# CONTENTS

EXE	CUTIVE SUMMARY	5
Intro	duction	5
Signi	ificance	5
Cons	servation Policies	5
Gaze	etteer	6
KEN	DAL FELL QUARRY CONSERVATION PLAN	7
SUM	MARY OF POLICIES FOR THE CONSERVATION OF KENDAL FELL QUA	ARRY8
ACK	NOWLEDGEMENTS	10
1. In	TRODUCTION	11
1.1	Circumstances of Project	11
1.2	Background	11
1.3	Basis of the Conservation Plan	14
1.4	Scope of the Survey	14
1.5	Review of Sources	15
1.6	Outline Structure	15
1.7	Topographical Survey	15
2. Ov	VERVIEW	17
2.1	Topography and Setting	17
2.2	Natural Environment	17
2.3	Historical Background	18
2.4	Previous Work	24
2.5	Documentary Background	25
2.6	Synthesis	29
2.7	Topographical Survey	30
<b>3.</b> As	SSESSMENT OF SIGNIFICANCE	31
3.1	Understanding	31
3.2	Phases	31
3.3	Basis of the Assessment: Values Employed	32
3.4	Degrees of Significance	33
3.5	Overview of Significance	34
3.6	Chronological Assessment of Key Elements of Significance	35
3.7	Archaeological, Historical and Topographical Significance	36

3.8	Contemporary Social and Economic Value	37
4. GAZ	ZETTEER	38
4.1	Introduction	38
4.2	Setting and Context	39
4.3	Area 1: Quarries and Lime kilns, Greenside to Coffin Wood	40
4.4	Area 2: Kettlewell Quarry and Lime kiln	43
4.5	Area 3: Serpentine Walks (now Serpentine Wood)	44
4.6	Area 4: Golf Course	45
4.7	Area 5: High Tenter Fell	46
4.8	Area 6: Agricultural Features	48
4.9	Area 7: Collections, Archives and Historical Records	49
4.10	Area 8: Natural Environment	50
5. Con	NSERVATION POLICIES	52
5.1	Introduction	52
5.2	Outline Aims	52
5.3	Conservation Policies	53
5.4	Policies for Protection: the Site and its Setting	53
5.5	Policies for Conservation: Repair and Maintenance	57
5.6 Work	Policies for Understanding: Information, Research, Recording and	
5.7	Policies for Access: Appreciation and Interpretation	61
5.8	Policies for Managing the Site	64
6. IMP	LEMENTATION	67
6.1	Introduction	67
6.2	Consultation and Agreement	67
6.3	Adoption, Co-ordination and Review	67
6.4	Decision-making Framework	67
6.5	Impact Assessment and Mitigation	68
6.6	Interpretation and Public Involvement	69
6.7	Implementation Process and Timetable	69
Biblic	OGRAPHY	73
Cartog	graphic Sources	73
Prima	ry Sources	74
Secon	dary Sources	75

APPENDIX 1: LEVELS OF ARCHAEOLOGICAL SURVEY RECORDING	78
APPENDIX 2: TOPOGRAPHICAL SURVEY GAZETTEER	82
APPENDIX 3: HISTORICAL MAP SEQUENCE	92

# **ILLUSTRATIONS**

Figures	
Figure 1: Location map	11
Figure 2: Boundary of the Study Area	12
Figure 3: Gazetteer Areas, Conservation Area and Footpath	37
Figure 4: Archaeological Sites Identified during the Topographical Survey	38
PLATES	
Plate 1: Extract from a Map of Kendal Fell from 1788 (CRO(K) WDX/29/1)	19
Plate 2: Plan of the golf course (from Farrer c1910)	22
Plate 3: Extract from a Plan of 1788 (CRO(K) WDX/29/1)	25
Plate 4: Map of Kendal Fell from 1812 (CRO(K) WDX/29/2)	26
Plate 5: Extract from a Plan of 1847 (CRO(K) WDSo 10/Z3 1847)	27
Plate 6: Serpentine Cottage and the gate to the Serpentine Walks	28
Plate 7: A plan of 1812, showing lime kilns at Greenside	40
Plate 8: Lime kilns at Greenside, from a plan of 1870	40
Plate 9: Recent view of the Greenside lime kiln	41
Plate 10: The time gun at the end of the nineteenth century	43
Plate 11: Extract from Speed's map, 1614	46
TABLES	
Table 1: Acts relating to Kendal Fell	24
Table 2: Sites identified during the topographical survey, arranged by type	29

# **EXECUTIVE SUMMARY**

#### INTRODUCTION

Oxford Archaeology North was requested by Kendal Civic Society to complete a Conservation Plan of Kendal Fell, Kendal, Cumbria (centred on SD 505 929). This arose as a result of their proposal to restore and make accessible to the public a lime kiln at Greenside, which is a Scheduled Monument (SM 34994). The scope of this scheme was extended using funding from the Aggregate Levy Sustainability Fund (ALSF) to cover the whole of Kendal Fell Quarry in the ownership of South Lakeland District Council.

Kendal Fell was enclosed by Act of Parliament in 1767, and forms an important part of the landscape of Kendal. It has played a major role in processes associated with the woollen and lime-burning industries, and its extensive quarries were also used for building stone, notably by the famous local company of Holme and Webster.

#### **SIGNIFICANCE**

The Conservation Plan reviews the archive sources for the history of Kendal Fell Quarry in order to establish an understanding of the historic site. This has been coupled with a topographical survey of the study area, which aimed to identify the extent and condition of archaeological features on Kendal Fell. In total, 39 sites of archaeological interest were identified, the majority relating to quarrying. Other sites, which had not been recorded previously, relate to agricultural activity on the Fell, and include original field boundaries laid out after the land was enclosed in 1767, but which had been removed by 1812. The combined results of the historical background and the topographical survey allowed a detailed consideration of the significance of the various aspects of the landscape to be created. In terms of statutory designations, the study area contains one Scheduled Monument (Greenside Lime Kiln, SM 34994).

#### **CONSERVATION POLICIES**

Following a review of factors which affect the site's significance now, or which may do so in the future, the Conservation Plan provides policies for its conservation. Five principal areas of policy are set out, aimed at protecting and in some cases enhancing the significance of the site as a whole, and realising its potential for public enjoyment, access and understanding:

- Protection: the fabric and setting
- Conservation: repair and maintenance
- Understanding: information, recording and research
- Enjoyment access and interpretation
- Management of the site.

These Principal Policies are supplemented by more detailed subsidiary policies, by which they may be implemented.

#### **GAZETTEER**

The final section of the Conservation Plan (*Appendix 2*) is a schedule of the individual elements of the site, and attempts to develop a more detailed understanding, including for each element its particular development and significance, the risks and vulnerabilities which affect it, and the specific policies for its conservation or other treatment.

# KENDAL FELL CONSERVATION PLAN

This Conservation Plan has been approved by the following authorities and interested bodies:

South Lakeland District Council			
Signed on behalf of South Lakeland District Council			
By	Date:		
Cumbria County Council Archaeo	ology		
Signed on behalf of Cumbria Cour	nty Council		
By	Date:		
Kendal Town Council			
Signed on behalf of Kendal Town	Council		
By	Date:		
Kendal Civic Society			
Signed on behalf of Kendal Civic Society			
By	Date:		
English Heritage			
Signed on behalf of English Herita	age		
Ву	Date:		

# SUMMARY OF POLICIES FOR THE CONSERVATION OF KENDAL FELL

# A: POLICIES FOR PROTECTION – THE SITE AND ITS SETTING:

**POLICY A1:** Protection of the historical and ecological significance of Kendal Fell and its setting should be central to site management and the planning of future development.

**POLICY A2**: The setting of Kendal Fell should be protected and where appropriate enhanced, removing intrusive elements and guarding against inappropriate future development.

**POLICY A3**: Risks of damage to the historic landscape of Kendal Fell from normal public access, its use as a recreation facility and for other activities, should be minimised.

**POLICY A4:** An effective regime for the physical security and policing of the site should be maintained.

#### **B:** CONSERVATION – REPAIR AND MAINTENANCE

**POLICY B1**: A philosophy of conservation should be developed which ensures the survival of the historic landscape, while protecting its character and visual qualities.

**POLICY B2**: Regular planned and funded programmes should be implemented for the maintenance of structures within the historic landscape, with effective monitoring, inspection, conservation and repair, where necessary reviewing and updating existing arrangements.

**POLICY B3**: All works, whether conservation, repair or new work, should be informed by a clear and detailed understanding of the historic fabric, and fully recorded in a permanent form.

# C: Understanding – Information, Recording, and Research

**POLICY C1**: Future research should be promoted, with a planned agenda for investigations and an ability to respond to opportunities as they arise.

**POLICY C2**: Research should be used to focus and enhance future archaeological work on Kendal Fell, be it planned or opportunistic.

#### D: ACCESS – APPRECIATION AND INTERPRETATION

**POLICY D1**: Appreciation of Kendal Fell should be made open and accessible to all, as far as is practicable within site constraints.

**POLICY D2**: Public understanding of the historic landscape of Kendal Fell and its quarries should be improved through on-site interpretation, documentation and other supporting measures.

**POLICY D3**: Site presentation should be arranged to aid understanding of the various elements of the historic landscape of Kendal Fell.

**POLICY D4:** Access should be planned and managed so as to cause minimum impact on the site, by the sensitive location of access routes and of any visitor services provided.

#### E: MANAGEMENT – LONG-TERM PROVISIONS FOR KENDAL FELL

**POLICY E1**: Statutory and legal requirements for protection of the site, the health and safety of individuals, and the requirements of disabilities legislation should be met, by means which ensure minimum impact on the significance of the site.

**POLICY E2**: the Conservation Plan should work in conjunction with the existing Management Plan. Both have many areas in common and one should be able to enhance the policies and objectives of the other.

#### **ACKNOWLEDGEMENTS**

Oxford Archaeology North (OA North) would like to thank English Heritage, and particularly Kath Buxton, for commissioning and supporting this project, and for facilitating the funding via the Aggregate Levy Sustainability Fund. The project arose from a proposal to restore and improve the access to Greenside lime kiln by Kendal Civic Society, which is thanked for their invaluable support. South Lakeland District Council, and particularly Alastair McNeil, are thanked for their invaluable assistance and support, as are the members of the Kendal Fell and Golf Course Advisory Group.

Additional thanks are due to Jo Mackintosh, the Historic Environment Record Officer for Cumbria, for her help and information, and the staff of the Cumbria County Record Office in Kendal and the Kendal Local Studies Library, for all of their assistance and patience. Special thanks are due to Anna Hall at Kendal Museum for her help and additional information, and to the members of the Kendal Young Archaeologists' Club for their enthusiastic participation in the project. Thanks are also expressed to Kendal Golf Club for their willingness to accommodate the topographical survey, and to Graham Darlington, Conservation Officer for South Lakeland District Council, for his help in supplying several useful sources of information and comments. Thanks are also due to Richard Newman and Jeremy Parsons, at the Cumbria County Council Historic Environment Service, for further useful information.

Daniel Elsworth carried out the background research and compiled the Conservation Plan. Daniel Elsworth and Kathryn Blythe carried out the topographical survey, and Jo Dawson examined the pottery recovered from Site 28. Ian Miller managed the project and edited the report, which was also edited by Rachel Newman.

# 1. INTRODUCTION

#### 1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 Members of the Kendal Civic Society, in particular the late Dr John Satchell, have been carrying out research on the landscape around and including Kendal Fell Quarry for several years. Much of this research has focussed on limestone quarrying and associated lime burning, which has been demonstrated to be of some historical significance to the region. As a result of this, a scheme was proposed to present the history of those parts of Kendal Fell in the ownership of South Lakeland District Council to the local community and set in place a sustainable programme of conservation and long-term management of the area. The initial stage in this scheme proposed that a Conservation Plan for the whole of Kendal Fell be carried out, with particular emphasis being placed on the Greenside lime kiln, which is a Scheduled Monument (SM 34994), and associated features.
- 1.1.2 In September 2004, Oxford Archaeology North (OA North) produced a project design for the Conservation Plan, as part of an application for funding from the Aggregate Levy Sustainability Fund, which is administrated by English Heritage. This project design was modified subsequently in November 2004 and, following its acceptance by English Heritage and the Kendal Civic Society, OA North was commissioned to carry out the work. It is anticipated that the Conservation Plan will inform a strategy for the long-term management of the landscape and the features within it, and present ways in which it can be interpreted.

#### 1.2 BACKGROUND

- 1.2.1 Kendal Fell lies a short distance to the west of the centre of modern Kendal, on an area of high ground overlooking the town (centred on SD 505 929; Figs 1 and 2). It is situated on the western edge of the Kendal Conservation Area, although the area to the south of Skewbarrow is within this, as is the Greenside lime kiln (South Lakeland District Council 2000). The area stretches from Greenside on the south to Helsfell on the north, and Queen's Road and Windermere Road to the east and the parish boundary between Kendal and Underbarrow with Bradleyfield on the west (Fig 2).
- 1.2.2 As the quarrying operations that have existed on Kendal Fell have left remains covering almost a quarter of the total study area, the Conservation Plan will refer throughout to 'Kendal Fell' rather than 'Kendal Fell Quarry', even though it is elements relating to the quarries that are its main focus. It covers an area of approximately 1km², and the whole area is mainly grassland, although there is a large plantation in the south-east corner, now known as Serpentine Wood. This is crossed by a number of public footpaths, and a golf course covers a large part of the north and west part of the Fell.

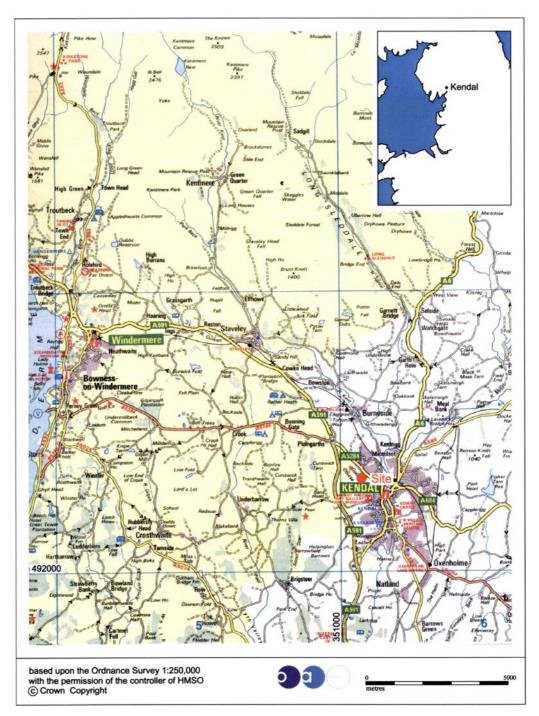


Figure 1: Location Map

1.2.3 The first known industrial activity on the Fell was associated with the woollen industry, which was Kendal's principal industry from at least the medieval period (Satchell 1984); documentary references to tenter frames on the Fell imply that parts of it formed a focus for the stretching and drying of woollens. Large-scale quarrying for building stone, aggregate and stone for making into lime probably began in the area during the early post-medieval period, although little is known about the extent of such activity before the eighteenth century. There are references to lime burning in the area from the early eighteenth century (Keates 1999), and some quarrying for marble was also taking place by the end of the century (Mannix and Co 1849, 288). The

completion of the Lancaster Canal link from Preston to Kendal in 1819 allowed cheaper coal to be transported to the town, which in turn played a part in the rapid expansion of housing and population that took place there at the beginning of the nineteenth century. One consequence of this expansion was a building boom to meet the increased demand, and it was recorded in 1832 that 'in a very short time, the town assumed a new modern appearance – so different that any person having been absent a few years, could scarcely have identified it' (Nicholson 1861, 148).

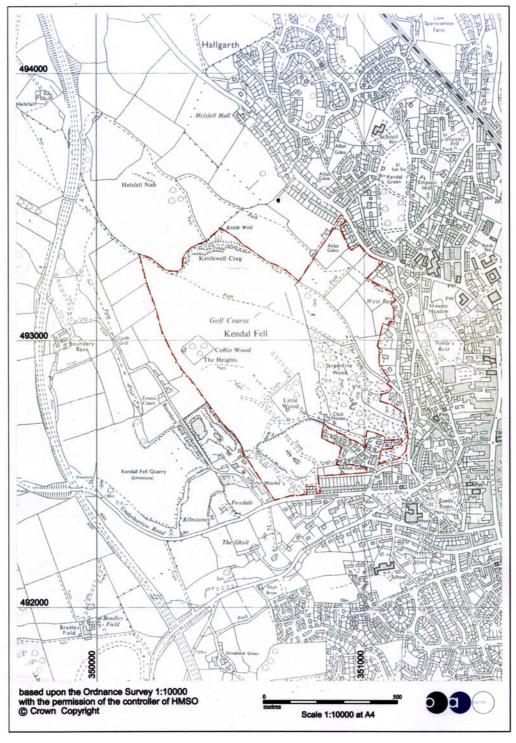


Figure 2: Boundary of the Study Area

1.2.4 The extraction and processing of limestone from Kendal Fell Quarry is integral to the creation of the modern town. Moreover, as a result of the research of the late Dr John Satchell, part of the site, namely the one surviving lime kiln of several that served the quarry, has been designated as a Scheduled Monument (SM 34994). This designation recognises not only the important part that the quarries played in the development of the town and the wider region, but also the national importance of such features that were once relatively commonplace but have now all but disappeared.

#### 1.3 BASIS OF THE CONSERVATION PLAN

The organisation of the plan is based on the model brief set out as the 1.3.1 Appendix to Conservation Plans in Action (Clark 1999), and on Conservation Plans for Historic Places and Conservation Management (Heritage Lottery Fund 1998; 2003). The underlying principles are derived from *The* Conservation Plan (Kerr 2000). It also takes into account the series of international charters, summarised in the Guide to International Conservation Charters (Historic Scotland 1997). The principal ones are the Charter of Venice, 1964; the UNESCO Recommendations, 1976; the Council of Europe European Charter of the Architectural Heritage, 1975; and the Charter for the Conservation of Places of Cultural Significance, Australia ICOMOS, 1999 (the Burra Charter). These charters are not incorporated into UK legislation, though the principle of understanding the historic sites as a necessary basis for decision making is well recognised. The requirement to protect significance during processes of change or conservation is enshrined in the Government's Planning Policy Guidance Notes PPG 15 Planning and the Historic Environment (DoE 1994) and PPG 16 Archaeology and Planning (DoE 1990). The Conservation Plan has also taken account of general policies contained in Power of Place, the Future of the Historic Environment (English Heritage 2000), and Informed Conservation (Clark 2001).

# 1.4 SCOPE OF THE SURVEY

- 1.4.1 The Conservation Plan covers the area of land owned by South Lakeland District Council making up Kendal Fell, not including Kendal Green, which has been developed for housing (Fig 2). The study is focussed on the industrial landscape, in particular the limestone quarries off Greenside at the south end of the area, but it also examines the wider fell. As a result it also examines features that are not well recorded, and in some cases absent from the archaeological record, and considers sites that have been removed entirely but which may have below-ground remains surviving. These features constitute significant elements in a wider understanding of the landscape and its development.
- 1.4.2 The study specifically relates to proposed plans to restore and make accessible the one surviving lime kiln at Greenside (Kendal Civic Trust 2004), but it also considers a much larger area that is not the subject of any current proposals for development. Nevertheless, the potential for threat from future development is taken into consideration, and the issues of protection and conservation of the

entire area are examined. The nature of conflicts over various potential uses of the Fell is also considered, and the possible damage that any of these might do to the historic landscape is discussed.

# 1.5 REVIEW OF SOURCES

- 1.5.1 There is a considerable quantity of primary and secondary sources relating to the history and archaeology of Kendal Fell. These include the minute books and records of the Kendal Fell Trust, which begin in 1767 and run throughout the nineteenth century (CRO(K)WSMB/K5). A number of secondary sources, ranging from local histories, guide books, and research into various aspects of the Fell, also exist.
- 1.5.2 A major source of information, however, is the landscape of Kendal Fell itself, which has not been examined in detail prior to this study. A topographical survey was carried out as part of the compilation of this plan, and although only limited in its scope, it identified several features of archaeological and historical interest not previously recorded.

#### 1.6 OUTLINE STRUCTURE

- 1.6.1 The Conservation Plan is divided into several parts:
- 1.6.2 *Historical Overview:* the historical overview provides an understanding of the site considered from the various sources available, including any previous work on the area and the relevant documentary sources.
- 1.6.3 *Significance:* this summarises the evidence for the site and its historical development. It identifies the key phases of development and sets out the elements of significance for these and for the site overall.
- 1.6.4 *Conservation Policies:* this develops principles for protecting and enhancing the elements of significance, and making them accessible to public understanding and enjoyment.
- 1.6.5 *Gazetteer:* this is a schedule of individual structures and features that make up the site, organised by themed categories. Their particular historical development and significance are set out, risks and vulnerabilities identified, and policies and recommendations for their conservation or other appropriate treatment provided.

#### 1.7 TOPOGRAPHICAL SURVEY

1.7.1 In order for the Conservation Plan to be able to make suitable statements about the extent of the archaeological resource on Kendal Fell, as well as its condition and significance, an enhanced Level I-type topographic survey was carried out (*Appendix 1*). This comprised a rapid but systematic examination of the entire area on foot. All sites of archaeological interest identified during

- the survey were described and photographed, and their location recorded accurately using a satellite global positioning system (GPS).
- 1.7.2 The information gathered during the topographical survey was used in creating a gazetteer (*Appendix 2*), and helped to inform the assessment of the significance of areas of archaeological interest. In addition, it provides a permanent record of all the known sites on Kendal Fell.

# 2. OVERVIEW

#### 2.1 TOPOGRAPHY AND SETTING

- 2.1.1 Kendal Fell covers a large area, although the present study is focused upon that portion that is owned by South Lakeland District Council (centred on SD 505 929). This area comprises approximately 1km square of high ground, situated less than 1km to the west of the town centre. It ranges between approximately 100m and 200m above sea level (Ordnance Survey 2002), and forms a dramatic rise overlooking the town. Of particular importance is the area of quarrying and associated lime kiln in the southern part of the study area, much of which is now incorporated within the golf course (see *section* 2.1.3).
- 2.1.2 The solid geology comprises Dinantian Carboniferous limestones and shaley limestones between large areas of Coniston Gritstone (greywacke) and Bannisdale Slates (banded mudstones and siltstones) to the east and west respectively (British Geological Survey 1982). This is overlain by typical brown earths of the Waltham association (Ordnance Survey 1983), and glacially-deposited tills. The Fell is on the far north-east fringe of the Morecambe Bay limestones area, which is determined largely by the pattern of much-faulted outcrops of Lower Carboniferous limestone. This has left a number of natural, and enhanced, crags across the entire Fell (Countryside Commission 1998, 71-2).
- 2.1.3 The landscape is predominantly grass-covered, the north-eastern section being used for grazing, while the majority of the remaining area is covered by a golf course, and therefore subject to constant maintenance. Small walled plantations are situated across the golf course, and there is a large plantation, known as Serpentine Wood, in the south-east corner of the study area. Smaller trees, shrubs and longer grass form the rough areas of the golf course and adjoining, linking areas.

#### 2.2 NATURAL ENVIRONMENT

- 2.2.1 Kendal Fell's limestone make-up supports a variety of grassland types, some parts of which are more species-rich than others, and include several rare types. Some of the areas of grassland are particularly important, particularly those that include blue moor-grass (English Nature and South Lakeland District Council 2002, 5). There is also an abundance of orchids and cowslips, and the landscape is in general more diverse and contains rarer plants compared to other lowland fells in the area (Cumbria Wildlife Trust 1998, 7).
- 2.2.2 There are also several stands of semi-natural woodland across the golf course, formed by long-established beech plantations, as well as later conifer plantations (English Nature and South Lakeland District Council 2002, 6). The Serpentine Woods, even though managed and well-used by visitors, support

complex interrelationships of numerous plant and animal species, ranging from insects to mature trees (Cumbria Trust for Nature Conservation 1981, 6). These areas of woodland form important areas for breeding birds, although the more recent, and generally ornamental, plantings are of less ecological value (English Nature and South Lakeland District Council 2002, 6).

#### 2.3 HISTORICAL BACKGROUND

- 2.3.1 *Introduction:* the historical background to Kendal Fell can be divided into five broad periods, in each case connected by a general theme: prehistory; common land; enclosure; industry; and recreation. In each case an outline of the development of the landscape can be observed, and the major factors that shaped each period are identified.
- 2.3.2 **Prehistory:** there is no known evidence for activity on Kendal Fell prior to the medieval and post-medieval periods. However, in 1880 a Mr Beecham, a chair-maker from Kendal, 'conceived the idea that remains of extinct animals might probably be found to exist in the limestone fissures of Helsfell' (Macpherson 1892, xl). He proceeded to carry out excavations at a cave on Helsfell over the next five years and discovered the remains of several species, including wolf, bear, horse and Bos Longifrons (ibid). These demonstrate that a rich vertebrate fauna had been present in the area, probably dating from the immediate post-glacial period. A bone point was apparently also discovered, which suggests that there may have been some human presence on the site (Chamberlain and Williams 2001).
- 2.3.3 Just to the north of the boundary of Kendal Fell is the site of an earthwork known as Sampson's Grave (erroneously named 'Sampson's Bratful' (sic) in the HER, SMR No 4101). This was described by Hodgson as the ploughed-out remains of 'a curious semi-circular camp' (1811, 197). A guide of 1884 called it 'an entrenchment of a semi-circular form, that must most probably have been thrown up by some invading army' (Anon c1884, 45), and it is listed by Ferguson and Cowper as a 'semi-circular camp, now gone' (1893, 525). Quite what these remains originally were is unclear, but they may have represented a site of late prehistoric to Romano-British date. More recently, a probable hoard of Roman coins has been recovered from the vicinity of this 'camp' (Shotter 1995, 274; 1996, 27), which provides further evidence of its likely date. Other sites likely to be of this period are situated to the west, at Bankhead Farm (SMR No 4269) and Cunswick Fell (SMR No 14963), and it is possible that there were considerably more sites of this type situated throughout the general area prior to the improvements of the post-medieval period.
- 2.3.4 *Common land:* little more is known about Kendal Fell prior to the eighteenth century, although it is considered that statements concerning common pasture in the Kendal borough charter of *c*1220 may refer to Kendal Fell (Munby 1985, 100). Curwen describes the area in more detail as 'containing at one time about 160 acres [that] used to be called "Dob Freer" (Curwen 1900, 356-7). The name 'Dob Freer' is thought to come from a combination of 'dub' (Old Welsh, meaning spring or water), perhaps on account of the numerous

springs on the Fell, and free or common land (*ibid*). Curwen goes on to state that an earlier attempt at improvements had been made:

'The Corporation, about 1683... urged the following plan, *viz*: - "There is adjoining the town a parcel of waste ground called Dob Freer, which is all common pasture that is belonging to the town, and is no more than a hill full of rocks and stones. The fee and soil thereof doth belong to the Crown, but is of little or no advantage to his majesty, neither is worth to the town above £5 *per annum*, but might be of greater use or benefit to us if His Majesty were pleased to grant us the soil and inheritance thereof". This plea, however, was not granted' (*ibid*).

- 2.3.5 This large area of common land, which was probably used as pasture for sheep, would have been an important part of Kendal's woollen trade and was evidently used to accommodate tenter frames (Speed 1614). This had been a major part of the local economy since the earliest recorded history (Satchell 1984, 10-2), and the Fell would doubtless have been integral to this. The planned improvements of 1683 perhaps represent an attempt to increase productivity further.
- 2.3.6 *Enclosure:* although this attempt at land improvement was made before the end of the seventeenth century, it was not until an Enclosure Act was obtained in 1767 that this was actually carried out. The Act was a relatively early example for the North West, and one of the earliest in the region (Whyte 2003, 23). Its intention is evident in the title: 'An Act for Inclosing A piece of Waste Ground, in the Burgh and Township of Kirkby in Kendal for the Benefit of the Poor and for the Cleansing and Enlightening of the Streets of the Said Town' (Anon 1810).
- 2.3.7 The wording of the Act outlines several activities that were evidently already taking place on the Fell, including the right to common pasture and 'a common right or liberty of digging for, taking, and carrying away of stone, gravel, sand, and clay, and to get limestones, and to burn the same into lime in and upon the said waste or common' (*op cit*, 4). Specific qualifications were also made to protect 'the several parts of the said waste or common, called the High Tenterfell, and the Low Tenterfell' (*op cit*, 12) from ploughing, and it is further stated that: 'Shearmen and manufacturers may from time to time, and at times hereafter, use the said tenters, repair the same, or erect new ones upon the said High and Low Tenterfells as their occupations shall require, in such or the like manner as they could or might have done in case this act had not been made' (*op cit*, 13).
- 2.3.8 The Enclosure Act, while allowing all of these activities to continue, regulated them and rent was collected for the use of the land. The areas in which quarrying could take place, for example, were strictly laid out, although the common right of 'stone-getting' remained (*op cit*, 4). This is not shown specifically on any contemporary plans, but it is likely that it was in the area immediately north of Greenside where the lime kilns were erected subsequently, and it probably corresponds to the stippled area on the plan of 1827 (CRO(K) WDY/192). Similarly, sheep grazing almost certainly continued on the Fell, although new field boundaries were laid out, as depicted

on a plan of the area from 1788 (Plate 1). It is also suspected that as late as the end of the eighteenth century 'vandalism' to the newly-constructed plantations was actually a result of locals exercising their ancient right to collect wood, regardless of the strict controls brought by enclosure (Hall 2001, 53).

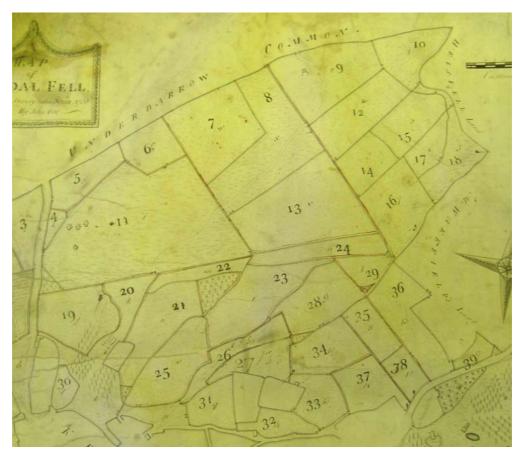


Plate 1: Extract from a Map of Kendal Fell from 1788 (CRO(K) WDX/29/1)

- 2.3.9 *Industry:* Kendal Fell was seemingly used for a variety of commercial activities before the land was enclosed, although the full extent of these is difficult to ascertain. Following the enclosure of 1767, the various activities carried out on the Fell appear to have been managed more closely. Two main industrial processes evidently took place on Kendal Fell at approximately the same time: the use of tenter frames for drying and stretching woollen cloth; and quarrying both for building stone and to produce lime; the former of these two activities was overtaken gradually in importance by the latter. A further activity, rope-making, was also carried out on the southern edge of the Fell (*Section 2.3.16*).
- 2.3.10 The importance of Kendal Fell to the woollen industry, specifically as a focus for tenter frames, is evident on examination of early maps of the area, (eg Speed 1614), although it had probably been of some significance to the local economy since the medieval period (Marshall and Davies-Shiel 1971, 17). Later maps show in more detail the main areas where these frames were concentrated (Todd 1787; Wood 1833), with one area in particular, High Tenter Fell, falling within the study area (Hoggarth 1853). However, there is little documentary evidence relating to the tenter frames, although they were protected specifically in the 1767 Enclosure Act. A description of them from

the 1790s shows how many must have existed around the town at that time: 'the tentergrounds on the side of the mountain [perhaps a reference to Kendal Fell], tier above tier, proclaim the industry and manufacture of the inhabitants' (Marshall and Davies-Shiel 1971, 17).

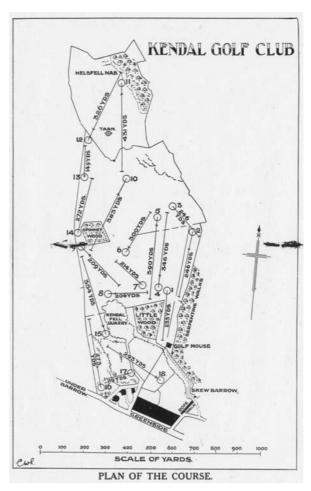
- 2.3.11 The quarrying of stone from Kendal Fell is recorded as taking place from at least 1756 (Marshall and Davies-Shiel 1977, 158), although the inclusion of this activity in the Enclosure Act of 1767 as one of the common rights suggests that it was well-established by this date. Quarrying was probably carried out for two main purposes: for building stone and for the production of lime, both of which were important in their own right, although the extraction of smaller material as aggregate probably also took place. The full extent of quarrying at that period is difficult to ascertain, but there are several references to quarrying for stone used in the production of decorative marble pieces, as being ongoing from at least 1788 (Parson and White 1829, 639; Mannix and Co 1849, 288; Nicholson 1861, 246).
- 2.3.12 In 1796, West stated (probably repeated from the second edition of 1780) that: 'A quarry of marble has lately been discovered near this town [Kendal]... It is of different colours, beautifully variegated, and takes the highest polish. When inlaid in Statuary... it has the best effect, and is equal, if not superior, to any imported from Greece or Italy. Chimney-pieces, and other ornamental works are made of it' (West 1796, 176). The marble was used in particular by the Websters, a local family of master architects and stone masons (Taylor 2004, 50). They are known to have made use of Kendal Fell limestone to make chimney-pieces from at least 1790 (*ibid*), although the exact location of their quarries is not stated. Earlier references to the use of locally-produced marble are known, and whilst it is not clear whether they relate to these quarries, there are records of limestone being quarried on Kendal Fell as early as 1656 (Marshall and Davies-Shiel 1977, -58).
- 2.3.13 The origins of quarrying specifically for the production of lime are also obscure. Such activity was evidently taking place on the Fell before 1767 as it is also mentioned specifically in the Enclosure Act, and during the later part of the eighteenth century lime-burning in general expanded in scale across the country (Williams 2004, 7). Only a single lime burner, one Richard Fisher, is listed in the 1787 'census', (Ashcroft 1992, 328). Parson and White state that 'large quantities of it [limestone] are burnt at the lime-kilns, for mortar and manure' (Parson and White 1829, 639), and by 1834 four lime-burners are listed (Pigot and Co 1834, 650). Evidently lime-burning continued to increase in scale throughout the nineteenth century (Marshall and Davies-Shiel 1977, 158), in part due to access to cheap coal as a result of the completion of the Lancaster to Kendal Canal in 1819 (Keates 1999, 36). By the end of the nineteenth century, three lime kilns were situated at the south end of the study area, and these remained in production until the entire operation was purchased by Robert T Pennington in 1906 (op cit, 44).
- 2.3.14 Lime production on Kendal Fell became a considerable problem during the later part of the nineteenth century. It gradually began to expand beyond the bounds of the agreed area and complaints were soon made about this (*op cit*, 40). Kendal was also growing at a rapid rate during this time, and the

increased need for building land was putting pressure on the trustees to give up some of the Fell to housing. An initial attempt was made in 1848 to reform the Kendal Fell Act in order to allow the Trust to provide some land for building and help alleviate the crisis in public health that was occurring because of overcrowding (CRO(K) WSMB/K5/Box 20 1849; Watterson 1987, 194). These attempts at reform failed, however, and it took until 1861 for an amendment finally to be made (*op cit*, 195).

- 2.3.15 The Kendal Fell Amendment Act of 1861 attempted to solve both of these problems by not only giving the trustees the power to grant building leases for housing, roads and sewers, but also to remove lime kilns and fine those who quarried outside of the boundaries (CRO(K) WSMB/K5/Box 20 1861; CRO(K) WSMB/K5/Box 73 1861). The trustees could also build and work their own kilns for the benefit of the trust, if required, and enter into leases with the owners of lime kilns (*ibid*).
- 2.3.16 Rope-making was also taking place on the Fell, and what is probably a ropewalk is shown on plans from as early as *c*1836 (CRO(K) WQ/R/C/8 *c*1836). The ropewalk is most clearly marked during the mid-late nineteenth century (Ordnance Survey *c*1859a; 1859b). It remained until the early twentieth century, despite the expansion of property along Greenside (Ordnance Survey 1898a), but had disappeared by 1938 (Ordnance Survey 1938).
- 2.3.17 *Recreation:* improvements of various kinds were made to Kendal Fell following the Enclosure Act of 1767. This included attempts to beautify the landscape, and as early as 1790 plantations were laid out across the Fell (Curwen 1900, 357). The most significant area of planting went on to form what became known as the Serpentine Walks. According to Curwen, this was created in 1824, by which he presumably meant it was officially opened, through the efforts of subscribers, as a means of alleviating unemployment (Hall 2001, 53). It is also recorded, however, that some areas of plantation were enlarged and joined together as early as 1814 (Anon *c*1884, 48).
- 2.3.18 At first, a charge of sixpence was made for entry to the walks, making it somewhat exclusive, but in 1849 it was opened to the public, at which point all of the flowers were allegedly stolen (Curwen 1900, 357). The creation of walks of this type and similar acts of improvement for the public good were a feature of this period. A similar scheme was begun in Ulverston at almost exactly the same time (1847), which was later superseded by the construction of the Sir John Barrow Monument, although it is not certain if this was out of any sense of 'local rivalry' (Elsworth 2005).
- 2.3.19 Within the Serpentine Walks there was a small summerhouse, erected in 1833-4 (Butler 1982, 5), described as 'for the convenience of tea parties... one of the windows of this retreat is made of stained glass, throwing the hues of summer and winter, autumn and spring, over the same landscape in rapid succession' (Anon 1847, 26). The walks also possessed another feature of note; an eighteen-pound cannon was placed within the woods in 1873, which was fired regularly at 1pm every day by a remote switch from a shop on Soutergate (Curwen 1900, 38). This remained in place until the beginning of

the twentieth century when it was taken down and removed to Abbot Hall (KLSL/42/623.42 nd) before being used for scrap during the Second World War (Marsh 2003, 69).

2.3.20 The recreational use of Kendal Fell continued, and indeed expanded, during the twentieth century. In 1897 the Cunswick Golf Club (formed in 1893) obtained a lease for 88 acres of land on the Fell to establish a golf course, at which point it renamed itself the Serpentine Golf Club (Anon 1986a). Following the collapse of the older Kendal Golf Club (formed in 1891) in 1907, the two merged into a single club, renamed Kendal Golf Club in 1908. In 1912, the course was substantially reorganised and upgraded (Anon 1913). The original golf course extended across the Fell, from Helsfell Nab to Greenside, but in the late 1940s Penningtons, the quarry owners, applied extend their operation and the golf course was consequently reduced size (CRO(K)in



WDSo 117/BVI 106/4 1948-51). Plate 2: Plan of the golf course (from Farrer c1910)

- 2.3.21 Despite this, the golf club thrived during the later part of the twentieth century, although conflicts between its members and the general public, who also wanted to use Kendal Fell, remained problematic (Hall 2001, 92-5). As a result, a Management Plan was drawn up to examine not only how these difficulties could be resolved, but also how the various wildlife habitats making up the Fell could be maintained and preserved (English Nature and South Lakeland District Council 2000). Kendal Fell was registered as a town green in 1972 under the Common Registration Act of 1965 as a result of the efforts of Mrs Florence Howarth (Hall 2001, 52-3). In 1980 South Lakeland District Council was registered as the owner as a result of this Act.
- 2.3.22 Areas adjoining Kendal Fell were also used for recreational purposes. The field 'adjoining to the north was formerly the race ground, Kendal Races being held there until 1792, and in 1797 the principal cavalry, for Kendal Ward, mustered in this place' (Anon c1884, 45). Bingham states that prior to 1826 'races were held on a course near Kendal, whose position is not precisely known' (1995, 430), which may be a reference to the same location. A rifle

range also existed in the adjoining field to the west, next to Cunswick Scar (Kendal Corporation nd, 24).

#### 2.4 Previous Work

- 2.4.1 *Introduction:* although no previous archaeological work as such has been carried out on Kendal Fell as a whole, a considerable amount of research has focused upon the social and economic impact of the industrialisation and expansion of the town on the Fell. The enclosure and subsequent use of Kendal Fell for industrial purposes has a direct link with the development of the town from the end of the eighteenth century to the present day, and this connects it directly to various aspects of the town's history (Watterson 1987; Homan 1982; Coopey and Coopey 2002). Other work has been targeted on examining the physical remains of the industries carried out on the Fell, specifically those associated with quarrying and lime-burning (Keates 1999).
- 2.4.2 **Wool and agriculture:** the existence of tenter frames on Kendal Fell demonstrates the importance of the woollen industry to the area and, indeed, 'at least three of the original Kendal Fell Trustees of 1767... were hosiers' (Marshall 1975, 211). This perhaps reveals whose interests were being protected by the original act of enclosure.
- 2.4.3 *Lime and stone*: Keates states that although lime-burning was evidently taking place on the Fell prior to 1767, there are no other references to lime-burning prior to 1823, and that 'maps, drawn in 1788 and 1812, show no lime kilns in the Kendal Fell lands' (Keates 1999, 36). It has been suggested that the opening of the Lancaster to Kendal Canal in 1819 led to a massive expansion in quarrying and lime-burning during the nineteenth century (Marshall and Davies-Shiel 1977, 158). Stone quarried from Kendal Fell is also known to have been used at an early date to produce marble for various prestigious pieces of work (Taylor 2004, 50), and has also been supplied as aggregate to local builders' merchants.
- 2.4.4 *Housing and development:* the Kendal Fell Trust played an important part in the development and improvement of housing in Kendal. The changes that were made as part of the Kendal Fell Amendment Act of 1861 came about as part of a wider phase of reforms within the town as a result of concerns about over-crowding and the impact this had on health (Watterson 1987, 191). These reforms were connected to a general shift towards a more liberal local government, and in many ways reflected the decreasing influence of the quasi-governmental Kendal Fell Trust (*op cit*, 186). The Fell land that was eventually released for building, now known as Kendal Green, has been studied in detail by Coopey and Coopey (2002). The relationship between the Kendal Fell Trust and the Kendal Workhouse has also been examined in some detail (Homan 1982), but is beyond the remit of the present study.

#### 2.5 DOCUMENTARY BACKGROUND

- 2.5.1 *Introduction:* there is a remarkable amount of primary information regarding the post-medieval development of Kendal Fell on account of its direct association with improvements made to the town during the late eighteenth and nineteenth centuries. Records relating to the Kendal Fell Trust in particular, which include several maps, give a vivid picture of activity taking place on, and in relation to, the Fell. Similarly, maps such as those published by the Ordnance Survey and the various plans of Kendal provide further information. These allow a more detailed understanding of the various activities that were taking place, and provide additional information for many of the areas of the Fell's history.
- 2.5.2 *Legal information:* of particular importance are the various Acts of Parliament (outlined in Table 1 below), which controlled first the enclosure of the land and later helped to administer it more productively. The Corporation Act of 1907 (CRO(K) WD/RG/419/1/4) finally handed the responsibility for Kendal Fell over to the Borough Corporation.

DATE	АСТ	REFERENCE (CRO(K))
1767	Enclosure Act	WSMB/K5/Box 14; Anon 1810
1849	Proposed Amendment to Enclosure Act	WSMB/K5/Box 20
1861	Amendment to Enclosure Act	WSMB/K5/Box 73
1907	Corporation Act	WD/RG/419/1/4

Table 1: Acts relating to Kendal Fell

- Kendal Fell Trust, Lime: the minute books and plans of the Kendal Fell Trust add considerable detail to the understanding of the exploitation of the Fell following its enclosure in 1767. Of particular interest are the early references to quarrying and lime-burning. Contrary to the results of earlier research into lime-burning on Kendal Fell, the earliest reference to the lime industry that could be identified was in November 1767, when it was stated that there was a lime kiln adjoining the road to Helsfell and Kettlewell (CRO(K) WSMB/K5/Box 14 1767-1793). A more detailed record exists for 1787, when a William Holme requested from the Trustees 'a place for a lime kiln' (*ibid*). The Trustees apparently granted him 'a space of ground lying in a direct line betwixt Tom Linsons and Richard Fishers kilns', and instructed that the kiln should be 'of the length of Twenty yards and to be the same Breadth, and to be at nearly an equal distance from the said kilns' (ibid). William Holme is probably the business partner of Francis Webster, the builder and mason (Taylor 2004, 7), while Richard Fisher is the only person listed in the 'census' of 1787 as a lime-burner (Ashcroft 1992, 328).
- 2.5.4 There are considerably more references to lime kilns as the minute books continue into the 1820s. One of the earliest is an account of the trustees inspecting lime kilns in June 1820 (CRO(K) WSMB/K5/Box 14 1819-1835). Whether the greater number of references to lime-burning during this period is

because of an actual increase in production due to the completion of the Lancaster to Kendal Canal in 1819, as postulated by Marshall and Davies-Shiel (1977, 158), or simply an increase in exportation, is debatable.

- 2.5.5 Lime kilns were, however, also demolished during this period, as well as being built: shortly after 1819 a John Graham proposed the taking down of a fence (meaning wall) around a plantation and the building of a new fence. At the same time he intended to 'remove the old lime kiln and apply the same towards the building of the fences' (CRO(K) WSMB/K5/Box 14 1819-1835). The building of lime kilns at this time also appears to have involved the erection of allocated structures; in 1821 there are several mentions of 'dobby houses' in conjunction with lime kilns (*ibid*), which are presumably some form of temporary lodging for workers. Two of these were sold on 13<sup>th</sup> July 1821, at which time it was stated that they were only to be used by manufacturers (*ibid*). Records relating to the rent paid by lime-burners also exist for 1821 and 1825 (CRO(K) WSMB/K5/Box 14 1820-1850), and perhaps show an increased level of control beginning to be applied during the nineteenth century.
- 2.5.6 Early documents indicate that there were at least two lime kilns present on Kendal Fell prior to 1787, and three kilns are shown on the plan of 1788 (CRO(K) WDX/29/1 1788; Plate 3). These are shown as being approximately cruciform in plan, with opposing apsidal ends (perhaps denoting the position of the draw-hole of the kiln (Williams 2004, 11-23)), and are arranged in a line as described in the minutes of 1787. Two of the three lime kilns shown in 1788 are still present on the plan of 1812, which also shows five additional kilns (CRO(K) WDX/29/2 1812). None of these kilns are shown on a plan of 1827, although this is somewhat schematic (CRO(K) WDY/192 1827). By 1847, the arrangement had changed entirely, with all of the original kilns

having been removed and four or five new ones built a short distance to the southeast (CRO(K) WDSo/10/Z3 1847). This arrangement continues on later maps least 1938 until at (Ordnance Survey c1859a; CRO(K) WDX/29/3 1870; Ordnance Survey 1898b: Ordnance Survey 1938). By 1993, the four remaining lime kilns had been reduced to just one (Ordnance Survey 1993), which remains to the present day (Site 29).

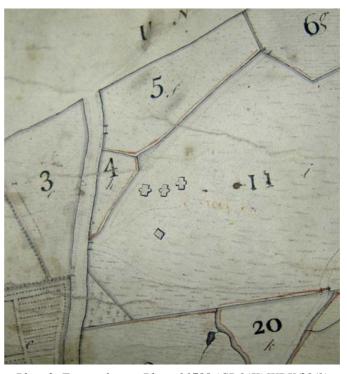


Plate 3: Extract from a Plan of 1788 (CRO(K) WDX/29/1)

- 2.5.7 **Kendal Fell Trust, Stone:** the minutes of the Kendal Fell Trust have a numerous references to quarrying, many of which are connected to the lime industry. As early as 1770 there are references to stone quarries, and by 1771 a William Bellingham was already applying to extend the area of his quarry within 'the ground allotted' (CRO(K) WSMB/K5/Box 14 1767-93). There are numerous rental agreements following this date for the use of the quarries, and in 1778 conflicts over quarrying rights emerged: 'the clerk shall send notice in writing to John Airey Stone-getter that unless he will leave the stone Quarry opened by John Wilson, the commissioners will order him to be remov'd from the Town of Kendal to his place of Settlement' (*ibid*). Evidently, rules were put into place regarding the maintenance of the quarries at an early date, and tenants were in 1778, for example, expected to 'spread the soil from the Stone Quarries upon that part of the land where it is necessary' (*ibid*).
- 2.5.8 References to stone quarries are common during the early nineteenth century, and it is evident that they were expanding rapidly. By the 1840s, the trustees were taking the matter very seriously and they appointed John Todd as a Land Steward with the specific duty to 'restrain parties to whom quarries are set out to the working of those quarries within proper limits, and to report to the Trustees any trespasses committed either on the quarries or on any other part of Kendal Fell Lands' (CRO(K) WSMB/K5/Box 14 1835-51). The situation was clearly reaching crisis point by this time and matters were being put in place to remedy the situation, as reflected in the proposed amendments to the Kendal Fell Act in 1849 (CRO(K) WSMB/K5/Box 20; see Table 1), although this was apparently never passed. Further complaints were made around this time regarding the condition of the roads and the rubbish left by the quarrymen (CRO(K) WSMB/K5/Box 14 1835-51).
- 2.5.9 *Kettlewell:* it is likely that most of the early references within the Kendal Fell Trust Minute Books refer to the main quarry adjacent to Greenside. There is, however, a reference from 1788 that mentions a road connected to 'the Stone Quarries at Kettlewell'. Prior to this, in 1767, a road 'leading to Helsfell and

Kettlewell' did exist (ibid), which may be the same. However, there is little distinguish these quarries from any of the others at this date, and they are not shown on the plans of 1788 or 1812 (Plate 4), although part of the road (CRO(K)WDX/29/1 1788; CRO(K) WDX/29/2 1812).



Plate 4: Map of Kendal Fell from 1812 (CRO(K) WDX/29/2)

- 2.5.10 A later reference of 1795 states that: 'Mr Kitching... complained of the Damages sustained by him, by being deprived the water of Kettlewell, during the time of the getting of stones for the Stramongate Bridge' (CRO(K) WSMB/K5/Box 14 1794-1819). Stramongate Bridge was rebuilt in 1793 by Thomas Harrison, and on the 2<sup>nd</sup> October of that year 'Messrs Holme and Webster of Kendal were ordered to "procure workmen, [and] materials for repairing Stramongate Bridge...The bridge as built was a recasing on both sides in local mountain limestone" (Taylor 1969, 278). A further reference states that: 'Kettle Well, where is a quarry, which supplied the stone for building, in 1817, the lofty wall surrounding the House of Correction' (Anon *c*1884, 45). Once again, Holme and Webster were involved in rebuilding this structure in 1817 (Taylor 2004, 8).
- 2.5.11 It is known that Holme and Webster were utilising Kendal Fell limestone from at least 1788 (Mannix and Co 1849, 288). However, rather than utilising the main quarry off Greenside, it would appear that they were obtaining it from Kettlewell Crag, although it is not clear whether they obtained marble from this location.
- 2.5.12 Kettlewell is first marked on the available maps of the area as a quarry in 1847 (CRO(K) WDSo/10/Z3 1847; Plate 5), and is shown as such on subsequent maps. A lime kiln appears to have been erected there towards the end of the nineteenth century: it is not shown on maps produced in 1863 (Ordnance Survey 1863) or 1870 (CRO(K) WDX/29/3 1870). This had evidently gone

out of use by the end of the nineteenth century, as it is marked as 'old' on the Ordnance Survey map of 1898 (Ordnance Survey 1898b). The associated quarry probably went out of use around the same time. as marked as 'old' on the 1914 edition Ordnance Survey map.

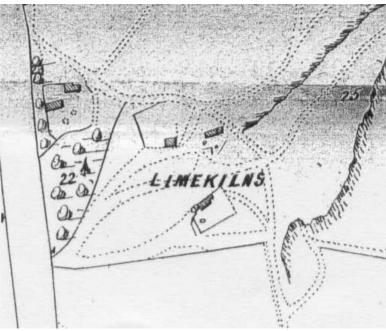


Plate 5: Extract from a Plan of 1847 (CRO(K) WDSo 10/Z3 1847)

2.5.13 *Serpentine Walks (now Serpentine Wood):* the documentary sources contain several references to the maintenance of the Serpentine Walks, and there are also accounts of damage done to the plantations as early as 1821 (CRO(K) WSMB/K5/Box 14 1819-35). The most detailed records are from 1847, when the trustees agreed to open to the public what were then called the Cliff Side Walks (CRO(K) WSMB/K5/Box 14 1835-51). There was some debate over

the possibility of damage being done to the walks as a result of this (which would appear to have been justified, see *Section 2.3.19*). It was decided that an entry book should be kept to try and encourage responsible use of the walks and that 'the privilege of using the Summer House be granted to visitors upon terms to be fixed by the Trustees or any managing committee they may appoint' (CRO(K) WSMB/K5/Box 14 1835-51).

2.5.14 A keeper for the grounds was also appointed, a new entrance (presumably that next to the Serpentine Cottage, Site 38) was created, and it was agreed that: 'the unseemly wooden erections and pigsties [at the entrance] be removed to a suitable situation' (*ibid*). Furthermore a 'room' was to be built to house the visitors' book (Serpentine Cottage, Site 38; Plate 6), the walks were to be generally improved, and a board with rules and regulations was to be erected. In May 1848, the summerhouse was suitably furnished, and £150 was set aside for the new entrance and entrance house (*ibid*). The trustees were finding the expense of maintaining the walks difficult, however, and by April 1849 it was suggested that an appeal be made to the Government for grant money to help meet the costs (*ibid*).

They were also suffering problems with maintaining order within the walks at this time. Additional, and more strict, rules were introduced, stating the times at which the entrance gates would and that locked 'children under ten years of age shall not be admitted except in company with an adult person' (*ibid*).



Plate 6: Serpentine Cottage and the gate to the Serpentine Walks

#### 2.6 SYNTHESIS

- 2.6.1 When Kendal Fell is placed into a wider historical background, it is clear that it has played an important part in the development of Kendal and the local landscape in numerous ways. The restricted nature of previous research, which has focused specifically on either industrial activity or socio-economic connections between Kendal Fell and the town, has perhaps not given a complete picture.
- 2.6.2 Kendal Fell is arguably connected to the town's history from its earliest origins; there is evidence for prehistoric activity from a very early date in its general vicinity, and tantalising hints of a Romano-British presence. During the medieval period, Kendal Fell probably formed an important area of common grazing and, from at least the end of the sixteenth century, it was

- involved in the wool trade, which made Kendal rich. By the eighteenth century, it was an important source of stone, possibly including high-quality building material such as marble, but also in the production of lime. The enclosure of 1767 sought to capitalise on these industries by regulating them and in turn producing rent that was used in the improvement of the town.
- 2.6.3 Kendal's growth during the nineteenth century inevitably led to further demand for buildings, and the Fell was again involved, at first the trustees reacting to the expanding quarries by attempting further controls, and later by freeing up land for building. During the twentieth century, Kendal Fell became an important recreational area, in part as a result of the public walks first opened in the mid-nineteenth century, and later because of the construction of a golf course. As late as the 1950s, the quarrying carried out on the Fell continued to have a major impact on Kendal, providing employment but also affecting people's lives, particularly those who were members of the golf club.

# 2.7 TOPOGRAPHICAL SURVEY

- 2.7.1 The topographical survey identified a total of 39 individual sites of archaeological interest. These largely comprise areas of quarrying (some of which are already shown on plans of the area), and field systems made up of ridge and furrow and former boundaries. A full list is presented in *Appendix 2*, and the sites are all discussed as part of the themed areas making up the various gazetteer sites in *Section 4*. Their significance and condition are assessed as part of *Section 3*.
- 2.7.2 Of the 39 sites identified, the majority fall within four main types: areas of ridge and furrow; field boundaries and related structures; quarries and related structures; and buildings of various types (Table 2). Of these four groups, it is evident that agricultural activity, as represented by field boundaries and areas of ridge and furrow, and industrial activity in the form of quarrying, dominate the landscape. This is perhaps to be expected given the historical evidence for Kendal Fell.

SITE TYPE	No of sites	SITE NOS	DATE
Ridge and furrow	6	02, 04, 08, 14, 17, 24	Post-medieval
Field boundaries and related	8	07, 09, 12-13, 15-16, 18, 26	Medieval? – post-medieval
Quarries and related	11	05, 10, 19-23, 25, 27, 29-30	Medieval? – post-medieval
Buildings	7	01, 31, 33, 35-38	Post-medieval
Other	7	03, 06, 11, 28, 32, 34, 39	Post-medieval

*Table 2: Sites identified during the topographical survey, arranged by type* 

### 3. ASSESSMENT OF SIGNIFICANCE

#### 3.1 Understanding

3.1.1 *Introduction:* in order to understand the site, a summary of the chronological phases described in the historical overview is presented. These are then considered in terms of their local and regional context in order to provide a general idea of their importance. The aim of this section is to understand the history, development and context of the site in such a way that its significance can be properly judged.

#### 3.2 PHASES

- 3.2.1 There are three main phases of development of Kendal Fell (*Section 2.3*), some of which are directly connected to known historical events and so can be accurately dated, and some that are broader in date and more general in scope.
  - 1. **Prehistoric:** there is some evidence for activity in the general vicinity of Kendal Fell from the prehistoric period, which may date back to the earliest occupation of the region. This may have persisted into the Romano-British period, for which there is some circumstantial evidence.
  - 2. *Medieval:* Kendal Fell probably formed a large area of common pasture during the medieval period.
  - 3. *Enclosure:* the Fell was enclosed in 1767. This had a number of effects, which in turn can be broken into three further themed periods:
    - i. *Industry:* quarrying and lime-burning, which had been taking place before the 1767 enclosure, expanded as Kendal grew, and remained an important part of the landscape into the twentieth century. The industry became more regulated during the nineteenth century;
    - ii. *Manufacture:* tenter frames were positioned on the Fell, probably from at least the end of the medieval period, giving it an important role in the local woollen industry;
    - iii. *Recreation:* plantations were added to Kendal Fell before the end of the eighteenth century, and these were extended to make formal walks during the nineteenth century. At the end of the nineteenth century, a golf course was also constructed on the Fell, and both this and the walks cover a large part of the study area to this day.

#### 3.3 BASIS OF THE ASSESSMENT: VALUES EMPLOYED

- 3.3.1 Fundamental to the management of a site where competing issues may arise is an understanding of relative significance, so that a proportionate weight may be given to the care of the more important elements. The assessment of significance relates to the intrinsic interest of the feature(s) and a number of factors, such as rarity, association, or documentation.
- 3.3.2 In establishing categories of significance, it has been useful to employ a relatively wide range of values. These qualitative criteria define the nature of significance for the site and its individual elements. To give the assessments a practical value, it is also appropriate to specify degrees of significance; these are set out in *Section 4.6*.
- 3.3.3 Major types of significance, for example buildings and landscape features, are established by the statutory designations (and the criteria on which they are based), as set out in the Planning Policy Guidance Notes, PPG 15 and 16 (DoE 1994; 1990):
  - Special architectural or historic interest Listed Buildings;
  - Character and appearance Conservation Areas;
  - National significance Scheduled Monuments and World Heritage Sites.
- 3.3.4 These designations, providing a formal framework of significance and protection, are noted where relevant in the Gazetteer entries (*Appendix 2*). They are, however, rather too broad to reflect alone the cultural and historical interest of a particular site. A range of more detailed and specific values is needed to assess general site significance and the importance of individual elements, and to serve as a basis for comparison, with other sites and the site itself. These additional values may be drawn from existing sets of assessment criteria, or further developed to suit the circumstances of the site in question.
- 3.3.5 Particularly useful for assessing significance in more precise terms are the definitions employed as the Secretary of State's non-statutory criteria for scheduling monuments under the Monuments Protection Programme, including:
  - Ability to characterise a period;
  - Rarity of survival;
  - Extent of documentation;
  - Association with other monuments in a group;
  - Survival of archaeological potential, above and below ground;
  - Fragility/vulnerability;
  - Diversity the combination of high-quality features.
- 3.3.6 A further group is represented by the criteria employed for Listed Building designation. These are:

- Architectural interest design; decoration; craftsmanship; building types; and techniques; significant plan form;
- Historic interest important aspects of the nation's social, economic, cultural and military history;
- Historical association with nationally important people or events;
- Group value where buildings comprise an important architectural or historic unity.
- 3.3.7 These values can be extended to cover other categories of material survival, in landscapes, archives and collections. For less tangible values, spiritual and social, and for those deriving from social or historical processes observable in a site, it is useful to adopt values deriving from the Conservation Plan approach developed for Australian sites (Kerr 2000). These additional values are:
  - Representative value ability to demonstrate social or cultural developments;
  - Historical continuity in building or activities;
  - Literacy or artistic values;
  - Evidence of social historical themes household life and work, social activities:
  - Contemporary communal values amenity, local identity and pride;
  - Power to communicate values and significance;
  - Formal, visual and aesthetic qualities.
- 3.3.8 Combining approaches and standards in this way has, it is hoped, produced a workable set of criteria for evaluating the complexities of the site.

#### 3.4 DEGREES OF SIGNIFICANCE

- 3.4.1 The criteria outlined above have also helped to define degrees of significance, the relative importance of key elements or phases, and the judgements on individual elements of the site at Gazetteer level.
- 3.4.2 The degrees adopted are:
  - **Exceptional significance** elements of the site which are of key national or international significance, as among the best examples (or the only surviving example) of an important class of monument or artefact, or outstanding representatives of important social or cultural phenomena, or of very major regional or local significance.
  - Considerable significance elements which individually constitute good and representative examples of an important class of monument or feature, have particular significance through association (although surviving examples may be relatively common on a national scale) or are major

- contributors to the overall significance of the site. The degree of importance would equate with Grade II in terms of Listed Buildings.
- Moderate significance elements which show some cultural significance, or contribute to the character and understanding of the site, or help to provide an historical or cultural context for features of individually greater significance. This may include buildings and features not individually listed, but there the presumption is towards protection and enhancement as part of the sites' essential character.
- Low significance elements which are of individually low value in general terms, or have little or no direct significance in promoting understanding or appreciation of the site, without being actually intrusive.
- *Intrusive* items which are visually intrusive or which detract from or obscure understanding of significant elements or values of the site. Recommendations may be made on removal or other treatment.
- Uncertain it may be difficult to ascertain the degree of significance of some elements of the study area, particularly those that consist of belowground remains, and as a result they may be described as having an uncertain significance.
- 3.4.3 Lower degrees should not be taken to imply that individual elements so assessed could be lost or damaged without having an impact on the significance of the historic landscape as a whole. Each element contributes to the overall value and character of the site and should not be sacrificed without assessing the broader implications.

# 3.5 OVERVIEW OF SIGNIFICANCE

- 3.5.1 The assessment of the significance of Kendal Fell derives from its history of development, its archaeological and historical merit, its interest in reflecting local and national events, and its association with people in the past. It also depends on its value in shaping the local community's sense of the past and encouraging enjoyment of the previous environment.
- 3.5.2 Before examining the significance of the individual aspects of Kendal Fell, it is worthwhile establishing what makes it special and define its overall significance. In outline Kendal Fell represents:
  - A site of special heritage significance and continuity: Kendal Fell has played an important role in the development of the town for as long as there are records of it, and the remains of possible prehistoric remains on the adjoining Helsfell might suggest its history is considerably more ancient. While it specifically relates to the industrial development of Kendal during the nineteenth century, it is also an important area for agriculture, and in particular for the woollen industry, which made Kendal rich during the medieval and late medieval periods. The areas of ridge and furrow have a national relevance to a time of increased agricultural expansion brought on in part by war with France, and the creation of

- public walks and recreational areas are part of a general movement towards social improvement during the nineteenth century.
- Fell is the result of centuries, if not millennia, of human activity, alteration and construction. While much of this is not what might be considered beneficial to the landscape, such as quarrying, the relict landscape that it leaves has numerous picturesque qualities, such as dramatic cliffs and undulating spoilheaps. Some parts of the landscape were deliberately created to improve it, in particular the areas of planted woodland, especially those making up the Serpentine Walks. These in particular have a number of attractive elements including buildings, footpaths and other structures. Kendal Fell forms an imposing part of the landscape above the west side of the town, and as such has an important impact on appreciation of the local landscape.
- A symbol of change, decay and industry: while Kendal Fell is a symbol of historical continuity it also defines periods of change, decay and the passing of earlier ways of life. Some elements of the historic landscape have remained in continuous use, such as those making up the Serpentine Walks and the golf course, while others have simply been abandoned, such as the ridge and furrow. In the case of the remains of quarrying and lime-burning, continuous use and re-use has led to the decay and destruction of earlier structures in favour of new ones. This acts as a powerful symbol of the rapid development of industry in the eighteenth and nineteenth centuries, which was occurring across the nation, and the monuments that remain today, particularly the one remaining lime kiln (Site 29), are important symbols of this.
- An historically important area of socio-economic space: Kendal Fell has connections with the town in many ways. It had probably been used as common land for several centuries prior to its enclosure in 1767, and the memory of this would appear to have survived until quite recently. The creation of the Serpentine Walks, the presence of numerous footpaths, and the golf course all demonstrate what an important social area it still is. The agriculture and industry that have taken place on Kendal Fell have played an important role in the economic fortunes and development of the town, with the quarries supplying the building material and lime that built much of it.

### 3.6 CHRONOLOGICAL ASSESSMENT OF KEY ELEMENTS OF SIGNIFICANCE

3.6.1 *Prehistory and common land (pre-1767):* although there is no evidence for prehistoric activity on Kendal Fell, the adjoining Helsfell has remains dating back to the end of the last Ice Age, and there are late prehistoric or Romano-British settlement sites nearby. Kendal Fell forms part of a landscape that has probably been inhabited for several thousand years. This makes it of some local and regional significance. It formed a large area of common land before 1767, and was probably used as such for several centuries before that date, making it an important area for agriculture, particularly that related to wool production, which was the major factor in the economy of medieval Kendal.

- 3.6.2 *Enclosure and early industry (1767 c1819):* the enclosure of Kendal Fell changed the nature of land use, although it implicitly protected the interests of those who depended on wool for their livelihood. This period is significant in demonstrating the gradual decline of the woollen industry, which can be contrasted in the case of Kendal Fell with the rise of quarrying. This then became an important part of the local economy, not only in terms of building stone and lime, but also the production of high-quality marble.
- 3.6.3 *Industrial expansion and recreation (c1819 present):* during the later part of the nineteenth century, a greater emphasis was placed on the production of lime regionally, and the agricultural importance of the land decreased even more. This period typifies the point at which the rapidly expanding town needed not only more building material, but also more land. As a result, part of the original Kendal Fell, now Kendal Green, was used for development, while quarrying operations continued to expand at Greenside. Alternative uses for Kendal Fell were also created during this period, including the creation of public walks, and latterly a golf course, both of which represent a gradual diversification of land use, which became more significant as the industrial exploitation of the past gradually declined during the later twentieth century.

# 3.7 ARCHAEOLOGICAL, HISTORICAL AND TOPOGRAPHICAL SIGNIFICANCE

- 3.7.1 *Palimpsest:* Kendal Fell is the culmination of a number of historical events, all of which have shaped the landscape. This makes it an important area of archaeological interest made up of several phases, many of which will have interacted with each other.
- 3.7.2 *Early industry:* the physical remains of at least two industrial processes are preserved on Kendal Fell. The earliest of these is the tenter grounds that were used by the woollen industry, most of which were removed by the end of the nineteenth century. The second is the limestone quarrying and associated limeburning, which has undoubtedly taken place on the Fell for centuries, but is only recorded from the seventeenth and eighteenth centuries. These have both left important archaeological remains, some of which are extensive and represent early examples of their type.
- 3.7.3 *Agricultural remains:* the evidence for ploughing recorded on Kendal Fell probably relates to a brief phase of expansion dating to the late eighteenth and early nineteenth centuries. These remains are potentially quite rare, as many other similar remains will have been destroyed since. While they are not of great archaeological value in themselves they are an unusual survival.
- 3.7.4 *Historical connections:* it is no exaggeration to say that Kendal Fell is connected to almost every aspect of the history of Kendal. From its early function as an area of common land, through to its associations with the Industrial Revolution, agricultural improvement, recreation, housing, architecture and the expansion of the town, it has played an important role. It continues to be an actively developing Historical Landscape, and as a result of recent proposals for improved interpretation and access it will undoubtedly remain closely connected to the history of Kendal for generations to come.

- 3.7.5 A key component of the regional topography: Kendal Fell forms a prominent piece of the landscape surrounding Kendal and as such is a significant element of the local topography. It includes some well-preserved areas of limestone outcrops and crags, many of which elsewhere will have been removed or damaged by agricultural improvements. The plantations, earthworks and structural features that make up parts of the historic landscape also form an important element of its general topography.
- 3.7.6 *Archaeological potential:* there is a great potential for additional information to be gained from future archaeological study of Kendal Fell. None of the sites identified has been investigated in any real detail, and there has been no excavation or detailed survey on the Fell. The potential for caves to be discovered within the outcropping limestone is also a significant possibility, which could reveal sites of considerable archaeological importance.

#### 3.8 CONTEMPORARY SOCIAL AND ECONOMIC VALUE

- 3.8.1 **Recreational access:** Kendal Fell provides an important green space for recreation and public use. It is freely accessible and in close proximity to the town centre. Although access is limited to footpaths on the area covered by the golf course, there is still a large area that can be utilised, and of course the golf course provides a recreational facility in itself.
- 3.8.2 *Educational value:* at present this is perhaps under-used, but with improvements in interpretation and access this could become a very significant feature of Kendal Fell.
- 3.8.3 *A local sense of place:* while perhaps not as obvious a focal feature in the topography around Kendal as other historic features (such as Kendal Castle), Kendal Fell is an important landscape in its own right. At present, the lack of interpretation perhaps limits this appreciation, but it could be vastly increased with further information regarding the historic landscape.

## 4. GAZETTEER

## 4.1 Introduction

4.1.1 The Conservation Plan gazetteer breaks down the study area into its principal elements (for a full listing, see *Appendix 2*). These are organised thematically and/or chronologically, and have been identified through both the examination of historical sources and topographical survey. They are grouped into six areas, most of which relate directly to actual parts of Kendal Fell (Fig 3), as well as two areas of importance that are over and above the physical environment (*Section 4.9* and *Section 4.10*).

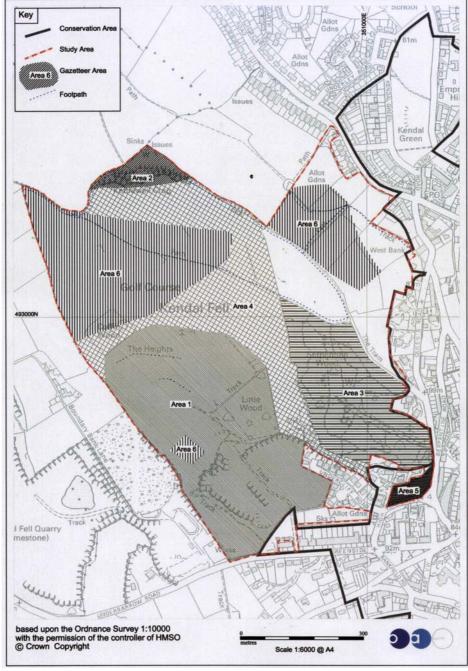


Figure 3: Gazetteer Areas, Conservation Area and Footpaths

## 4.2 SETTING AND CONTEXT

4.2.1 **Description:** Kendal Fell forms part of the wider setting and context of the adjoining town. It formed a large area of common land from at least the medieval period, which was important to the woollen industry, before becoming a major source of limestone for both building and the production of lime in the post-medieval period. It overlooks another large area of enclosed ground to the east of the town, the land associated with Kendal Castle.

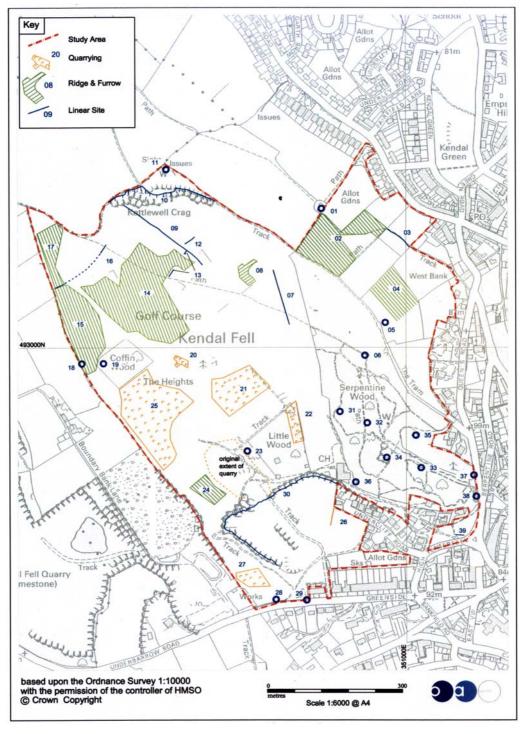


Figure 4: Archaeological Sites Identified during the Topographical Survey

4.2.2 Kendal Fell was registered as a town green in 1972 under the Commons Registration Act of 1965 (English Nature and South Lakeland District Council 2000, 3). It is described as 'a class (c) green registered as land on which the inhabitants of Kendal have indulged in lawful sports for not less than 20 years' (ibid). It is presumably protected from development not only by PPG 15 and 16 (DoE 1994; 1990) but also by Policies L19 (Sites of Archaeological Interest) and L20 (Historic Landscapes) of the South Lakeland Local Plan (South Lakeland District Council 1998, 60-2).

## 4.3 AREA 1: QUARRIES AND LIME KILNS, GREENSIDE TO COFFIN WOOD

- 4.3.1 This includes Sites **19**, **20**, **21**, **22**, **23**, **25**, **27**, **29** and **30** identified during the topographical survey (*Appendix 2*: Fig 4).
- 4.3.2 **Development/Documentation:** the various quarries off Greenside almost certainly represent the area initially designated for quarrying by the Kendal Fell Trust in 1767. Small-scale quarrying may have taken place across the entire Fell prior to this date, but much if not all of this is likely to have been subsumed by the later, larger-scale quarries of the late nineteenth and twentieth centuries. Throughout the eighteenth and nineteenth centuries these quarries were intensively used and continually expanded, and there were complaints from an early date about the behaviour of the quarrymen, or 'stonegetters', who regularly damaged walls and disputed ownership of areas of quarrying. This problem was probably a result of the original common right to quarrying, which had been retained by the 1767 Act, and efforts were made to control the scale of operations throughout the mid-nineteenth century. It was not until 1861 that an amendment to the Enclosure Act was passed that allowed this to take place effectively (Sections 2.4.3-4).
- 4.3.3 The entire quarry was taken over by a single company at the beginning of the twentieth century, and there was minimal expansion on the Fell until the 1950s (English Nature and South Lakeland District Council 2000), when quarrying took place on part of the area then covered by the golf course. The quarry fell out of use during the second half of the twentieth century, and it was partially used as a landfill site. A large element of it has now been completely filled, and the golf course has reoccupied much of the land that was originally part of the large quarry off Greenside (Site 30).

4.3.4 Lime kilns have been associated with the quarries at Greenside since at least 1787, and by 1812 there were seven operating in this area (Plate 7). The

increased regulation brought in by the Trust, or perhaps technological changes, led to a decrease in the number of kilns and, by 1847, the earlier seven structures had been replaced by four of an evidently different design (Plate 8). These remained in use throughout nineteenth century before gradually falling into neglect and being destroyed, and today only one survives.

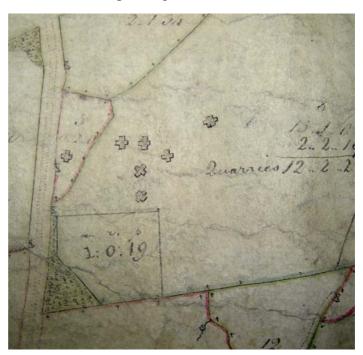


Plate 7: A plan of 1812, showing lime kilns at Greenside

4.3.5 **Description:** the extensive area of quarrying extending northwards from

Greenside and associated lime kilns (of which only one remains) make up a large part of the historic landscape of Kendal Fell. The quarries enclose an area of more than 2km<sup>2</sup>, although this is the result of several phases of use and expansion. Only single lime kiln remains intact (Site 29), and two of the four that were constructed in the mid-nineteenth century are ruinous.

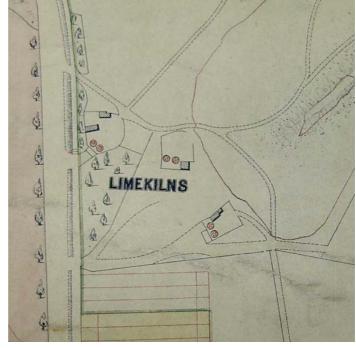


Plate 8: Lime kilns at Greenside, from a plan of 1870

4.3.6 *Status:* the quarries are not protected although they are listed on the HER (No 17592). The one surviving lime kiln (Site **29**) is a Scheduled Monument (SM 34994) and is also listed in the HER (No 17593). It is also just inside the Kendal Conservation Area (South Lakeland District Council 2000).

- 4.3.7 *Significance:* the quarries and associated lime kilns have had an enormous impact on the use and development of Kendal Fell and as such are of exceptional significance to it. They are well represented in the archive sources, and are also more generally connected with the post-medieval development of Kendal, giving them considerable significance in the wider area.
- 4.3.8 *Condition:* the condition of the quarries varies across the study area. Most are in a reasonable condition, although continued maintenance and modification as part of the golf course has led to many of them becoming indistinct, to the extent that it was not possible to be certain of their exact nature. Considerable landscaping has taken place to the large quarries off Greenside, in part because

of the golf course, but also due to the use of a large part for landfill, with the result that little of their original form now remains. Many of the smaller quarries are within Little Wood and Coffin Wood, and the dense vegetation has made difficult to identify. The one remaining lime kiln is in a poor condition and requires (Plate maintenance although other kilns are known to have existed, there is now little or no evidence for these.



Plate 9: Recent view of the Greenside lime kiln

- 4.3.9 *Issues/vulnerability:* the quarries are large stone and earth features, and as such are likely to be difficult to damage by all but the most intensive of developments. Nevertheless, they have been utilised as working quarries until relatively recently, and there is presumably still the potential for further such use in the future. The known presence of earlier, and now destroyed, lime kilns within the area of the quarries off Greenside might suggest that there is potential for below-ground remains, which could be more easily affected. The extant lime kiln (Site 29; Plate 9) is considerably more vulnerable, especially to general deterioration caused by both natural erosion processes and human activity. The two ruinous kilns associated with Site 29 are probably completely lost (Association for Industrial Archaeology 1995; 1996), and may only survive as buried remains.
- 4.3.10 *Policies/recommendations:* the quarries and lime kilns off Greenside form an integral feature of the Kendal Fell landscape, and should therefore be viewed as part of a linked group for interpretation. Remedial repairs and maintenance of the remaining lime kiln is also recommended. Specific interpretation regarding the quarries, the associated industries, and the various uses of lime would be particularly beneficial there.

## 4.4 AREA 2: KETTLEWELL QUARRY AND LIME KILN

- 4.4.1 This includes Sites **10** and **11**, identified during the topographical survey (*Appendix 2*; Fig 4).
- 4.4.2 **Development/documentation:** there is considerably less information available regarding the quarry at Kettlewell (Site 11). The earliest direct reference to quarries appears to be in 1788, although a track to Kettlewell, which may have been connected to the quarries, is mentioned as early as 1767 (see Section 2.4.6). There are several references connecting the quarry at Kettlewell to Holmes and Webster, a company of local architects and masons of some renown. They are known to have been acquiring marble from Kendal Fell from at least 1788 and it is possible that their source was the quarry at Kettlewell, rather than the general quarry at Greenside. The lime kiln is a later addition, and appears to have been built at the end of the nineteenth century and gone out of use by 1914. The well (Site 10) is evidently a natural feature, although it has been modified, and is a local landmark that is recorded at least as early as 1714 (Smith 1965, 123).
- 4.4.3 **Description:** the quarries extend along the entire north side of Kettlewell Crag (SD 5048 9341). They vary in character from small irregular scoops to larger workings that have left substantial cliffs and spoil heaps. There is no surface indication of the lime kiln known to have existed there, although this may be disguised among the extensive spoil and other waste material.
- 4.4.4 *Status:* the quarry and lime kiln are not presently protected, although they are both listed in the Cumbria HER (Nos 17578 and 17577 respectively).
- 4.4.5 **Significance:** as a quarry with an associated lime kiln, the site at Kettlewell is arguably of little significance. However, its connection with an important local architectural practice (Webster was part of a local architectural dynasty of some standing) makes it of significant regional importance. The Websters went on to have a considerable impact on local architecture during the nineteenth century, and were responsible for the construction of a substantial number of large houses, bridges and public buildings in the general area (Taylor 2004). The lime kiln is a later feature, perhaps representing the point at which the quarry ceased to be used for building stone, and is only of moderate significance. The importance of the well from which Kettlewell derives its name is more difficult to judge; it may have been a feature of note on the Fell for some time (Section 2.3.4), but there are few records relating to it directly. Nevertheless, it probably formed an important part of the landscape and so has a moderate significance.
- 4.4.6 *Condition:* Kettlewell Quarry has remained largely untouched by the development of the golf course, it being in an area of rough ground in the far north-east corner. It is therefore in relatively good condition. There is no sign of the lime kiln known to have existed at the east end of the quarries, which has presumably been completely destroyed or buried by spoil.
- 4.4.7 *Issues/vulnerability:* the quarry is unlikely to be affected by any adverse development on account of its remote location, and would be a difficult feature

to damage. It is potentially vulnerable to erosion from walkers, the golf course and agricultural use, and should commercial quarrying resume it would be adversely affected. The lime kiln is in a poor structural condition, and is in danger of disappearing completely if not restored or maintained.

4.4.8 *Policies/recommendations:* while not forming part of the larger area of quarrying at Greenside, the Kettlewell quarry and lime kiln do form part of the wider industrial landscape, in this case connected to an important local architectural dynasty. It is therefore recommended that the quarry be interpreted as part of the wider landscape, important for both its industrial and architectural connections. Further investigation to identify the location and condition of the lime kiln would also be beneficial. The well is perhaps best interpreted as part of the natural and geological landscape, as its context within the managed landscape is not clear.

## 4.5 AREA 3: SERPENTINE WALKS (NOW SERPENTINE WOOD)

- 4.5.1 This includes Sites **31**, **32**, **33**, **34** and **38**, identified during the topographical survey (*Appendix* 2; Fig 4).
- 4.5.2 **Development/documentation:** the Serpentine Walks grew out of a series of plantations established across Kendal Fell from around 1790. These gradually increased in size and were merged, and by 1824 an area of formal walks, originally known as the 'Cliff Side Walks', was created. A summerhouse was added in the 1830s. At first the walks were only open to paying visitors but in 1848 they were opened to the public and at the same time further enhanced (see *Section 2.4.9*). They have remained an area of public recreation to the present day.
- 4.5.3 **Description:** the walks cover a large area of Kendal Fell, forming a sinuous shape approximately 500m north/south and between 175m and 125m wide east/west, centred on SD 5095 9284. The walks comprise a number of linked footpaths cutting through an area of limestone outcrops, and include a

summerhouse (Site 33), platform (Site 34), and the base of the former time gun (Site 31; Plate 10). Other features include an upright probably stone. part of the edging for a footpath (Site 32). and the Serpentine Cottage and entrance from Oueen's Road (Site **38**).

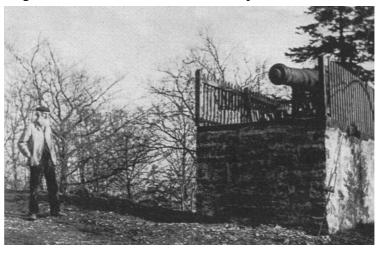


Plate 10: The time gun at the end of the nineteenth century

- 4.5.4 *Status:* the Serpentine Walks are not recorded on the HER, nor are any of the features contained within them. They are, however, presumably included as part of the registered green status of Kendal Fell (English Nature and South Lakeland District Council 2000, 3), and Serpentine Cottage and the gate onto Queen's Road are just within the Kendal Conservation Area (South Lakeland District Council 2000).
- 4.5.5 *Significance:* the Serpentine Walks represent a good and well-preserved example of a designed nineteenth-century landscape and as such are of considerable significance to the general area. They make up a large part of the area of Kendal Fell and have a number of interrelated features that form part of their overall character.
- 4.5.6 *Condition:* all of the sites relating to the Serpentine Walks are in a fair or good condition. The summerhouse is not currently accessible to the public and is perhaps the most in need of maintenance, although it is not in any particular danger. Serpentine Cottage is a private residence and appears to be well-maintained.
- 4.5.7 *Issues/vulnerability:* as a publicly accessibly area, the features making up the Serpentine Walks are perhaps most at risk to vandalism. This is particularly true of the summerhouse and former time gun platform, which are evidently frequently visited. Although there was no evidence for vandalism during the topographical survey, there was some observed elsewhere in the study area. Serpentine Cottage is a private residence, and while outside the scope of this Conservation Plan it does form a part of the Serpentine Walks. It is perhaps vulnerable, has apparently already been subject to inappropriate alterations, and is at risk from future redevelopment.
- 4.5.8 *Policies/recommendations:* in their present condition the Serpentine Walks are a particular benefit to the local community and surrounding region and it is recommended that they be maintained in their current condition. Minimal alterations should be made apart from general maintenance.

### 4.6 AREA 4: GOLF COURSE

- 4.6.1 This includes Site **36**, identified during the topographical survey (*Appendix 2*).
- 4.6.2 **Development/documentation:** the Kendal Golf Club was formed in 1907 as a result of the merger of the Cunswick Golf Club and the original Kendal Golf Club. The Cunswick Club had begun leasing part of Kendal Fell in 1898 and constructed an 18-hole course. This originally stretched from Helsfell Nab, to the north of Kendal Fell, to Greenside. It remained this size until the 1950s, when renewed quarrying meant that a large part of the southern end of the course was lost (see *Section 2.3.21*), although this area has subsequently been recovered by the golf club.
- 4.6.3 **Description:** the golf course covers the majority of the north and west part of the Fell (centred on SD 5055 9293), and is approximately triangular in shape.

- It is approximately 875m north-west/south-east and up to 375m east/west at the south-east end, tapering to a point at the north-west end.
- 4.6.4 *Status:* the golf course is not a protected feature and no parts of it are listed in the HER. Further development or expansion of the golf course is presumably controlled by Policies L7 (Golf Courses and Driving Ranges) and L8 (Club Houses and Car Parking) of the South Lakeland Local Plan (South Lakeland District Council 1998, 75), and the construction of new buildings would be covered by PPG 15 and 16 (DoE 1994; 1990).
- 4.6.5 *Significance:* the golf course is not a particularly old part of the landscape, nor is it particularly uncommon in the region, which would give it a low level of significance. As one of the only areas of Kendal Fell subject to any form of regular development it is also the only likely source at present of any work that may impact on other cultural or historical remains present on the Fell. In this sense it could be seen to have an intrusive impact.
- 4.6.6 *Condition:* the golf course is routinely maintained (English Nature and South Lakeland District Council 2000, 9) and is therefore in a good condition. The one site identified during the topographical survey relating to the golf course, without being part of the course itself, is the store/shed (Site 36). This probably formed part of the original golf club buildings, and is still in use. It is perhaps at risk from future redevelopment and alterations to the golf club.
- 4.6.7 *Issues/vulnerability:* as the golf course is an actively used facility it is likely to be subject to regular alterations as part of its development. In this sense it is vulnerable, albeit to the factors which actually form it. The more pertinent issue regarding vulnerability is the golf course's effect on the pre-existing historic landscape, which is likely to be negative.
- 4.6.8 *Policies/recommendations:* as the most likely part of Kendal Fell to have any impact on the historic landscape, it is recommended that any development that may affect below-ground remains or existing features of archaeological interest be closely monitored. The golf course's relationship with the other parts of the Fell is perhaps the most difficult to manage and the most liable to conflict (English Nature and South Lakeland District Council 2000). It is therefore further recommended that consultation between the golf club and relevant heritage organisations be encouraged as part of general management of the course. In terms of interpretation the golf course, if anything, detracts from the historic landscape and presents difficulties relating to access, which would need to be resolved.

## 4.7 AREA 5: HIGH TENTER FELL

4.7.1 This includes Site **39**, identified during the topographical survey (*Appendix 2*; Fig 4).

4.7.2 **Development/documentation:** the use of the part of Kendal Fell around Skewbarrow for the erection of tenter frames is known from map evidence to have been carried out since at least 1614 (Plate 11). It continued to be used for this purpose following the enclosure act of 1767 and was even specifically protected by the act. During the nineteenth century, however, the demand for land and the reduced importance of traditional woollen manufacturing techniques meant that the frames were gradually removed (see Section 2.3.10). Much of the area formerly used for tenter frames is now built on and little evidence for them remains. Similarly, a ropewalk is shown to the south of Skewbarrow on maps from the early part of the nineteenth century (see Section 2.3.17), but this too has been lost to subsequent development.



Plate 11: Extract from Speed's map, 1614

- 4.7.3 **Description:** the area formerly making up High Tenter Fell is centred on SD 5092 9255. Only part of it is included in the study area, much of it now being occupied by private houses and gardens. The open area comprises a small green with public seating connecting to footpaths entering Serpentine Wood. It is cut by a number of access roads and is situated alongside the junction of Queen's Road and Greenside.
- 4.7.4 *Status:* the former tenter frames and the ropewalk are not listed in the HER and have no form of statutory protection, although the area is within the Kendal Conservation Area (South Lakeland District Council 2000).
- 4.7.5 *Significance:* the woollen industry formed a large part of Kendal's economy from the medieval period until the end of the eighteenth century. Following this date, mechanised processes brought traditional, small-scale production to an end. In the seventeenth and eighteenth centuries, tenter frames were a common site around the town but they were gradually removed during the nineteenth and twentieth centuries (see *Section 2.3.10*). For this reason the area forming High Tenter Fell is of considerable local significance, as it formed a large tenter ground until the end of the nineteenth century. If the bank identified during the topographical survey (Site 39) is the remains of a tenterbank it is likely to be of at least late eighteenth-century date, as there are none shown in the area after 1787 (Todd 1787). This makes it a relatively early example, further contributing to its significance. The ropewalk represents

- an industry of perhaps more moderate significance to the town, but is nevertheless relatively unusual in Kendal.
- 4.7.6 *Condition:* most of the area of High Tenter Fell is now covered by modern housing and only a small area remains open. There is, however, some evidence for the former tenter frames (Site 39). This feature is at particular risk; it has already been partially truncated by the construction of an access road and it may have also been truncated by roads at its west end.
- 4.7.7 *Issues/vulnerability:* the modern housing covering much of the area of the former tenter grounds, which is not included in the study area, has undoubtedly severely damaged any archaeological or historical remains that might have once existed. This area is perhaps more vulnerable than most to future development in the form of housing and building and is likely to suffer increased disturbance in the future from alterations to roads, services and walls in the vicinity.
- 4.7.8 **Policies/recommendations:** it is recommended that this area be monitored closely for any planning applications that may affect potential buried archaeological remains, even those outside of the study area. More detailed survey or excavation of the area that has remained within the Fell might also provide evidence of the type of remains that might survive, if any. In terms of interpretation, it is recommended that these remains be considered an important part of the development of the historic landscape, closely linked to the history of the town.

## 4.8 AREA 6: AGRICULTURAL FEATURES

- 4.8.1 This includes Sites **02**, **04**, **07**, **08**, **09**, **12**, **13**, **14**, **15**, **16**, **17**, **18**, **24** and **26**, identified during the topographical survey (*Appendix 2*; Fig 4).
- 4.8.2 **Development/documentation:** there are no particular documentary sources relating to the remains of agricultural activity that survive upon Kendal Fell, and it is therefore difficult to assign a date to them.
- 4.8.3 **Description:** the extent of ridge and furrow across Kendal Fell has not been previously recognised, with only one area recorded in the HER (Site **24**; HER No 13527). Similarly, there are several ruined field boundaries that appear to relate to these areas of ridge and furrow. All of these boundaries appear to be present on the plan of 1788 (CRO(K) WDX/29/1), but had disappeared by 1812 (CRO(K) WDX/29/2), which would suggest that the ridge and furrow dates to before 1812. It is likely to relate to the expansion in cultivation brought about by the Napoleonic Wars, which saw a considerable increase in the enclosure of former wastes (Turner 1984, 17).
- 4.8.4 *Status:* the area of ridge and furrow at the north end of the Greenside quarries (Site **24**) is listed in the HER (SMR No 13527).
- 4.8.5 *Significance:* the areas of ridge and furrow and associated field boundaries identified during the topographical survey demonstrate that there are

substantial remains of agricultural activity present on Kendal Fell. These appear to have only had a limited period of use, perhaps only a few years between the end of the eighteenth century and the beginning of the nineteenth. They can perhaps be judged to have a moderate significance to the area, and are an aspect of the use of the Fell that has not been studied.

- 4.8.6 *Condition:* the agricultural features are in various states of preservation. Most of the areas of ridge and furrow have been truncated by parts of the golf course, although they may be preserved beneath them in some cases. Similarly, most of the field boundaries have also been truncated by the golf course. Site **09**, by contrast, survives in much better condition, but appears to have been truncated by the quarrying at Kettlewell (Site **10**). Most of the features that relate to agriculture have been subject to a degree of landscaping as part of the management of the golf course (with the exception of Sites **02** and **04**). As a result they have, in the case of boundary walls, been reduced to little more than foundations, and in almost all cases they have become rounded and indistinct.
- 4.8.7 *Issues/vulnerability:* these types of features are extremely vulnerable to damage from development, and it is evident that the ridge and furrow has already been affected by developments relating to the golf course and quarries. Any further work on the golf course or further quarrying could cause more damage to these sites.
- 4.8.8 *Policies/recommendations:* it has already been recommended that any development relating to the golf course be closely monitored (see *Section 4.6.8*). It is further recommended that any expansion of the quarries be closely monitored, as this would be likely seriously to affect such remains. More detailed study of these features might also be beneficial, as the documentary evidence suggests that the area was predominantly used as grazing for sheep.

## 4.9 AREA 7: COLLECTIONS, ARCHIVES AND HISTORICAL RECORDS

- 4.9.1 **Description:** while there are no recorded holdings of excavated (or otherwise discovered) artefacts from Kendal Fell, there is a considerable body of documentary information relating to it. This takes the form not only of general records, such as published histories of the town and maps, but, more specifically, includes the collection of original documents of the Kendal Fell Trust (Section 2.5).
- 4.9.2 *Status:* all of the material relating to the Kendal Fell Trust is currently housed in the Cumbria County Record Office (Kendal) and is presumably owned by South Lakeland District Council. Other published material is widely available in the general area and is held at a number of locations.
- 4.9.3 *Significance:* the Kendal Fell Trust collection has considerable significance in relation not only to the understanding of Kendal Fell but also its relationship with a number of areas of life within the town. The Kendal Fell Trust was responsible not only for lighting and cleaning the streets but also for the town workhouse. There is in addition a considerable amount of information with the

- Trust records relating to the industries that made use of the Fell, and this in turn provides a great deal of information regarding the development of Kendal. Many of the published histories have already made use of these records but they are important as a source of interpretation and discussion.
- 4.9.4 *Condition:* the material is in good condition and is likely to remain so given its current location. It is also easily accessible although at present it is not indexed and some parts are difficult to read. Published sources are, of course, generally in good condition and easily accessible.
- 4.9.5 *Issues/Vulnerability:* the Kendal Fell Trust collection is unlikely to face any serious or immediate threat. It does, however, comprise several fragile documents, which it will only be possible to examine for a limited amount of time. The published sources are considerably more robust and unlikely to be damaged or become permanently unavailable.
- 4.9.6 **Policies:** it would be extremely worthwhile to examine the Kendal Fell Trust material in further detail and compile either indices or a complete transcription. This would not only make the collection more accessible but it would also help to preserve the original documents. A more detailed synthesis of the published records could then also be carried out, which would aid interpretation of the site.

#### 4.10 AREA 8: NATURAL ENVIRONMENT

- 4.10.1 Although it is not within the scope of this plan to discuss the natural environment in detail, it is nonetheless an important part of the landscape, and something which will be affected by any proposals for conservation and management of the historic landscape.
- 4.10.2 **Development/documentation:** the existing *Management Plan* (English Nature and South Lakeland District Council 2000, partially based on information from Cumbria Wildlife Trust 1998) has already covered most of the key issues. Schemes for interpreting the natural environment have been carried out in the past (Cumbria Trust for Nature Conservation 1981), and there is presumably a large body of information on this subject, although it was not within the scope of this plan to examine this.
- 4.10.2 **Description:** the natural environment encompasses the entire Fell, and forms a variety of habitats each relating to the changes in topography and land use (English Nature and South Lakeland District Council 2000).
- 4.10.3 *Status:* Kendal Fell is registered as a town green under the Commons Registration Act 1965 (English Nature and South Lakeland District Council 2000, 3) and is therefore protected from most development.
- 4.10.4 *Significance:* the previous *Management Plan* identified two forms of grassland and two species of bird as of considerable regional importance, as well as a number of other species of vegetation and fauna as of low to high local importance (English Nature and South Lakeland District Council 2000,

- 30). Kendal Fell supports 'extensive areas of species-rich limestone and neutral grassland. These areas...[are] of County importance due to their species composition and extent' (op cit, 5).
- 4.10.5 *Condition:* although a considerable amount of the natural habitant remains intact, management regimes associated with the golf course have impacted on it. This has been caused by the planting of trees that are not native to the area, removal of other trees, mowing of grasslands and use of pesticides and fertilisers (*op cit*, 10).
- 4.10.6 *Issues/Vulnerability:* current management regimes should now be taking the objectives of the previous *Management Plan* into consideration (*op cit*, 15-21). The status of the Fell as a Town Green should also prevent any further development. There is, however, still the potential for damage to be caused by alterations to the golf course (some of which have been carried out quite recently and were evident during the topographical survey), or by erosion caused by visitors.
- 4.10.7 *Policies:* regular monitoring of the management regimes used by the golf course would be ideal to ensure that the objectives established (English Nature and South Lakeland District Council 2000) are being followed. Any damage caused either by improper development or excessive erosion should be suitably repaired.

## 5. CONSERVATION POLICIES

#### 5.1 Introduction

- 5.1.1 This part of the Conservation Plan outlines policies for protecting and making accessible the significant parts of Kendal Fell identified in *Sections 3* and 4, and based on the understanding of the area set out in *Section 2*. Some policies are for long-term development, while others aim to meet more immediate needs, or statutory and legal obligations. The overall objective is to ensure that what is significant and valuable about Kendal Fell survives into the future, as well as being appreciated and enjoyed in the present. In applying the policies it is desirable that a sustainable balance is achieved between conservation, legal requirement, interpretation, and public expectation.
- 5.1.2 Throughout the discussion of policies, Kendal Fell is regarded as a single historic landscape made up of a number of connected parts. The main focus of it, however, is the Greenside lime kiln, which is a Scheduled Monument and therefore the only element given statutory protection on account of its heritage significance. Policy objectives are set out in five main areas of activity or management:
  - A Protection: the fabric and setting of the site
  - B Conservation: repair and maintenance
  - C Understanding: information, recording, and research
  - D Enjoyment: access and interpretation
  - E Managing the site
- 5.1.3 Within each of these areas, individual policies are proposed, with recommendations on the means to implement them and achieve their policy objectives. Most of the policies set out in this section are of general application, relating to the site as a whole, its principal elements, or its context in the town and region.

#### 5.2 OUTLINE AIMS

- 5.2.1 Policies are intended to encourage positive action, as well as providing a framework for decision-making and a benchmark against which to assess future proposals. In particular they aim to:
  - preserve the significance of Kendal Fell for future generations;
  - define policies for the care and maintenance of the site;
  - establish an effective conservation philosophy;
  - provide guidance in the processes of site development and management;
  - promote public access and appreciation.

#### 5.3 Conservation Policies

- 5.3.1 *Introduction*: before detailed Conservation Policies are presented, it is worthwhile providing the background of existing policies. These will not only work alongside those presented in this Conservation Plan, but will influence and affect then, particularly those in Section E. It is therefore necessary to outline existing policy first, in order to ensure that there are no unnecessary overlaps or conflicts.
- 5.3.2 *Existing Policy Framework:* a policy framework for those parts of the site given statutory designations already exists in national and local policies and guidance notes. The statutory policy framework is set out in:
  - PPG (Planning Policy Guidance) 15: Planning and the Historic Environment (DoE 1994), government guidance on the historic environment including listed buildings, conservation areas and historic landscapes;
  - *PPG (Planning Policy Guidance) 16: Archaeology and Planning* (DoE 1990), government guidance on Scheduled Monuments and archaeological remains.
- 5.3.3 These are supported and extended at local level by the Conservation Area Designation, and policies of the South Lakeland Local Plan, particularly Policies L7 (Golf Courses and Driving Ranges), L8 (Club Houses and Car Parking), L19 (Sites of Archaeological Interest), and L20 (Historic Landscapes) (South Lakeland District Council 1998, 60-2 and 75). The broad expectations of these documents and designations taken together is that proposals for Kendal Fell and its setting should protect or enhance the character, national importance and landscape, retain the sites' geological, ecological and landscape value, and be based on relevant key information.
- 5.3.4 Kendal Fell is on the edge of the Conservation Area (Fig 3), contains no Listed Buildings, but a single Scheduled Monument (Site **29**, SM 34994), so these designations and supporting guidance currently have little impact on it. The whole Fell is, however, registered as a Town Green as part of the Commons Registration Act of 1965 (English Nature and South Lakeland District Council 2000, 3), and is no longer considered to be common land (Swarbrick 2005).

#### 5.4 A: POLICIES FOR PROTECTION: THE SITE AND ITS SETTING

- 5.4.1 Policy A1: Protection of the historical and ecological significance of Kendal Fell and its setting should be central to site management and the planning of future development.
- 5.4.2 Prior to this Conservation Plan, the historic landscape of Kendal Fell had never been subject to any extensive archaeological or historical investigation. Previous research had concentrated on the quarries and lime-burning industry, but even in this there is evident scope for further work. The significance of the new elements of the historic landscape that were discovered during the compilation of this Conservation Plan is not yet known, however, and there is

- considerable potential for further information to be ascertained. There is a single Scheduled Monument (SM 34994), within the Kendal Fell area, but this too would require considerable further research in order to be fully understood.
- 5.4.3 The ecological and wildlife interest of most of Kendal Fell has already been examined in some detail (Cumbria Wildlife Trust 1998; English Nature and South Lakeland District Council 2000) and is known to be of some significance. While no areas are currently designated for their nature conservation value, the site supports a range of habitats and contains some important species. It is not known whether there are any specific management issues arising from the presence of animals on Kendal Fell.
- 5.4.4 Policy A1.1: the brief topographical survey carried out as part of the Conservation Plan can be used as a basis for informed planning and development on Kendal Fell with regard to the historic landscape. It is at present, however, limited to the information it provides, and a more detailed survey would be required if this was to be regularly made use of (see Policy B3.1).
- 5.4.5 Policy A1.2: measures should be agreed to minimise any existing areas of earthwork erosion, and guard against future occurrences.
- 5.4.6 Policy A1.3: the present management regimes of the golf course should consider the botanical value of the site, and aim to protect or maintain the historic landscape of Kendal Fell and the features making it up. Similarly, the use of land along the north-east part of the Fell for agriculture should be monitored in order to assess the impact of this on areas of botanical and archaeological interest.
- 5.4.7 Policy A1.4: additional tree planting and the creation of plant beds on the golf course should be discouraged or closely monitored. Similarly, any dramatic change of use of the agricultural land in the north-east corner of the Fell should be discouraged. In addition, planting or felling within the Serpentine Woods should also be closely monitored.
- 5.4.8 Policy A1.5: at all times this should specifically work with and complement the objectives of the existing Management Plan (English Nature and South Lakeland District Council 2000, 15-26).
- 5.4.9 Policy A1.6: alterations or work on any historic buildings within the study area (except the Scheduled Monument, which has statutory protection and is therefore already subject to suitable policies) should attempt to maintain or protect the historic fabric. They should also aim to protect existing animal and plant species, although an assessment should be made of the potential for damage caused by root action.
- 5.4.10 Policy A2: the setting of Kendal Fell should be protected and where appropriate enhanced, removing intrusive elements and guarding against inappropriate future development.

- 5.4.11 The historic landscape of Kendal Fell and the various elements that form it should be protected, and where necessary enhanced or recovered. The area is very large and views both across it, to it and from it, are important and these should be maintained as much as possible. Most of the intrusive elements have been generated by developments within the golf course, and include roads and tracks, car parks and the club house, as well as the addition of trees and earthworks making up parts of the course itself. Intrusive elements have also been added in the north-east part of the site, including a large television aerial and modern buildings within Dog-kennel Woods (on the south-east side of the Serpentine Wood).
- 5.4.12 Policy A2.1: the historic landscape should be protected, maintained and recovered through careful planting of trees and shrubs and control of subsequent growth. The plantations of Coffin Wood and Little Wood are of some age, have become part of the historic environment, and should be retained, but other areas of woodland should be assessed for their screening value and not be allowed to grow uncontrollably. The use of foreign species should be discouraged in order to respect both the historic setting and the natural environment.
- 5.4.13 Policy A2.2: while it is necessary for existing footpaths to be maintained, these should not be allowed to develop uncontrollably or become intrusive.
- 5.4.14 Policy A2.3: protection should be sought from intrusive elements within the immediate setting and where practicable within the broader context beyond the managed area, through good working relationships with the Fell's neighbours and with the Local Planning Authority.
- 5.4.15 Policy A2.4: opportunities should be sought for linkages with other heritage elements, particularly Kendal Castle (of which there are good views from Kendal Fell, and vice versa) and the Kendal Lancaster Canal restoration project.
- 5.4.16 Policy A2.5: the public should be made aware that damage to the Greenside lime kiln, which is a Scheduled Monument, is a criminal offence, and that South Lakeland District Council does not allow the use of metal detectors on its property.
- 5.4.17 Policy A2.6: where appropriate and fully agreed, intrusive remains of building or restoration activity should be removed. Similarly, waste should not be allowed to accumulate through processes carried out by the golf club or as a result of agricultural activity. Litter and rubbish left by fly tipping should also be removed as quickly as possible in order to stop the problem escalating should it occur.
- 5.4.18 Policy A3: risks of damage to the historic landscape of Kendal Fell from normal public access, its use as a recreation facility, and for other activities should be minimised.
- 5.4.19 Day-to-day risks are present as small-scale but cumulative wear-and-tear from visitor access to the site, and to a degree also from the requirements of site

- management. Evidence for damage needs to be monitored and risks reduced by changes in management practice or by physical protection measures. A particular problem with almost unrestricted access is the creation or extension of erosion gullies.
- 5.4.20 Risks from the use of Kendal Fell as a recreation facility are more likely, both from the regular maintenance of the golf course and the construction of new features. Similarly, the use of parts of Kendal Fell for agricultural purposes presents further risks of damage, as has already occurred at Site 01. There is some additional potential for damage from development-related activity in the small area of the Fell near Skewbarrow, at the junction of Serpentine Road and High Tenter Fell, where damage has already been noted to Site 39.
- 5.4.21 Policy A3.1: visitor wear should be regularly monitored to ensure that the historic landscape and the elements that make it up are sustaining no on-going damage. Measures should be put in place to repair any damage and introduce protective schemes.
- 5.4.22 Policy A3.2: any severe areas of erosion that affect elements of the historic landscape should be repaired, with consolidation and protection of vulnerable locations to allow the re-establishment of turf.
- 5.4.23 Policy A3.3: all ground disturbance is to be avoided in areas of high potential for buried remains, as identified by existing surveys or amplified by further study.
- 5.4.24 Policy A3.4: there may be appropriate spaces and occasions for use of parts of Kendal Fell for special events (such as the Greenside lime kiln (Site 29), and the platform (Site 34)), but measures must be taken to identify and minimise the risk from potential sources of damage. Ground disturbance from increased visitors or temporary fixtures is a key issue, and advice must be sought on the impact of any activities involving contact with historic fabric.
- 5.4.25 Policy A4: an effective regime for the physical security and policing of the site should be maintained.
- 5.4.26 Kendal Fell is publicly accessible at all times, and while there are no specific security problems in most areas, apart perhaps from the golf club buildings, the possibility of vandalism to elements of the historic landscape is a threat. Any increase in visitor numbers might also result in increased littering and there is the potential for fly tipping in those areas of the site accessible by vehicle.
- 5.4.27 Policy A4.1: as there is unrestricted site access, occurrences of vandalism should be subject to regular monitoring and dealt with swiftly to discourage the growth of a problem.
- 5.4.28 Policy A4.2: policing of the site in some form is desirable, either through liaison with the local police or by an occasional presence on site by a suitable person or persons, in order to discourage criminal or damaging activity.

#### 5.5 POLICIES FOR CONSERVATION: REPAIR AND MAINTENANCE

- 5.5.1 Policy B1: a philosophy of conservation should be developed which ensures the survival of the historic landscape, while protecting its character and visual qualities.
- 5.5.2 This group of policies is referenced most specifically to the Greenside lime kiln, which is not only the one element of the historic landscape to be protected by a statutory designation, but is most in need of repair and maintenance. As yet there is no plan for ongoing maintenance of the other elements making up the historic landscape of Kendal Fell, but this will become necessary following the completion of any repairs, specifically to the Greenside lime kiln, in order to provide them with a sustainable and viable future.
- 5.5.3 The majority of the elements making up the historic landscape of Kendal Fell comprise earthworks or are large-scale features, such as quarries, formed mainly out of natural materials. Although these are difficult to maintain formally, there are other features that will require repair and regular maintenance, and it is assumed throughout these policies that only those areas where such work is applicable are being discussed.
- 5.5.4 Policy B1.1: recognising that the monuments will continue to change as a result of weathering and use, the repair and protection of their fabric should seek to retain their historical integrity, with minimal intervention in the fabric.
- 5.5.5 Policy B1.2: on the basis of such existing knowledge, and the results of continual monitoring and trials, a preferred approach to repairs and protection can be formulated to meet the principal criteria:
  - effective protection of the structure of the monument against weathering and damp penetration;
  - durability of treatment over an economically viable period before renewal;
  - respect to historic methods of treatment as far as these can be ascertained;
  - retention of visual character
- 5.5.6 Policy B1.3: repairs shall be effected by a regular maintenance programme with longer-term reviews of condition and procedures and be conducted by experienced personnel. They will be based on a full understanding of the fabric and will themselves be recorded.
- 5.5.7 Policy B1.4: in order to achieve these results a Maintenance Plan should be drawn up stating what work should be carried out, how often and by whom. This would then inform programmes of regular maintenance and allow these to be suitably established (see Policy B2).
- 5.5.8 Policy B2: regular planned and funded programmes should be implemented for the maintenance of structures within the historic landscape, with

## effective monitoring, inspection, conservation and repair, where necessary reviewing and updating existing arrangements.

- 5.5.9 Any plan of maintenance will require a system of continual monitoring of the historic landscape, and the aspects that need to be considered on a regular, annual, or longer-term basis. Again, this mainly applies to the Greenside lime kiln, which, as the only surviving built structure, is the only site likely to be particularly susceptible to damage.
- 5.5.10 Policy B2.1: the regular monitoring of the fabric of the monuments making up the historic landscape of Kendal Fell, particularly the Greenside lime kiln, shall be conducted in accordance with the systems proposed in a management plan, once this has been prepared.
- 5.5.11 Policy B2.2: the longer term, perhaps triennial, reviews of the condition of the fabric should also be undertaken with the benefit of specialist advice. This is particularly crucial in the case of the Greenside lime kiln, which needs to be regularly monitored in order to guarantee its survival.
- 5.5.12 Policy B2.3: a programme of periodic maintenance and monitoring, covering these and other requirements, should be drawn up and implemented, with triennial inspection to review effectiveness and make adjustments.
- 5.5.13 Policy B2.4: as repairs to any of the monuments are carried out, their monitoring and maintenance should be included in the regular maintenance programmes.
- 5.5.14 Policy B2.5: the condition of the whole site should be monitored, to inform the repair and maintenance of earthwork and other landscape features. Special attention should be paid to the effects of weather or visitor erosion, and the vulnerability of buried features throughout the site.
- 5.5.15 Policy B2.6: the landscape should be protected through management procedures that maintain standards and the ecological value of the site.
- 5.5.16 Policy B3: all works, whether conservation, repair or new work, should be informed by a clear and detailed understanding of the historic fabric, and fully recorded in a permanent form.
- 5.5.17 In general terms, all interventions on the site will need to follow the appropriate best practice, based on a clear understanding of the original character and significance of the site, and the nature of previous change. Investigation and recording is the key aspect of this and investigative work already carried out will form the basis of future recording. This is, again, particularly important in the case of the Greenside lime kiln, which is arguably the most complex individual structure on Kendal Fell, and potentially therefore has the largest amount of information to record.
- 5.5.18 Policy B3.1: in order to make informed decisions regarding future recording and analysis carried out in response to development or as a part of a

- programme of repair, a baseline survey of the features making up the historic landscape should be carried out.
- 5.5.19 Policy B3.2: all works affecting the historic landscape, however minor, should be preceded or accompanied by detailed recording and analysis, in accordance with any applicable statutory legislation and guidance.
- 5.5.20 Policy B3.3: investigations prior to proposed ground disturbance should include archaeological survey and evaluation, in accordance with any applicable statutory legislation and guidance.
- 5.5.21 Policy B3.4: existing historical information should be borne in mind in order to identify previous repairs, alterations, ground works, treatments and appearances. Again, this is most likely to be relevant in the case of the Greenside lime kiln, which has undoubtedly undergone previous phases of repair.
- 5.5.22 Policy B3.5: where significant fabric is to be removed from an original location, it should be carefully recorded in situ and, if practical, retained.
- 5.5.23 Policy B3.6: intrusive elements identified for removal should also be recorded in situ as an aspect of the site history. No element should be destroyed unrecorded.
- 5.5.24 Policy B3.7: detailed records should be made of interventions in the site (both above and below ground) by means of related written, drawn and photographic accounts, with summaries and conclusions included in a secure archive.
- 5.6 POLICIES FOR UNDERSTANDING: INFORMATION, RESEARCH, RECORDING AND FUTURE WORK
- 5.6.1 Policy C1: future research should be promoted, with a planned agenda for investigations and an ability to respond to opportunities as they arise.
- 5.6.2 There has, as yet, been little detailed archaeological work on Kendal Fell as a whole, and there is a need for further investigation in order to inform repair and maintenance programmes, identify areas of significance to aid mitigation work, and collate information to provide a valuable tool for research. The brief topographical survey carried out as part of this Conservation Plan has shown the general extent of the archaeological resource, but in order for greater understanding, a more detailed examination would be necessary.
- 5.6.3 Policy C1.1: the results of the baseline survey should be made available for the use of researchers or those carrying out archaeological recording on Kendal Fell in the future.
- 5.6.4 Policy C1.2: an assessment of the available documentary record should be compiled and listed with any document placed in the public domain.

- 5.6.5 Policy C1.3: an agenda for continuing research should be formulated as a framework for future investigation, and this should especially bear in mind the potential for making unexpected discoveries.
- 5.6.6 Policy C1.4: full advantage should be taken of opportunities presented by inspections, surveys and building and/or ground works to answer research questions and record elements of the historic landscape not normally accessible, and to incorporate information into an appropriate archive or report.
- 5.6.7 Policy C1.5: further programmes should be developed for investigation, sampling and analysis, linked to the requirements of conservation and interpretation.
- 5.6.8 Policy C1.6: any further excavation or survey should be focussed on areas of uncertainty or on the needs of site management and interpretation. While the desirability of protecting archaeological deposits from unnecessary disturbance must be recognised, there is some potential for excavations perhaps conducted as public displays of archaeological techniques to improve interpretation of the site while minimising destruction. Small-scale evaluation may also be desirable to examine the presence of and nature of archaeological deposits, in order to inform research questions and conservation needs.
- 5.6.9 Policy C1.7: there is scope for further investigation of a number of elements of the site, in particular the lost lime kilns, both at Greenside and Kettlewell, as well as the nature of some of the smaller-scale quarrying and the field boundaries and ridge and furrow.
- 5.6.10 Policy C2: research should be used to focus and enhance future archaeological work on Kendal Fell, be it planned or opportunistic.
- 5.6.11 Policy C2.1: a long-term record should be made and maintained of any additional and existing information relating to Kendal Fell, in order to enable and enhance future work.
- 5.6.12 Policy C2.2: the results of this Conservation Plan should be placed in the public domain. This would include an assessment of the historical background to the landscape and the results of any survey work.
- 5.6.13 Policy C2.3: any additional information gathered during repair and maintenance of elements of the historic landscape of Kendal Fell should be published as each element of work is completed.
- 5.6.14 Policy C2.4: a central archive of information relating to work on the historic landscape of Kendal Fell should be maintained. As the existing archive of historic sources relating to Kendal Fell is held at the Cumbria County Record Office in Kendal, it is recommended that this would be a suitable place for depositing future records.

#### 5.7 POLICIES FOR ACCESS: APPRECIATION AND INTERPRETATION

- 5.7.1 Policy D1: appreciation of Kendal Fell should be made open, and accessible, to all, as far as is practicable within site constraints.
- 5.7.2 The open nature of the landscape, the easy access and the limited extent of buildings makes Kendal Fell relatively amenable to use by most visitors. Those with limited mobility are at present effectively prevented from access to much of the site and there is a need for improvements to be made, especially under the terms of the Disability Discrimination Act (DDA) (1995).
- 5.7.3 A main aim will be to ensure that access to and appreciation of the historic landscape of, and scenic views from, Kendal Fell is provided as near equally for disabled visitors as can be achieved. Where full physical access is not achievable (eg within the main part of the Serpentine Woods and on many of the footpaths), it is important that thought is given to other means for providing the experience, perhaps through alternative forms of interpretation.
- 5.7.4 Policy D1.1: improvements in access should inform the planning of visitor services at the site and the development of interpretative provision.
- 5.7.5 Policy D1.2: planning for access improvements might be used to form a structured Disability Access Plan for the site. This could be formally based on the requirements of the DDA, the recommendations of the National Disabilities Council's Code of Practice (www.equalityhumanrights.com), as well as on specialist advice and assessment and local consultation with disability groups, in order to ensure compliance with the Act.
- 5.7.6 Policy D1.3: in planning access routes onto Kendal Fell, consideration should be given to providing paths of appropriate gradient and surfacing for wheelchair users and other mobility-impaired visitors. Careful design will be needed to ensure the minimum impact on the setting of the historic landscape. The use of the track along the east side of the Serpentine Woods (known as 'The Tram') might be one way to enable easier access for mobility-impaired visitors.
- 5.7.7 Policy D1.4: where it is not possible to enable access to part of Kendal Fell to disabled visitors, alternative means of information, such as interpretative panels, literature or on-site guide, should be considered. All interpretative panels should be sited for the ease of use by wheelchair users.
- 5.7.8 Policy D2: public understanding of the historic landscape of Kendal Fell should be improved through on-site interpretation, documentation and other supporting measures.
- 5.7.9 The historic landscape of Kendal Fell is a large area, made up of several elements, and interpreting all of these for visitors is an important yet difficult part of enabling improved access. There is a need, however, to support and enhance understanding by making available interpretation of, and information about, the site. There are at present few provisions for interpretation on-site, but any that are made available should be unobtrusive and appropriately sited.

- 5.7.10 The positioning of interpretation panels at key points on Kendal Fell should be considered, particularly an initial area of signage to introduce and guide visitors. To avoid visual impact on the historic landscape, interpretative panels should be limited in number, size and content, and carefully placed to minimise visual intrusion. More detailed information can be made available to general visitors in a guide-book, through short site guide leaflets off-site, by encouraging visits to displays at Kendal Museum, and, for specialist or educational groups, through the provision of teaching materials.
- 5.7.11 Policy D2.1: interpretation panels should be positioned at strategic points around the historic landscape, linked to an introductory panel at an appropriate entrance to Kendal Fell. Panels should be designed and positioned to be unintrusive, and should be limited in number. They will need to be resistant to attack, with regular monitoring for vandalism and graffiti, and cleaning or repair to discourage further occurrences.
- 5.7.12 Policy D2.2: site interpretation can be supported by a guide-book, supplemented by a shorter guide leaflet with essential information and a plan. The possibility for both being made available by some means at a convenient point on Kendal Fell at certain times might be investigated; otherwise, they should be available in tourist centres and bookshops in Kendal and especially at Kendal Museum.
- 5.7.13 Policy D2.3: through co-operation with Kendal Museum and the South Lakeland Heritage Advisory Group, the Museum, Kendal Castle, Kendal Fell, and other sites in the locality should promote the value of visits to the others as part of a connected series of historic sites.
- 5.7.14 Policy D2.4: Kendal Fell should be presented in the context of the historic townscape of Kendal, including the various elements with which it is connected, such as the canal. Historic town trails including the canal and castle could be promoted.
- 5.7.15 Policy D2.5: the value of interpretation for educational purposes should be further explored. Through discussion with teachers and advisors in local LEAs, teachers' needs and relevance to the National Curriculum can be determined; interpretation for children will be beneficial for family and general visitors to the site.
- 5.7.16 Policy D3: site presentation should be arranged to aid understanding of the various elements of the historic landscape of Kendal Fell.
- 5.7.17 The extent of loss of elements of the historic landscape through continued use of the quarries, agriculture and the development of the golf course has made interpretation difficult. It is desirable that features which are still clear and visible should be protected from future concealment or confusion from, for instance, the creation of additional golf course features, and that known features currently concealed below ground should be made accessible to visitors' understanding, either through consolidation and display, or through indicating their position by other means. Such measures to protect or reveal

- important features will need to be incorporated in long-term landscape Management Plans and into future research and excavation strategies.
- 5.7.18 Policy D3.1: there are many features forming part of the historic landscape that have become disguised or hidden as a result of the ongoing management of the golf course. Any further work, which would further conceal them, should be minimised, and if significant elements are thought to have become concealed these should be exposed in order to improve interpretation.
- 5.7.19 Policy D3.2: extensive growth of scrub and trees should be removed or cleared where it obscures significant remains of archaeological and historical interest, particularly if it is likely to cause damage.
- 5.7.20 Policy D3.3: extensive alterations to the layout of the golf course or changes in the use of agricultural land in the area should be monitored in order to protect sites of archaeological and historical interest and maintain their appearance for the benefit of visitors.
- 5.7.21 Policy D4: access should be planned and managed so as to cause minimum impact on the site, by the sensitive location of access routes and of any visitor services provided.
- 5.7.22 The nature of Kendal Fell means that access is only possible on foot, and while this is unlikely to be changed, and vehicular traffic would be undesirable, there is no present facilities for cars. A car park is present within the golf club, but this is restricted to golf club users, and the Tram, which runs along the north-east side of the Serpentine Walks, is only partially accessible to vehicles and has little space for parking.
- 5.7.23 There are many footpaths across Kendal Fell, however, and while many of these are Public Rights of Way, others are less well defined and tend to stray onto the golf course. Amicably combining the use of the footpaths and the golf course, as well as taking into consideration the agricultural use of the northeast part of the area, is a difficult issue.
- 5.7.24 Footpaths will need to be monitored to check that developing desire lines do not cause problems of erosion in some areas, and continued monitoring will be necessary for existing routes along Public Rights of Way. While most paths will be mown and/or unsurfaced, a designated route for wheelchair users and other visitors with limited mobility will require some form of hard surfacing and a gentle gradient.
- 5.7.25 Policy D4.1: some form of car parking facility should be made available for visitors, especially those with limited mobility. It might be possible to come to an agreement with the golf club over use of its car park, or make available part of the Tram. Any alteration to existing facilities or creation of new facilities will need to be properly monitored in order to assess its impact on the historic landscape.
- 5.7.26 Policy D4.2: a designated route for wheelchair users might be considered, although options for the positioning of this are limited. There is a tarmac track

leading from Greenside through the areas of quarrying along the southern edge of the quarry, which could be made use of, but this would only allow access to part of the site. Other metalled tracks within the golf course could also perhaps be used, especially if they are, or can be, linked together. Again, any alterations that were involved in this would need to be monitored to assess the impact on elements of the historic landscape.

5.7.27 Policy D4.3: other routes will need to be monitored for erosion in order to ensure that a developing surface is not vulnerable to erosion. Paths may need to be diverted away from vulnerable areas where necessary.

#### 5.8 POLICIES FOR MANAGING THE SITE

- 5.8.1 Existing policy, both statutory and otherwise, covering Kendal Fell is outlined in *Sections 5.4.2-4*. There are several other existing policies that need to be taken into consideration, however.
- 5.8.2 Policy E1: statutory and legal requirements for protection of the site, the health and safety of individuals, and the requirements of disabilities legislation should be met, by means which ensure minimum impact on the significance of the site.
- 5.8.3 The statutory provisions can be considered under three headings:
  - (i) those for the protection of the historic and natural environment;
  - (ii) those for Health and Safety;
  - (iii) those for disabled access.

### [1] Statutory Requirements for Protection of the Site

Scheduled Monument Consent (Ancient Monuments and Archaeological Areas Act, 1979)

Section 2.2 of the Act requires consent for works carried out to a Scheduled Monument.

## Planning Guidance (Planning Policy Guidance notes 15 and 16)

Under the provisions of PPG 15: *Planning and the Historic Environment*, and PPG 16: *Archaeology and Planning* (DoE 1994; 1990), archaeological considerations should form part of any proposed works.

## Planning Consent (Town and Country Planning Act, 1990; Planning (Listed Buildings and Conservation Areas) Act, 1990

The Local Authority does not enjoy any exemption for its own works under the planning acts. Under the provisions of PPG 15: *Planning and the Historic Environment* (DoE 1994), consideration should be given to a range of matters including the landscape setting and the investigation and recording of works on buildings.

## **Protection of Species**

If any evidence is detected for occupation of roof spaces etc by bats, there is a statutory requirement under the Wildlife and Countryside Act, 2000, to demonstrate that any projected works will not cause disturbance to roosts.

5.8.4 Policy E1.1: South Lakeland District Council should meet all requirements relating to the status of the site and its features, and where specifically exempted should nevertheless follow the spirit of the legislation and guidance, and make all appropriate consultations.

## [2] Health and Safety Requirements

(Health and Safety at Work Act, 1974)

The risks to visitors are similar to those on most ancient monuments containing earthworks and ruinous structures; while protection is provided for the most obvious hazards, a system of total safeguarding against every eventuality could easily serve to disfigure the historic landscape. Particular risks to guard against, however, are those arising from erosion gullies and the destruction of surfaces, from climbing on structures within the historic landscape, the degradation of the fabric of Greenside lime kiln, and from the presence of contractors/other people on site. There is also an added risk in the form of users of the golf course.

- 5.8.5 Policy E1.2: in meeting its legal obligations, South Lakeland District Council should seek also to achieve and maintain high standards of Health and Safety provision for staff, visitors and contractors on site.
- 5.8.6 Policy E1.3: the Health and Safety Policy for both council staff and the public should be reviewed regularly and enforced.
- 5.8.7 The CDM Regulations (1995) require the appointment of a Planning Supervisor to ensure that the execution of any works is designed so that the risks on site from construction operations are recognised and fully addressed.

#### [3] Requirements Under Disabilities Legislation

(Disabilities Discrimination Act, 1995)

5.8.8 Provisions for visitors with disabilities will need to accord with the requirements of the DDA, as applied to historic sites and buildings. Adjustments or alternative provision must have been made by October 2004 to meet the requirements of the Act and avoid the effect of less favourable and discriminatory treatment of disabled people in the provision of services. The National Disability Council's (NDC) Code of Practice recommends the establishment of a positive policy on the provision of goods, facilities and services, with arrangements to monitor the policy, staff awareness training, and consultation with disabled people. In the case of Kendal Fell, particular care will need to be exercised in developing any alternative provisions for access, since the more usual routes are steep, rough surfaces or have steps, and thus are difficult for visitors with limited mobility. The Code of Practice will

- help to ensure that alternative arrangements (eg access through interpretation) are consistent with obligations under DDA. Some alternative new provision might be off-site, for instance in Kendal Museum.
- 5.8.9 Policy E1.5: early planning should be put in hand to ensure that the adjustments necessary to accord with the Act are made as soon as possible, and that the NDC Code of Practice is adopted and implemented for the site. In addition to its legal obligations, South Lakeland District Council should seek to achieve as a matter of policy the highest practicable standards for visitors with disabilities at Kendal Fell (see also Policy D1).
- 5.8.10 Policy E2: the Conservation Plan should work in conjunction with the existing Golf Course Management Plan. Both have many areas in common and each should be able to enhance the policies and objectives of the other.
- 5.8.11 Policy E2.1: it is important that the existing Management Plan (English Nature and South Lakeland District Council 2000) and this Conservation Plan are referred to wherever applicable. There are several areas where the two overlap and agree, but it is important that the relevant sections in each are made use of when appropriate.
- 5.8.12 Policy E2.2: a review of the existing Management Plan (ibid) may lead to the incorporation of information from this Conservation Plan. It is important, if this happens, that the integrity of the aims, content and policies of this Conservation Plan are maintained, however.

## 6 IMPLEMENTATION

#### 6.1 Introduction

6.1.1 This section sets out the main aspects of the adoption and implementation of the Conservation Plan Policies.

#### 6.2 CONSULTATION AND AGREEMENT

6.2.1 The conservation policies outlined in this Plan will be promoted jointly by South Lakeland District Council (SLDC) and English Heritage (EH) as the basis for future management of Kendal Fell. The plan and its policies will also need to be subject to agreement with other principal stakeholders, in particular with the Kendal Civic Society (KCS), Cumbria County Council (CCC), Kendal Fell Golf Club, English Nature and the members of the Kendal Fell and Golf Course Advisory Group (KFGCAG) (which includes SLDC, Kendal Golf Club, The Ramblers' Association, The Friends of the Lake District, and Cumbria Wildlife Trust). This process of agreement may require further consultation to resolve any remaining concerns and secure full support.

## 6.3 ADOPTION, CO-ORDINATION AND REVIEW

- 6.3.1 Following further consultation, it will be valuable for each of the principal bodies to adopt this Conservation Plan formally, as the jointly agreed basis for an action plan. Subsequent implementation may require a process of coordination to promote the necessary working partnerships, resolve any problems on the basis of the Plan's policies, and monitor progress.
- 6.3.2 After adoption, the Plan itself will need to be reviewed at regular intervals to reflect increased knowledge, altered circumstances, changes in legislation or guidance, and the changing aspirations of the principal bodies involved. The review process itself will need to be co-ordinated between the bodies. The Plan may ultimately need to be reviewed every five to ten years, though initially a more frequent review process may be more desirable.

#### 6.4 DECISION-MAKING FRAMEWORK

6.4.1 This Conservation Plan has been commissioned by English Heritage and supported by the Kendal Civic Society but, since the Greenside lime kiln is a Scheduled Monument, English Heritage and the Cumbria County Council archaeologist will both be involved in future decisions relating to it. Kendal Fell is owned by South Lakeland District Council and leased to Kendal Fell Golf Course, both of which will be involved in decisions relating to the entire Fell. English Heritage will need to approve both principle and detail of any repair projects to the lime kiln, and the County Archaeological Service will be involved in providing advice on the archaeological response to proposed works. Decisions relating to management of the whole Fell or to revised

schemes for interpretation and presentation will lie with South Lakeland District Council, but will depend also on consultation with other stakeholders and representatives of user groups.

## 6.5 IMPACT ASSESSMENT AND MITIGATION

- 6.5.1 In developing any future scheme for the site (whether as proposed in the Plan or otherwise), it will be necessary to prepare an assessment which identifies the visual, architectural, archaeological and historical impact of any proposal on the fabric or significance of the site. Ways should then be found by which the potential impact can be avoided or minimised, or by which its effects can be mitigated. The process is in effect a three-part one.
- 6.5.2 *i) Initial assessment to identify potential impacts of a proposal:* this may include:
  - Further building and documentary studies: investigations to elucidate the development of the lime kiln and the landscape as a whole will help to ensure an understanding of elements that may be affected by future works or conservation and maintenance. The understanding gained can inform the design process and help to avoid loss of significance, as well as producing a permanent record of original or early fabric or elements of the landscape.
  - Statutory consents: the processes of application for Scheduled Monument Consent and Conservation Area approvals will serve to draw attention to likely impacts, and will formally require a defined strategy for mitigation, including the recording of affected fabric. It will also allow for full consultation and observance of Local Plan and other policy guidelines.
  - *Non-statutory consents*: the alteration and development of other elements of the landscape will be approved by South Lakeland District Council. This will draw attention to any likely impacts on areas of archaeological interest, and can allow a strategy for mitigation to be defined, including the recording of affected areas in consultation with the Cumbria County Council's Archaeological Service.
- 6.5.3 *ii) Revision of the initial outline scheme:* following the assessment of potential impacts, the first option should always be to try and avoid them altogether, or find other means of meeting the need. This may lead to a revision of the outline proposal in order to produce an acceptable final scheme. Sensitive detailed design based on understanding can often be used to minimise or avoid the degree of impact on parts of the site affected.
- 6.5.4 *iii) Mitigation strategy:* where, however, a degree of impact is unavoidable in an otherwise beneficial scheme, it may be necessary to adopt a variety of means to mitigate its negative effects. These types of mitigation include:
  - Archaeological recording: some mitigation can be secured by a formal programme of archaeological investigation and recording in advance of works, and/or by a watching brief or evaluation during their progress. This

- also ensures that fabric or features of archaeological interest are not damaged or their significance lost by unplanned or unsupervised procedures.
- Control of intervention: professional involvement, especially of a conservation architect with knowledge of the building with regard to the lime kiln and an archaeologist with regard to the features of archaeological interest in the lime kiln and elsewhere on the Fell, will be an important aspect of any mitigation strategy, in both the design and supervision of future works and maintenance programmes.
- **Preservation of record**: recording and the production of a permanent record are essential to the mitigation process. There is little purpose in assessing, recording and analysing an archaeological site or historic building unless the information is available when required, and in the longer term to those responsible for site management, through its incorporation in a site archive.
- **Public interpretation**: a landscape such as Kendal Fell provides opportunities for public involvement and access during the actual process of development, research and, in particular, conservation.

## 6.6 Interpretation and Public Involvement

6.6.1 In addition to the general proposals for the interpretation of Kendal Fell, the site provides occasions for public involvement and interpretation during the processes of investigation, recording and conservation. The provision of public information and observation might be built into future planning, creating opportunities for consultation and information gathering and the encouragement of public support for the work.

## 6.7 IMPLEMENTATION PROCESS AND TIMETABLE

- 6.7.1 Policies in this Conservation Plan aim to meet a wide range of issues, risks and factors for change. Some of them also recommend particular actions, and look towards developments which aim to improve protection measures or enhance access and enjoyment. The implementation of policies and recommendations may need to follow differing time-scales and decision-making processes and will be constrained by the availability of resources. Some proposals will be capable of introduction in the short-term, with others, if adopted, coming into play over the medium- or long-term.
- 6.7.2 The section that follows is a suggested approach rather than a specific and prescriptive plan of action. It is to be noted that under the requirements of national legislation and planning guidance some of the proposed works will require statutory consents and permissions.
- 6.7.3 There are three categories of policy; short, medium and long-term.

## 6.7.4 1. Short-term policies, capable of relatively prompt implementation

	Action	Responsibility	Policies
1	Adopt Conservation plan as a basis of management: clarify division of responsibility for regular maintenance/major schemes of repair, carry out baseline survey	SLDC and KFGCAG	AI
2	Establish maintenance plan for Kendal Fell to: • reduce erosion [A1.2]	SLDC through KFGCAG and with EH where appropriate	A1, A2.1
	• Control mowing [A1.3]		
	• Monitor tree-planting [A1.4]		
	Protect flora [A1.5]		
	Protect built heritage [A1.5]		
3	Protection and maintenance of the historic landscape, and establish control and maintenance of footpaths	SLDC	A2.2, A2.6, A3.1, A3.2, A3.3, B1
4	Establish cycle of monitoring and maintenance. Draw up codes of conduct, conservation philosophy and maintenance plan	SLDC, with EH where appropriate, and KFGCAG	B2
5	Clarify responsibility for investigation and recording; ensure informed decisions based on prior investigation are fully recorded	SLDC and CCC with EH	В3
6	Establish formal archive for Kendal Fell; draw in existing material or copies; copy selectively into site information base	Set up system for archive within SLDC in consultation with CRO(K), CCC and EH	C2
7	Make results of Conservation Plan and baseline survey available in the public domain		C1.1-2
8	Identify research needs; draw up agenda for investigations, identify opportunities	SLDC with EH and CCC	C1.3, C1.4
9	Draw up code of conduct for special events; review any future programme of events	SLDC with KFGCAG	A3.4
10	Review procedures for physical security, health and safety; introduce improvements and training as appropriate	SLDC	A4, E1
11	Develop Disability Access Plan, in line with Conservation Plan policies	SLDC Access Officer	D1.2, E1.5

# 6.7.5 **2.** Medium-term policies, or works or preparation for schemes of improvement

	Action	Responsibility	Policies
1	Review Management Plan; check state of planting and soil erosion	SLDC, Kendal Golf Club	D3.1, E2
2	Review state of paths and earthwork erosion with a view to improving or altering access		D1.4, D4
3	Protect Kendal Fell setting and environs Improve car-parking arrangements Consider creating route for disabled access Consider alternative means of access to site	SLDC	A2.3, A2.5 D4.1 D4.2 D1.4
4	Review presentation of elements of Kendal Fell (signage, guidebook/leaflet)	SLDC in association with English Heritage	A2.4, D2.1
5	Review linkage with other heritage elements such as canal head, Kendal Museum, Kendal Castle, and Castle How	SLDC Heritage and Tourism services	D2.3-4
6	Produce guidebook or leaflet outlining various elements of the historic landscape, consider production of teachers' pack on CD	SLDC Heritage and Tourism services	D2.2, D2.5
7	Review planting and maintenance of vegetation on golf course in relation to elements of the Historic Environment	SLDC with KFGCAG	D3.1, D3.3
8	Continue to add information to site archive and commission further research on site works and collections	SLDC Heritage Service with EH, CCC and KCS	C1.6-7
9	When appropriate, commission investigations scheduled in Short-term Action 5 above	SLDC Heritage Service with EH and CCC	C1.5
10	Review current circulation patterns and visitor signage	SLDC and CCC Heritage Service	D1.1, D1.3, D2

# 6.7.6 3. Policies requiring longer-term preparation and the securing of funding support

	Action	Responsibility	Policies
1	Review Conservation Plan	SLDC and KFGCAG	
2	Promote further historical research	SLDC, EH and CCC	C2.2 - 4
3	Promote further study of built fabric and historic landscape	SLDC, EH and CCC	C2.3, 2.6
4	Consider further archaeological survey and investigation	SLDC and CCC	C2.5
5	Consider revealing and consolidating buried remains	SLDC and CCC with EH where appropriate	D3.2

# **BIBLIOGRAPHY**

#### **CARTOGRAPHIC SOURCES**

British Geological Survey, 1982 *Lake District*, Sheet **54° N 04° W**, Solid Geology, 1: 250,000

Hoggarth, H, 1853 Plan of the Town of Kendal in the County of Westmorland, facsimile

Ordnance Survey, c1859a Westmorland, Sheet 38.7, 25": 1 Mile

Ordnance Survey, c1859b Westmorland, Sheet 38.8, 25": 1 Mile

Ordnance Survey, c1859c Westmorland, Sheet 38.8.7, 50": 1 Mile

Ordnance Survey, 1863 Westmorland, Sheet 38, 6": 1 Mile

Ordnance Survey, 1898a Westmorland, Sheet 38.7, 25": 1 Mile

Ordnance Survey, 1898b Westmorland, Sheet 38.4, 25": 1 Mile

Ordnance Survey, 1898c Westmorland, Sheet 38.8, 25": 1 Mile

Ordnance Survey, 1914 Westmorland, Sheet 38.3, 25": 1 Mile

Ordnance Survey, 1938 Westmorland, Sheet 38 NE, 6": 1 Mile

Ordnance Survey, 1983 Soils of Northern England, Sheet 1, 1: 250,000

Ordnance Survey, 1993 *The English Lakes, South Eastern Area*, Outdoor Leisure **7**, 1: 25000

Ordnance Survey, 2002 The English Lakes South-Eastern Area, Windermere, Kendal & Silverdale, Explorer **OL7**, 1: 250,000

Speed, J, 1614 The Countie Westmorland and Kendale the Chief Towne Described, in Kendal Civic Society (2003), *Old Kendal: A Selection of Paintings, Drawings and Prints from the Collection of Kendal Town Council*, Kendal, 6

South Lakeland District Council, 2000 Kendal Conservation Area, 1: 10,000

Todd, J, 1787 Plan of Kendal in the County of Westmorland, facsimile

Wood, J, 1833 Plan of Kendal, facsimile

#### **PRIMARY SOURCES**

# Cumbria County Record Office (Kendal) (CRO(K))

WD/RG/419/1/4, 1907 Kendal Corporation Act

WDSo 10/Z3, 1847 Plan of Kendal Fell Lands Surveyed by John Watson Jnr

WDSo 117/BVI 106/4, 1948-51 Papers Relating to Kendal Fell Quarry

WDX/29/1, 1788 A Map of Kendal Fell from a Survey Taken Anno 1788 by John Todd

WDX/29/2, 1812 Plan of Kendal Fell Lands Laid Down from a Survey Made in the Year 1812 by Jn° Todd

WDX/29/3, 1870 Plan of the Kendal Fell Lands in the Township and Parish of Kendal in the County of Westmorland

WDY/192, 1827 Map of Kendal Fell Lands (photocopy)

WQ/R/C/8, c1836 A Plan of the Township of Kendal with part of Nethergraveship

WSMB/K5/Box 14, 1767-1793 Kendal Fell Trust Minute Book

WSMB/K5/Box 14, 1794-1819 Kendal Fell Trust Minute Book

WSMB/K5/Box 14, 1819-1835 Kendal Fell Trust Minute Book

WSMB/K5/Box 14, 1820-1850 Kendal Fell Trust Account Book

WSMB/K5/Box 14, 1835-1851 Kendal Fell Trust Minute Book

WSMB/K5/Box 20, 1849 Kendal Fell Act Amendment: A Proposed Bill

WSMB/K5/Box 20, 1861 Kendal Fell Act Bye-Laws

WSMB/K5/Box 73, 1861 An Act to Repeal the Act of the 7<sup>th</sup> Year of His Late Majesty King George III, Chapter III, and to Make Better Provision for the Managing of Certain Lands in the County of Westmorland Called Kendal Fell Lands

# Kendal Local Studies Library (KLSL)

42/623.42, nd Photograph: Time Gun, Serpentine Wood

Anon, 1810 An Act for Inclosing a Piece of Waste Ground in the Burgh and Township of Kirkby in Kendal for the Benefit of the Poor and for the Cleansing and Enlightening of the Streets of the Said Town &c

Anon, 1986 Sport: Kendal Golf Club, *Kendalian*, 19<sup>th</sup> February

#### SECONDARY SOURCES

Anon, 1847 Hand Book to Kendal and the Ancient Halls and Pleasant Walks in its Vicinity, Kendal

Anon, c1884 Guide to Kendal, Kendal

Anon, 1913 Notes on Kendal Golf Club, Kendal

Ashcroft, L (ed), 1992 Vital Statistics: The Westmorland 'Cenus' of 1787, Kendal

Association for Industrial Archaeology, 1995 Index Record for Industrial Sites: Kendal Fell, CU/CIHS/AGK 25

Association for Industrial Archaeology, 1996 Index Record for Industrial Sites: Kendal Fell Lime kiln, CU/CIHS/GPB 6

Bingham, R, 1995 Kendal, a Social History, 2<sup>nd</sup> edn, Milnthorpe

Butler, DM, 1982 Summer Houses of Kendal, Kendal

Chamberlain, AT, and Williams, J, 2001 *Caves, Fissures and Rock Shelters in North-West England*, http://www.shef.ac.uk/~capra/1/nwest.html

Clark, K (ed), 1999 Conservation Plans in Action, London

Clark, K, 2001 Informed Conservation, London

Coopey, J, and Coopey, J, 2002 Kendal Green: A Georgian Wasteland Transformed, Kendal

Countryside Commission, 1998 Countryside Character, Volume 2: North West, Cheltenham

Cumbria Trust for Nature Conservation, 1981 *Guide to the Serpentine Woods Nature Trail*, no location

Cumbria Wildlife Trust, 1998 Survey, Kendal Golf Course, unpubl rep

Curwen, JF, 1900 Kirkbie-Kendal, Kendal

Department of the Environment (DoE), 1990 *Planning Policy Guidance Note 16: Archaeology and Planning*, London

Department of the Environment (DoE), 1994 *Planning Policy Guidance Note 15: Planning and the Historic Environment*, London

Elsworth, DW, 2005 Hoad, Ulverston, Cumbria: Archaeological Landscape Investigation, unpubl rep

English Heritage, 2000 Power of Place: The Future of the Historic Environment, London

English Nature and South Lakeland District Council, 2000 Kendal Fell & Golf Course: Management Plan, unpubl rep

Farrer, E, c1910 Kendal Golf Club, Official Handbook and Souvenir, Kendal

Ferguson, RS, and Cowper, HS, 1893 An Archaeological Survey of Cumberland and Westmorland and Lancashire North-of-the-Sands, *Archaeologia*, **53**, 485-538

Hall, AM, 2001 The Role of Registered Village Greens in Westmorland unpubl MA diss, Univ Lancaster

Heritage Lottery Fund, 1998 Conservation Plans for Historic Places, London

Heritage Lottery Fund, 2003 Conservation Management, London

Historic Scotland, 1997 *Guide to International Conservation Charters*, Technical Advice Note **8**, Edinburgh

Hodgson, J, 1811 A Topographical and Historical Description of the County of Westmorland, London

Homan, R, 1982 The Kendal Union Building Societies, *Trans Cumberland Westmorland Antiq Archaeol Soc*, n ser, **82**, 184-90

Keates, T, 1999 Lime Burning on Kendal Fell, Cumbrian Industrialist, 2, 33-49

Kendal Civic Society, 2004 Greenside Lime kiln, Kendal: Proposed Repair and Enhancement Scheme, leaflet

Kendal Corporation, nd Kendal: The Gateway to Lakeland, Kendal

Kerr, JS, 2000 The Conservation Plan, Sydney

MacPherson, HA, 1892 A Vertebrate Fauna of Lakeland, Including Cumberland and Westmorland with Lancashire North of the Sands, Edinburgh

Mannix PJ, and Co, 1849 *Topography and Directory of Westmorland and Lonsdale North of the Sands in Lancashire*, London

Marsh, J, 2003 Kendal Past and Present, Stroud

Marshall, JD, 1975 Kendal in the Late Seventeenth and Eighteenth Centuries, *Trans Cumberland Westmorland Antiq Archaeol Soc*, n ser, **75**, 188-257

Marshall, JD, and Davies-Shiel, M, 1971 The Lake District at Work, Past and Present, Newton Abbot

Marshall, JD, and Davies-Shiel, M, 1977 *Industrial Archaeology of the Lake Counties*, 2<sup>nd</sup> edn, Beckermet

Munby, J, 1985 Medieval Kendal: The First Borough Charter and its Connexions, *Trans Cumberland Westmorland Antiq Archaeol Soc*, n ser, **85**, 95-114

Nicholson, C, 1861 The Annals of Kendal, 2<sup>nd</sup> edn, Kendal

OA North, 2005 Kendal Castle, Cumbria: Conservation Plan, unpubl rep

Parson, W, and White, W, 1829 *History, Directory and Gazetteer of Cumberland and Westmorland With Furness and Cartmel*, Beckermet (1976 facsimile)

Pigot and Co, 1834 National, Commercial Directory, London

Satchell, J. 1984 Kendal on Tenterhooks, Kendal

Shotter, D, 1995 Roman Coin-Finds From Cumbria, *Trans Cumberland Westmorland Antiq Archaeol Soc*, n ser, **95**, 274-6

Shotter, D, 1996 Recent Finds of Roman Coins in Cumbria, *Trans Cumberland Westmorland Antiq Archaeol Soc*, n ser, **96**, 27-33

Smith, A (ed), 1965 *The Place-Names of Westmorland*, **1**, Eng Place-Name Soc, **42**, Cambridge

South Lakeland District Council, 1998 South Lakeland Local Plan 2006, unpubl rep

Swarbrick, D, 2005 Commons Registration Act 1965, http://www.swarb.co.uk/acts/1965CommonsRegistrationAct.shtml

Taylor, AC, 1969 Thomas Harrison and the Stramongate Bridge, *Trans Cumberland Westmorland Antiq Archaeol Soc*, n ser, **69**, 275-9

Taylor, AC, 2004 *The Websters of Kendal*, Cumberland Westmorland Antiq Archaeol Soc, Rec Ser, **17**, Kendal

Turner, M, 1984 Enclosures in Britain, 1750-1830, Econ Hist Soc, Basingstoke

Watterson, A, 1987 Working-Class Housing and Related Health Policies in Mid-Nineteenth Century Kendal with Particular Reference to the Activities of John Whitwell, M.P., *Trans Cumberland Westmorland Antiq Archaeol Soc*, n ser, **87**, 183-214

West, T, 1796 A Guide to the Lakes in Cumberland, Westmorland and Lancashire, 6<sup>th</sup> edn, London

Whyte, I, 2003 Transforming Fell and Valley: Landscape and Parliamentary Enclosure in North West England, Lancaster

Williams, R, 2004 *Lime kilns and Limeburning*, 2<sup>nd</sup> edn, Shire Album **236**, Princes Risborough

# APPENDIX 1: LEVELS OF ARCHAEOLOGICAL SURVEY RECORDING

This describes the types of survey appropriate for the various stages of archaeological evaluation undertaken in advance of development as practised by the Lancaster University Archaeological Unit. They are based on survey levels defined by the Royal Commission on the Historical Monuments of England (RCHM(E)) and are in accordance with stages of evaluation defined by the Association of County Archaeological Curators (ACAO 1993).

# Level 1 Survey (Assessment)

This is a rapid level of survey typically undertaken alongside a desk-based assessment as part of the site assessment. It is an initial site inspection, which helps the local planning authority to consider fully the archaeological implications of a planning proposal and also serves as the basis for undertaking and planning further archaeological work on the 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. Its aim is to record the existence, location and extent of an archaeological site. The emphasis for the recording is on the written description, which should record type and period and would not normally exceed c. 50 words.

The location and extent of the sites is typically shown on 1:2,500 or 1:10,000 OS maps as requested by the client. The extent of a site is only defined for sites greater than 50m in size and smaller sites are shown with a cross.

There are two alternative techniques (Levels 1a and 1b), which provide different accuracy levels and have different applications:

#### Level 1a

The sites are located by manual distance measurement techniques (eg pacing) with respect to field boundaries and provide an accuracy of +- 10m (8-figure grid ref.). The loss of accuracy is offset by the slightly reduced costs; however, it is only appropriate for enclosed land, because of the paucity of usable topographic detail.

#### Level 1b

The sites are located using Global Positioning System (GPS) techniques, which uses electronic distance measurements along radio frequencies to satellites to enable a fix in Latitude and Longitude, which can be converted mathematically to Ordnance Survey National Grid. As long as differential GPS techniques are employed then it is possible to achieve an accuracy of greater than +- 1m. There is a slightly increased cost implication by comparison with Level 1a survey, but it can be undertaken on most terrain, even some woodland.

# Level 2 Survey (Evaluation)

Level 2 survey defines the extent of all surface archaeological features on site in relation to topographic elements (e.g. field walls) and accurately defines the extent of the overall archaeological site. It is produced in conjunction with a full objective and interpretative description of the features. The Level 2 survey defines an archaeological context for any trial excavations and shows the location of the trenches in relation to the surface features. This level is used to assess the archaeological significance of the site and serves as the basis, along with other evaluation techniques, for the submission of recommendations to the District or County Planning Officer.

There are two sub-divisions of evaluation survey (2a and 2b), that define different levels of detail and complexity. The appropriate application of these levels depends on the extent of the survey areas, the complexity of the archaeological features and the requirements of the survey product.

The difference between the two sub-levels (2a and 2b) is primarily in the density of raw data and the detail of the field draughting; and the basic survey methodology is essentially the same. The surveys are undertaken using Total Station survey equipment and are located either using Global Positioning Survey (GPS) techniques or by traverse with respect to Ordnance Survey control. The internal accuracy is typically +- 0.05m but is located with respect to the OS National Grid to an accuracy of +- 1.0m or better.

The survey methodology is designed to enable ease of upgrading of the survey levels as required. All Level 2 survey methods rely upon a permanent survey control and the raw survey data is produced with sufficient accuracy to enable their re-use on more detailed drawings at higher scales than originally intended. Fundamental to this process is that all draughting is undertaken within a Computer Aided Draughting (CAD) environment, which retains the primary accuracy of the raw data and allows flexibility of enhancement. Upgrading from Level 2a to 2b will require the provision of additional raw survey data as well as the enhancement of field drawing, but the upgrading from Level 2b to 3 will only require drawing enhancement, in the field, with respect to the raw survey data.

#### Level 2a

This defines the most basic level of instrument survey and is appropriate for the recording of scattered, low complexity archaeological features, typically those found during an extensive open area survey. Archaeological features are defined in outline and earthworks are shown with only minimal hachure annotation. Topography is for the most part extracted from an OS base, although topographic detail in the vicinity of archaeological features is recorded by instrument survey. The raw survey data is typically captured with sufficient density to enable the mapping of the resource appropriate for a 1:500 or reduced scale output. A requirement to output at a greater scale would involve the provision of additional survey data and enhanced recording. The record incorporates a basic level of textual description of individual features and an overall interpretative assessment of complete site groups.

#### Level 2b

This enhanced level of evaluation survey recording incorporates a relatively large quantity of raw survey data, which can define the extent and form of individual monuments in considerable detail. The detail of earthworks are defined in sufficient detail, to show the character and form of individual earthworks, but does not provide a full interpretative record. The local topography is recorded in greater detail, but also incorporates OS data where spatially remote from the archaeological features. The primary distinction between the Level 2b and Level 2c survey is in the intricacy of the detail draughting. The Level 2b recording is appropriate for an upgrade of a cairnfield survey, for example, but would be inappropriate for the recording of complex earthworks for which a Level 3 survey would be more appropriate. The level of detail would enable appropriate reproduction up to a scale of 1:250. An upgrade from a Level 2b to a Level 2c survey would not need additional instrument survey data, but would require extensive field enhancement of the CAD record. This basic level of survey would typically be undertaken alongside trial excavation work as part of an evaluation (ACAO 1993). It can serve as a mitigation measure for smaller sites with poor surface survival and should be applied where sites of limited significance are under threat.

## Level 3 Survey (Detailed Recording)

This is the most detailed level of purely interpretative survey and is equivalent to the RCHM(E) Level 3 survey. It involves very detailed interpretative hachure draughting of surface features and is intended for output at scales of up to 1:50. Because of the intricacy of detailed draughting it is inappropriate for large scale generalised mapping but instead is typically applied to the recording of complex earthworks, which involve considerable spatial analysis. Textually the relationship between individual features is contextually assessed and provides for detailed, internal analysis of a complex site. This is undertaken in addition to the description and overall assessment appropriate for the Level 2a survey.

Surveys undertaken at Level 3 from the outset involve the use of similar basic instrument methodologies as the Level 2b survey, although the draughting is more detailed and analytical. However, if a Level 3 survey is produced by upgrading a level 2b survey, then it is typically possible to use manual field survey techniques to enable the graphic enhancement of the more basic survey. An upgraded Level 3 survey is generally depicted on separate layers from the original Level 2b survey to enable subsequent more generalised output at lower scales if required. The design of the Level 3 survey is designed to be enhanced by the provision of contour detail into a Level 4 surface modelled survey. Subject to the requirements of the ACAO, the Level 3 survey can serve as a mitigative record for intermediary graded monuments.

### Level 4 Survey (Comprehensive Recording)

Level 4 survey is a comprehensive record of the archaeological features in relation to the surface topography. It incorporates an interpretative hachure survey alongside a full computer generated model of the ground surface enacted when a full survey is needed in conjunction with excavations or in cases where detailed survey of fragile upstanding earthworks is the only appropriate mitigative measure.

The Level 4 survey is designed to record the archaeological site as fully as current technology will allow and is the appropriate mitigation response where significant sites are threatened with destruction. It is applied selectively to sites of particular importance and which have a good survival of surface features.

It is generated by the provision of additional survey data to the Level 2 or 3 surveys and is of an equivalent level of accuracy (+- 0.05m). In many cases only a relatively limited amount of additional data is required to upgrade the Level 2 survey to the full surface modelled Level 4 and therefore this can be an economic recording option.

The Level 4 survey output is generated on CAD which maintains the original accuracy of the survey data and allows flexibility of drawing output at any scale. The drawing file will record the contour detail at different height separations and the final survey drawings can therefore be tailored to meet any requirements of the client.

# APPENDIX 2: TOPOGRAPHICAL SURVEY GAZETTEER

Site No: 01

**Site Name:** Barn off Windermere Road

NGR: SD 50813 93318 Site Type: Ruined building

SMR No: -

**Description:** A ruined barn orientated north-east/south-west is stone built, with only the north-east end surviving to any real extent. This end is c3m tall and has a single doorway and window, both with voussoir arches, as well as three ventilation holes

made by ceramic pipes. The corners are finished with quoins. The southwest end is ruinous and covered by a large spoil heap, but it is evident that the original structure was probably a bank barn. The remains of the building cover an area 4m north-east/south-west by 8m north-west/southeast, and the spoil heap is 9m long by 3m wide and c2m tall.



Site No: 02

**Site Name:** Ridge and furrow off Windermere Road

**NGR:** SD 50838 93247 (centre)

**Site Type:** Ridge and furrow

SMR No: -

**Description:** A large area of ridge and furrow fills the majority of the field. The ridges are orientated north-west/south-east and are typically 2-3m wide. The footpath crossing the north-east end of the field forms a bank, which may be part of a former boundary, but is probably just part of a built-up track.

Site No: 03

**Site Name:** Track off Windermere Road

**NGR:** SD 50958 93271 – SD 51007 93229

**Site Type:** Track

SMR No:

**Description:** A track orientated north-west/south-east runs across a long field, and is now used as a footpath. It is c2m wide, with a bank on the north-east side c0.4m tall and on the south-west side c1m tall. There are some cobbles making up a rough surface.

**Site Name:** Ridge and furrow off Queen's Road

**NGR:** SD 50977 93120 (centre)

**Site Type:** Ridge and furrow

SMR No: -

**Description:** A large area of ridge and furrow fills a large part of the field. The ridges are orientated north-west/southeast and are typically 2m wide, forming a terrace into the hillside 0.5m tall.



Site No: 05

**Site Name:** Possible quarry near Serpentine Wood

**NGR:** SD 50953 93057

**Site Type:** Quarry?

SMR No: -

**Description:** A small area of possible quarrying forms a small scoop into an outcropping area of bedrock, with a possible spoil heap on the east side and a pile of loose stone. It may relate to the modern building (a substation?) to the north-west or the telegraph pole adjacent to this. The spoil heap is c5m long and 3m wide. The quarrying appears to overlie the ridge and furrow (Site 04).

Site No: 06

**Site Name:** Plaque on edge of Serpentine Wood

**NGR:** SD 50909 92982

**Site Type:** Plaque

SMR No: -

**Description:** A stone plaque is built into the wall surrounding the Serpentine Wood. It is a single block of dressed limestone inscribed: 'TO DARWIN LEIGHTON FRIEND OF ALL LIVING CREATURES IN THIS WOOD'. The letters appear to have been painted green or were originally inlaid with copper alloy.



**Site Name:** Field boundary on Kendal Golf Course **NGR:** SD 50705 93177 – SD 50740 93052

Site Type: Bank SMR No: -

**Description:** A long grass-covered bank is orientated north/south, and is up to 1.5-2m wide and 0.6m tall. It is less distinct at the south end where it has been partially

removed but is more pronounced at the north end. It has evidently been modified at the north end and possibly enhanced with later spoil. Shallow slots have been cut across it and at the far north end it has been truncated by a green forming part of the golf course. It continues beyond this as lynchet c1m tall and c25m long.



Site No: 08

**Site Name:** Ridge and furrow on Kendal Golf Course

**NGR:** SD 50645 93168 (centre)

**Site Type:** Ridge and furrow

SMR No: -

**Description:** A small area of ridge and furrow is evident, which has been truncated by a green forming part of the golf course. The ridges are orientated north-east/south-west and are  $c^2$ -2.5m wide and 0.2m tall.

Site No: 09

**Site Name:** Field boundary at Kettlewell Crag **NGR:** SD 50374 93325 – SD 50548 93189

**Site Type:** Field boundary

SMR No: -

**Description:** A long field boundary runs south from the edge of Kettlewell Crag. It is c1-2m wide and c100m long. It is built from relatively small loose pieces of stone, although there are some possible orthostats visible in places.



**Site Name:** Kettlewell Crag Quarry **NGR:** SD 50449 93357 (centre)

Site Type: Quarry SMR No: 17578

**Description:** There are several areas of quarrying cut into the side of Kettlewell Crag. These form a roughly semi-circular area along the crag face. The west end is made up of several small workings each *c*5-10m across with associated spoil heaps 5-8m in diameter. Further east the quarry faces are much larger, up to 15m tall, with correspondingly larger spoil heaps.



Site No: 11

**Site Name:** Kettlewell

**NGR:** SD 50468 93407

Site Type: Well SMR No: 17576

**Description:** The well comprises a spring, which now passes through a ceramic pipe into a concrete-lined trough before becoming a small stream. Spoil from the quarries above (Site 10) has covered the original source of it.

Site No: 12

**Site Name:** Wall on Kendal Golf Course

**NGR:** SD 50391 93253 – SD 50509 93237

Site Type: Wall SMR No: -

**Description:** A ruined section of wall running north-east from the middle of Site  $\mathbf{09}$  is c15m long, 0.7m wide and built of limestone. Its structure can be seen to comprise two outer faces of large blocks and a core of smaller rubble. It ends at a patch of exposed bedrock to the north-east, although there is further rubble to the east of this which may have originally been part of it, or a return to the south.

Site No: 13

**Site Name:** Wall on Kendal Golf Course

**NGR:** SD 50511 93218 and SD 50477 93172

Site Type: Wall SMR No: -

**Description:** A short section of ruined wall forming an L-shape, the longer section of which is orientated north-east/south-west and is c7m long. There is little obvious

structure to it. The shorter section is orientated north-east/south-west and is c3m long, 1m wide and 0.3m tall, and comprises very loose material with little structure. It probably represents a single field boundary that has been truncated by the golf course and loose rocks piled against it. A further, more eroded section is visible to the southwest. This is c2m wide and made up of small stones, forming little more than foundations.

Site No: 14

**Site Name:** Ridge and Furrow on Kendal Golf Course

**NGR:** SD 50412 93126 (centre)

**Site Type:** Ridge and furrow

SMR No: -

**Description:** A large area of ridge and furrow covers much of the north-west corner of the golf course. The ridges are orientated north-west/south-east and are typically 2-4m wide. The western end of Site **13** appears to form a boundary to part of it.

Site No: 15

**Site Name:** Ridge and Furrow on Kendal Golf Course

NGR: SD 50277 93060 Site Type: Ridge and furrow

SMR No: -

Description: Another large area of ridge and furrow forms part of a larger area in the northwest corner of the golf course. The ridges are orientated north/south, parallel to the field boundary to the west, and are typically 2.5m wide.



Site No: 16

Site Name: Field Boundary on Kendal Golf Course NGR: SD 50334 93236 – SD 50219 93135

**Site Type:** Field boundary

SMR No: -

**Description:** The remains of a field boundary, orientated north-east/south-west, are c2m wide and little more than foundations, made up of small loose stones. There is more ridge and furrow to the south of it, probably forming part of Site 14.

Site No: 17

**Site Name:** Ridge and Furrow on Kendal Golf Course

**NGR:** SD 50211 93226 (centre)

**Site Type:** Ridge and furrow

SMR No: -

**Description:** An area of ridge and furrow in the far north-west corner of the golf course has ridges orientated north-west/south-east, which are typically 2-3m wide. It is truncated by greens and other golf course features on all sides. It may continue to the south-east to meet or form part of Site 14, and it certainly continues patchily to meet Site 16. There are the remains of a field boundary between it and Site 15 on the west side, which probably forms part of Site 16.

Site No: 18

Site Name: Stone on The Heights NGR: SD 50278 92963 Parish boundary

SMR No: -

**Description:** A large upright stone is built into the wall forming the parish boundary between Kendal and Underbarrow. It is a large limestone slab, *c*1m tall, 0.6m wide and 0.1m thick. There is a single leaded hole for an iron fitting so it may have been used as a gatepost or had some fitting attached to it.



Site No: 19

**Site Name:** Coffin Wood quarry **NGR:** SD 50327 92964

**Site Type:** Quarry

SMR No: -

**Description:** A small quarry is present in the north-west corner of Coffin Wood. It is approximately oval in plan, c20m long by 12m wide and 2-3m deep. Beyond it to the south are further areas of additional shallow quarrying. These are c1-2m deep and more amorphous in plan, covering an area c50m square.

Site No: 20

**Site Name:** Possible quarry south of Coffin Wood

**NGR:** SD 50500 92967

**Site Type:** Quarry?

SMR No: -

**Description:** A large depression forms a roughly oval shape in plan, although it is amorphous and rounded as a result of improvements by the golf course. The south-east end has been used by the golf course as a bunker and there is another possible disused bunker on the west side. The entire area is c20m long by 8m wide.



Site No: 21

**Site Name:** Quarrying north of Little Wood

**NGR:** SD 50624 92905

**Site Type:** Quarries

SMR No: -

**Description:** A large area of small-scale quarrying may be little more than working of natural outcrops. It comprises a number of 'trenches' orientated north/south, each typically 4-5m wide, 1-2m deep and up to 40m long.

Site No: 22

**Site Name:** Quarrying in Little Wood

**NGR:** SD 50753 92827

**Site Type:** Quarries

SMR No: -

**Description:** An area of possible small-scale quarrying along the east side of Little Wood mainly comprises worked natural outcrops typically less than 1m deep and 5-10m across. It is very indistinct and patchy.

Site No: 23

**Site Name:** Quarry west of Little Wood

**NGR:** SD 50645 92763

**Site Type:** Quarry

SMR No: -

**Description:** A small quarry on the west side of Little Wood is a shallow sub-rectangular area c1m deep, covering an area 10m by 15m cutting into the natural outcrop.

Site No: 24

**Site Name:** Ridge and Furrow west of Little Wood

NGR: SD 50555 92676 Site Type: Ridge and furrow **SMR No:** 13527

**Description:** An area of ridge and furrow has very faint ridges, orientated northwest/south-east and typically 2-3m wide. A slight bank defines the north-west edge.

Site No: 25

**Site Name:** Quarrying south of Coffin Wood

**NGR:** SD 50429 92853 (centre)

**Site Type:** Quarries

SMR No: -

**Description:** A very large area of small-scale quarrying comprises numerous small scoops out of the hillside. Those at the south end of the area are more rounded as a result of landscaping, while those in the north are more pronounced, with large areas of loose stony spoil. The individual areas of quarrying are 5-20m in diameter and 1-4m deep. Part of it continues into Coffin Wood as an oval area c30m long and 10m wide.

Site No: 26

**Site Name:** Field Boundary north-west of Skewbarrow

**NGR:** SD 50839 92634 – SD 50831 92592

**Site Type:** Lynchet

SMR No: -

**Description:** A lynchet orientated north-east/south-west projects from the end of the housing at Skewbarrow. It is 0.7m tall and 1.5m wide, grass-covered with some stone evident within it.

Site No: 27

**Site Name:** Quarrying east of Recycling Works

**NGR:** SD 50653 92474

**Site Type:** Quarries

SMR No: -

**Description:** An area of small-scale quarrying is situated in the south-west corner of

the golf course. It forms a roughly rectangular area against the field boundary. It is made up of a number of rounded hummocks, each c3-5m in diameter and 1.5-2m tall. The quarry face is on the east side. There are additional probable workings to the north, although these are more sculpted, covering an area c40m by 70m.



**Site Name:** Bottle dump off Greenside

NGR: SD 50709 92424 Site Type: Bottle dump

SMR No: -

**Description**: A pile of dumped rubbish, mainly pottery and glass dating to the mid nineteenth to early twentieth centuries, forms an oval mound c7m by 5m and up to 1m tall. There is some disturbance suggesting that it has been partially dug already.

Site No: 29

**Site Name:** Lime kiln off Greenside

**NGR:** SD 50777 92423

Site Type: Lime kiln SMR No: 17593

**Description:** A large lime kiln with a single low arched opening on the south side has a retaining wall around the top and sides. It is built of limestone in rough courses, is up to 6m tall and covers an area c20m square. There seem to be flues evident in the top but these could not be examined given the dense vegetation. It is a Scheduled Monument (SM 34994).

Site No: 30

**Site Name:** Quarry off Greenside **NGR:** SD 50724 92619 (centre)

Site Type: Quarry SMR No: 17592

**Description:** A large area of quarrying now only survives as a long expanse of cliff face up to 20m tall. The rest has been landscaped to form part of the golf course, apart from a single buttress of rock in the centre.

Site No: 31

**Site Name:** Time gun platform in Serpentine Wood

**NGR:** SD 50852 92853

**Site Type:** Platform

SMR No: -

**Description:** A stone-built structure, 1.4m tall, 4m long and 2m wide, is capped with dressed slabs with small drainage channels cut into them. There is a doorway in the east end, accessing a small vaulted chamber. The position of the platform corresponds to the known location of the time gun.



**Site Name:** Upright stone, Serpentine Wood

NGR: SD 50913 92828 Site Type: Upright stone

SMR No: -

**Description:** A large upright slab of limestone stands on the edge of one of the footpaths in the Serpentine Wood. It is 0.7m tall, 0.7m wide and 0.3m thick. It is possibly roughly dressed but may be a piece of natural limestone pavement. It is likely to be nothing more than a particularly large edging slab marking the extent of the footpath.

Site No: 33

Site Name: Summerhouse, Serpentine Wood

NGR: SD 51032 92725 Site Type: Summerhouse

SMR No: -

**Description:** A small octagonal building is built of limestone with a slate roof with a stone finial. There is a doorway on the west side and two windows in the east, all of which are covered by metal grills. There is a bench attached to the north-west wall on the inside and all of the internal walls are whitewashed.



Site No: 34

**Site Name:** Platform, Serpentine Wood

**NGR:** SD 50957 92748

**Site Type:** Platform

SMR No: -

**Description:** A roughly rectangular platform has been cut into the crag. It is c10m by 13m with a small annex off the north-west corner, and is accessed via a flight of steps from the footpath in the east-corner. The floor is either stone/gravel or concrete.

Site No: 35

**Site Name:** Building, Dog Kennel Wood

NGR: SD 51020 92799 Site Type: Ruined building

SMR No: -

**Description:** A ruined building, of which only the south-east end survives to any great extent, is c1m tall. The north-east end also has some surviving wall, up to 0.8m

tall. The north-west end is almost totally ruinous apart from a short section. The entire building covers an area of approximately 12m square, evidently forming two sections.

Site No: 36

Site Name: Kendal Golf Club Store

**NGR:** SD 50886 92691

**Site Type:** Building

SMR No: -

**Description:** A small store or shed is associated with the current golf clubhouse, and

probably formed part of the original clubhouse buildings. It is constructed from corrugated tin sheeting, and has a modern door and window in the west elevation. There are original windows in the north and south elevations and decorative a bargeboard along the north gable. original clubhouse The described as 'a corrugated iron bungalow' (Bingham 1995, 430), and this building would appear to be similar in style.



Site No: 37

**Site Name:** Building off Queen's Road

**NGR:** SD 51149 92708

**Site Type:** Building

SMR No: -

**Description:** A small building is constructed of limestone with a monopitch roof of corrugated concrete or asbestos sheeting, which has evidently been reduced in height. There is a window and pedestrian doorway in the east elevation and a small outbuilding to the south.

Site No: 38

Site Name: Serpentine Cottage NGR: SD 51154 92659

**Site Type:** House

SMR No: -

**Description:** A cottage has an associated gate into the Serpentine Wood. The gate comprises two lengths of wall constructed from rusticated ashlar limestone blocks with dressed coping and two square gateposts. The cottage has an asymmetrical central block with a dormer porch, hipped roof and three modern windows in the south-east elevation. The north-east wing is gabled and has a single window and door, while the south-west wing has a modified monopitch roof and a single window. The entire cottage is built from dressed ashlar limestone blocks.

**Site Name:** Skewbarrow Fell

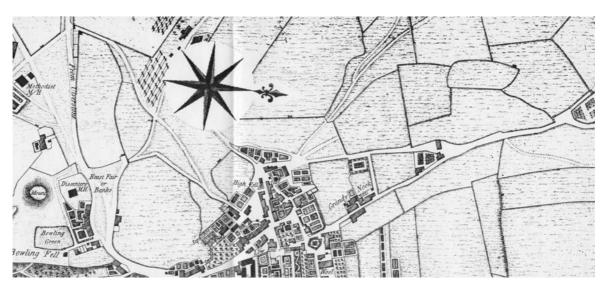
**NGR:** SD 51127 92570 – SD 51107 92572

Site Type: Bank SMR No: -

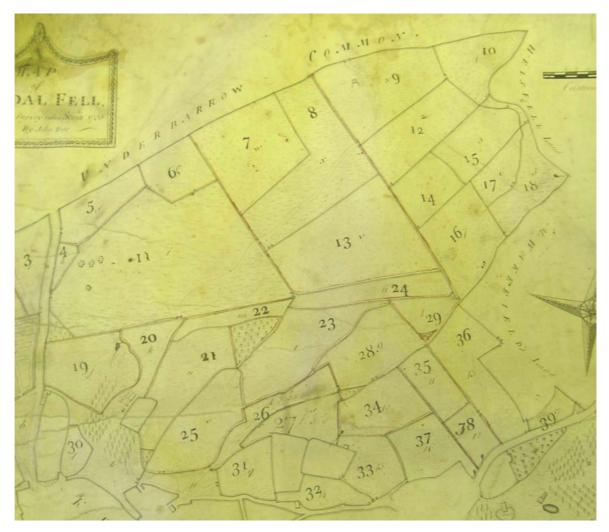
**Description:** A grass-covered bank, orientated east/west, is c3m wide and 0.5m tall, and cut by a modern access road to a house to the north. It is probably a former tenter bank.



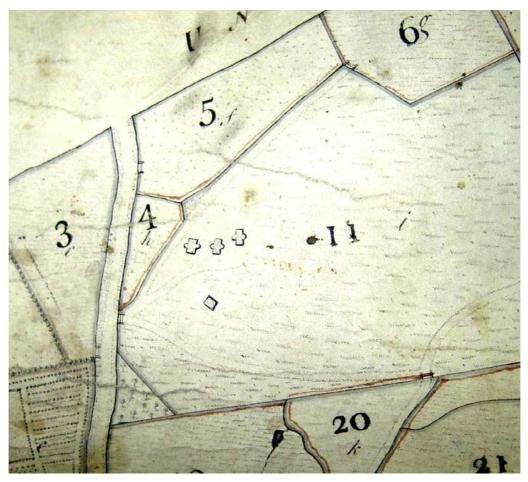
# APPENDIX 3: HISTORICAL MAP SEQUENCE



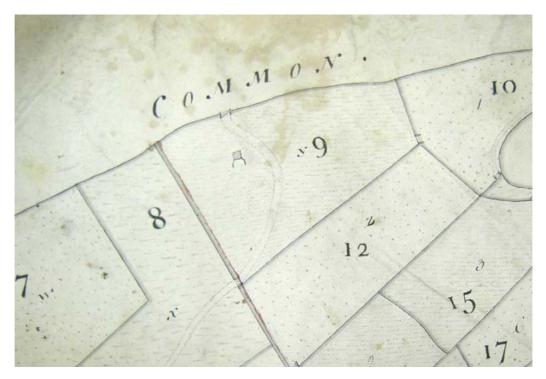
Extract from Todd's Map of 1787, showing part of Kendal Fell



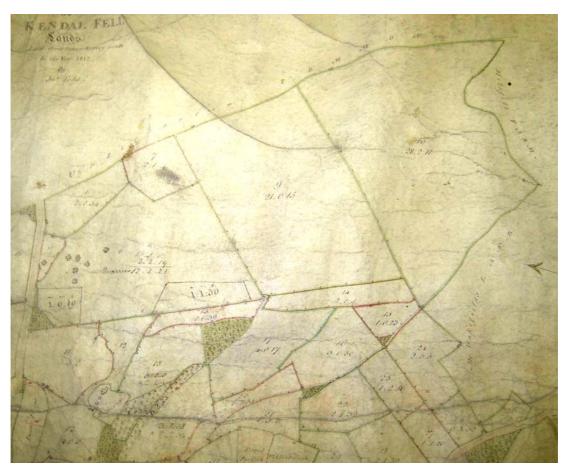
Extract from a Map of Kendal Fell of 1788 (CRO(K) WDX/29/1)



Three lime kilns on Greenside shown on the map of 1788 (CRO(K) WDX/29/1)



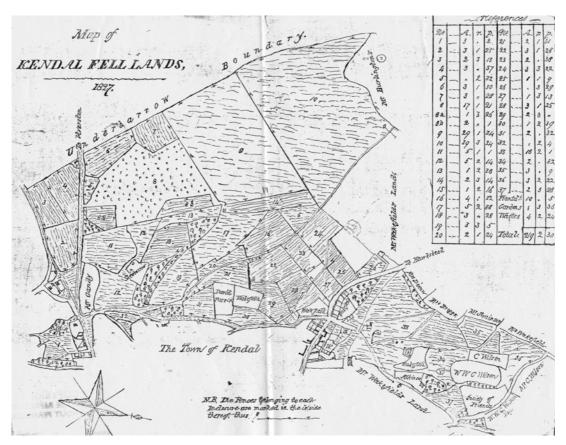
A possible lime kiln (left of the number 9) to the north of the three lime kilns on Greenside shown on the map of 1788 (CRO(K) WDX/29/1).



Extract from a Map of Kendal Fell of 1812 (CRO(K) WDX/29/2)



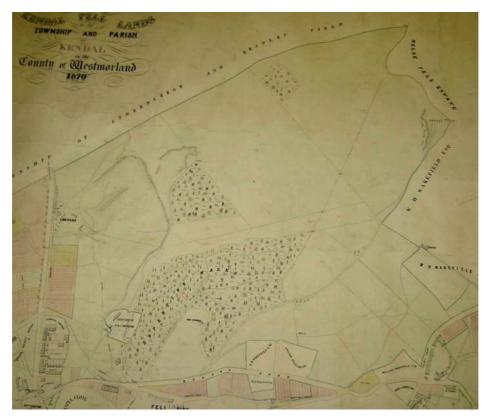
Seven lime kilns on Greenside shown on the map of 1812 (CRO(K) WDX/29/2)



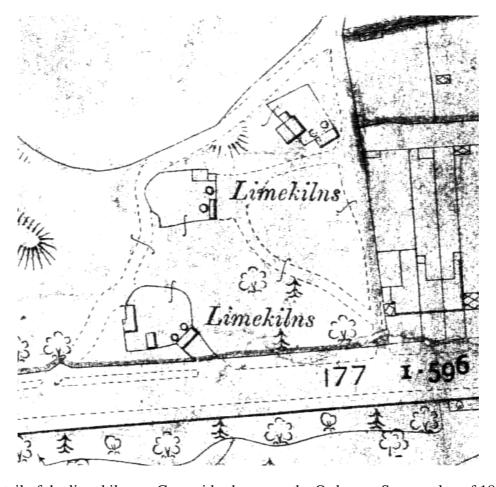
Map of Kendal Fell of 1827 (CRO(K) WDY/192)



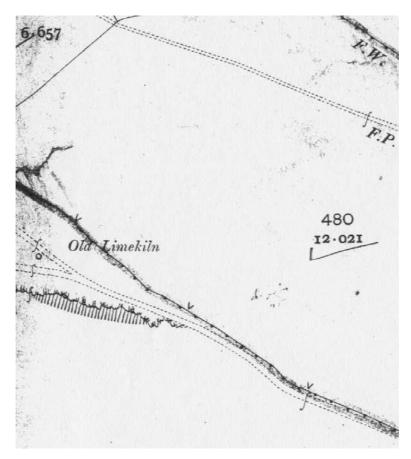
Extract from the Ordnance Survey plan of 1859



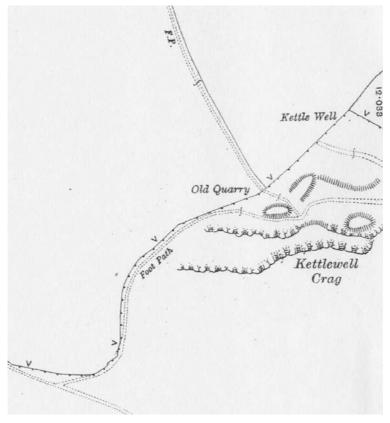
Extract from a Plan of Kendal Fell of 1870 (CRO(K) WDX/29/3)



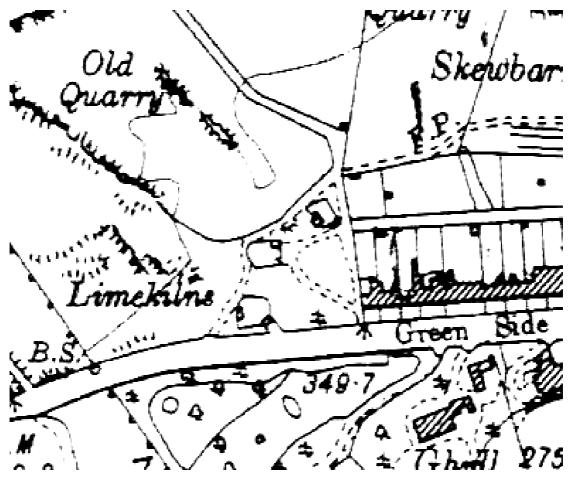
Detail of the lime kilns on Greenside shown on the Ordnance Survey plan of 1898



Extract from the Ordnance Survey plan of 1898, showing a lime kiln at Kettlewell



Extract from the Ordnance Survey plan of 1914, showing an old quarry at Kettlewell



Extract from the Ordnance Survey plan of 1938, showing lime kilns on Greenside