

Chapter 1

An Archaeological Research Framework for the North West Region: Research Agenda Introduction

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*'Though not a little has been done in the way of exploring the many curious relics of antiquity
that have been from time to time discovered, and are still existing in the district;
much yet remains to do.'*

Reverend James Simpson, 1866.

Introduction

This document represents the second phase of a three-stage process for the production of an archaeological Research Framework for the North West region. The purpose of the Resource Agenda is to identify the gaps within current knowledge, assess the potential for addressing these and define consequent research initiatives. It outlines the character of the archaeological resource of Cheshire, Cumbria, Lancashire and the metropolitan boroughs of Greater Manchester and Merseyside, analysing its strengths and weaknesses in relation to current research priorities. It also highlights organisational, curatorial and methodological issues that bear on the quality and management of archaeological research in the region. This Resource Agenda follows on from the *Resource Assessment* (Brennand 2006), and includes a *Strategy* setting out priorities and proposals for delivery of future research, work programmes and changes in working practice to promote research objectives.

Authorship

Like the archaeological Resource Assessment, the Research Agenda has been written by archaeologists from the North West region, collaborating in five period-specific groups with the coordination and editorship of five period-specialist coordinators.

Membership of the period groups was initially based upon the attendees of the *Framing the Past* conference held in Lancaster in December 2001. A wider consultation was undertaken during Autumn of 2003, with a general invitation to members of the archaeological community in the North West to participate in the Research Framework process. This document is collated and edited from texts written by multiple authors. All those named at the beginning of each period chapter have made major contributions to that overview. Copies of the original papers are held in the project archive.

Structure of the Agenda

It became clear in the early stages of the Resource Assessment, as items for the Agenda began to be formulated, that research issues were emerging at different scales and in relation to different contexts, such as regionality, methodologies, organisational and administrative factors. Some Agenda items over-arch all periods and others are period specific. Accordingly these are organised in six sections:

- i. Regionality
- ii. Regional infrastructure for research in archaeology
- iii. Publication and dissemination
- iv. Participation and public archaeology
- v. Regional research themes
- vi. Period-based research themes

REGIONALITY

Regional context

The Government Office region for the North West includes the modern counties of Cheshire, Cumbria, Greater Manchester, Lancashire and Merseyside, along with the Unitary Authorities for Blackpool, Blackburn with Darwen, Halton and Warrington. This comprises the administrative area for the principal regional agencies and NW Regional Assembly and, unless otherwise specifically stated, these boundaries represent those referenced throughout the document. The bracketed letters (Ch, C, GM, L, M) following some of the place names within the chapters relate to the county location for those sites. The sites within the unitary authorities are included under the wider county areas within which they fall.

The North West region of England, unlike any other region, has land borders with two other countries, Scotland and Wales, and with four other English regions, the North East, Yorkshire, the East Midlands and the West Midlands. It also forms part of the so-called Irish Sea province with Scotland, Ireland, the Isle of Man and North Wales. For most of the historic periods, the region has formed a borderland, initially of the Roman empire, and later between England and Scotland and Wales. Northern Cumbria was not clearly and irreversibly incorporated into England rather than Scotland until the later 12th century. Within the later 1st millennium AD, the cultural and political affiliations of the region appear to have been very complex, and substantially different from the rest of what later became England.

Apart from the physical limits of the natural coastline, these modern national and regional boundaries are artificial, political constructs, and many post-date the archaeological material under study. They have, however, had a serious bearing on the nature of past and current archaeological study. Many studies either cover specific areas within North West England or Scotland or Wales, and research that crosses these borders is the exception. There is to some degree a lack of communication across these administrative boundaries. Conferences are often region, area or period specific, and specialist study groups are often arranged by period, county or region. On the rare occasion that integrated work is undertaken, collaboration between archaeologists from these areas is project and period-interest specific.

The region itself is large, and topographically and geologically diverse. This diversity is reflected not only in the archaeology and history of the region, but also in the ways in which these have been studied in the past. One type of study or technique may not be suitable for every part of the region, and the archaeological evidence is variable, depending on many factors. This in turn presents challenges but also oppor-

tunities for future research.

Initiatives

- 1.1 Greater collaboration is needed in archaeological research between archaeologists from adjacent areas and countries, both in terms of joint projects of work and in terms of the exchange of ideas through discussions, conferences and publications.
- 1.2 There is also a case for viewing the North West as part of an Irish Sea region, relating to research of all periods. Understanding of the archaeology of this wider region requires comparative and collaborative projects reaching into North Wales, Scotland, the Isle of Man and Ireland.

The character of the region's archaeology: challenging the evidence of absence

The Resource Assessment has demonstrated the rich archaeological potential within the region, and highlighted exemplary past work by some practitioners. It has also identified major deficiencies in our current knowledge of particular periods and site-types due to the traditional reliance for site identification and dating on ceramic and artefact series that, typically, are largely absent in the North West for some periods. This absence has perpetuated a view that for periods up until the later medieval the region was both materially and culturally poor and sparsely settled. By contrast, environmental evidence, where it is available, suggests significant changes in patterns of vegetation and land-use which apparently reflect the impact of significant social and economic change.

The problems encountered from the lack of chronologically diagnostic artefacts and ephemeral phases of occupation on some sites can be addressed with programmes of micro-stratigraphic analysis and absolute dating. This is relevant for all sites from later prehistory through the Roman period and into the sub-medieval. Presumptions relating to longevity of occupation and residuality of finds need to be tested. Even on sites with assemblages of closely datable Roman ceramics, we now know that there is potential for both earlier and later phases that may be aceramic.

The acidic soil conditions that are predominant throughout the region mean that bone has a low survival rate in many archaeological deposits. Models relating to agricultural economy and subsistence have largely been derived from palaeoenvironmental analyses, and features relating to land division and enclosure. While there are assemblages of animal bone from urban contexts, their occurrence on rural sites is still extremely rare. Assemblages of animal

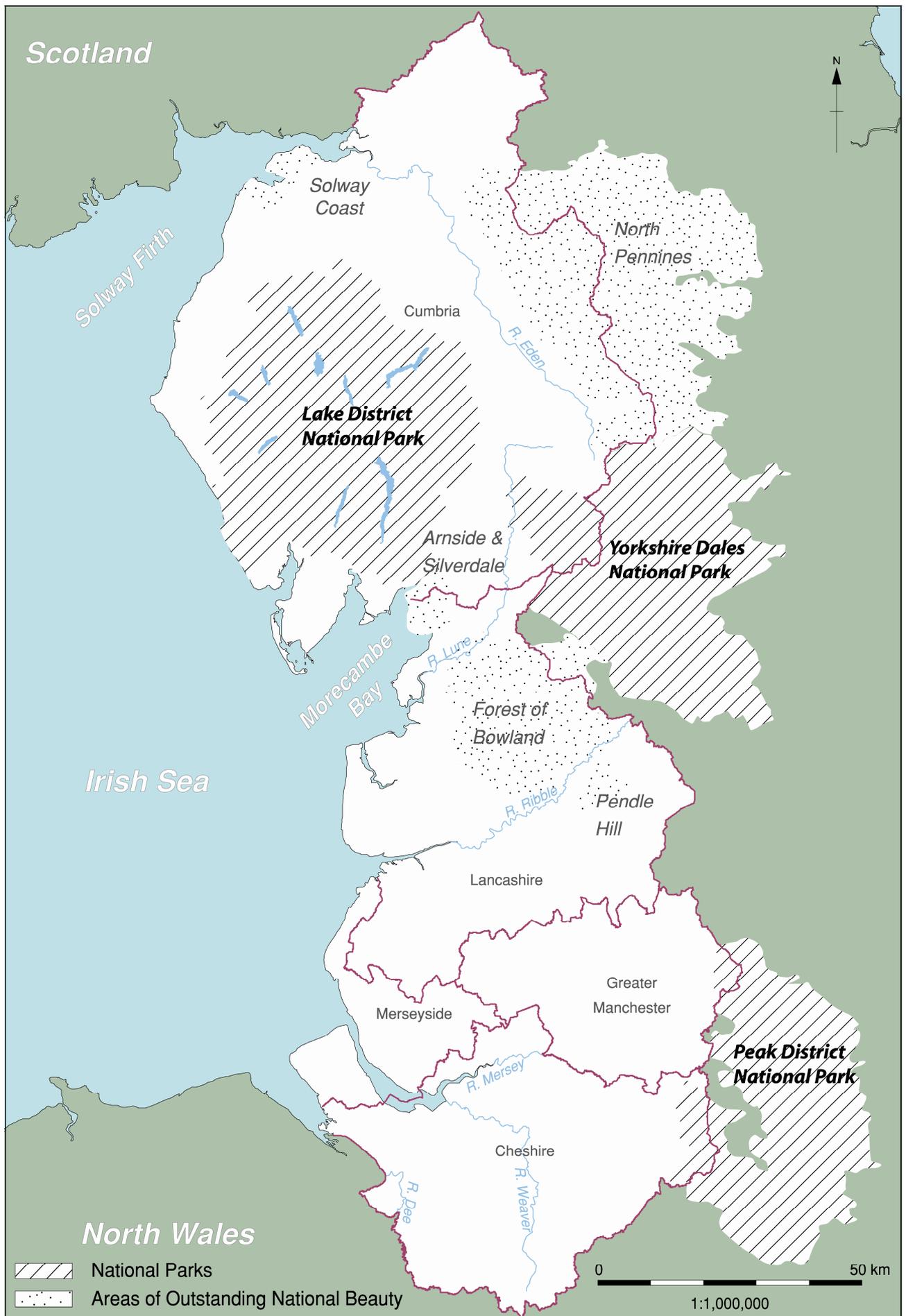


Fig 1.1 The topography of the North West region.



Fig 1.2 The Farndon Holt Bridge, spanning the English-Welsh border (Cheshire County Council).

bone and deposits containing human remains, when recovered, must be viewed as a priority for analysis. Scientific techniques, such as lipid analysis for ceramics, provide additional approaches to understanding diet and animal husbandry.

Initiatives

- 1.3 Apart from Roman urban, military and industrial sites, large or rich assemblages are rare in most rural contexts before 1700. All sites from which artefacts are recovered should be fully exploited for their research potential, whether rural or urban, to begin to redress the imbalances in data.
- 1.4 Archaeological science in general will play a key role and should have a much higher priority as a routine element in investigative procedures.

Both in terms of past antiquarian and archaeological activity and current development-led projects, there are biases within the distribution of known archaeological sites and fieldwork within the North West. The relative strengths and weaknesses of past research and current understanding in each county varies, particularly according to topography and period, and this in turn is related to the survival, diagnostic characteristics and predominance of particular types of archaeological monument, deposit or artefact type. Understanding of rural areas in particular has not benefited from development-led archaeology since in

the past, small-scale rural developments have not been evaluated as rigorously as larger urban or infrastructure projects. The lack of diagnostic sites or finds from an area has, therefore, often been accepted as a genuine absence of archaeological evidence.

Initiative

- 1.5 Briefs for development-led projects and project research designs should require positive discrimination in favour of programmes of dating, stratigraphic and scientific analysis which will challenge and illuminate the apparent absence of the expected cultural indicators from evaluation and excavation projects. In particular programmes of radiocarbon dating should be a routine element in project design for field investigations on sites of all periods up to the post-medieval, as well as dendrochronology and archaeomagnetic dating where appropriate.

The ethnic and geographic origins of the past populations of the region can be assumed to have been extremely varied, with numerous recorded episodes of migration and movement of ethnic groups. The archaeological evidence is, however, currently limited. Although some DNA analysis has been undertaken on modern populations from within the region, the sample sites and numbers have been limited. Human bone rarely survives in archaeological contexts in the predominantly acidic soils of the re-

gion, although better preservation is found in limestone areas. Given that cremation predominates as a funerary practice for some periods, recovery of human bone in the region has been limited.

Initiative

1.6 The recovery of human material must be treated as a priority for all periods for the study of burial and funerary rites, demographic and anatomical studies. Scientific dating of human remains is essential, and DNA and isotope analyses should be utilised where appropriate.

Sub-regional character

For almost all periods, there are notable differences between the character of the historic environment and its archaeological attributes in the northern (predominantly upland) and southern parts of the region. The uplands have to some degree a greater survival and visibility of archaeological sites, although little chronological detail. The southern area can boast a richer material culture and the excavation of some significant sites within the recent past, although site visibility remains a problem. The historical county of Lancashire (from the Mersey to the Furness peninsula), lying geographically in the centre of the region, is a key area for investigation of the transitional zone between these distinctly different territories and landscapes. Current knowledge and understanding of the earlier periods of the region's heartland is, however, limited. Its archaeology is also masked by the intense urban development of central and south Lancashire's ports and cities and their hinterlands in the industrial and modern periods. This is borne out by the distribution of known sites from the region's SMRs and HERs and is characterised, for example, in large-scale national analyses for the *Atlas of Rural Settlement* (Roberts & Wrathmell 2000). A lesser, contributory factor is that outlets for the publication of archaeological work are perhaps not so strong within the county (see below) so that important material has remained unreported. The historic landscape characterisation (HLC) is now complete for Lancashire, and the extensive urban survey (EUS) almost complete. These provide a boost to assessing the state of the current resource, and provide curatorial tools for highlighting areas of known archaeological potential. But there are still significant gaps that make it difficult to distinguish between absence of evidence and evidence of absence.

Initiative

1.7 New approaches adopting a predictive approach should be considered through funded research programmes.

HLC coverage is near to completion for the region and a complementary urban characterisation pilot is currently being developed in Merseyside. Only the Greater Manchester metropolitan area remains to be completed. Given the relative consistency in approach between county HLCs in the North West, there is an opportunity here for developing a pilot exercise to bring them together in a regional HLC.

Initiative

1.8 A regional HLC would provide a valuable resource for contextualising regional research and for landscape analysis at the sub-regional scale to address issues such as the contrasting character of sites and settlement patterns in the north and south.

REGIONAL INFRASTRUCTURE FOR RESEARCH IN ARCHAEOLOGY

The Current Framework for Archaeological Research

Although there are significant research projects undertaken by university departments and non-professional groups, the great majority of archaeological fieldwork undertaken in the region today is linked to the planning process, and is dictated in

Fig 1.3 Iron Age burial at Levens, Cumbria (OA North).



scale and location by development, and ultimately the briefs set by archaeological curators. As noted in the Assessment, the need to revive a research culture through development-led field archaeology has been one of the drivers for the Research Frameworks programme. Research need not be divorced from work that derives from planning and development, although there has at times been a belief that this is the case (Grenville 1992; Biddle 1994; Carver 1994; Morris 1994; Carver 1996). It is important that a research-oriented approach is firmly embedded in curatorial practice and explicitly promoted through it.

Curatorial Practice

Public archaeological services in the region, based in local authorities, museums and universities, work to national guidelines with planning policy guidance for archaeology and the historic environment (currently under review for production as PPS15) and a wide variety of standards for different aspects of archaeological work. There are significant variations between different archaeological services in the way that archaeology is managed through the land-use planning system and the extent to which standards for field research are implemented and monitored. The Association of Local Government Archaeological Officers (ALGAO) East of England regional group has

produced *Standards for Field Archaeology in the East of England* (Gurney 2003) for the guidance of all those undertaking archaeological fieldwork in their region, whether on development-led projects, in academic research, or in the education or voluntary sector. This aims to ensure that *inter alia* all archaeological projects are consistent in approach and procedure, and that work is framed in the context of national and regional research agendas. Within the North West, only Cheshire currently has similar county specific guidance, although a similar document for Cumbria is in preparation.

Initiative

- 1.9 The production of Standards and Guidance for field archaeology in the North West, through the regional ALGAO group, would assist in ensuring best practice and high standards in field projects and serve to improve the overall quality of archaeological research in the region.

The importance of early consultation with planning authorities and their archaeological officers is emphasised in planning guidance. Informed decision-making about the impact of proposed development is dependent on an initial appraisal of the site and its context (using the SMR/HER) and may be followed

Fig 1.4 Open day at Mellor, Greater Manchester (GMAU).



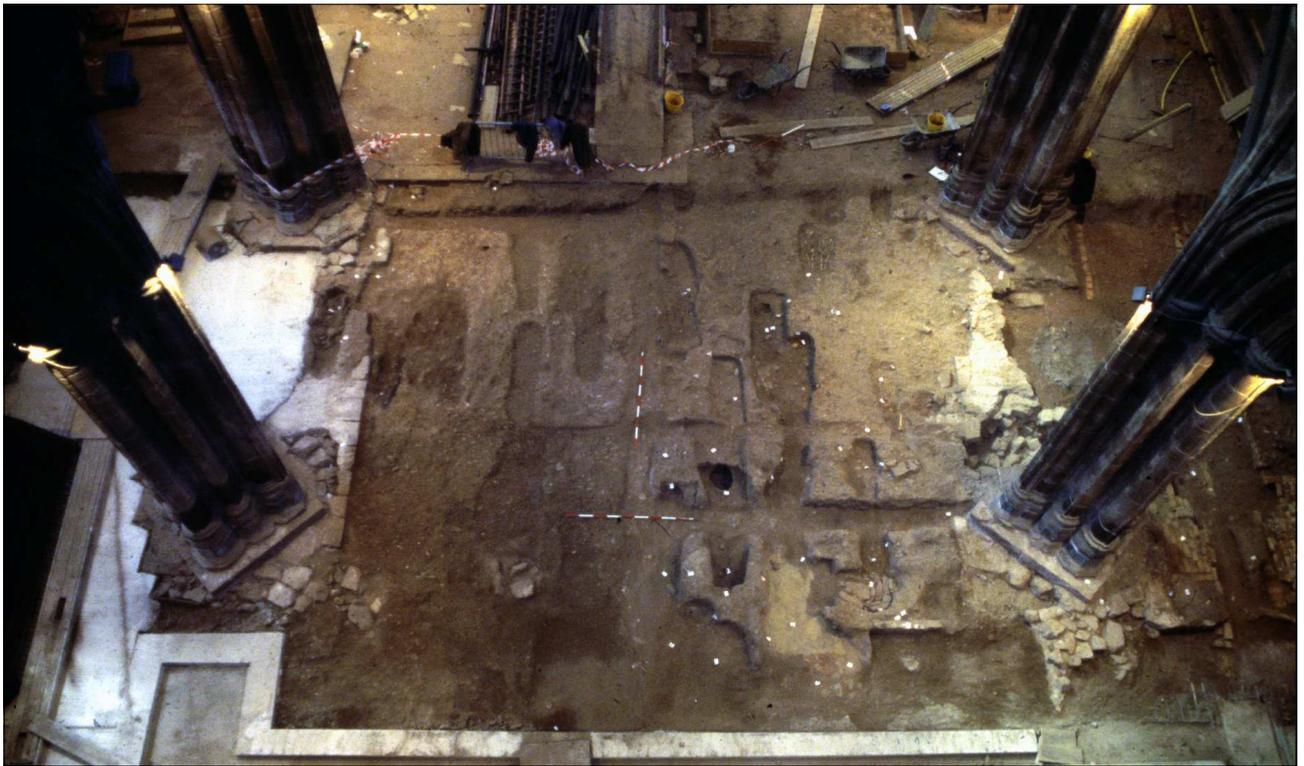


Fig 1.5 Excavations in the nave of Chester Cathedral revealing a complex sequence of foundations and grave cuts (Chester Archaeology)

by a series of staged investigations, ranging from a desk-based assessment to full excavation. The timing and type of archaeological investigation will often be included in a condition attached to planning permission, on the advice of the curatorial archaeologist. The archaeologist can also request that a predetermination investigation is undertaken, where there is considered to be insufficient information to assess the likely impact. Despite the principles set out in PPG16, until recently predetermination evaluations remained rare in current practice in the North West. Similarly, for historic building repair and conversion projects, the level of predetermination investigation and analysis undertaken in the region in accordance with the principles of PPG15 is extremely low. This results in archaeological and historic building investigations being undertaken after outline planning agreement has been granted, when it is usually too late to redesign the proposals in any major way. It has led to investigations where the archaeological work is too little and too late, and failure to identify sites once ground works are underway. A watching brief, for example, is an inappropriate response in situations where sites cannot be recognised from ceramic and other artefact-based evidence and where stratigraphic interpretation may depend on slight, ephemeral traces.

Developers who have worked in other regions are familiar with the principle of predetermination but some North West authorities have not been prepared to implement it, considering it prohibitively expen-

sive and time-consuming and a potential disincentive for inward investment. More emphasis and support for the principle of predetermination is needed.

Initiative

- 1.10 Best practice guidance is needed to reinforce the principle of predetermination evaluation for potentially sensitive sites and buildings, including setting of precedents/model projects using predetermination elsewhere in the country. Local authorities themselves should be encouraged to set the example in their own developments.

It has been suggested that there is a need for a policy change in the way the archaeological curators prepare briefs for archaeological work. Investigations of sites through the development control system need to be research-oriented. This is not only the case in relation to large excavations, but also includes evaluations and watching briefs. A Research Framework has a role to play in strengthening the hand of the curators in requesting archaeological work on sites where the SMRs/HERs and desk-based assessments can find no known archaeology. In a region where rural sites in particular may have been represented by highly ephemeral traces and few artefacts, the apparent blanks in the landscape need to be tested. The burden of proof needs to shift away from the curator justifying the need for work on the basis of proven archaeology, to the developer needing to demon-



Fig 1.6 Students excavating a roundhouse at Matteredale (John Hodgson/LDNPA).

strate that there is no significant archaeology surviving on a given site. Such a shift is evident in some parts of the region. Without this change in approach, developer-led archaeological work will perpetuate and intensify existing biases in archaeological distributions.

Church archaeology

Knowledge of churches of all periods is recognised as an under-researched area, and current understanding is dependent to large extent on research and fieldwork carried out in the 19th and early 20th centuries. Under current arrangements, many changes in and around places of worship lie outside the land-use planning system. Works of repair, alteration and improvement to Anglican churches that are not interpreted as ‘development’, are carried out under the faculty jurisdiction of the Church of England and guided by Diocesan Archaeological Advisors (DAA). There are similar advisory positions for other denominations, but there is still a risk that some work on churches is not being fully evaluated within the self-regulatory or planning system. Although the current system does require that the advisory positions are occupied, at the time of writing some of the posts are vacant.

The Association of Diocesan and Cathedral Archaeologists (ADCA) has recently published formal guidance on archaeological requirements for works

on Churches and Churchyards (ADCA 2004) but these have only been adopted for some denominations, and therefore only apply to some buildings.

Initiative

- 1.11 Active implementation of the 2004 ADCA guidelines could be used to raise awareness of archaeological potential, to improve the quality of recording and interpretation, and to ensure that changes are properly informed by research into the historic fabric of churches and their context.

There is also the possibility that some non-conformist places of worship are not recorded within SMRs/HERs, and are not protected as listed buildings, therefore placing them beyond protection from conversion or demolition. While the EUS projects have recorded the urban examples to differing extents, there is a need for a dedicated programme of recording of all such buildings.

Initiative

- 1.12 The profile of research into church archaeology needs to be raised in the region to emphasise its importance and to ensure that there is an appropriate and consistent archaeological response to proposed changes to historic places

of worship, their sites and environs across all denominations.

Research in Higher Education

The North West can boast a rich history of academic research, with pioneering work undertaken over the past three decades. The universities based within the North West that are teaching archaeology all undertake research projects based within the region, although these do not always involve extensive programmes of fieldwork or excavation. A significant number of historians and historical geographers also undertake fieldwork and have made an extremely important personal contribution to the region's archaeology. There are several universities from outside the region which run field trips and excavations within the North West. The results of many of these projects have been published and others are awaited with anticipation. These projects all involve important and significant work but, in comparison to the size of the region, the number remains small. It is currently difficult to assess exactly how many undergraduate and post-graduate research projects are being undertaken within the region. It has been noted that many students originating from the North West choose to base their research here, although studying elsewhere. During the assessment phase of the Research Framework many students contributed to the period drafts, although it was also noted that some student research has been undertaken within the region without any feedback to the archaeologists within the region, or dissemination of results and theses to the SMRs/HERs. In general the North West can provide many subjects worthy of undergraduate and post-graduate research, but few academic research studies, either individual or as part of longer-term departmental programmes, are currently being pursued here. This may be linked to the distance from the region to the major academic centres for archaeological research, but also to the perceived poverty of the archaeological resource within the North West.

The current Research Assessment Exercises (RAE) scoring system for university departments does give greater reward to projects of 'international importance', therefore favouring projects undertaken abroad (APPAG 2003, 30). This is despite the fact that some potential projects within the region – the international frontiers, Carlisle, Chester and Meols, are of international importance. The expansion of Atlantic trade from the ports of the North West and the subsequent spread of industrialisation places the region in an international setting in the industrial and modern period, as recognised in Liverpool's World Heritage status and the proposed inscription for Manchester. Long-term field projects undertaken over many years may also be penalised because it

takes many years for results to be accumulated, although the Research Assessment Exercise system does provide credit for fieldwork based monographs, irrespective of the location of fieldwork. A further incentive to work abroad may be the reduced costs of running field schools in some countries, combined with fine, hot weather and rich archaeological sites. The availability of funding or financial assistance from national bodies may also favour locations outside England, or even Britain.

Initiatives

1.13 There is a need to encourage further academic research within the region and to 'sell' the potential. There is a wealth of potential projects suitable for undergraduate, post-graduate and doctoral research, but no current method of disseminating ideas or proposals, and integrating these with regional research programmes. A list of potential suitable research programmes could be advertised or disseminated to university departments if a structure for the compilation and distribution of such material were in place.

1.14 Other areas of Britain have been very successful in attracting and retaining academic interest. The creation of a forum for local archaeologists and university based archaeologists may provide a platform to discuss and implement research initiatives. The use of partnership projects between local archaeological units and university students may also instigate a new era of research fieldwork.

Sites and Monuments Records and Historic Environment Records

The SMRs are still primarily used as support for development control and planning decisions within

Fig 1.7 Three fragments of a Romano-British copper-alloy enamelled vessel in shape of a cockerel, from Shyne-with-Hest, Lancashire (PAS).





Fig 1.8 Wooden practice sword from the Millennium excavations, Carlisle (OA North).

individual authorities and institutions in the region. As they develop into Historic Environment Records (HERs) they should provide an index to all available sources for archaeological research and for investigating the wider heritage of the region. *Benchmarks for Good Practice: Historic Environment Records* (DCMS 2003) was produced jointly by ALGAO and English Heritage and published for consultation by DCMS. This sets out a standard for the content, data structure, information systems and management of integrated records which could form the basis for statutory HERs in the future.

The importance of the HERs as the datasets that inform the planning process and wider independent research should therefore not be underestimated. As well as representing the first point of call for research by students, professionals and the interested public, the information within the HER databases is itself used as a source of information relating to judgments on the location and extent of future work, and is part of a self-perpetuating cycle of new research and interpretation.

The varied histories of individual SMRs and HERs in the North West have resulted in a variable scope and standard of information content and in the computerised database and GIS systems used to manage

the records. In the Baker report (1999), SMRs in the North West attained between 35% and 60% in the quality of their provision and services against a notional 100%.

There have been improvements in some areas but, while the maintenance of a SMR or HER is not a statutory requirement for any local authority, lack of funding is the main factor affecting the quality of information and services. As with most SMRs and HERs in the country, traditionally the maintenance of SMR/HER data has been combined with the provision of development control advice, but in most authorities these two functions are now performed by two members of staff (SMR or HER Officer and Development Control Officer). It has taken some time to achieve this level of staffing in the North West, and indeed there still remains one authority without a dedicated SMR Officer. This low staffing situation represents under-investment in SMR/HER datasets, as the statutory provision of development control advice has taken priority.

The recent resource assessment for ALGAO and English Heritage (Baker *et al* 2004) indicates the scale of investment likely to be required, to enable all SMRs and HERs to reach the first stage benchmarks. To date only two SMRs in the region have succeeded in obtaining HLF support for enhancement to develop outreach and online capability, although others are now working towards this.

Initiatives

1.15 As the HERs develop from SMRs, they will become even more important as central tools for resource discovery in archaeology, for public and professional research alike, and should be a priority for investment. New research programmes and fieldwork should be designed to feed outputs directly into local record systems.

1.1.6 The potential for developing a 'resource discovery centre' or portal for the North West's archaeology, for wide public and educational use, could be explored with appropriate museum and heritage partners.

Museums and Archives

The major current problems for museums are storage space and staffing, which have direct implications for archive deposition, conservation and access. There are currently many museums within the region which do not have archaeological curators, and no specialist input into the curatorship of archaeological archives. This problem is not unique to the North West, but is merely part of a wider problem of staffing facing many museums and museum services. Archaeological archives exist in many forms and are increasing all

the time. Registered museums do accept new archives from their local area, but often do not have specialist archaeological staff in post who are able to make those archives accessible. In addition many museums have backlogs of un-accessioned archives and no specialist archaeological curator to deal with them. There are currently a large number of archives in various states of completion languishing within archaeological units and university stores. Conservation checks are rarely made and unit stores are not always maintained to the same standards as museum stores. When conservation checks are made, the paper archive and digital archive are not necessarily included.

There is a lack of liaison between archaeologists and museums. It is vital that museums liaise closely with field archaeologists to ensure that the complete archive – finds, documents and digital data – is assembled in a manner which is compatible for the museums. Appropriate levels of documentation are vital if material is to be accessible and useful to all users. Without this the resulting archive is likely to be in a format unsuitable for the receiving museum. This can also create problems with the different numbering systems of site codes, SMR numbers and museums accession numbers. There is not just a problem of archive deposition, but also the cataloguing and curation of that archive. Archaeological archives are not currently prepared to consistent standards, and indeed there may be conflicting requirements regarding deposition from one museum to the next. There are no standardised guidelines on a national scale and the quality and details provided by museums for archive preparation is variable, as is the museum charge for archive deposition. Worryingly, there are still some parts of the region that do not fall within the collection areas of any museums. The preparation and implications for archiving of archaeological material need to be considered from the inception of a project, and liaison in advance with the relevant museum should be assumed. The museum acceptance requirements need to be understood by those working outside museums, so that archives are correctly catalogued and accessible at the point of accession. Paper or documentary archives also require accessioning into the museum with the finds and digital archive – the finds do not exist on their own. Where a site produces no artefacts, the documentary archive is the only source of information.

It seems obvious that as a resource all archives, new and old, need to be accessible for all. Archaeological publications need to include the name of the museum in which the archive was deposited. Each museum which is registered as a repository for archives need to clearly define its collection area and publish its own clear and concise guidelines for deposition. The requirements for archive deposition should be clearly laid out within the briefs set for

archaeological work, and if necessary a contracting unit should contact the receiving museum at the start of a project to obtain a museum accession number and provide an outline of the projected work. Archives need to be accompanied by a transfer of ownership form.

Initiatives

- 1.17 The problem of archive deposition could be resolved by the formation and use of regional repositories. Because of its size the North West may need more than one repository, but this would depend on the quantity of material, the nature of the collections and the expected increase.
- 1.18 The Society for Museum Archaeologists (SMA) has also discussed the need for specialist regional curators.
- 1.19 Local authority archaeological services and the SMA in the North West should continue to liaise actively on guidelines to improve good practice in archive preparation, deposition and signposting, building on the current work being undertaken by the Archaeological Archives Forum (www.britarch.ac.uk/archives).

Conservation

There is a general lack of conservation facilities within the North West region, which does not contain a university department with facilities such as those housed at Bradford or Durham. The North West Museums Service provided a wider service to the museums community until 2001, when some staff were subsequently employed by county services. Conservators are currently based within the museum services and are available for archaeological artefact conservation, although not always with the facilities for large amounts of archaeological material such as waterlogged timber. There are currently plans to create a new conservation laboratory within the Lancashire Museums Service, offering a range of services to archaeologists as well as training and educational facilities. The Museums, Libraries and Archives Council (MLA) North West are also currently undertaking an assessment of conservation facilities within the region.

Initiative

- 1.20 Archaeologists need to be aware of the conservation facilities and expertise available within the region, and liaise with both county museums services and MLA North West regarding future developments.

Publication and Dissemination: Making Our Research Accessible

Excavation backlog

It has been widely acknowledged that there is a current problem with the backlog of excavated material that remains unpublished throughout the region. This has been reiterated by the members of the Research Framework period groups, many of the contributors, and occupied a major part of the open discussions at the Research Framework seminars. The problem is not confined to one area, to one period or type of site, or to any single organisation or institution. There have been major excavations in Carlisle, Chester, Middlewich, Ribchester, Walton-le-Dale and a multitude of smaller projects in both urban and rural locations. In many cases these projects were valuable rescue excavations, but unfortunately funding was never in position to undertake post-excavation and publication. Since 1990 the introduction of PPG16 has gone a long way to securing the funding for investigating archaeological sites prior to destruction, yet it has not proved capable of ensuring the publication of sites excavated under its provisions. Some projects have seen various stages of analysis but are now shelved without funds or a schedule to bring them to publication. Some archives are housed in inaccessible locations, are in private hands, or are seemingly missing. In some cases, material remains in the hands of individual excavators and site directors who, with the very best intentions, have not progressed with post-excavation and publication. This is largely due to problems of funding but also relates to a shortage of available time to dedicate to projects that were sometimes carried out many years previously. The longer these archives remain unexamined, the less likely it is that a successful overall outcome to publication can be envisaged. In some cases, sadly, once-prolific fieldworkers have died without leaving sufficient information or instruction regarding old archives. The unknown and inaccessible nature of this material represents one of the major gaps in current knowledge. Unlike most other disciplines, archaeology produces data that cannot be replicated. Some excavators have readily shared information on unpublished excavations for the Research Framework assessment, but a greater number are inaccessible, with no single individual available to provide information. There is also a reluctance for some individuals and organisations to pass over data to perceived 'rivals'.

There is an unknown quantity of existing material and archives. Some form of assessment to gauge the quantity of unpublished material is required, to determine the true scale of the problem and the range of sites involved. It is also important to determine which projects are still undergoing analysis, however



Fig 1.9 'Wirral type' Roman brooch from Delamere, Cheshire (PAS).

slowly that may be, and which projects are stalled. A major assessment of the Carlisle archive has recently been undertaken and a publication schedule for Chester's backlog was drawn up some twenty years ago, although still valid today. Beyond this it is difficult to assess accurately the true extent of excavation archives and unpublished work.

Initiatives

- 1.21 An assessment of unpublished excavation archives from the North West is a priority, to evaluate the scale and relative importance of material, and its current location and condition, identifying key archives 'at risk'.
- 1.22 Programmes of new research should be designed to incorporate unpublished material which contributes to a common area of investigation, where feasible (English Heritage 2003, 4.1).
- 1.23 Ultimately, individuals, institutions and organisations must face up to the responsibility that was inherent in undertaking fieldwork in the first place, and either move to publish or pass over archives to those who wish to study them.

Publication

Dissemination of archaeological work within the region is currently achieved through an extremely varied range of outlets. There are county and period

specific journals, reviews and monographs, but these largely cover specific areas and topics. Cheshire, Cumbria and Merseyside have outlets for archaeological publications and fieldwork within their respective society journals and monographs. Liverpool Museums also publish archaeological reports. Reports and reviews covering the archaeology of Manchester have been produced by the Greater Manchester Archaeological Unit (GMAU) and the University of Manchester Archaeological Unit (UMAU), with generous help from the Metropolitan Boroughs and local authorities. CBA North West's *Archaeology North West* publishes shorter papers and gazetteers of archaeological work in the region. Lancashire does not currently have a similar outlet for the County. The Lancashire and Cheshire Antiquarian Society publishes annual transactions, although these have had less of an archaeological focus in recent years, and contain few archaeological excavation reports. The Historic Society of Lancashire also publishes an annual journal, although not primarily archaeological in content. The Lancaster Archaeological and Historical Society publishes an annual journal, *Contrebis*, but contributions are limited in word length. Oxford Archaeology North (formerly the Lancaster University Archaeological Unit) currently produces a series of monographs under the Lancaster

Imprints series, although largely covering the work of a single archaeological unit. There is no current outlet for regional publications, or an outlet to present material from the region to a wider audience. The CBA North West group, the University of Manchester, Chester Archaeology and Cheshire County Council jointly produced a series of papers on industrialisation in the North West (Nevell 2003a) and together with Tameside Metropolitan Borough Council a similar volume on Iron Age and Romano-British archaeology in the North West (Nevell 1999a), and with the Lion Saltworks Trust, a volume on Romano-British salt production (Nevell & Fielding 2005). These are the exception. The northern part of the region was covered within the assessment *Past Present and Future* (Brooks *et al* 2002) published by the Architectural and Archaeological Society of Durham and Northumberland. The infrastructure of the Research Framework could be maintained if the will was there, with a steering group compiled of representatives from the North West region's archaeological community, as well as individuals from further afield.

Initiative

- 1.24 A North West regional publication format may offer a solution to the apparent shortage of a

Fig 1.10 Excavator in a barrel at Second Wood Street, Nantwich, Cheshire (Sue Stallibrass).



suitable outlet for dissemination, operating along similar lines to the successful East Anglian Archaeology series, with an editorial committee formed from the nucleus of the Research Framework Steering Group.

Grey literature

Proper and wide-scale dissemination of site reports is of fundamental importance to the discipline as a whole. There is major concern over the large quantities of grey literature that are continuously being accumulated, without synthesis or wider dissemination. The subject of 'grey literature' has generated a great deal of debate by the Research Framework contributors. It was felt that the data from a large number of archaeological interventions taking place within the region was difficult to access and in some cases difficult to understand. There appears to be rather limited appreciation in the region of the potential of the OASIS project for an online index to grey literature (<http://ads.ahds.ac.uk/project/oasis/>) and the online library of grey literature available through ADS.

It is acknowledged that many minor projects are not worthy of formal publication, but many important PPG16 excavations are not being given the publication format and dissemination that they deserve. Full publication should be seen as an essential part of briefs for developments, rather than an optional extra. Concern has also been expressed over the accessibility, longevity and long-term durability of digital archives as a publication format, which has been used as a means to economise on storage space for grey literature reports. The view was expressed that a permanent paper version of publications is essential for re-interpretation of evidence in the light of new approaches and research questions.

The regional CBA groups, period-specific societies and some of the county societies all produce annual summaries or lists of fieldwork undertaken. These are, however, reliant on different individuals and organisations submitting the information. For some types of work it may mean compiling three different submissions to three different organisations, even if the scale of the work is minor. They are not compiled on a regional basis. This makes it particularly difficult for the wider archaeological community to find out what information is actually being accumulated and what research is being undertaken.

It is also currently difficult to trace work undertaken in universities – dissertations, theses etc – or to search for that material by geographical area. There is no obligation on academic institutions to provide SMRs or HERs, local libraries or record offices with copies of research or theses, even if they are relevant to a particular area. There is a need to be able to find out simply and quickly who is undertaking, or has

undertaken, undergraduate and post-graduate research in the North West, but there is ultimately no single location where all grey literature, reports and theses are listed, let alone available for consultation.

An assessment and synthesis of all this material (especially within the universities) is required, but there is currently no-one to undertake such a task. This was beyond the remit and means of the Research Framework resource assessment although the CBA is currently running a pilot study for an index of university research in archaeology.

Greater contact and consultation between university departments and local curatorial organisations is essential if new research material is to be utilised to its full extent. This could be a genuine exchange of information relating to research and act as a form of dissemination.

Initiative

1.25 The region needs an integrated strategy for access and signposting to regional research resources. Potentially a long-term solution to many of the issues about availability of grey literature and academic research in archaeology may be provided through the OASIS index and other Archaeology Data Service programmes for access to digital resources. Awareness of these initiatives and their potential needs to be raised in the process of developing a longer-term vision.

Participation and Partnerships

The area covered by the Government Office for North West England is the common regional administrative area for agencies like English Heritage (which convenes the NW Historic Environment Forum on behalf of the Cultural Consortium NW), and other heritage bodies such as the National Trust and the Heritage Lottery Fund (HLF). The same administrative area has been adopted by ALGAO, the working group of SMR/HER officers in the region, and the Institute of Historic Building Conservation (IHBC) as the basis for their regional groups. The Council for British Archaeology (CBA) regional groups are based on a different grouping of local authorities. Cumbria, along with Durham, Northumberland, Teesside and Tyne and Wear, is in the CBA North region, while Cheshire, Lancashire and the ex-metropolitan counties and unitary authorities within the North West form the CBA North West region. CBA NW publications and regional events generally relate only to the southern counties, excluding Cumbria. There are some good reasons for Cumbria being in the CBA North region, and it is useful to have contact across current administrative boundaries. In terms of regional organisation however, there are



Fig 1.11 Sampling peat in the Martin Mere area of southwest Lancashire (Sue Stallibrass).

disadvantages in having one part of the region separated from the other counties for the co-ordination of research. Currently CBA North's activities are suspended.

Initiative

- 1.26 Resolution of the current uncertain situation over the future of CBA North needs to be addressed and an exploration with CBA and CBA North West of the options for future arrangements in the region as a whole.

There has been an increasing awareness that archaeology is being polarised between the professional and non-professional archaeological communities (APPAG 2003, 15). For reasons of time, and because of health and safety issues, many archaeological projects are no longer open to voluntary groups or individuals volunteers. The increased financial accountability of archaeologists working within units that operate as businesses, also places constraints on the time archaeologists can contribute to external projects without specific financial support. This is despite the fact that archaeology as a profession has its

roots in the amateur tradition that with such great enthusiasm undertook many research and rescue projects and formulated many techniques and approaches prevalent today. The situation is, of course, not entirely polarised and there are extremely important partnerships and initiatives continually taking place between voluntary groups, local communities and professional archaeologists throughout the region. The larger archaeological units, curatorial departments and museums are involved in or have co-ordinated and contributed to community projects, research excavations and training initiatives that currently represent some of the most important and significant research being undertaken within the region. There is also evidence for increased liaison and working collaboration between the metal detecting and archaeological communities, through organisations such as the Detector/Archaeology Liaison Group in Cheshire. Recent excavations of a Viking period cemetery at Cumwhitton (C) also demonstrate successful liaison between detectorists, the PAS and archaeologists. Despite the level and extent of these projects, some non-professional groups and societies have highlighted a need for greater collaboration with professional archaeologists with regards to fieldwork projects and training in techniques. There is a long and strong tradition of active local voluntary groups in the North West but this needs to be actively fostered and encouraged so that research remains current, informed and undertaken to high standards. The CBA nationally is in dialogue with HLF over the scope for developing local resources for the voluntary sector and new community archaeology initiatives. There are currently some financial restrictions on contracting units to undertake research, and funding for pure research is not always directly available to them. The application procedure for research funding can often be a time consuming process in itself, even for those eligible to apply. Equally applications cannot always be shared between different organisations, even if the project is a joint venture.

Initiatives

- 1.27 There is a need for increased collaboration and partnerships between contracting units, local societies, universities and museums, utilising the established facilities and expertise of individuals and institutions. Many projects could be undertaken jointly by several organisations in partnership if the framework were in place to share funding.
- 1.28 The region needs to foster public and community archaeology and could work with the CBA both nationally and in the region to develop resources to lead and co-ordinate this work across the North West.

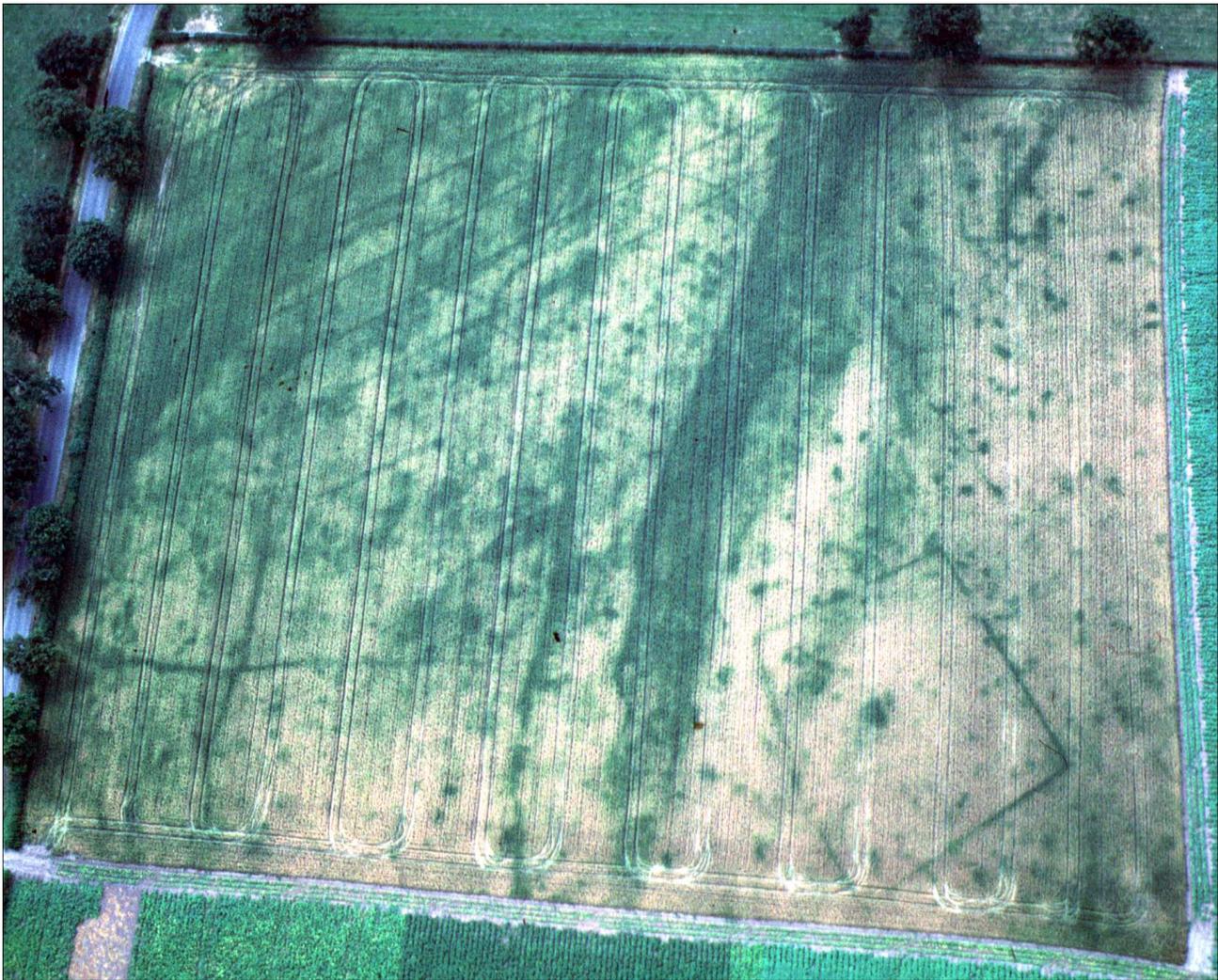


Fig 1.12 Cropmarks at Breerton, Cheshire (National Museums Liverpool).

Regional, Multi-Period Research Themes

A series of themes have emerged from the assessment process that transcend traditional period boundaries and are relevant to many or most aspects of the archaeology of the region.

Dating

It is acknowledged that material culture and chronologically diagnostic artefacts are not as prevalent within the region as in some other areas of Britain, and archaeologists need to adapt strategies to maximise the retrieval of information from sites which are seemingly barren of finds. It is widely accepted within the archaeological community that further programmes of scientific dating are needed on material for all periods, and presumptions relating to longevity of occupation and residuality of finds need to be tested (above p8). This does not just entail radiocarbon assays. Dendrochronological dating needs to be undertaken wherever suitable material is recovered.

Environmental science

Despite some pioneering work, palaeoenvironmental study of the region is uneven and incomplete. Many studies have concentrated on the earlier elements of the Holocene rather than later prehistory and the historic period. Considerable further work needs to be undertaken on environmental analyses, especially on lowland and later deposits that have not been truncated. Surviving profiles that are known to contain later material need to be listed and highlighted. The work of the North West Wetlands Survey (which was only an assessment) needs following up with specific proposals for further analysis. In the lowlands this incorporates an extremely important record of past human impact.

As well as conventional palaeobotany, future work needs to include analysis for heavy metals and other pollutants in peats and alluvial deposits, as an approach to industry and environmental pollution at all periods. There is a concern that developer funded archaeological work is not always utilising the full range of relevant environmental techniques that are

available.

Equally, there is concern that site staff are not always sufficiently trained in environmental techniques and therefore are not able to make judgements about suitable analyses for different deposits. It should be a priority to improve the knowledge of all excavation staff about soils and geology. There needs to be greater collaboration and interaction between field archaeologists and archaeological environmental specialists.

Additionally, environmental analyses need to be integrated with archaeological texts and interpretations, rather than treated as an add-on or appendix. Many of the soils in the uplands and agriculturally marginal parts of the region have remained relatively biologically inactive since sites were abandoned. This means that the soils themselves contain considerable potential for the preservation of archaeological stratigraphy and other evidence.

Future climate change and other factors which can encourage soil biological activity could cause considerable loss of archaeological evidence without our knowledge, unless this very specific resource is assessed and changes within it are monitored. The potential of deep alluvial deposits (lacustrine, riverine, estuarine and coastal) throughout the region to conserve significant archaeological and palaeoenvironmental evidence is significant and needs further assessment.

Specific resources need to be mapped and subjected to further study. There is a need to carry out geoarchaeological assessments and, where appropriate, analyses, on a much higher proportion of sites in the North West. Work in Chester has shown how much information can be recovered, but without relevant studies the potential elsewhere is unknown. If geoarchaeology is built into the routine methods of site investigation it will become much easier to identify those sites which will be productive, as opposed to those which will not, and this will allow research to be targeted more effectively.

Aerial photography

The aerial photo legacy for the region is extensive. Significant collections are housed within the regional local authorities and universities and within the national collections at Cambridge University and the National Monuments Record, Swindon. While pioneering projects have been undertaken in the past, there is currently no systematic annual survey carried out by the Aerial Survey Section of English Heritage (Northern Team) based at York.

The majority of recent reconnaissance has been carried out by locally-based regional fliers with English Heritage funding, but this arrangement has only covered limited reconnaissance in the southern part

of the region. In addition, the systematic mapping and transcription of archaeological features and sites from aerial photographs has only been undertaken for specific areas. It is notable that the English Heritage National Mapping Programme has not undertaken a county-wide project within the region. An extensive resource for archaeology within the region is therefore underused and unavailable.

The recording and identification of archaeological sites from the air has varied considerably depending on geology, topography and agricultural regimes. In some areas there have been widespread and significant successes, while others remain largely blank. The climate and land-use of the region mean that both identifications of new sites and additional information on known sites are sometimes slow to accumulate, but analysis of figures for recovery rates of new sites, the number of annual flying hours and the frequency of repeat photography, shows that general prospective reconnaissance remains by far the most effective and cost-effective method of discovering certain types of site over extensive areas.

These sites include prehistoric enclosures, ring ditches, late prehistoric/Romano-British settlement sites, field systems, Roman military sites, and post-Roman remains. The earthworks characteristic of the northern part of the region are also revealed most effectively from the air, and numerous discoveries have been made in recent years.

The range and strength of factors determining the formation of cropmarks are still not fully understood, and the appearance of cropmarks can be very unpredictable. Repeat flying is essential to cover the same ground under different conditions to record cropmarks. This would not only lead to an increase in the number of new sites, but would also examine the validity of the 'blank' areas in the distribution, the morphological groups and the preferred topographical locations so far recorded.

Further flying therefore has significant potential, and should be encouraged and supported. In particular contingency arrangements need to be in place through the National Programme of Aerial Reconnaissance so that multiple surveys can be undertaken at short notice if especially dry or other suitable soil conditions are prevalent.

Initiatives

- 1.29 The region needs an assessment of the current aerial photograph archive and a programme of systematic mapping and interpretation.
- 1.30 Aerial reconnaissance needs to be expanded in the region, with more involvement of the English Heritage aerial survey team and English Heritage-funded local fliers.

Geophysical Survey

There is a perception within the region that geophysical techniques are unreliable, because of unresponsive soils and geology. Consequently, relatively few surveys are carried out in comparison to other areas (Jordan 2004, 4), despite considerable successes at some sites with certain techniques.

Further surveys utilising a variety of techniques over a variety of geological and soil formations are required. Equally important is the critical evaluation of the geophysical survey results in relation to the geology and in comparison to the subsequent excavated data.

Initiatives

1.31 The performance and potential of archaeological evaluation techniques including geophysics need to be assessed, and informed guidance on their use needs to be available. The Aggregates Levy Sustainability Fund geophysics project (Jordan 2004) will be a significant step in this direction.

1.32 An assessment of effectiveness is required whenever excavation takes place on sites that have had geophysical survey, regardless of the results. This information needs to be fed back to the curators and the geophysicists.

Portable Antiquities

Whilst it is acknowledged that the Portable Antiquities Scheme (PAS) has been a general success within the region, there are issues that have yet to be resolved. The transfer of PAS data to the region's SMRs and HERs has taken some time to complete, and although the information is now available, it will take some time for the all the records to be accessioned appropriately. Until this has been carried out, there may be potential sites discovered via the PAS that may be subject to development, but are not recorded within the main database used to inform development control. Additionally there is a discrepancy between the quality of records made at the start of the scheme and those made more recently, and it is unlikely that those finds identified in the early part of the scheme will be recorded a second time within the near future. While the database is a valuable resource for finds research on a national, regional and local level (Chitty & Edwards 2004, 37–39), the raw data currently remains a resource to be exploited by others. The Finds Liaison Officers (FLOs) are able to do some research but there are currently few opportunities or resources to present syntheses on a period or geographic basis.

There is also the lack of suitable outlets for the



Fig 1.13 Geophysical survey Furness Abbey, Cumbria (Jason Wood).

publications of finds information for some parts of the region. There have also been concerns over the usability of the scheme's current website, and the search facilities on the current database (Chitty & Edwards 2004, 25).

Despite these problems the potential of the PAS data for providing artefact distributions, discerning past activities and identifying new sites remains high. The degree of accuracy within the location of finds is unsuitable for detailed and location specific research, but this information could be obtained from SMRs and HERs if regular data exchanges take place. A programme of investigating particularly 'productive findspots' could potentially lead to the discovery of new archaeological sites from periods and areas where current knowledge is particularly poor.

Initiative

1.33 Regional gazetteers of particular types of finds may prove useful for research purposes, utilising PAS data, SMR/HER data and museum collections. Such a project may also identify artefacts that are currently within the regional museum collections that are not recorded on the region's SMRs and HERs. It is important to also consider the distributions of particular artefacts beyond the regional boundaries.

The maritime and coastal resource

The region's maritime archaeological record is a major part of its resource, and is integral to its history, and its later influential position within the wider world. The maritime and coastal resource contains potential information on coastal evolution, sea level rise and river navigability, subsistence economies, systems of trade, the movement of goods, artefacts and people, the location of settlements and the actions and activities of the people themselves.

Past patterns of sea level fluctuation and coastal change are understood only at a broad scale, and the evolution of coastal and estuarine river systems remains under-assessed and poorly understood at a regional level. The offshore and intertidal areas are potentially all former prehistoric land surfaces, as typified by the recorded occurrence of submerged forest beds at several intertidal locations, and human and animal footprints within intertidal deposits at Formby.

The subsequent erosion and depositional activity of tidal currents is also known to have both destroyed sites and concealed further remains beneath tidal deposits. There is currently little information on, or long-term monitoring of, current climate change and sea level rise and its effect on archaeological deposits (Cassar & Pender 2004, 28).

Additionally, concern has been expressed that there is currently no provision for emergency rescue recording and sampling work within intertidal or marine contexts if material is exposed (English Heritage 2003d, 7.2). There is no archaeological management strategy and no source of immediate funding for rescue work (Cassar & Pender 2004, 27). The procedure for applying for funds from national bodies can be protracted, while potentially fragile deposits or structures may only be exposed for a matter of days at a time. There is currently no archaeological organisation within the region with a specialism in maritime archaeology.

At present the archaeological resource within the area below the low tide line is not curated by the local authority archaeologists. There is an argument for the region's SMRs or HERs taking a greater role in the storing of archaeological information relating to the marine environment beyond the low water line, but this would require greater resources to implement and manage.

There is also a need to assess the quantity and quality of the artefacts recovered from the marine environment. Although there are few known wreck sites within the region, a project to catalogue and analyse the location of findspots such as that currently under way in the North East (G Green 2004), may build considerably on this dataset. This would require a dedicated project involving liaison with diving clubs and fishermen.

Initiatives

- 1.34 Further studies need to be undertaken within the intertidal and inshore zones, including river environs, assessing for environmental preservation, artefacts, structural remains and buried former land surfaces dating from prehistory through to the 20th century.
- 1.35 The Environment Agency will commission a Shoreline Management Plan for the North West region in 2007-8. Archaeological survey and assessments need to be compiled and in place before this programme commences, in order to ensure that the historic environment is taken into full consideration.

The human use of caves

The North West has cave deposits of national significance, potentially representing evidence of early post-glacial habitation in the north of England. Despite excavations in a number of caves in north Lancashire and south Cumbria, information on this work is sparse, with few formal publications of findings. The importance of this material should not be underestimated, and the current state of publication and dissemination of the material is lamentable. Publication of key sites has been identified as a priority within the national research agenda for the Palaeolithic and Mesolithic (Gamble 1999). Additionally, it may initially seem unlikely that previously unrecorded cave art exists within the caves of the North West, but recent work at Creswell Crags has recorded previously unidentified potentially Palaeolithic cave art (Ripoll *et al* 2004), and further highly detailed survey within the region's caves may yet prove productive.

The use of caves and the deposition of skeletal material and artefacts appears to continue throughout prehistory and into the Roman and post-Roman periods. Within limestone caves the survival of bone is excellent, and the deposits represent assemblages of material only rarely recovered from other sites. There are as yet no absolute dates for human remains recovered from alongside Mesolithic, Neolithic and Iron Age cultural material, although there is a good potential for them to be dated to these periods. During the Bronze Age there is evidence for the deposition of articulated human remains in caves, whereas, the predominant rite above ground appears to be cremation. The presence of Romano-British material and human remains within caves might suggest a degree of continuity from earlier periods, and also represents assemblages of material not known from the areas above-ground surrounding the caves. Recent dating work of material from the Doghole (C) has also identified early medieval material (H O'Regan pers comm).



Fig 1.15 Excavations at Barker House Farm, Lancaster (OA North).

It is as yet uncertain what the material in caves actually represents in terms of human activity, and further study is required on deposition, taphonomy and site formation processes. Despite the lack of human bone from above-ground contexts, the analysis of the cave material may shed some light on the individuals deposited within caves. Likewise the faunal and ceramic assemblages may indicate trends of selective and structured deposition by humans, or deposition by predators in the case of faunal material. Most caves are a palimpsest of multiple actions over many different time periods, and such questions may be difficult to answer in the short term. As cave sites are one of the few locations where large assemblages of material have been recovered, investigation of these issues should form the basis for any future studies.

Initiatives

- 1.36 A thorough assessment is required of what material from excavated cave deposits exists, and where it is currently housed. The current work by staff at Liverpool John Moores University demonstrates the potential of tracing old cave excavation archives, and reanalysing material that was previously thought missing.
- 1.37 Following this, a programme of analysis and publication is urgently required, linked to an

AMS dating programme. Where material is stratigraphically unprovenanced cave sites could be revisited to assess the survival of material and utilise direct dating techniques such as U-series dating, and other similar methods that can be used on flowstones (stalagmites etc). Such techniques could also be applied to deposits on artefacts if the findspots are well provenanced and stratigraphically secure.

- 1.38 An assessment of the conservation status of existing known cave sites containing archaeological remains is also required, similar to that undertaken in the Yorkshire Dales and Peak District National Parks.

Agricultural communities 750 BC to AD 750

Relatively little is known about the location, nature and density of settlement from the end of the Bronze Age to the early medieval period. This is not to suggest that the periods to either side of this time bracket are any better understood, but that the Iron Age to sub-Roman period has been highlighted as one worthy of detailed research. The poor understanding of the period in question stems from many factors, but central to these are both a lack of visibility of sites for many areas, and by and large the lack of chronological indicators within the archaeological record, bar the more common occurrence of

Romano-British finds from the 1st to 3rd centuries. It must be stressed that the nature of the evidence and the scale of recent work is not uniform throughout the region. There has been a long history of archaeological research in the uplands and northern part of the region (eg Lowndes 1963; 1964; Higham & Jones 1975; 1983; Higham 1979; 1981; 1982; 1983; Bewley 1994), although little of this work is accompanied by artefactual or scientific dating, and many problems remain. In contrast there is a growing body of data for Iron Age and Romano-British settlement in the south of the region (Nevell 2004a), which has been accumulated both from recent development-led and research excavations. This has allowed a degree of periodic and sub-regional synthesis (eg Matthews 2002a; Nevell 1999a; 2004a) although the sample size of excavated and dated sites remains small in comparison to the size of the region. No such synthesis exists for the later Romano-British and sub-Roman period. While it can be presumed that occupation of some Romano-British sites continued uninterrupted, the number of recently excavated and dated sites are few. The evidence for religious and funerary practices is almost entirely absent for the Iron Age, bar deposits of human material in wet locations that might be of Iron Age date, and one small inhumation cemetery dated to the 2nd or 1st century BC (OA North 2004). These burials were not accompanied with ceramics. The known Romano-British cemeteries are almost entirely associated with proto-urban and military centres, and the treatment of the dead within rural communities of this time remains largely unknown. Equally only few sub-Roman burials are currently known, and recently excavated graves from Heronbridge (Ch) dating to the 5th to 7th centuries may not be typical in this respect.

Site visibility

There is a substantial body of data regarding potential sites of this period represented by earthworks in the uplands and cropmarks in the lowlands (Nevell 2004a). The upland surveys within the north of the region have identified and recorded literally thousands of sites, many surviving as upstanding earthworks and stone walls. The dating of these sites has, however, proved less straightforward, with chronological identification often based on site morphology or limited investigation. Where modern excavation has taken place a complex and rich stratigraphic record has been identified, indicating both the longevity and complexity of occupation (Hoan & Loney 2003; 2004).

Aerial survey has identified a wide range of cropmark enclosures in the low-lying agricultural areas of the region, although only a fraction have been dated through excavation. Fieldwalking has provided some indication of dates of occupation (Bewley 1994) al-

though both Iron Age and sub-Roman phases are less likely to be detected through such techniques. Many of these have been the subject of research and investigation during the 1980s and 1990s, but many sites remain uninvestigated.

The most productive and economic method of identifying new sites throughout most of the region will be through programmes of aerial survey. New sites will be identified through development projects and ground survey under suitable conditions, but a considerably larger area can be regularly covered from the air. It is accepted that aerial survey has the potential to identify a greater number of enclosed sites and linear feature features, over unenclosed settlements or single structures, but under the right conditions smaller and more ephemeral features should also be distinguishable.

Upstanding stones structures and earthworks represent a potentially rich resource which could be used to investigate the occupation of the uplands from the Bronze Age through to the medieval period, and even up to modern times. The sites are visible, the preservation is excellent, and deposits containing environmental remains also exist within the peat in the close vicinity of settlements and field systems. A programme of targeted sampling and excavation could be undertaken within a programme of themed research directed at the occupation and exploitation of the uplands and its resources.

Additionally, a single or even a series of landscape-wide projects could be undertaken across a transect of different topographical zones, where the archaeological potential is known to be high. This could incorporate air-photo interpretation, fieldwalking, environmental sampling, survey and excavation, looking at the evidence for occupation and activity for the entire period under study.

Chronology

The Late Bronze Age ceramic and metalworking traditions seemingly disappear in the early 1st millennium BC, and the dating of settlement sites becomes fraught with difficulties. The north-western Iron Age is not entirely aceramic, but pottery is certainly not a common find on settlement sites. Metalwork remains even rarer. The excavations at Mellor have recovered a relatively substantial assemblage of pottery, including VCP and a complete vessel, and within the south of the region VCP is more common (eg Ellis 1993; Fairburn *et al* 2003) although the dating bracket for the material remains broad.

While some rural sites have more identifiable artefacts during the Romano-British period this is not always the case, and layers and even sites from this period can be seemingly artefact free, and ultimately misleading. The artefactual record becomes increasingly limited during the 3rd and 4th centuries and the

5th century is seemingly aceramic once again. Ultimately it is therefore difficult to build models of the density and location of rural settlement for the Iron Age, Romano-British and sub-Roman periods. The longevity of occupation of some sites is not known, or the nature of settlement at the time of the Roman conquest of the North West.

The only solution to the problems of chronology and artefact recovery is to increase the size of sampling strategies and to undertake scientific dating, especially AMS radiocarbon dating. This must be undertaken on sites where Romano-British pottery is also present. The use of metal detectors should also be considered, in conjunction with field survey and excavation. Strategies also need to be theoretically and methodologically informed as to the likely location of artefacts and activity areas, which may not always be situated within building interiors.

Economy

Palaeoenvironmental studies have demonstrated that the region was not necessarily entirely depopulated during the periods when the evidence for human occupation is in some respects more difficult to identify. While palynological studies do indicate a climatic downturn and woodland regeneration during the Early Iron Age (eg Wimble *et al* 2000), there are also small, localised episodes of clearance (Wells 2003) which increase from the Middle Iron Age into the Romano-British period (Wells 2003; Nevell 2004a). The presence of cereals is confirmed from several areas during the Late Iron Age. The sub-Roman period also appears to see some woodland regeneration (Wimble *et al* 2000), but paradoxically some episodes of clearance also (Wells 2003), although these are not always widespread or permanent.

Details of agricultural regimes and fundamental aspects of economy remain poorly understood. One might postulate varying degrees of mixed farming according to the topographical character of different areas of the region, but this ratio is not known. While cereal pollen is present in the Iron Age, and some charred plant remains have been recovered from site assemblages, many writers have suggested that these only play a minor role in the economy (Cowell & Philpott 2000; Carruthers in Fairburn 2003) and that the region was primarily pastoralist. Further details are unclear as faunal remains and cereals are almost entirely absent from site assemblages. Many writers have postulated an increase in agricultural production following the arrival of the Roman military, to supply the large garrison stationed in the north. An intensification of clearance is evidence in the palaeoenvironmental record and cereals are recorded in the lowlands and the uplands, but specific details are less forthcoming. The majority of faunal and botanical assemblages have been recovered from military and

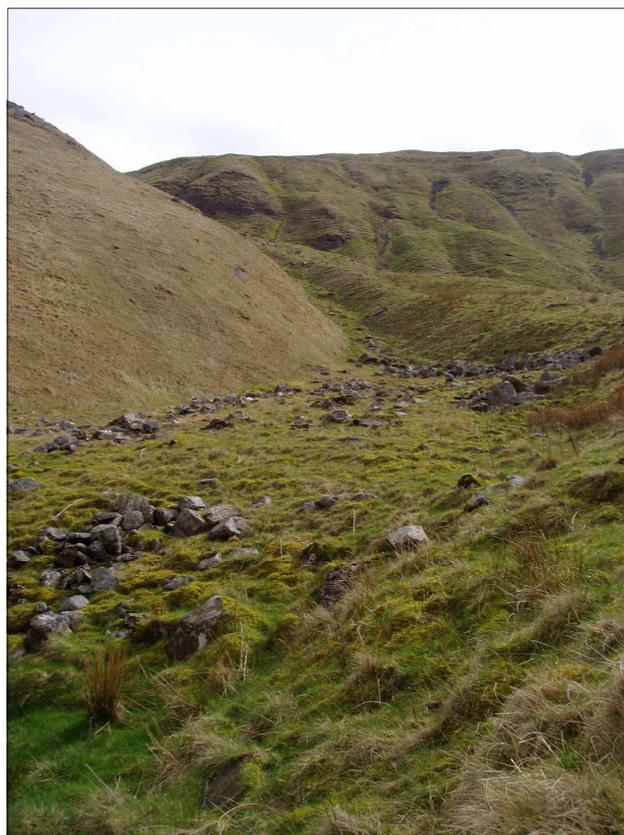


Fig 1.16 the remains of bushing at Scordale, Cumbria (Richard Newman).

proto-urban sites and the origin of products is not known. Likewise a subsequent decline in agricultural practice has been postulated during the 5th century, but the evidence does not derive from the rural sites themselves.

There are as yet no field systems dated to the pre-Roman period (unlike the areas to the south and east) although there does appear to be a considerable number dating to the Romano-British period, some of which may prove to have earlier origins. Within the Eden Valley, the arrangement of enclosures and 'fields' would suggest small enclosed arable areas and larger enclosed and unenclosed areas for grazing, although this is not certain. Upland cairn fields associated with linear walls, stone walled enclosures, and lowland ditched field systems all require investigation and dating.

It is unclear whether the Iron Age processing of salt in Cheshire can be considered an 'industry', but the distribution of VCP vessels (believed to be associated with salt) might suggest an extensive network of trade and some economic importance. This network does not appear to extend into the north of the region, where local coastal production may have taken place.

The palaeoenvironmental record provides a broader indication of vegetational change, but also demonstrates that different episodes can be entirely localised. The solutions to the fundamental problems of agricultural practice and site economy will only be

clarified through further analysis of site specific assemblages. This will require adequate sampling and analysis of deposits, and targeted sampling of sites and deposits where survival is deemed to be greatest.

Early Industrial Activity

In the post-medieval and modern period, the region is characterised by the strong industrial base for its economy and growth, yet relatively little is known about the earlier origins of mineral exploitation and technological development.

The Neolithic stone axe quarry sites of the Lake District have been privileged with the attention of archaeologists for some considerable time, but during the Early Bronze Age the sources of stone apparently cease to be exploited. Then the trail goes cold. For example, despite the abundance of natural metal ores within the region, the only site with evidence for pre-medieval mining for non-ferrous or ferrous ores is currently Alderley Edge (Ch). Prehistoric copper mining in North Wales, the Isle of Man and at Alderley Edge might suggest that sources in the northern part of the North West were also exploited at this time, but the occurrence of stone hammers, traditionally used as evidence for prehistoric mining, are not widely recorded. Late Bronze metalworking is attested at Beeston Castle (Ellis 1993), while a ceramic tube from Ewanrigg (C) (Bewley *et al* 1992) and a spearhead mould from Croglin (C) are the only available evidence that might suggest Bronze Age metalworking within the north of the region.

Likewise the evidence for ferrous and non-ferrous extraction during the Iron Age, Romano-British and early medieval periods is sparse. There is evidence for Romano-British activity within a mine shaft at Alderley Edge, but this is not necessarily related to ore extraction. A smithing hearth within a roundhouse at Baldhowend (C) probably dates from the last century of the 1st millennium BC (Hoaen & Loney 2004) but the source of the metal remains unknown. The evidence for metal working and smithing becomes more widespread for the Romano-British period, largely concentrated in the proto-urban centres and around military sites. It may be postulated that an organisation such as the Roman military would source raw materials from as close as possible to the smithing sites, but there is currently, and curiously perhaps, no evidence for this. The presence of a lead smelting hearth in Carlisle would suggest the raw materials were transported for a considerable distance, although work continues on sourcing exactly where the lead ores on this site were brought from (Miller & McPhillips forthcoming). Post-Roman evidence becomes more elusive, but iron-working is evident at Bryant's Gill (Dickinson 1985), and Dacre (Newman & Leech forthcoming) in Cumbria, and at Birch Heath, Tarporley (Ch) (Fairburn 2003).

The place-name 'Orgrave' listed at Low Furness in the Domesday Book suggests mining activity prior to 1086, although not confirmed until documented in the 13th and 14th centuries (Bowden 2000, 6). There are historical references for iron, lead and copper extraction in the Lake District and silver mining in the North Pennines during the medieval period, but currently no field evidence. This could have been on a larger scale and more economically important than the documents suggest. Although recent discoveries are beginning to shed light on medieval iron production for some areas (eg Redhead 1995), the bulk of sites known date from the post-medieval period and later. Little is known of the medieval iron industry, or technological changes, especially within the Furness and Lake District areas. There is little information on the early use of water-powered bloomeries, how they functioned technologically or how they fitted into social, tenurial and economic structures. The medieval and earlier iron industry of the Lake District is therefore a key area for future research and recent survey has demonstrated the high potential of many early bloomery sites for good structural evidence and close dating.

This part of the region also has high potential for exploring the sequence and dating of technological change, particularly the development of water-powered bloomeries and early blast furnaces, and the relationship of the industry to the Border and local defence needs.

The technology and field evidence of medieval lead and silver mining are very poorly understood, despite historical evidence for nationally-important silver extraction in the Alston area in the 12th century. The 'bole' smelter is largely understood from 16th century documentary evidence in Derbyshire but how far this picture is confirmed or challenged by archaeological evidence from earlier orefields in the North West is not known. There are a few historical references for lead and copper in the Lake District with late medieval development of copper mining and smelting in the Keswick/Caldbeck area, in advance of the better-known 16th century Mines Royal. The dialect of non-ferrous mining and smelting in the region appears to have a strong Scandinavian influence, but it is not known whether this is paralleled by technological connections with Scandinavia, be it the introduction of Nordic technology to the region, or even vice versa.

The scale of later mining in the ore rich areas of the region means that potential evidence for earlier extraction may well have been destroyed, or at least well hidden (Ponting forthcoming). None the less further discoveries by mine exploration groups cannot be ruled out and further survey may still prove productive. Environmental work on peats, and on river and lake sediments may also offer an opportunity to identify early metal and other industrial work-

ings within catchment areas close to potential extraction sites.

The earlier history of salt making and the textile industry, both so characteristic of the region's later post-medieval history, is well supported by documentary evidence (eg Winchester 1987) but has lacked systematic field investigation. The inland salt industry of Cheshire is well documented and details are coming to light of production in the Romano-British, medieval, post-medieval and Industrial periods. Iron Age distribution of Cheshire salt is verified through the distribution of VCP, although details of production sites are scarce. There is as yet little evidence for

the extent of coastal salt making within the region, and how that technology compares with other regions. The topography of extensive low lying tidal estuaries might suggest that sand-washing (sleeching) was the dominant form of production, but the direct boiling process may also have been widely utilised. There is documentary evidence for salt production in Cumbria during the medieval period, but so far the evidence has not been identified on the ground. Likewise, the wide-scale nature and economic importance of textile production belies the lack of systematic archaeological work directed towards this area.