

NORTH WEST WETLANDS SURVEY 6

THE LOWLAND WETLANDS OF

Cumbria

D Hodgkinson
E Huckerby
R Middleton
C E Wells

With contributions by

P Cundill
P Hughes
I Miller
R M Newman
M Ryder
S Stallibrass
T Wilmott

LANCASTER
IMPRINTS

2000

Published by

Lancaster University Archaeological Unit
Storey Institute
Meeting House Lane
Lancaster
LA1 1TF

(Phone: 01524 848666; Fax: 01524 848606)

(E-Mail: archunit@lancaster.ac.uk)

(Internet — [www. http://www.lancaster.ac.uk/](http://www.lancaster.ac.uk/))

Further details of the North West Wetlands Survey can be obtained from the LUAU Home Page at the above address

Distributed by

Oxbow Books
Park End Place
Oxford
OX1 1HN

(Phone: 01865-241249; Fax: 01865-794449)

Printed by

Kent Valley Colour Printers, Kendal, Cumbria

© Lancaster University Archaeological Unit 2000

ISBN 1 86220 082 3

ISSN 1343-5205

NWWS Series editor

Rachel Newman

Copy editor

Martin Lister

Indexer

Peter Gunn

Design

Robert Middleton

Layout and formatting

Andrea Scott

Front Cover: Flooded peat cuttings on Scaleby Moss

LANCASTER
IMPRINTS

Lancaster Imprints is the publication series of Lancaster University Archaeological Unit. The series covers work on major excavations and surveys of all periods undertaken by the Unit and associated organisations.

Contents

List of illustrations	iv
List of tables	v
List of plates	vi-vii
Abbreviations	viii
Contributors	ix
Acknowledgement	xi
Foreword	xiii
Summaries	xiv
 1 INTRODUCTION	 1
The North West Wetlands Survey	1
Description of the survey area	3
History of research in Cumbria	7
The wetlands of Cumbria	9
Threats to the archaeological resource	13
Aims and objectives	15
Methodology	16
Organisation of the volume	22
 2 SOUTH CUMBRIA	 23
Introduction	23
Archaeological and palaeoecological survey	24
Wetland distribution	28
Landscape evolution	31
Discussion	58
 3 WEST CUMBRIAN COASTAL PLAIN	 61
Introduction	61
Archaeological and palaeoecological survey	61
Wetland distribution	63
Landscape evolution	65
Discussion	81
 4 The North Cumbrian Plain	 85
Introduction	85
Archaeological and palaeoecological survey	86
Wetland distribution	93
Landscape evolution	106
Discussion	144
 5 SYNTHESIS AND DISCUSSION	 147
Introduction	147
Landscape History	150
Palaeoecological survey	161
Threats to the resource	162
Management strategies	165
Future research	171
 Glossary	 173
Appendix 1: Site gazetteer: Archaeological Survey Sites: Cumbria	177
Appendix 2: The lithic material collected by the survey	185
Appendix 3: Site Gazetteer	189
Appendix 4: Moss List	265
Appendix 5: Gazetteer of Cumbria environmental archives assessed	291

Appendix 6: Palaeoecological studies at Solway Moss	319
Appendix 7: Deforestation and erosion episodes in the Howgill Fells	323
Appendix 8: Details of radiocarbon dates quoted in text	327
Bibliography	331
Index	347

List of illustrations

Figures

1	The location of Cumbria in the North West Wetlands Survey Area	xviii
2	Location of the North West Wetlands Survey area, showing fieldwork and volume publication dates	2
3	Simplified geological map of Cumbria (after Halliday 1997)	4
4	North West Wetlands Survey archaeological survey areas in Cumbria	8
5	North West Wetlands Survey palaeoecological survey sites in Cumbria	8
6	North West Wetlands Survey, areas and dates of fieldwork	12
7	Key to stratigraphic symbols	19
8	The extent of the area covered by Chapter 2	23
9	Countryside Character Areas (CCAs) in Cumbria	24
10	Natural Areas in Cumbria as defined by English Nature (1997)	24
11	Lyth Valley: predicted peat survival and actual area surveyed	26
12	Foulshaw Moss trackway: location plan (from Barnes 1904)	27
13	South Cumbria: areas of archaeological fieldwork	28
14	Winster Valley: predicted peat survival and actual area surveyed	29
15	Rusland Pool: predicted peat survival and actual area surveyed	30
16	Duddon Mosses: predicted peat survival and actual areas surveyed	32
17	Low Furness: showing location of Bardsea 1992	38
18	Bardsea 1992: south-facing section	39
19	Bardsea: plan of bones excavated in 1992	40
20	Meathop Moss: pipeline trench location	41
21	The extent of the area covered by Chapter 3	61
22	West Cumbrian Coastal Plain: areas of archaeological survey	63
23	Eskmeals: predicted peat survival and actual area surveyed	64
24	Silecroft: predicted peat survival and actual area surveyed	68
25	St Bees: predicted peat survival and actual area surveyed	69
26	Ehenside Tarn: showing location of the tarn and associated finds	70
27	Plan of Ehenside Tarn as excavated (from Darbishire 1873)	72
28	Finds from Ehenside Tarn (from Darbishire 1873)	73
29	Stratigraphy of Ehenside Tarn (from Walker 1966)	74
30	Ehenside Tarn: graph showing the range of the calibrated radiocarbon dates	75
31	The extent of the area covered by Chapter 4	85
32	North Cumbrian Plain: area of archaeological survey	86
33	North Cumbrian Plain (north): predicted peat conditions and area surveyed	rear of volume
34	North Cumbrian Plain (south): predicted peat conditions and area surveyed	rear of volume
35	North Cumbrian Plain (central west): predicted peat conditions and area surveyed	rear of volume
36	North Cumbrian Plain (central east): predicted peat conditions and area surveyed	rear of volume
37	Sites on the Abbeytown Ridge identified by aerial photography (after Higham and Jones 1975)	87
38	Solway Moss: peat extent and actual area surveyed	90
39	Scaleby Moss: peat extent and actual area surveyed	92
40	Bolton Fell/Walton Moss: peat extent and actual area surveyed	93
41	Bolton Fell/Walton Moss: location of coring transects (from Hughes 1997)	94
42	Walton Moss: Transect A (from Hughes 1997)	96
43	Walton Moss: Transect B (from Hughes 1997)	97
44	Bolton Fell Moss: field stratigraphy (from Hughes 1997)	98
45	Glasson Moss: location of coring transect (from Hughes 1997)	99
46	Glasson Moss: field stratigraphy (from Hughes 1997)	100
47	Solway Moss: location of coring sites (from Hughes 1997)	102
48	Solway Moss: Transect 1a (from Hughes 1997)	103
49	Solway Moss: Transect 1b (from Hughes 1997)	104
50	Solway Moss: Transect 2 (from Hughes 1997)	105
51	Solway Moss: stratigraphic transect in the vicinity of the sheep remains	108
52	Polished stone axe from Pelutho (CU17)	112

53	Probability plots of calibrated dates 2σ of major clearance of woodland (from Huntley 1999)	116
54	Solway Cow: location of cow and sheep finds	122
55	Solway Moss 1991: excavation plan of area around the cow finds	122
56	Solway Cow 1991: skull	123
57	Solway Cow: schematic outlining the two individuals thought to be present	125
58	Polished Group VI stone axe from Gilbank Farm (CU33)	152
59	Selection of flint implements collected during the archaeological survey	153
60	Selection of flint implements collected during the archaeological survey	154
61	Lithic assemblage collected during the archaeological survey: flint colour	186
62	Birkrigg Bog: simplified pollen diagram of palynological assessment	291
63	Black Moss Tarn: simplified pollen diagram of palynological assessment	294
64	Burney: simplified pollen diagram of palynological assessment	296
65	Calvert Trust Land, Bassenthwaite: simplified pollen diagram of palynological assessment	297
66	Castle How, Bassenthwaite: simplified pollen diagram of palynological assessment	298
67	Coniston: simplified pollen diagram of palynological assessment	299
68	Crook Hall: simplified pollen diagram of palynological assessment	300
69	Derwent Water: simplified pollen diagram of palynological assessment	301
70	Dubbs Moss: simplified pollen diagram of palynological assessment	302
71	Eskrigg: simplified pollen diagram of palynological assessment	303
72	Gatebeck: simplified pollen diagram of palynological assessment	304
73	Glebe Farm: simplified pollen diagram of palynological assessment	305
74	Graythwaite: simplified pollen diagram of palynological assessment	305
75	Heathwaite: simplified pollen diagram of palynological assessment	306
76	Heights: simplified pollen diagram of palynological assessment	307
77	Hood Tarn: simplified pollen diagram of palynological assessment	308
78	Little Tarn: simplified pollen diagram of palynological assessment	309
79	Littlewater: simplified pollen diagram of palynological assessment	310
80	Mosedale: simplified pollen diagram of palynological assessment	311
81	Oxenholme (The Helm): simplified pollen diagram of palynological assessment	312
82	Robbed Cairn, Subberthwaite Common: simplified pollen diagram of palynological assessment	313
83	St Sunday's Beck Bog: simplified pollen diagram of palynological assessment	314
84	Stable Harvey Moss: simplified pollen diagram of palynological assessment	315
85	Three Mile Bog: simplified pollen diagram of palynological assessment	316
86	White Moss: simplified pollen diagram of palynological assessment	317
87	Macrofossil diagram from Solway Moss	320
88	Percentage pollen diagram of selected taxa from Solway Moss	321
89	Percentage pollen diagram from Archer Moss (after Cundill 1976)	324
90	Percentage pollen diagram from a segment of predicted peat at Archer Moss	325

A key for figures 33–6 is located on a flap on the inside back cover

Tables

1	Publications in the North West Wetlands Survey series	1
2	North West Wetlands Survey: archaeological work in Cumbria	6
3	North West Wetlands Survey: palaeoecological assessment sites in Cumbria	9
4	Radiocarbon dates from Ehenside Tarn	74
5	Radiocarbon dates for samples from the Solway cattle remains	129
6	Radiocarbon dates for samples from the Solway sheep remains	132
7	Lithic assemblage from the North West Wetlands Survey of Cumbria: overall typology	185
8	Raised mires in Cumbria (from Lindsay and Immirzi 1996)	288–90
9	Summary of palaeoecological sites with relevant details	292
10	Palaeoecological and archaeological chronological framework	293

Plates

	Frontispiece: peat cutting tools from the Lyth Valley	x
1	Fieldwalking on the Abbeytown Ridge	10

2	Cleaning a ditch during survey of peat cuttings on Solway Moss	11
3	Profile through peat from a perimeter dyke on Solway Moss	12
4	Palaeoecological fieldwork on Solway Moss	13
5	Peat cutting on Solway Moss	14
6	Watching brief, Moss Side Farm, Wedholme Flow	17
7	Assessment of 'wet' area for Shell (UK) Ltd's North West ethylene pipeline, Drybeck Moss	18
8	Lyth Valley, South Cumbria, showing topography	25
9	<i>Sesleria</i> grassland, Hutton Roof (© T N Huckerby)	33
10	Bardsea 1992: excavation in progress	37
11	Bardsea 1992: animal bones (<i>in situ</i>)	38
12	Bardsea 1992: general view of excavation	39
13	Meathop Moss: excavation of pipe trench	42
14	Lyth Valley: Jefferys' map of Westmorland (1770)	48
15	Greenwood's map of Westmorland (1824)	52
16	First Edition OS map, 6 inch:1 mile (1863), showing Foulshaw Moss and the Kent Estuary	54
17	Boulder clay cliffs showing peat section at St Bees	62
18	Black Moss showing its limits	63
19	Hallsenna Moor: a small intact valley mire	65
20	St Bees: cliff section showing Late-Glacial peats	66
21	Landscape of the Irt Estuary	67
22	Ehenside (Gibb) Tarn today	72
23	Drigg: section through burnt mound eroded by the sea	76
24	Greenwood's map of Cumberland (1823) (© CRO (Carlisle))	80
25	Black Moss: extract from the Egremont Enclosure Map (1783)	82
26	Peatcutting at Whitbarrow Moss during the 1960s (Lancaster University Library)	83
27	Biglands Bog: aerial view (© R H Bewley)	88
28	Aerial view of modern peat cutting on Wedholme Flow (© R H Bewley)	88
29	Solway Moss: palaeoecological coring	89
30	Solway Moss: topography	91
31	Glasson Moss	101
32	Charcoal lens in the perimeter dyke on Solway Moss	109
33	Plasketlands: excavation under the direction of Bob Bewley	111
34	Salta Moss rapier (Tullie House, Carlisle Museum and Art Gallery)	113
35	Hadrian's Wall, east of Birdoswald	115
36	Prehistoric and Romano-British enclosures at Wolsty Hall (© R H Bewley)	117
37	Romano-British farmstead overlying an earlier settlement above Fingland Moss (© R H Bewley)	118
38	Solway Cow 1991: the finds <i>in situ</i>	124
39	Site of excavation of the Solway Cow	124
40	Solway Cow: skull and fragments	126
41	Solway Sheep <i>in situ</i>	130
42	Solway Sheep during lifting	131
43	Glasson Moss: growth of <i>Calluna</i> on <i>Sphagnum</i> -dominated mire (© M Cox)	136
44	Glasson Moss: aerial photograph of irregularities of surface vegetation (© C Cox)	136
45	Solway Plain: from Greenwood's map of Cumberland (1823) (© CRO (Carlisle))	142
46	Silecroft: reclaimed mire now supporting silage and pasture	148
47	Woodland development on the central area of Solway Moss	149
48	View of Wedholme Flow from Sleightholme	150
49	Giant's Grave: Bronze Age standing stone at Kirksanton, West Cumbria	154
50	Man digging turves, from the Lanercost Cartulary (© The Surtees Society)	158
51	Peatcutting on Whitbarrow Moss, 1912	158
52	Evidence for traditional peat cutting (Lyth Valley)	159
53	Modern commercial peat cutting, Wedholme Flow	160
54	Moss reclaimed for agriculture, Silecroft	160
55	Peat on a lake margin, at Littlewater (© T N Huckerby)	162
56	Remnant moss in the Lyth Valley	163
57	Cleaning ditches, Solway Moss	164
58	North West Wetlands Survey staff engaged in field survey	167
59	Creating and maintaining micro-habitats at Scaleby Moss	168
60	Sunset over Midgeholme Moss, Cumbria	172

Abbreviations

AMS	Accelerator Mass Spectrometry
BAP	Biodiversity Action Plan
CLAU	Cumbria and Lancashire Archaeological Unit (now LUAU)
EH	English Heritage
GIS	Geographic Information System
LUAU	Lancaster University Archaeological Unit
MAFF	Ministry of Agriculture, Fisheries, and Food
MBARS	The Morecambe Bay Archaeological Research Society
NNR	National Nature Reserve
NWWS	North West Wetlands Survey
OD	Ordnance Datum
OS	Ordnance Survey
PPG16	Planning Policy Guidance 16: Archaeology and Planning
PRO	Public Record Office, London
RCHME	Royal Commission for Historic Monuments (England) (now part of English Heritage)
SAC	Special Areas of Conservation
SM	Scheduled Monument Number
SMR	Cumbria Sites and Monuments Record
SPA	Special Protection Areas
SSSI	Site of Special Scientific Interest
SURRC	Scottish Universities' Research and Reactor Centre at East Kilbride

Contributors

Peter Cundill

School of Geography and Geosciences, Purdie Building, North Haugh, St Andrews, Fife, KY16 9ST

David Hodgkinson

Wardell Armstrong, 2 Hassell Street, Newcastle under Lyme, Staffordshire, ST5 1AG

Elizabeth Huckerby

NWWS, Lancaster University Archaeological Unit, Storey Institute, Meeting House Lane, Lancaster, LA1 1TF

Paul Hughes

Quaternary Environmental Change Research Group, Dept of Geography, University of Southampton, SO17 1BJ

Robert Middleton

Farming and Rural Conservation Agency, 5 Hanover Court, Manaton Close, Matford Business Park, Exeter, EX2 8QJ

Ian Miller

Lancaster University Archaeological Unit, Storey Institute, Meeting House Lane, Lancaster, LA1 1TF

Rachel Newman

NWWS, Lancaster University Archaeological Unit, Storey Institute, Meeting House Lane, Lancaster, LA1 1TF

Michael Ryder

4 Osprey Close, Southampton, SO16 8EX

Sue Stallibrass

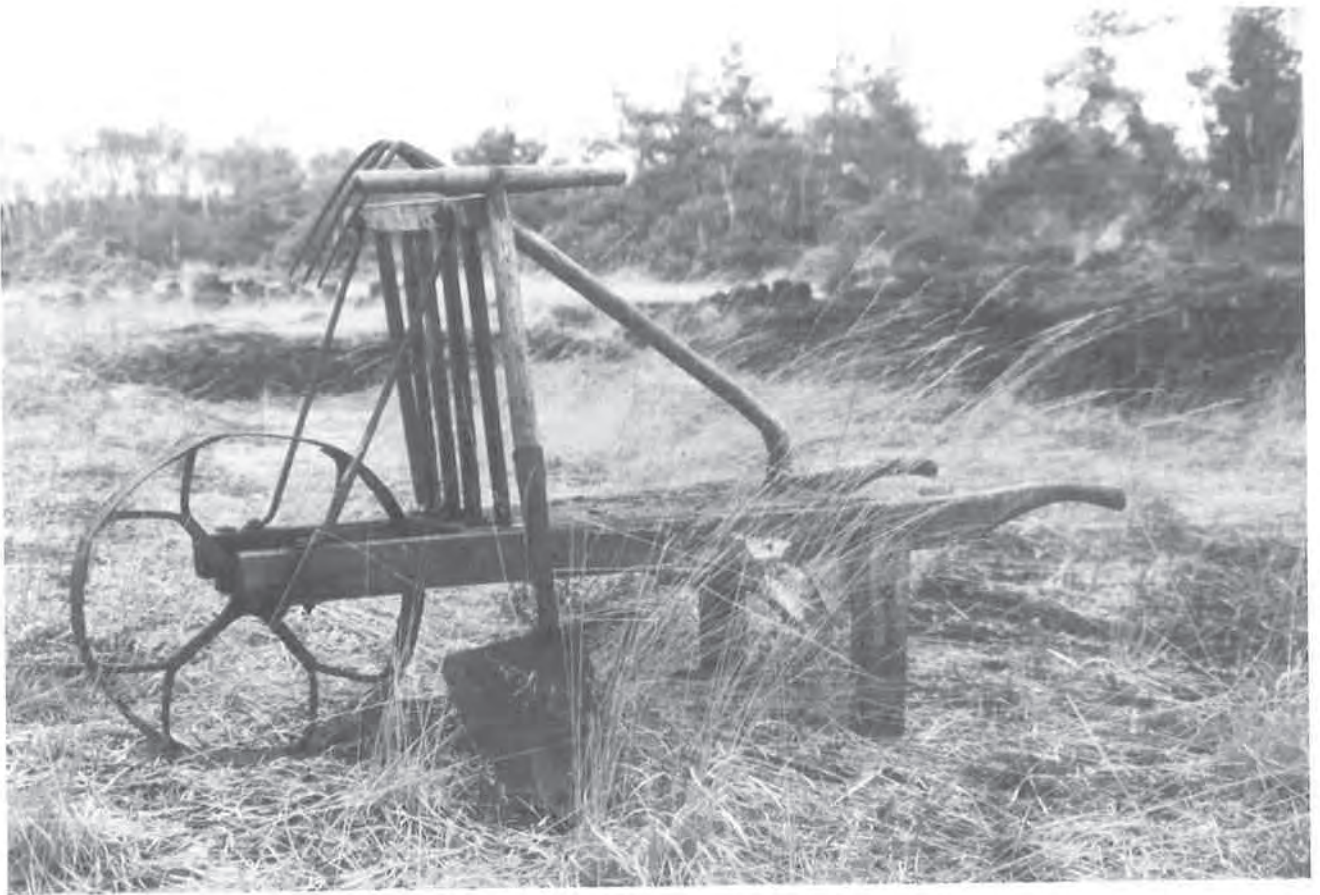
School of Archaeology, Classics and Oriental Studies, William Hartley Building, University of Liverpool, Brownlow Street, Liverpool, L69 3BX

Colin Wells

Scottish Natural Heritage, 2 Anderson Place, Edinburgh, EH6 5NP

Tony Wilmott

Centre for Archaeology, English Heritage, Fort Cumberland, Fort Cumberland Road, Eastney, Portsmouth, PO4 9LD



Frontispiece: peatcutting tools from the Lyth Valley

Acknowledgements

The archaeological and palaeoecological survey has involved a large number of people, taking place as it did over the entire life of the NWWS project. In particular, we would like to thank the following for assisting with fieldwork: Ken Browell, Imogen Grundon, Phil Mills, Tove Oliver, Ruth Parkin, Mike Peace, Richard Short, Dr Karen Stanley, and Dr Jon Westaway. We would also like to thank Ruth Parkin, Andrea Scott and Mark Tidmarsh for the illustrations in this volume. The maps have been output via AutoCAD 14; the raw data from which they were taken have been manipulated in ArcInfo; this work was initiated by Sid-Ali Cherchali, with processing being undertaken by Andrea Scott and Richard Short.

The authors would like to express their gratitude to those landowners, tenants, and managers who have allowed access to land during the course of the survey, in particular: Mrs Metcalf of Crook Hall Farm; Chris Palmer of Skelsmergh; the staff of L & P Peat Limited at Solway Moss; Mr Alex Laidlaw (Boothby and Penicuik Peat Company Limited, Bolton Fell Moss); Mr Jonathan Cox (Fisons Horticulture Ltd) and Mr Donald Manley (Levingtons) at Wedholme Flow; and English Nature for access to SSSIs.

During the excavations at Bardsea in 1992, Ruth Parkin ably assisted with the fieldwork. Members of Morecambe Bay Archaeological Research Society — Ian McNicol, Stella Clarkson, Cath Baxter, Tammy Murray, and Stan Wieclawska, led by Doug Stables — gave generously of their time. South Lakeland District Council and English Nature both permitted the work to be undertaken.

Ian Richardson, Ian Maxwell, and the staff of the L & P Peat Limited, Solway Moss, alerted us to the animal remains in 1991 and provided substantial help during both the routine survey work and the excavations. The radiocarbon dating was facilitated by David Jordan and Alex Bayliss of English Heritage, zoological analysis was by Sue Stallibrass (then of the University of Durham), and the remains were conserved by Vanessa Fell, University of Manchester. The principal site excavators were Ruth Parkin and Deirdre Winstanley. Anne Ross is to be thanked for providing much valuable information on the context of such a find.

We are extremely grateful to the contributors to the volume, several of whom provided unpublished information. We would particularly like to thank the following: the staff of all the branches of the Cumbria Record Office (Barrow, Carlisle, Kendal and Whitehaven), particularly Richard Hall at Kendal, and Susan Dench at Carlisle; English Nature, especially Frank Mawby (SSSIs); the Countryside Agency (Access and Countryside Character); the Environment Agency (Water Level Management Plans); Doug Stables (Morecambe Bay Archaeological Research Society); Caroline Earwood (Ehenside Tarn); Paul Hughes (Solway Mosses); Jacqui Huntley (Hadrian's Wall); Roger Leech (Meathop Moss); and Margaret Cox (Glasson Moss). In addition, Geoffrey Halliday kindly allowed us to manipulate his map of the solid geology of Cumbria and also freely allowed information from *The Flora of Cumbria* (1997) to be used. John Todd of St Bees was unendingly helpful during fieldwork in the area and has offered support during the compilation of the volume, as did Angus Winchester of Lancaster University. We also thank Gordon Cook of SURRC for facilitating the bulk of our radiocarbon dating. Bette Hopkins of Cumbria County Council (CCC) deserves special thanks for her unending patience and advice during the compilation of the SMR data. Jon Robinson (CCC) and John Clayson of the Lake District National Park Authority are also thanked for their help in transferring the data digitally. Guy Wimble's unpublished PhD thesis was consulted extensively during compilation of this volume, although he was not prepared to see the results published in full at this stage. In addition, Caroline Skinner and Jim Innes are to be thanked for providing much information on recent research on a wider area than could be covered by the survey and Richard Newman gave freely of his knowledge of the South Cumbrian iron industry.

The following people have greatly assisted the authors by supplying photographs and information: Bob Bewley of English Heritage (aerial photographs from Solway Plain), Margaret Cox of Southampton University (Glasson Moss), Chris Cox (Glasson Moss), Tim Padley of Tullie House, Carlisle Museum and Art Gallery (Salta Moss rapier), Richard Hall of Cumbria Record Office (Kendal) (maps of the Lyth Valley and many queries in connection with the documentary research) and Susan Dench of Cumbria Record Office (Carlisle) (Black Moss Enclosure map and early maps of the Solway Plain). In particular, Anne-Marie Colmann, Bill Miller and Cordelia Ehrhardt are thanked for the speed and erudition with which they produced the foreign language summaries.

Fisons Horticulture Ltd (now Levingtons) kindly provided the project with the long-term use of a Land Rover.

The North West Wetlands Survey was wholly funded by English Heritage and has been overseen by an Advisory Panel, chaired by Prof Bryony Coles, and the Committee for the North West Wetlands. For English Heritage, the project was overseen by Gerry Friell and monitored by Tony Wilmott. The Ancient Monuments Laboratory was represented at various times by Alex Bayliss, Wendy Carruthers, Dominique des Moulins, David Jordan, and David Weir. Rachel Newman acted as Project Manager for Lancaster University Archaeological Unit.

Finally, we would like to thank the external readers, Dr Peter Moore and Dr Charly French, for their patience and enormous help and encouragement over the years, and also all the English Heritage staff who commented on the text, in particular, Tony Wilmott, Peter Marshall, and James Wells.

Foreword

Cumbria is to many people, and certainly to most visitors, a land of lakes and mountains, synonymous with 'The Lake District'. There is, however, a large part of the county beyond the central mountain massif: in the east, the Lune and Eden valleys form a corridor flanked by the Pennines, separating Cumbria from Yorkshire, County Durham, and Northumberland; in the south and west, narrow coastal plains divide the mountains from Morecambe Bay and the Irish Sea; and in the north, a wider plain looks towards the Solway and Scotland. It is a county with an enormous wetland resource, with numerous tarns, both in the central massif and the coastal plains, lake sediments, large raised mires in the north, and many kettle holes in the south.

The remit of the North West Wetlands Survey has been to examine the lowland wetlands within the seven counties of Shropshire, Staffordshire, Cheshire, Merseyside, Greater Manchester, Lancashire and Cumbria. In the other counties, a spatial division between upland and lowland clearly defined the areas of lowland wetland, but Cumbria is unique in the diversity of its topography, with elements of lowland contained within the central massif. The main emphasis of this volume, however, has been placed on the coastal lowlands, in part because these can be characterised as finite land units containing major areas of wetland, but also to complement the weight of research, particularly palaeoecological, although also archaeological, already undertaken on the upland areas of the central massif.

The North West Wetlands Survey has provided an overview of wetland development from the last Ice Age to the large-scale reclamations of the eighteenth and nineteenth centuries, and it has assessed the condition of the extant wetland resource, and the threats to it. Such a task could only be achieved by the integration of archaeological and palaeoecological techniques to create an holistic approach, and by the collaboration of many bodies, both national and local. It is evident from this volume that such an approach can produce important results; in particular, the recovery of the remains of early medieval cattle from a commercial peat extraction site on Solway Moss demonstrates the value of liaison and understanding between all those involved with wetlands. The way forward is therefore clear: there must be dialogue and genuine understanding between those individuals and bodies involved with the landscape in its widest sense, to take into account all interests, including those of local communities and visitors, and reconcile these in objective-led and sustainable conservation management strategies. In all this, however, the human dimension of the wetland landscape, and the part man has played in its development, must not be forgotten. It is the largely hidden archaeological and palaeoecological potential of the wetlands that is vital in providing this historical perspective and it is hoped that this volume makes a valuable contribution to the ongoing debate by assessing this potential for Cumbria.

Rachel Newman
Deputy Director
Lancaster University Archaeological Unit

Summary

This volume is the sixth of seven County-based books resulting from the North West Wetlands Survey, a long-term project design to identify the archaeological and palaeoecological resource of the lowland wetlands of the North West of England. The title is explicit in excluding the upland wetlands which are very extensive in the County, and which include the Lake District. The survey focused on lowland wetlands on the coastal plain in the south, west and north of the County, with rapid palaeoecological assessments of small basin mires on the upland fringe, to supplement the large body of extant literature.

The three largest areas of wetland are in south Cumbria, on the fringes of Morecambe Bay, the West Cumbrian coast, and the area on the south coast of the Solway on the North Cumbrian Plain. Many wetlands survive well, though most are in decline due to a range of factors such as commercial peat-cutting and forestry. The predominantly pastoral land-use has meant that archaeological remains are difficult to detect from either surface or aerial survey, and this may mean that ancient sites and landscapes remain well preserved. Most of the evidence for the use of the wetlands throughout the study area derives from the excellent palaeoecological archive, which records climate change, clearance episodes and marine transgressions.

The earliest human use of the mosslands in all areas was probably during the late Palaeolithic period, when there is artefactual evidence from deposits in caves. Mesolithic activity is both sealed by barrows in the south and has been identified on the raised beaches of former coasts in the west, where it was possible to take advantage of the biodiversity of these environments. A concentration of sites exist in the Esk estuary, and the archaeological potential for the Mesolithic is also shown by sites revealed by survey on the northern side of Solway.

In West Cumbria, the type site for the early Neolithic is the famous habitation site of Ehenside Tarn, but occupation of this date appears more widespread than during the Mesolithic. Later Neolithic use may be reflected by the deliberate deposition of polished stone axes in mossland sites, and there are visible ritual monuments in the west. Some Beaker-period burials have been identified in the south, but the distribution of Bronze Age material broadly results from chance finds. Palaeoecological evidence suggests more intensive land-use, coupled to an increased material assemblage as the late Bronze Age is reached, with settlement expanding onto marginal land, where numerous sites survive. Unlike earlier periods there is no real evidence for the preferential use of wetlands at this time, though ritual deposition of metalwork seems to have occurred.

The late Bronze Age clearances were clearly not maintained though the early Iron Age, as vegetation regenerated, but a sustained and extensive clearance for cereal production and grazing took place in the late Iron Age. Clearance in the Hadrian's Wall area had clearly taken place before the Wall was built, and was not predominantly a product of its construction. Despite the palaeoecological evidence for this phenomenon, there is little associated archaeological material attesting Iron Age and Romano-British settlement. Settlement sites, detected on the North Cumbrian Plain through aerial photography, may in many cases be of this period, though one example at Plasketlands on excavation proved to be Neolithic in date; such sites may represent a long period of landscape development. It seems that settlement had moved away from wetlands in the late prehistoric period though their continued use for ritual is shown by the bog bodies from Seascale and Scaleby Mosses.

For the early medieval period there is evidence of ritual activity in the shape of the Solway cattle, and there is also some evidence for hemp retting on Glasson Moss. Later in the middle ages, large-scale management of mossland exploitation was undertaken by the great monastic houses, such as Furness in the south and Holm Cultram in the north. The survey undertook substantial documentary work to trace the medieval and post-medieval uses of the mosslands. The principal means of exploitation was demonstrated to be the cutting of peat for both domestic and industrial fuel supply in the absence of timber, though this was carefully regulated. Enclosure and reclamation has only taken place on any scale since the eighteenth century.

It is clear that the mosslands retain a huge archaeological potential, particularly in the palaeoecological archive contained. There are many threats to the survival of the archaeological archive of the wetlands, including commercial peat extraction, drainage, forestry and, ironically, wetland restoration schemes. These can, however, be minimised by sensitive management.

Résumé

Ce volume est le sixième de sept livres régionaux qui résultent de l'étude menée dans les Wetlands (tourbières) du nord-ouest, un projet à long terme qui devait identifier les ressources archéologiques et paléo-écologiques des tourbières de la plaine du nord-ouest de l'Angleterre. Le titre exclut explicitement les tourbières de la région montagneuse qui sont nombreux dans la région et dont le Lake District fait partie. L'étude s'est concentrée sur les tourbières de la plaine côtière dans le sud, l'ouest et le nord de la région, avec de rapides estimations paléo-écologiques de petits bassins de boue en bordure de la région montagneuse, pour ajouter un supplément à la volumineuse littérature qui existe déjà.

Les trois plus grandes tourbières sont en Cumbria du sud, à la limite de la Baie de Morecambe, la côte ouest de Cumbria et la région sur la rive sud du Solway dans la plaine du nord de Cumbria. Quelques tourbières survivent bien, bien que la plupart d'entre eux sont en déclin à cause de différents facteurs tels que la coupe commerciale de tourbe et la sylviculture. Parce que les terres sont principalement utilisées en tant que pâturages, les vestiges archéologiques sont difficiles à détecter à partir d'études au sol ou d'études aériennes et ceci pourrait supposer que les sites et les paysages anciens ont été bien préservés. La plupart de l'évidence de l'utilisation des tourbières dans la région étudiée dérive de l'excellente archive paléo-écologique où les changements de climat, les périodes plus clémentes et les transgressions marines sont bien enregistrés.

La première utilisation par l'homme des tourbières dans toutes les régions remonte probablement à la fin de la période Paléolithique, pour laquelle des objets façonnés ont été trouvés dans les caves. L'activité Mésolithique est à la fois enfouie sous les tumulus dans le sud et a été identifiée sur les anciennes plages des côtes d'autrefois dans l'ouest, où il était possible de profiter de la diversité biologique de ces environnements. Il existe une concentration de sites dans l'estuaire d'Esk et le potentiel archéologique pour la période Mésolithique est aussi démontré par des sites révélés par des études faites sur la rive nord du Solway.

En Cumbria de l'ouest, le site type pour le début de la période Néolithique est le fameux site d'habitation d'Ehenside Tarn, mais l'occupation durant cette période semble être plus importante que pendant la période Mésolithique. La présence d'axes en pierre polie, déposés délibérément dans les tourbières indique l'utilisation ultérieure de ces habitations en période Néolithique, ainsi que l'existence de monuments pour la pratique de rituels qui sont reconnaissables dans l'ouest. Certaines tombes qui datent de la période Beaker ont été identifiées dans le sud, mais la distribution de matériel qui date de l'Âge de Bronze résulte dans la plupart des cas de trouvaille chanceuse. L'évidence paléo-écologique suggère une utilisation plus intensive de la terre, liée avec un assemblage de matériel en progression vers la fin de l'Âge de Bronze, avec une colonisation qui s'étend jusqu'aux terres marginales où de nombreux sites ont survécu. A l'opposition des périodes antérieures, il n'y a aucune évidence réelle pour l'utilisation préférentielle des tourbières pendant cette période, bien que des dépôts d'objets en métal semblent avoir eu lieu pendant les rituels.

Les zones défrichées à la fin de l'Âge de Bronze n'étaient de toute évidence pas maintenues pendant le début de l'Âge de Fer, où la végétation s'est régénérée, mais un défrichement extensif et soutenu pour la production de céréales et les pâturages a eu lieu à la fin de l'Âge de Fer. Le défrichement du site du mur de Hadrian a de toute évidence eu lieu avant que le mur ait été construit, et n'était pas prioritairement dû à sa construction. Malgré l'évidence paléo-écologique pour ce phénomène, il y a peu de matériel archéologique associé qui pourrait attester la colonisation pendant l'Âge de Fer et la colonisation romano-britannique. Des sites colonisés, détectés dans la plaine dans le nord de Cumbria à l'aide de nombreuses photographies aériennes, pourraient dans beaucoup de cas être de cette période, bien qu'un exemple à Plasketlands a prouvé être de période Néolithique après des fouilles; de tels sites pourraient représenter une longue période de développement des paysages. Il semblerait que la colonisation se soit éloignée des tourbières à la fin de la période préhistorique bien que leur utilisation ininterrompue pour les rituels est démontrée par les corps humains trouvés dans les tourbières de Seascale et Scaleby.

Pour le début de la période médiévale, il y a évidence d'activités rituelles sous forme d'os de bétail de Solway, et il y a également évidence de la fabrication de chanvre dans la tourbière de Glasson. Plus tard, au Moyen-Âge, les tourbières ont été exploitées à grande échelle par les grandes maisons monacales, comme les Furness dans le sud et les Holm Cultram dans le nord. L'étude a été approfondie par de sérieuses recherches documentaires dans le but de tracer toute utilisation médiévale et post-médiévale des tourbières. Il a été démontré que

l'exploitation principale des tourbières était la coupe de tourbe pour l'approvisionnement domestique et industriel d'énergie en l'absence de bois, bien que ceci fut attentivement contrôlé. Le clôturage et le défrichement n'ont eu lieu qu'à partir du dix-huitième siècle.

Il est clair que les tourbières conservent un potentiel archéologique énorme, particulièrement au niveau paléo-écologique. La survie de l'archive archéologique dans les tourbières est menacée par de nombreux facteurs, comme l'extraction industrielle de tourbe, le drainage, la sylviculture et, ironiquement, les projets de restauration des ces zones. Ces menaces peuvent être néanmoins minimisées par une gestion sensibilisée.

Traduction: Anne-Marie Colmann et Bill Miller

Zusammenfassung

Dieser Band ist das siebente von sechs auf Grafschaft basierenden Büchern der North West Wetlands Survey, einem Langzeitprojekt zur Identifikation der archäologischen und paläo-ökologischen Ressourcen des Moorgebietes im Tiefland von Nordwestengland. Die Überschrift schliesst explizit das Hochland des Grafschaft aus, das einen Grossteil des Gebietes umfasst und zu dem auch der Lake District gehört. Die Untersuchung konzentriert sich auf die Moorgebiete des Tieflandes der Küstenebene im Süden, Westen und Norden des Grafschaft. Eine kurze paläo-ökologische Beurteilung der kleinen Morastbecken am Rande des Hochlandes ergänzt die Fülle der vorhandenen Literatur.

Die drei grössten Moorgebiete befinden sich am Rande der Bucht von Morecambe im Süden Kumbriens, an der Westküste Kumbriens und im Gebiet der Südküste von Solway in der Nordebene Kumbriens. Die meisten Moorgebiete sind gut erhalten, gehen aber zurück durch Faktoren, wie kommerzielles Torfstechen und Forstwirtschaft. Die vorherrschende Landnutzung hat zur Folge, dass archäologische Überreste auf Oberflächen- oder Luftaufnahmen schwer zu erkennen sind. Der beste Beweis für die Nutzung des Moorlandes im Studienzeitraums stammt aus dem exzellenten paläo-ökologischen Archiv, dass Klimaveränderungen, Zeiten der Rodung und Überflutungen registriert hat.

Die erste menschliche Nutzung des Moorlandes in allen Gebieten geht wahrscheinlich zurück auf das späte Paläolithikum. Aus dieser Zeit stammen menschliche Zeugnisse in Höhlen nachgewiesen werden. Aktivitäten aus dem Mesolithikum sind in den Hügelgräbern im Süden verborgen und konnten an den heute erhobenen Stränden der früheren Küsten im Westen identifiziert werden, wo die Möglichkeit zur Nutzung der Artenvielfalt der Umgebung bestand. Eine Ansammlung von Besiedlungsstätten befindet sich in der Mündung des Esk. Das archäologische Potential des Mesolithikums beweisen auch Untersuchungen des Nordens von Solway.

Typisch für das frühe Neolithikum im Westen Kumbriens ist die berühmte Wohnstätte Ehenside Tarn. Allerdings scheint die Bewohnung in dieser Zeit ausgedehnter gewesen zu sein als im Mesolithikum. Eine Nutzung im späteren Neolithikum zeigt sich in der absichtlichen Plazierung polierter Steinäxte in den Stätten des Moorlandes und den sichtbaren Ritualmonumenten im Westen. Im Süden konnten einige Grabstätten der Beaker-Periode identifiziert werden. Aber die Verteilung der Bronzezeitfunde beruht hauptsächlich auf dem Zufall.

Die paläo-ökologischen Zeugnisse lassen auf eine intensivere Landnutzung schliessen, verbunden mit einer erhöhten Ansammlung von Funden mit Erreichen der späten Bronzezeit. Die Besiedlung dehnt sich bis auf die Randgebiete aus, in denen sich zahlreiche Stätten erhalten haben. Es gibt keinen richtigen Beweis für die bevorzugte Nutzung des Moorlandes zu dieser Zeit, wie es in den früheren Perioden der Fall war, aber offensichtlich fanden rituelle Hinterlegungen von bearbeitetem Metall statt.

Die Rodungen der Bronzezeit wurden offensichtlich während der frühen Eisenzeit nicht aufrechterhalten, aber nachhaltige und weite Rodungen für den Anbau von Getreide und als Weideland fanden in der späten Eisenzeit statt. Die Rodung im Gebiet des Hadrian Walls fanden erkennbar vor dem Bau des Walls statt und waren keine Folge des Baus. Trotz des paläo-ökologischen Beweises für dieses Phänomen existieren wenig zusätzliche archäologische Funde, die die Besiedlung in der Eisenzeit und der Römisch-Britischen Zeit bezeugen.

Siedlungsstätten, die auf den Luftaufnahmen der Nordkumbrischen Ebene entdeckt wurden, stammen in den meisten Fällen vermutlich aus dieser Zeit. Das Beispiel Plasketlands stellte sich jedoch während der Ausgrabung als neolithisch heraus. Solche Stätten können einen langen Zeitraum landschaftlicher Entwicklung verkörpern. Es scheint, dass sich die Besiedlung in der späten prähistorischen Periode vom Moor weg bewegt hat, aber die Moorleichen der Moore von Seascale und Scaleby beweisen die weiterführende Nutzung für rituelle Zwecke. Für rituelle Aktivitäten im frühen Mittelalter gibt es Beweise durch Funde von Knochen des Solway Rindes. Ausserdem konnte verrotteter Hanf im Moor von Glasson nachgewiesen werden. Im späteren Mittelalter wurde das Moor im grossen Stil von den grossen Herrschaftshäusern, wie Furness im Süden und Holm Cultram im Norden ausgebeutet. Dieser Untersuchung liegen intensive Nachforschungen in den Dokumentationen zugrunde, um die mittelalterliche und nach-mittelalterliche Nutzung des Moores zurückzuverfolgen. Die grundsätzliche Nutzung war das Torfstechen für die häusliche und industrielle Brennstoffgewinnung, da kein Nutzholz zur Verfügung stand. Allerdings wurde das Torfstechen sorgfältig reguliert. Einzäunungen des Gebietes und Rekultivierung in grossem Massstab gab es erst seit dem 18. Jahrhundert.

Es steht fest, dass das Moorland grosses archäologisches Potential hat und das besonders durch sein paläo-ökologisches Archiv. Es gibt viele Bedrohungen für die Erhaltung dieses paläo-ökologischen Archivs. Zu diesen gehören kommerzielles Torfstechen, Drainage, Forstwirtschaft und, ironischerweise, Rekultivierungspläne für das Mooregebiet. Diese können jedoch durch sensibles Management minimiert werden.

Übersetzung: Cordelia Ehrhardt



Fig 1: The location of Cumbria in the North West Wetlands Survey area