Site name	Basin Barrow
Location	Hardknott Forest	NGR	321807 497582
Site Type	Enclosure Boundary	Period	Unknown
Land use	Unplanted forestry	Source	Identification Survey
Potential	Low	Rarity	Low
Group value	Low	Fragility	Medium
Significance	3	Condition	Medium

A wall on the south-west edge of a small crag. It uses the crag as a base, and runs east/west, being constructed of medium-large angular stones. The construction is rough and only three courses survive; it is 0.8m in width and 0.5m in height.

Site Number	71	Site name	Swinst How
Location	Hardknott Forest	NGR	322960 498528
Site Type	Coppiced Wood	Period	Post-medieval
Land use	Coniferous plantation	Source	Identification Survey
Potential	Low	Rarity	Medium
Group value	Low	Fragility	Low
Significance	3	Condition	Medium

Several dozen coppiced deciduous trees located within 1938 and 1951 forestry plantations. They are widely scattered and their positions are estimated on the map.

Site Number	72	Site name	Grassguards
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Location	Hardknott Forest	NGR	322179 498301
Site Type	Enclosure Boundary	Period	Unknown
Land use	Coniferous plantation	Source	Identification Survey
Potential	Low	Rarity	Low
Group value	Low	Fragility	Low
Significance	3	Condition	Medium

A small stretch of enclosure dry-stone wall, running south-east/north-west between two sections of crag, and butting against both of them. It is roughly constructed of medium-large, sub-angular stones, but is now truncated and only three courses survive. It is 0.6m in height, 0.7m in width and 7m long. Also to the west and downslope is a small group of coppiced trees separated from the forestry. On the south side is another c4m long section of wall from the crag heading east. Within the crag, adjacent to this second stretch of wall, are three small shelters. Although they would have afforded shelter and appear to have been used, they are natural features and do not appear to have been constructed.

Site Number	73	Site name	Brandy Crag
Location	Hardknott Forest	NGR	322451 499042
Site Type	Peat Cutting	Period	Medieval/post-medieval
Land use	Unplanted forestry	Source	SMR 1459?; Identification Survey
Potential	Low	Rarity	Low
Group value	Low	Fragility	Low
Significance	3	Condition	High

An area of peat-cutting on top of Brandy Crag, that could possibly coincide with the 'fort' identified from aerial photographs in SMR 1459. There is a large depression 12m wide and 25m long, rectangular in shape and 0.5m deep. It has one or two extra bays on the western side, but is definitely not a hillfort.

Site Number	74	Site name	Kepple Crag
Location	Hardknott Forest	NGR	321965 498697-322021 498624
Site Type	Enclosure Boundary	Period	Medieval-post-medieval
Land use	Coniferous plantation	Source	Identification Survey
Potential	Low	Rarity	Low
Group value	Low	Fragility	Medium
Significance	3	Condition	Medium

A boundary wall running sinuously downslope east/west from part of the crag. It is lost where it is truncated by the forestry road but then was observed to continue towards another crag. It is constructed of angular and sub-angular stone and bedrock, roughly packed, and it occasionally uses earthfast boulders as a base. It is four courses high, 0.5-0.7m in height and 0.6m in width.

Site Number	75	Site name	Brandy Crag
Location	Hardknott Forest	NGR	322037 498914-321971 498852
Site Type	Enclosure Boundary	Period	Medieval/post-medieval
Land use	Unplanted forestry	Source	Identification Survey
Potential	Low	Rarity	Low
Group value	Low	Fragility	Medium
Significance	3	Condition	Medium

A boundary wall running north/south along the contour of the land between crags; it is extant on either side of one crag. The build is the same as Site 74, with three courses surviving.

Site Number	76	Site name	Grassguards
Location	Hardknott Forest	NGR	322174 498446
Site Type	Enclosure Boundary	Period	Medieval/post-medieval
Land use	Coniferous plantation	Source	Identification Survey
Potential	Low	Rarity	Low
Group value	Low	Fragility	Medium
Significance	3	Condition	Medium

A curved boundary wall running approximately south-west/north-east out from part of the crag. It is constructed of a mix of angular and rounded medium stones with occasional medium boulder inclusions; it is four courses high, 0.5-0.7m in height and 1m in width. It is truncated by forestry planting. There is a second section of wall to the south, c 30m long, between the same crag and the crag to the west, of the same build. This is up to 1m high and in better condition.

Site Number	77	Site name	Fickle Crag
Location	Fickle Crag	NGR	322681 497855-322697 497814
Site Type	Sheepfold	Period	Post-medieval
Land use	Coniferous plantation	Source	Identification Survey
Potential	Medium	Rarity	Low
Group value	Low	Fragility	Medium
Significance	2	Condition	High

A large sheepfold located on the southern edge of Fickle Crag, running east/west from the crag and curving round to enclose a small area near the crag. It is built of sub-rounded bedrock and small-medium stones with small stones packed in the middle of the wall. It is well-built and packed with occasional angular stone inclusions and often using earthfast boulders as a base. Seven courses survive; it is 0.8-1m in width and 1.3m in height. It forms a sub-rectangular enclosure with the crag as the east side. There is a hog-hole in the south wall, built with larger stones.

Site Number	78	Site name	Long Crag
Location	Long Crag	NGR	323013 497969-322979 497971
Site Type	Enclosure Boundary	Period	Medieval/post-medieval
Land use	Deciduous woodland	Source	Identification Survey
Potential	Low	Rarity	Low
Group value	Low	Fragility	High
Significance	3	Condition	Medium

A boundary wall on the steep slope of the eastern side of Long Crag, running south-west/north-east diagonally downslope towards river. It is truncated at the northern end by a footpath and runs into scree to the south. It encloses an area of coppiced birch trees against the crag and running north along the river valley. It is constructed of sub-rounded small-medium stones, and occasionally uses bedrock as a base. It is 0.8m in width, 20m in length, 1m in height and survives to a maximum of five courses.

Site Number	79	Site name	Long Crag
Location	Long Crag	NGR	323169 498309
Site Type	Bield	Period	Medieval/post-medieval
Land use	Deciduous woodland	Source	Identification Survey
Potential	Low	Rarity	Low
Group value	Low	Fragility	Medium
Significance	3	Condition	Medium

A bield butting against the eastern end of Long Crag, with a large, earthfast rock as its base. It consists of one wall, 2m long, 1.2m high and 0.6m wide. There are six well-built courses of angular, small-medium stones.

Site Number	80	Site name	Long Crag
Location	Long Crag	NGR	322838 497651
Site Type	Bield	Period	Medieval/post-medieval
Land use	Deciduous woodland	Source	Identification Survey
Potential	Low	Rarity	Low
Group value	Medium	Fragility	Low
Significance	3	Condition	High

A bield located to the east of Long Crag in the bottom of the river valley, forming part of the north-south wall of Site 53. Here, two large, long flat boulders have fallen making a small chamber 2m square, and a small wall has been built on the southern edge of the chamber's entrance. This wall survives to five courses in height, and is 1m high and 5m wide, and built of angular stone.

Site Number	81	Site name	Grassguards
Location	Grassguards	NGR	32265 49773
Site Type	Potash kiln	Period	Post-medieval
Land use	Unplanted forestry	Source	SMR 30080; Identification survey; Marshall and Davies-Shiel 1977
Potential	Low	Rarity	N/A
Group value	Low	Fragility	N/A
Significance	4	Condition	N/A

Potash kiln recorded by the SMR as having been identified by M Davies-Shiel, who reported that it had overall dimensions of 8 x 8.5 x 5 ft (2.4 x 2.4 x 1.5 m). No remains were visible on the ground during the identification survey.

Site Number	82	Site name	Saddlebacked How
Location	Hardknott Forest	NGR	32350 50094
Site Type	Road	Period	Roman
Land use	Coniferous plantation	Source	SMR 3599
Potential	High	Rarity	High
Group value	High	Fragility	-
Significance	1	Condition	-

Part of the Roman road between Hardknott fort and Wrynose Pass as recorded in the SMR. No remains were identified during the survey. The line of the road is actually further to the north and in places it partly underlies the present Wrynose Bottom road. Consequently, it would appear that the coordinates given in the SMR are inaccurate.

Site Number	83	Site name	Rowantree How
Location	Grassguards	NGR	32236 49721
Site Type	Bield	Period	Post-medieval
Land use	Recently planted forest	Source	Identification Survey
Potential	Low	Rarity	Low
Group value	Low	Fragility	Medium
Significance	3	Condition	Medium

An L-shaped bield on an area of open moorland with one wall extending across the slope to the north and the other arm extending down the slope to the west. It comprises dry-stone walling to a height of 0.45m, with some collapsed masonry adjacent. Each arm is *c* 5m long. There is no evidence of a return linking the two sections of walling and there is no evidence of internal terracing in the area within the walls. It would appear to be a bield to protect a stockman from the elements as it is too small to have provided adequate shelter for the stock.

Site Number	84	Site name	Rowantree How
Location	Grassguards	NGR	32235 49723-32243 49747
Site Type	Dry-stone wall / track	Period	Post-medieval
Land use	Recently planted forest	Source	Identification Survey
Potential	Low	Rarity	Low
Group value	Low	Fragility	Low
Significance	3	Condition	Medium

A decayed dry-stone wall, with an adjacent terraced area to the west, which is *c* 3m in width. This would appear to be a narrow stone-revetted track, terraced into the slope. The wall is very decayed and overgrown, has only a few stones protruding and is discontinuous. At the northern extent of the feature it extends up to a crag.

Site Number	85	Site name	Brandy Crag Fort
Location	Hardknott Forest	NGR	32230 49930
Site Type	Possible Fortified Structure	Period	Unknown
Land use	Moorland	Source	SMR 1459; Crawford and George 1983, 55; Collingwood 1923, 271
Potential	-	Rarity	-
Group value	-	Fragility	-
Significance	4?	Condition	-

A possible fortification known as Maiden Castle, recorded as being 800m south-east of Harter Fell. The site is just outside the study area and was not identified by the identification survey.

Site Number	86	Site name	Grassguards
Location	Grassguards	NGR	32235 49785
Site Type	Settlement and Field System	Period	Unknown
Land use	Enclosed Land	Source	SMR 7816; Aerial photos: VAP/OS/72 008, 379/3, 72
Potential	-	Rarity	-

Group value - **Fragility** -
Significance - **Condition** -

The remains of stone field walls which relate to the present boundaries in part. To the south the walls divide into a fork and east of this are the remains of a rectangular stone building. The southern end of this is shown on the 1977 OS 1:10,000 map. The walls stand three courses high and are made of small to medium stones. In the field to the east is a sub-rectangular feature. In the corner of the field to the south there is an enclosure remaining as three courses of small-medium stones. There are possibly other decaying structures in the fields. The site is within the Grassguards exclusion area and was not investigated by the identification survey; however, there is a site nearby (Site 60) which is comparable in terms of the description and potentially this SMR entry corresponds to that site.

Site Number	87	Site name	Basin Barrow
Location	Grassguards	NGR	32211 49758
Site Type	Building	Period	Unknown
Land use	Recently Planted Forestry	Source	SMR 7828; Aerial photos: VAP/OS/72 008, 379/3, 72; Identification Survey
Potential	-	Rarity	-
Group value	-	Fragility	-
Significance	4?	Condition	-

A decaying roofless building, partially remaining to its full height of one and a half storeys, recorded in the SMR. One gable end remains. It is constructed of small to medium stones. The reported position was searched in the course of the identification survey but no building was identified. Given the description it is not a structure that would be easily missed and it must be concluded that the grid reference provided by the SMR is incorrect.

ILLUSTRATIONS

Figure 1: Hardknott Forest and Grassguards: Location Map

Figure 2: Donald's Map of 1777

Figure 3: First Edition OS Map of 1868

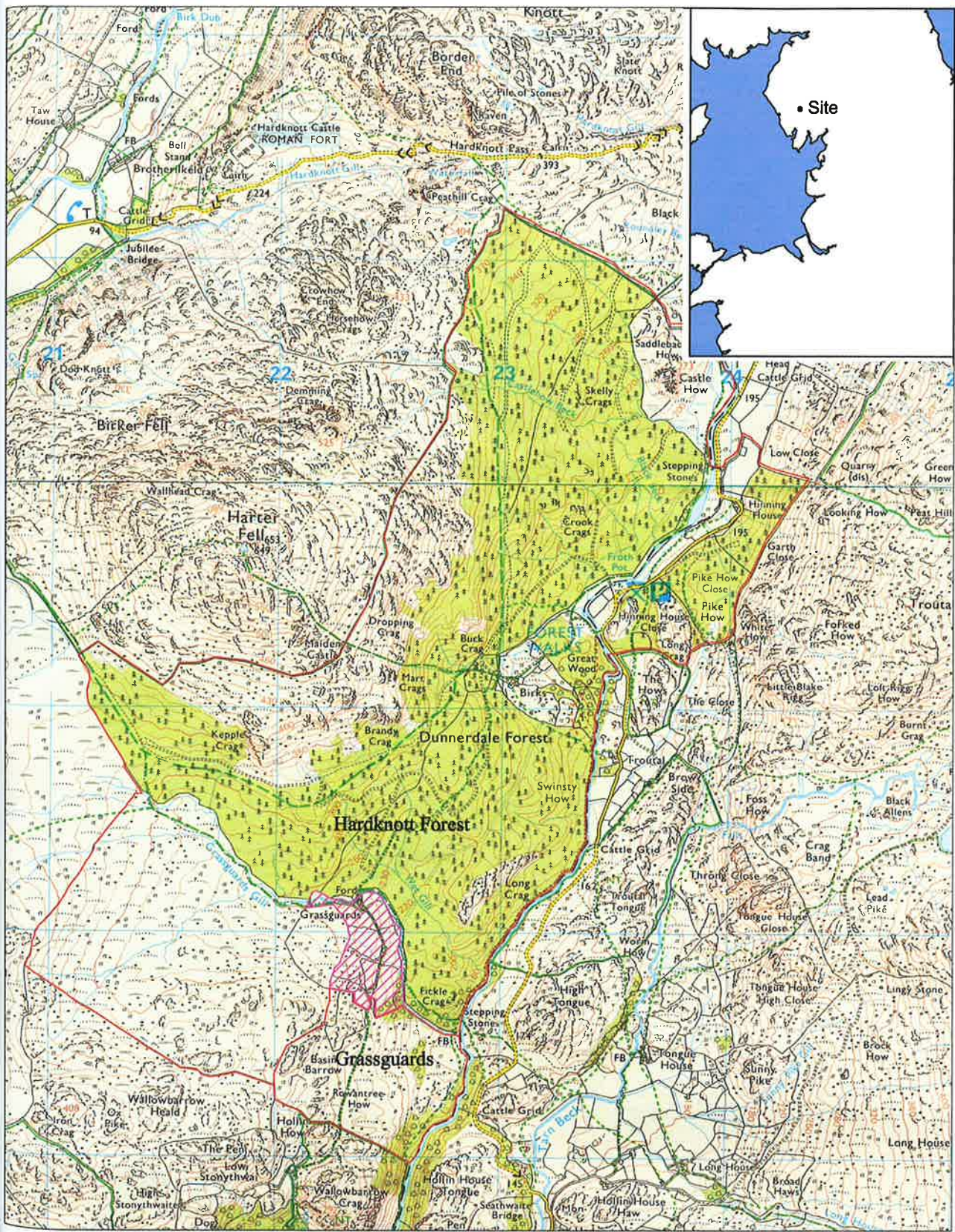
Figure 4: Location of SMR Sites

Figure 5: Survey Site Map - Northern Area

Figure 6: Survey Site Map - Southern Area

Figure 7: Extent of Survey Coverage

Figure 8: Detailed Map of Bloomery (Site 67)



Based upon the Ordnance Survey 1:25,000
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Area excluded from survey

0 1km

Figure 1: Hardknott Forest and Grassguards Location Map





Oxford Archaeology North
 Storey Institute
 Meeting House Lane
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 LA1 1TF
 Tel 01524 848666
 Fax 01524 848606

PROJECT: Hardknott
DRAWING No: 02
SCALE: not to scale
TITLE: Donald's Map of 1777
CLIENT: LDNPA and Forest Enterprise
DRAWN BY: EC
DATE: May 2002

KEY


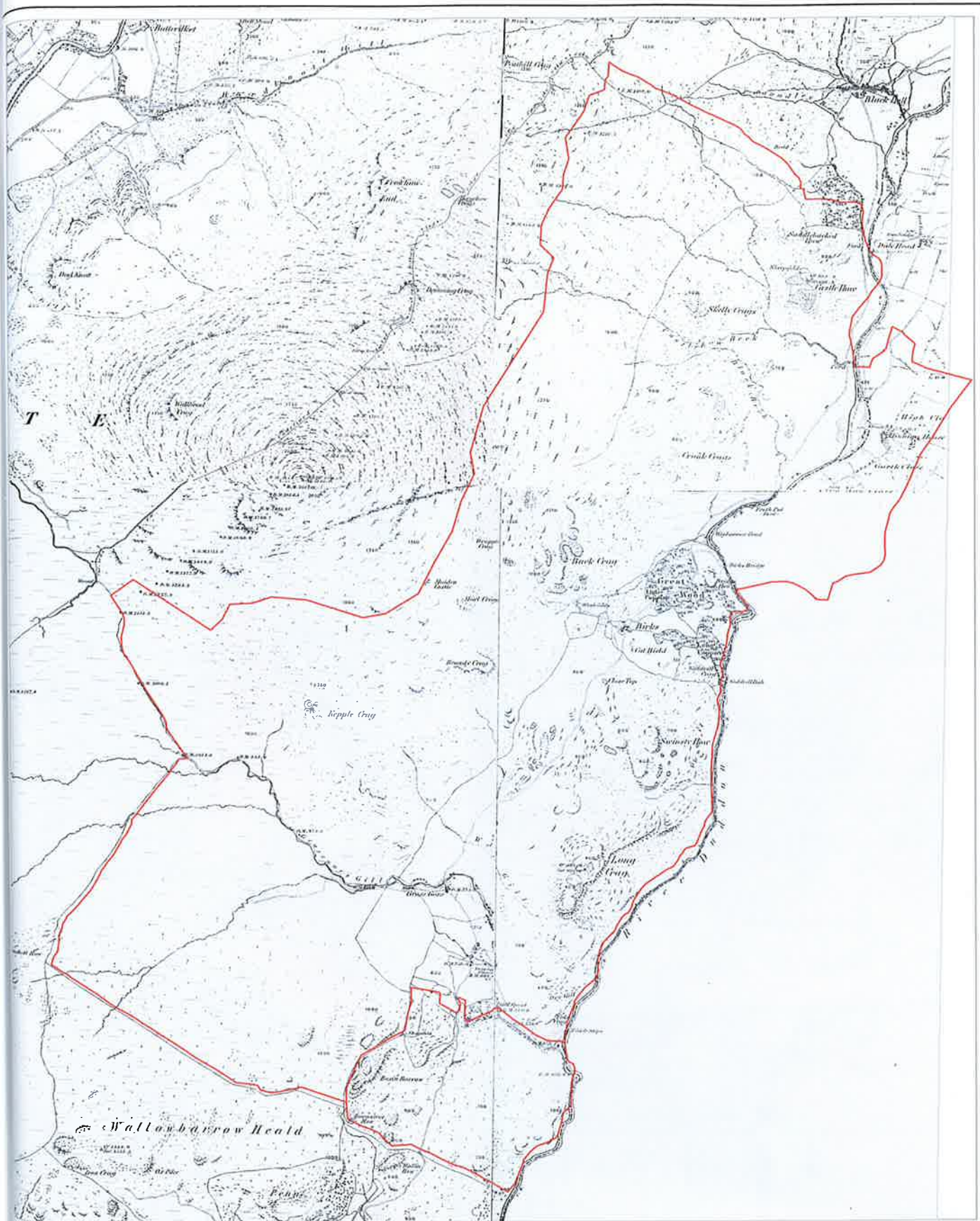

 Approximate location of the study area

Figure 2 : Donald's Map of 1777



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Tel 01524 848866
 Fax 01524 848806

PROJECT: Hardknott
 DRAWING No: 03
 SCALE: 1:20,000
 TITLE: 1st Edition OS Map of 1868
 CLIENT: LDNPA and Forest Enterprise
 DRAWN BY: EC
 DATE: May 2002

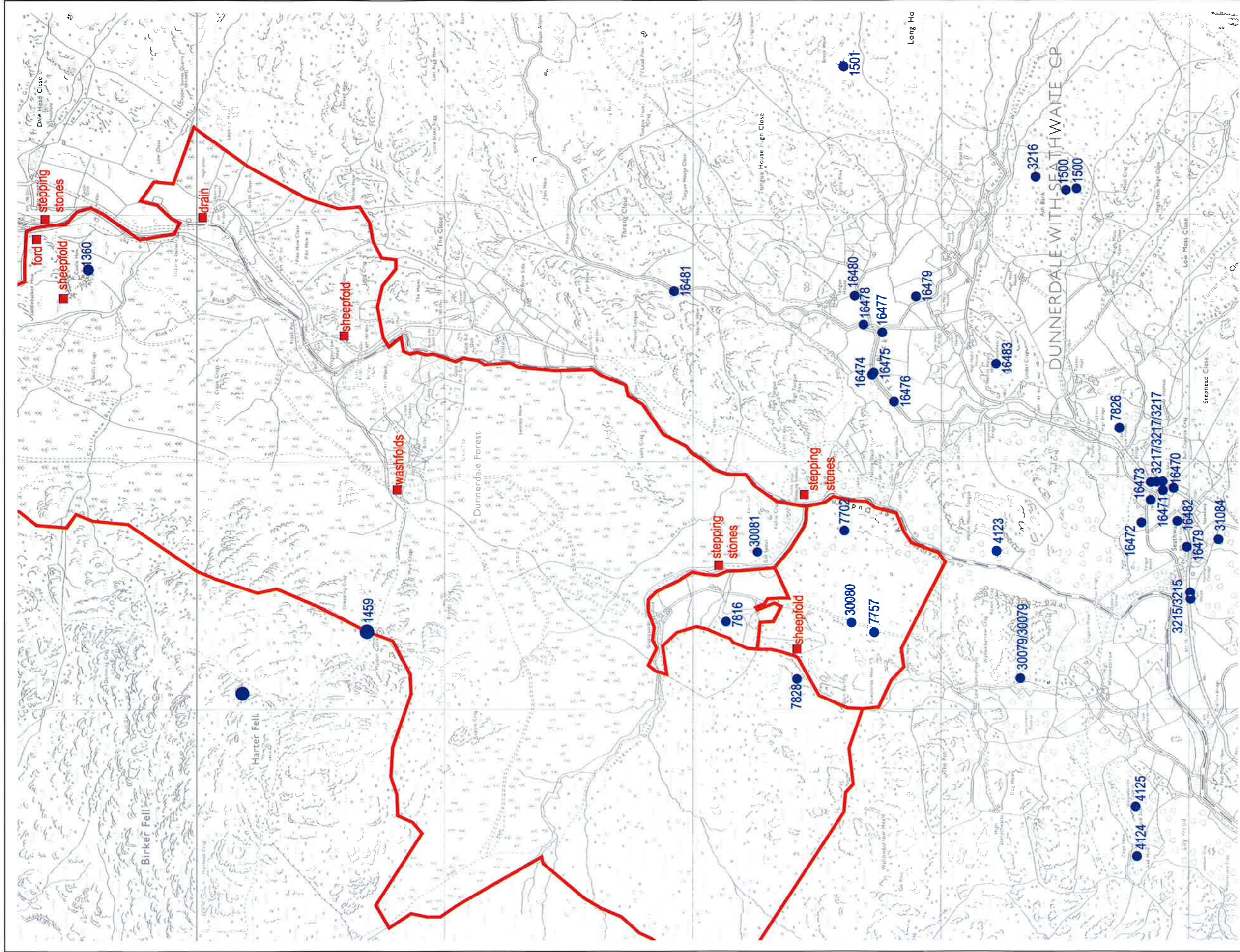
LOCATION:



KEY

— Approximate location of the study area

Figure 3 : First Edition OS Map of 1868



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		 N  0 500m	

Figure 4: Location of SMR Sites



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PROJECT:

Hardknot Forest and Grassguards

DRAWING NO:

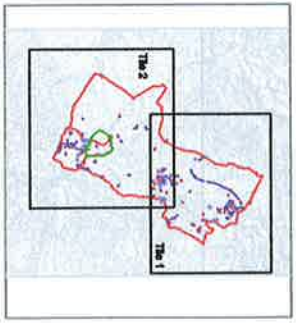
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Scale 1:10,000 at A3

DRAWN BY: DWE/ELC

DATE: May 2002

LOOKBOOK

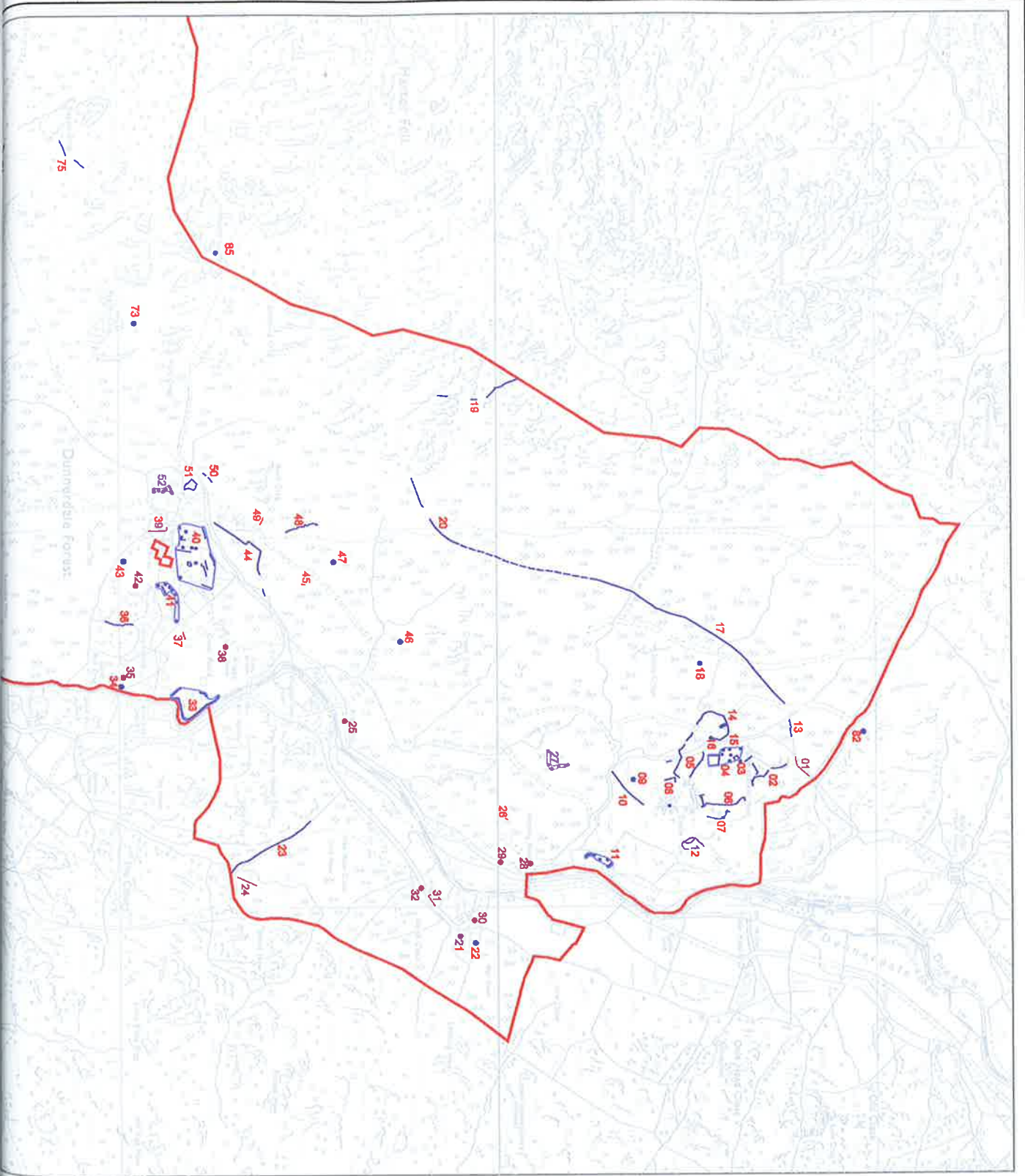


KEY

- Monument Site Number and Extent of Site
- Study Area

TITLE
Northern Site Map

COMMISSIONED BY:
 Lakes District National Park Authority





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PROJECT:

Hardknott Forest and Grassguards

DRAWING No:

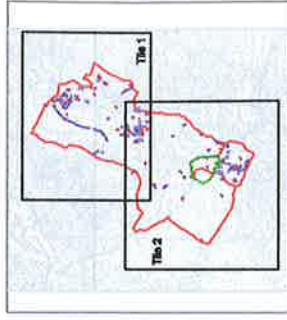
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DRAWN BY: DWE/ELC

DATE: May 2002

LOCATION:



KEY



Monument, Site Number and Extent of Site



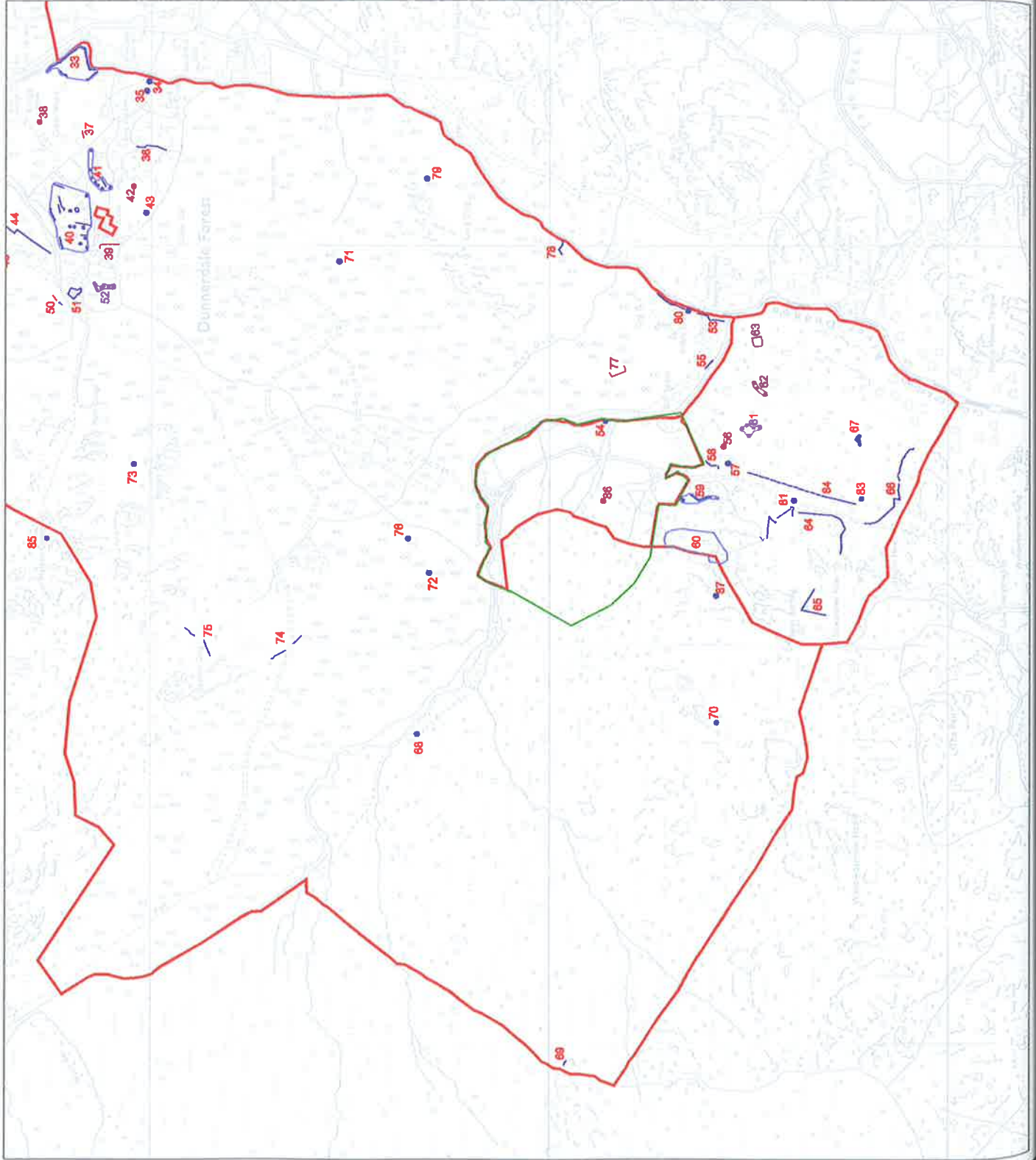
Study Area

TITLE

Southern Site Map

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Lake District National Park Authority
 Forest Enterprise





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PROJECT:

Hardknott Forest and Grassguards

DRAWING No:

07

Scale:

1:20,000 at A3

DRAWN BY:

DWE/ELC

DATE:

May 2002

LOCATION:



KEY

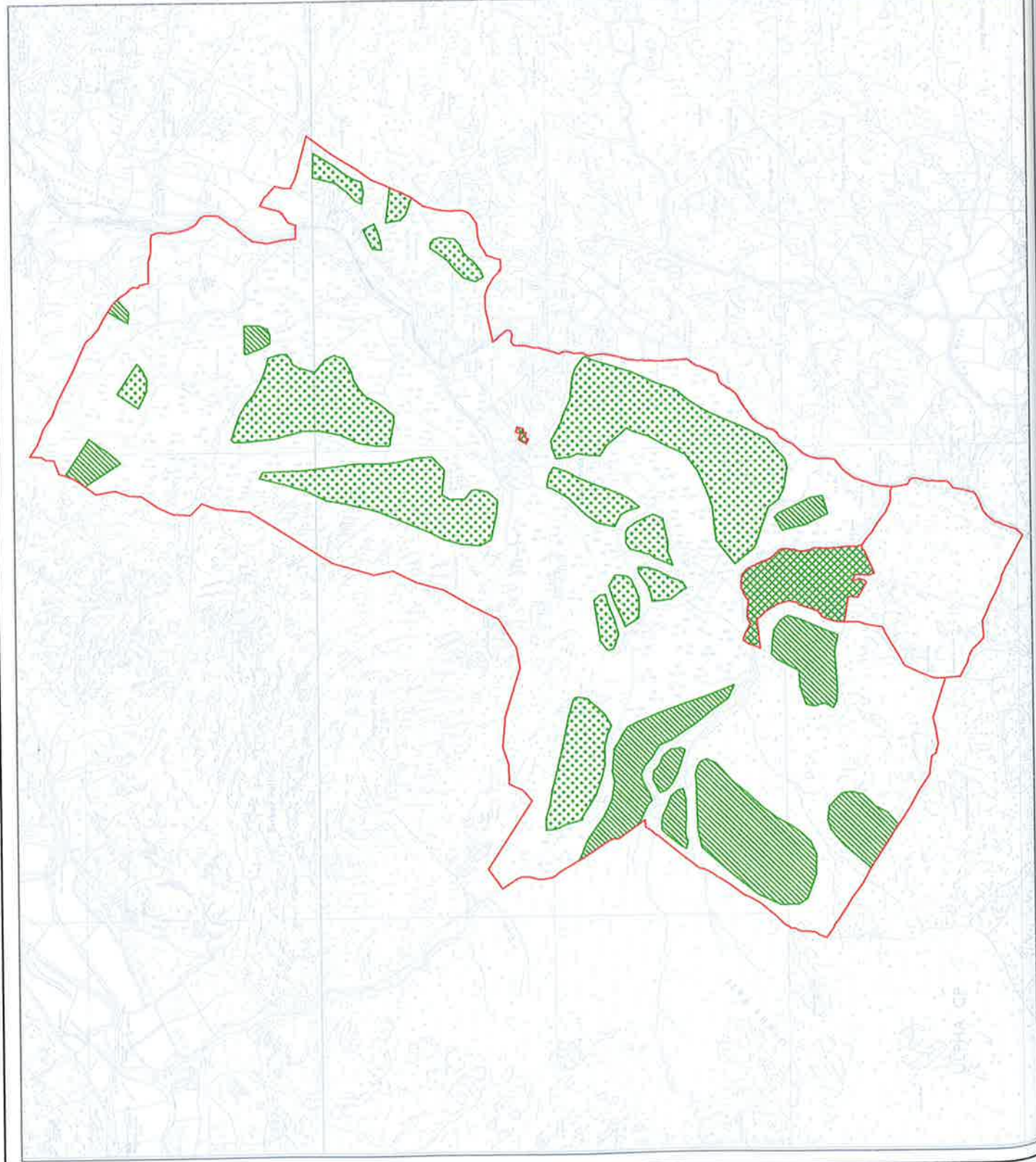
-  Inaccessible due to dense vegetation
-  Inaccessible due to unstable ground cover
-  Not included in study area

TITLE

Plan of Survey Coverage

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Lake District National Park Authority
Forest Enterprise



PROJECT:

Hardknot Forest and Grassguards

DRAWING NO:
 08

Scale
 1:10,000 at A3

DRAWN BY: DWE/ELC

DATE: May 2002

LOCATION:



- KEY
- High Density
 - Low Density
 - Furnace Pits
 - Channel

TITLE
 Detailed Map of Bloomery (Site 67)

COMMISSIONED BY:
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 Forest Enterprises



Figure 8: Detailed Map of Bloomery (Site 67)

PLATES

- Plate 1: Part of Site 2 in the foreground, with Site 6 in the background, looking south-east
- Plate 2: Detail of building within Site 6, looking east
- Plate 3: Detail of part of Site 7, looking east
- Plate 4: A typical section of wall (Site 19), looking north-west
- Plate 5: A section of wall damaged by recent felling (Site 20), looking east
- Plate 6: A general shot of cairns and walls (Site 40), looking south-west
- Plate 7: Sheepwash complex, Site 51, looking south
- Plate 8: A section of orthostatic dry-stone wall (Site 53)
- Plate 9: Sheepfold and hut forming part of Site 60, looking north
- Plate 10: Walls and cairns of Site 60, looking north
- Plate 11: A 'U'-shaped enclosure on the edge of a break of slope (Site 63), looking south-west
- Plate 12: A bloomery mound (Site 67) damaged by recent planting, looking north-east
- Plate 13: A field (Site 79) looking north-east
- Plate 14: A shelter (Site 80) formed below boulders, looking north



Plate 1: Part of Site 2 in the foreground, with Site 6 in the background, looking south-east



Plate 2: Detail of building within Site 6, looking east



Plate 3: Detail of part of Site 7, looking east



Plate 4: A typical section of wall (Site 19, looking north-west)



Plate 5: A section of wall damaged by recent felling (Site 20), looking east



Plate 6: A general shot of cairns and walls (Site 40), looking south-west



Plate 7: Sheepwash, Site 51, looking south



Plate 8: A section of orthostatic dry-stone wall (Site 53)



Plate 9: Sheepfold and hut forming part of Site 60, looking north



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Plate 14: A shelter (Site 80) formed below boulders, looking north