

Ennerdale

West Cumbria



Historic Landscape Survey



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The present landscape survey is a result of two phases of investigation, the first between 1995 and 1997 for the Lake District National Park Authority and Forest Enterprise and the second in 2003 for the National Trust and Forest Enterprise. Oxford Archaeology North (OA North) would like to thank all who have contributed to both phases of work.

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2003 Survey: thanks are due to Robert Maxwell, Jeremy Barlow, Rachel Yanik and Jamie Lund (National Trust) for their assistance and support in the course of the project, and to Eleanor Kingston and John Hodgson of the Lake District National Park Authority (LDNPA) for their help and support throughout the project

The 2003 survey was supervised by Neil Wearing and assisted by Peter Schofield, Chris Ridings and Rod Bale. The original desk-based study by Nigel Neil was supplemented in 2003 by Jo Dawson. The present landscape survey report was written by Nigel Neil, Neil Wearing and Jamie Quartermaine and edited by Jamie Quartermaine, Emily Mercer and Rachel Newman. The project was managed by Jamie Quartermaine.

SUMMARY

Oxford Archaeology North (OA North), formerly Lancaster University Archaeological Unit (LUAU), at the request of The National Trust and Forest Enterprise, undertook a season of management assessment survey of land in Ennerdale in May 2003 (NY 0905 1584 – 2148 1077), following three previous seasons of survey between April 1995 and April 1997 undertaken by LUAU. The purpose of the earlier work was to evaluate the archaeological resource to enable its preservation during felling. The purpose of the present fourth season of the survey was to provide a narrative history of the valley for the 'Wild Ennerdale' project, a partnership between the three main landowners in the valley (The National Trust, Forest Enterprise and United Utilities). The report will provide a management resource for the partnership in order to help guide the evolution of the valley towards a more 'wild' landscape, with greater emphasis on natural processes to shape its landscape and ecology.

The earlier phases of the survey recorded the archaeological landscapes of the valley within the forested areas. This fourth phase expanded on this work by examining areas not previously investigated and, in addition to this, the development of the field system was examined. The overall study area, from all seasons, consists of approximately 38.2km², of which 10.1km² was excluded either because the terrain was exposed and craggy or because of dense impenetrable forest plantation. A total of 221 sites was recorded, 34 from the 1995 to 1997 seasons (as defined within the SMR) and 187 from the fourth season. The 34 sites from the earlier phases of work (1995-1997) each comprised groups of monuments, and in total 552 individual monuments were recorded during that work.

A desk-based study was undertaken in 1995 to assimilate documentary, cartographic and archaeological material, concentrating on the areas of forestry. This was expanded on for this fourth season in 2003 in order to encompass the additional areas and sites and any recent archaeological work carried out in the area. This was followed by a systematic fieldwalking survey and identified sites using a Global Positioning System (GPS). From this, the digital results of the survey were combined, on a Computer Aided Draughting system, with Ordnance Survey digital topographic detail supplied under licence by Lake District National Park Authority (LDNPA), and a gazetteer of all archaeological sites was also compiled. A programme of boundary survey was also undertaken to examine the survival, condition and development of the boundaries within the valley.

Following on from the survey, a programme of analysis was undertaken to examine the formation of the landscape and to provide guidance for the management of the valley. The valley has been subject to low intensity farming since, potentially, the Bronze Age, and because it has been, for the most part, on a limited scale it has allowed the preservation of earlier landscapes even within the valley bottom. As such this means that the valley as a whole is of exceptional archaeological importance. The earliest occupation identified was the small random-type cairnfields found across the area (EF I, V, VI, XIVc) which typologically are usually ascribed to the Bronze Age. These reflect localised forest clearance and corresponding land improvement for agriculture. Settlement became more permanent with the establishment of an enclosed settlement and associated field system (EF XIVb) of a type which is typically ascribed to the Iron Age or Romano-British period.

In the earlier medieval period, settlement was centred in the areas of Woundell Beck, and possibly also Gillerthwaite, where there are early settlement remains. These have two distinct forms: firstly huts associated with small cultivation plots and secondly large stock pounds with associated rectangular houses. The latter are tentatively interpreted as vaccaries, two of

which were documented as being in the valley in 1322. In addition to these, there are several isolated huts or groups of huts, interpreted as shielings, which relate to transhumant exploitation of the higher ground. It is this summer grazing pattern of stock movement, or transhumance, which expanded to allow peasant settlement in the uplands of the forests particularly during the population growth of the thirteenth and early fourteenth centuries (Winchester 2000).

A deer park was established on the southern side of the valley, in an area which was remote from the settlements and their area of common fell for upland pasture. At some stage in the medieval period the potential for mineral extraction was realised and an integrated iron extraction and processing industry developed, resulting in the working of the mines at Clewes Gill, the processing of the iron ore beside Smithy Beck, and possibly also a mining community beside Smithy Beck.

At some stage in the late medieval or post-medieval period the agricultural settlement in the valley bottom was rationalised with the establishment of two valley bottom enclosures and the two Gillerthwaite farms. By this stage the Woundell Beck settlement had been abandoned, allowing the intake to develop over it, but the Gillerthwaite settlements (EF X and XI) must have still been in use, hence the intake avoided them. Remarkably, this intake was subject to very little development in the course of its life, allowing the preservation of earlier remains within it.

The archaeology of Ennerdale sets it apart from other Lakeland valleys because of the diversity, complexity, and survival of its archaeological remains. Ennerdale has no extensive ring garth and has been subject to only limited valley bottom enclosure, hence the archaeological resource has not been adversely impacted upon by the same level of intensive land improvement that is found in other Lakeland valleys. In part as a result, Ennerdale contains a remarkable survival of settlement and industrial remains that extend back to at least the Bronze Age, and there are remains from the subsequent periods, albeit with some discontinuities of settlement, through to the present; its medieval remains in particular are very well preserved. Some site groups, such as the Smithy Beck mining remains and the Gillerthwaite medieval settlements, are undoubtedly of national importance, but the greatest archaeological importance of the valley is its collective archaeological resource, which reveals the complex mechanisms of the valley's development.

1. INTRODUCTION

1.1 CONTRACT BACKGROUND

1.1.1 At the request of The National Trust, Oxford Archaeology North (OA North) undertook an enhanced level 1 survey of Ennerdale Forest in May 2003 (NY 0905 1584 – 2148 1077) (Fig 1). The project was designed to follow on from three previous seasons of survey work, carried out by Oxford Archaeology North (OA North), formerly Lancaster University Archaeological Unit (LUAU), to provide a survey of the historic landscape of the wider Ennerdale valley area (Plate 1) owned by The National Trust and Forest Enterprise. The programme of study was undertaken according to a brief (*Appendix 1*) produced by The National Trust and a project design compiled by OA North (*Appendix 2*); the work was funded by Forest Enterprise and Lake District National Park Authority. The study area comprised roughly 38.25km² of mainly unenclosed land, with some areas of plantation, within the environs of the Ennerdale valley (Fig 2). The land is predominantly within the ownership of Forest Enterprise and The National Trust.

1.2 WILD ENNERDALE

1.2.1 The primary purpose of the present project was to identify, locate and evaluate the archaeological resource within the valley, to inform future management decisions with regard to conservation matters relating to both the natural landscape and the archaeological and historical content of the valley. This forms an important management objective for a recently established partnership between the three main landowners in the Ennerdale Valley: the National Trust (NT), the Forestry Commission (FC) and United Utilities (UU). The partnership agreed a title ‘Wild Ennerdale’ and a vision statement as follows:

“To allow the evolution of Ennerdale as a wild valley for the benefit of people relying more on natural processes to shape its landscape and ecology”.

1.2.2 Ennerdale is unique amongst Lakeland valleys for the simplicity of land ownership, with over 90% of the land in the upper part of the valley owned and managed by the Forestry Commission, National Trust and United Utilities. This creates an ideal opportunity for partnership working to establish a more holistic approach to land management, enabling natural processes to shape the future landscape and ecology of the valley. Crucial to this partnership approach is to understand what processes occur in the valley and to identify how human activities operate and influence the natural system. Only then can managing bodies work towards achieving a ‘wilder’ Ennerdale.

1.2.3 In the past the landscape and ecology of Ennerdale have been shaped by the cultural and economic values of the day. As a result of this partnership, however, there now exists an opportunity to enable the needs of the present and future generations to influence the ongoing evolution of Ennerdale. The ‘Wild Ennerdale’ project will guide this evolutionary change. For the most part the process of change in Ennerdale will be a slow one, with no fixed end point. It is the process of change which is as crucial as any end result and one which will continue to give the community the opportunity to experience, benefit and remain an important part of the future of the valley.

1.2.4 ***The Meaning of 'Wild'***: in the context of the present project the term 'Wild' describes a philosophical approach to managing the valley. It describes the degree to which natural processes influence the environment, and the sense of wildness which people experience. While Ennerdale has been affected by centuries of human influence, for many people it retains a sense of wildness which is highly valued. This sense stems from:

- the large scale and diversity of the landscape
- the apparent lack of human influence and control on the environment
- the remoteness from public roads and habitation
- the remoteness and absence of man-made built structures
- a sense of solitude
- the River Liza and its tributaries flowing freely down the valley
- flora and fauna of special ecological value
- imposing geological features
- ecological processes freely shaping the landscape.

1.2.5 ***Objectives of the Wild Ennerdale Project***: the principal objectives of the project are defined as follows:

- to develop Ennerdale as a unique wild place; allowing natural forces to become more dominant in the shaping of the landscape and the ecology and therefore providing an inspirational visitor experience and special conservation habitats;
- to provide learning and development opportunities for schools, visitors, and wider public to discover more about the project and also more about conservation, recreation, and wildlife in the Lake District and Cumbria;
- to explore and experiment with new ways of managing at a landscape level and offering learning experiences to a wider audience;
- achieve integrated land management for the whole of Ennerdale;
- to use the opportunity provided by the project to improve and extend the quality of Ennerdale and the surrounding area in environmental and wildlife terms;
- to use the opportunity provided by the project to support the rural economy of West Cumbria.

1.3 OBJECTIVES OF THE ARCHAEOLOGICAL SURVEY

1.3.1 The aims of the project are set out in the project brief (*Appendix 1*) compiled by Robert Maxwell, National Trust, which are as follows:

- to complete the archaeological survey of Ennerdale;
- to record and analyse the historic boundaries within the study area;

- to undertake a desk-based study of cartographic sources to enable an understanding of the development of the enclosed landscape;
- to produce a narrative landscape history of the valley;
- to produce guidance for the proposed landscape change in relation to its historical development;
- to produce broad management recommendations for the archaeological resource;
- to provide detailed management recommendations for individual monuments.

1.3.2 A desktop study was carried out in order to collate the results of all archaeological investigations undertaken to date within the study area and to examine the history of land use and exploitation. This was followed by the systematic surface examination of the study area and the mapping of the identified antiquities by Global Positioning System (GPS) survey.

1.4 REPORT LAYOUT

- 1.4.1 This report presents the results of the final identification survey and the boundary survey in conjunction with those of the previous three seasons of detailed survey, and examines the historical development of exploitation of the valley from its earliest origins through to the present (*Section 3*). The detailed historical analysis incorporates all identified evidence for an interpretation of the landscape development, followed by a general summary (*Section 4*) which reviews the conclusions of the analysis. A management section (*Section 5*) reviews the principal archaeological landscapes, examines their archaeological importance, and makes recommendations for them within the context of the Wild Ennerdale project.
- 1.4.2 Detailed descriptions of the principal site groups are presented within *Appendix 3*, and the descriptions of the monuments identified in the course of the Season 4 identification survey are presented within *Appendix 4*. A glossary description of the principal site types and periods is defined within *Appendix 3*.

2. METHODOLOGY

2.1 PROJECT DESIGN

- 2.1.1 The survey was carried out in accordance with a project design (*Appendix 2*) prepared by OA North and submitted to Forest Enterprise in August 2002. The project design was prepared in response to a brief (*Appendix 1*) produced by Robert Maxwell of The National Trust.
- 2.1.2 The survey consisted of two main elements, a desk-based study and a field survey. The desk-based study was to inform the field-based study and to provide an historical background to the study area. Following this a systematic programme of transect survey of the study area was undertaken in order that the character and extent of the existing archaeological resource could be recorded.

2.2 DESK-BASED STUDY

- 2.2.1 The main desk-based study was undertaken as part of the first phase of survey in 1995. This provided a manorial history for the valley and the wider area and carried out a search for documentary evidence within the extent of the Forest Enterprise holdings. A secondary cartographic study was undertaken as part of the 2003 survey, performing a search for documentary evidence for the activity within the wider extent of the valley.
- 2.2.2 **1995 Desk-Based Study:** the documentary research in 1995 was primarily targeted at the rapid identification of sites, or possible sites, of archaeological or historical importance, of all periods, and setting them in their historical context. The documentary research covered the entire 38.25km² of the estate, including the areas excluded from the field survey. In order to obtain the maximum level of information, in the shortest period of time, various types of information source were identified, listed below in order of importance, ranked by their ability to supply site identification. The authoritative and well-referenced works of Col Ralph P Littledale (1925; 1931) inevitably form the basis of much of the historical discussion.
- 2.2.3 **Sources:** collection of sources for the original documentary research was carried out at the start of the first phase of survey, in March 1995, and between 15 April and 4 June 1997. The fourth season of documentary research was carried out during March 2003. All research utilised the same principal sources, the County Record Offices (CRO Carlisle (CROC), including material from the Cockermouth Castle and Houghton stores, and CRO Whitehaven (CROW)) and Lancaster University Library.
- 2.2.4 The site database information held by LDNPA at the outset of the project was enhanced by a search of the Cumbria Sites and Monuments Record (CSMR) prior to the first season of fieldwork, and was enhanced by a search from the LDNPA SMR as part of the 2003 survey.
- 2.2.5 A search of the National Monuments Record (NMR) Monarch database, together with information on listed buildings (DoE 1985; 1988), was requested from the Royal Commission on Historical Monuments for England, Swindon. This added only a limited amount of information to the CSMR data, and largely overlapped with it.
- 2.2.6 The only listed building in the vicinity is Bowness at the western end of the valley, a late seventeenth or early eighteenth century house, Listed grade II (DoE 1985, 1, ref.

- NY 11 NW 4/1). Since two houses in Gillerthwaite are mentioned from the sixteenth century onwards in documentary sources, it is presumed, since there are no listed buildings here, that they have been rebuilt.
- 2.2.7 **Cartographic evidence:** the first edition (OS 1867), second edition (OS 1899) (Fig 3), and third edition (OS 1926) Ordnance Survey 6": 1 mile maps and, where published and available, the 1:2500 series of 1867 and 1899, were studied during the first, second and fourth phases of the project, and were reviewed during the 1997 and 2003 phases of the desk-top study. Part sets of these map series are held by the Cumbria Record Office, but split between the Carlisle and Whitehaven branches. A composite bound set of OS second edition 6": 1 mile maps, and some secondary sources, were found in the Lake District Fell and Rock Club Library, within Lancaster University Library.
- 2.2.8 The early published maps by Saxton (1576), Blaeu (1648), Hodgkinson and Donald (1774, reprinted 1802), Greenwood (1830), Thurnam (nd, c1830), and Teesdale (nd, c1825) all show some topographical detail and place-names, but are at too small a scale to add new sites to this survey.
- 2.2.9 As with all primary documentary sources, manuscript cartographic sources for the study area are relatively scarce. Field names (ordered by landowner, and then tenant) were extracted from the 1844/5 tithe survey and map of Ennerdale (CROC DRC/8/71/1-2). Field boundaries in the study area and immediately adjacent areas were almost entirely unchanged between 1844 and the publication of the first edition 6": 1 mile maps (OS 1867).
- 2.2.10 It became clear during the study that mining and quarrying were not adequately covered by accessible early map and other documentary sources. The earliest cartographic sources located which show such activity date from the nineteenth century, notably a 'Sketch of the head of Ennerdale Vale, with the trials for slate and copper', dated 1809 (CROC D/Lons/W/Plans/Ennerdale/58). This map could not be located by CRO staff (16.05.97) but David Banks of the West Cumbria Mines Research Group supplied copies of it and papers relating to it.
- 2.2.11 Lancaster University Library have a microfilm copy of an 1805 map in the Public Record Office (PRO MPE 667) showing the boundary between Ennerdale Park or 'The Side' (the deer park, also known as 'The Fence', the northern part of which is within the study area), and the adjacent Silver Coves and Birkmoss Coves to the east.
- 2.2.12 The Dickinson papers (CROW D/Di/3/7 and D/Di/3/Rolled plans/1-3) contain material on the Whitehaven Waterworks (1848) and Whitehaven Corporation (1899) Bills, which permitted extraction of the water from the lake, and the raising of its level. These are relevant mostly to the west end of the lake, outside the study area. The *Book of Reference* for the latter, and an accompanying map, only refers to the fringes of the lake, though they give the owners, lessees, and occupiers of each plot of land.
- 2.2.13 **Vertical aerial photographic evidence:** at the suggestion of the LDNPA archaeologist (John Hodgson, pers comm) none of the vertical or oblique sorties held by LDNPA were studied for the 1997 season of work, although these had been examined prior to the first season of survey (1995). Previous experience has shown that small-scale vertical sorties are of limited use in identifying new sites in predominantly wooded areas. The fourth season consulted run 73/140 of the LDNPA vertical air photographic collection (1973), held in Kendal, along with run 159 (1983) of the Ministry of Agriculture, Fisheries and Food (MAFF) collection, and the Ordnance Survey runs 72 019, 72 020, 72034 (1972).

- 2.2.14 A cover search was obtained from the National Monuments Record (NMR), Swindon. Four vertical sorties, comprising 82 prints, flown in January 1946 (RAF), January 1947 (RAF), July 1957 (OS), and May 1973 (OS), are known to the NMR, though only the first two are actually held by the NMR. The 1973 sortie is also held by the LDNPA. It was not thought worthwhile to obtain copies of the photographs. The NMR stated that they had no record of oblique cover for the study area.
- 2.2.15 *Documentary sources:* secondary and some primary sources (i.e. manuscripts, maps, printed transcripts, Acts of Parliament, and related material) for the geology, topography, and history of Ennerdale were located, and where possible copied for the project archive. Although the search for such material was not intended to be exhaustive, it was nevertheless quite comprehensive. Material was found (initially by telephone contact) to be scattered in a number of collections, located predominantly in the Cumbria Record Office (CRO) branches in Carlisle and (to a lesser extent) Whitehaven, but relevant material is also held in the CRO Cockermouth Castle and Houghton out-stores, which CRO staff only visit occasionally on request to uplift material. There are also known to be numerous relevant documents in the Public Record Office, London.
- 2.2.16 The Lords of Lonsdale and Dickinson family collections have been mentioned above (*Section 2.2.15*). Further Lonsdale documents were deposited in the CRO by the Leconfield (Lord Egremont) family, and Allisons, solicitors of Whitehaven, the latter including several bundles of ‘Manor of the Forest of Ennerdale’ material, and several uncatalogued boxes of Lonsdale mineral and mining papers. The Leconfield papers are stored at the family seat of Cockermouth Castle, while the Allison collection is stored at Houghton. However, the uncatalogued nature of the latter collection resulted in only a few items being accessible.
- 2.2.17 The long tenure of the ‘Manor or Forest of Ennerdale’, sometimes additionally described as a ‘parcel of the Manor of Egremont’, by the Crown has led to a high percentage of the documentation on Ennerdale now being in the Public Record Office (PRO). In view of Littledale’s (1925; 1931) and Winchester’s (1987, and pers comm) thorough transcription, no attempt was made to re-check PRO documents. It should be noted that ‘piece numbers’ given by Littledale may have been re-numbered (especially now that all PRO collections have been re-united at Kew) and should be confirmed against modern indices if documents are sought.
- 2.2.18 The Yorkshire Archaeological Society appears to have a number of Copeland charters in their collection (Fair 1937, 85-8), but this source has not been checked specifically for Ennerdale material.
- 2.2.19 The Patricksons, popularly known as the ‘Kings of Ennerdale’ (Caine 1916, 93; Littledale 1925, 128), held the neighbouring manor, also (confusingly) called the Manor of Ennerdale, from their family seat at How Hall (formerly Carswell How or Castle How) (Armstrong *et al* 1950, 2, 385), situated at the north-west corner of Ennerdale Water. This house is first recorded in 1523, but was sold to Joseph Tiffin in 1679 and then to John Senhouse of Calder Abbey (Nicholson and Burn 1777, 2, 36; Lysons 1816, 21; Whellan 1867, 434; CROC D/Lons/L1/1679). The study area falls exclusively within the Crown manor, but the Patrickson manor included Bowness, Mireside, and Hollins, the nearest farms to the Crown manor, and the family at times leased parts of this. Littledale (1925) again used Public Record Office sources (and a few papers lent by descendants) for his history of the Patrickson family, and the CRO

- (Barbara Clark, CROC, pers comm) has confirmed that none of their family papers have found their way to local record offices.
- 2.2.20 Of the other Ennerdale Chapelry landowners named by Whellan (1867, 433) - Henry Atwood, Thomas Answorth, William Towerson, Richard Shepherd, and Henry Steel - none are known from documents in the CRO. The National Trust collection in the CRO (Carlisle) includes eighteenth to twentieth-century papers on Beckfoot and Howside farms (CROC D/NT/7-8), which are north-west of the study area.
- 2.2.21 The published bibliography by Hodgson (1968, 277), the indices to Cumberland and Westmorland Antiquarian and Archaeological Society transactions, and the catalogues and staff knowledge at CRO (Carlisle and Whitehaven), were the principal finding aids used. Previous researchers have, fortunately, been vigilant about referencing their reports. Col R P Littledale (1925) worked on the Patrickson family, who held the manor neighbouring the 'manor of the forest of Ennerdale' until 1685, when it was sold or mortgaged to Sir John Lowther.
- 2.2.22 The mining history of Ennerdale (and Buttermere), with emphasis on the nineteenth-century copper and slate trials, and on the possibility of Elizabethan 'coffin' levels, has been, and continues to be, researched through documents and field study by the West Cumbria Mines Research Group (WCMRG), and to a lesser extent by the Cumbria Amenity Trust Mining History Society (CATMHS) and Mines of the Lake District Exploration Society (MLDES).
- 2.2.23 Telephone and written contact was made with a number of authorities on aspects of Ennerdale, especially representatives of mines research groups. Mike Davies-Shiel supplied very useful mapped information on a range of industrial archaeology sites, including mines, long houses, sheepfolds, potash pits, field clearance cairns, ridge and furrow, and place-name evidence.
- 2.2.24 **2003 Survey Desk-Based Study:** the desk-based study recorded a total of 97 sites of possible archaeological or historical significance within the study area for the fourth field season. The SMR provided 25 of the sites, 21 of which overlapped with those identified from the cartographic regression exercise. Not all the sites recorded by the documentary study were visited during the field survey, as some were within the excluded areas. Where they required amendment to the previous description as a result of fieldwork they have been included in the gazetteer of sites. There were no sites attributed to the prehistoric period found during the cartographic regression exercise or in records held within the SMR.

2.3 FIELD SURVEY

- 2.3.1 The 1995-1997 surveys involved the detailed recording of monuments and landscapes within the valley floor and the holdings of Forest Enterprise. The 2003 survey involved a lower level identification survey of a much wider area (excepting the extent of the earlier surveys) and entailed examination, for the most part of the valley sides .
- 2.3.2 *1995-1997 Surveys:* a level 2a upland survey (OA North 2001) was undertaken by experienced survey staff within the forests of Ennerdale (Figs 4-9) over three discrete seasons. A level 2a survey defines the extent of all surface archaeological features, in relation to the main topographic elements, and plots the extent of each archaeological site. It is a basic level of survey undertaken to locate a site and assess its archaeological significance and serves as the basic framework behind proposals for the archaeological management of the landscape.

- 2.3.3 The archaeological monuments were located by systematic ground reconnaissance in conjunction with the results of previous work undertaken by Forest Enterprise staff. Traverses were adjusted to take account of the level of visibility or ground conditions and included visual inspection of the wider area in order to maintain an overview of the landscape.
- 2.3.4 The control for the survey was established by the use of a Global Positioning System (GPS) which uses electronic distance measurement along radio frequencies to satellites to enable a positional fix in latitude and longitude that can be converted mathematically to the Ordnance Survey (OS) national grid. The accuracy of the method is +/- 1.0m but it is adequate for the general location of the sites. All the internal survey control within each survey group was undertaken using a total station and was able to maintain an internal control accuracy of better than +/- 0.05m.
- 2.3.5 The archaeological detail and significant topographic detail was surveyed using a Zeiss ELTA 3 total station and data-logger. The digital survey data were transferred, via DXF file format, into a CAD system (AutoCAD). The archaeological detail was drawn up in the field with respect to field plots of the survey data, and these edits were then transferred onto the raw survey data within the CAD system. The archaeological digital data were subsequently superimposed onto base digital topographic data supplied by LDNPA. Where a superimposition between the surveyed topographic detail and the OS detail occurred, it was found that the OS error was never out by more than +/- 2.5m and confirmed the accuracy of the survey methodology.
- 2.3.6 Site specific searches were made for monuments recorded during previously identified archaeological surveys of the study area and of those sites identified from the SMR record. Only where such monuments were encountered was an independent gazetteer entry made.
- 2.3.7 **2003 Survey:** a level 1 upland survey in areas which had not previously been recorded, was undertaken by experienced survey staff within the study area of Ennerdale (Fig 2). A level 1 survey represents the minimum standard of recording and is designed to record the existence, location and extent of a site. The level 1 survey represents the minimum standard of record and is appropriate to exploratory survey aimed at the discovery of previously unrecorded sites. The emphasis for the recording is on the written description, which should record type and period and should not normally exceed c50 words. It serves to assess archaeological significance and creates the basic framework behind proposals for the archaeological management of the landscape. This is a rapid level of survey, typically undertaken alongside a desk-top study as part of the site assessment (ACAO 1993, 14). It is an initial site inspection, which helps the local planning authority to consider fully the archaeological implications of a planning proposal on management issues and also serves as the basis for undertaking and planning further archaeological work on the site.
- 2.3.8 The archaeological monuments were located by systematic ground reconnaissance in conjunction with the results of previous work undertaken by Forest Enterprise staff. Traverses were adjusted to take account of the level of visibility or ground conditions and included visual inspection of the wider area in order to maintain an overview of the landscape.
- 2.3.9 A Satellite Global Positioning System (GPS) was utilised to satisfy the level 1 survey requirements, due to the constraints of working within forested conditions. The result is outline mapping of the archaeological resource across the valley (Figs 10-12).

2.3.10 Site specific searches were made for monuments recorded during previously identified archaeological surveys of the study area and of those sites identified from the SMR record. Only where such monuments were encountered was an independent gazetteer entry made.

2.4 BOUNDARY SURVEY

- 2.4.1 **Field Survey:** the boundary survey was required to examine the development of the boundary system within the enclosed land of the valley. This entailed a detailed survey of the boundary walls in conjunction with and informed by the cartographic survey. The field survey examined and analysed the 'stylistic character' of the walling and their structural phasing using a digital proforma within a palmtop computer, and was in accordance with guidance notes provided by The National Trust. The recording examined all boundaries, determining their type, condition, maximum height, and key features within them such as openings, blockings, and sheep creeps. It examined the build type and character and aimed to develop a local typology of walling types to enable categorisation of the wall form; it also defined the basic forms of construction, such as orthostatic founded walls and those with multiple rows of through stones. It identified both the sections of repair, and the form of the repair. In particular, where possible, the study examined the relationship between all sections of walling to establish relative dates of construction/repair and consequently paid particular attention to the terminals of the walls. Similarly, on the long eighteenth / nineteenth century parliamentary enclosure walls which extend over the moorland, the emphasis was on the examination of their terminals rather than the main body of the walls which were of uniform construction.
- 2.4.2 **Cartographic Analysis:** in the event it was discovered that much of the walling of the valley bottom enclosures had been rebuilt and accordingly the relationships, indicative of the development of the field system, had been lost. While this was a set back in determining the development of the field boundaries, it was off-set by the fact that the valley bottom enclosures had seen very little development in the course of their life and it proved possible to implement a fairly reliable programme of analysis based on cartographic sources coupled with the limited wall relationships that were available. In the field system above the valley floor there were both key relationships and the fact that they were relatively late in date meant that their chronology could be established directly from the cartographic analysis.

3. LANDSCAPE HISTORY

3.1 INTRODUCTION

3.1.1 The character of the Ennerdale landscape is very distinct from that of others surveyed in this region (Lake District National Park Survey - Quartermaine and Leech forthcoming). The other surveys examined the marginal uplands and primarily reflected a prehistoric land use. Ennerdale, being a broad valley with a valley bottom lake (Fig 1), would have been extensively exploited throughout a long period, unlike the marginal fells, which had brief, albeit intensive, periods of exploitation, related to optimum climatic and environmental determinants. At Ennerdale the identified archaeological remains span a time-scale from the Bronze Age to the Pre-medieval period. As with any landscape exploited over a long period of time, the later phases of activity will have potentially obscured some evidence of earlier activity and consequently the landscape reflected by the survey is for the most part of medieval or post-medieval date. The significance of the survey programme is that it has recorded relict medieval settlements, which have not been buried by later settlement on the same site. These are of a type that does not often survive to the same extent elsewhere and which has not been adequately recorded in the past.

3.2 PHYSICAL BACKGROUND

- 3.2.1 **Location:** the study area lies wholly within the post-1974 county of Cumbria and within the Lake District National Park 2003 (NY 0905 1584 – 2148 1077). Prior to 1974 the area lay within the county of Cumberland.
- 3.2.2 Geographically it is to the south of the Loweswater Fells and to the north of Copeland Forest, thus representing the western extreme of the Cumbrian Fells adjacent to the West Cumbrian coastal plain.
- 3.2.3 **Geology:** the solid geology underlying the Ennerdale area, as mapped by the Institute of Geological Sciences (1980), comprises the Skiddaw Slates Group of Ordovician (Arenig [or] and Llanvirn [ov]) mudstones and siltstones, with intercalations of sandstone and greywacke, which underlie a large area extending west from Ennerdale weir to Egremont, and north to High Pike and beyond the River Derwent.
- 3.2.4 There are also igneous extrusive tuffs and agglomerates, interbedded with flows of lava, all belonging to the Borrowdale Volcanic Group (BVG). These are stratigraphically later than the Skiddaw Group, though still Ordovician, and were probably separated from it by a period of folding, uplift, and erosion. These extend east of Borrowdale, far beyond Great Gable, to Haweswater and Ralfland Forest (Ward 1876, 13-19; Marr 1916, 19-22 and fig 5; Taylor *et al* 1971, 13-18; McConnell and Kneller 1993).
- 3.2.5 The Ennerdale Granophyre intrudes through both the Skiddaw Group and BVG as ‘a simple stock-like mass’ (Taylor *et al* 1971, 34). It underlies the whole of Ennerdale Water and the Ennerdale Forest, extending north to Red Pike and Buttermere, east to Steeple and Pillar, and south to Copeland Forest and (with interruptions) to the coastal Triassic strata [t] of Selker Bay. The intrusive rocks vary from fine-grained basic to coarse-grained acid rocks.

- 3.2.6 Marr (1916, 19-22 and fig 5) assigns the lavas and tuffs in the eastern end of Ennerdale to the Ullswater and Eycott group, which is the second oldest sub-division in the BVG. Detailed petrological and stratigraphic discussions have been published by Millward *et al* (1978) and McConnell and Kneller (1993). The basic lavas and tuffs of the west and south-west (including Ennerdale) were amongst the first to be extruded and ‘possibly formed a pile exceeding 1000m in thickness before eruptions further east had started’ (*op cit*, 173).
- 3.2.7 As is shown by the extent of interest by mines research groups, an important group of mineral deposits (iron, copper) exist in the area, many of which were exploited in the nineteenth century, and a few possibly as early as the twelfth century (Banks 1996). Ward (1876, 58) notes that veins of haematite with a general north/south trend had been exploited between Buttermere and Ennerdale Lake ‘in the last few years’. Ward, however, devotes most of his section on copper veins to the Newland’s Vale (especially Godscope) lodes and does not mention the Ennerdale area in this context.
- 3.2.8 **Geomorphology:** the principal glacial product has been erosion, rather than accumulation or deposition. The primary pattern of the major ice streams of the Lake District is a radial pattern from the centre, around Helvellyn (Taylor *et al* 1971, 86-7), but the pattern is complicated near the north Cumbrian coast by the ice sheets from southern Scotland. Taylor *et al* (1971) show that the northern limit of the Scottish Criffel Granodiorite erratics was a little to the north and west of Ennerdale, and the united ice sheets then moved eastwards on the north side of the uplands. Meanwhile, erratic boulders of the Ennerdale and Buttermere Granophyre travelled northward and southward, the former reaching the confluence with the Scottish ice north of Cockermouth. Boulders carried down Ennerdale were also influenced by the meeting of the Scottish and Lake District ice sheets, and were carried south down the Cumbrian coast as far as Morecambe Bay, and even the Midlands (Marr 1916, 152-3).
- 3.2.9 The soils (Lawes Agricultural Trust 1983) of the lower fells, and around most of the shore of Ennerdale Water, belong to the Moretonhampstead Association [611b] (Jarvis *et al* 1984, 242-3), comprising well-drained, gritty, loamy soils with a humose surface horizon in places, typical of an acid igneous rock geology source. Those on the west end of the lake shore, including a small part of the study area around Bowness Knott, belong to the Clifton Association [711n], and are seasonally waterlogged reddish fine and coarse loamy soils (*op cit*, 135-8), derived from reddish glacial till. Those throughout the Liza valley in Gillerthwaite are Enborne Association [811a], deep stoneless fine loamy and clayey soils derived from river alluvium (*op cit*, 186-7). On the high fells to the north, south, and east, there are very shallow, very acid, peaty-topped upland soils of the Bangor Association [311e] (*op cit*, 101-4).
- 3.2.10 **Palaeobotany:** part of a pollen diagram has been published by Winnifred Pennington for Ennerdale Water, giving information for the Neolithic period. The diagram extends from the Elm Decline, c3000bc to about 2300bc, the latter date indicated by an uncalibrated radiocarbon date. At the start of the period, the vegetation was predominantly arboreal, comprising mainly birch, oak and alder, with alder slightly in the majority. Significantly there were only very few grasses, but substantial amounts of ferns. A steady decline in forestry was visible within the diagram immediately above this and there was also a temporary clearance of oak woods between 3200bc and 2700bc, which matches a corresponding increase in

grasses, and was potentially a product of man's interference in the landscape (Pennington 1975, 81).

3.3 PREHISTORIC AND ROMAN (2000 BC – AD 410)

- 3.3.1 **Introduction:** our knowledge of upland settlement within the western areas of the Lake District has been significantly enhanced as a result of the Lake District National Park Survey (LDNPS) which has examined over 68km² of unimproved fell, particularly on the south-west and Western Fells (Quartermaine 1989). The main surface evidence for early settlement is the ubiquitous cairnfield, which is found particularly on the marginal lands rising from the coastal plain. These are fossilised relict landscapes resulting from early agricultural activity, and are typically ascribed to the Bronze Age on the basis of a limited number of radiocarbon dates (Richardson 1982) and their spatial association with datable forms of funerary monuments (Walker 1965). Palaeobotanic evidence in conjunction with the physical evidence suggests that there was a population expansion out from the coastal plain during the Bronze Age resulting in the clearance of forest and the formation of the cairnfields (Quartermaine 1989). The LDNPS programme has shown that there was extensive Bronze Age settlement, on the West and south-west fells, but that this diminished in intensity further inland. The Town Bank and Stockdale survey areas, on the marginal land to the south of Ennerdale, indicated a considerable wealth of archaeological landscapes and it was anticipated that there could be a similar survival on the marginal lands around Ennerdale. The archaeological work by the National Trust within Wasdale (National Trust 2000) has shown that, although there is prehistoric survival within the upper reaches and higher sides of the valley, for the most part the valley floor demonstrates medieval and post-medieval landscapes. A similar situation is reflected within Miterdale in both physical and documentary evidence (LUAU 2000).
- 3.3.2 **Cairnfields:** the earliest activity in Ennerdale appears to be the small, localised cairnfields which have broadly random distributions, no direct association with plots or cultivation terraces, and are constructed of medium and large stones. Typologically these are tentatively assigned to the Bronze Age (2000 BC – 800 BC), although no funerary monuments have been identified from the valley to confirm this assumption. These small cairnfields (EF I, V, IX and XII (possibly also EF XIVa and c)) are often in areas of later settlement, and are typically found fairly high up the valley sides (Figs 5 and 8). They are small in size by comparison with cairnfield remains from other West Cumbrian moorland areas (eg Town Bank and Stockdale Moor (Quartermaine and Leech forthcoming)) and may reflect only limited prehistoric activity. Their location is significant in that they are not within enclosed lands, nor within areas that have been subject to later intensive farming; hence they have survived.
- 3.3.3 In contrast to these smaller cairnfields, a single very large cairnfield, has been located at the immediate head of the valley adjacent to the lake (EF VI) (Fig 7). This is in two parts divided by a field which has been subject to intensive improvement, resulting in the loss of a substantial part of the cairnfield. The eastern section of cairnfield (EF VIb) has a very varied character, incorporating substantial linear elements, be they cairn alignments or stone banks, which are converging towards a large rectangular double compartment stock enclosure, and an adjacent rectangular long house. An area of ridge and furrow is bounded by one of these stone banks.

Consequently there is apparent evidence that would suggest that at least one phase of the development of the cairnfield was from the broadly medieval period.

- 3.3.4 However, there are also substantial numbers of randomly distributed cairns that have no apparent relationship with the stone banks. Some of these are within the area of ridge and furrow, where they still have a broadly random distribution and have not been formed into lines; as such they would appear to pre-date the ridge and furrow. Many of these cairns have central hollows, which have been paralleled at the excavations at Birrel Sike (Richardson 1982), and would appear to be clearance cairns originally set around the trunks of now decayed trees. This, together with the random distribution within this area, would suggest that elements of this cairnfield were a product of stone clearance following the primary forest clearance, and as such would have been relatively early. Given the absence of palaeobotanic data, it is not known how many clearance episodes occurred in the valley and from what date; however, given that there is an Iron Age/Roman settlement in the valley (EF XIV (Section 6)), there was almost certainly at least one episode preceding that settlement (Fig 9). While it is not possible to exclude the possibility of early medieval/medieval forest clearance on the site, there is a possibility that the cairnfield was a product of more than one episode of stone clearance and that the earliest stage of this was associated with primary forest clearance in the Bronze or Iron Age.
- 3.3.5 **Iron Age/Roman (800 BC – AD 410):** the Iron Age/Romano-British period is reflected by the enclosed settlement (EF 410), which would originally have been c57m in diameter and has parallels from the region (Whitrow Beck (WB 163), Town Bank (TB 805), Quartermaine 1989 and Glencoyne in Matteredale (Hoaen and Loney 2003)) and also North-East England. The excavated examples from North-East England utilise both timber (Alnham, Northumberland, Jobey and Tait 1966; West Brandon, Durham, Jobey 1962) and stone construction (Middle Hartside Hill, Jobey 1964). The simple timber enclosed settlements are usually found to date from the later part of the first millennium BC (Ritchie 1970, 52-55; Jobey 1985, 183), although there is an example from Wolsty Hall, Cumbria (Blake 1959, 7-10) which may have continued into the Romano-British period. The stone-built examples from Northumberland have a more consistent Romano-British date (Jobey 1964), but the abundance of surface stone within the Lake District may have biased the construction techniques in favour of stone, hence the chronological distinction between the two types may not be as valid within the North West.
- 3.3.6 The significant aspect of this site is that there is an associated field system (EF XIVb), defined by cairn alignments and stone banks, which does not appear to have developed from an earlier system or been superimposed by subsequent settlement. As such this provides an indication of the character of contemporary agricultural systems (Fig 9). There is no evidence of lynchet formation or terracing, although this would not be expected on the relatively flat ground at the bottom of the valley. The relatively large plot defined by cairns and stone banks (c170 x 90m) and while it is possible that the field was ploughed this can not be confirmed.
- 3.3.7 **Funerary Activity:** while it is postulated that there has been prehistoric, probably Bronze Age, activity, within the valley, evidenced by a series of small cairnfields and potentially the earliest elements of the EF VI cairnfield, it is notable that there is no evidence of any funerary monuments from the period (Fig 7). Where such monuments are not sited in the valley they can be on the outlying hills with vistas into the valley, and to this end the 2003 survey specifically looked at topographic settings appropriate for the siting of prehistoric funerary monuments, but this also

revealed no evidence. While several modern cairns were identified none of these had older underlying cairns. While it is difficult to formulate arguments on the basis of negative evidence, the absence or dearth of such monuments would tend to suggest that there were no large communities living in the valley during the Bronze Age, or, more specifically, no early agricultural communities of the Bronze Age, to bury their dead on those prominent places.

3.4 EARLY MEDIEVAL (AD 410 – AD 1066)

3.4.1 **Place-names:** no sites of certain early medieval date have been identified during the documentary research. Place-name evidence (Armstrong *et al* 1950) indicates a likelihood of Scandinavian, and possibly Anglo-Saxon, settlement, and the land tenure around the time of the Norman Conquest can be broadly reconstructed from published sources (eg Fair 1937).

3.4.2 Jefferson (1842, 415) and other earlier writers perpetuate John Denton's (c1610/1887) derivation of Ennerdale, that:

‘the Irish named it *Lough Eanheth* (Latin *lacus volucrum*), from the fowls that bred there in the islands; the river they called *Eanheth*; and the dale *Eaner* or *Ar-ean*: the Saxons, retaining the Irish name, called the valley *Enerdale*.’

3.4.3 However, the English Place-Name Society (Armstrong *et al* 1950, 2, 385) derive the name in the *Register of St Bees* (c1135), variously spelt *Avanderdale*, *Anenderdale*, and *Ananderdale*, from the Old Norse *Anundar-dalr*, meaning ‘Anund's (a personal name) valley’. Lindkvist (1912, 41) was the first to suggest that the later name was from ‘the valley of the Ehen’ (the river west of Ennerdale Water). Both names demonstrate the Old Norse genitive singular *-ar* (Armstrong *et al* 1950, 2, 385; 3, xxv, 505).

3.4.4 In 1230, a reference to *Hardecnut* in the bounds of the woodland of Loweswater, the neighbouring manor to the north, seems to refer to Great Borne. This is clearly a use of the Old Norse *knott* or late Old English *cnotta*, ‘a rocky hill or summit’ (Armstrong *et al* 1950, 2, 385; 3, 481).

3.4.5 Gillerthwaite appears to be a clear candidate for Norse derivation, being composed of two words with no English cognate, *Gil*, a ‘ravine or narrow valley’, and *Thveit*, literally a ‘piece cut out of’, hence ‘parcel of land, or clearing’ (Armstrong *et al* 1950, 3, 475 and 494; Gelling 1988, 216). The name does not appear in documentary sources until 1604, when Gillerthwaite is mentioned in the Court Rolls (Littledale 1931, 191-2; Armstrong *et al* 1950, 2, 387) and because of this late use is not included on Armstrong's distribution map of Scandinavian place-names. Even so, the name applies to the vicinity of a vaccary at the head of Ennerdale Lake, which was mentioned in 1322 (Winchester 1987, 56).

3.4.6 The field west of *borrans* in Gillerthwaite is called *struddabank* on the tithe (CROC DRC/8/71/2, ref. no.503). This derives from the Old English *strod*, meaning ‘marshy land overgrown with brushwood’ (Armstrong *et al* 1950, 3, 493). The name ‘Borrans’ itself typically derives from the Old English word *burgaesn*, meaning a burial place (Field 1993, 214), and is typically associated with burial cairns. While no burial mounds have been discovered in the region it does not exclude the possibility of there being such monuments.

- 3.4.7 **Physical Evidence:** although the surveys have identified a number of early settlements within the valley, there is very little dating evidence for these settlement remains and it is not known if these extend back into the early medieval period. The most significant of these sites is the EF VI cairnfield at the immediate head of the lake, which may have developed over a number of periods, of which one was in the medieval period (Fig 7). The other site with potential early medieval origins is the settlement remains (EF X and XI), comprising a number of small farmsteads, to the north-east of the High Gillerthwaite valley bottom enclosure. Both of these sites are discussed in further detail in the section on the development of the valley settlement (*Section 3.7*).

3.5 TENURIAL HISTORY OF ENNERDALE

- 3.5.1 *Domesday Book* is not available as a source for northern Cumbria, and thus the *Register of St Bees* is the earliest source which can be used, together with neighbouring land tenure, to unravel the poorly documented early history of Copeland. Collingwood considered the place-name 'Copeland' to mean 'bought land', suggesting an allusion to it having been purchased from William I by Gospatric in *c*1070, as part of the Earldom of Northumberland, which had been Tostig's before the Conquest (Fair 1937, 72-4). Ketel, who was father-in-law of Gospatric's daughter Gunhilda, seems to have had a place in this tenure, though at what level is uncertain. Ketel's nephew, William de Lancaster I, may have held the Barony of Egremont for a short time under King Stephen, in *c*1140.
- 3.5.2 Neither Roger de Poitou nor Nigellus de Aubigny, two of the major personalities in the North West post-Conquest land tenure, can be shown to have had a Copeland connection. At the time of *Domesday*, Copeland seems to have been considered a part of Yorkshire administratively, and Armstrong *et al* (1950, 3, xxxv) follow Fair (1937, 82) in considering that it may have been granted *c*1110-15 to William le Meschin, who already had extensive lands adjacent to it, in order to reorganise the district to satisfy the policy of Henry I.
- 3.5.3 Assuming the derivation of the place-name *Avanderdale* to be correctly equated with Ennerdale (*Section 3.4.3*), a portion of the manor was granted 'in pure and perpetual alms, free from every earthly service' by Ranulph, son of William le Meschin, to Churches of St Mary of York and St Bees in *c*1135. Nothing more is known of the manor until the early fourteenth century, apart from confirmations of this grant in the time of Richard I (1189-99) and in 1308 by Edward II (BM Harl MSS 434; Reg St Bees, 36-9 and 534; Armstrong *et al* 1950, 2, 385). The lack of other papers relating to Ennerdale in the chartulary of the mother house, St Mary of York, may indicate that, to all intents and purposes, it was really in lay hands until the sixteenth century (Littledale 1931, 156-7).
- 3.5.4 In 1321/2 Thomas de Multon died seized of 'Eynerdale within the free chace (*sic*) of Coupland fell ...' and, at the partition of his son John's estates in 1334, it passed to the Harringtons of Aldingham, then through the Bonvilles, to the Greys (Littledale 1931, 157).
- 3.5.5 The establishment of new communities, through forest clearance (assarting) and fell enclosure, were at their height in upland Cumbria in the late thirteenth century. Winchester (1987, 39) refers to 160 acres being enclosed in just six years (1293-9) round the borough of Cockermouth. One *riddings* field-name (Old English *ryding*,

‘clearing in woodland’ - Field 1989, 273) was found on the tithe map (CROC DRC/8/71, ref no 447) close to the study area, between Mireside and Hollins, centred at NY 106 160), and there are two *water riddings* names, drained wasteland, west of Mireside.

- 3.5.6 **Forests and vaccaries:** in the earlier part of the high medieval period, almost all of the Cumbrian fells were forest or free chase, that is royal or seigniorial hunting lands; in practice, however, most were the private hunting grounds of the major feudal land owners. In many lower lying parts of Britain the waste land designated as forest was typically areas of woodland and so there has come to be an association between the term forest and areas of woodland, but this was not the original meaning of the word and in the upland areas, such as the Cumbrian fells and the Forest of Bowland, in Lancashire, the areas designated as forest were for the most part devoid of trees. The importance of the forests with respect to the development of the landscape is that they were areas that were protected from the encroachment of peasant settlement (Winchester 1987, 4). The forest lands were, however, more vulnerable to exploitation by the manorial lords and monastic houses, which as a consequence was on an even larger scale than the clearance and colonisation by peasant farmers and small freeholders. The principal form of this manorial encroachment was in the form of vaccaries (manorially owned cattle enclosures (See *Appendix 3* for a description of the monument type)). The two vaccaries of John de Multon, last lord of the whole of the Barony of Egremont, are referred to only in 1322 (PRO C134/71/1) and 1334 (PRO C135/41/1; CROC D/Lec/Box 70/5; Cal Close Rolls, 1322) in the Patent Rolls. It is probably safe to assume that the forest had been cleared for their creation some time before 1322. The 1334 document (de Multon’s *Inquisition post mortem*) includes the following:

‘... and there are at Ennerdale (sic), which is within the Free Chase of Coupeland fell 31 tenants at will, who hold various places (*loca*) and pay per year £6 4/6d at the terms of Michaelmas and Easter equally. And there is a certain render (*reditus*) called Dalemale [payment for right of pasture, literally ‘valley money’] coming from the said tenants 29/- per year at the Feast of St James for the whole year. And there is a certain place called Braythemire [now Broadmoor plantation] in the hands of the said tenants, and they pay per year for the same 13/4d at the said Feast of St James for the whole year. And there is there a certain place called Head of Ennerdale (*Capud de Eynerdale*) in the hands of the said tenants at will, and they pay per year £4 at the said Feast of St James for the whole year. And there are two vaccaries (*vacarie*) where the lord used to have his own stock (*staurum suum proprum*) and they are worth per year 60/-’ (translation courtesy of Dr Angus Winchester, Dept of History, Lancaster University).

- 3.5.7 The Gatesgarth vaccary is the earliest (1267) of the five locations identified in the central Lakes by Winchester (1987, 42-3 and 56n22), followed by Stonethwaite (Fountains Abbey) in 1302, Brotherilkeld (Furness Abbey) in 1292, and the two at Ennerdale and four at Wasdale Head in 1322. By the 1280s the Gatesgarth vaccary supported 40 milk cows and their followers, but the relative size of the Ennerdale vaccaries can only be gauged from their value in 1334 (60/- per year).
- 3.5.8 Littledale could only find a few references to Ennerdale between 1334 and the Crown appropriation of 1554. An appeal in the Coram Regis Rolls in 1395 mentions Alice, widow of John of Eynerdale, petitioning the Crown over those who harboured the men outlawed for the death of her husband (Littledale 1931, 178).

- 3.5.9 At Easter 1475, Edward IV ordered that Thomas Grey, son of his wife Queen Elizabeth, by a previous marriage, might
- ‘give nothing for the fine to nine writs granting licence to ... Thomas and Cecilia, Lady Haryngton and Bonvyle, concerning ...’ a long list of manors including Egremont, Haryngton, Gosford, Ennerdale, Kelton, and Woodacre, ‘and the office of bailiff between Eyne and Derwent, and between Eyne and Dodyn ...’ (Littledale 1931, 182).
- In 1532, Thomas’ son, Thomas 2nd Marquis of Dorset, died seised of the Manor of Ennerdale, worth £18 2/11d *per annum*. There is also a muster roll of 1534-5, giving the names of 40 men, from 20 families, of military age in the manor (Littledale 1931, 179-80).
- 3.5.10 *Post-medieval (AD 1600 – AD 1900)*: in 1554 the lands of Henry Grey, father of Lady Jane Grey, were confiscated by Mary I, and the manor remained in Crown hands until 1822, without being made part of any ‘duchy, honour, castle or manor’, and always managed by ‘bailiffs, stewards, and greaves, there being no resident lord’ (Littledale 1931, 159). A note, undated but - from the handwriting - apparently from the late sixteenth century (CROC D/Lec/Mesne Manors: Ennerdale), informs the addressee of the inadvisability of purchasing the Manor. It seems therefore that it may have been offered for sale - either publicly or direct to Lord Leconfield, Lord of the Barony of Egremont who owned neighbouring Kinniside - though no other record has been found of this. Littledale (1931, 157-8 and 176-8) paints a picture of incompetent Crown lessees in the period 1665-1764, many of whom fell disastrously behind in their payments of rent to the Crown, to such an extent that legal proceedings against Denzil, Lord Holles, were begun in the year before his death.
- 3.5.11 As far as can be determined, these leases were of the manorial rights only, including the deer park, but excluding the mines - which were leased separately (*Section 4.5.5*) - and possibly the forests, until Sir James Lowther’s lease of 3 January 1765 (grant from Crown CROC D/A Lonsdale Manors/Box 74). In 1685, Lord Lonsdale had bought the Castle How Ennerdale manor from the Patricksons, and ‘held it from the Queen Dowager as part of her manor of Ennerdale’ (Hainsworth 1983, 298n4). With Sir James’s descendant William, Earl of Lonsdale’s, purchase outright of the Crown manor on 26 September 1822 (sale particulars CROC D/A Lonsdale Manors/Box 74), the whole of the manor was held by the Lowthers (Whellan 1867, 434).
- 3.5.12 Rollinson (1978, 57) states that many of the forest areas, previously maintained as private hunting grounds, were abandoned by or during the sixteenth century. This had come about as a result of a number of influences. The first of these was clearance and colonisation by peasant farmers and small freeholders, and secondly as a result of the establishment of fellside pastures (hay meadows) and vaccaries by the feudal lords (Winchester 1987, 42). As the communities encroached into the lower lands of the forest, so the upper lands were adopted by the same communities as upland pasture. The more remote areas were adopted for seasonal grazing, and saw the establishment of shielings. Some of these shielings were the upland grazing for the freeholders and leased from the lord of the manor, while others, such as the Lords Seat, near Wythop, meaning Lords *Saetr* (shieling), reflect summer grazing under the direct control of the lord of the manor (*op cit*, 40). The impact of this encroachment was such that by the sixteenth century, the term forest was applied in a restricted sense only to demesne pastures in the uppermost reaches of the valley (*op cit*, 22).

Copeland Forest, for example, had almost vanished by 1578, the northern part being by then a 'free chase' called the Forest of Gatesgarth, and the former hunting rights being restricted to upper Ennerdale. For the study of sixteenth and seventeenth-century Ennerdale, the most useful documents are the four surveys of the manor, from c1558-61, 1568, the Parliamentary survey of 1650, and the survey of 1676, commissioned by Queen Catherine, wife of Charles II (Littledale 1931, 158-9; also nineteenth century copy of the 1650 survey CROC D/A Lonsdale Manors/Box 74; CROC D/Lons/L1/1676; A J L Winchester, pers comm).

- 3.5.13 On 14 November 1560, Elizabeth I appointed commissioners to survey her lands in Ennerdale, with instructions (PRO LR 1/329, f159) to induce the tenants to accept leases for 40 years, instead of the tenant right system in current use. The tenants, however, refused, claiming that they had never heard the name 'lease' before the manor came into Crown hands. Their petition states that they would be encouraged in their duty of bearing arms at the border if the Court confirmed the former Custom, and at their own cost they would 'inclose their grounds severally w'th *quycksetts* ...'. A 'quickset' was a planted hedge, usually of hawthorn. The Queen upheld the tenant right, but leased the tenements for 21 years to John Senhouse Croftfoot in 1563. However, he defaulted the terms of the lease by selling his title to John Lamplugh, who refused to 'stand to the order of the Court touching the tenant right in the said manor' and was committed to Navy service. A fresh survey was ordered on 12 February 1567/8, and on 3 April 1568 the 12 'Ancientest and Sagest Tennants' declared the customs of the manor, among which were entitlement 'to great timber for fire houses and barns, to harrowboote and ploughboote' [the right to timber for building, or repairing farm implements (Coleman and Wood 1985, 47)], that there were no demesne lands (no arable demesne lands, Littledale assumes) in the manor, and 'that from time out of memory ... their ancestors had always had within the forest certain agistments or common of pasture called Dalemale'. The Queen accepted the Customs, and the tenants the conditions, and paid two years' rent as a *gressum* (fine) on 10 May 1568 (Littledale 1931, 169; Bouch and Jones 1961, 67).
- 3.5.14 The term 'Dalemale' (also variously spelt *dailemayle*, *daymale*, and *dailmaine*), in Ennerdale, refers to a:
- 'yearly quit, dry or free rent, not finable, payable at Martinmas only, and gathered amongst the tenants by one of them as the Lord's grave [that is to say, payable as a lump sum], for the common of pasture, on all the commons or wastes of Ennerdale, with the exception of the Side or Fence [the deer park], for their cattle in the summer time. The rate was 6d for each horse, 3d for each other [i.e. horned] beast, and 3d for every 10 sheep.' Since there were about 32 holdings in Ennerdale in the period 1564-1676, and between £12 7/8d (1564) and £12 6/8d (1676) of Dalemale (of which £2 13/4d was from Gillerthwaite), this accounts for around three horses, 10 horned beasts, and 150 sheep for an average holding (Littledale 1925, 145n; 1931, 171).
- 3.5.15 The 1560 survey also mentions a small tenement called Sinderhill, and this is the earliest documentary evidence for a bloomery in the manor. The earliest reference to mining is from 1685 (see below *Section 3.11.7*) (Littledale 1931, 189).
- 3.5.16 Despite considerable changes in the ownership of Ennerdale the peasant population of the valley and surrounding area appears to have been relatively stable. However, since Ennerdale was not in that third of John de Multon's Lordship of Egremont which descended to his sister Elizabeth de Lucy in 1344, and thence to the Percy

family, no figures are available for Ennerdale to compliment those for other nearby areas that appear in the ‘Percy Survey’ of 1578 which lists the estate of the Earl of Northumberland’s Egremont Borough and Lordship (CRO D/Lec/301). However, figures for 1322, 1334, and 1578 are available for three other nearby places: Kinniside, Nether Wasdale, and Eskdale / Miterdale (Winchester 1987, 44). The number of tenants in 1578 in neighbouring Kinniside (40) is comparable to that 250 years earlier in 1322 (47 tenants), there being 57 in 1334, whereas the figures for Nether Wasdale are 23 (1322), 22(1334), and 43 in 1578, and for Eskdale / Miterdale are 31 (1322), 46 (1334), and 39 (1578). The Ennerdale figures for 1322 and 1334 are 26 and 31 respectively, and it may be presumed that there was little change here in the same manner as its neighbour. However, the population of Ennerdale is significantly smaller than neighbouring Kinniside.

- 3.5.17 That the Crown was unsure of the manor boundaries, and out-of-touch with local ‘customs’, and the history of tenancies, is further evidenced by a four-year law suit in 1608-12 concerning enclosures, made by Ennerdale tenants in the wastes of the neighbouring manor of Kelton, known as Bennefell [Banna Fell], Gavelfell, and Middlefell, presumably dating from the 1568 decision described above. The local manor Court Rolls held the answers, but instead elderly tenants, as old as 92 years of age, were called to give evidence (Littledale 1931, 180-4).
- 3.5.18 Green (1819, 2, 234 and 237) says that, when he visited, one of the two farmhouses in Gillerthwaite was a ruin, and the other only inhabited by a woman and her grandson. Both houses, Low Gillerthwaite to the west and High to the east, are shown in use on the first edition 6” : 1 mile map (OS 1867, sheet 69). In 1609 there had been four tenements in Gillerthwaite, though this need not mean four houses, only land tenancies (Littledale 1931, 189). Also with reference to Gillerthwaite tenants, an offence - thought by Littledale (*op cit*, 192) to be against a Crown monopoly - was ‘currying’ (presumably meaning ‘curing’) leather, recorded in the Court Rolls of 1604-38.

3.6 DEVELOPMENT OF THE VALLEY SETTLEMENT

- 3.6.1 **Gillerthwaite Vaccaries:** there are two areas of medieval settlement, which both clearly pre-date the primary enclosure of the valley; these comprise the EF VI Ennerdale Lake cairnfield and the EF VIII – XI settlement remains to the north of High Gillerthwaite farm (Figs 7 and 8). Both have medieval attributes and there is accordingly the potential to equate these settlement areas with the documentary reference to two vaccaries at the *Caput de Eynerdale* (Head of Ennerdale) from 1322 (*Section 3.5.6*), which would place them in the area of present-day Gillerthwaite. These particular vaccaries were relatively large and wealthy to judge by the *Dalemale* paid; the head of Ennerdale paid £4, compared to the Braythemire vaccary at the western end of Ennerdale, for example, which paid only 13/4d.
- 3.6.2 **EF VI Cairnfield (Fig 7):** one contender for one of the vaccaries is the EF VI settlement and cairnfield, which is situated quite literally at the head of Ennerdale Water. As discussed earlier (*Section 3.3.3*) this has a substantial number of randomly distributed cairns, many of which have central hollows indicative of their construction around tree stumps. The form would suggest that they were constructed following a forest clearance episode, and is an indicator of early settlement. This form of cairnfield is most commonly associated with the Bronze Age expansion onto marginal lands, but it is also possible that it relates to a later forest clearance episode,

potentially in the early medieval period. In the absence of palaeoenvironmental evidence it is not possible to establish reliably a primary date for the inception of the cairnfield, but its medieval phase of activity can be clearly defined. In the western part of the cairnfield (EF VIa) is a series of small rectangular structures, of which one at least is a probable long house. In the eastern part of the cairnfield, at its southernmost edge, is a two-celled rectangular long house with an associated two-celled rectilinear stock enclosure (EF 102); which is typologically similar to a medieval enclosure at Heathwaite Fell (HF 530 (Quartermaine and Leech forthcoming)). In addition to this there is a large complex drove route/intake arrangement for feeding stock towards the large stock pound. Significantly this stock enclosure is overlain by the valley bottom enclosure wall. The large stock pound would have been capable of accommodating substantial numbers of cattle and this may suggest that this was one of the Ennerdale vaccaries referred to in de Multon's *inquisition* (1322). A comparable situation is to be found at Gatesgarth, at the head of Buttermere where there is a reference to a vaccary by 1267, and that in addition to the vaccary buildings, the dalehead contained enclosed meadows and a park (Winchester 1987, 142; PRO SC6/824/7-14); the park clearly corresponds to the adjacent enclosure Gatesgarth Side. There is a close similarity between the intake land, the putative vaccary and the meadows of the dale head of Ennerdale with that of Buttermere, and would reinforce the premise that these identified structures corresponded to the documented vaccary.

- 3.6.3 Where there are observable cairn alignments within the system, these are for the most parallel to the banks of this access route. Notably there is an area of broad ridge and furrow, which has its headland on the line of one of the boundary banks converging upon the stock enclosure; this perhaps reaffirms that the banks were associated with medieval agricultural practice. However, within the area of ridge and furrow are eight cairns which have an essentially random distribution, and show no particular alignment with the ridge and furrow; as such they would appear to pre-date the cairnfield and reinforce the supposition that this was a product of more than one phase of activity.
- 3.6.4 As both the two-celled long house and the large stock enclosure are overlain by the small valley bottom enclosure to the south-west of the River Liza, this would confirm that the establishment of the valley bottom enclosure not only post-dated the EF VI settlement, but that settlement had been abandoned by the time the valley bottom enclosure was constructed.
- 3.6.5 **Gillerthwaite East:** the archaeological record has similarly demonstrated that there was a sizeable medieval community to the east of High Gillerthwaite Farm and significantly beyond the eastern valley bottom enclosure. This comprises a scatter of up to 12 rectangular long houses, each with an associated stock pound, which extend in a broad band up the northern side of the valley, the lowest being a pair just above the flood plain of the River Liza (EF XIc) and extending up to a group of five at a height of 120m above the valley floor (Fig 9). While this would imply a very sizeable community it must be remembered that the structures were not all necessarily contemporary. Their rectangular nature, and their unenclosed character, would suggest an early or high medieval date.
- 3.6.6 Some of the long houses (eg EF 305, 311 and 345; Fig 8) are directly associated with cultivation terraces or plots, whilst some have apparently a pastoral association. One of the best contenders for one of the vaccaries is the very large two-celled stock enclosure, EF 398 (EF XIII), which is an enormous 54m x 50m in size and has

decayed banks that are even now up to 1.1m in height and could have accommodated many cattle (Fig 9). Attached to the eastern side of the stock enclosure is a further rectangular long house. Although two dairy farms were documented in 1322, this does not necessarily indicate that these were either then or subsequently the sole settlements within the head of the valley. The fact that there is clear evidence of mixed farming practice within this community may suggest that it was either at the outset a community providing meat for the lord of the manor (vaccaries) and for a small local tenanted population or that the range of farmsteads reflects the development of a community practicing both mixed and pastoral farming. Although vaccaries are well known from documentary sources, they are very poorly attested in the archaeological record, and thus the presence of physical remains potentially corresponding to such a medieval cattle farm is of considerable archaeological importance.

- 3.6.7 While some of the settlements were associated with small cultivation terraces, none of them were associated with any boundaries or fields as such, which clearly distinguishes them from the post-medieval farms of High Gillerthwaite and Gillerthwaite, which were associated with the valley bottom enclosure. The relationship of the medieval settlement to this valley bottom enclosure is significant; the fact that the primary medieval settlement area (EF IX, X and XI) was wholly outside the principal valley bottom enclosure indicates that this enclosure post-dated the medieval settlement, and that there was no apparent continuity of settlement (Fig 8). While it is possible that there were early settlement remains within the extent of the valley bottom enclosure, that have been subsequently destroyed by land improvement, it is clear that the majority of the earlier settlement remains was substantially removed from that of the valley bottom enclosure. This could either indicate that they had independent foundations or that the establishment of the later intake specifically avoided the land of the early settlement.
- 3.6.8 **Great Cove Settlement:** the settlement at Great Cove (EF XVI) is in a very isolated and exposed position at the head of the steep-sided Deep Gill gully, at an altitude of 505m OD. It comprised a group of ten distinct structures, a main group of nine ruined stone buildings of varying size and condition, two partially extant stretches of extant dry-stone walling, a stone-capped well or spring, and the remains of a substantial, slightly outlying, building to the south-east of the main group. The structural remains covered a distance of 200m x 40m, aligned north-west/south-east, and were centred on an area of large scree boulders, which had been utilised as part of the fabric of the buildings; the largest structure within the group was 17m x 7m. Several buildings within the group had internal divisions and possible flanking walls, though the amount of building tumble and scree made this hard to determine, nevertheless they would appear to be rectilinear long houses. The outlying building was found to be of significantly better construction, though it too abutted a large outcrop of stone forming its rear wall, which was tall enough to have allowed this structure to be roofed. The entrance to the structure was quoined and narrow, more akin to a house door than one to a fold or bield. Exhibited within this group was a range of essentially two distinct structures on the basis of their size, that of smaller size with considerable amounts of tumble, which could liberally be interpreted as long houses, and larger structures, typically with less associated tumble, that were potentially stock enclosures. The area of the settlement is flat, wide, served by a mountain stream, and was contained to the south by Little Cowdell Crag. The ground appears to have undergone clearance, at least of surface boulders, to encourage grass growth for stock.

- 3.6.9 It is difficult to conceive that a permanent settlement would have been established in such a rugged terrain and at such an altitude, and it is therefore probable that this was a group of shielings, reflecting the common medieval practice of transhumance. The location and topography of the site, in relation to the medieval settlement at Gillerthwaite, may indicate that these were the shielings for that settlement. The comparative position of the two sites (Fig 11) shows the route down Deep Gill leads directly to Gillerthwaite and its valley bottom enclosure and such circumstantial evidence may indicate a contemporary relationship.
- 3.6.10 **Smithy Beck Settlement:** the Smithy Beck houses (EF III and IV) reflect a settlement that was spatially and typologically distinct from the other settlements within the valley (Fig 6). Firstly the houses were substantially larger than their counterparts at Gillerthwaite East, but they were also in a very much better condition, suggesting a more recent abandonment date. The houses, for the most part, had a characteristic form, being enclosed or 'double-walled' long houses, and are a type which is relatively rare both within a regional context and potentially also nationally.
- 3.6.11 The late Bill Fletcher identified 12 of these structures of which 11 have been identified by the present survey. The survey has shown that they had a consistent design suggestive of a localised and contemporary building tradition, although an example of this type has also been found at Stephenson's Ground (Thorpe and Ball 1994). While in at least one instance the outer bank was sufficiently removed from the inner skin (EF 44) to provide for an external pound, most were essentially no more than outer skins and appeared to reflect a double insulative wall to the structure. Several of the long houses were excavated by Bill Fletcher, revealing domestic hearths (Fletcher and Fell 1987), and the ceramics recovered dated from the late fourteenth/fifteenth century through to the late sixteenth century; there was also some later post-medieval pottery recovered.
- 3.6.12 The significant difference between these houses and those at Gillerthwaite East is the lack of associated agricultural remains; there are no associated fields, no associated lynchets or terraces, and for the most part no associated stock pounds. This apparent absence of agricultural features prompted both Ramm, *et al* (1970) and Fletcher (Fletcher and Fell 1987) to suggest that these were miners houses, in part based on their association with the bloomery by the lake side (EF IIa (Fig 5)) and the possible early mines at Clewes Gill (Site 184) (Fig 11). An alternative is that this formed a transhumant settlement, which provided solely for domestic accommodation as the stock was grazing on the open fell, and, as is common with shielings, did not require stock shelters in the summer. However, in the case of the Smithy Beck long houses, the double walls undoubtedly provided storage space, but also improved thermal insulation, and could have provided the foundations for a double roof arrangement. As such this would have afforded greater protection from the elements during winter months, and so would argue against the houses being solely for summer use. In practice, it is probable that the occupants of these houses had a mixed agricultural and industrial economy and may have been involved in different activities throughout the year.
- 3.6.13 **Dating of the Smithy Beck Settlement:** the complexity, size, elaborate nature, and condition of these 'double-walled' structures distinguish them from the long houses at Gillerthwaite East, and suggest that they are a more developed and essentially later form of structure. The relatively late date of the settlement is reinforced by the ceramic evidence, which indicates some degree of occupation from the late fourteenth century through to the early post-medieval period. The largest structure of

the group, EF 296 (EF IV, Plate 4), has incorporated within it the extant remains of an earlier structure, and as such appears to demonstrate an extended development (Fig 6). This was excavated by Bill Fletcher (Fletcher and Fell 1987), revealing both green-glazed ceramics and post-medieval ceramics, reinforcing the supposition that it had an extended life. The site is remote from the valley bottom enclosures, but to judge by the post-medieval ceramics was probably in contemporary use with the farms of Gillerthwaite and High Gillerthwaite (*Section 3.6.14*). This would suggest that this was an isolated settlement that was not involved in intensive agricultural practices (hence the absence of an associated field system), which was occupied alongside and at the same time as the more established settlements at the head of the valley.

- 3.6.14 *High Gillerthwaite and Gillerthwaite Farms (Fig 3)*: the High Gillerthwaite and Gillerthwaite farms are on the upper, northern side of the eastern intake. They are post-medieval farm houses, which are set into the line of the primary valley bottom enclosure, and their history would appear to be closely linked to that of the intake. They were not examined as part of the present project and their architectural history remains to be studied.

3.7 THE DEVELOPMENT OF LAND ENCLOSURE AT ENNERDALE (FIGS 13 AND 14)

- 3.7.1 *Township Boundaries*: while not technically enclosures, the earliest boundaries within the area were almost certainly the township boundaries. The principal boundary was that dividing the Ennerdale and Buttermere townships, which extended along the watershed between the two valleys, and is the present civil parish boundary between Ennerdale and Kinniside and Buttermere parishes. The significance of this line is reflected by the fact that it presently also defines the boundary between the districts of Copeland and Allerdale. The boundary is marked by ‘piles of stones’, and cairns, and 26 such markers were found by the survey or are documented on OS maps (Plate 2 and 11). The date of these markers is uncertain, but in some form or other they may have considerable antiquity. Such a primary township boundary is likely to pre-date any extant boundary marker as they were often originally defined by natural topographic features and, in the case of the boundary between Buttermere and Ennerdale, extended in straight lines between the summits of Great Borne, Starling Dodd, Little Dodd, Red Pike, High Stile and High Crag.
- 3.7.2 A manuscript map of c1896 (CROC D/Lons/W/Plans/Ennerdale/62) shows a proposal for fence lines along the north and south fell summits and ridges of the Lowther estate in Ennerdale following the line of the township boundary. These were evidently constructed as the remains of a fence line were found along the line of the township boundary, particularly at Starling Dodd (Sites 21 and 121) (Fig 11), which comprised upright iron staves, of which one has been inserted into a boundary cairn (Site 21, Plate 11), clearly demonstrating a sequence of construction.
- 3.7.3 A further civil parish boundary line extends on the southern side of the valley, dividing the Ennerdale / Kinniside and Wasdale parishes. This similarly extended along the principal summits of Haycock, Little Scoat Fell, Pillar, Kirk Fell, and Great Gable, which are some of the highest and most dramatic mountains in the region. This boundary is similarly marked by cairns (‘piles of stones’) and is likely to have had approximately the same antiquity as that to the north being the principal township boundary on this side of the valley.

- 3.7.4 **Early Enclosure:** as has been previously established (*Section 3.5.13*), the earliest medieval settlements within the valley pre-dated the establishment of the enclosure within the valley bottom. Given that they have been tentatively linked to documentary evidence for vaccaries in Ennerdale in 1322, this would suggest that the establishment of the enclosure was relatively late, post-dating 1322. Gillerthwaite (called 'the head of Ennerdale' in 1334) had certainly been enclosed by 1568, during the reign of Elizabeth I (Littledale 1931, 166-6 and 171) (*Section 3.5.12*). Although maps of this date do survive for some parts of the Lake District, generally produced for legal disputes (PRO 1967), none seem to exist for Ennerdale (or Broadwater, as it was generally called at that date).
- 3.7.5 The earliest formal enclosures of land were the two valley bottom enclosures, separated by the Char Dub, which are comparable to the ring garths found in most valleys (eg Langdale (Bevan *et al* 1991, 9) and typically date from at least the twelfth / thirteenth centuries. Such enclosures separated the flat valley bottom land from the valley sides, providing protection from stock for crops during the summer and secure stock grazing land in the winter (National Trust 1993).
- 3.7.6 The larger easternmost valley bottom enclosure is associated with two settlements (Gillerthwaite and High Gillerthwaite Farms) whereas there is no contemporary settlement associated with the western valley bottom enclosure, which is likely to be a remote satellite intake; hence it is likely to be the later of the two.
- 3.7.7 **Eastern Valley Bottom Enclosure:** the eastern valley bottom enclosure is a long linear intake defined by the surrounding topography; it is edged to the south and west by the River Liza and to the north by the valley side. The only area of possible expansion to this enclosure is to the east, and there would appear to have been a small intake out from the primary valley bottom enclosure (Fig 14 (east valley bottom enclosure phase 2)). The two Gillerthwaite farms are situated against the northern edge of the valley bottom enclosure, and Gillerthwaite Farm is within a small enclosure seemingly butted by the wall of the valley bottom enclosure, suggesting a contemporary relationship between this and the establishment of the settlement (though not the present structures). The enclosure for High Gillerthwaite, in contrast, is butted onto the inside of the valley bottom enclosure. The latter was subsequently divided by a series of north/south boundaries into ultimately eight irregularly sized fields. While a basic sequential development of the enclosure is evident (Fig 14), the precise dates of the field divisions cannot be reliably established; however, the basic layout was in place by the time of the OS first edition map (1867).
- 3.7.8 Between the OS first edition (1867) and second edition (1899) maps (Fig 3) the development of the field system was concentrated around the two farms, principally relating to the construction of new buildings. At Gillerthwaite a new outbuilding was constructed on the southern side of the farmyard, the farm field was further divided, and a walled trackway was constructed along the southern side of the northern valley bottom enclosure wall. At High Gillerthwaite there was little change before the construction of two large buildings to the west of the farmhouse and an associated elongated enclosure wall.
- 3.7.9 **Western Valley Bottom Enclosure:** the western valley bottom enclosure was divided from that to the east by the Char Dub, and hence there is no clear relationship between them. The enclosure wall overlies the cairnfield, rectangular long house and stock enclosure of EF VI (Fig 7). The wall has a varied character, and unlike the

eastern valley bottom enclosure has not been wholly rebuilt. Substantial sections, including that over the stock enclosure, have large boulder foundations and the overlying dry-stone walling has relatively few through stones, suggesting that it is somewhat earlier than the typical parliamentary enclosure walls; it is, in any case, shown to be earlier than the 1805 estate map (PRO MPE 667). The intake was undivided until after the OS first edition map (1867) at which stage that to the west was divided into three plots by straight field boundaries. These three plots were subsequently improved with the removal of the surface stones and the cairnfield. While it is possible that this enclosure may have pre-dated the eastern enclosure, the absence of any direct relationship makes it difficult to establish their relative chronology. However, as the wall overlies the long house and stock enclosure of EF VI, it can be confirmed that this post-dated the demise of the putative vaccary.

- 3.7.10 **The Side Deer Park:** one of the earliest independent intakes within the valley was Ennerdale Park, now known as The Side; formerly a deer park (Plate 8), it was estimated in the Parliamentary Survey of 1650 as being 320 acres in extent (CROC D/A Lonsdale Manors/Box 74; Jefferson 1842, 416; Littledale 1931, 164). The first reference to a Deer Park, as opposed to deer in the forest generally, seems to be in 1612, when Henry Fetherstone, surveyor, certified that there was in the manor:

‘... a forest where there were one hundred red deer and some part of that forest called a fence which is possessed by the Foster [i.e. ‘walking forester’ or ranger] for a reserve for the deer but that the most part of the forest is ground for which the tenants pay their dale male Rent where the deer have liberty to pasture and feed’ (Littledale 1931, 164; PRO LR 10/15).

- 3.7.11 The Park was described in 1650 as:

‘All that Parke or parcell of Fell ground commonly called or known by the name Ennerdale Parke alias the Fence, fenced partlie with an old wall, and partlie with ye water called ye Broadwater, abutting on Balthow [Boat How] to ye South, on ye Broadwater to ye North, on Redbecke Close to ye West, and on Silver Coves or Birkemosse Coves to ye East conteyning by estimation 320 acres more or less ...’ (PRO E/317/Cumberland 5/X/K/989).

- 3.7.12 Apart from noting the use of the name Broadwater for Ennerdale Water, all these names remain unchanged. The use of the term ‘old wall’ indicates that it had been founded some considerable period earlier, and may, like the other enclosures in Gillerthwaite and elsewhere in Ennerdale manor, date from or before c1568. The Side was also known as ‘The Fence’ (Littledale 1931, 164; PRO LR 10/15), and, as it is typical for deer parks to be enclosed by a ditch and bank with a palisade fence or ‘Pale’, this may suggest that it was formerly fenced. However, there are no physical remains of a bank and ditch, and as the boundary is referred to as an ‘old wall’ in 1650, it is likely that it was either originally a wall or its transition from a pale to a wall occurred long before living memory in 1650. It is, however, not uncommon within remote upland terrain, where there is insufficient soil to construct a bank and ditch but an abundance of stone, to have walls constructed from the outset. Hence the term ‘fence’ may be a generic term for a park boundary rather than an indication that it was originally a pale.
- 3.7.13 By 1822, the Park had increased to 961 acres when Lord Lonsdale purchased the manor; this comprised 434 acres of enclosed land (The Side) and 527 acres of unenclosed land (PRO MPE 667). The survey (undertaken in 1805) of the Side corresponds closely to the present boundaries for this and it is a credit to the accuracy

of this survey that the defined area for the park (434 acres) is only 10 acres different from a measurement of its area based on the modern OS mapping (424 acres).

- 3.7.14 The eastern section of wall climbs the valley, slopes over Stair Knot at the east, up past Sail Hills to the west over Boathow Crag, before returning to the lakeside down the course of Red Beck. While it is generally difficult to age dry-stone walling, there are some indicators of dating in the lakeside stretch of walling; the wall was built over low large boulders in places, known as shouldering, a technique typically indicative of relatively early build. However, the wall is built in a tapered manner, with the through stones tying the two faces together, and also has cam stones capping it at a height of 1.4m. This is too low for the walls of a deer park, and the through stones and cams are typical of eighteenth / nineteenth century building techniques, which may suggest that parts of the walls have been rebuilt during this period (Rollinson 1991). Significantly a wall running across the top of Stair Knot, which meets the eastern edge of the Side, appears to be of one build and of comparable technique with the maintained section of the wall, yet this wall was shown by cartographic sources to have been constructed between 1805 and 1867 (*Section 2.2.11*). Part way up this side of the wall there was a small shelter, which had been built out of the tumble from the wall (Site 183) (Fig 10). At this point the wall comprises two or three courses of tumbled material and is partially earthfast, and it is evident that the highest sections of the wall have not been maintained, only those sections which return to the lakeside having been subject to repair. These higher sections which have not been maintained potentially reflect the original build of the park wall.
- 3.7.15 A further intake boundary to the west of the Side clearly butts against the Side wall, and although post-dating the park boundary, was depicted on the 1805 estate map (PRO MPE 667) and was evidently one of the earlier boundaries. This intake wall was itself butted by a parliamentary enclosure wall which is first depicted on the OS second edition map. To the south-east of the Side is a further early section of walling which extends south-west from Deep Gill, but does not form an enclosure and has no evident function. It is, though, one of the walls depicted on the 1805 estate map (PRO MPE 667) and was cut by a wall constructed subsequent to the OS first edition map (1867). This latter complex of walls links the western valley bottom enclosure with the Side and extends onto the parish boundary at the top of the valley.
- 3.7.16 ***Herdus Field System:*** on the south-west slopes of Herdus are the relict remains of a field system (Sites 117, 118, 119, 161) which was not shown on the OS first edition map (1867), and consequently it was evidently abandoned at a much earlier date (Fig 10). This represents an example of the parcelling of the land on the lower slopes, up to the most extreme and unusable terrain, where an horizontal wall was built running along the base of the Herdus crags with walls running down slope creating a series of ‘parabolic’ land parcels along the valley slopes. The tumbled dry-stone walls are in places (Site 102) aligned with the boundaries of the adjacent enclosed land to the west, and they appear to represent a, now abandoned, element of intake associated with the former Hollins Farm. The farm itself was shown as still extant on the OS first edition map (1867) but now survives only as a sheepfold. Despite the apparent alignment of the relict walls with those of the present field system, they stop short of the present day enclosure and, to judge by the occasional survival of stone deposits on the line of the walls near to extant enclosure boundaries, parts of these walls have apparently been robbed. Although, for the most part, the field system is omitted from the OS first edition map, a small rectilinear enclosure (Site 139) is shown. The

relationships with the present-day field system indicate that these remains reflect the contraction, and ultimate closure, of Hollins Farm, which exploited the marginal and exposed lands at the foot of Herdus. Because of the relationship with Hollins Farm it is evident that the field system was abandoned in the post-medieval period, but it is entirely possible that it had its origin in the medieval period.

- 3.7.17 **Bowness:** the small area of field system around Bowness Farm was established prior to the OS first edition map (1867), and there has been very little subsequent change to it, the principal one being the expansion of the farmhouse between 1867 and 1899. The walls for the most part are of typical nineteenth century construction, incorporate through stones and are in good condition, reflecting the fact that they have been extensively maintained. Bowness Farm is on the line of the valley bottom enclosure in this area and it is almost external to the earlier field system; a series of straight-sided field boundaries were established to bring it within the enclosure. As such this farm may be a later establishment by comparison with the neighbouring farms of Hollins and Mireside.
- 3.7.18 **Later Sequence of Enclosure:** the fells around the valley were enclosed at a very late date. The enclosure map is dated 1865 (with approval of the Commissioners signed 1871; CROC QRE/1/129) and shows the parcelling of the fells around Ennerdale Water, and north and south of the River Liza (Figs 3 and 13). These enclosures were presumably implemented over the years following 1871, and are certainly shown on the 1899 second edition OS 6": 1 mile maps (Fig 3). For the most part they comprise a series of regular rectangular plots defined by straight walls which extend up the steep sides of the valley to the township boundary. In addition, a more irregular boundary was established on the southern side of the valley, above and to the south of the Side, following the natural ridge line.
- 3.7.19 The next major episode of enclosure occurred as part of the afforestation of the valley in the 1920s (Loxham 1993). This entailed the enclosure of large packets of fellside and valley bottom for forestry, and where possible used the parliamentary enclosure boundaries, but it also proved necessary to construct extensive lengths of new boundary, particularly at the head of the valley where there had previously been no parliamentary intake (Fig 13).
- 3.7.20 **Other Boundary Markers:** although the principal form of boundary marker was the dry-stone wall, particularly on the more elevated and remote sections of the valley, alternative boundary markers were employed. It has already been established that small cairns were employed to define the territorial boundaries between the manorial townships (*Section 3.7.1*), but these were not able to control stock and so a series of fences were established from the nineteenth century onwards. These have the advantage of being fast to erect and were, for a short time at least, stock proof. A manuscript map of c1896 (CROC D/Lons/ W/Plans/Ennerdale/62) shows a proposal for fence lines along the north and south fell summits and ridges of the Lowther estate in Ennerdale, following the line of the township boundary. They were evidently constructed as the remains of a fence line along the line of the township boundary was identified, particularly at Starling Dodd (Sites 21 and 121) (Fig 11), comprising upright iron staves. Further evidence of early fences are to be found on the line of the parliamentary enclosure boundary (1867-1899) that extends north/south to the east of Dodgill Beck. This comprises the decayed foundations of a dry-stone wall which was superseded by an iron posted fence (Sites 122 and 124), which is now also fairly decayed and has no extant wire or rails. Similarly, a post-1899 wall extending north/south adjacent to Clewes Gill has been replaced by an

iron-posted fence (Site 113). The newly established forestry boundaries which filled the lines between the parliamentary enclosure boundaries were bordered with a wire mesh fencing that was stock proof (Symonds 1936).

- 3.7.21 In general, the use of the iron-posted fencing would appear to date from either the last decade of the nineteenth century, as demonstrated by the 1896 manuscript map, or the early twentieth century. The early twentieth century date for the use of this fencing is suggested by the fact that it was used to replace decayed walls that had originally been constructed in the latter part of the nineteenth century.

3.8 PASTORAL AGRICULTURE

- 3.8.1 The over-riding type of site identified from the documentary survey was agricultural, including sheepfolds, bields, shielings and small shelters. These are spread fairly evenly throughout the valley. They show agricultural activity on the open rough pasture land of the plateaux and coves, typically at altitudes ranging between 300m and 600m, as well as shelters on the valley slopes and the known agricultural settlements of the valley floor.
- 3.8.2 **Isolated Shieling Sites:** the practice of transhumance, the summer grazing of stock on the common fell land, continued into the sixteenth and seventeenth centuries but was often first documented in the twelfth and thirteenth centuries (Winchester 1987). The farmers would construct small, isolated, and inevitably remote huts (shielings) to provide domestic shelter during these summer periods. The major putative shieling sites of Great Cove and Smithy Beck have previously been discussed (*Sections 3.6.9 and 3.6.12*), but in addition to these there were several isolated shielings, such as Sites 159 and 161, both on Revelin Crag on the south side of Ennerdale Water (Fig 10). Site 159 is an isolated square structure (7m x 7m), with 1m thick dry-stone walls, associated with an adjacent sheepfold, while Site 161 is c10m by 4m, with yet thicker walls up to 1.5m in width. Their situation is both remote and exposed and as such they are likely to have been shielings, although it is also possible that they were later shepherds' huts. A similar structure, this time 12m x 8m in size, was identified on the gentle northern slopes of Herdus. It has an internal division, and although it has been used as a sheepfold, it may potentially have also had a domestic function.
- 3.8.3 **Sheepfolds and Bields:** in addition to the shielings, the 2003 survey identified 22 sheepfolds, 17 bields, nine sheep shelters, and a single sheep wash. The sites were scattered over much of the area including the forest lands and, as such, testify to the predominantly pastoral land use of the valley sides prior to the forestry planting. Fifteen sites were classed as bields (Sites 95, 121, 127, 130, 131, 132, 133, 134, 145, 146, 148, 149, 182, and 183) (Figs 10-12); these mainly consisted of short rough stretches of walling standing to no more than three or four courses high and often incorporating large scree boulders on one or two sides (Plate 12). These bields appear on the lower and mid slopes of the valley, typically between 200m and 350m, depending on the nature of the topography. The same type of structure was noted along the opposite slope to the west but these were in areas excluded from the study area. At slightly higher altitudes, and especially in the coves and plateaux, the structures were slightly larger folds or bields with small shepherds huts (Sites 142, 144, 129, 185 and 195), presumably reflecting the need for better accommodation given the very remote and exposed locations of these sites.

- 3.8.4 One interesting site recorded during the survey was a 'goose bield' or fox trap (Site 125), located beside Rake Beck, north of Bowness Knott (Hay 1943, 28) (Fig 10 and Plate 10). The trap is circular in plan, and in the form of 'a beehive hut with walls overhanging on the inside.' Although ruinous in 1943, the walls were still up to four feet high (and would have been higher), and three to five feet thick; it stands now to 1.5m, and is 1m thick and 4m in diameter. A causeway of granophyre blocks joined the trap to the fellside, and a plank, with a goose or hen fastened at the trap end, would have been balanced over the mouth of the pit at night to lure the fox.

3.9 ARABLE AGRICULTURE

- 3.9.1 Although no arable agriculture is presently undertaken within the valley, there is archaeological evidence for cultivation in the past. Within the Woundell Beck cairnfield (EF VI), there is clear evidence of ridge and furrow in the northern part of the site, which uses bank EF 106/108 as a headland. It is evident that the ridge and furrow post-dates those cairns within its extent, and may not therefore be the earliest component of the landscape; however, it does have a direct relationship with the stone bank (EF 106/108) that extends out from the putative vaccary enclosure (EF 102). The ridge and furrow has an aratral or 'S' shape, which is typically a product of oxen ploughing, having a large turning circle, and this would imply a medieval rather than post-medieval date.
- 3.9.2 Within the Gillerthwaite EF X group is a series of small lyncheted plots (EF 344) associated with long house EF 345. These exhibit clear positive and negative lynchets, and reflect soil slippage as a result of ploughing or hand cultivation. The largest is only c33m x 22m in extent and thus does not reflect large-scale cultivation; instead it is more likely to be a form of kitchen garden intended to augment a predominantly pastoral economy. Directly above it are two further cultivated plots, EF 346 and 348, which are of a comparable size. Most of the other long houses within the group are associated with stock pounds rather than arable plots. These are likely to be of medieval date and consequentially this would indicate medieval cultivation.
- 3.9.3 Although there is clear evidence that arable farming once took place within the valley, it was on a small scale and in both cases would appear to have been practised alongside pastoral farming.

3.10 WOODLAND MANAGEMENT

- 3.10.1 Woodland management can be defined in two very distinct categories: that prior to the 1920s afforestation and that following. Prior to the 1920s there was very little woodland in the valley at all, and what there was comprised areas of low density coppiced woodland on the lower slopes of the southern side of the valley, adjacent to the lake. Even to this day there is deciduous woodland surviving in a narrow band along the south-eastern side of the lake as far as Stair Knott. The former coppiced nature of this woodland is evident from the finding of a series of charcoal burning platforms. In the lower part of the Side, within the area of coppiced woodland and below the Crag Fell iron mines, was a series of charcoal burning platforms (Sites 101, 102 and 105) (Fig 10), which were about 3m in diameter, sub-circular and were terraced into the slope. While no charcoal was actually visible on the platforms, they were earthfast and it is likely that charcoal would not be evident unless they were

excavated. These charcoal burning platforms are within the vicinity of a series of bloomeries that were constructed beside the lake and it is tempting to suggest that they provided the charcoal for the bloomeries nearby (*Section 3.11.1*).

- 3.10.2 A further possible charcoal burning platform was located in the area of Browne Howe (Site 111) (Fig 10), which was again terraced into the slope, but was only 1.5m in diameter. However, there is no cartographic evidence of woodland in this area, and this may indicate either that this was not a charcoal burning platform or that the woodland had diminished since the construction of the feature.
- 3.10.3 **Afforestation:** in 1925 and 1926 the newly established Forestry Commission acquired nearly 9000 acres of land in Ennerdale, which extended up to the watershed on both sides of the valley; of this some 3000 acres (1214ha) were planted (Loxham 1993, 55). The afforestation caused a general outcry at the time and was one of the issues that prompted the establishment of the Lake District National Park; however, from an archaeological perspective the impact of the afforestation was relatively minor in comparison with subsequent campaigns of forestation. The trees were manually planted with an adequate separation, which enabled substantial survival of archaeological remains. The planting did, however, have a considerable impact upon the landscape, resulting in the establishment of extensive lengths of enclosure boundaries, and access tracks throughout and in between the forest blocks. The forest blocks were fenced with a wire mesh that was stock proof and also restricted public access and this was one of the principal concerns of the contemporary objectors to the scheme (Symonds 1936).

3.11 INDUSTRIAL EXPLOITATION

- 3.11.1 **Bloomeries:** the bloomeries of Ennerdale are on occasions relatively well preserved and archaeologically important monuments within the landscape. To date there are around 276 iron smelting sites recorded in the county (M Davies-Shiel pers comm). Recent work undertaken by Lake District National Park Authority on bloomeries in Southern Lakeland has involved detailed geophysical surveys of such sites and in particular has investigated Sites 170 and 181 on the southern side of Ennerdale Water (Crew 2000) (Fig 10). Excavation has been undertaken at Low Birker, in Eskdale, and radiocarbon dating of the charcoal from others elsewhere in the Lake District has also been undertaken (J Hodgson pers comm). The geophysical surveys have commonly been able to identify the position of hearths within the mound and have demonstrated that the morphology of the mounds typically reflects the character of the waste material from the later stages of operation rather than the position of the hearths, indeed there may be more than one hearth within the extent of the site. Dating evidence from the bloomeries often falls within a narrow date range of approximately the thirteenth to fifteenth centuries, and by implication the bloomeries of Ennerdale are likely to be of comparable date (J Hodgson pers comm).
- 3.11.2 If, however, the association between the large bloomery, EF 30, and the nearby Smithy Beck long houses is accepted, then the pottery evidence from the 1960s excavation (Fletcher and Fell 1987) would place the bloomery into a late sixteenth/early seventeenth century context, which is relatively late but within the range of dates for the gradual replacement of the bloomery by charcoal blast furnace technology in the North of England, between c1550 to 1700 (Crossley 1992, 22). The

- furnace was probably abandoned before the 1612 survey (PRO LR 10/15) which makes no reference to iron smelting.
- 3.11.3 The 1560 survey (PRO LR 1/329, f159) mentions a small tenement called Sinderhill, held by the occupier of Mireside, which is the earliest documentary evidence for a bloomery in the manor. This tenement is still shown on a rental of 1793 (CROC/D/A Lonsdale Manors/Box 74), but could not be found on the tithe apportionment (CROC/DRC/8/71/1). Mike Davies-Shiel (pers comm) noted a field-name 'smiddymire' (centred on NY 1005 1650, from the 1844/5 tithe, no 419), west of Routen (formerly Roughton) farm and outside the study area. He reports a further bloomery is situated c600m east of Mireside at NY 1098 1596, and between there and Mireside, he found four pieces of slag in the field named *pots* (no 460) (centred on NY 1060 1580, on the tithe), but none in *long pots* (461), adjacent to the south-east. There is also a field called *ley potts*, in this group (461). This is probably from the Old English *leah* 'meadow', or *laege* 'untilled land' (Field 1989, 272), or just possibly from the Old Norse *leirr*, 'clay' (Armstrong *et al* 1950, 3, 483). North-west of these is *Wrangham Blacksyke* (no 458, centred on NY 1058 1595), or 'black stream', its colour possibly resulting from iron working.
- 3.11.4 The surveys recorded seven bloomeries (or possible bloomeries) (Sites 90, 104, 169, 170, 181, EF 30 and EF 520) (Fig 10), many of which had previously been documented by Mike Davies-Shiel. Of these, three (Sites 169, 170 and 181) were on the southern shore of Ennerdale Water, and below extensive mining remains. Site 170, located beside a beck, and just above the present level of Ennerdale Water, was found by the geophysical survey (Crew 2000) to have a limited but clearly defined response on the north-eastern side of the observed mound and would appear to be a relatively small bloomery. Site 181, at Angler's Crag, is immediately adjacent to a small extraction hollow containing haematized rock within the spoil, and may have been in part the ore source for the bloomery. The survey revealed a coherent signal that would appear to correlate with the furnace. Possibly of most significance is that the dipolar signals have a very easterly orientation. This magnetic orientation is typically aligned on the magnetic north at the last date of firing, and, as the magnetic north migrates through time, it is possible to gain an indication of the date of the site by comparing the observed orientation with a computed graphic curve of the migration of magnetic north. In the case of this bloomery it would suggest a date in the tenth or eleventh centuries (*ibid*) which is a relatively early date for such activity in Cumbria. This, however, contrasts with a radiocarbon date for the same site which has a date range of Cal AD 1290-1410 (J Hodgson pers comm).
- 3.11.5 Mike Davies-Shiel records a further bloomery at NY 1130 1505, but no slag was found at this location by the 1995-1997 surveys. One site on the north-western slopes of Herdus was recorded as a possible bloomery (Site 104), comprising a teardrop-shaped mound, 10m x 5m, standing to no more than 0.5m high, again set below an area of hushed mining (Site 185). Although there was an abundance of ironstone on the site, very localised examination beneath the turf did not reveal any slag and it may therefore have been an ore processing mound rather than a bloomery.
- 3.11.5 **Mining:** Ennerdale was undoubtedly an active centre of iron working and mining throughout the post-medieval period, and probably also in the medieval period (associated with the bloomeries), but this would appear to have been subject to some degree of fluctuation, because in Henry Fetherstone's 1612 survey of the valley (Littledale 1931, 164; PRO LR 10/15) it is stated that there were:

‘... no woods of Accompt but underwoods and some small saplings nor any mynes of lead cole (sic) or mettall or quarry of stone within those grounds.’

- 3.11.6 The earliest documentation for mining in Ennerdale is confusing and it is largely impossible to tie early reports of mining to field locations. The manor, ‘except the forest and mines’, was leased on 29 July 1676 to Charles, Lord Grey of Rolleson (Littledale 1931, 176). However, Banks (1996) states that the mines were demised (i.e. on a long lease) to Charles, Lord Grey, on the same date, and were held by Sir Francis Hollis, George Read, and Thomas Watts for 80 years from that date, probably indicating separate leases of the same date. According to Littledale (1931, 189; PRO Land Registry 2/143, f.119), the earliest explicit reference to mining is from 1685. In that year, Queen Catherine leased to Richard Patrickson of Calder Abbey, Henry Skelton of Branthwait, and Thomas Addison of Whitehaven the ‘quarries of stone and mines of metal, except gold and silver, in the manor and forest of Ennerdale, for 31 years, paying one-tenth of the ore gotten’.
- 3.11.7 In a statement made on 30 November 1738 about copper mines at Brockell, Buttermere, Francis Allason, then aged 70, said that ‘they got ore in the Queen Forest of Ennerdale which was reckoned very rich’, but was not more specific about the location of the mines (CROC D/WM/11/266.1; MLDES nd [?1988]).
- 3.11.8 Three other sources confirm the exploitation of copper veins in Gillerthwaite, in the mid-nineteenth century and at some unspecified date before 1809. Hewer (1988, 18) states that Captain Robinson was the manager of trials at ‘Gillerthwaite Beck’ for copper, but does not give a date or a grid reference. The OS does not appear to show a Gillerthwaite Beck, but the reference could perhaps mean Gillflinter Beck, centred NY 148 144.
- 3.11.9 Secondly, Scott (1995a) reports a reference to the discovery of an ‘old copper vein’ in a manuscript report and *Sketch of the Head of Ennerdale with the trials of slate and copper, 20 Sept 1809* (CROC D/Lons/W/Plans/Ennerdale/58). The sketch shows nine trials, east of Gillerthwaite, apparently centred on cNY 176 131 (Site 187) (Fig 12). The sketch map shows two parallel veins, meeting at depth, one of which Scott located (no NGR given), the other possibly having been obliterated by forestry operations. The report describes the slate as ‘the best vein in the country for colour, thickness, and evenness of surface’, but flinty threads seem to have been encountered frequently. The report continues:
- ‘[Trial] Nos 5, 6, and 7, 8 are copper veins. When the workmen were set to try the Vein 5, 6, they got an old stone drift, 5, with a sloping pit at the end of it, 5 or 6 yds deep. The ore in the drift and pit bottom is very poor and in small quantity. When they tried the vein 7, 8 they got an old stone drift and the appearance of the ore is the same as in No 5.’
- 3.11.10 Thirdly, an anonymous writer in the *Whitehaven News* of 24 May 1866 (reprinted in Anon 1993), surely in the pay of the Lonsdale Estate, and signing himself ‘Explorer’, seeks to promote prospective miners to invest, mentioning ‘a vein two and a half feet wide, which I believe was at a remote period worked, but so imperfectly that I presume no important quantity was obtained.’ Further deposits of sulphur, considered a ‘sure indication of copper’, were noted ‘on the opposite of the valley ... [at] Black Sail’, and were apparently previously unexploited. The location of these workings is likely to be at the head of the valley near the modern Black Sail Hut, and potentially near Dub’s Quarry (EF 536). The other area of mining is at Black Potts (NY 102 135) and outside the study area; this includes Crag Fell iron mine, which

Adams (1988, 107) considers to have 'been worked, intermittently, over a period of several hundred years', though - of the 20 levels listed by Adams - only Old Crag Fell Mine (NY 105 139) is pre-1867.

- 3.11.11 The Sail Hills are c500m west of Silvercove Beck, where Mike Davies-Shiel found an iron adit (NY 1304 1308), huts (NY 1316 1256 (Site 179, and NY 1312 1316 (Site 180)), an iron outcrop (NY 1318 1196), and deposits of slag at intervals down the beck. Iron Crag drift mine (NY 1280 1240; Hewer 1988, 18) is c290m to the west of Silvercove Beck, and was owned in 1881-86 by Richard Eaton. It produced 500 tons of ore in 1881-82 but Davies-Shiel makes no mention of copper deposits there.
- 3.11.12 The best known, and possibly oldest, but certainly not the best documented, iron mining site is at Clewes Gill (Site 184), to the north of the study area. The vein of haematite there, occurring at the junction of the Skiddaw Slates sedimentary rocks and the Ennerdale Granophyre igneous intrusion, has been exploited (Smith 1924, 215; Eastwood *et al* 1937, 267); and Hewer (1988, 18) and Scott (1993a) state that the opencast workings there are thought to be the source of iron for the bloomery at Smithy Beck. The mines were re-worked by levels opened in 1870-71 by Faithful Cookson & Co, and the Whitehaven Iron Mining Co in 1872-74. Although Postlethwaite (1913, 109-10) deals, in the third edition of *Mines and Mining in the Lake District*, with the Kelton and Knockmurton mines (centred on NY 095 190; Adams 1988, 109) to the north, none of the other small mines in the study area in the nineteenth century, nor the much older mining at Clewes Gill, seem to be mentioned, presumably because their modern use had been short-lived, and their historical significance poorly documented.
- 3.11.13 At Clewes Gill, there was an iron-stained rock outcrop, with weathered scree (Site 184) (Fig 10), and just to the west an adit site at gill level associated with a small spoil heap. The presumed entrance was marshy, with a small volume of water emanating from it; also visible was the vein-line on the surface in an almost north-west direction up to the top of the fell (Scott 1993b). Johnson (1939, 16-17) lists the Cammell Laird and Co Ltd mines as being abandoned in 1896, and notes 'trials have also been made at Clewes Gill and Red Gill [Floutern Tarn, NY 128 169] on the Herdus vein ...', and says that 'lack of transport facilities made these mines costly to work.'
- 3.11.14 Reports in the first quarter of the nineteenth century indicate a keen interest in finding graphite, also known as 'black lead' or 'plumbago'. Valuations of Lord Lonsdale's Ennerdale manors (CROC D/A Lonsdale Manors/Box 73-74; Banks 1996) indicate that a cavity had been found on the 'west or Ennerdale side of ...a mountain called Green Gravel', on the east side of which plumbago was already being mined. This description suggests a location in the north-west fells of Green Gable (summit NY 215 107), adjacent to the east end of the study area. Hewer (1988, 18) notes, without giving his source, that 'extensive trials [were made] by the Gravel Fell Mining Co [site unknown] who sold 80 tons of sulphur in 1875. Six tons of copper to a Mr Jones of Middlesbrough and 20 tons of copper to Mr Musprall, Liverpool. The produce from 6 levels.' It is not clear whether these sources are referring to the same mines.
- 3.11.15 By 1866 it was becoming public knowledge that copper, lead, or slate resources in the vicinity of Ennerdale of even slight economic value would justify investment in railway links, to Rowrah or Cleator Moor, whereas iron ore alone was insufficiently profitable to justify such enterprises. However, the anonymous reporter 'Explorer'

(Anon 1866), mentioned above, sings the praises of the potential of ‘Herdhouse or Herdus’, where a recently let royalty had produced 150 tons of iron ore in seven weeks, with four men working. Five veins, one eleven yards wide, had been identified in the 6000 acre mountain. The writer mentions that:

‘an experienced miner ... not long ago predicted the erection of extensive smelting furnaces in the neighbourhood of Gillowthwaite’ [now Gillerthwaite], and goes on to mention economic veins of iron ore in ‘Ling Mell and Stalking Dodd’, and other ‘divisions of his Lordship’s manor ... on both sides of the river Lizza (sic)...but not being able to designate them either by their local or ordnance names, I would simply urge gentlemen disposed to speculate ... to turn their attention’ This report is also the only source to mention lead veins.

- 3.11.16 The writer also states that ‘The Gillowthwaite Quarry’ was in the course of being opened, but that progress was hampered by the three to four miles each way that ‘proper men’ would have to travel. He comments that the company, he ‘believes’ are about to erect cottages for the use of the workers. He says that he thinks the quarry would support 50 to 100 men. This quarry is probably Dub’s Quarry (EF 536), shown in use on the 1867 OS first edition map, and as disused on the current edition at NY 1852 1282.
- 3.11.17 On 13 November 1867, Edward Wadham’s annual report on mines to the Lonsdale Estates includes a reference to the [slate] trials on Herdus, which had been leased to Joseph Fidler, stating ‘Mr Fidler is doing nothing here, neither do I think he ever can. It would require a strong company who would promote a branch railway to join the Cleator and Egremont line about Eskett parks to develop this grant’ (CROC D/Lons/W7/2/14; Anon [?Banks] 1993). In the event rival interests, such as the Leconfield Estates, having watched the mining attempts in Ennerdale falter, opposed railway proposals which they perhaps saw as making the Lonsdale mines viable. Scott (1993a, np) explored the location, and found three trials ‘below the summit plateau, all occurring on an inclined track, with the lowest, most westerly looking to be the largest. NGR NY 113 167.’
- 3.11.18 In 1884, a Mr Dixon gave evidence to a Parliamentary and Commons Select Committee for the Ennerdale Railway Bill (Anon 1991). Dixon stated that the railway was being promoted to serve Gillerthwaite mine, which was ‘just some trenches on the fellside’ (*op cit*, np). The other Ennerdale mines were just ‘lots of short drifts’, which he had been able to inspect without artificial light. A railway was built to serve the Kelton and Knockmurton mines, but the Ennerdale railway proposal was dropped.
- 3.11.19 As has been stated above (*Section 3.11.10*), the Crag Fell iron mines, lying partly within the Deer Park known as The Side, are thought (Adams 1988, 107-8) to have been worked over a period of several hundred years, though no specific early references in documents have been found. Hewer (1988, np) clearly feels that later developments have obliterated traces of earlier exploitation, but lists 20 levels, with the dates for which there is documentary evidence of working, and lessees, of whom there were four: Elias de Pass (EdP), Alexander Brogden and Sons (AB), Richard Eaton (RE), and Charles Cammell and Co (CC).

NGR (NY)	Level name	Lessee	Dates	Site No	Comment
072 147	EdP	1873			Outside Study Area
077 150	EdP	1873			Outside Study Area
078 147	Coal Gill [Goat Gill] Level	CC	1896		Outside Study Area

083	149	Red Gill Level	AB	1875	Outside Study Area	
ditto	ditto			CC	1896	Outside Study Area
084	150	Main Drift/Crag Fell Drift		CC	1895-6	Outside Study Area
184	146	Top Drift		CC	1896	Outside Study Area
085	146		RE	1881-2	Outside Study Area	
096	146	Ravelin Drift		CC	1896	Site 173
099	142	Eaton No. 3		RE	1881	Site 185
101	145	Angler's Crag Level		EdP	1873	Site 59
ditto	ditto			AB	1874-5	Site 59
101	142	Eaton No. 2		RE	1881	Site 55
103	141	Eaton No. 1		RE	1881	Site 54
						50 tons of ore removed
ditto		Pennington Drift (renamed)		CC	1896	Site 54
105	139	Old Crag Fell Mine?		?	Site 52	2 levels, D Bridge says called Red Beck
107	138	Boat Howe		RE	1881	Site 58
129	124	Iron Crag Mine	?	1864	Site 70	
ditto	ditto			RE	1881	Site 70
						500 tons of ore removed
134	119?	Silvercove Beck	RE	1882	Site 71	
139	126?	Pillar		RE	1882	Site 186
136	135	Lingmell 1		?RE	?1882	Site 62
145	135	Lingmell 2		?RE	?1882	Site 60
149	135	Lingmell 3		?RE	?1882	Site 61

3.11.20 The complex of mining across the southern side of the valley indicated by the documentary study is confirmed by the present walk-over survey. A considerable complex of mining remains within the Crag Fell Mine site was identified; the levels of Crag Fell extending down into the area of the Side, to where a single disused level is shown on the current mapping, near Boat Howe (Site 58) (Fig 10). There, at least two more levels and other unidentified earthworks (Sites 57, 135, 136 and 137) were found. The iron mines of Crag Fell had been previously recorded and were outside the defined study area; however, a brief site visit was undertaken, revealing some previously unrecorded disused levels (Sites 54, 56 and 163); the two levels at Iron Crag were within 30m of each other and were both ruinous.

3.11.21 **Quarrying:** in addition to the mining, there was a small amount of quarrying, both intensive commercial extractions and also non-intensive extractions for walling and localised needs. The small field quarries were small in number, hardly surprising given the large amount of naturally occurring surface stone. Site 86 was actually two small quarries on the edge of the lake near Crag House Farm, both of roughly 8m diameter bays with 3m high working faces; these probably provided for the immediate needs of the farm. Of the other two sites, one was Red Beck Quarry (Site 93), which was a small quarry scoop in the hillside adjacent to the boundary enclosure wall, presumably a source for the wall. The other was located near Bowness (Site 138) (Fig 10) and probably provided local needs; however, the site has been used as a car park, and there are few surviving remains of the quarry working.

- 3.11.22 **Commercial Extraction:** only one commercial quarry was found within the valley, called 'Dubs Quarry' (Site EF 536 (EF XV)) which was a small slate extraction site at the eastern end of the valley, dating from 1866 (Anon 1866) (Fig 12). To judge by the amount of waste associated with the quarry and the quality of the slate this was not a particularly efficient and economic industry and it is therefore not surprising that there is no evidence for other slate quarries within the valley. The quarry was only 24m in length and comprised a level and processing platform coupled with a linear spoil mound, with two small works' buildings adjacent.
- 3.11.23 **Other Medieval Industries:** Davies-Shiel (pers comm) recognised five potash pits in the valley.

Davies-Shiel Ref No	NGR	Dimensions	Site no	Comment
283	NY 1125 1424	9 x 9 x 6 feet	(Site 176)	
397	NY 1388 1410	6 x 6 x 4 feet	(EF 537)	Poorly preserved
398	NY 1424 1416	9 x 9 x 6 feet	(EF 538)	
399	NY 1617 1375	-	(Site 175)	
400	NY 0993 1490	8 x 8 x 5 feet	(Site 158)	

- 3.11.24 Davies-Shiel (1972, 96 and 109; 1974, 34-7) dates the industry of producing potash for soap-making as having reached Cumberland by 1332. The industry in Britain became uneconomic with the importation of huge quantities of potash from Canada in the 1820s and 1830s. All the reported sites of the kilns were investigated in the course of the survey and three of the five were confirmed (EF 537, EF 538 and Site 175); however, two (Site 158 and 176) could not be identified at the reported locations. Two further kilns were identified by the survey in the area of Angler's Crags (95 and 96), each about 2.5m in diameter, although Site 96 was a small tentatively identified platform overlooking a steep crag, which did not have a clearly defined character.

4. HISTORICAL SUMMARY

SUMMARY OF THE DEVELOPMENT OF THE LANDSCAPE

The valley has been farmed since potentially the Bronze Age, and, because it has been for the most part non-intensive, it has allowed the preservation of earlier landscapes even within the valley bottom. As such this means that Ennerdale contains some of the most important surviving archaeological landscapes of any valley within the Lake District.

Bronze Age (2000 BC – 800 BC): the earliest activity represented within the valley would appear to be the small cairnfields, which comprise essentially randomly distributed cairns (EF I, V, VI, XIVc, and XIVa), and are scattered across the more gently sloped land (Figs 5, 7 and 8). These primary cairnfields would appear to be a product of land improvement following forest clearance, and to an extent the random distribution reflects that of the former trees. Although these cairnfields could potentially relate to any of the episodes of forest clearance that are represented within the upland pollen diagrams (eg Pennington 1975), the limited excavation evidence (Richardson 1982) would suggest that for the most part they were a product of the Bronze Age forest clearances.

The cairnfields are small and localised and for the most part are not related to structures or hut platforms, and it would therefore appear that the Bronze Age occupation of the valley was non-intensive and within localised forest clearings. The only possible larger scale occupation was at Woundell Beck, but here the cairnfield would appear to have been reused in the medieval period and it is therefore not possible to establish to what extent its large scale was a product of this later activity.

Iron Age / Roman (800 BC–AD 410): in most upland areas of the Lake District a clearly defined retreat from the marginal lands at the onset of the Iron Age has been observed, largely attributable to a climatic deterioration at the beginning of the first millennium BC. It is generally thought that a general increase in population, coupled with a loss of available agricultural land, meant that what land was workable became subject to competition (eg Quartermaine and Leech forthcoming). Settlements became defensive, and the Iron Age saw the development of the characteristic enclosed settlement, typically a sub-circular rampart which enclosed a small number of sub-circular huts, in Ennerdale represented by EF 410 in group EF XIVa. This was associated with a small cairnfield which had developed into a simple field system and it is clear that this was a more permanent settlement by comparison with the activity associated with the putative Bronze Age cairnfields (Fig 6). The date range for the individual settlement is not known but potentially it may have had extended into the Roman period. This is a native-type settlement, however, and there is no evidence of Romanised or Roman military activity within the valley, or its immediate environs; the nearest fort and associated communication line is at Moresby on the coast.

Early Medieval (AD 410-1066): as with much of the region, the early medieval period in Ennerdale is one of considerable uncertainty. There is no apparent occupation within the immediate environs of the Iron Age / Romano-British enclosed settlement (EF 410) and there is a presumption that there was no continuity from that occupation unless it continued in use. The place-name evidence in this instance is possibly revealing; the *thwaite* element of Gillerthwaite is a Norse word meaning forest clearing, and would suggest that this was a new settlement introduced into an area of forest land in the latter part of the early medieval period, or at any rate whilst a Scandinavian language was still commonly spoken in the area. This may suggest that the EF VI Settlement or the EF X settlements, or even both, had their origins during this period. Given the considerable uncertainty about the form and date of the early

medieval occupation and the end date of the enclosed settlement (EF 410), the possibility of continuity of settlement in the valley between the Roman and early medieval periods cannot be excluded, but on the above evidence it is suggested that it is unlikely.

Medieval Period (AD 1066-1600): the origin of the township boundaries that occupy the watersheds between Ennerdale and Buttermere / Wasdale is likely to be very early and they were probably in place by the time the manorial divisions of the land were established in the earlier part of the high medieval period.

Settlement: the earliest medieval occupation was centred in two locations: that possibly superimposed on the cairnfield of Woundell Beck (EF VI) and that at Gillerthwaite (EF IX, X and XI) (Figs 7 and 8). The latter comprised a series of rectangular long houses linked either to pastoral enclosures or small cultivated plots, which extended from the valley bottom up the valley side. This was essentially small-scale peasant farming and the fact that it lay within a narrow band up the slope rather than along the better, more gently sloping land of the valley bottom would suggest that there were territorial issues restricting its growth. The documented presence of two vaccaries, or stock farms, would indicate that the lord of the manor had a represented presence within the valley, and it is possible that the peasant settlement had developed around the holdings of the vaccaries. Although there is no clear correlation between the documented vaccaries (established by 1322 (PRO C/134/71/1)) and the physical evidence, it is probable that these manorially-owned farms correspond to the two large medieval stock pounds (each with associated rectangular long houses) EF 102 and 398. It is perhaps significant that the latter putative vaccary was spatially (territorially?) removed from the peasant farming settlement of EF IX, X and XI (Fig 8).

Shielings: the medieval landowners as well as establishing the vaccaries within their holdings also would have sold summer grazing rights on the fells to the peasant communities. It is this summer grazing pattern of stock movement, or transhumance, which was expanded to allow peasant settlement in the uplands of the forests during the population growth of the thirteenth and early fourteenth centuries (Winchester 2000), but may have occurred in earlier periods. The high valley sides meant that these areas were still too remote for local pasture and they became the subject of transhumant pasture by the establishment of shielings at Great Cove (EF XVI) and Revelin Crags (Site 159 and 161). It is not known who occupied these shielings, but they may potentially have been the peasant community centred on Gillerthwaite (EF IX, X and XI), although this cannot be confirmed.

Deer Park: A deer park (The Side) was established on the southern side of the valley, which was remote from the limited settlements and their area of common fell for upland pasture. It is not known when this was established, but it was certainly in place by 1612 (PRO LR 10/15). The deer park, as a means of controlling deer for the lord's larder, as would appear to be the case with the Side, is essentially a medieval concept and as such may have had its origins several hundred years earlier than the documented date.

Mineral Extraction: at some stage in the medieval period the potential for mineral extraction in the area was realised. The earliest date suggested for this activity is based upon the slightly tentative archaeomagnetic dating of bloomery Site 181, which was suggested to be of tenth or eleventh century date, and as such is relatively early for bloomery working in the region, however; a radiocarbon date for the same bloomery has a date range of Cal AD 1290-1410 (J Hodgson pers comm) and is more in accord with bloomeries elsewhere in the region, which are typically dated to the thirteenth / fourteenth century. By contrast the earliest documentary record of a bloomery in Ennerdale is not until 1560 (PRO LR 1/329 f.159). One of the most important aspects of the valley is that within it there is seemingly the survival of an integrated medieval iron-working landscape. This links the mines at Clewes Gill with the processing of

the ore at Smithy Beck (EF 30) and, in between, on the line of Clewes Gill, is a group of large rectangular structures (EF III /EF IV), which are not associated with a field system and were potentially miners' long houses (Fig 6). One of these buildings has been excavated (Fletcher and Fell) producing late medieval / early post-medieval pottery; if the assumption that these buildings were mining related is confirmed, then there is an implication that there was mining activity on this side of the valley in the medieval and early post-medieval periods. Certainly, there is abundant documentary evidence for post-medieval extraction, particularly on the south side of the valley, which was both extensive and enduring. Given the extensive physical remains, and the documentary evidence, of extraction and processing from the medieval through to the later post-medieval period, this must be one of the more important aspects of Ennerdale's heritage.

Post-medieval: at some stage in the later medieval or post-medieval period the agricultural settlement in the valley bottom was rationalised with the establishment of the two valley bottom enclosures and the two surviving Gillerthwaite farms. By this stage the Woundell Beck settlement (EF VI) had already been abandoned, allowing the intake to develop over it (Fig 7), but the Gillerthwaite settlements (EF VIII – XI) must, to some extent, have still been in use, hence the intake avoided them (Fig 8). Remarkably, this intake was subject to very little development and expansion in the course of its subsequent life. Although there was a general expansion of field boundaries in the post-medieval period, this was for the most part the parliamentary enclosure of rough pasture, which dates to 1865 (CROC QRE/1/129), and the land was not subsequently improved. The final stage of enclosure relates to the afforestation of the valley in the 1920s, which utilised, where possible, the parliamentary enclosure boundaries, but involved the establishment of new fences to define the extent and make stock proof the new forest blocks.

ENNERDALE IN CONTEXT

Ennerdale differs significantly from most of the other Lakeland valleys in that it has been subject to relatively little land enclosure, thus allowing the survival of early archaeological remains. It is not unique in this respect, however, since Haweswater, for example, had only limited land enclosure centred on Mardale at the head of the valley, but this was flooded, and no detailed archaeological investigation was undertaken in advance, hence our knowledge of its archaeology in the valley bottom is limited.

The typical Lakeland valley is to an extent represented by Wasdale, which has a large expanse of unimproved land extending for the most part on the steep valley sides, but the head of the valley comprises an expanse of historic land enclosure that was originally constrained by a primary ring garth; this has subsequently expanded to fill the flatter land of the valley head. Prehistoric remains, typically cairnfields, survive, either because they are remote from this land enclosure or because the later enclosure has not been accompanied by intensive land improvement. This is seen at Wasdale where the remains are peripheral to the primary intake (National Trust 2000), and at Langdale, where they are at the head of the valley beyond the enclosed land (Quartermaine and Leech forthcoming). Miterdale similarly contains the remains of a cairnfield, within enclosed land that has not been intensively improved (LUAU 2000). In this respect the survival of cairnfield remains in Ennerdale is certainly not unique, although the complexity and diversity of the Woundell Beck cairnfield (EF VI) does set it apart from the great majority of the valley bottom examples (Fig 7).

The Iron Age / Romano-British enclosed settlement, EF XIVb, is an unusual feature within a Lakeland valley bottom, but by no means unique, as there are examples at the head of Ullswater and in Matteredale (Hoaen and Loney 2003) (Fig 6).

By contrast, however, the medieval remains of Ennerdale are a rarer survival. In most Lakeland valleys the expansion of the enclosed lands has been centred on the medieval settlement sites, and hence the settlements have either been lost to the later development of post-medieval farms, which grew from the medieval settlement, or the medieval settlements are within the intake and have been disturbed or destroyed by later land improvement. At Wasdale Head, remarkably, there are the physical remains of three medieval settlements (National Trust 2000, 46), but they are all within the intake and have been degraded by later farming activity. At Miterdale (LUAU 2000), for example, the medieval settlement was clearly centred on the later post-medieval farms and, while there are indications of medieval remains, the earlier settlement has for the most part been lost to the development of the farms. In this respect the survival of the medieval settlement remains clearly sets Ennerdale apart from the other Lakeland valleys, and reflects a remarkable survival which is rarely replicated elsewhere.

Many Lakeland valleys have been subject to industrial exploitation, a good example being the lead mining in Thirlmere (LUAU 1992) and Ullswater (OA North 2001), although this most typically relates to intensive post-medieval activity. Non-intensive medieval iron-working is similarly not a rare occurrence in the Lakeland valleys, as reflected in the considerable number of bloomeries that have been identified within the Furness and Western Cumbria areas (M Davies Shiel pers comm). Where Ennerdale's industrial heritage differs, however, is that, at Smithy Beck, there is seemingly the survival of all elements of a medieval iron-working landscape: the mines of Clewes Gill (Site 184), the large bloomery of Smithy Beck (EF 30), and the apparently related mining settlement of Smithy Beck (EF III and IV), which is on the primary access line between the extraction and processing sites (Fig 6). In addition, there was also an extensive and important post-medieval iron extraction industry centred on Crag Fell on the opposite side of the valley.

Conclusion: while none of the individual components of Ennerdale's archaeology sets it apart from other valleys, the diversity, complexity, and survival of these remains undoubtedly does. Because Ennerdale has no extensive ring garth and has been subject to only limited valley bottom enclosure, the archaeological resource has not been adversely impacted on by the same level of intensive land improvement that is found in other Lakeland valleys. Consequently, Ennerdale contains a remarkable survival of settlement and industrial remains that extend back to at least the Bronze Age, and there are remains from the subsequent periods, albeit with some breaks, indicated by discontinuities of settlement, through to the present; its medieval remains in particular are very well preserved. Some site groups, such as the Smithy Beck mining remains and the Gillerthwaite medieval settlements, are undoubtedly of national importance, but the greatest archaeological importance of the valley is its collective archaeological resource, which reveals the complex mechanisms of the valley's development.

THE DEVELOPMENT OF THE LANDSCAPE

The range of monuments and landscapes within Ennerdale demonstrates how the landscape has been influenced, altered and impacted on by man over 3500 years. In the Mesolithic and early Neolithic periods the landscape in the region was almost entirely tree covered. In Ennerdale this woodland was predominantly oak and alder, with some birch (Pennington 1975). Although there was a steady decline in tree cover from the early Neolithic period onwards, there were also early temporary clearances that would appear to be a result of man's interference. In particular, there is what appears to be a forest clearance episode between 3200bc and 2700bc (*ibid*). More extensive episodes of clearance almost certainly

occurred during the Bronze Age, although this has yet to be confirmed by palaeobotanic evidence. At the same time low intensity pastoral farming, associated with the clearance episodes, was introduced to the open fell, which restricted the regrowth of trees and resulted in a slow but more long lasting clearance. By the Iron Age / Romano-British period, there was an enclosed settlement in the valley; this implies that there must have been a widespread clearance within its immediate environs, on the valley floor. There is uncertainty as to whether there was a break in the settlement of the valley during the later Roman period / early medieval period, but if this had been the case there is a likelihood that there would have been some recovery of the natural forest.

At Gillerthwaite there was, as the name implies, a settlement that developed from a clearing within the forest, presumably during the early part of the medieval period. At the same time there was a second centre of activity at the immediate head of Ennerdale Water. These settlements were slow to develop and it was not until the later medieval or early post-medieval period that the valley floor was enclosed and improved. In the meanwhile the higher ground was being subject to transhumant farming, as evidenced by the shielings, and much of the land of the southern side of the valley was enclosed for deer farming. During the medieval period the mineral potential of the valley was realised and resulted in the increasingly intensive extraction and despoiling of the fell sides. In some places this resulted in hushing, notably on the north side of Herdus (Site 185; *Section 3.11.5*), but in other places, such as the south side of the valley, extensive adits were excavated into the hill side and spoil heaps proliferated.

The post-medieval period saw, in common with all other upland areas, the increasingly intensive pastoral exploitation of the valley sides. The numbers of stock shelters and bields are testament to the increasing numbers of sheep on the fell, which inevitably had a considerable impact upon the vegetation, preventing the proliferation of heather moors. This system of exploitation was finally rationalised in the later nineteenth century with the parliamentary enclosure of much of the fellside. The most significant ecological impact in the valley was the large-scale afforestation of the 1920s which resulted in plantations across a large proportion of the valley.

The landscape and ecology of Ennerdale has been subject to a multitude of economic forces, which have resulted in a procession of differing environmental changes. The landscape, as it is today, is thus a product of human activity, influenced to a large extent by the natural environment. Most 'wild' land in Britain shows some effects from past human activity. When Ennerdale is considered in the context of the rest of the Lake District, the value of a 'wild' place is recognised due to its relative remoteness, lack of roads, buildings and people. There is increasing interest in the concept of 'wild places' as pressures from modern day living creates demands upon remoter landscapes for spiritual and physical refreshment. The partnership approach for future management of the valley recognises that people are a significant part of a 'wild' landscape and that the extent to which humans can interact, and indeed become part of a natural process, is dependent upon appropriate levels of access and the types of activities permitted.

5. LANDSCAPE MANAGEMENT

5.1 INTRODUCTION

- 5.1.1 The present report is intended to assess the archaeological and historical resource within the valley and to provide guidance for the management of that resource in the course of the proposed processes for change in Ennerdale which will see a greater emphasis on natural processes shaping the landscape. This section will examine the various distinctive types of archaeological landscape, and will then identify the individual landscapes and assess their archaeological importance. Finally, it will put forward recommendations for the management of these landscapes.
- 5.1.2 **Scheduling:** the more important archaeological sites are designated as scheduled ancient monuments under the Ancient Monuments Act 1979. These are under the protection of the Department of Culture, Media and Sport (DCMS), with advice from English Heritage, and disturbance to the monuments in any form requires the submission of a Scheduled Monument Consent (SMC) application, which will then be reviewed by the Inspector of Ancient Monuments, who will recommend or deny the granting of SMC. In principle all nationally important monuments are protected in this way; however, the reality is that many of the important landscapes have not as yet been protected. A notable example is the Langdale axe factories which are of international importance and underpin recent applications for World Heritage Site status for the Lake District, yet these are not scheduled. To remedy the situation an ongoing programme of scheduling designation, the Monuments Protection Programme (MPP), has been in progress for a considerable period. In those areas examined by the MPP, the scheduling records are representative of the nationally important landscapes, but in other areas the designation is for the most part inadequate. Quite often lesser sites will be scheduled at the expense of more important monuments which are not protected.
- 5.1.3 Ennerdale has yet to be assessed by the MPP and most of the more important monuments are not protected. In theory bloomery EF 30 is scheduled, however, the schedule map mistakenly depicts an area to the west of its actual position, so in practice a part of the EF I group is actually scheduled. In addition, the EF III group is also scheduled, but otherwise there is no statutory protection for the monuments in the valley. However, in due course it is likely that the area will be assessed by the MPP and that this situation will change.

5.2 LANDSCAPE TYPES

- 5.2.1 The landscapes of Ennerdale within the study area can be divided into several broad categories. These can often include features from a number of monument types; for example, landscape EF XIVb includes a cairnfield and an enclosed settlement. The assessment below is a generalised comment on the monument or landscape type.

5.2.2 **Key:****Period**

BA: Bronze Age
 IA: Iron Age
 RB: Romano-British
 EM: Early medieval
 Med: medieval
 PM: Post-medieval

Fragility

1 Very Fragile
 2 Slightly Fragile
 3 Stable

Rarity

1 Nationally Rare
 2 Locally Rare
 3 Locally Common

Importance

1 Nationally Important
 2 Regionally Important
 3 Locally Important

<i>Landscape Type</i>	<i>Period Range</i>	<i>Function</i>	<i>Fragility</i>	<i>Rarity</i>	<i>Importance</i>
Cairnfield	BA - Med	Agricultural Improvement	2	2	1
Enclosed Settlement	IA/RB	Domestic	2	1	1
Bloomery	Med	Industrial Processing	2	1	1
Long House Settlements	Med	Domestic/ Agricultural	1	1	1
Vaccary Settlements	Med	Domestic/ Pastoral	2	1	1
Shielings	Med	Domestic/ Pastoral	1	1	2
Surface Mining	Med/PM	Non-intensive Industrial Extraction	2	1	2
Commercial Slate Quarry	PM	Industrial Extraction	3	2	3
Stone Quarry	PM	Local Extraction	3	3	3
Adit Mines	PM	Intensive Industrial Extraction	3	3	3
Hollow-ways	Med/PM	Communications	2	3	3
Peat Cutting	Med/PM	Extraction	3	3	3
Intake	PM	Agriculture	3	3	3
Forest Plantation	PM	Agriculture	3	3	3
Parkland	Med/PM	Pastoral	3	2	2
Upland Unenclosed Pasture	Med/PM	Pastoral	3	3	3
Coppiced Woodland	Med/PM	Agriculture	3	3	3
Farms	Med/PM	Domestic / Agriculture	1	3	3
Historic Boundaries	Med	Political	3	3	3

5.3 **ARCHAEOLOGICAL POTENTIAL AND RECOMMENDATIONS**

5.3.1 **Introduction:** below is an assessment of the archaeological importance of the principal archaeological landscapes within Ennerdale. Isolated individual monuments are not assessed; however, there are large numbers of scattered sheepfolds and fields which are collectively assessed as part of the unimproved pasture landscape. The management areas are shown on Figure 15. The sites are listed in order of importance within a national context, and are considered in terms of their national rarity, and their group value, by comparison with examples elsewhere in the region or nationally.

Importance Key:

- 1 High Importance – Nationally important (schedulable)
- 2 Moderate Importance
- 3 Limited importance
- 4 Low importance / Poor survival or condition

5.3.2 In addition, the sites are assessed in terms of how significant they are within the context of the development of the valley. In many cases this may correlate with the importance factor: hence the enclosed settlement is both very important, and is also significant in terms of the development of the valley. In some cases, however, sites, such as the valley bottom enclosure, may not be a rare monument type, but are significant within the context of the valley.

Local Significance Key:

- 1 High Local Significance
- 2 Moderate Local Significance
- 3 Low Local Significance

1. EF II (SMITHY BECK BLOOMERY) (FIG 5)

Importance: this is a medieval bloomery and associated enclosures and hollow ways, leading up Smithy Beck towards the Smithy Beck settlement (*Section 3.6.12*). It comprises 10 monuments. The bloomery is in good condition, relatively large, and is associated with a wider industrial landscape, and potentially also a relict settlement (EF III and IV). The importance of the site is reflected in its scheduled status.

IMPORTANCE: 1

LOCAL SIGNIFICANCE: 1

Recommendations: given the archaeological importance of the site it is recommended that it should be subject to minimal disturbance and should be allowed to return to grass. Part of the landscape is forested and, following tree felling, which should be such that it causes minimal disturbance to the site, the remaining stumps should be left to rot *in situ* or be mechanically ground out. It is strongly recommended that the stumps should not be pulled out. Any work on the site of the bloomery or in its immediate vicinity will be subject to Scheduled Monument Consent and should be subject to consultation with English Heritage.

2. EF III AND EF IV (SMITHY BECK LONG HOUSE GROUP) (FIG 6)

Importance: these are two separate, but related, groups of rectangular houses. Many are double walled of an unusual type and are in good condition (*Section 3.6.10*). Excavations by Bill Fletcher (Fletcher and Fell 1987) revealed later medieval and post-medieval pottery, and they have been linked with the putative medieval mining at Clewes Gill, and the medieval bloomery (EF II). It is extremely rare to find all

elements of a medieval iron production operation and is therefore of considerable importance.

IMPORTANCE: 1

LOCAL SIGNIFICANCE: 1

Recommendations: given the archaeological importance of the site it is recommended that it should be subject to minimal disturbance and should be retained as grassland. The south-western long house (EF 43) is partly within the forest and, following tree felling, which should be such that it causes minimal disturbance to the site, the remaining stumps should be left to rot *in situ* or be mechanically ground out. It is strongly recommended that the stumps should not be pulled out. Any work on the site of the long houses or in their immediate vicinity will be subject to Scheduled Monument Consent and should be subject to consultation with English Heritage. The sites are on the line of a visitor trail, and as long as visitor numbers do not increase, resulting in an undue effect on the monuments, it is suggested that these sites are appropriate for highlighting the remarkable heritage of the valley. Information boards would be appropriate at the main car park to educate the public on the historic development of the valley and at the same time encourage the visitors to respect the monuments.

3. EF VI AND EF VII (WOUNDELL BECK CAIRNFIELD) (FIG 7)

Importance: this is a very large cairnfield, associated with a rectilinear houses and large stock enclosure (244 monuments) (*Section 3.3.3*). Parts of the cairnfield are essentially random and could potentially have prehistoric origins. Other elements of it, such as the ridge and furrow, the domestic structure and the stock enclosure, are more appropriate within a medieval context, and given the stock enclosure and associated hut there is a possibility that this was one of the two vaccaries referred to in 1322 (*Section 3.5.6*). The site has had an extended development and is of considerable importance. **IMPORTANCE: 1**

LOCAL SIGNIFICANCE: 1

Recommendations: given the archaeological importance of the site it is recommended that it should be subject to minimal disturbance and should be retained as pastureland. The non-intensive agricultural practice that has allowed the preservation of the archaeology should be continued. In particular, any attempts to improve the land should be strongly resisted.

4. EF VIII, EF IX, EF X AND EF XI (GILLERTHWAITE SETTLEMENTS) (FIG 8)

Importance: this is a group of 11 rectilinear houses, with associated cultivation terraces and stock pounds, which extend in a band up the slope from the valley floor (*Section 3.6.7*). Each long house is associated with a small pound and occasional cultivation plot. The monuments are of medieval date, reflecting a sizeable, seemingly integrated and largely undisturbed, agricultural community; it is consequently of considerable archaeological importance.

IMPORTANCE: 1

LOCAL SIGNIFICANCE: 1

Recommendations: given the archaeological importance of the site it is recommended that it should be subject to minimal disturbance and should be returned to grassland. Part of the landscape is pastureland, the rest being low density forestry. It is recommended that the pastureland be retained as grassland. Following tree felling of the forested areas, which should be such that the work causes minimal disturbance to

the site, the remaining stumps should be left to rot *in situ* or be mechanically ground out.

5. EF XIII (GILLERTHWAITE PUTATIVE VACCARY) (FIG 9)

Importance: this is a large double-celled stock enclosure with a small rectangular hut butted on to it's outside; associated with it is a small cairnfield (22 monuments). It would appear to be of medieval date. It is suggested, given that it was a hut associated with a large stock enclosure, that it might have been a vaccary and therefore may have links with the documentary reference to Ennerdale vaccaries in 1322. If this can be confirmed it is of considerable importance.

IMPORTANCE: 1

LOCAL SIGNIFICANCE: 1

Recommendations: given the archaeological importance of the site it is recommended that it should be subject to minimal disturbance and should be returned to grassland. The site is within a forestry plantation and, following tree felling of the forested areas, which should be such that it causes minimal disturbance to the site, the remaining stumps should be left to rot *in situ* or be mechanically ground out.

6. EF XIV (RIVER LIZA ENCLOSED SETTLEMENT AND CAIRNFIELD) (FIG 9)

Importance: this is a sub-circular enclosed settlement, that is associated with a cairnfield and proto-field system (*Section 3.3.4*). To the north of the River Liza is a further small cairnfield and a further cairnfield group is to the east of the enclosed settlement (total of 41 monuments). The enclosed settlement is potentially Iron Age, it is a type that is typically rare in the Lake District, and is the earliest confirmed settlement within the valley. It is therefore of considerable importance.

IMPORTANCE: 1

LOCAL SIGNIFICANCE: 1

Recommendations: given the archaeological importance of the site it is recommended that it should be subject to minimal disturbance and should be returned to grassland. The site is within a forestry plantation and, following tree felling of the forested areas, which should be such that it causes minimal disturbance to the site, the remaining stumps should be left to rot *in situ* or be mechanically ground out.

7. EF XVI (GREAT COVE SHIELINGS) (FIG 11)

Importance: this is a group of rectangular structures and associated stock shelters (*Section 3.6.8*). It is extremely remote and was almost certainly a medieval shieling settlement. The number and character of the shielings give it an enhanced importance.

IMPORTANCE: 1

LOCAL SIGNIFICANCE: 2

Recommendations: given the archaeological importance of the site it is recommended that it should be subject to minimal disturbance and should be retained as grassland.

8. EF I (SMITHY BECK CAIRNFIELD) (FIG 5)

Importance: this is a cairnfield by the lake's edge comprising 29 cairns and associated monuments. The cairnfield pattern is essentially random and it has the potential to be of prehistoric date.

IMPORTANCE: 2**LOCAL SIGNIFICANCE: 1**

Recommendations: the site is a potentially prehistoric cairnfield and is adjacent to the lake. Although within forestry, it suggested that it should be returned to grassland, which would have the effect of opening up the lake edge. Following tree felling, which should be such that it causes minimal disturbance to the site, the remaining stumps should be left to rot *in situ* or be mechanically ground out. The site has in part been scheduled inadvertently and any work here will be subject to Scheduled Monument Consent and should be subject to consultation with English Heritage.

9. EF V (LATTERBARROW CAIRNFIELD) (FIG 8)

Importance: this comprises a small cairnfield and an unrelated long house. The structure is comparable to those of the Smithy Beck group and probably related. The cairnfield comprises 11 monuments, has a random distribution, and is potentially of prehistoric date.

IMPORTANCE: 2**LOCAL SIGNIFICANCE: 1**

Recommendations: the site is both extensive and has a low density of cairns and a single long house. While it is recommended that regrowth of woodland within the immediate environs of any of the component sites should be discouraged, it is suggested that a low density of trees can be allowed to regenerate across the general area. Long house EF 521 should be left clear of trees and the area between this and the EF IV settlement should be returned to grassland so that the association between this site and the larger group can be maintained.

10. EF XV (DUBS QUARRY) (FIG 12)

Importance: this is a small localised nineteenth century slate quarry at the head of the valley (*Section 3.11.22*). It represents a small but commercial operation to produce roofing slate. It is in good condition but is not of great antiquity or rarity.

IMPORTANCE: 2**LOCAL SIGNIFICANCE: 2**

Recommendations: this commercial quarry is both very localised and fragile, and would be adversely affected by any tree regeneration. Given its small size it should not adversely affect the proposed scheme to restrict regrowth within this localised area.

11. GREAT COVE IRON MINES (FIG 10)

Importance: these occupy an extensive part of the southern side of the valley and are centred on a complex of levels, with associated spoil heaps and access tracks. They are well-documented from the post-medieval period and reflect an important local industry.

IMPORTANCE: 2**LOCAL SIGNIFICANCE: 1**

Recommendations: the site is large in extent and while it is recommended that tree regeneration should be discouraged within the immediate environs of any of the component sites, it is suggested that some limited low level regeneration can be accommodated across the general area in between these components.

12. ENNERDALE WATER BLOOMERIES (SITES 90, 169, 170 AND 181) (FIG 10 AND 11)

Importance: this is a series of bloomeries is located alongside the water's *edge* (Section 3.11.4). The source ore probably came from an undefined area of extraction in the area of Crag Fell, and the charcoal will have come from the coppiced woodland below Stair Knott.

IMPORTANCE: 2

LOCAL SIGNIFICANCE: 2

Recommendations: the sites are immediately adjacent to the lake, and, in order to improve their visibility, it is suggested that a strip of land along the side of the lake should be allowed to remain as grassland.

13. REVELIN CRAG SHIELINGS (SITES 159-161) (FIG 10)

Importance: this is the site of two shielings on the exposed and remote ground above Revelin Crag. They are of sufficiently good condition to be of regional importance.

IMPORTANCE: 2

LOCAL SIGNIFICANCE: 2

Recommendations: the site is an area of former pastoral land associated with transhumant farming and is presently open moorland. To maintain this former character of the land it is recommended that the area be maintained as grassland.

14. CLEWES GILL IRON MINES (SITE 184) (FIG 11)

Importance: the physical evidence for the mining remains is limited and, for the most part, relates to surface extraction (Section 3.6.12). Given their potential relationship with the Smithy Beck long houses and the Smithy Beck bloomery, however, and their potential medieval date they are relatively important.

IMPORTANCE: 2

LOCAL SIGNIFICANCE: 1

Recommendations: the area is presently open moorland and contains the subtle features of a putative medieval iron ore industry. The establishment of woodland in these areas may have an adverse impact on both the monuments and their context; it is therefore recommended that the area around the mines and the lines of access down the gully to the Smithy Beck long houses should be maintained as grassland.

15. EF XVII (HERDUS FIELD SYSTEM) (FIG 10)

Importance: this is a relict area of field system which was formerly part of the adjacent enclosed land. It is earlier than nineteenth century in date, and may be of late medieval or post-medieval date.

IMPORTANCE: 3

LOCAL SIGNIFICANCE: 3

Recommendations: this is a relict area of field system and is presently an area of grassland. While the site is of reduced importance, its historic character was as upland pasture and it would be appropriate if it were maintained in that condition.

16. VALLEY BOTTOM ENCLOSURES AND FARMS (FIG 11)

Importance: these reflect the original enclosure of the valley, but was undertaken on a limited scale. The valley bottom enclosures post-date the medieval settlements of Gillerthwaite and Woundell Beck, and were probably of late medieval or post-

medieval origin. The extant farms are of post-medieval date. The landscape has undoubted local importance, but not necessarily regional importance.

IMPORTANCE: 3

LOCAL SIGNIFICANCE: 1

Recommendations: these are active farming areas and would be excluded from the proposals to enhance the wilderness character of the valley. The walling of the western valley bottom enclosure still maintains its original character and this should be subject to ongoing maintenance rather than rebuilding as has happened on the eastern enclosure.

17. THE SIDE (SITE 177) (FIG 10)

Importance: the Side was a deer park extending across the southern side of the valley (*Section 3.7.10*). It was first documented in 1612, but may be considerably earlier. Although one of the earliest areas of enclosed land in the valley, and clearly locally important, such features are not uncommon within the region as a whole.

IMPORTANCE: 3

LOCAL SIGNIFICANCE: 1

Recommendations: the Side was a deer park and as such could potentially have had woodland within it to give cover to the deer. It is therefore within context for the area to have a low density of woodland within the park, which can be allowed to regenerate. Any regeneration should be away from the walls, which are the extant archaeological component of the site.

18. HERDUS SURFACE EXTRACTION (SITES 104 AND 185) (FIG 10)

Importance: this is a series of possible hushes and an associated mound containing haematite; the site has seen non-intensive extraction which could be a product of relatively early activity (*Section 3.11.4*).

IMPORTANCE: 3

LOCAL SIGNIFICANCE: 2

Recommendations: this is a potentially early surface iron extraction site and thus the area should be kept free of trees in order to maintain the integrity of the site.

19. ENNERDALE/BUTTERMERE WATERSHED BOUNDARY (FIGS 10-12)

Importance: this is an historic township boundary along the watershed between the valleys of Ennerdale and Buttermere, defined by a series of small cairns. Such boundaries are common around most townships.

IMPORTANCE: 3

LOCAL SIGNIFICANCE: 1

Recommendations: the boundary is at the watershed of the valley, and, being the highest point of the valley, would have been the first part of the area to have become deforested. As such it would be 'unnatural' for such an area to have trees while the rest of the valley was not wholly in forest. In the proposed scheme to make Ennerdale a place perceived as 'wild' by the general public, it would therefore be inappropriate to encourage regrowth within such a topographic context, not just because it is at odds with the natural processes of forestation and deforestation but because it does not accord with other similar landscapes in the Lake District.

20. RED BECK TO STAIR KNOTT COPPICING (FIG 11)

Importance: an area of low density deciduous woodland, which contains a series of charcoal burning platforms. Such areas of coppicing are not particularly rare, but are of enhanced importance because of an association with the lakeside bloomeries.

IMPORTANCE: 3

LOCAL SIGNIFICANCE: 3

Recommendations: this is an area of low density deciduous woodland, formerly coppiced, which contains a series of charcoal burning platforms. It would not only be acceptable to facilitate tree regrowth here, but it is to be encouraged, as it is entirely in keeping with its former land use.

21. UNIMPROVED/UNENCLOSED MOORLAND PASTURE

Importance: this is the most extensive landscape, encompassing much of the valley sides. The principal archaeological monuments are a scatter of sheep folds, biolds, sheep shelters, wash folds and a fox biold. The land has undoubtedly been used for pasture since the establishment of the settlements in the valley, but the monuments relating to pasture are typically of post-medieval date.

IMPORTANCE: 4

LOCAL SIGNIFICANCE: 3

Recommendations: this is the most extensive landscape encompassing much of the valley sides. The enabling of woodland regrowth within this context is at odds with its recent vegetation history as it has been upland pasture for a considerable period, as reflected by the pastoral monuments across it. However, the archaeological landscape is of low importance and consequently can be subject to regrowth without causing an undue impact upon the overall resource. Regrowth should be discouraged in the vicinity of individual post-medieval pastoral monuments.

22. FOREST PLANTATIONS

Importance: the forest plantations were established in the 1920s and in so doing formed a characteristic component of the modern valley landscape. Although they constitute an archaeological landscape, they are of low importance.

IMPORTANCE: 4

LOCAL SIGNIFICANCE: 2

Recommendations: the forest plantations were established in the 1920s and have already severely damaged the historic landscape. Given that the trees have already adversely impacted on the historic landscape, it would be most preferable for any areas of proposed regrowth to be in the areas of clear fell, as long as this is away from any identified monuments.

23. BROWN HOW COPPICE WOODLAND (SITE 114) (FIG 10)

Importance: a charcoal burning platform is situated on the lower slopes of Brown How, and although there are presently no trees here this would imply the former existence of coppiced woodland.

IMPORTANCE: 4

LOCAL SIGNIFICANCE: 3

Recommendations: a charcoal burning platform on the lower slopes of Brown How would imply the former existence of coppiced woodland, although there are no trees remaining today. It would therefore be in keeping with its former land used for the return of woodland to this area.

5.4 ENNERDALE'S HERITAGE

- 5.4.1 Given the archaeological importance of Ennerdale's heritage, it is recognised that there is a need to make this more visible and understandable to the visiting public, yet at the same time not imposing more man-made structures into the landscape that will impede the 'Wild' ethos of the valley. The sites that are most visible and also understandable are the Smithy Beck structures (EF III and IV) and at present there is already a visitor trail extending through the sites. It is recommended that signage exploring the history of the valley and showing the route of the trail should be established in the car park at western end of the valley, but no further signage on the line of the trail should be encouraged.

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6.6 SOURCES LOCATED BUT NOT SEEN

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PRO C/134/71/1 Tenants of Copeland Forest, 1322

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6.6.2 *Cumbria Record Office (Carlisle)*

D/Lons/W/Files & Miscellaneous papers (uncat) File entitled Ennerdale Water Scheme, grant of easement to Whitehaven Corporation, 1950

D/Lons/W/8/7 Manor of the Forest of Ennerdale

/1-3 Court books, 1673-1933

/4-5 Jury verdicts, court baron and court leet, 1765-1816

/6 Call book, 1768-1817

/7 General fine book, 1873

/8 Plan and papers re admittance of new tenants, 1916-23

/9 Papers re enfranchisement of customary tenements, 1919-26

/10 File re extinguishment of manorial rights, 1926-35

/11 Draft statutory declaration re Earl of Lonsdale's title to the manor, 1927

D/Lons/W/Plans

/57 Map of two intended mill steads, Laverick Bridge, Ennerdale, nd eighteenth century

/60 Tracing of surveyor's plan at the Angler's Inn, Ennerdale, of allotments in lieu of tithe on Ennerdale Fell, in 3 parts, 1868

/61 OS 6": 1 mile plan, showing allotments, c1868

(un-numbered) Plan of raising level of Ennerdale Lake for Whitehaven Water Works, 1900

(un-numbered) Plan of the township of Ennerdale, 1844. Scale 6 chains: 1", copied from tithe 1855 [box 23]

6.6.3 *Cumbria Record Office (material stored at Houghton)*

D/A Allisons, solicitors, Whitehaven. The collection is largely uncatalogued. Material possibly or certainly relevant includes:

Baird & Co (mining)

Gillerthwaite Mines, ?Box 148

Earls of Lonsdale, Boxes 72-74, 80, 81, 83, including:

Manor and Forest of Ennerdale

Boxes 73-4: General fine books, 1844 and 1906

Bundle (a), including Boundary, copy of 1650 survey

manor court order as to sheep and goods on common, 1703

Copy Crown grants to Sir James Lowther, 1765

Rentals, tenants lists, evidence for Mr Wordsworth's inquiry into encroachment, 1769

Replies to Land Revenue Commissioners, 1792

Valuation of 1820

Sale of forest to Lord Lonsdale by Commissioners of H M Woods and Forests, 1819

Bundle (d), including Observations on title of Mr Senhouse's Ennerdale estate, 1767

Lawsuit papers 1870-79

Boxes 80, 81, 83 Lonsdale. Estate and mining papers

6.6.4 *Cumbria Record Office (material stored at Cockermouth Castle)*

D/Lec/Kennyside [Box 8] Papers relating to mineral rights in Kennyside (lead, copper, iron). Proposals and licences, 1733-1859; lead production accounts, c1820-50, draft and copy leases, 1819-53

D/Lec/Kennyside [Box 8] Lawsuit papers © Tenants of Egremont v tenants of Kennyside, re rights of common at Tonguebank

D/Lec/Kennyside [Box 8] Lawsuit papers (e) Simpson v Mossdrop, re common rights (plans)

D/Lec/SL/16/1 Manor boundary (copy), Kennyside, 1819

D/Lec/SL/16/6 Papers relating to Isaac Leathes' estate, 1900

D/Lec/SL/16/9 Papers relating to Croft Brow estate, nd

D/Lec/Box 240 Financial account of the Manor of Ennerdale, mid sixteenth century

APPENDIX 1: PROJECT BRIEF

APPENDIX 2: PROJECT DESIGN

**Oxford
Archaeology
North**

August 2002

ENNERDALE CUMBRIA

HISTORIC LANDSCAPE SURVEY

PROJECT DESIGN AND SPECIFICATION

Proposals

The following project design is offered in response to a brief from the Robert Maxwell of the National Trust, to undertake a historic landscape survey of the Ennerdale valley and environs. The purpose of which is to enhance the existing archaeological record and enable appropriate management strategies to be enacted.

1. INTRODUCTION

- 1.1 The National Trust have offered the opportunity for Oxford Archaeology North (OA North) (formerly Lancaster University Archaeological Unit (LUAU)) to submit a project design for a programme of historic landscape survey of the wider Ennerdale valley, and area of land owned by the National Trust and Forest Enterprise. The survey follows directly on from three seasons of survey work, undertaken by LUAU, which recorded in detail the archaeological landscapes of the valley within the forested areas. The present survey would expand on the earlier results to examine those areas not previously examined and to examine the development of the field system, which was not a requirement of the earlier survey.
- 1.2 The proposed programme is intended to provide for the conservation management of the landscape and archaeological resource.

1.3 ENNERDALE BACKGROUND

- 1.3.1 The results of the three seasons of survey work in the Ennerdale valley radically altered our perception of the valley. The survey recorded 553 monuments, within 15 main site groups, ranging in period from the Bronze Age to the nineteenth century. There was identified evidence of prehistoric farming, in the form of cairnfields, but subsequent intensive agricultural activity has apparently obscured further evidence of early settlement. The findings identified a diverse range of monuments and located a series of medieval and post-medieval monuments including a bloomery site (EF II) and a series of double walled enclosures. In particular the settlement sites reflect a period of considerable medieval activity and to a lesser extent during the post-medieval period. The major settlement at Gillerthwaite (EF X and XII) typifies the settlement of the medieval period comprising rectangular huts, associated with cultivation terraces and stock enclosures, and potentially reflects a farmstead developed from a vaccary documented from 1322 (Winchester 1987). A characteristic group of sites encountered was the 'double-walled' huts, which are a relatively rare form of structure within a regional context. The survey has shown that these sites follow a consistent design suggesting that the sites were part of a localised building tradition. Hearths have been identified by excavation (Fletcher and Fell 1987) and clearly the buildings had a domestic function. Some of the 'double-walled' huts have been interpreted as miner's huts; largely on the basis of the association with the bloomery and the documentary and archaeological evidence for mining in the area. However, they are typologically similar to huts with an agricultural function.
- 1.3.2 The significance of the present survey is that it has recorded relict medieval landscapes, which have not been buried or destroyed by later settlement; they are relatively rare and have not been adequately recorded in the past.

1.4 OXFORD ARCHAEOLOGY NORTH

- 1.4.1 OA NORTH 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. OA North has the professional expertise and resource to undertake the project detailed below to a high level of quality and efficiency. OA North and all its members of staff operate subject to the Institute of Field Archaeologists (IFA) Code of Conduct.
- 1.4.2 OA North 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 OA North 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) for the National Trust, most of the Forest of Bowland AONB, Lancashire, and a multitude of smaller landscape projects which include the Otterburn Range surveys in the

Northumberland National Park. To date OA North has undertaken archaeological field surveys of over 680sqkm of upland landscapes and has recorded over 23,000 field monuments. On the Arnside/Silverdale project, in 1992, OA North 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, developing it for use in woodland environments. OA North 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 Ennerdale Valley for LDNPA and Forest Enterprise, and also a detailed historical landscape study of the Miterdale Valley, which exhibits a lot of similarities of development with the Ennerdale valley. OA North has also completed a detailed survey of the forested Simonside Hills, Rothbury, which belongs to Forest Enterprise and which was undertaken on behalf of the Northumberland National Park. 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 differential GPS systems, before a successful methodology was established.

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 valley and the environs. The aims of the project are set out in the brief supplied by Robert Maxwell, National Trust. They are as follows:

- to complete the archaeological survey of Ennerdale.
- to record and analyse the historic boundaries within the study area.
- to undertake a desk-based study of cartographic sources to enable an understanding of the development of the landscape enclosed.
- to produce a narrative landscape history of the valley.
- to produce guidance for the proposed landscape change in relation to its historical development.
- to produce broad management recommendations for the archaeological resource.
- to provide detailed management recommendations for individual monuments

3. METHODS STATEMENT

- 3.1 The following work programme is submitted in line with the aims of the archaeological work summarised above. It is divided into three elements: identification survey of areas not previously recorded, boundary survey, and desk-based cartographic research.

3.2 FIELD SURVEY METHODOLOGY

- 3.2.1 The survey will be undertaken as an enhanced Level 1 type survey (details of OA North'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.
- 3.2.2 The survey will involve four elements: Reconnaissance, Mapping, Description and Photography.
- 3.2.3 **Reconnaissance:** the reconnaissance will consist of close field walking, varying from 10m to 45m line intervals dependent on visibility (as affected by tree density), slope of terrain, and safety considerations. The more gentle sloped areas which have the highest potential for the discovery of archaeological features will be subject to the more intensive reconnaissance. The reconnaissance will exclude areas of extreme tree density and also areas of extreme topography, such as inaccessible scree, and cliffs. The suggested areas of exclusion are shown on the attached mapping, and are excluded on the basis of crags, extensive scree, or extreme slope; however, in the course of the survey further areas may become apparent as being too extreme or too dangerous to examine; in particular areas of very dense woodland will be excluded where they are identified in the course of the survey. 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. Although the survey will ostensibly examine areas outside the earlier surveys, OA North will discuss with Forest Enterprise to establish if any of the previously excluded areas of forest have subsequently been thinned, and which will now be available for investigation. In this instance these areas will also be drawn into the survey. All sites identified from the Sites and Monuments Record and also the OS first edition maps will be investigated.
- 3.2.4 **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. In order to gain sufficient accuracy 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+-1m accuracy). 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.
- 3.2.5 **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.
- 3.2.6 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. These values will be averaged to provide an overall grade for the site at the data analysis stage. The computerised database (Access 97) will be in a form that can be incorporated into any industry standard GIS system. 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.

- 3.2.7 **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.

3.3 BOUNDARY SURVEY

- 3.3.1 The proposed boundary survey is intended to determine the development of the boundary system within the extent of the valleys enclosed land. The survey will be undertaken in conjunction with and informed by the cartographic survey (*Section 3.4*). This cartographic analysis will be undertaken alongside a field survey that will examine and analyse the stylistic character of the walling and their structural phasing using a digital pro forma within a palmtop computer, and this will be in accord with guidance to be provided by the National Trust. The recording will examine all boundaries, determining their type, condition, maximum height, and key features within them such as openings, blockings, sheep creeps. It will examine the build type and character and develop a local typology of walling types to enable categorisation of the wall form. This will define the basic forms of construction, such as orthostatic founded walls and those with multiple rows of through stones. It will identify sections of repair, and the form of the repair. The study will particularly examine the relationship between all sections of walling to establish relative dates of construction/repair. Where the walls are severely decayed then particular attention will be paid to the terminals of the walls. Similarly on the long eighteenth / nineteenth century enclosure walls which extend over the moorland, the emphasis will be on the examination of the terminals where it joins with the field system in the valley bottom.
- 3.3.2 It is proposed to use a relational database, to correlate the phased relationships, and structural styles, in conjunction with annotated maps which will show the relationships between the wall sections and significant features along the walls. The survey will use a 1:10,000 map base enlarged to 1:2000 for the annotation of the mapping, and maps not depicted on these maps will be recorded by means of GPS. Significant sections of walling, areas of damage and typical constructional styles will be photographically recorded in monochrome, colour and digital formats.

3.4 CARTOGRAPHIC RESEARCH

- 3.4.1 The data generated during the cartographic study will provide the basis for an assessment of the nature and significance of the extant surface remains. It is proposed to undertake a cartographic search for the wider Ennerdale area. 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.
- 3.4.2 The study will consult the documentary and cartographic records held by the County Record Offices at Whitehaven and Carlisle as appropriate. 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, appropriate sections of county histories, early maps, and such primary documentation (tithe and estate plans)) as may be reasonably available. Particular emphasis will be upon the early cartographic evidence which has the potential to inform post-medieval occupation and land-use of the area. Appropriate secondary sources will also be consulted (e.g. Winchester 1987) where they contribute to a reconstruction of the historic landscape.
- 3.4.3 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.

- 3.4.4 **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.
- 3.4.5 **Analysis:** analysis of the dataset will involve the compilation of a map regression, showing the development of the landscape over the period of the documented mapping. The mapping will be scanned and superimposed with the survey mapping within a CAD environment, to establish the development of the field system. The analysis will combine the results of the map regression with the boundary survey and relict boundaries identified by the field survey to assess the relative phasing of the walls and boundaries. This will then be depicted schematically on separate layers within the CAD system to represent the form in which the field-system of the valley developed.

3.5 PROJECT ARCHIVE AND REPORTING

- 3.5.1 **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 an industry standard 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.
- 3.5.2 **Digital Presentation:** the survey data will be digitally transferred into a CAD system (AutoCAD) and superimposed with raster / vector digital OS 1:10,000 mapping, it will also be superimposed with the digital survey data from the earlier Ennerdale survey. The previous survey undertook detailed recording of the monuments, whereas the present survey is an identification survey. In order to provide compatibility between the two data sets, outlines of the earlier survey site groups will be produced, and the detail from the earlier survey will be transferred onto a separate layer to enable it to be switched off as required.
- 3.5.3 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 in a format compatible with industry standard GIS systems (e.g. Mapinfo or ArcView 2), 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 1:2000. A digital copy of the archive will be passed to National Trust on completion of the survey alongside the final report. A copy of each plan will be supplied on polyester film at a standard scale.

3.6 REPORTING

- 3.6.1 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.
- 3.6.2 **Content:** the full report will consist of an acknowledgements statement, lists of contents, summary, introduction summarising the brief and project design and any agreed departures from them, methodology, geomorphological and historical background, interpretative account of remains found, landscape history, conclusions, a gazetteer of sites with grading of significance, a list of archive contents and a bibliography. Illustrative material will include location maps and plans, and photographs of key sites.

- 3.6.3 **Landscape History:** the report will examine the development of the landscape in terms of the cartographic record and the observed physical remains, and will incorporate the results of the earlier work to provide a definitive landscape history for the valley and environs. 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. In particular it will examine the development of the field system on the basis of the cartographic and boundary survey analysis (*Section 3.4.5*).
- 3.6.4 **Recommendations:** 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 management aims for the survey areas. The report will make recommendations for the management of the archaeological resource of the study area; in particular it will address the impact of the proposed landscaping of the valley to give it a greater wilderness character. It will also make recommendations for the ongoing forestry operations in so much as they impact upon identified landscapes.
- 3.6.5 **Output:** six bound copies of the full report will be submitted to the National Trust. Each report will be illustrated by a selection of prints and maps. Digital copies of the report and maps will also be provided.
- 3.6.6 **Photographic Presentation:** the report will incorporate high quality prints of digital images in colour and black and white. The negatives will be deposited with the primary archive, which would typically be deposited with the Cumbria Record Office (Whitehaven), but this will be subject to discussions with the National Trust Regional Archaeologist.

4. OTHER MATTERS

4.1 ACCESS

- 4.1.1 In the first instance the National Trust should contact Forest Enterprise, and any tenants or commoners in writing, before the start of field work. OA North 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 CONFIDENTIALITY

- 4.2.1 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.

4.3 HEALTH AND SAFETY

- 4.3.1 Full regard will, of course, be given to all constraints (services) during the survey, as well as to all Health and Safety considerations. The OA North Health and Safety Statement conforms to all the provisions of the SCAUM (Standing Conference of Unit Managers) Health and Safety manual. 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.

4.4 INSURANCE

- 4.4.1 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 OA North in respect of personal injury or damage to property by negligence of OA North or any of its employees there applies the insurance cover of £10m for any one occurrence or series of occurrences arising out of one event.

4.5 WORKING HOURS

- 4.4.1 Survey works will be undertaken on the basis of a five day week, within daylight hours only.

4.6 PROJECT MONITORING

- 4.6.1 The project will be monitored by the National Trust North West Regional Archaeologist, but with support from the Lake District National Park Authority and Forest Enterprise. An initial monitoring meeting will be arranged at the outset of the project and further progress meetings will be arranged at that time. A meeting will be established following the submission of a draft report. Any edits to the report by the client should be passed back to OA North within a month following submission of the draft report.
- 4.6.2 OA North will inform the National Trust of all significant developments, and any potential departures from the agreed programme will be discussed and agreed with them prior to implementation.

5. RESOURCES AND TIMETABLE

5.1 AREA OF SURVEY

- 5.1.1 Allowing for the exclusions of areas already surveyed, areas which are excluded because they reflect crags or scree, and areas of dense forest at the head of the valley, there are the following areas to be surveyed:

17sqkm of unenclosed, unforested land

2.7sqkm of enclosed forested land

5.2 TIMETABLE

- 5.2.1 Given these areas for survey the following task times are indicated, given that 0.5skm of forested land can be surveyed in a day and 1.25skm of unenclosed land can be surveyed in a day:

5.1.1 ***Field Survey***

18.5 days will be required for the field survey

5.1.2 ***Boundary Survey***

A 4 day period is required to undertake the boundary survey.

5.1.3 ***Cartographic Survey***

A 4 day period is required to collate and process the available data.

5.1.4 ***Archive, Analysis and Reporting***

20 days would be required to complete this element.

- 5.1.5 OA North can execute the project within two weeks receipt of written notice.

5.2 OUTLINE RESOURCES

- 5.2.1 ***Staffing:*** the project will be under the management of **Jamie Quartermaine BA DipSurv** (OA North 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.

- 5.2.2 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, including the recent Hardknott landscape survey, the survey of the Welsh Uplands, and was a team leader on the major survey of the Nidderdale AONB (examining 200sqkm of marginal land), He undertook a landscape survey of a major sixteenth / seventeenth century Millstone quarry at Harbottle Hill, Northumberland.
- 5.2.3 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: SITE TYPE AND PERIOD GLOSSARY

ARCHAEOLOGICAL DATE RANGE

The dates for the primary archaeological periods identified within Ennerdale are based on radiocarbon dating and historical dates and consequently have a varying degree of accuracy.

Bronze Age	2000 BC - 800 BC
Iron Age	800 BC – AD 43
Roman	AD 43 – AD 410
Early Medieval	AD 410 – AD 1066
Medieval	AD 1066 – AD 1600
Post-Medieval	AD 1600 – AD 1900
Modern	AD 1900 – Present

PRINCIPAL ARCHAEOLOGICAL SITE TYPES

Cairnfield: the ubiquitous small cairn is the most abundant component of the upland archaeological landscape. It is normally found in well-defined groups (cairnfields), although there are limited numbers of examples that have been recorded in relative isolation. A cairn served as the depository for unwanted stone from adjacent cleared land, as has been discussed on numerous occasions (Fleming 1971, 4-5; Fowler 1981, 16-20; Jobey 1968, 46-50; Ward 1977; Yates 1983, 341-2; Yates 1984, 218-9). The practice of dumping the unwanted stone raised by the plough into piles was practised, within living memory, in the Western Highlands (Graham 1956, 23) and is still in use in some of the more remote parts of Turkey. However, the excavation of cairns from the Barnscar cairnfield (Walker 1965) suggests that some cairnfields may have been a result of deforestation and the associated intensive land reclamation. Beneath the cairns there was evidence of burning, the partial stripping of the original ground surface, and the excavation of pits (possibly to remove tree stumps). The final construction of the cairn consumed the unwanted stone produced by these processes.

The individual small cairn can be very varied in form, although the majority are about 3-4m in diameter, with irregular, often ill-defined, edges. Small cairns come in a broad variety of shapes, reflecting their haphazard formation; however, they are most commonly round or slightly oval. Elongated cairns can be significant because they reflect the need to deposit unwanted stone in as narrow an area as possible, either at the edge of cultivation plots or along the lines of ridge and furrow. The cairnfields are usually located in areas of better quality land and the edge of the cairnfield will often coincide with a boundary between land of different qualities. However, the individual cairns are often located on islands of unusable ground, like small outcrops or immobile boulders, indicating a deliberate strategy to exploit the best available land between the cairns for agriculture.

Stone Banks: within cairnfields, there are typically a number of stone banks defining boundary lines. These are low, discontinuous banks with stone sporadically protruding from the turf. They are irregular in width and height, often with minimal quantities of stone; in some instances they are defined only by alignments of stones. Even the more substantial stone banks display no evidence of dry-stone structure (Crone and Mills 1988). The generalised

form of the stone bank is in marked contrast with that of even the most decayed walls, which display greater uniformity throughout their length.

Despite the erratic, discontinuous form of stone banks, they clearly marked boundary lines as they often define the edges of cairn groups. Their form is consistent with the erratic deposition of unwanted stone along boundaries at the edge of plots and they appear to be an alternative form of stone clearance.

Lynchets: the break of slope along a boundary as a result of soil slippage is indicative of soil disturbance and so, by implication of cultivation. Boundaries marked by lynchets are almost always also marked by stone banks, an indication that the loss of soil by slippage has resulted in bringing stones to the surface. Lynchets are not particularly common boundary markers and are mostly associated with the more complex field systems and settlements rather than the simple cairnfield. Those within cairnfields are more commonly associated with very small plots rather than more extensive fields.

Long Houses: significant numbers of elongated, rectilinear houses were identified during the survey, sometimes in isolation but commonly in association with a field system or grouped into a settlement. They vary substantially in size, with the average being c11m long. In contrast, they display much greater conformity of morphological form; the average long house has a proportion of 2:1 between the long and short sides, which only vary from 1.7:1 to 2.5:1. The majority do not have an internal partition, but where these do occur they are invariably in the larger long houses. The majority have a single entrance through the long side, although lesser numbers have opposing entrances on both sides of the house, and are reminiscent of the cross-passage type of house (Brunskill 1974, 50). If they were set on a slope they were invariably internally terraced.

Shieling: upland examples of huts or long houses are often described as shielings, and were the temporary dwellings used during the summer months by transhumant herdsman and their families. Place-name evidence can provide an indication of such transhumant buildings; in Cumbria the name 'Scale' typically refers to a former shieling site. Many of these are now associated with established settlements, suggesting that these developed from transhumant structures. In the absence of documentary or place-name evidence it can become difficult to distinguish a transhumant structure from other types on the basis purely of the physical evidence. Some shielings have associated enclosures or even field systems, and some farmsteads originated as shielings. Similarly, a shepherd's hut which was not in transhumant use may be physically indistinguishable from a shieling. However, as a generalisation, the larger the structure, particularly if it is associated with a field system, the more likely that it was a permanent farmstead rather than a shieling, and a small hut without any associated enclosure is potentially for transhumance.

Enclosed Settlement: the survey identified a single simple enclosed settlement on the south side of the River Liza (EF 410 in group EF XIVb). The monument type comprises a simple circular enclosure with internal huts, which are typically central to the enclosure, although the Ennerdale example also has structures butted onto the inside of the enclosure bank. The monument type is relatively rare and outnumbered by a complex type of enclosed settlement, none of which were found within the Ennerdale area.

The best dated parallels for the monument type are from north-east England. These use both timber (Alnham, Northumberland, Jobey and Tait 1966; West Brandon, Durham, Jobey 1962) and stone construction (Middle Hartside Hill, Jobey 1964). The simple timber enclosed settlements are usually found to date from the later part of the first millennium bc (Ritchie 1970, 52-5; Jobey 1985, 183), although there is an example from Wolsty Hall, Cumbria (Blake 1959, 7-10) which may have continued into the Romano-British period. However, the

stone-built examples from Northumberland have a more consistent Romano-British date (Jobey 1964) and there is an implication that homestead EF 410 may have had a similar Iron Age/Romano-British chronology.

Vaccary: a vaccary is an historical term describing a pastoral cattle ranching farmstead, typically dating from the twelfth to fourteenth centuries (Winchester 1987); the word comes from the medieval Latin *vaccaria*, derived from *vacca*, a cow. They were generally manorially owned outposts and two vaccaries are documented in Ennerdale in 1322 (*Section 3.5.6*). As they were owned and managed either by the lords of the manor or a monastic house, such settlements are far better documented than the isolated settlements of peasant farmers; this gives an artificial impression from the documentary record of the relative numbers of these ranches within the landscape. These cattle ranches were carved out of their former private hunting forests, by the lords of the manor who created them in an attempt to get some revenue back from their holdings. They were directly managed by the lord of the manor, but in time many acquired their independence and developed into privately owned farms. As a consequence many have been lost beneath the development of these farms and there are few physical remains of these structures surviving. However, small numbers of pastoral enclosures have been identified in Ennerdale attached to small rectangular structures, which are apparently of medieval date, and it is possible to link these, at least tentatively, to the documentary references. The typical stock enclosure is sub-rectangular and its interior tends to be featureless and seemingly empty. They usually have one or two small buildings, either immediately adjacent or set against the outer walls of the enclosure. These huts are dwarfed by the overall extent of the enclosure and it is clear that the domestic aspect of the structure was not its prime function. The classic example of this is on Heathwaite Fell (HF 530), where there are two cells of stock enclosure with a complex entrance to enable the funnelling of stock into the stock pound. There are two examples from Ennerdale (EF 102 (in EF VIb) and EF 398 (in EF XIII)) and it is tempting to link them with the references to the two vaccaries at the head of Ennerdale in 1322 (*Section 3.5.6*).

Bloomeries: bloomeries are iron smelting furnaces, fuelled with charcoal, which produced wrought iron. The iron production process involves the reduction of iron oxide to form a bloom within the furnace. Slag is also produced and in a liquid form is tapped from the base of the furnace. The typical form of a bloomery is a furnace surrounded and buried by a mound of slag, and the classic indicator of a bloomery is the occasional fragment of slag exposed from an otherwise grass-covered mound (Bowden 2000, 39). A recent programme of radiocarbon dating by LDNPA has shown that these bloomeries often fall within a narrow date range of the thirteenth to fifteenth centuries AD (J Hodgson pers comm).

Charcoal Burning Platforms: these structures are typically earthen circular platforms cut into the slope with a prominent apron extending out from the slope. They provided a level surface in order to construct a timber pyramid which is burnt to produce charcoal. They are typically located within areas of coppiced woodland and are usually grouped in threes so that one can be constructed, while the others are burning. They provided charcoal for the iron industry and are often in the vicinity of iron working furnaces or bloomeries.

Deer Park: on the south side of Ennerdale is the Side deer park, documented from 1612. Deer parks were most commonly established in the twelfth to fourteenth centuries (Lasdun 1991, 5) and were typically remote from their associated manor house. Originally the deer park would not have been internally divided but would have had some woodland to afford shelter for the deer, which were intended to breed and be culled for the dinner table. The park would have had no recreational function, in contrast with later types, and were normally elliptical or circular, being the easiest shapes to enclose (*op cit*, 12). Deer parks were typically between 100 and 200 acres in extent (*op cit*, 13), yet the Side was 424 acres, and as such was

unusually large. Parks would generally have been enclosed by a pale, which would have comprised a bank and ditch, with the ditch on the inside, and a wooden fence or pale would have been constructed on top. There is, however, only evidence for a wall around the Side.

APPENDIX 4: SITE GROUP DESCRIPTIONS

EF I - SMITHY BECK (Monuments EF 1-29) (Fig 5)

This small cairnfield is on an area of flat, forested ground between the lake and Smithy Beck. The cairns are grouped just to the east of a large natural spur, which is orientated north-east/south-west, although a few small cairns were also located to the west of this. The main part of the cairnfield comprises a relatively dense group of 16 cairns and three stone banks. The cairns vary in size but most were medium-sized, moderately defined and composed of medium to large stones. However, there are three larger cairns (EF 11, EF 13 and EF 14) on the eastern side of the group, which are significantly more prominent than the others; cairn EF 14 in particular is up to 1m in height and is c7m in diameter. The size of the component stones is generally larger than that of their smaller neighbours and the differences in form may suggest that these were the product of a different episode of stone clearance. The three stone banks (EF 6, EF 8 and EF 9) appear to define the edges of a narrow hollow-way running roughly north/south through the group; however, the hollow-way has been subject to localised disturbance and it is not apparent where it led in either direction. The alignments of the banks are perpendicular to bank EF 5, which is to the south of the forestry road, perhaps suggesting a relationship. The latter bank, however, is stylistically different and because of the construction of the road in between there is no direct physical relationship between them. The distribution of the cairns to the east of the hollow-way is essentially random but those to the west of the hollow-way follow alignments parallel to the natural spur.

The chronology of the cairnfield is very uncertain since the cairns have a varied character; some are of a size and form that is consistent with a prehistoric date and those to the east of the hollow-way have an essentially random distribution, which similarly is not out of place within a prehistoric context. In contrast, other cairns have a more varied stone content, which is typical of waste stone brought up by the plough, although there is no evidence of any associated lynchets or cultivation terracing. The cairns are in the vicinity of the bloomery. While it is possible that this was a product of multi-phased activity, the surface evidence is too undiagnostic to ascribe a date to the site group.

EF IIA - SMITHY BECK BLOOMERY (Monument EF 30) (Fig 5)

This large, well-defined bloomery displays evidence of multiple phases of use and re-use. The site comprises a central, sub-circular raised platform (EF 30a) with a hollowed centre, which appears to have been the site of the furnace. Around this is a series of banks and mounds which are almost entirely constructed from charcoal and slag. These banks appear to have been built up through various phases of working on the site, as evidenced by overlapping and inter-related mounds around the south-west corner of the site (EF 30b/c). Examination of the spoil suggests that the earliest of these phases is in fact a deliberately constructed, small and low bank (EF 30c) which was a boundary delimiting the southern edge of the bloomery area. This bloomery area is an artificially raised, relatively flat platform, which is in places raised to a height of c1m above the stream. This terrace edge is being eroded by the stream. In places the fabric of the terrace bank is exposed, which reveals either slag or charcoal, apparently confirming that the broader terrace is built up of bloomery waste. The very substantial horse-shoe shaped furnace platform (EF 30a) is seemingly constructed on top of the platform, which is itself constructed of bloomery

waste. It is therefore probable that this is the latest furnace in a sequence and that there may be another earlier furnace site, which is presently buried by waste.

The prominent mound (EF 30b) on the western side of the site is higher than the furnace platform, but it has been partially eroded back by the adjacent stream. The northern aspect of the site has been disturbed by the construction of the valley road. Although no bloomery features were located directly north of the road, quantities of slag were noted in the soil and there is a possible bank leading from EF IIb down towards this site. It is possible that elements of the site extended further to the north and there may be some relationship between groups EF IIa and EF IIb.

EF IIb - SMITHY BECK (Monuments: EF 31-9) (Fig 5)

This site group comprises a partial enclosure (EF 33-35) with two associated structures (EF 37-38), which may have related to the bloomery, possibly as a settlement or associated industrial structures. However, the features are ill-defined and in a poor condition, and the precise internal relationship and overall function is difficult to determine. This possible settlement is linked to the Smithy Beck long houses (EF III) via hollow-ways (EF 40 (EFIIc)) which follow the line of Smithy Beck. There is also a tenuous stone bank (EF 39) between this site group and the bloomery complex (EF IIa), which may indicate a relationship between the two sites.

The centre of the site group is dominated by a large, poorly-defined mound with a high stone content (EF 36), which may be the remains of a substantial building or platform. No interior features could be identified because of the decayed and disturbed nature of the monument, but the size of the area would be compatible with a medium-sized structure similar to EF 38. The latter monument is a small decayed rectilinear building but it is still definable. The possible enclosure, running roughly north from the centre of the site, is defined by a series of low, rounded banks; there is no evidence of lynchets and the steep nature of the enclosed land favours pastoral rather than arable use.

EF IIc - SMITHY BECK (Monument EF 40) (Fig 5)

The hollow-ways incorporated in this group run alongside Smithy Beck and extend upslope from an area of level ground by EF IIb. At the northern end they merge into a forest trackway which leads north-east, parallel to Smithy Beck, and up to the Smithy Beck settlement (EF III). The modern forest track follows the line of an earlier track, which may have been contemporary with the long houses. This suggests a connection between the Smithy Beck long house group (EF III) and the small settlement (EF IIb), and perhaps also the bloomery site (EF IIa). The hollow-ways may have served as transportation routes for iron ore to be processed at the bloomery and/or as stock movement routes. Their depth and the spread of routes indicates a sustained and intensive period of use.

EF III - SMITHY BECK (Monuments EF 43-48 and EF 540) (Fig 6)

This comprises a group of seven monuments on the south side of Smithy Beck in an area of open ground crossed by a footpath, although hut EF 540 is slightly to the east of the main group. The group is characterised by four long houses, extending in a line running east/west. The three easternmost long houses EF 45, EF 47 and EF 48, are 'double-walled', characterised by an internal, roughly rectangular, single-celled dry-stone structure

surrounded by a rectilinear dry-stone enclosing wall which, for the most part, follows the line of the interior structure. The three other long houses (EF 43, 44 and 540) are more distinct, in that their external banks are more remote from the central long house and in the case of EF 540 the external bank is incomplete.

Long houses EF 47 and EF 48 were excavated in 1962/3 by Mr W Fletcher (Fletcher and Fell 1987). Although the excavation was not to modern standards it did uncover some finds and internal features. The excavation of EF 48 revealed walls standing to two/three courses, a compacted clay floor, and a series of four post-holes located between the inner and outer walls. The detailed configuration of the post-holes was not published, but it is possible that these supported a roof or similar superstructure across the gap between the inner and outer walls. The presence of small quantities of thin slate (Fletcher and Fell 1987) in one of the excavation sites suggests that they were probably slate roofed. The neck of a green glass globular wine bottle was the only associated find, which has been dated to some time between the 1650s and the 1740s. The excavation of EF 47 (Fletcher and Fell 1987) revealed walls with only a single course of stones surviving. A circular structure in the north-western corner of the building was found to stand three or four courses high, but it had no entrance and the base stones were placed vertically. It contained much ash and charcoal and it was suggested that this was an oven or flue contemporary with the long house (*ibid*). The rectilinear extension on the western side of the wall was reported as smaller than this setting but similar to it, and it also contained ash and charcoal.

EF 44, in contrast, is an enclosure containing a rectangular long house, which has a later, crudely built dry-stone structure set into the western side. The site has also been eroded by the beck, which marked the north side of the site. The rectangular long house is erratically defined by a series of bank stubs and is in a poor condition when compared with others of the group. The walls are no more than 0.8m high at the highest and typically stand to between 0.2m and 0.3m high. The enclosure 'wall' around the long house is not as substantial as on the other double-walled long houses and contains less stone; although the interior was choked with a large amount of stone rubble the exterior had very little. Overall this suggests that there was a higher wall on the interior than on the exterior southern wall/bank and it may have formed a stone bank instead of a wall; in this respect it is similar to long house EF 43. The enclosure is larger and is not as rectilinear in shape, by comparison with the three structures to the east (EF 46-48), and is more comparable in shape and design with EF 43 than the adjacent long houses EF 45, EF 47 and EF 48.

EF 43 is situated just south-west of the main group of 'double-walled long houses'; it is a large, irregular sheepfold overlying an earlier structure. The site is spatially associated with the group but is stylistically different from long houses EF 45, EF 47 and EF 48. The sheepfold is a well-constructed, post-medieval structure with numerous phases of rebuilding; however, underlying this, and running perpendicular to the fold, are the remains of an earlier rectangular structure. This earlier structure has had its western end incorporated into the fold but the remains of the eastern end are discernible. The earlier feature is larger than the interior cells of the 'double-walled' long houses (EF 44-48) and although EF 43 is surrounded by a bank, its basic form is similar but sufficiently distinct from the 'double-walled' long houses to indicate a different and possibly earlier building tradition. The enclosures associated with the 'double walled long houses' are dry-stone walls, whilst that of EF 43 is an earthen bank, with a low stone content.

Long house EF 540 is a simple rectangular structure (9.2m x 5m) with an entrance in the centre of the northern wall. There is a section of wall extending out from the western end,

but this extends only 2m beyond the side of the long house and there is no evidence of a continuation. The location and configuration of the wall stub is comparable to other long houses of the group and it is possible that this is the decayed remnant of a former enclosing wall.

The EF 43, EF 44 and potentially also EF 540 sites appear to be small structures surrounded by enclosures, as distinct from the neighbouring double-walled structures (EF 45, EF 47 and EF 48) and the 'double-walled long houses' of group EF IV. Sites EF 43 and EF 44, however, bear considerable similarity to examples at Gillerthwaite (EF 345, EF 360, and EF 370). These monuments have been interpreted as long houses with associated enclosures, which is consistent with the surface features surveyed at EF 43. Typologically these structures are intermediary in form between the simple long houses of EF XIc and the 'double-walled' long houses of EF IV.

EF IV - SMITHY BECK (Monuments EF 292-97) (Fig 6)

This group of six sites lies just north of Smithy Beck, and to the east of group EF III. Four of the sites are 'double-walled long houses' (EF 294-296 and EF 297), the others being a washfold (EF 292) and a possible bield (EF 293). Three of the double-walled buildings are aligned roughly north/south and lie on the southern-facing slope running down to Smithy Beck; the fourth house (EF 297) is to the west of Clewes Gill within a localised area of forest. Ramm et al (1970) reported a fifth structure in this group, which was partly overlain by long house EF 296 (Plate 4); all that was observed of this was a section of wall extending south-west from the southern end of the later long house. Although there is a south-western corner visible, there is insufficient material exposed to establish the dimensions or form of the long house.

EF 294 and EF 295 are typical 'double-walled long houses' having a single interior cell and a tightly enclosing wall. Long house EF 297 is slightly different in that its external wall has an apsidal end to the north and therefore does not precisely follow the shape of the internal structure; the form of the apsidal end is paralleled by long house EF 296 (Section 5.7.3).

EF 296 is significantly different from the others, particularly in its complexity, which perhaps indicates an extended period of use and redesign. The original phase comprised a large external wall which closely followed the shape of the internal wall, except to the south where it formed an extended apsidal end. This end was subsequently partitioned off by an internal wall. The main cell was clearly for accommodation and it is probable that the apsidal end was for storage. On the western side of the structure is a dry-stone-walled porch which had been added subsequently. As with site EF 295 there is an interior partition indicating that the central cell had at least two components. The site has been partially excavated by Mr W Fletcher (Fletcher and Fell 1987) and was reported as standing to three or four courses high. The main cell was said to be partitioned into two halves, the northern half being the largest, with a hearth in the east wall and a raised platform to the north for a bed space. The southern half was the smaller, being paved with granophyre slabs. A hearth was reported against the southern wall which contained a substantial amount of wheel-made, green-glazed pottery, more of which was found between and under the paving to the south. This dates from the late medieval period and a few post-medieval sherds were also present, indicating that long house may have been occupied for an extended period.

EF VA – LATTERBARROW (Monuments: EF 521– 523) (Fig 8)

This small sub-group comprises a rectangular long house (EF 521), a possible structure (EF 522), and a section of dry-stone walling (EF 523), which is a relict fragment of an enclosure boundary shown on OS mapping. The group is within an area of clear felled forest on moderately sloped ground to the south of Smithy Beck. There was considerable forest brash on the ground at the time of survey as a result of the recent clear fell and this may have obscured further related monuments.

The principal element of the group is a well-defined enclosed rectangular long house (EF 521), which is set on an artificial terrace. There are potentially two entrances, one in the centre of each side wall, and both are ill-defined (one is blocked by a tree). Around the southern side is a large, very prominent, enclosing wall/bank, which defines the upslope edge of the terrace. The bank extends up to 3m away from the long house in places and was clearly an enclosure wall rather than a structural element of the house. Adjacent is a semi-terraced yard area which is edged to the north by a substantial well-dressed wall (1.5m wide) which butts against the long house; however, the yard area is very ill-defined to the south. The site fits into the pattern found at Gillerthwaite, particularly as here the enclosure does not completely surround the long house; long house EF 370 (Gillerthwaite) similarly has only a partial enclosure.

The possible structure (EF 522) is a broad bank of medium and large stones set at the base of an artificial terrace. The structure is substantially decayed and disturbed by tree planting over it and it was not possible to discern its character in detail. It is considerably smaller than nearby long house EF 521 and does not display obvious evidence of dry-stone structure; it is not, therefore, directly comparable to EF 521.

EF VB – LATTERBARROW (Monuments: EF 524 – 535) (Fig 8)

This is a small cairnfield on the gently sloped northern side of Latterbarrow; it comprises ten cairns and an irregularly-defined structure at the western end of the group. The sites are within an area of clear felled forest and the planting of trees over the monuments, coupled with the overburden of forest brash, has limited the definition of most of the features.

The structure has an irregular, rectilinear form with a stone bank extending eastwards. The south-western end of the feature has been built up into a bield and has extant dry-stone masonry; elsewhere the banks are largely earthfast and do not have surviving dry-stone fabric. The area within the structure is internally terraced, which may hint at a domestic character; however, it does not have the typical regular rectangular shape of the long houses found in the valley. The amorphous design, coupled with the substantial decay exhibited, suggests that it was possibly earlier than the long houses recorded in the Gillerthwaite and Smithy Beck areas. Although it is in the vicinity of the cairnfield, there is no direct relationship between it and the cairns.

The cairns are generally prominent and have rounded profiles and are composed of mainly medium and large stones, although their definition is generally poor (Section 5.9.1). They occur in three essentially random sub-groups and the distribution appears to reflect clearance activity within localised areas, rather than one associated with a single coherent field system. The character of the cairns, their essentially random distribution, their medium and large stone make-up, and their lack of association with a field system or cultivated plots indicate that they are not a product of medieval farming activity.

Nevertheless, there is no confirmed evidence of prehistoric activity in this area (such as funerary monuments) and so it is not possible to ascribe a reliable date to this cairnfield.

EF VIA - WOUNDELL BECK (Monuments EF 235-284) (Fig 7)

This group is situated at the east end of Ennerdale Water, on a raised natural terrace, which marks an earlier and higher level of the lake. The main cairnfield consists of sparsely distributed cairns, some of which form linear alignments that reflect small, now extinct, boundaries. Boundaries of a possible rectilinear field are represented by cairn alignment EF 270-4 to the south-west, stone bank EF 262 to the south-east, and cairn alignment EF 252, EF 253, EF 255, EF 257, EF 267 and EF 268 to the north-east. The north-western side of the 'field' is uncertain but may be along the line followed by cairns EF 242, EF 243, EF 246, EF 247 and EF 273. There is a banked boundary (EF 278) at the southern end of the site, beyond which are two depressions and the occasional cairn, but whether or not these are contemporary with the main use of the site is not clear. In places areas of ridge and furrow were observed to be edged by these alignments, indicating that they defined boundaries that were contemporary with the medieval cultivation. Because of advanced vegetation growth at the time of survey, the ridge and furrow was too ill-defined to enable its cartographic recording.

In the north-eastern part of the site is a group of structures, some for stock and some possible long houses. Structure EF 240 is incomplete along its north-eastern side, it has a slightly erratic rectilinear shape and is too large to be a long house; it is 21m x 12m, whereas the largest long house found elsewhere in Ennerdale is EF 296, which is 16m x 8m in size. It is most probably a small stock pound. The partially surviving remains of EF 239, however, have a very rectangular shape, two clearly defined cells, and the structure is 15m x 16.3m in size; this by contrast appears to be a former long house. Abutting its south-eastern side is a substantial, irregularly-shaped, partial enclosure, again possibly the remains of a stock enclosure.

The field system defined by cairn alignments is closely associated with the group of structures, EF 239, EF 240 and EF 245, and there is an implication of an association with ridge and furrow cultivation. The character of the cairnfield/field system is very similar to the EF VIb site (Section 5.11) and they were probably broadly contemporary. This appears to be a single phase cairnfield, which was most probably of medieval origin.

EF VIb - WOUNDELL BECK (Monuments EF 49-234, EF 388-394) (Fig 7)

This vast group of cairns covers a wide area, and reflects intensive land improvement, potentially over a substantial period of time. The cairns and stone banks reflect the clearance of very substantial amounts of waste stone, which is of all sizes. Some cairns (EF 110-118) are directly associated with areas of ridge and furrow and there is an implication that some of the waste stone was brought up by the plough.

A stock enclosure (EF 106-8) is located at the southern end of the site; it is a rectilinear, two-compartmented enclosure. The enclosure is very similar in form to one identified at Stone Rings (Site HF 350) on Heathwaite Fell (Quartermaine and Leech forthcoming), which has been interpreted as being of medieval date. The shape and size are similar although it is slightly smaller than the Heathwaite Fell example (HF 530: 60m x 44m; EF 102: 51m x 34m). It does not, however, display evidence of a single complex entrance for both compartments, unlike the Heathwaite Fell site. This enclosure can also be compared to the EF 398 two compartment enclosure further up the valley.

The present field boundaries overlie the banks and clearance mounds and are clearly of a relatively late date. There are some stone banks and alignments of groups of cairns, however, which are indicative of earlier field boundaries within this area, and were perhaps hedges or lines of trees against which waste stone was deposited. A limited area of ridge and furrow, in the north-west corner of the site, is edged by one of these stone banks, which suggests that this medieval farming was contemporary with the stone bank. The cairnfield is broadly divided by a long stone bank (A: EF 104 and EF 106-8); the cairns to the west of it are for the most part aligned parallel to this large stone bank (A) (north-west/south-east) (eg alignment EF 52, EF 53, EF 56, EF 64-66, EF 68, EF 69, EF 83, EF 86, EF 90, EF 92-95, EF 97 and EF 98). A further alignment is marked by linear cairns EF 232, EF 286-288. The cairns to the east display a much more random distribution, although in some cases this is defined by stone banks and cairn alignments. Any alignments generally have a north-east/south-west orientation. There is a rectilinear 'field' defined by the EF 106-8 stone bank to the south-west, by alignment EF 105, EF 166, EF 165, EF 155 and EF 142 (Stone Bank B) to the south-east, and by a prominent break of slope to the north-east. Within it the cairns have a broadly random distribution and there is also some ridge and furrow, which is also orientated north-east/south-west. Stone banks A and B converge into parallel alignments that are orientated on the double enclosure EF 102. Together they appear to form a small drove corridor which terminates at a very deliberately constructed funnel (EF 104). There is a possibility that the principal intention of the open-sided rectangular northern part of the 'field' was actually a much larger funnel, intended to capture stock driven off the fell, hence the relatively open sides to the north-east and north-west. The only confirmed entrance to the double compartment stock enclosure (EF 102) is at its northern end adjacent to the small funnel entrance (EF 104) of the stone bank A/B drove route. There is thus an implication that the two features were related and that the field system had a pastoral origin. A further cairn alignment (EF 181-4, 158-161 and 208-210), which runs a sinuous course, is broadly parallel to that of Stone Bank B and appears to reflect a related element of the field system. To the east is another north-east/south-west alignment: EF 201, EF 202, EF 218, EF 220, EF 222 and EF 224.

Associated with the western part of the cairnfield (to the west of stone bank A) is a series of north-west/south-east cairn alignments and at the south-eastern end of these is a small rectangular structure and associated pound enclosure (EF 229). Both have been truncated by the construction of the modern field boundary and the adjacent road; however, sufficient survives to indicate that the structure was two celled and rectangular. Extending to the east of this is the small, irregularly-shaped pound and to the north is a series of stone banks defining a short and narrow corridor/trackway.

Many of the cairns in this group have internal hollows of varying size and depth, but there is nothing to suggest that they had a domestic function. These are comparable to the annular monuments excavated by Richardson (1982) at Birrel Sike and it is possible that they reflect the deposition of stones around immovable objects such as trees, which have subsequently decayed.

The group lies in open grazing land and has been fairly well preserved as a result. There are a few outlying cairns belonging to this group in the modern field to the west, but there is a large clear area west of these (separating it from cairnfield EF VIa) which is devoid of cairns. This appears to reflect extensive clearance and removal of parts of the cairnfield, possibly in recent times.

EF VII – Latterbarrow (Monuments EF 298-302) (Fig 7)

The site lies just north of the main valley road on raised ground above the flat valley floor;

to the south it has been truncated by the road and has been planted with trees. The site group consists of a series of three depressions cut into the slope with a set of small enclosures associated with and between these depressions. The only monument with upstanding dry-stone remains is EF 301, on the eastern side of the group at the base of a steep slope; this includes the remains of a possible dry-stone enclosure. Just east of this is a further depression (EF 302) which is bounded to its east by a series of low banks. The western end of the group is occupied by EF 298, the remains of a possible three-celled banked structure, although only small stubs of the interior divisions survive. Between this and EF 301 is a series of four small flat platforms cut into the slope (EF 299 and EF 300).

EF VIII - DODSGILL BECK (Monuments EF 303-311 and EF 504) (Fig 9)

This is a group of ten monuments on the slopes above Dodsgill Beck just west of Gillerthwaite, comprising scattered long houses and associated enclosures or plots. The monuments are heavily obscured by vegetation and forestry brash, which may have obscured some of the more ill-defined elements of the field system. However, those recorded elements of the group reveal a settlement character that is very similar to that of the nearby Gillerthwaite settlement and it is probable that the two were contemporary. The more significant of the earlier structures are EF 303, EF 306, EF 308 and EF 311.

EF 303 is a large, banked enclosure, measuring roughly 45m by 25m, with some lengths of dry-stone walling defining its sub-circular shape. The site is remote from the main group of enclosures; it has a large entrance with a funnel-like form and banked boundaries rather than walls. Adjacent to the main enclosure is a small sub-rectangular structure which may be a long house. The size and shape of the site and the diversity of bank/wall form suggests that it was a multi-phased structure. Although it has been subsequently used as a sheepfold, its design and specifically the entrance is inconsistent with a function as a sheepfold. The monument bears some stylistic similarities to EF 398, which has been interpreted as a cattle enclosure, and although EF 303 is significantly smaller, it is possible that both monuments were of medieval date and may therefore potentially relate to the documented vaccary.

Site EF 306 is a two-celled structure of low, ill-defined banks formed of small and medium stones and covered in grass and moss. The main cell is rectangular, measuring 13m x 11m, and has a narrow entrance on its east side. The smaller cell is a north/south orientated rectangular long house which is attached to the northern wall of the main cell. It was evident that both cells were internally terraced, but because of the decayed form of the banks it was not possible to determine the relationship between these two elements. The form and size of the long house is comparable to the structures of group EF X and XI and it appears to have been a small farmstead, which included both stock pound and domestic accommodation.

Site EF 308 is a large three-celled dry-stone structure/yard covered thickly in moss. The main cell measures 14m x 14m square with a 6m x 14m sub-rectangular cell to the west side and an 11m x 5m sub-rectangular cell to the east side. The eastern cell is the best preserved but the whole structure is ill-defined. There is also a possible bank running off the north-west corner but this is even less well-defined than the rest of the site. The two smaller cells have a shape and size reminiscent of long houses identified elsewhere in the valley, and this example would appear to comprise two long houses with a shared yard. The decayed condition of some of the walls indicates considerable antiquity; the walls of the western cell may overlie earlier banks, although this could also have been a more

decayed element of the wall. The banks of the large central cell are distinct in character from those of the two long houses; and the southernmost wall of this cell has a somewhat dog-legged shape and appears to have been a joining wall butting onto both long houses. This is clearly a multi-phased structure, initially comprising two structures and then a large enclosure, possibly for stock, was formed by the addition of two further walls.

EF 311 is a small dry-stone-walled multi-celled structure/enclosure that displays characteristics of the 'double walled long house'. The central rectangular cell is bounded on the northern and eastern sides by a dry-stone wall that reflects the shape of the internal cells, separated only by a small gap, and as such is very similar to those of Groups EF IV (Smithy Beck) and V (Latterbarrow). The main building is butted onto by the wall of the western enclosure, which is in a better condition than the main long house walls. The shape and form suggest that the long house has had a multi-phased development and reflects the partial enclosure type of 'double walled long house,' as found within groups EF III and EF Va.

Perhaps the most significant aspect of the site is the associated plots; immediately to the west of it is a large 'terraced' enclosure, defined by very broad banks. There is substantial soil build up against the lower bank and this may reflect lynchet formation at the top and bottom of the enclosure rather than deliberate terracing. Immediately above and to the north of this plot is a further terraced plot, which has a sub-triangular shape, being located between the southern plot and the possible stock enclosure EF 504. Butted onto the north-eastern side of the stock enclosure is a rectangular structure which is relatively large (14m x 8.5m) and is too large to have been a long house, but is located on a substantial artificial terrace. There is no obvious entrance and the precise function of the rectilinear structure is unclear. The EF 311/504 site appears to be a complete farmstead, incorporating a long house, two cultivated terraced plots, and at least one stock pound. To the west of this farmstead are two further long houses (EF 309 and EF 310) but there is no obvious physical connection; however, the dense ground cover on the forest floor may obscure further elements of a field system.

This scattered group of long houses and enclosures appears to reflect a group of small farmsteads. These, for the most part, appear to have had a mainly pastoral economy as the long houses are typically attached to a stock enclosure. Their condition and multi-phased form suggests that some at least may have had medieval origins. The group is near to the EF IX and EF Xc settlement complexes; there are some similarities of structural form between them and there is a possibility that these were broadly contemporary medieval settlements.

EF IX – GILLERTHWAITE (Monuments EF 310-325) (Fig 8)

The group is situated on unenclosed land to the north and uphill of the EF X group and comprises a small group of cairns and possible associated field clearance boundaries. The cairns were generally in good condition and of medium size. There is a substantial gap between groups EF IX and EF X, and the two groups vary considerably in character. EF X comprises cultivation terraces, with occasional cairns that are directly associated with the terrace banks; whereas the EF IX group is a small localised cairnfield and incorporates only a single possible lynchet (EF 316). There is no evidence of a relationship between the

two groups and they were not necessarily contemporary. Fieldwalking undertaken to the north of group EF XVIII found no further features and it is therefore likely that this was a small, localised cairnfield. The form of the cairnfield is not atypical of prehistoric cairnfields and it is possible that this pre-dated the other sites immediately to the south.

EF X – GILLERTHWAITE (Monuments EF 337-50) (Fig 8, Plate 3)

This is a cultivated field-system associated with a long house (EF 345). The field system comprises either artificial terraces (EF 343 and EF 346) or larger fields with lynchets at the top and bottom (EF 344). The banks associated with these fields contain considerable quantities of stone material and these banks appear to have acted as depositories for stone brought up by the plough. Within the corner of the westernmost field of EF 344 is a small sub-circular hut platform. The long house also has a direct relationship with elements of the field system, but the two structures may reflect different phases of domestic occupation using a single field system. The long house is sub-rectangular, with a single eastern entrance, and is enclosed by an earthwork/wall. The form of the overall structure is closely comparable with the long houses of EF XIa.

The post-medieval stock enclosure EF 337 (Plate 3) overlies an earlier structure, fragments of which survive in the south-west corner of the enclosure. This structure is rectilinear in form and is internally terraced, it appears to be a hut and is potentially associated with elements of a terraced field bank which extends to the west of the stock enclosure.

The construction form is consistent with a medieval date and some of the structures suggest stock control (eg EF 398), however, they are also associated with cultivated fields and there is an implication that a variety of agricultural practices were practised in this locality. The medieval vaccary recorded in AD 1322 is described as being at the Capud de Eynerdale (head of Ennerdale), which broadly corresponds to the Gillerthwaite area. It is probable, therefore, that the medieval vaccary comprised one or more of the medieval site groups in this area (EF VI-XI) and indeed the thriving medieval community represented by the archaeological record probably developed from the original vaccary. The existence of a dairy/stock farm in 1322 does not necessarily indicate that it remained exclusively as such.

EF XIa – GILLERTHWAITE (Monuments EF 351-4) (Fig 8)

The group comprises three rectilinear structures adjacent to a stream on present-day pasture land, which are spatially associated with a small cultivation terrace (EF 354) just to the north. The largest of the three structures is EF 352 which is internally terraced and has an entrance at both ends. This appears to be a long house, but is relatively wide when compared with other long houses in the valley (eg group EF XIc). By contrast structure EF 351 is not internally terraced, it has a slightly irregular shape and has a possible entrance on the south-eastern side; it was not necessarily a domestic structure but instead may have been an ancillary building. Just to the east of EF 352 is a small partial enclosure, which was also not terraced; it has no obvious entrance but it is partly within an area of woodland and the banks, and potential entrance, may be obscured by woodland brash. Structure EF 353 is an elongated long house, which is internally terraced and has an entrance at the north-eastern corner.

EF XIb – GILLERTHWAITE (Monuments EF 355-9) (Fig 8)

This enclosure and group of clearance cairns lies on gently sloping ground between two

forest tracks. The enclosure now has a discontinuous circuit, perhaps because of disturbance or obscurity. Within the enclosure is a small sub-circular platform, which is terraced into the slope and may have been the site of a structure. The site group is spatially associated with a larger cairnfield (EF XI_d) and is relatively close to two small medieval farmsteads. The cairns are comparable in character to those of the EF XI_d cairnfield and it is possible that these two groups of cairns were contemporary.

EF XI_c – GILLERTHWAITE (Monuments: EF 360-2) (Fig 8)

These two long houses are located on a natural terrace, above the valley bottom; the terrace edges to the south and west are very steep and it is possible that the natural terrace has been artificially extended. Each of the two houses is surrounded by a bank and ditch; that of site EF 362 has in part been truncated by soil slippage and erosion of the terrace edge. Long house EF 362 is very ill-defined because of woodland brash and its precise form is uncertain. However, long house EF 360 is well-defined, incorporating two apertures through the long sides, and it has a basic cross passage configuration. These structures have a very distinctive character and are closely comparable to long house EF 345 of the EF X site group and also EF 44 and EF 521 of the Smithy Beck site groups (EF III and EF IV); they were clearly the product of a very local vernacular style. Although they may be broadly contemporary it is also possible that this design extends over many centuries of settlement in the valley.

EF XI_d – GILLERTHWAITE (Monuments EF 363-74) (Fig 8)

This is a group of 12 cairns on a prominent natural terrace which stands proud of the valley bottom; steep scarp slopes define the southern, western and eastern edges of the terrace. The cairns are large, well-defined and prominent. They incorporate considerable amounts of stone and their volume may reflect clearance from cultivation rather than pastoral activity. The terrace floor, however, is too obscured by vegetation and woodland debris from thinning to reveal evidence of cultivation. The group is spatially associated with a pair of long houses (EF XI_c), irregular enclosure and associated cairn group (EF XI_b).

EF XII – GILLERTHWAITE (Monuments: EF 330-334) (Fig 8)

This small cairnfield is sited on the moderately sloped valley side up from the main Gillerthwaite complex (EF XI). It consists of five widely dispersed and seemingly randomly distributed cairns; some of the cairns are fairly prominent and comprise mainly medium and large stones. There is no apparent association with any cultivation terraces or structural features and the group is comparable in character to the nearby EF IX cairnfield. This is not necessarily associated with the Gillerthwaite medieval settlement and may be prehistoric.

EF XIII – GILLERTHWAITE (Monuments: EF 376-98) (Fig 9)

This group comprises a large enclosure, artificial terraces/cultivated plots, and clearance cairns; it reflects an area of intensive clearance. The site is much overgrown and has been disturbed by forestry machinery, but does not appear to be excessively damaged. In the centre of the cairn group is a rectilinear terraced plot (EF 379/81), which is edged by linear cairns and has a lynchet break of slope at the top. There are other cairns or banks around it, one of which (EF 383) defines the top of a further lynchet. The cairns for the most part are

directly associated with the terraces, and there is an implication that the waste stone was largely brought up by the plough.

The enclosure (EF 398) has two approximately equal-sized compartments and a small, decayed rectilinear structure butted onto the eastern side of the enclosure. The enclosure is defined by very prominent, stone-revetted banks which are up to 1.1m in height. The small rectilinear structure was possibly domestic but it was too decayed to provide a reliable indication of function. The western entrance to the enclosure is adjacent to the dividing 'wall'/bank and therefore facilitates, by use of gates, the movement of stock into either one of the compartments. The structure is closely paralleled by enclosure HF 530 at Stone Rings on Heathwaite Fell, which is a large rectilinear, two equal-compartmented enclosure of a similar size to the EF 398 enclosure. HF 530 also has a gate operated entrance way to enable access into either of the enclosure compartments. The HF 530 enclosure is also spatially associated with a small cairnfield. The presence of a complex stock control-type entrance and domestic structures on the outside of the enclosure appears to confirm that these monuments had a stock control function.

No examples of this characteristic type of enclosure have been excavated from the region and consequently the chronology is somewhat uncertain; however, they have in the past been attributed to the medieval period on the basis of spatial association with datable features.

EF XIVA - RIVER LIZA (Monuments EF 438-59) (Fig 9)

This medium-sized cairnfield is situated on two levels of natural river terracing, the greater proportion being on the upper level. The full extent of the cairnfield might once have been greater, but the southern forestry road has been driven through the area just below the steep valley side and may have removed part of the site. Similarly, the area has been truncated to the north by river erosion. The slope between the two terrace levels has been used for discarding stones from cleared areas on the flatter gentle slopes of the terraces, though there is a greater concentration of cairns on the upper terrace, which might suggest that at the time of clearance it had a greater density of clearance stone or that it was more appropriate for agriculture.

On the lower, narrower terrace to the north, the cairns sit against the bottom of the upper terrace drop, with one long cairn (EF 458) just below and beyond the forward apron of that terrace. A later phase of use is represented by a horseshoe field built out of and on top of one of the cairns (EF 440). The distribution of the cairns is to an extent dictated by the natural topography, but there are potentially significant alignments away from the terrace edges (e.g. cairns EF 441-446). The cairns in this group are well-preserved and mainly comprise large stones.

Because of its good condition and its spatial association with the larger cairnfield and enclosed settlement, it has a relatively high grading.

EF XIVB - RIVER LIZA (Monuments EF 419, 437, EF 460-70) (Fig 9)

This site is shown as the 'Homestead' on modern and early OS mapping (SMR: 1222) and comprises an enclosed settlement (EF 410) and an associated cairnfield. The site has been severely affected by forestry operations and river erosion. Only the southern arc of the enclosed settlement has survived the encroachments of the River Liza. The walls are decayed and a path runs straight through it, exacerbating the site erosion. The site has also sustained damage from forestry machinery as evidenced by deep ruts. The cairnfield has

been disturbed by the construction of the road and the planting and subsequent felling of forest trees on the site has also degraded what is left; consequently the extant features are very poorly defined.

EF 410: despite the extensive disturbance to the enclosed settlement there is sufficient surviving to assess its character. It had a wide bank forming a sub-semicircular arc, which is truncated by the river erosion. The bank rises 1.5-2.0m above the internal level and is formed of small to medium stones which appear to have been piled up rather than built; this is confirmed by the section through the west end of the bank that has been cut by the river. The internal side of this bank slopes gently down, though it drops rather more steeply on the exterior side. Inside the northernmost point of the arc are the remains of at least three sub-rectangular structures, probably long houses, constructed against the bank; these appears to be contemporary with the bank but the relationships are fairly ill-defined and there is also a possibility that they represent a later re-use of the enclosure. The walls of the internal structures rise no more than 0.6-0.7m in height and are very poorly defined, being surrounded by collapsed stone rubble. The form of the structure is consistent with an Iron Age/Romano-British form of enclosed settlement.

Cairnfield: the cairns varied from highly disturbed ruined features through to some large, well-preserved examples; their condition relates directly to the localised forest clearance activity. Most of the cairns are aligned, often on the same orientations of stone banks (eg stone bank EF 412) and appear to reflect the deposition of clearance stone against the line of former boundaries. The stone boundaries and cairns define the edges of a sub-rectangular plot (EF 419-426, EF 428-430, EF 468-9, EF 464-466, EF 460, EF 412, EF 416-17); the cairns and banks are concentrated along significant alignments around an area which is devoid of cairns. The shape of the plot is largely dictated by the local topography; scarp slopes restrict the site to the north and east in particular. There is no evidence of any lynchets associated with the plot boundaries and consequently no direct evidence of cultivation. The major plot boundaries, EF 419-421 and EF 412/416-17, are orientated toward the enclosed settlement (EF 410) and there is an implication that the cairnfield/plot and the enclosed settlement were contemporary features.

This settlement and associated field system has a relatively coherent form; there are few extraneous cairns or other features and as such there is no evidence that the site was re-used from an earlier period. In general, it appears to be a product of a relatively short-lived period of occupation in the Iron Age or Romano-British period.

EF XIVC - RIVER LIZA (Monuments EF 399-409) (Fig 9)

This cairnfield sits on a long raised plateau above the alluvial mire of the River Liza. The plateau has been considerably eroded since the cairnfield's creation, and part of the latter has been lost; the site has also been damaged by forestry activity. There is one marked alignment of cairns (EF 402, EF 404, EF 406 and EF 407), but otherwise the cairns have a broadly random distribution largely dictated by the topography. There is no sign of associated structures or cultivated terraces, the form of the cairnfield being broadly consistent with that exhibited at EF XIVb, it is probable that they were contemporary.

EF XV - DUB'S QUARRY (Monument EF 536) (Fig 12)

This site is a post-medieval slate quarry and workings located within an afforested area on the northern slopes of Ennerdale and adjacent to a stream. An anonymous author, writing in 1866, (Anon 1866) mentioned that a Gillowthwaite (sic) Quarry was in the course of

being opened and this probably refers to Dub's quarry; certainly the OS first edition map (1867) shows the quarry as in use (Section 4.5.15) from the following year.

The quarry is small and elongated, some 24m in length, reflecting the working of a seam of rock. It has vertical sides ranging from 0.5m at its south-western entrance to 3.5m to the north-east. It is now partially covered with vegetation and there is a stream course extending through it; the quarry has clearly been out of production for some time. A small revetment wall, along both internal faces of the quarry entrance, was recorded, comprising five courses of rough worked stone.

The site has a relatively large level, sub-circular processing platform (16m across) adjacent to and at a similar level to the quarry; it is, however, situated up to 4m above the valley side to the south-west. It is constructed from quarry spoil, reflecting the considerable volume of waste product from the quarry. There are two structures on the platform, the larger has two cells (EF 536a and b) and is sunk into the platform, by up to 2.5m, the other (EF 536c) is a smaller single-celled, very decayed structure and was constructed on top of the platform. Around the forward apron of the spoil mound is a roughly constructed wall or linear mound (EF 536d); this is constructed on top of and at the edge of the spoil mound and must therefore be one of the latest features on the site. The wall/bank is largely composed of slate. By contrast the spoil mound is largely composed of Borrowdale Volcanic tuffs, although there is some slate waste; this suggests that much of the quarried product was not usable slate.

The single celled structure is at the south-eastern side of the processing platform. It has a rectangular plan, a level interior base, and is 5.7m x 4.2m in size. It is constructed of dry-stone masonry using small roughly worked stones, standing to a height of only 0.45m. The structure is severely decayed and there are sections of walling which have not survived on the surface; that it was constructed on top of the spoil mound, however, indicates that it was built later than the larger a/b structure which has had the spoil mound deposited around it.

On the north-eastern side of the processing platform was the twin-celled structure (a/b), which is rectilinear in plan, of rough worked stone construction, and was internally built on two lower levels (7.3m x 5.1m in size). The wall remains stand to a maximum height of 0.25m above the processing platform level, although the base of the lower western cell is as much as 2.2m below the spoil. The eastern cell, measuring 3.4m by 5.1m, has a level internal base c1.4m below the level of the processing platform and was accessed from the processing platform by a roughly constructed series of steps or ramp; it is through this entrance that the stream now runs. A further entrance, 0.55m wide, was situated within the eastern wall affording access to the western cell. The western cell is 3.7m by 5.1m with a rubble-filled base, which is c0.8m lower than that of the adjacent cell. A fireplace was located within the eastern wall and there is a small flue opening within the eastern wall which was circular in plan, with a diameter of 0.25m. This appears to indicate that the structure was designed for 'domestic' use and was probably a site office.

EF XVI - GREAT COVE SETTLEMENT (Sites 51, 76, 171) (Fig 11, Plate 5)

The settlement at Great Cove comprises ten distinct structures: a main group of nine ruined stone buildings of varying size and condition, two partially extant stretches of extant dry-stone walling, a stone-capped well or spring and the remains of a substantial, slightly outlying building to the south-east of the main group. The structural remains covered a distance of 200m x 40m, aligned north-west/south-east, and were centred around an area of

large scree boulders which had been utilised as part of the fabric of the buildings. The largest of the main group was 17m x 7m. Several of this group had internal divisions and possible flanking walls, though the overburden of building tumble and scree made this hard to determine. The outlying building was found to be of significantly better construction, though it too abutted a large outcrop of stone forming its rear wall, which was tall enough to have allowed this structure to be roofed. The entrance to the main area, which measured 17m x 10m, was quined and narrow, more akin to a house door than one to a fold or bield. It appears that this would fit well into the shieling class of summer stock movement and settlement typical of medieval transhumance practices.

The location and topography of the site, in conjunction with the presence of the medieval settlement at Gillerthwaite, back up this suggestion and, further more, may indicate that this was actually the shieling settlement for Gillerthwaite. The comparative location of the two sites (Fig 11) shows the route down Deep Gill leads straight to Gillerthwaite and the garth. The topography of the route is steep in places but there are current footpaths and a bridleway through the area, indicating it is not an impossible route. The cove is flat, wide, served by a mountain stream and contained to the south by Little Cowdell Crag. The ground appears to have undergone clearance, at least of surface boulders, to encourage grass growth for stock. There is no direct evidence for inter-settlement relationship, but the circumstantial evidence provides a good argument for it being the case.

EF XVII - HERDUS FIELD SYSTEM (Sites 102, 103, 139 and 182) (Fig 10)

On the south-west slopes of Herdus are the relict remains of a field system (Sites 102, 103 and 139) which was not shown on the OS first edition map (1867) and was evidently abandoned at a much earlier date. This represents an example of the parcelling of the land on the lower slopes, up to the most extreme and unusable terrain, where an horizontal wall was built running along the base of the Herdus crags with walls running down slope, creating a series of 'parabolic' land parcels along the valley slopes. The tumbled dry-stone walls are in places (Site 102) aligned with the boundaries of the adjacent enclosed land to the west, and they appear to represent a, now abandoned, element of intake associated with the former Hollins Farm (310903 516112). The farm itself was shown as still extant on the OS first edition map (1867) but now survives only as a sheepfold. Despite the apparent alignment of the relict walls with those of the present field system, they stop short of the present-day enclosure and, to judge by the occasional survival of stone deposits on the line of the walls near to extant enclosure boundaries, parts of these walls have apparently been robbed. Although, for the most part, the field system is omitted from the OS first edition map, a small rectilinear enclosure (Site 139, Plate 6) is shown. The relationships with the present-day field system indicate that these remains reflect the contraction, and ultimate abandonment, of Hollins Farm, which exploited the marginal and exposed lands at the foot of Herdus.

APPENDIX 5: GAZETTEER OF SEASON 4 SITES

Site No	1	PRN	-
Name	Lakeside- Red Beck	Period	Unknown
NGR	311019 514309	Type	Sheepfold
Source	OS First Edition 6" Map 1867; OS New Edition; OA North Survey		

Description

A double-celled building placed on the east side of the enclosure wall by the lakeside. It consists of a southern revetted wall, which cuts the hillside. The wall features large stones at its base and eight rough courses of dry-stone, reaching 1.4m high on its northern side. To the west the structure probably once joined the boundary wall but the remaining evidence is inconclusive. The east wall is up to 1m high by 0.5m wide, and features six courses, with two courses of large stones and smaller stones in rough courses above. Although the walls are doubled-faced, there is no packing. There is an 1m wide entrance approximately 3.5m from the south end of the wall, which is finished with quoin stones. The central wall is wider than the others at 1m; and it is 5m long and 0.8m high. Again the wall is double-faced, but here there is a rubble core. The structure would appear to be too substantial for a sheepfold.

Site No	2	PRN	-
Name	Jennycrag	Period	Unknown
NGR	311113 514266	Type	Well
Source	OS First Edition 6" Map 1867		

Description

A well included on the OS First Edition Map 1867.

Site No	3	PRN	-
Name	Angler's Crag	Period	Unknown
NGR	310319 514774	Type	Sheepfold
Source	OS First Edition 6" Map 1867; OA North Survey		

Description

A dry-stone constructed enclosure, butting against the enclosure boundary wall (site 99) at its north-west end, near the lakeside footpath. It consists of two semicircles located to the east side of the wall. The smaller enclosure is 3m wide by 4m long. The entrance for the larger northern enclosure is to the north. It measures approximately 8m by 7m and its walls, which are 0.5m wide and 1.2m high, feature eight uneven courses of small- and medium-sized angular or sub-angular scree.

Site No	4	PRN	-
Name	Crag Fell	Period	Post-medieval
NGR	310544 513875	Type	Level
Source	OS First Edition 6" Map 1867; OA North Survey; Hewer 1988		

Description

An iron mine, which appears on the OS First Edition Map 1867 and was originally referred to as Old Crag Fell Mine (site 5). The mouth of the level has since collapsed and is now difficult to ascertain.

Site No	5	PRN	-
Name	Crag Fell	Period	Post-medieval
NGR	310494 513835	Type	Level
Source	OS First Edition 6" Map 1867; Hewer 1988		

Description

An iron mine, which appears on the OS First Edition Map 1867 and was originally referred to as Old Crag Fell Mine (site 4). The mouth of the level has since collapsed and is now difficult to ascertain.

Site No	6	PRN	-
Name	Smithy Beck Forest	Period	Unknown
NGR	311490 514952	Type	Lifting stones
Source	OS First Edition 6" Map 1867		

Description

A group of lifting stones included on the OS First Edition Map 1867.

Site No	7	PRN	-
Name	Herdus	Period	Unknown
NGR	311737 516935	Type	Sheepfold
Source	OS First Edition 6" Map 1867; OA North Survey		

Description

A large substantial sheepfold, consisting of a rectangular enclosure with a 0.8m wide entrance to the north and an entrance to the west. The east end has two wing walls running away diagonally as shelters. The walls are very substantial and well constructed, with medium to large angular and squared stones, up to 1m square, used throughout. The smaller stones are stacked vertically as capping stones. It is revetted into the slope to the south, with walls surviving up to 2m high by 1.2m wide. The entire site is approximately 17m long from east to west, and it is 9m wide excluding the wing walls.

Site No	8	PRN	-
Name	Herdus	Period	Unknown
NGR	311724 516865	Type	Bield
Source	OS First Edition 6" Map 1867; OA North Survey		

Description

A linear dry-stone wall with a small semi-circular shelter at the east end. The wall is 6m long, 0.75m wide, and 1.3m high. It consists of six rough courses using angular and squared scree.

Site No	9	PRN	-
Name	Herdus	Period	Post-medieval
NGR	311882 516967	Type	Sheepfold/Possible shieling
Source	OS First Edition 1867; OA North Survey		

Description

The remains of a dry-stone structure measuring 12m by 8m. It is rectangular with an offset internal division to the north-west, thus creating a part enclosed triangular cell. It is shown on the OS First Edition as a sheepfold, but may once have been a shieling.

Site No	10	PRN	-
Name	Herdus	Period	Unknown
NGR	312030 517068	Type	Mound
Source	OS First Edition 6" Map 1867		

Description

A 'mound' included on the OS First Edition Map 1867.

Site No	11	PRN	-
Name	Herdus	Period	Unknown
NGR	312090 516816	Type	Pile of stones
Source	OS First Edition 6" Map 1867; OA North Survey		

Description

A pile of small to medium stones of unknown date and function. Its height is approximately 0.3m and its diameter 2m.

Site No	12	PRN	-
Name	Floutern Crag	Period	Unknown

NGR 312367 516458 **Type** Cairn
Source OS First Edition 6" Map 1867; OA North Survey

Description

A stone cairn, not likely to be of great antiquity. It measures approximately 3m in diameter and 9m at the maximum height of the dome.

Site No 13 **PRN** -
Name Floutern Crag **Period** Unknown
NGR 312099 516697 **Type** Cairn
Source OS First Edition 6" Map 1867

Description

A marker cairn included on the OS First Edition Map 1867.

Site No 14 **PRN** -
Name Scaw **Period** Unknown
NGR 312699 516246 **Type** Cairn
Source OS First Edition 6" Map 1867

Description

A marker cairn included on the OS First Edition Map 1867.

Site No 15 **PRN** -
Name Scaw **Period** Unknown
NGR 312751 516230 **Type** Well
Source OS First Edition 6" Map 1867; OA North Survey

Description

A spring head emerging from a pile of stones. The boundary fence to the north-east has been moved 10m further east. Prior to the present fence line, there was a post and wire fence and before that, an iron posted fence.

Site No 16 **PRN** -
Name Brown How **Period** Post-medieval
NGR 311807 515850 **Type** Sheepfold
Source OS First Edition 6" Map 1867; OA North Survey

Description

A triangular, dry-stone fold measuring approximately 9m by 9m by 7m. It consists of eight or nine rough and unfaced courses, and stands about 1.5m in height. The entrance is at the south-east corner. It is in a good state of repair but would appear to be disused. A wall extends from the south-east corner to the crag face, creating an enclosed sheltered area. This clearly butts up against the old wall, but would appear to be similar in weathering and lichen. This would suggest that the structures belong to separate building phases, but are nonetheless roughly contemporary.

Site No 17 **PRN** 30532
Name Scaw **Period** Unknown
NGR 313290 515540 **Type** Sheepfold
Source OS First Edition. 6" Map 1867; SMR 30532- M Davies-Shiel map 1990; OA North Survey

Description

A rectangular sheepfold, which has a rounded end on the west side and is approximately 17m long and 8m wide. It is twin celled with the smaller cell to the east. This smaller cell has a sheep creep in the east wall. The entrance to the main cell is in the south wall and is approximately 0.5m wide. The walls are 0.5m wide and up to 1.75m high, with coping stones on top. There are eight distinct courses of small to medium angular and sub-angular scree stones, which are double faced with a rubble core.

Site No 18 **PRN** -
Name Gale Fell **Period** Unknown
NGR 313359 516378 **Type** Cairn

Source OS First Edition 6" Map 1867; OA North Survey

Description

A few remnants of a marker cairn, which appears as random stone scattered at the corner of a boundary, where three phases of National Trust fencing have been placed.

Site No	19	PRN	-
Name	Gale Fell	Period	Unknown
NGR	313533 516242	Type	Cairn
Source	OS First Edition 6" Map 1867; OA North Survey		

Description

A marker cairn included on the OS First Edition Map 1867.

Site No	20	PRN	-
Name	Starling Dodd	Period	Unknown
NGR	313793 515951	Type	Cairn
Source	OS First Edition 6" Map 1867; OA North Survey		

Description

A marker cairn included on the OS First Edition Map 1867.

Site No	21	PRN	-
Name	Starling Dodd	Period	Unknown
NGR	314110 515898	Type	Cairn
Source	OS First Edition 6" Map 1867; OA North Survey		

Description

A boundary marker cairn located on the north-west side of Starling Dodd (Plate 11). It contains ironwork from the remains of a fence (site 137) which runs adjacent to it on the southern side. The cairn measures approximately 1.2m in diameter and 0.3m high.

Site No	22	PRN	-
Name	Starling Dodd	Period	Unknown
NGR	314231 515793	Type	Cairn
Source	OS First Edition 6" Map 1867; OA North Survey		

Description

A marker cairn containing scrap iron fencing and random inclusions from walkers.

Site No	23	PRN	-
Name	Starling Dodd	Period	Unknown
NGR	314343 515774	Type	Cairn
Source	OS First Edition 6" Map 1867; OA North Survey		

Description

A marker cairn included on the OS First Edition Map 1867.

Site No	24	PRN	-
Name	Starling Dodd	Period	Unknown
NGR	314884 515554	Type	Cairn
Source	OS First Edition 6" Map 1867; OA North Survey		

Description

A marker cairn included on the OS First Edition Map 1867.

Site No	25	PRN	-
Name	Gillflinter Beck	Period	Unknown
NGR	314981 515522	Type	Cairn
Source	OS First Edition 6" Map 1867; OA North Survey		

Description

A boundary marker cairn with a small shelter roughly 15m to the south-east. The shelter is an 'L'- shaped, rough dry-stone scree wall, measuring 3m long, 1.5m wide, and 1m high.

Site No	26	PRN	-
Name	Dodds Gill Beck	Period	Unknown
NGR	314810 515553	Type	Cairn
Source	OS First Edition 6" Map 1867; OA North Survey		
Description	A marker cairn included on the OS First Edition Map 1867.		

Site No	27	PRN	-
Name	The Saddle	Period	Unknown
NGR	315757 515610	Type	Cairn
Source	OS First Edition 6" Map 1867; OA North Survey		
Description	A marker cairn included on the OS First Edition Map 1867.		

Site No	28	PRN	-
Name	The Saddle	Period	Unknown
NGR	315961 515507	Type	Cairn
Source	OS First Edition 6" Map 1867; OA North Survey		
Description	A marker cairn included on the OS First Edition Map 1867.		

Site No	29	PRN	-
Name	The Saddle	Period	Unknown
NGR	316022 515421	Type	Cairn
Source	OS First Edition 6" Map 1867; OA North Survey		
Description	A marker cairn included on the OS First Edition Map 1867.		

Site No	30	PRN	-
Name	The Saddle	Period	Unknown
NGR	316005 515378	Type	Cairn
Source	OS First Edition 6" Map 1867; OA North Survey		
Description	A marker cairn included on the OS First Edition Map 1867.		

Site No	31	PRN	-
Name	The Saddle	Period	Unknown
NGR	316005 515281	Type	Cairn
Source	OS First Edition 6" Map 1867; OA North Survey		
Description	A marker cairn included on the OS First Edition Map 1867.		

Site No	32	PRN	-
Name	The Saddle	Period	Unknown
NGR	315928 515213	Type	Cairn
Source	OS First Edition 6" Map 1867; OA North Survey		
Description	A marker cairn included on the OS First Edition Map 1867.		

Site No	33	PRN	-
Name	Chapel Craggs	Period	Unknown
NGR	316290 515059	Type	Cairn
Source	OS First Edition 6" Map 1867; OA North Survey		

Description

A marker cairn included on the OS First Edition Map 1867.

Site No	34	PRN	-
Name	Chapel Craggs	Period	Unknown
NGR	316302 514990	Type	Cairn
Source	OS First Edition 6" Map 1867; OA North Survey		

Description

A marker cairn included on the OS First Edition Map 1867.

Site No	35	PRN	-
Name	High Stile	Period	Unknown
NGR	316902 514567	Type	Cairn
Source	OS First Edition 6" Map 1867		

Description

A marker cairn included on the OS First Edition Map 1867.

Site No	36	PRN	-
Name	High Stile	Period	Unknown
NGR	316911 514691	Type	Cairn
Source	OS First Edition 6" Map 1867		

Description

A marker cairn included on the OS First Edition Map 1867.

Site No	37	PRN	-
Name	High Stile	Period	Unknown
NGR	316851 514762	Type	Cairn
Source	OS First Edition 6" Map 1867; OA North Survey		

Description

A marker cairn (Plate 2) included on the OS First Edition Map 1867.

Site No	38	PRN	-
Name	Chapel Craggs	Period	Unknown
NGR	316482 514845	Type	Standing stone
Source	OS First Edition 6" Map 1867; OA North Survey		

Description

A standing stone included on the OS First Edition Map 1867.

Site No	39	PRN	12105
Name	Dubs Quarry	Period	Post-medieval
NGR	318500 512850	Type	Quarry
Source	OS First Edition 6" Map number 69; LUAU 1998		

Description

The quarry is small and elongated, approximately 24 m in length, and reflects the working of a seam of rock. It has vertical slides ranging from 0.5m to 3.5m and is now partially covered with vegetation. There is a stream course extending through it; the quarry has been out of production for some time. There is a level, sub-circular processing platform, which is situated up to 4m above the valley side to the south-west. It is constructed from quarry spoil. There is a single-celled structure at the south-eastern side of the processing

platform and a twin-celled structure to the north-eastern side. This twin celled structure was likely to have been designed for domestic use and was probably a site office.

Site No	40	PRN	30526
Name	Dubs Quarry	Period	Post-medieval
NGR	318320 512880	Type	Sheepfold
Source	M Davies-Shiel map 1990		

Description

The site of a sheepfold included on the M Davies-Shiel map 1990.

Site No	41	PRN	-
Name	Ennerdale Fell Plantations	Period	Unknown
NGR	317342 513305	Type	Bields
Source	OS First Edition 6" Map 1867		

Description

A field or bields included on the OS First Edition Map 1867.

Site No	42	PRN	-
Name	Ennerdale Forest	Period	Post-medieval
NGR	317342 513305	Type	Bield
Source	OS First Edition 6" Map 1867; OA North Survey 15/04/03 PJS		

Description

A disused bield, located to the south of a lesser used trackway and partially obscured by plantation. The bield is a 1m high and 10m long curved wall which runs into the plantation before returning to the south-east for 2m.

Site No	43	PRN	-
Name	Ling Mell Plantation	Period	Unknown
NGR	314230 513552	Type	Bield
Source	OS First Edition 6" Map 1867; OA North Survey 15/04/03 PJS		

Description

A disused and ruinous bield built into the slope and measuring 8m high, 6m wide, and 1m high. A large stone forms a buttress to retain the extant wall. To the west, wall tumble can be seen.

Site No	44	PRN	-
Name	Woundell Beck	Period	Post-medieval
NGR	313292 513747	Type	Sheepfold
Source	OS First Edition 6" Map 1867; OA North Survey 14/04/03 PJS		

Description

Remains of a sheepfold which is now disused and ruinous. There is only one extant section of wall, which abuts the ruined boundary wall shown on current mapping. It is 5m long, 5m thick, and 1.4m high.

Site No	45	PRN	-
Name	Kirk Fell	Period	Unknown
NGR	319914 510761	Type	Cairn
Source	OS First Edition 6" Map 1867		

Description

A marker cairn included on the OS First Edition Map 1867.

Site No	46	PRN	-
Name	Kirk Fell	Period	Unknown
NGR	319531 510738	Type	Cairn
Source	OS First Edition 6" Map 1867		

Description

A cairn which appears on the OS First Edition Map 1867.

Site No	47	PRN	-
Name	Seavy Knott	Period	Unknown
NGR	319904 511941	Type	Bield
Source	OS First Edition 6" Map 1867		

Description

A bield included on the OS First Edition Map 1867.

Site No	48	PRN	-
Name	Ashcrag Holme	Period	Post-medieval
NGR	319448 512134	Type	Folds
Source	OS First Edition 6" Map 1867; OA North Survey		

Description

A long narrow complex of folds, which are ruinous and collapsed. At least three cells remain though these are also in a state of disrepair.

Site No	49	PRN	-
Name	Green cove	Period	Unknown
NGR	318505 511700	Type	Cloven stone
Source	OS First Edition 6" Map 1867		

Description

A cloven stone which is included in the OS First Edition Map 1867.

Site No	50	PRN	-
Name	Pillar Cove	Period	Unknown
NGR	317309 512439	Type	Pillar stone
Source	OS First Edition 6" Map 1867		

Description

A standing stone included in the OS First Edition Map 1867.

Site No	51	PRN	-
Name	Great Cove	Period	Unknown
NGR	314454 511378	Type	Sheepfold
Source	OS First Edition 6" Map 1867		

Description

A sheepfold included on the OS First Edition Map 1867.

Site No	52	PRN	-
Name	Crag Fell	Period	Unknown
NGR	310551 513958	Type	Old level
Source	OS Second Edition 6" Map 1900		

Description

A level which appears on the OS Second Edition Map 1900. It is likely to be a previously unidentified level related to Old Crag Fell mine (sites 4 and 5). Like these levels it is collapsed and is difficult to discern.

Site No	53	PRN	-
Name	Crag Fell	Period	Unknown
NGR	310578 513817	Type	Hut
Source	OA North Survey		

Description

A rectangular revetted hut platform built into wall 116 to the west. It is 8m long east to west, and 6m wide. At the front it has a revetted dry-stone wall of two or three courses, which measures 0.3m high, and contains angular scree. This wall is also cut into the hillside.

Site No	54	PRN	-
Name	Crag Fell	Period	Post-medieval
NGR	514107310252	Type	Old level
Source	OS Second Edition 6" Map 1900; Hewer 1988		

Description

A level which appears on the OS Second Edition Map 1900 and which was originally known as Eaton no 1 and, after 1896, Pennington Drift. The mouth of the level has since collapsed and is now difficult to discern.

Site No	55	PRN	-
Name	Crag Fell	Period	Post-medieval
NGR	310249 514105	Type	Old level
Source	OS Second Edition 6" Map 1900; Hewer 1988		

Description

A level which is included in the OS Second Edition Map 1900 and originally referred to as Eaton no 2 after the lessee. The mouth of the level has since collapsed and is now difficult to discern.

Site No	56	PRN	-
Name	Crag Fell	Period	Post-medieval
NGR	310610 514043	Type	Level
Source	OS Second Edition 6" Map 1900		

Description

A level which appears on the OS Second Edition Map 1900. It is likely to be part of the same Pennington Drift mine as sites 54 and 163. The mouth of the level has collapsed and it is now difficult to identify.

Site No	57	PRN	-
Name	Crag Fell	Period	Post-medieval
NGR	310825 513755	Type	Old level
Source	OS Second Edition 6" Map 1900		

Description

A level included on the OS Second Edition Map 1900, which may be connected to the levels at Old Crag Fell mine nearby. The mouth of the level has collapsed and it is now difficult to identify.

Site No	58	PRN	-
Name	Boat How	Period	Post-medieval
NGR	310687 513812	Type	Old level
Source	OS Second Edition 6" Map 1900; Hewer 1988; OA North Survey		

Description

A disused mining level below Boat How Crag at the west of the park. It is a stone-revetted level which is cut into the slope. The walls stand to 0.6m and are dilapidated. To the west and slightly upslope, there is a possible second level, which is in a worse state of preservation, being now almost entirely covered by turf.

Site No	59	PRN	-
Name	Crag Fell	Period	Post-medieval
NGR	310133 514576	Type	Old level and roofed structure
Source	OS Second Edition 6" Map 1900; Hewer 1988		

Description

A level which appears in the OS Second Edition Map 1900. Originally referred to as Angler's Crag Level, the

mouth of the level has since collapsed and now is difficult to discern.

Site No	60	PRN	-
Name	Moss Dub	Period	Post-medieval
NGR	314630 513407	Type	Old level
Source	OS Second Edition 6" Map 1900		

Description

A level which is included in the OS Second Edition Map 1900. The mouth of the level has since collapsed and is now difficult to discern.

Site No	61	PRN	-
Name	Moss Dub	Period	Post-medieval
NGR	314771 513502	Type	Old level
Source	OS Second Edition 6" Map 1900		

Description

A level which appears in the Second Edition Map 1900. The mouth of the level has since collapsed and is now difficult to discern.

Site No	62	PRN	-
Name	Ling Mell Plantations	Period	Post-medieval
NGR	313699 513514	Type	Old level
Source	OS Second Edition 6" Map 1900		

Description

A level which is included in the OS Second Edition Map 1900. The mouth of the level has since collapsed and is now difficult to discern.

Site No	63	PRN	-
Name	Ling Mell Plantations	Period	Unknown
NGR	314173 513622	Type	Bields
Source	OS Second Edition 6" Map 1900		

Description

A field which features in the OS Second Edition Map 1900.

Site No	64	PRN	-
Name	Ennerdale Forest	Period	Unknown
NGR	315275 510835	Type	Cairn Field
Source	OS Second Edition Map 1900		

Description

The south-east corner of the cairnfield depicted on the OS Second Edition Map 1900.

Site No	65	PRN	-
Name	Ennerdale Forest	Period	Unknown
NGR	315439 513591	Type	Bield
Source	OS Second Edition 6" Map 1900		

Description

A field which appears on the OS Second Edition Map 1900.

Site No	66	PRN	-
Name	Ennerdale Forest	Period	Unknown
NGR	315210 513533	Type	Bield
Source	OS Second Edition 6" Map 1900		

Description

A field which appears on the OS Second Edition Map 1900.

Site No	67	PRN	-
Name	Ennerdale Forest	Period	Unknown
NGR	316209 513721	Type	Bield
Source	OS Second Edition 6" Map 1900		

Description

A bield included in the OS Second Edition Map 1900.

Site No	68	PRN	-
Name	White Pike	Period	Unknown
NGR	315768 514952	Type	Sheepfold
Source	OS Second Edition 6" Map 1900; OA North Survey		

Description

A dilapidated sheep shelter, which, although in a poor condition, is still in use, as is suggested by modern dumping. It is L-shaped, using the crag as the northern side, and measures approximately 8m long by 6m wide. It was originally well built, featuring two faces of medium to large sub-angular scree with a rubble core. The walls, which consist of eight rough courses, measure 1.2m high and up to 0.7m thick.

Site No	69	PRN	-
Name	The Knors	Period	Unknown
NGR	315762 514777	Type	Sheepfold
Source	OS Second Edition 6" Map 1900		

Description

A sheepfold included on the OS Second Edition Map 1900.

Site No	70	PRN	12494
Name	Iron Crag	Period	Post-medieval
NGR	312923 512374	Type	Old level
Source	OS Second Edition 6" Map 1900; Hewer 1988		

Description

A level which is included in the OS Second Edition 1900 and was originally referred to as Iron Crag Mine (see site 167). The mouth of the level is now collapsed and difficult to discern.

Site No	71	PRN	-
Name	Silver Cove	Period	Post-medieval
NGR	313339 511929	Type	Old level
Source	OS Second Edition 6" Map 1900; Hewer 1988		

Description

A level included in the OS Second Edition Map 1900. The mouth of the level has now collapsed and it is difficult to discern.

Site No	72	PRN	-
Name	Ashcrag Holme	Period	Unknown
NGR	319337 512340	Type	Roofed buildings
Source	OS Second Edition 6" Map 1900		

Description

An unspecified building or buildings which is included in the OS Second Edition Map 1900.

Site No	73	PRN	-
Name	Ashcrag Holme	Period	Unknown
NGR	319453 512064	Type	Bield

Source OS Second Edition 6" Map 1900

Description

A field which appears in the OS Second Edition Map 1900.

Site No 74 **PRN** -
Name Ashcrag Holme **Period** Post-medieval
NGR 319668 512285 **Type** Sheepfold
Source AP 1973: 73/140/200; OS Second Edition 6" Map 1900; OA North Survey

Description

A small fold measuring approximately 5m by 5m, with an entrance to the centre of the south-facing wall. It is now beginning to collapse and in a state of increasing disrepair.

Site No 75 **PRN** -
Name Comb Craggs **Period** Unknown
NGR 317067 513993 **Type** Bield
Source AP 1973: 73/140/218-219; AP 1983: 163/91

Description

A possible bield which has been identified by OS Aerial Photography.

Site No 76 **PRN** -
Name Great Cove **Period** Unknown
NGR 314327 511356 **Type** Walled Structures
Source AP 1972: 72/019/219; AP 1973: 73/140/246,260

Description

A group of walled structures identified by OS Aerial photography and which may indicate a settlement site.

Site No 77 **PRN** -
Name Haycock **Period** Unknown
NGR 314681 511174 **Type** Possible horseshoe enclosure
Source AP 1973: 73/140/246

Description

A horseshoe enclosure identified by OS Aerial Photography.

Site No 78 **PRN** -
Name Cat Crag **Period** Unknown
NGR 314570 514995 **Type** Sheepfold
Source AP 1973: 73/140/251; OS New Edition; OA North Survey

Description

A sheepfold measuring approximately 25m in length. The main bullet-shaped cell is 15m by 6m and is wider at its western end, which includes the exit. To the west are two wings, consisting of two 10m long funnelling walls. These taper inwards towards the main fold. The second cell is circular at its north-west end and is approximately 4m in diameter. The walls are approximately 1.7m high and are 1m thick at their base, tapering to 0.5m at the top. These walls feature eight courses of small to medium round and sub-rounded stones; occasionally large boulders are included.

Site No 79 **PRN** -
Name Gillflinter Beck **Period** Unknown
NGR 315184 514878 **Type** Small enclosure
Source AP 1973: 73140/252

Description

A small enclosure identified by OS Aerial Photography.

Site No 80 **PRN** -

Name	Ennerdale Fell	Period	Unknown
NGR	313054 512586	Type	Sheepfold
Source	AP 1973: 73/140/258		

Description

A sheepfold identified by OS Aerial Photography

Site No	81	PRN	-
Name	Boat How	Period	Unknown
NGR	310503 513567	Type	L-shaped structure
Source	AP 1973: 73/140/261-262		

Description

An 'L'-shaped structure identified by OS Aerial Photography.

Site No	82	PRN	-
Name	Boat How	Period	Unknown
NGR	310611 513393	Type	L-shaped structure
Source	AP 1973: 73/140/261-262		

Description

A small 'L'-shaped structure identified by OS Aerial Photography.

Site No	83	PRN	-
Name	Gillercomb Head	Period	Post-medieval
NGR	321220 511384	Type	Sheepfold
Source	AP 1983: 159/29; OA North Survey		

Description

A sheep-shelter/bield shown on aerial photographs. It is a curved dry-stone wall which forms a sub-circular shelter. The wall stands at 1.3m high, is 0.6m thick and is 10m in diameter. The shelter is not maintained and is now starting to collapse.

Site No	84	PRN	-
Name	Brin Crag	Period	Unknown
NGR	320832 512074	Type	Possible stretch of walling
Source	AP 1983:159/30		

Description

A stretch of walling identified by Aerial Photography (Ministry of Agriculture, Fisheries and Food).

Site No	85	PRN	-
Name	Ash Crag	Period	Unknown
NGR	319397 511691	Type	Possible enclosure
Source	AP 1983: 163/32		

Description

A possible enclosure identified by Aerial Photography (Ministry of Agriculture, Fisheries and Food).

Site No	86	PRN	-
Name	Angler's Crag	Period	Post-medieval
NGR	309096 515068	Type	Quarries and ramps
Source	OA North Survey		

Description

Two small field quarries on the shore of Ennerdale Water below Revelin Crag. They are 15m apart and measure 7.5-8m in diameter with a maximum working face of 3m high.

Site No	87	PRN	-
Name	Revelin Crag	Period	Unknown
NGR	309263 515066	Type	Shelter
Source	OA North Survey		

Description

A small, circular dry-stone shelter of unknown date and function. It is approximately 3m in diameter by 0.4m high. The walls are 0.4m thick and feature four rough courses of angular scree. On the northern side a large earthfast stone has been incorporated into the structure. It is situated in an area of scree at the lake edge, on the bottom slope of Revelin Crag. This scree area has several possible instances of rough walling which run downhill, but it is unclear if these are anthropogenic.

Site No	88	PRN	-
Name	Angler's Crag	Period	Post-medieval
NGR	309845 515049	Type	Cairn
Source	OA North Survey		

Description

A small, circular walker's cairn located on top of Angler's Crag. It is 1m in diameter and 0.3m high.

Site No	89	PRN	-
Name	Crag Fell	Period	Unknown
NGR	310213 514685	Type	Enclosure wall
Source	OA North Survey		

Description

A section of dry-stone walling extending out from the area of Crag Fell. It is substantially decayed, but includes a section standing to two or three courses.

Site No	90	PRN	-
Name	Crag Fell	Period	Unknown
NGR	310487 514391	Type	Earthworks (possible bloomery)
Source	OA North Survey		

Description

Earthworks located on the valley side below Crag Fell. They consist of several overgrown platforms and

mounds to the south of the footpath. It may be a bloomery or a similar type of industrial site. The site is approximately 15m in diameter. The mounds are up to 6m in diameter and 0.6m in height, varying from sub-circular to oval.

Site No	91	PRN	-
Name	Crag Fell	Period	Post-medieval
NGR	310722 514363	Type	Charcoal platform
Source	OA North Survey		

Description

A small, circular platform cut into the valley side under Crag Fell, near an area of deciduous woodland. It is banked up at the front with a 3.5m diameter flat area and it is 1m high from the base of the front bank. It is probably a charcoal burning platform.

Site No	92	PRN	-
Name	Crag Fell	Period	Post-medieval
NGR	310843 514290	Type	Charcoal platform
Source	OA North Survey		

Description

A small platform situated amongst the deciduous woodland below Crag Fell approximately 3.5m in diameter. The deciduous trees show no evidence of coppicing or pollarding.

Site No	93	PRN	-
Name	Red Beck	Period	Post-medieval
NGR	310925 514209	Type	Quarry
Source	OA North Survey		

Description

A small quarry scoop located to the east of the boundary wall. It is approximately 2.5m in diameter and its face is up to 0.6m high.

Site No	94	PRN	-
Name	Red Beck	Period	Post-medieval
NGR	310860 514126	Type	Charcoal platform
Source	OA North Survey		

Description

A small, circular platform cut into the valley side, to the east of Red Beck, approximately 2.5m in diameter.

Site No	95	PRN	-
Name	Angler's Crag	Period	Post-medieval
NGR	309766 515028	Type	Potash kiln
Source	OA North Survey		

Description

A small, sub-circular depression with surrounding earth banks. It is approximately 2.5m in diameter and 0.3m deep. Similar to SMR 30462 (site 158), which lies to the east.

Site No	96	PRN	-
Name	Angler's Crag	Period	Post-medieval
NGR	309636 515070	Type	Platform
Source	OA North Survey		

Description

A small, circular platform on an outcrop of the footpath, which runs up to Angler's Crag from the west. It is only 2m in diameter, of which 0.3m is cut into the hill. It may be a potash kiln, but could also be a natural sheep scrape.

Site No	97	PRN	-
Name	Revelin Crag	Period	Post-medieval
NGR	309312 514606	Type	Peat cutting site
Source	OA North Survey		

Description

A small area of peat cutting located on the eastern side of Revelin Crag, below the steep cliff which runs up Crag Fell to the south. The site is characterised by uneven peat cutting approximately 0.7m deep, over an area of 30m square.

Site No	98	PRN	-
Name	Crag Fell	Period	Post-medieval
NGR	309833 514363	Type	Walkers Cairn
Source	OA North Survey		

Description

A small walker's cairn located on the summit of Crag Fell, to the north of the footpath. It is constructed from small angular scree and is 2.5m in diameter and 0.8m high.

Site No	99	PRN	-
Name	Revelin Crag	Period	Post-medieval
NGR	309094 514632	Type	Dam
Source	OA North Survey		

Description

A small section of dry-stone walling, which dams a tributary gill lying between Ben Gill and Revelin Crag. The wall is 7m long and runs along an east-west axis. It is up to 2m wide and is partially collapsed at its western end, but was probably only 1m wide originally. The wall is up to 0.6m high and is made of small to medium angular and rounded stones.

Site No	100	PRN	-
Name	Red Beck	Period	Post-medieval
NGR	311133 514081	Type	Structure
Source	OA North Survey		

Description

A small dry-stone structure built into the steep valley side, east of Red Beck. It is of unknown date and function. The structure consists of two dry-stone walls, which are approximately 0.6m long, 0.2m wide and 0.6m high. The walls are 0.3m apart and between them is a dry-stone vault comprising densely packed stones. The first impressions would suggest that it was a culvert, but may have had some other function.

Site No	101	PRN	-
Name	Lakeside	Period	Post-medieval
NGR	311502 514176	Type	Workman's hut/potash kiln
Source	OA North Survey		

Description

A small hut surviving as a four walled structure, approximately 3m square, which is cut into the valley side. The dry-stone walls are up to 0.6m high and 0.4m wide, consisting of four even courses of angular stones. The chimney to the south side has a lintel on top.

Site No	102	PRN	-
Name	Herdus	Period	Unknown
NGR	311135 516019	Type	Field system
Source	OA North Survey		

Description

The field system recorded at Herdus is not shown on the OS 1900 Second edition map. The small square enclosure by the road is, but the scree line wall and the walls running down from it as well as the possible field system, are not shown. The wall on the scree line is of the same build as the two walls running down the slope. The field system has no physical relationships with any of the walls around it. It is thought that they

represent an undated but pre-enclosure field system.

Site No	103	PRN	-
Name	Herdus	Period	Unknown
NGR	311207 516056	Type	Ford
Source	OA North Survey		

Description

A revetted trackway curving around from the eastern part of field system 117. It runs north over the stream and meets up with the trackway running east to west.

Site No	104	PRN	-
Name	Herdus	Period	Medieval
NGR	311488 516844	Type	Bloomery
Source	OA North Survey		

Description

An area of suspected bloomery activity, the most obvious being a tear-drop-shaped mound with the widest end downslope. It is situated on the north-west valley side of Herdus, near to the National Trust boundary. Running along a west-east axis, it is approximately 10m long, 5m wide at its widest point, and 0.5m high. There is no slag evident, but ironstone is scattered around the site. The area to the east contains linear banks or mounds, which run down slope.

Site No	105	PRN	-
Name	Herdus	Period	Post-medieval
NGR	311445 516860	Type	Sheep shelter
Source	OA North Survey		

Description

A small, 'L'-shaped sheep shelter, with dry-stone scree walling. The walls are roughly built and uncoursed, and are three stones high and 0.7m wide. The shelter is approximately 5m long by 2m wide.

Site No	106	PRN	-
Name	Herdus	Period	Post-medieval
NGR	311644 516892	Type	Bields
Source	OA North Survey		

Description

Two small linear curving sheep shelters on the slope of Herdus. Similar in dimensions and build to site 12.

Site No	107	PRN	-
Name	Herdus	Period	Post-medieval
NGR	312087 516705	Type	Cairn
Source	OA North Survey		

Description

A small diamond-shaped pile of stones, approximately 1.5m long and 0.8m wide. It is a probable boundary marker particularly given that it is on the line of the parish boundary.

Site No	108	PRN	-
Name	Scaw	Period	Post-medieval
NGR	312362 516340	Type	Shelter cairn
Source	OA North Survey; OS New Edition		

Description

A small, circular shelter cairn placed on a rocky outcrop near a trigonometry point. It is made of locally quarried bedrock and is 3m in diameter with the entrance to the east. The walls are 1m thick at their base, tapering sharply to a maximum height of approximately 0.9m. It is likely that the cairn shelter is modern.

Site No	109	PRN	-
Name	Brown How	Period	Post-medieval
NGR	311842 515989	Type	Foxtrap
Source	OA North Survey		

Description

A circular dry-stone structure (Plate 10), which is approximately 4m in diameter and 1.5m high. Its walls are 1m thick and its internal diameter is approximately 1m. It is possibly a fox trap. There is a ramp upslope, to the north.

Site No	110	PRN	-
Name	Bowness	Period	Post-medieval
NGR	310891 515339	Type	Sheep shelter
Source	OA North Survey		

Description

A small, collapsed sheep shelter located on a crag on Bowness. It is associated with the enclosure of unimproved crags, which lie to the east and next to the improved land of Bowness farm. The remains are a collapsed dry-stone angular scree pile, approximately 2.5m long, 0.6m wide and 0.3m high.

Site No	111	PRN	-
Name	Brown How	Period	Post-medieval
NGR	312013 515798	Type	Charcoal burning platform
Source	OA North Survey		

Description

A small, circular flattened platform, which is approximately 1.5m in diameter. It has a bank to the front, which is approximately 0.5m high. It is likely to be a charcoal burning platform.

Site No	112	PRN	-
Name	Clews Gill	Period	Post-medieval
NGR	313036 515580	Type	Shepherd shelter
Source	OA North Survey		

Description

A small, square shepherd's shelter located to the west of Clew's Gill. It is a dry-stone shelter with the roof originally sloping to the south. It is approximately 3.5m square with walls which are 0.5m thick and up to 2m high. There are 12 rough, almost random courses using angular scree of varying size. To the east is a small wall running up to the next erratic. At the north-east corner of the shelter is a doorway, which is approximately 1m high and 0.5m wide, and capped with a lintel stone.

Site No	113	PRN	-
Name	Clew's Gill	Period	Unknown
NGR	313086 515439	Type	Enclosure boundary
Source	OS New Edition; OA North Survey		

Description

This comprises four phases of enclosure boundary. There are two marker cairns on the crag, which are followed by a badly denuded dry-stone wall. This wall only survives as a foundation course on the north-east corner and returns down an unnamed gill to the plantation. At the west end of the enclosure by the plantation, iron staves indicate the presence of a wire fence. Similarly, on the north-east corner there was also another phase of wire fencing, which is evidenced from the surviving wooden staves.

Site No	114	PRN	-
Name	Clew's Gill	Period	Post-medieval
NGR	313150 515390	Type	Sheep shelter
Source	OA North Survey		

Description

A small, semi-circular sheep shelter at the north-east junction of enclosure boundary 130. It is 3.5m long, 0.5m thick, and 1.1m high. It consists of six rough courses, including sub-rounded and sub-angular stones

varying in size from small to medium.

Site No	115	PRN	-
Name	Clew's Gill	Period	Post-medieval
NGR	313258 515341	Type	Sheep shelter
Source	OA North Survey		

Description

A curved sheep shelter wall, running along a north to south axis. It is approximately 4.5m long, curving by 1m west at the north and south ends, and it is 0.9m high and 0.7m wide. It is rough and uncoursed and includes angular scree of mid to large size. The wall is now mostly collapsed, although the south end remains intact.

Site No	116	PRN	-
Name	Clew's Gill	Period	Post-medieval
NGR	313305 515241	Type	Sheep shelter
Source	OA North Survey		

Description

A small sheep shelter located in the base of a dry gill near Clew's Gill. It is a curving linear dry-stone construction, of a similar fashion to site 132, and runs east-west. It is approximately 4m long, 0.4m wide, and 0.8m high, that is, five rough courses high and one course thick.

Site No	117	PRN	-
Name	Starling Gill	Period	Post-medieval
NGR	313531 515269	Type	Shelter
Source	OA North Survey		

Description

A small narrow 'U'-shaped shelter, located to the west of Starling Gill. It is approximately 3m long by 1.3 wide and mainly intact. The extant wall consists of four courses of random build and reached a height of 0.6m. To the east of the gill is a ruinous wall, now only evidenced as a low, partially earthfast stone bank. It snakes up the course of the gill before deviating to the east where it becomes much more ruined.

Site No	118	PRN	-
Name	Clew's Gill	Period	Unknown
NGR	312973 516057	Type	Boundary Fence
Source	OA North Survey		

Description

A boundary fence on the plateau between Great Bourne and Starling Dodd, at the point where Clew's Gill starts to run down the valley. The boundary is only marked by the remnants of a iron staved fence. The base of the fence shows as light grassy vegetation in an area of heather. There are stones within this light vegetation, which may suggest that there was an earlier enclosure walling.

Site No	119	PRN	-
Name	Starling Dodd	Period	Post-medieval
NGR	313852 516096	Type	Peat cutting area
Source	OA North Survey		

Description

An area of possible peat cutting, lying west of Starling Dodd and approximately 30m in diameter.

Site No	120	PRN	-
Name	Starling Dodd	Period	Unknown
NGR	314076 515896	Type	Boundary fence
Source	OA North Survey		

Description

A fence line which survives as iron staves and runs up the side of Starling Dodd. It is of the same style and condition as site 135, with stones marking the base.

Site No	121	PRN	-
Name	Starling Dodd	Period	Post-medieval
NGR	314178 515910	Type	Platform complex
Source	OA North Survey		

Description

A flat plateau situated to the north-west of the summit of Starling Dodd. On the northern edges of the plateau, the ground drops away gradually for 100m then becomes a sharp drop. On the gradual slope there are between 10 and 30 embanked platform scoops over an area of 60m by 100m. The most obvious ones are ovoid scoops, which are cut into the hillside with embanked fronts to the north. Some of the scoops are 2m by 2m, with the larger ones reaching up to 8m by 2m. The banks reach up to 0.3m high. The function of these scoops is unclear. It is highly unlikely that they are quarrying or sheep scoops or simply natural topography.

Site No	122	PRN	-
Name	Little Dodd	Period	Unknown
NGR	314826 515584	Type	Boundary fence
Source	OS New Edition; OA North Survey		

Description

A fence line running up to Little Dodd. As a series of iron staves with possible stone walling at its base, it is comparable in style and condition to the fences described as site 135 and site 137.

Site No	123	PRN	-
Name	Little Dodd	Period	Unknown
NGR	315002 515542	Type	Boundary fence
Source	OA North Survey		

Description

A fence line running up to Little Dodd. As a series of iron staves with possible stone walling at its base, it is comparable in style and condition to the fences described as site 135 and site 137.

Site No	124	PRN	-
Name	Little Dodd	Period	Unknown
NGR	314926 515446	Type	Boundary fence
Source	OA North Survey		

Description

A fence line running up to Little Dodd. As a series of iron staves with possible stone walling at its base, it is comparable in style and condition to the fences described as site 135 and site 137.

Site No	125	PRN	-
Name	Gillflinter Beck	Period	Post-medieval
NGR	315439 515294	Type	Bield
Source	OA North Survey		

Description

A small bield located to the east of Gillflinter Beck. It is roughly triangular, and of an uneven dry-stone construction. Apart from the east wall, it is denuded and only survives as four courses of scree stones piled in a wall. These are sub-round and sub-angular small to medium scree stones. It is approximately 0.6m high and 0.6m in diameter, with walls of 0.5m thickness.

Site No	126	PRN	-
Name	Red Pike	Period	Post-medieval
NGR	315666 515604	Type	Marker cairn
Source	OA North Survey		

Description

A sub-circular pile of stones, measuring approximately 2m in diameter and 0.4m high. The cairn has more lichen and would appear to be older than other cairns in the vicinity.

Site No	127	PRN	-
Name	Gillflinter Beck	Period	Post-medieval
NGR	314913 514617	Type	Bield
Source	OA North Survey		

Description

A small, 'question mark'-shaped dry-stone shelter. It is approximately 6m long by 2m wide, and its walls are 0.6m wide by 0.6m high. The walls consist of four rough courses of small to medium sub-rounded scree.

Site No	128	PRN	-
Name	Lingmell Plantation	Period	Post-medieval
NGR	314401 513647	Type	Bield
Source	OA North Survey		

Description

The remains of a small sheep shelter or fold, consisting of a 2m long and 0.5m high stretch of randomly coursed dry-stone wall. A possible return to the north and the presence of earthfast stone around the area, suggests that the structure is the partial remains of a small rectangular building.

Site No	129	PRN	-
Name	Lingmell Plantation	Period	Post-medieval
NGR	313862 513640	Type	Shelter
Source	OA North Survey		

Description

A small shelter, with walls of randomly coursed dry-stone, measuring approximately 1m long, 0.5m wide and 0.8m high.

Site No	130	PRN	-
Name	Ennerdale Forest	Period	Post-medieval
NGR	315486 513555	Type	Bield
Source	OA North Survey		

Description

A short, curved dry-stone wall forming the remains of a bield, approximately 6m long and 0.5m to 0.6m wide.

Site No	131	PRN	-
Name	Ennerdale Fell Plantations	Period	Post-medieval
NGR	317027 513322	Type	Bield
Source	OA North Survey		

Description

A small 2m stretch of wall, which butts a large boulder in order to form a shelter.

Site No	132	PRN	-
Name	Black Sail Hut	Period	Post-medieval
NGR	319485 512519	Type	Shelter
Source	OA North Survey		

Description

A small shelter utilising a large stone outcrop as a revetment. It is approximately 2m long, 0.8m high and 0.6m thick. It would appear to be well weathered and around 20-30% is covered in lichen, but its age is uncertain.

Site No	133	PRN	-
Name	Ashcrag Holme	Period	Unknown
NGR	319641 512412	Type	Fence line
Source	OA North Survey		

Description

A disused fence line. A stone foundation course can be seen in places between the staves and strainers.

Site No	134	PRN	-
Name	Moses Trod	Period	Post-medieval
NGR	321112 511224	Type	Shelter cairn
Source	OA North Survey		

Description

A small shelter cairn approximately 4m in diameter and 2m high, with the shelter built into the east side. Although there is no funerary component, it is not a recent walker's cairn either. It is well weathered and covered with 30-40% lichen.

Site No	135	PRN	-
Name	Boat How	Period	Unknown
NGR	310767 513803	Type	Leat
Source	OA North Survey		

Description

A banked, shallow channel partially filled with stone, which runs from a small springhead 100m above a level on Boat How.

Site No	136	PRN	-
Name	Boat How	Period	Post-medieval
NGR	310794 513827	Type	Level
Source	OA North Survey		

Description

A disused level below Boat How. It is rather similar in character to level 58, but still has a level earth mound toward the lakeside.

Site No	137	PRN	-
Name	Boat How	Period	Post-medieval
NGR	310857 513728	Type	Level
Source	OA North Survey		

Description

A level with earth front. It is very badly preserved and the revetment walling has all but gone.

Site No	138	PRN	-
Name	Bowness Knott	Period	Unknown
NGR	310978 515557	Type	Crag quarry
Source	OA North Survey		

Description

A 35m diameter semi-circular earthfast bank, approximately 15m from the road to the north of Bowness House. It is 1.6m high with a levelled platform at the base of the crag. Some of the stone facing shows possible tooling or machine marks.

Site No	139	PRN	-
Name	Herdus	Period	Unknown
NGR	311020 515914	Type	Enclosure
Source	OA North Survey		

Description

A small rectangular dry-stone walled enclosure, which is now almost entirely collapsed. It can be seen 15m up slope from the road at the point where the footpath runs up from the ford between Herdus and the plantation. One well-defined return can be seen to the west and this runs to the road, following the line of the current plantation fencing. Despite this, it is not part of the plantation fencing and returns to the road separately to form a discrete enclosure. While it does not join the current wall at the roadside, there are foundation remains of an earlier wall present.

Site No	140	PRN	-
Name	Bowness Knott	Period	Post-medieval
NGR	310947 515817	Type	Water smoot
Source	OA North Survey		

Description

A water smoot from a channel running through the field, and likely to date from the Enclosure Act (mid eighteenth-early nineteenth Century).

Site No	141	PRN	-
Name	Bowness Knott	Period	Post-medieval
NGR	310897 515718	Type	Hog hole
Source	OA North Survey		

Description

A hog hole on the current walled enclosure. It would appear to be all one build.

Site No	142	PRN	-
Name	The Garth	Period	Unknown
NGR	313840 513991	Type	Dry-stone structure
Source	OS First Edition 6" Map 1867; OA North Survey		

Description

The ruined remains of small stone building identified on the OS First Edition Map 1867.

Site No	143	PRN	-
Name	Sail Hills	Period	Unknown
NGR	312504 513176	Type	Shelter
Source	OA North Survey		

Description

A small shelter built from the tumble of the wall intersection. The walls are of one build and run up and down the slope. The relationship between the east and west wall is uncertain, but the former wall is of slightly different build, with through stones and angled caps, whilst the latter has large lower boulders and incorporated outcrops, as well as cam stones.

Site No	144	PRN	-
Name	The Side	Period	Unknown
NGR	312016 512846	Type	Shelter
Source	OA North Survey		

Description

A small, roughly-built shelter, using tumble from The Side wall, which is only ruined foundations at this point. The shelter is approximately 4m long and 2m wide.

Site No	145	PRN	-
Name	Boat How Crag	Period	Unknown
NGR	310799 513286	Type	Cairn
Source	OA North Survey		

Description

A small walker's or marker cairn, measuring 1m maximum diameter and no more than 0.75m high.

Site No	146	PRN	-
Name	Boat How Crag	Period	Unknown
NGR	310574 513380	Type	Shelters
Source	OA North Survey		

Description

Two small stone-built shelters in a dry watercourse. One appears to have the remains of a doorway to the east. It is 2m by 4m and partially built over natural outcrops. Its walls consist of four courses featuring large blocks of unworked stone. To the east there is a square shelter measuring 3.5m square, which is partially collapsed. The walls are moderately well coursed and measure 0.5m high and 0.5 m thick.

Site No	147	PRN	-
Name	Iron Crag	Period	Post-medieval
NGR	311854 512701	Type	Level
Source	OA North Survey		

Description

A disused and ruined level above the western edge of Iron Crag. It is aligned north-south and stone revetted.

Site No	148	PRN	-
Name	Iron Crag	Period	Post-medieval
NGR	311887 512696	Type	Level
Source	OA North Survey		

Description

A ruined level, aligned north to south and stone revetted.

Site No	149	PRN	-
Name	Iron Crag	Period	Unknown
NGR	312092 512427	Type	Marker cairn
Source	OA North Survey		

Description

A marker cairn measuring approximately 1m high and 1.2m in diameter at its base. Medium-sized boulders were used in the build. Although the base appears to have been in place for some time, a period of use cannot be identified.

Site No	150	PRN	-
Name	Iron Crag	Period	Unknown
NGR	312166 512246	Type	Marker cairn and shelter
Source	OA North Survey		

Description

A small marker cairn approximately 0.70m high and 0.90m wide at its base. The natural outcrops, which lie next to it, have been built on to make a small shelter of approximately 1.3m in diameter. In the build of the shelter there are some scraps of aluminium and an inscription dedicated to an unknown pilot who died during 'the war'. The war is not specified but is likely to be World War 2; however, the inscription is dated 1990 and the memorial was probably established some time after the accident.

Site No	151	PRN	-
Name	Iron Crag	Period	Unknown
NGR	312333 511925	Type	Marker cairn
Source	OA North Survey		

Description

A marker cairn identified during the upland survey.

Site No	152	PRN	-
Name	Silver Cove	Period	Unknown
NGR	313205 510991	Type	Marker cairn

Source OA North Survey

Description

A marker cairn measuring approximately 1.4m high.

Site No	153	PRN	-
Name	Little Cowder Crag	Period	Unknown
NGR	313597 511042	Type	Walkers cairn
Source	OA North Survey		

Description

A walker's cairn identified during the upland survey.

Site No	154	PRN	-
Name	Silver Cove	Period	Unknown
NGR	313581 511171	Type	Marker cairn
Source	OA North Survey		

Description

A small 1m high cairn of stones, which is built over large scree boulders.

Site No	155	PRN	-
Name	Windgap Cove	Period	Unknown
NGR	316201 512617	Type	Bield and shepherd shelter
Source	OA North Survey		

Description

A small bield or fold with an adjoining shelter (Plate 12). The bield is approximately 6m by 4m with the adjoining shelter measuring 2m by 4m. There is a small spur from the boundary wall to the smaller shelter and another from the southern corner, which runs south.

Site No	156	PRN	-
Name	Windgap Fell	Period	Unknown
NGR	316154 512168	Type	Fold
Source	OA North Survey		

Description

A short stretch of possible dry-stone wall, which now only exists as a few ruined courses and a visible foundation trench. Probably the remains of a small shelter.

Site No	157	PRN	-
Name	Windgap Cove	Period	Unknown
NGR	315953 512470	Type	Washfold
Source	OA North Survey		

Description

A small 'L'-shaped stretch of ruinous dry-stone wall situated near to a meander in the beck.

Site No	158	PRN	30462
Name	Angler's Crag	Period	Unknown
NGR	309930 514900	Type	Potash kiln
Source	M Davies-Shiel map and list 1990		

Description

A potash kiln measuring approximately 2.5m by 2.5m and featured on the M. Davies-Shiel map 1990.

Site No	159	PRN	1196
Name	Revelin Crag	Period	Medieval
NGR	309000 514800	Type	Shieling
Source	Ramm <i>et al</i> 1970, 165; Crawford and George 1983		

Description

A shieling found above Revelin Crag on the south side of Ennerdale Water, between two streams above their confluence in Ben Gill. This appears to be of the 'later almost square type and is perhaps to be associated with the nearby sheepfold' (Ramm *et al* 1970, 165). The shieling is orientated east / west, and is approximately 7m by 7m. It has one room with an entrance to the north, near the north-east angle. The walls are very spread, but were originally about 1m thick.

Site No	160	PRN	-
Name	Stair Knott	Period	Unknown
NGR	312319 513879	Type	Butt joint
Source	OA North Survey		

Description

An unusual break in the wall build where large stones would appear to function as quoins. Moreover, the west wall appears to butt up against it and would suggest that repair and not building phases influenced this deliberate division. It is possible that this represented a division of responsibility for maintenance and repair.

Site No	161	PRN	3689
Name	Revelin Crag	Period	Medieval
NGR	308880 514680	Type	Shieling
Source	Ramm <i>et al</i> 1970, 42,164, 36		

Description

A shieling orientated north to south and approximately 10m by 4m. The entrance is on the west side, north of the centre. Walls spread 1m to nearly 2m.

Site No	162	PRN	11946
Name	Kinney How	Period	Post-medieval
NGR	308450 514700	Type	Levels
Source	SMR 11946; OS Second Edition 6" Map 1900, No. 68; Hewer 1988		

Description

The site consists of three or more iron ore levels in a fairly linear development, which runs along a beck. It is referred to collectively as Top Drift, and was in use between 1867 and 1900. The mouths of these levels have since collapsed and are now difficult to discern.

Site No	163	PRN	11991
Name	Crag Fell	Period	Post-medieval
NGR	310200 514100	Type	Level
Source	OS First Edition 6" Map 1867; OA North Survey		

Description

A group of levels called 'Crag Fell Iron Ore Mines', now disused but used until after 1867 and still marked by OS. The group comprises this level and site 54, but may also include sites 55 and 56, which have been identified in the survey and lie in close proximity.

Site No	164	PRN	12104
Name	Kirk Fell	Period	Unknown
NGR	319740 510730	Type	Cairn
Source	SMR 12104; OS First Edition 6" Map 1867		

Description

An 'Ancient pile of stones' is recorded on the OS First Edition mapping. It is now marked on current mapping as 'pile of stones'. The area is littered with stone piles, but the OS First Edition only refers to this one as 'ancient'.

Site No	165	PRN	-
Name	Crag Fell	Period	Unknown
NGR	310265 513836	Type	Cairn

Source OS First Edition 6" Map 1867

Description

A cairn which is included on the OS First Edition 6" Map 1867.

Site No	166	PRN	12107
Name	Beckhead	Period	Unknown
NGR	320000 510710	Type	Cairn
Source	SMR 12107; OS First Edition 6" Map 1867		

Description

An ancient pile of stones, no longer marked on OS mapping.

Site No	167	PRN	12494
Name	Ennerdale Fell	Period	Post-medieval
NGR	312860 512370	Type	Mine
Source	SMR 12494; OS 1:10,000 Map 1978; M Davies-Shiel map 1990; OS Second Edition Map 1900		

Description

A level which is included in the OS Second Edition 1900 and originally referred to as Iron Crag Mine (site 70). The mouth of the level is now collapsed and difficult to discern.

Site No	168	PRN	12495
Name	Lingmell Plantations	Period	Unknown
NGR	314640 513395	Type	Level
Source	SMR 12495; OS 1:10,000 Map 1978; M Davies-Shiel map 1990		

Description

The site of a disused level, which is collapsed and difficult to identify.

Site No	169	PRN	15907
Name	Angler's Crag	Period	Post-medieval
NGR	310323 514744	Type	Bloomery
Source	SMR 15907; M Davies-Shiel, First Definitive Map 03/95		

Description

The site of a bloomery mound, possibly PRN 15907, which was thought to be same as PRN 31742. Although both sites could be bloomeries, this one is more evident. It is an earthfast stone pile, ovoid and measures approximately 9m long by 6m wide and 0.6m high. It is in a depression in the side of the hill. To the west side, near the footpath, there is another platform of similar size, but with no mound within it.

Site No	170	PRN	15908
Name	Boat How	Period	Medieval
NGR	311590 514170	Type	Bloomery
Source	M Davis-Shiel map 1990, First Definitive List, 03/95; Crew 2000		

Description

The site is situated on a terrace above the southern shore of Ennerdale Water. It is not an obvious site, with only a small slag mound 0.3m high on the uphill side and spilling over a 2m high natural slope towards the lake. The main slag mound has a turf cover, but there is bracken in the surrounding area. There is a crab apple tree on top of the mound and several other small trees in the vicinity. Immediately to the west of the site is a low oval stone structure with a shallow ditch curving around a low mound, which may be natural. Immediately east of the site is a small stream, in which pieces of tap slag can be found. At the footpath, small slag fragments and ore fines, probably haematite, can be seen in an erosion scar. The small slag mound contains not more than two or three tonnes of slag. Geophysical survey revealed a well-defined furnace location. However it is an unusual and restricted site, compared with most other Cumbrian bloomeries (Crew 2000).

Site No	171	PRN	18892
Name	Great Cove	Period	Unknown

NGR 314300 511400 **Type** Field/shelter
Source SMR 18892; Fletcher 1986, 248; OA North Survey

Description

A small square enclosure is shown at the point where Deep Gill comes down from the crags to the east. The area actually contains many fields and enclosing walls, all of which now stand at no more than three or four courses. They have probably been constructed from a great scatter of boulders that have fallen from Haycock or Little Cowder Crag.

Site No 172 **PRN** 30461
Name Ennerdale Bridge **Period** Unknown
NGR 308220 514980 **Type** Potash kiln
Source SMR 30461; M Davis-Shiel map 1990

Description

A potash kiln measuring approximately 3.5m by 3.5m by 2m in a larch plantation, to the north of the Fell track.

Site No 173 **PRN** 30469
Name Revelin Crag **Period** Medieval/Post-medieval
NGR 309500 514800 **Type** Ironstone mine
Source SMR 30469; M. Davies-Shiel map 1990

Description

The site of an iron mine of sixteenth or seventeenth century date. The mouth of the level has collapsed and is now difficult to identify.

Site No 174 **PRN** 30470
Name Crag Fell **Period** Unknown
NGR 309400 514200 **Type** Mine
Source SMR 30470; M Davies-Shiel map 1990

Description

The site of a mine which featured on the M Davies-Shiel map 1990. It was not found during the survey, but may lie over the boundary to the west.

Site No 175 **PRN** 30519
Name Raven Crag **Period** Unknown
NGR 316170 513750 **Type** Kiln
Source SMR 30159; M Davies-Shiel map and list 1990

Description

A kiln measuring approximately 5m by 3m by 2m, located off the northern track of Ennerdale Woods and featured on the M Davies-Shiel map 1990.

Site No 176 **PRN** 30520
Name Ennerdale Water **Period** Unknown
NGR 311250 514240 **Type** Potash kiln
Source SMR 30520; M Davies-Shiel map and list 1990; OA North Survey

Description

A possible potash kiln measuring approximately 3m by 3m, surviving as a hollow set into the slope, but there was no exposed masonry.

Site No 177 **PRN** -
Name The Side **Period** Medieval
NGR 311500 513500 **Type** Deer Park
Source OA North Survey; OS Second Edition Map 1900

Description

The eastern section of wall climbs the valley slopes over Stair Knot at the east up past Sail Hills to the west over Boathow Crag, before returning to the lakeside down the course of Red Beck. While it is generally difficult to age dry-stone walling, there are indicators of period present in the lakeside stretch of walling. The wall was built over low large boulders in places, known as shouldering, a technique typically indicative of earlier build. However, the wall is built in a tapered manner with the through stones tying the two faces together, and also has cam stones capping it at a height of 1.4m. This is too low for the walls of a deer park, and the through stones and cams are typical of eighteenth / nineteenth century building techniques, which may suggest that parts of the walls have been rebuilt during this period. Significantly, a wall running across the top of Stair Knot, which meets the eastern edge of the Side, appears to be of one build and of comparable technique with the maintained section of wall, yet this wall was shown from cartographic sources to have been constructed between 1805 and 1867 and would suggest that the maintenance of the side was contemporary with this. Part way up this side of the wall there was a small shelter which had been built out of the tumble from the wall (site 183). At this point the wall is two or three courses of tumbled stone and partially earthfast and it is evident that the highest sections of the wall have not been maintained, and only those sections which return to the lakeside have been subject to repair. These higher sections which have not been maintained potentially reflect the original build of the park wall.

A further intake boundary to the west of the Side, clearly butts against the Side wall, and although predating the park boundary, was depicted on the 1805 estate map and was evidently one of the earlier boundaries. This intake wall was itself butted by a parliamentary enclosure wall which is first depicted on the OS Second edition map. To the south-east of the Side is a further early section of walling which extends south-west from Deep Gill, but does not form an enclosure and has no evident function. It is, though, one of the walls depicted on the 1805 estate map and was cut by a wall constructed subsequent to the OS First Edition 6" Map 1867. This latter complex of walls links the western valley bottom enclosure with the Side and extends onto the parish boundary at the top of the valley.

Site No	178	PRN	30539
Name	Lingmell	Period	Unknown
NGR	314950 513110	Type	Sheepfold
Source	SMR 30539; M Davies-Shiel map 1990		

Description

The site of a sheepfold included on M Davies-Shiel map 1990.

Site No	179	PRN	30540
Name	Ennerdale Fell	Period	Unknown
NGR	313150 512550	Type	Hut
Source	SMR 30540; M Davies-Shiel map 1990		

Description

The site of a hut included on the M Davies-Shiel map 1990.

Site No	180	PRN	30541
Name	Ennerdale Fell	Period	Unknown
NGR	313130 513150	Type	Hut
Source	M Davies-Shiel map 1990		

Description

The site of a hut included on the M Davies-Shiel map 1990.

Site No	181	PRN	31742
Name	Robin Hood's Chair	Period	Medieval
NGR	310219 514930	Type	Bloomery
Source	SMR31742 (15907); Crew 2000; M. Davis-shiel map 1990, First Definitive List 03/95		

Description

A bloomery situated on a small shelf on the very steep slopes to the south-east of Angler's Crag, some 20m above Ennerdale Water. The shelf itself is grassed, but the surrounding slopes are bracken covered and strewn with rocks. The shelf is almost level, sub-circular and approximately 6m in diameter, with a rear scarp of 1.5m high. There are two large angular rocks, which have fallen onto the shelf. A narrow footpath follows the edge of the steep slope above Ennerdale Water and this has created a 200mm high erosion scarp, in which

fragments of tap slag, two possible smithing-hearth cakes, and some charcoal were found. To the south of the platform, slightly upslope, are the earthworks of what is best interpreted as a small open cut. This has small mounds of rock spoil on each side. Amongst this spoil are fragments of haematised rock, indicating that this open cut may have been the ore source for this bloomery and the reason for its location. The site is of great interest because of the closely associated ore source and its unusual and exposed position.

Site No	182	PRN	-
Name	Herdus	Period	Unknown
NGR	311081 516263	Type	Fold
Source	OA North Survey		

Description

A ruined sheepfold located on Herdus.

Site No	183	PRN	-
Name	Silver Cove	Period	Unknown
NGR	312696 510835	Type	Shelter/fold
Source	OA North Survey		

Description

A small dry-stone fold or shelter measuring approximately 1m to 1.5m high. Its walls consist of rough courses containing medium to large sub-angular scree.

Site No	184	PRN	-
Name	Clewes Gill	Period	Late Medieval/Post-medieval
NGR	313220 516070	Type	Mining remains
Source	OA North Survey; Scott 1993		

Description

The site comprises an iron-stained rock outcrop, with weathered scree, and just to the west an adit site at gill level. Adjacent to the adit was a small spoil-heap composed of fine grey material. This is the reputed site of medieval extraction which may have supplied the bloomery at the bottom of Scale Beck (Scott 1993).

Site No	185	PRN	-
Name	Crag Fell	Period	Post-medieval
NGR	309900 514200	Type	Level
Source	Hewer 1988		

Description

The reported location of a level of Crag Fell Mines and originally referred to as Eaton No. 3 (after the lessee). The mouth of the level has since collapsed and is now difficult to discern.

Site No	186	PRN	-
Name	Deep Gill	Period	Post-medieval
NGR	313900 512600	Type	Level
Source	Hewer 1988		

Description

The reported location of a level belonging to Pillar Mines, near Deep Gill. The mouth of the level has collapsed and is now difficult to discern.

Site No	187	PRN	-
Name	Pillar	Period	Post-medieval
NGR	317600 513100	Type	Copper Mine
Source	CROC D/Lons/W/Plans/Ennerdale/58		

Description

The reported location of a copper mine. The area is within dense tree growth and could not be investigated.

Site No	188	PRN	-
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Name	Crag Farm	Period	Post-medieval
NGR	308992 514715	Type	Fence
Source	Topographic Survey		

Description

This is the current boundary consisting of a modern wire mesh fence with wooden staves. At the gate on the footpath is a substantial cast iron strainer post, now disused, showing an earlier fenced boundary. The old fence follows the line of the new fence, but changes direction along Crag Fell. The makers were Francis Morton and Co Lt, Liverpool.

Site No	189	PRN	-
Name	Crag Fell Mines	Period	Post-medieval
NGR	310529 513821	Type	Enclosure Wall
Source	Topographic Survey		

Description

An enclosure located on the north wall of a mine complex enclosure wall. It is currently denuded where the mine wall butts this wall, however it seems that the mine boundary wall included the enclosure in the initial build. The rest of the mine wall was built up to it from the west, and was contemporaneous. Both walls were built the same and used locally quarried angular stone. The wall has a triangular profile, double faced, and has a rubble core. There are lots of chinks among the facing stones, and many through stones in the build. There are large boulders placed at the base. It stands over 2m high, and is roughly coursed, with up to 8 courses. At the base it is 1m wide tapering to 0.7m at top. It has a gate half way along length of wall.

Site No	190	PRN	-
Name	Red Beck	Period	Post-medieval
NGR	310950 514300	Type	Boundary Wall
Source	Topographic Survey		

Description

An internal boundary wall running south-west / north-east down valley side on the east side of red beck. It survives as a wall, and was possibly rebuilt up c200m up the valley side from lake. The wall comprises a fence following the course of the wall which only survives to 1-2 courses. The build of the wall is small/medium subangular stones, of uneven courses, and up to 1.8m high when rebuilt (9 courses). It is 0.6m wide, has a gate near the end of the wall, and no cam stones. It tapers to 0.7m at top. It has a gate half way along the length of the wall.

Site No	191	PRN	-
Name	Bowness House	Period	Post-medieval
NGR	310730 515500	Type	Boundary Wall
Source	Topographic Survey		

Description

An enclosure wall at small crags by Bowness House. It runs as on the OS map over the crag to a wall running past Bowness House. At the southern corner it abuts the crag face and utilises outcrops of stone. It forms a sub-triangular enclosure against the shoreline. It is very denuded and only stands to its original height in places, where there is evidence of coping stones. In parts it is tumbled to the ground. The wall hugging the contours is of a very rough build and yet later than the northern section. The northern section is constructed of more water worn stones. A gate way in ruins exists at the western end of the northern section.

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- Fig 2 Season 4 Survey Study Area
- Fig 3 Second Edition OS 6": 1 mile (1899) map of Ennerdale showing the valley prior to afforestation
- Fig 4 Key for Detailed Drawings from Survey Seasons 1-3
- Fig 5 Detailed Plan of Site Groups EF I and II – Smithy Beck (8)
- Fig 6 Detailed Plan of Site Groups EF III and IV – Smithy Beck (9)
- Fig 7 Detailed Plan of Site Groups EF VI and VII – Woundell Beck (10)
- Fig 8 Detailed Plan of Site Groups EF V, VIII, IX, X, XI, XII and II – Gillerthwaite (11)
- Fig 9 Detailed Plan of Site Groups EF XI, XIII and XIV – Gillerthwaite (12)
- Fig 10 Season 4 Survey Site Map - Ennerdale West
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- Fig 12 Season 4 Survey Site Map - Ennerdale East
- Fig 13 Phased development of the field boundaries within Ennerdale
- Fig 14 Phased development of the field boundaries within area of Gillerthwaite Intake
- Fig 15 Ennerdale Management Areas

PLATES:

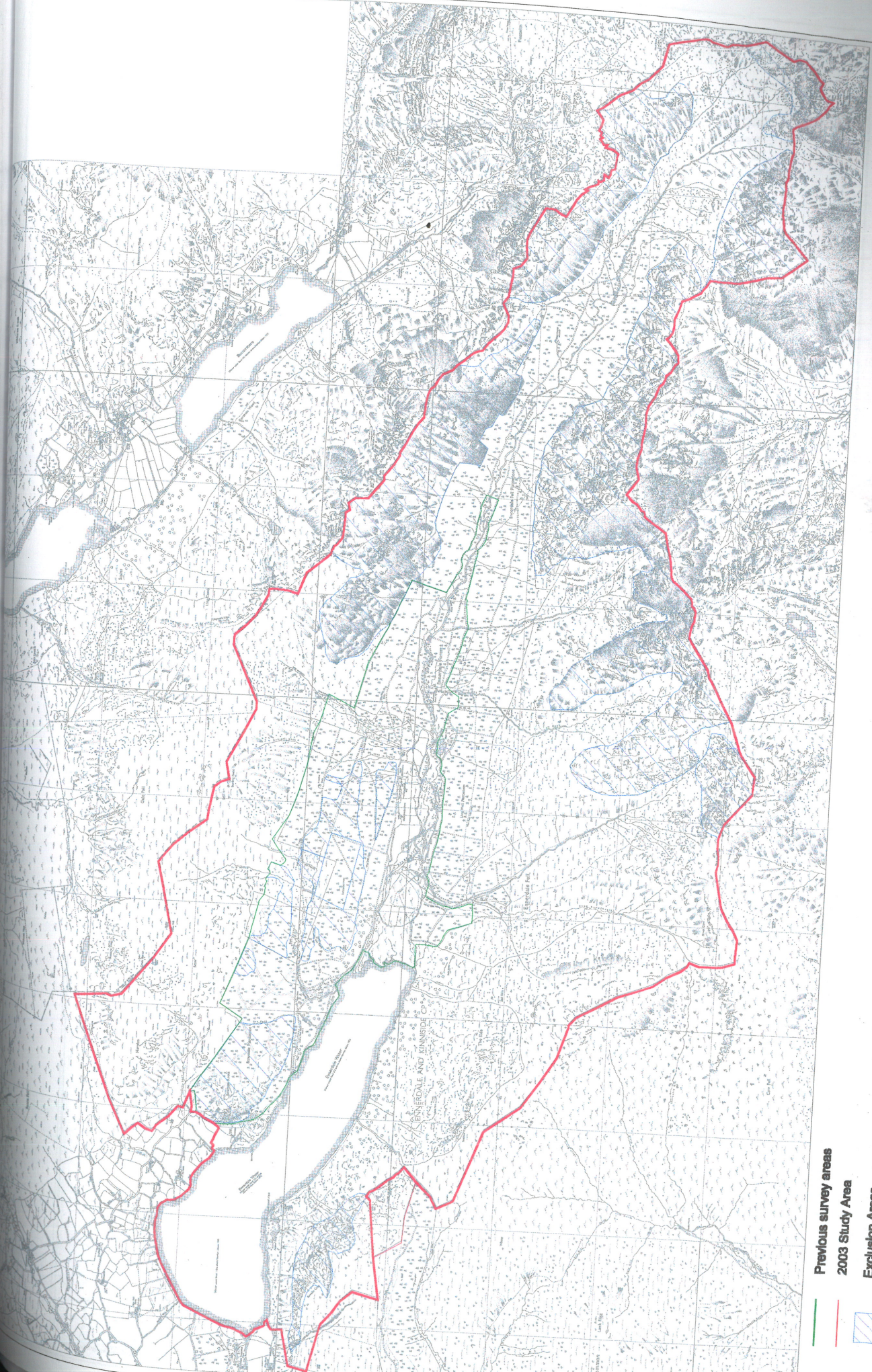
- Plate 1: Ennerdale Water and Crag Fell viewed from the north
- Plate 2: Boundary marker cairn, Site 37, overlooking Ennerdale Water looking south-west
- Plate 3: Stock enclosure EF 337 within the EF X settlement group, Gillerthwaite, looking south
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- Plate 11: Boundary marker cairn on Starling Dodd looking west
- Plate 12: The Bield and Shepherd Shelter at Windgap Cove facing north-west (Site 155)



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Figure 1: Location Map



- Previous survey areas
- 2003 Study Area
- Exclusion Areas

0 1250m

Scale 1:50,000 at A4



Figure 2: Season 4 Survey Study Area

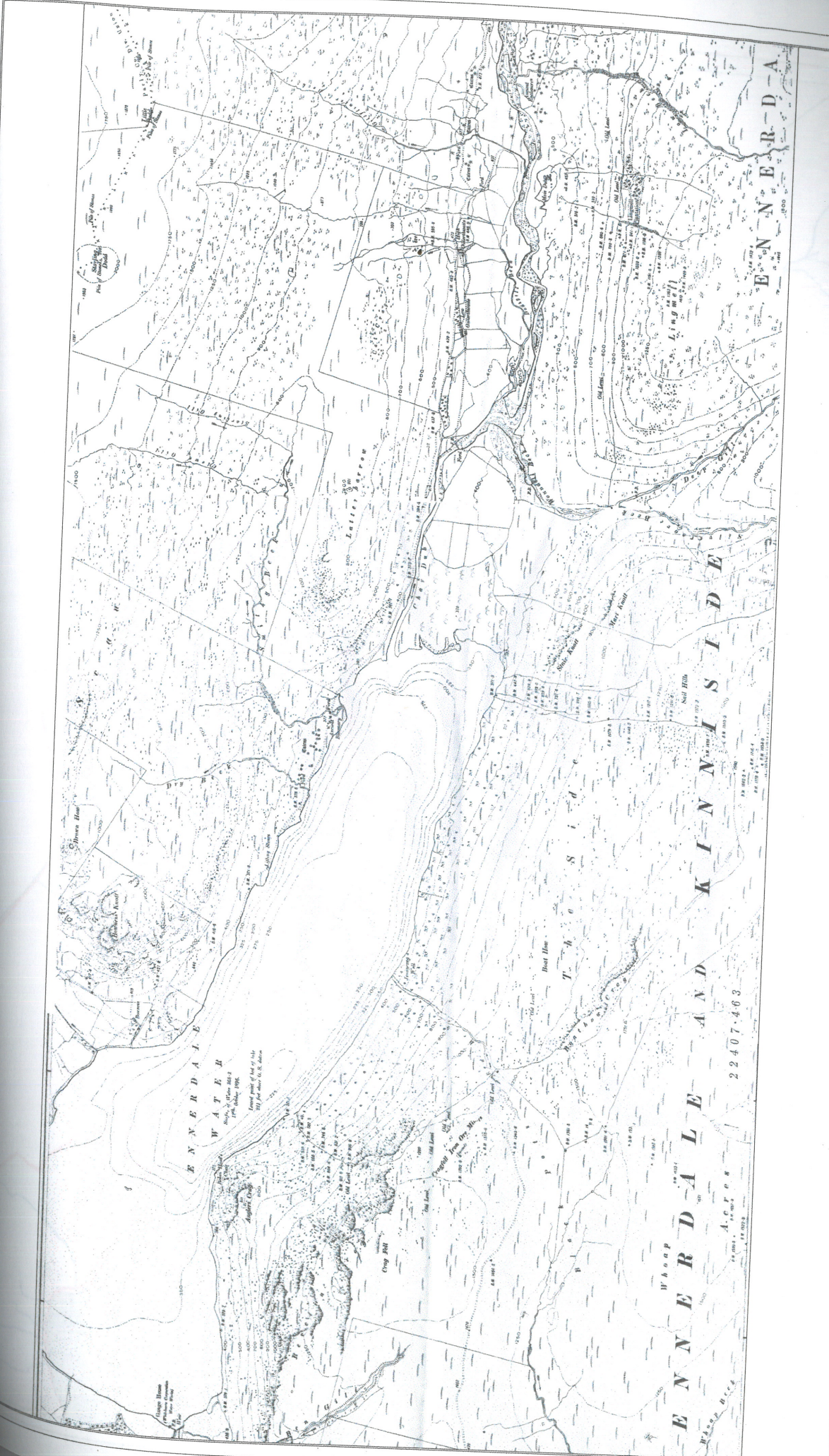


Figure 3: Second Edition OS 6":1 mile (1899) map of Ennerdale showing the valley prior to afforestation

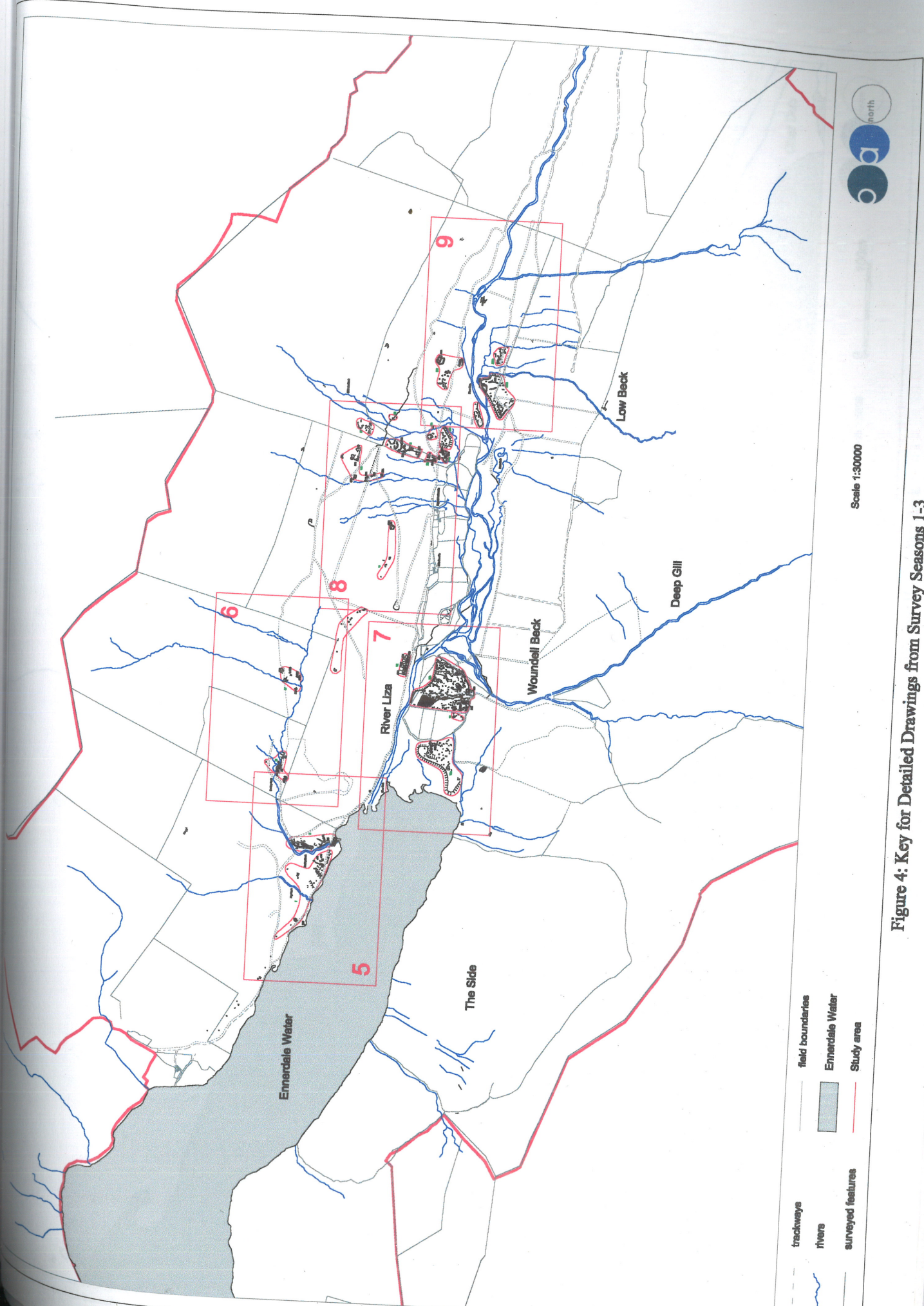


Figure 4: Key for Detailed Drawings from Survey Seasons 1-3

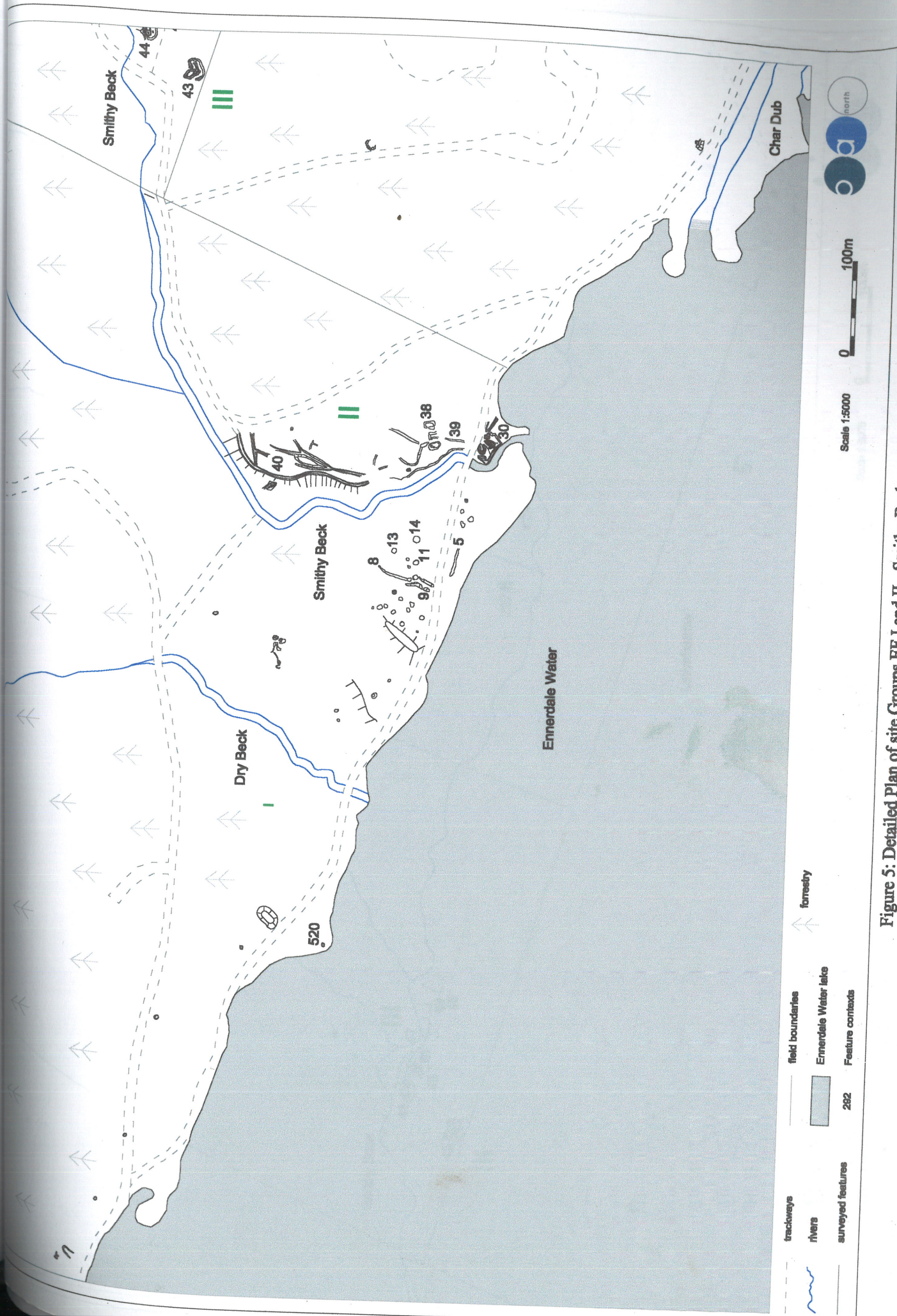


Figure 5: Detailed Plan of site Groups EF I and II - Smithy Beck

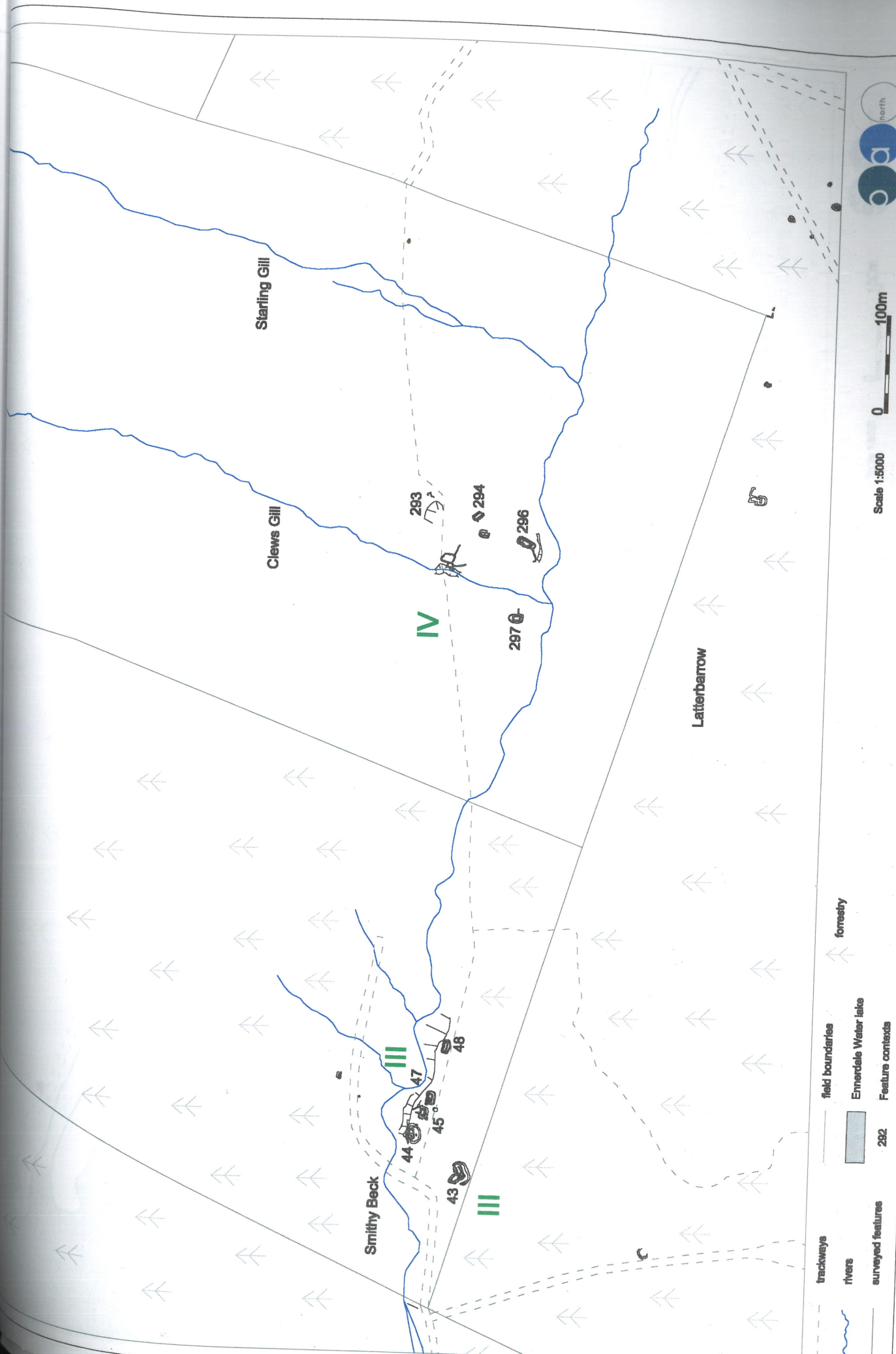


Figure 6: Detailed Plan of site Groups EF III and IV - Smithy Beck

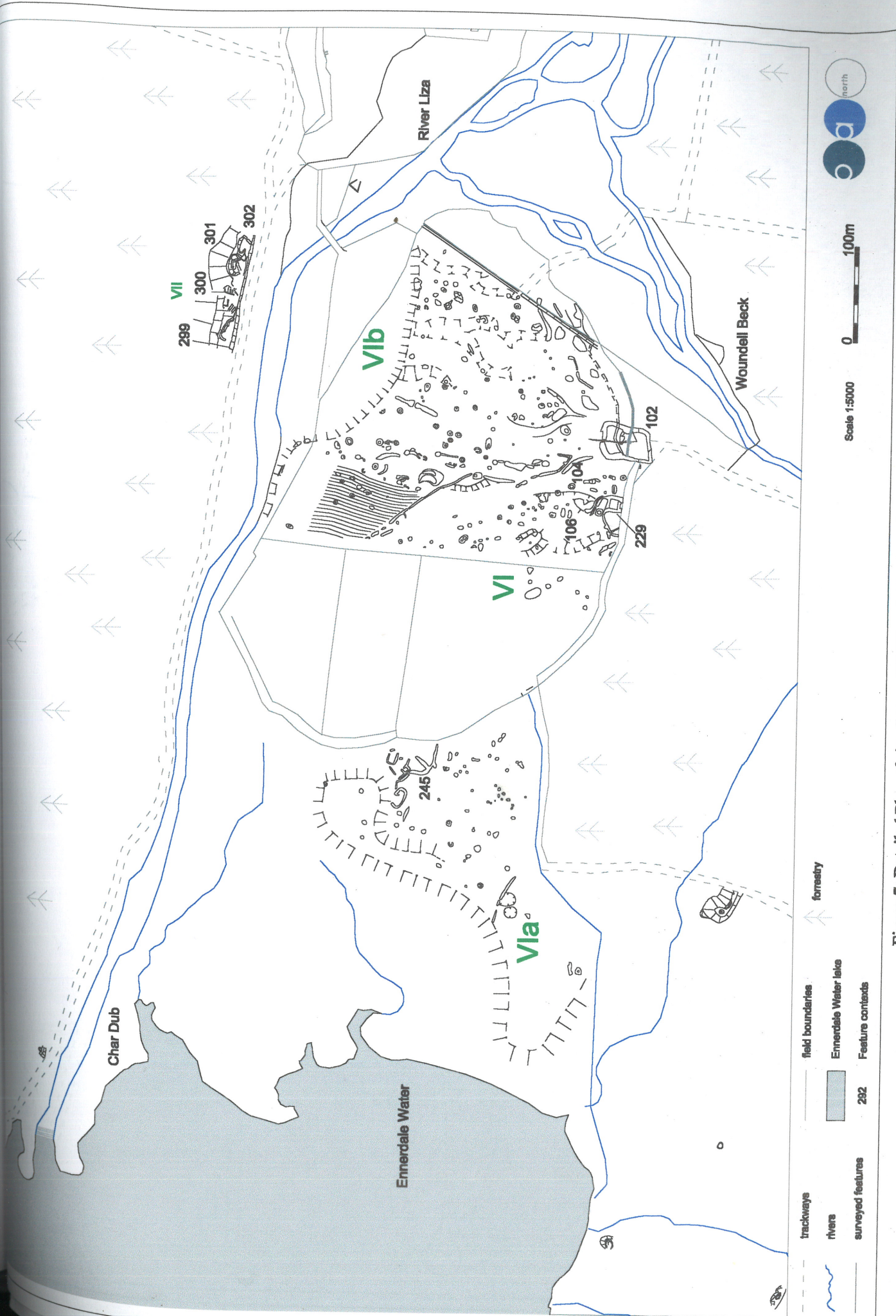


Figure 7: Detailed Plan of site Groups EF VI and VII - Woundell Beck

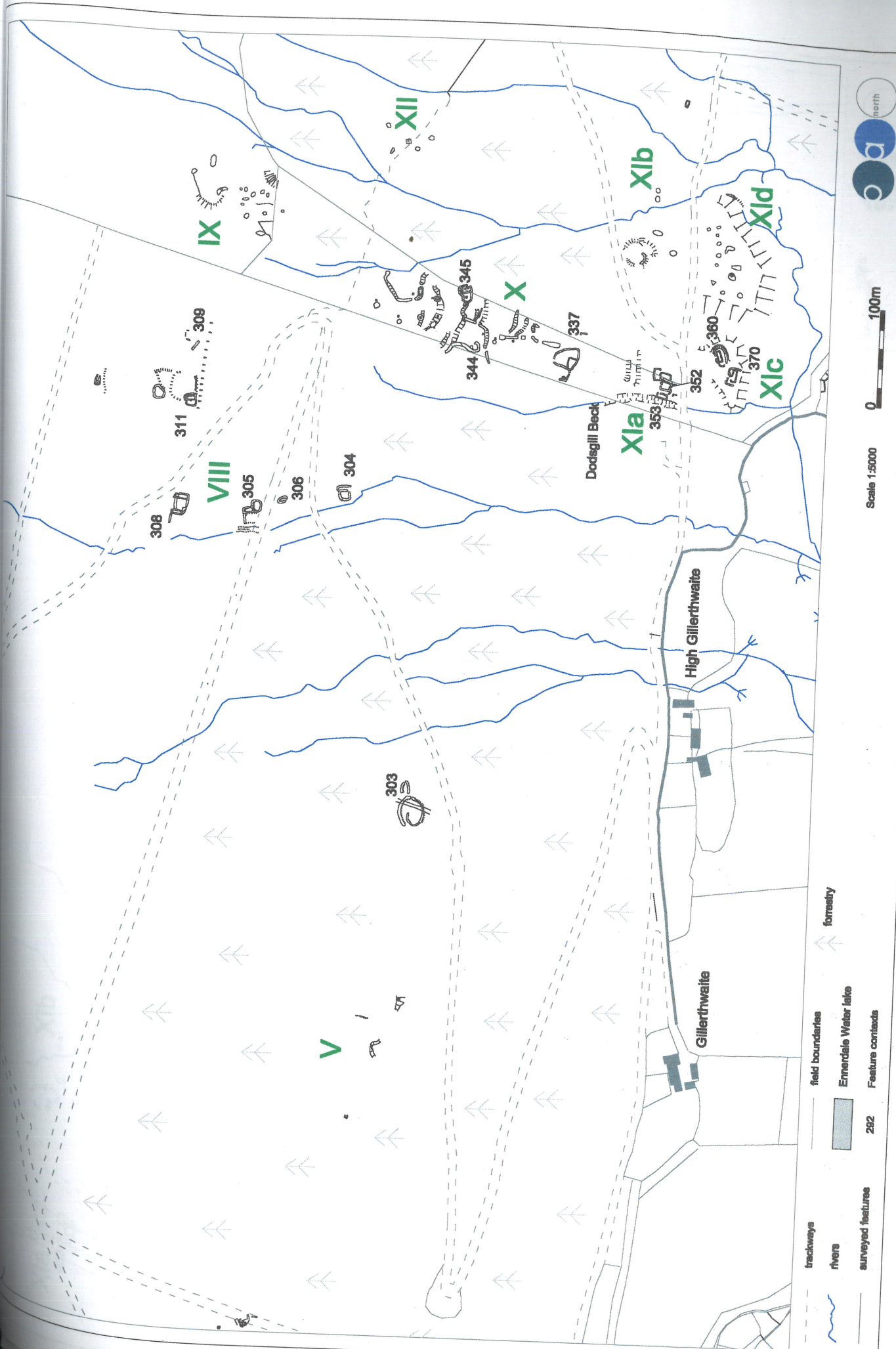


Figure 8: Detailed Plan of site Groups EF V, VII, IX, X, XI, XII and II - Gillertwaite

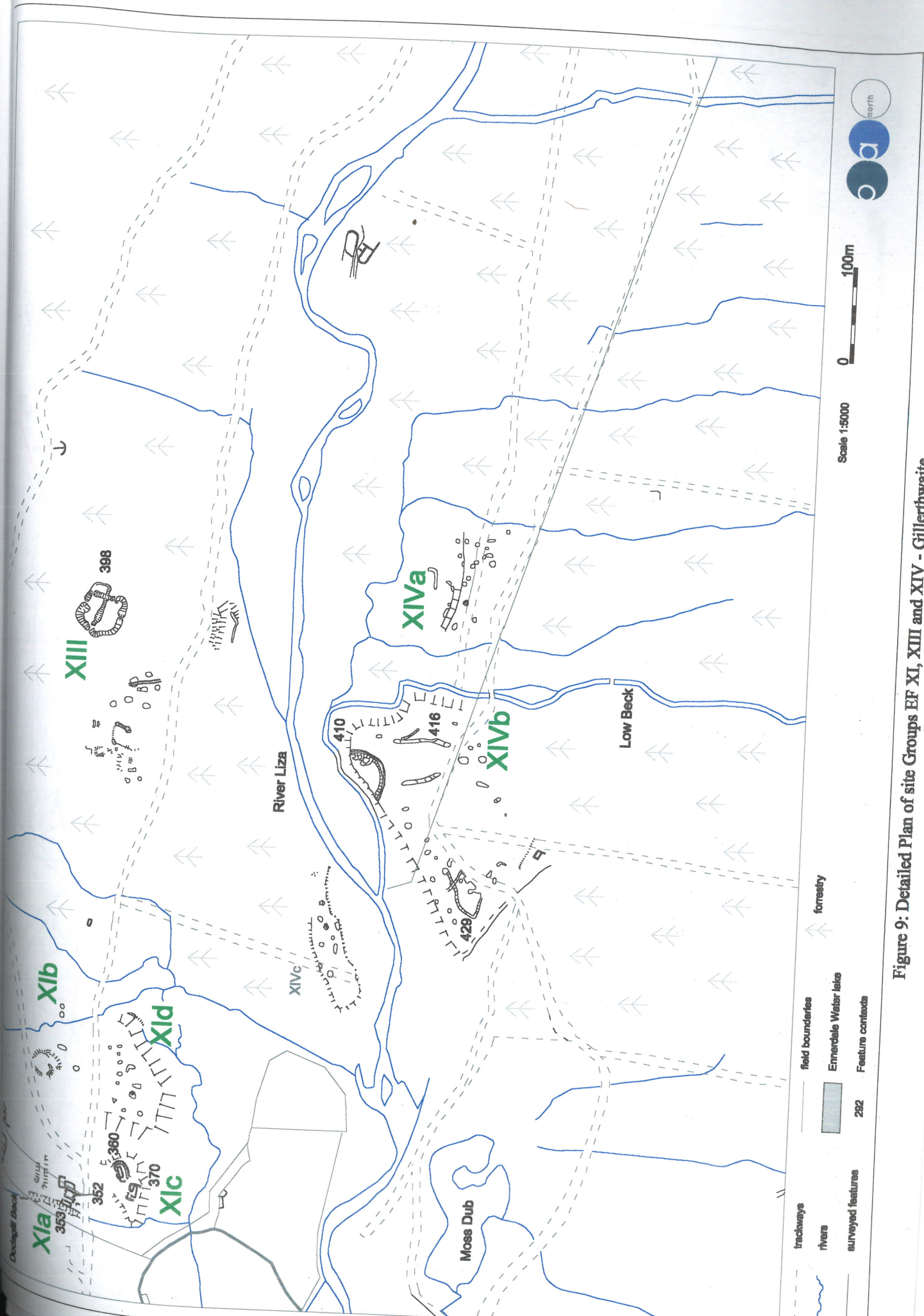


Figure 9: Detailed Plan of site Groups EF XI, XIII and XIV - Gillerthwaite

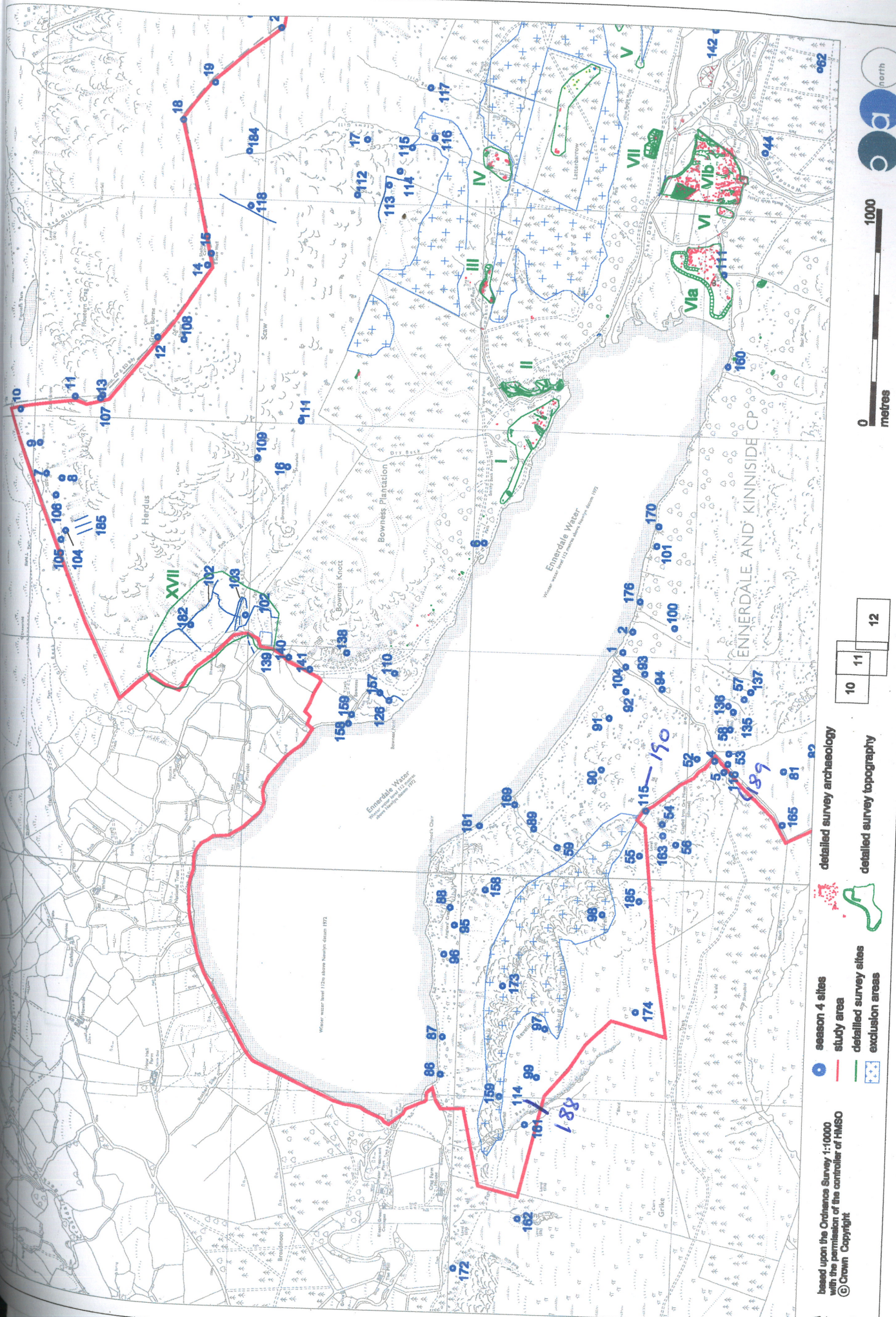


Figure 10: Season 4 Survey Site Map - Emerdale West

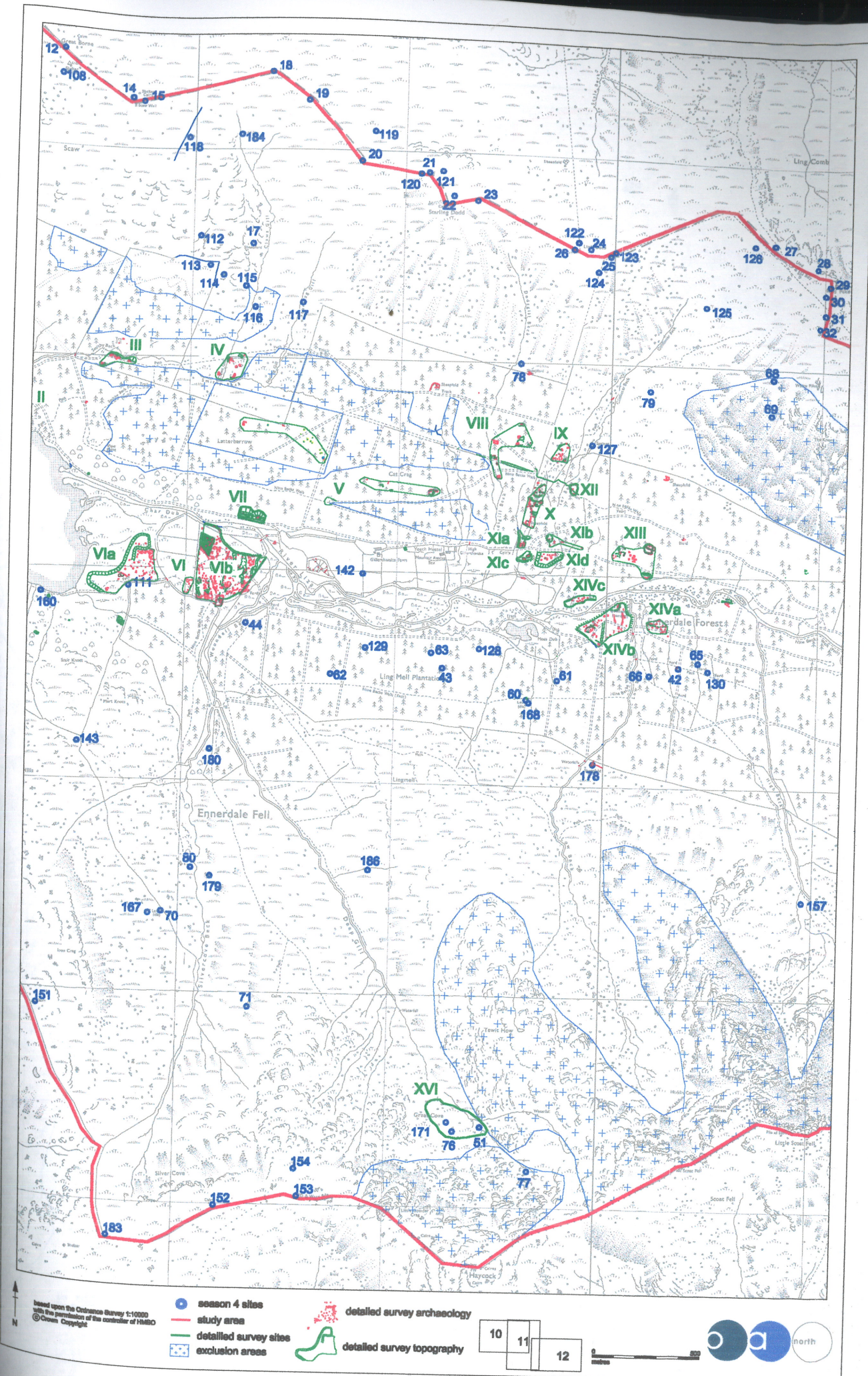


Figure 11: Season 4 Survey Site Map - Ennerdale Central

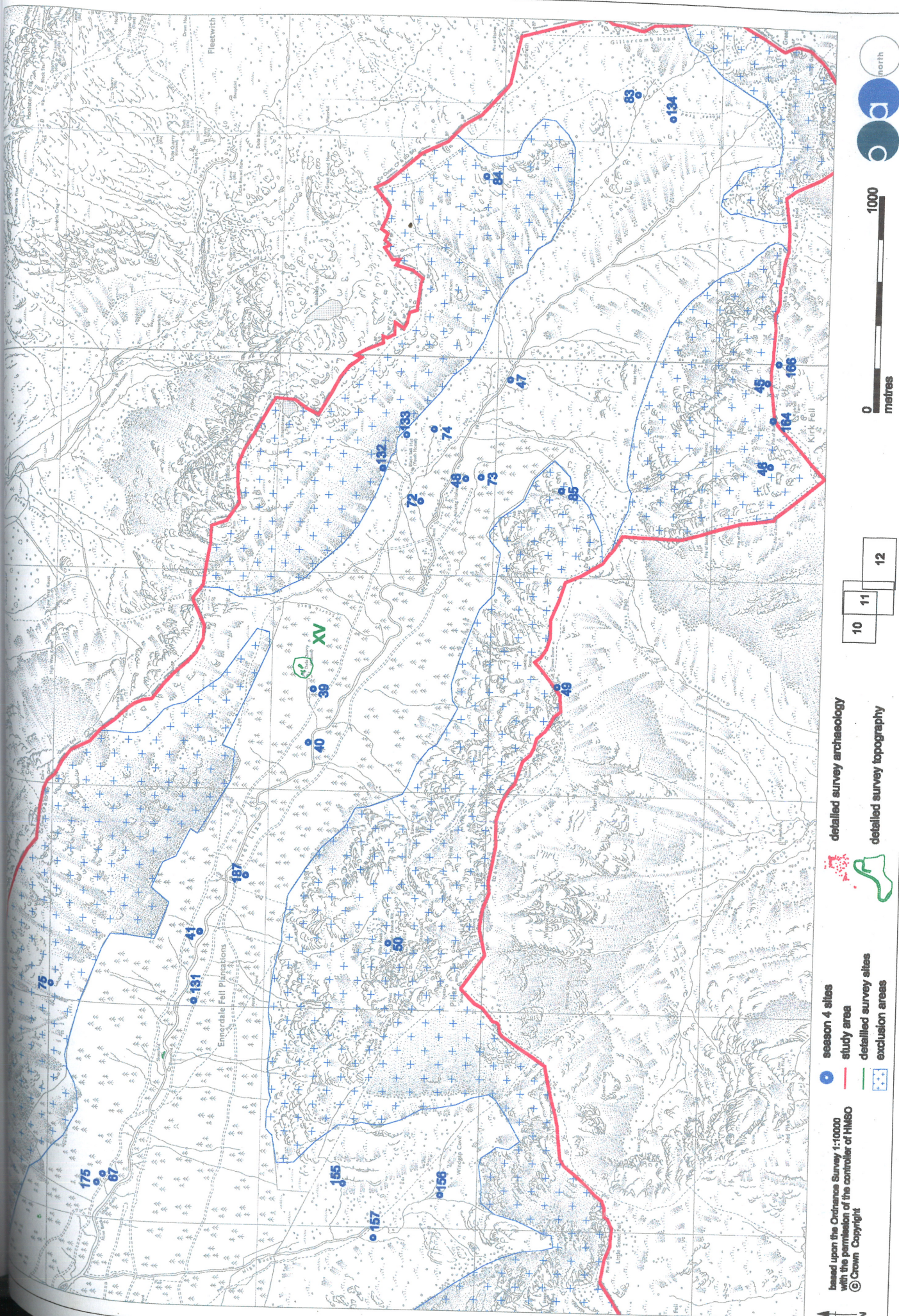


Figure 12: Season 4 Survey Site Map - Emerdale East

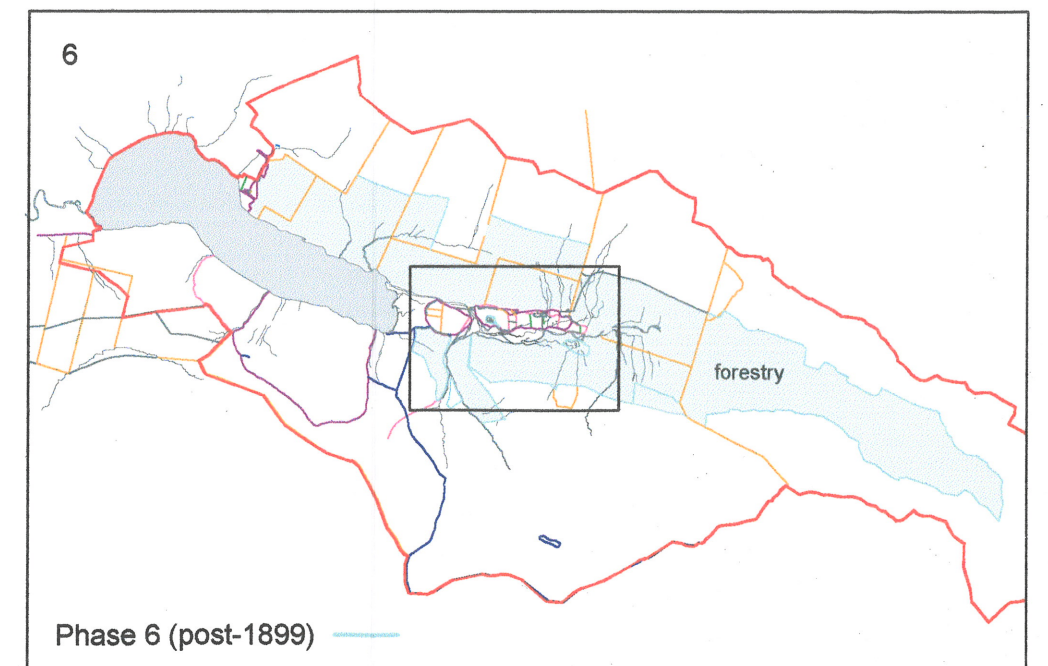
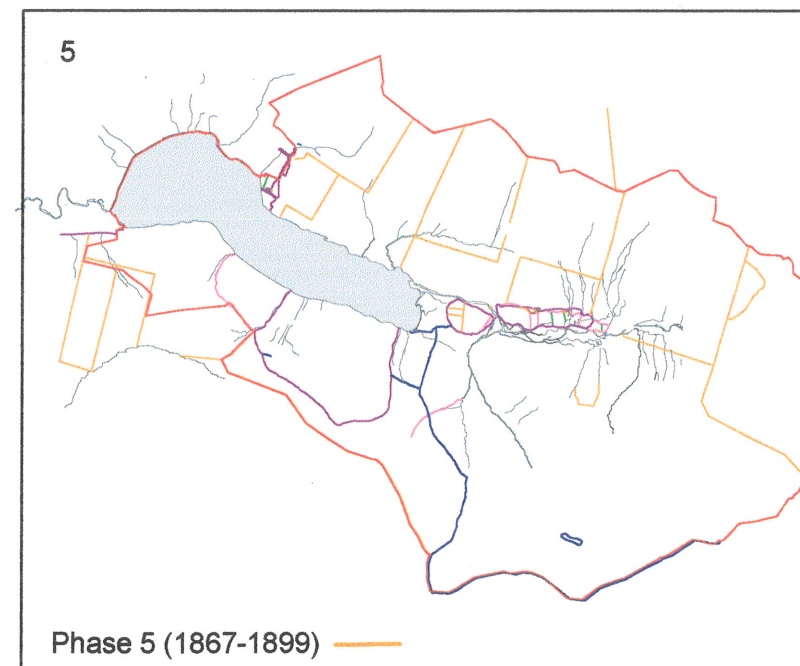
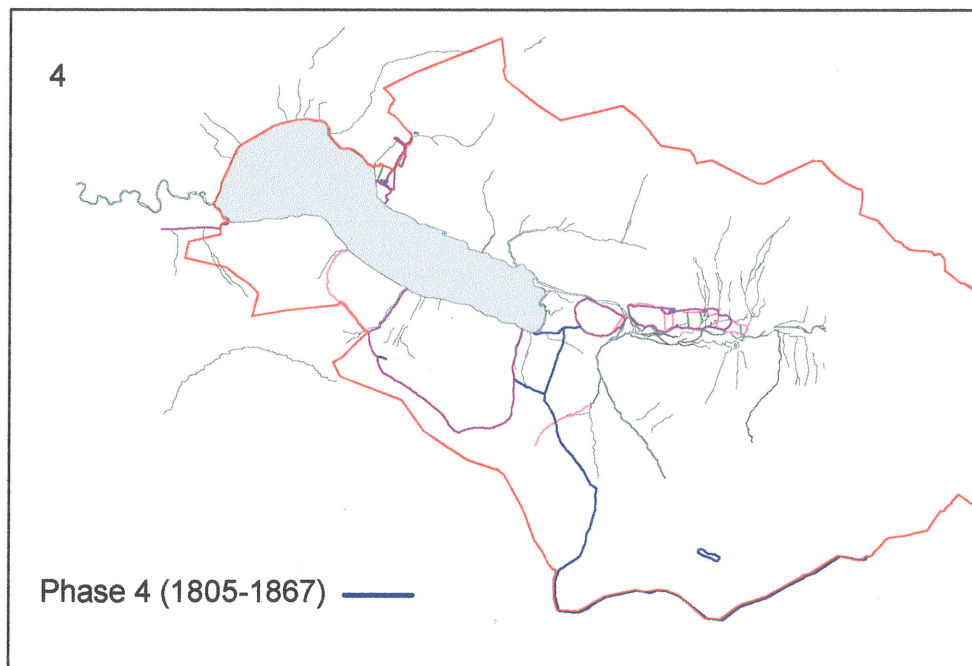
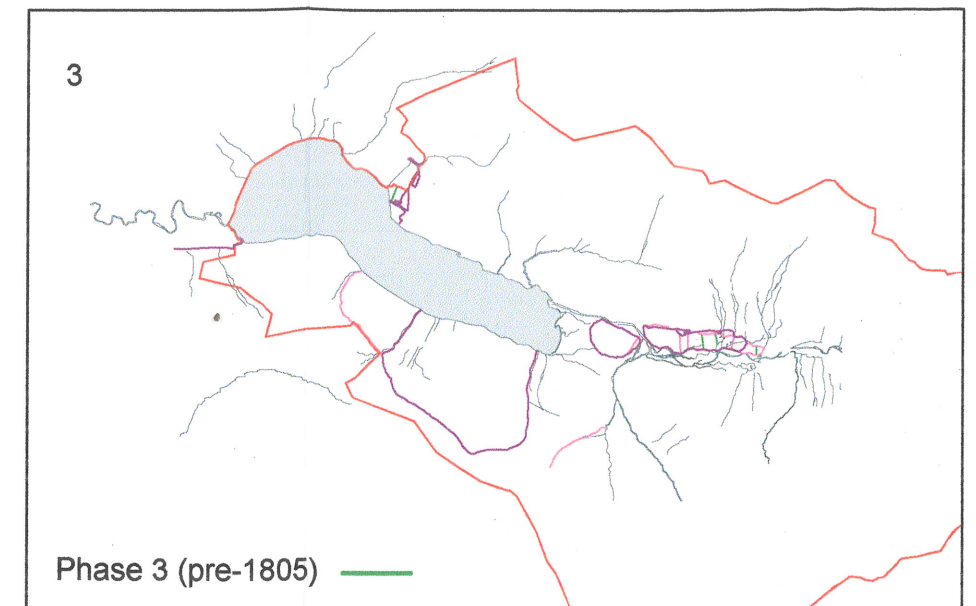
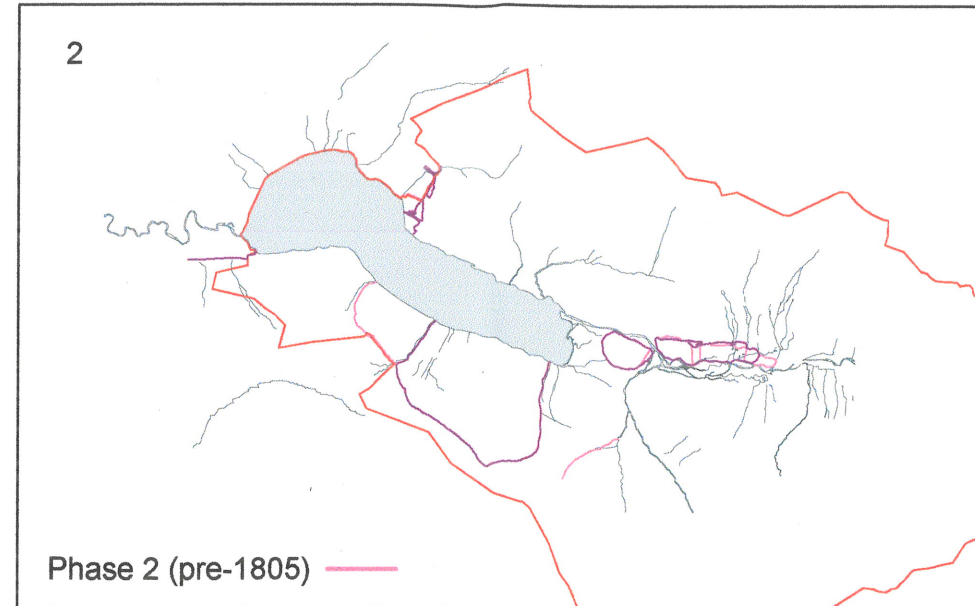
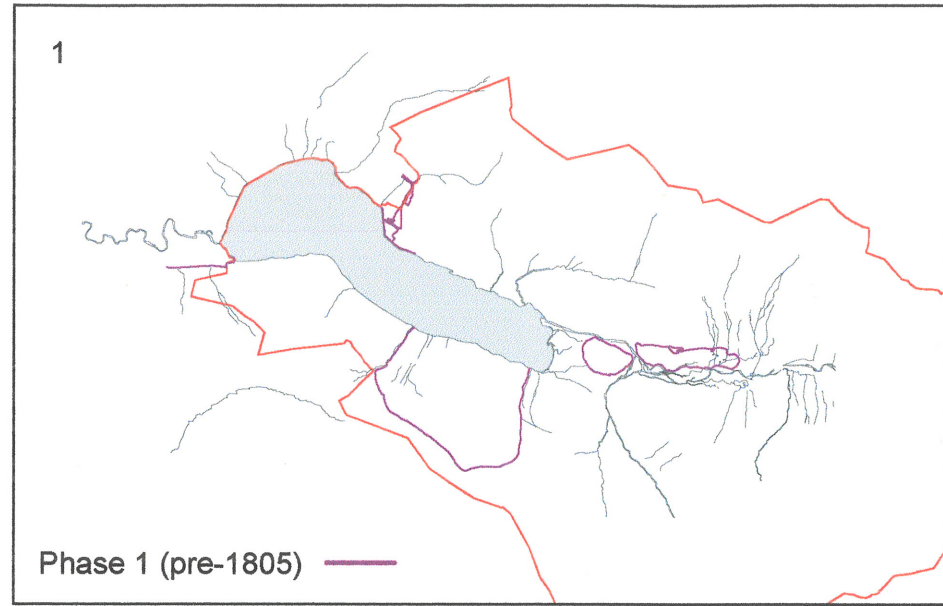
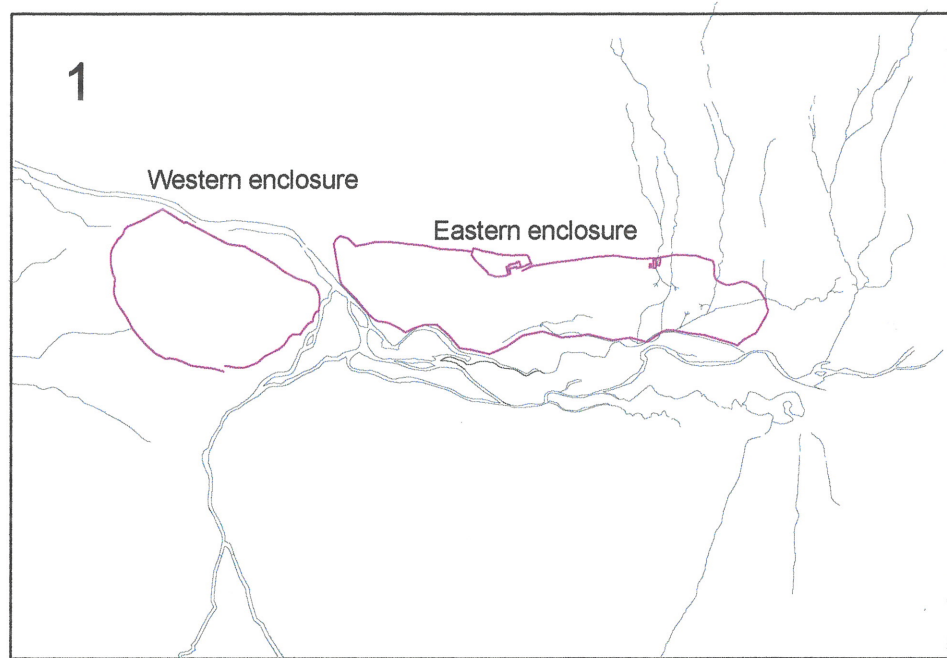
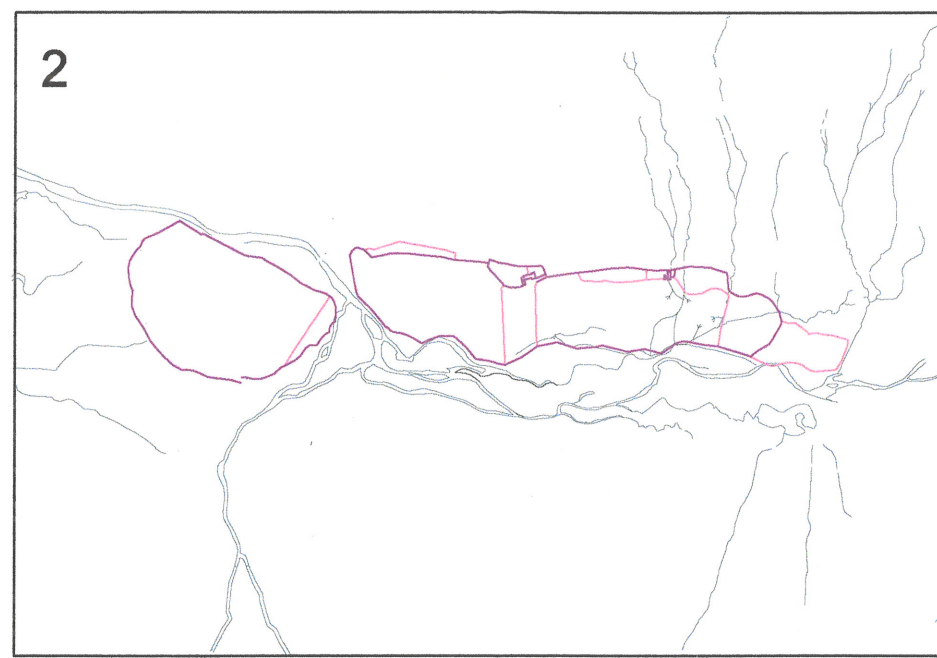


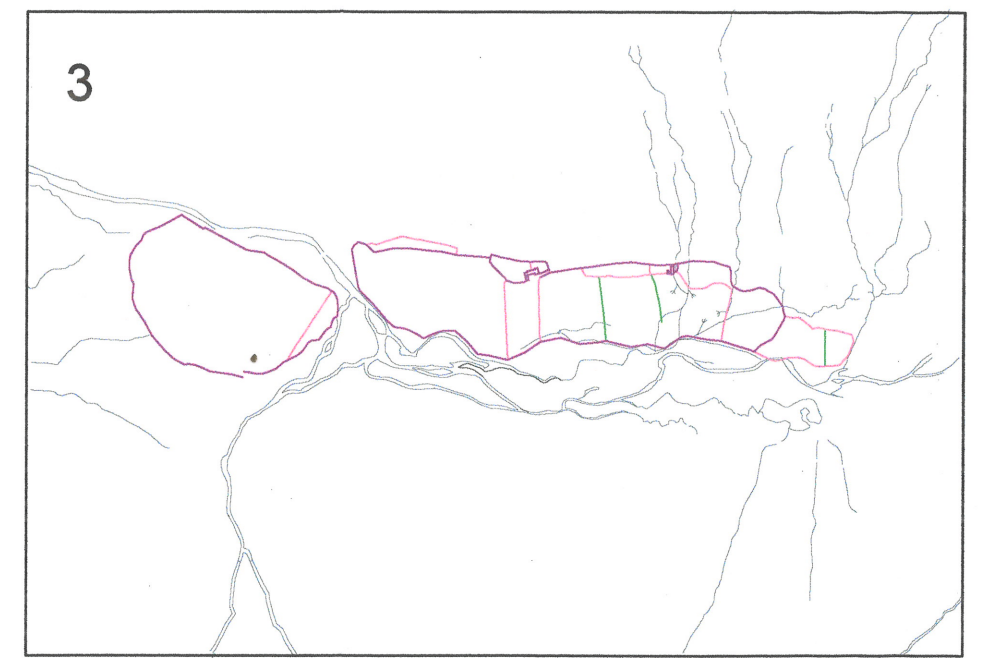
Fig 13: Phased development of the field boundaries within Ennerdale



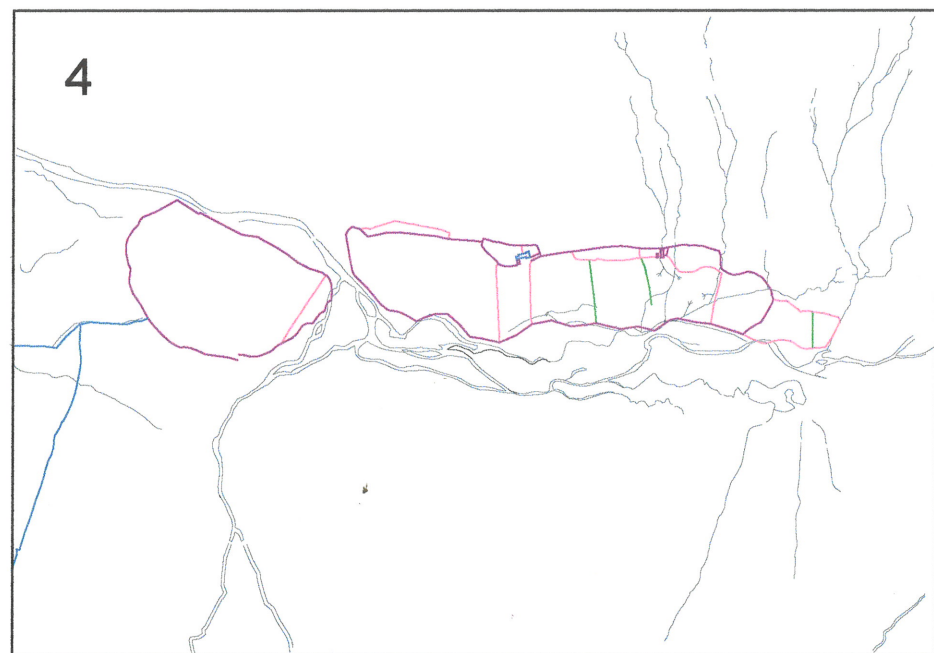
Phase 1 (pre-1805) ———



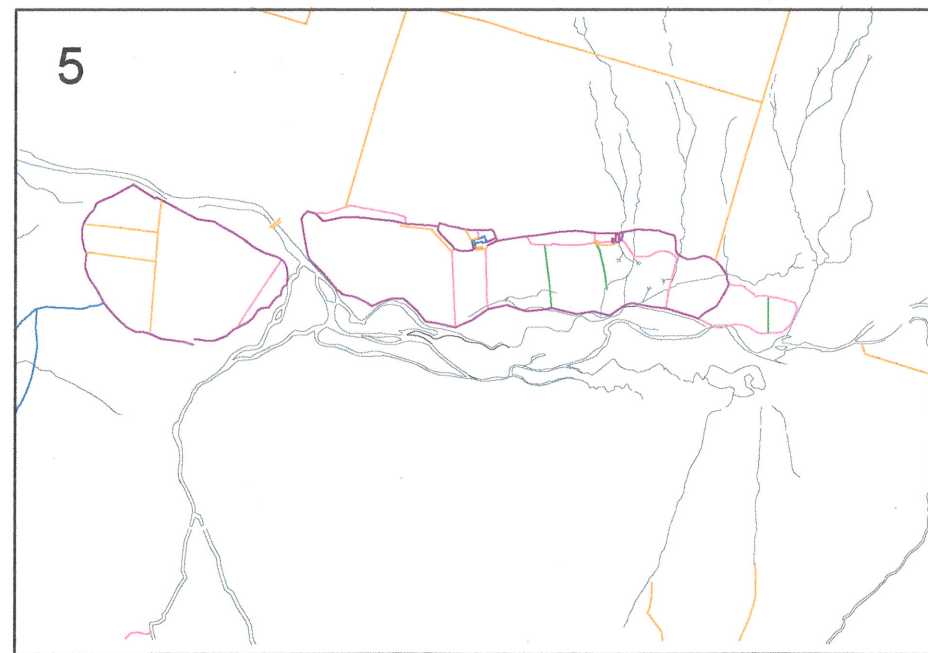
Phase 2 (pre-1805) ———



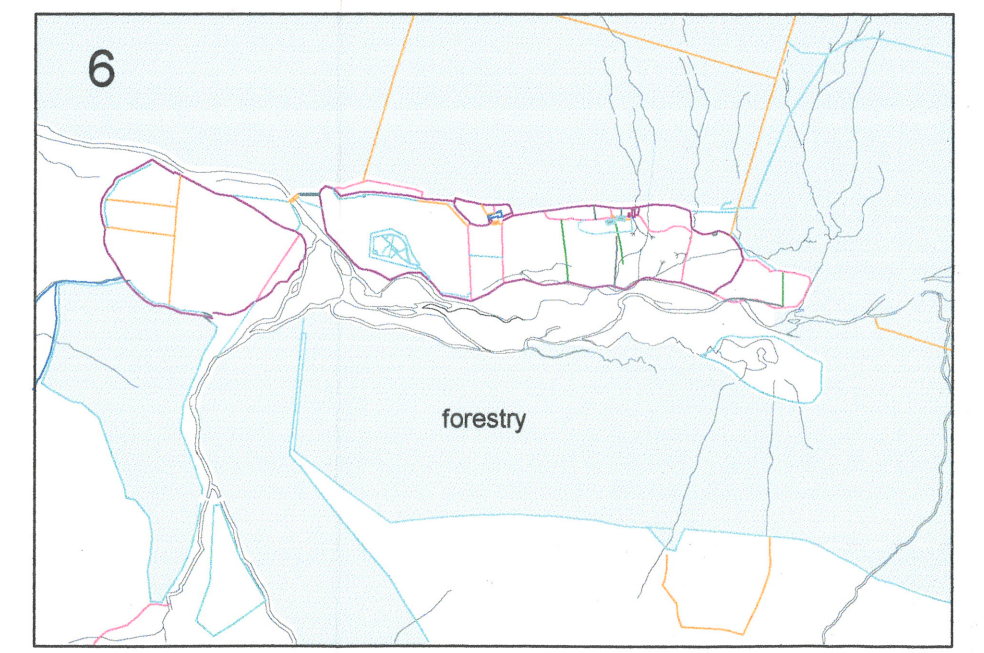
Phase 3 (pre-1805) ———



Phase 4 (1805-1867) ———

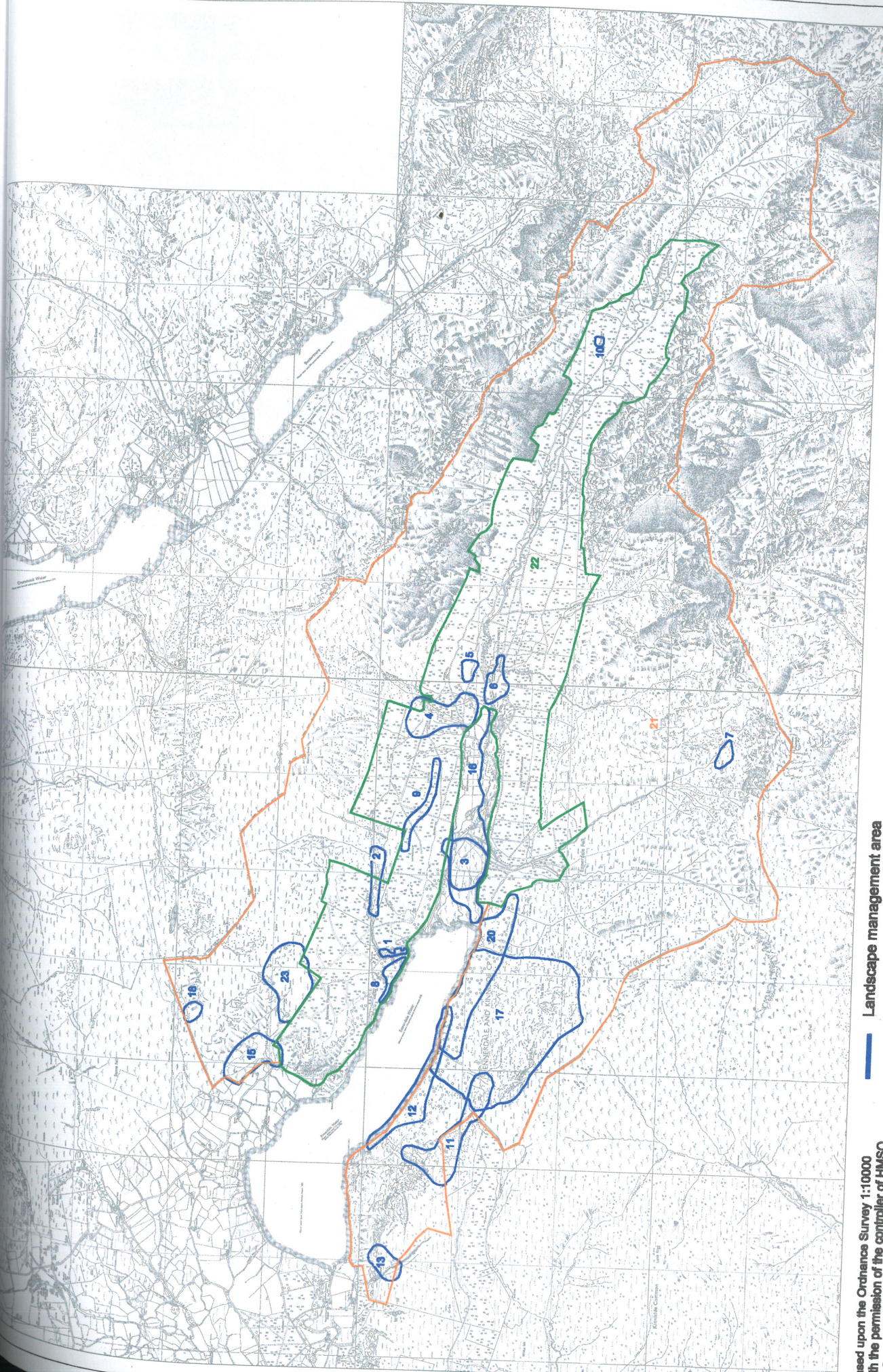


Phase 5 (1867-1899) ———



Phase 6 (post-1899) ———

Fig 14: Phased development of the field boundaries within the area of Gillerthwaite Intake



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- Landscape management area
- Landscape management area, forested
- Landscape management area, unforested

Scale 1:40,000



Figure 15 : Emerald Management Areas



Plate 1: Ennerdale Water and Crag Fell viewed from the north



Plate 2. Boundary marker cairn, Site 37, overlooking Ennerdale Water looking southwest



Plate 3: Stock enclosure EF 337 within the EF X settlement group, Gillerthwaite, looking south



Plate 4: Long house EF 296, within the EF IV Smithy Beck group, looking south



Plate 5: A sheepfold within the shieling group at Great Cove facing north-west (Site 51)



Plate 6: The field system on Herdus (Site 102) facing north-west



Plate 7: Enclosure Site 139 looking east



Plate 8: The western boundary of the Side deer park facing south-west (Site 188)



Plate 9: Eastern boundary of the Side deer park (Site 188), looking south



Plate 10: The Foxtrap on Brown How (Site 109)



Plate 11: Boundary marker cairn on Starling Dodd looking west



Plate 12: The Bield and Shepherd Shelter at Windgap Cove facing north-west (Site 155)