

# Investigation and Management of Industrial Sites within Exmoor National Park

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## Abstract

Exmoor National Park contains a wealth of evidence from a wide range of extractive industries including iron, copper, silver-lead, slate and limestone. Archaeological recording has until recently been far from comprehensive on Exmoor for all kinds of archaeology. This paper outlines recent developments in the investigation of industrial sites within the National Park and discusses the problems and potentials for their future management.

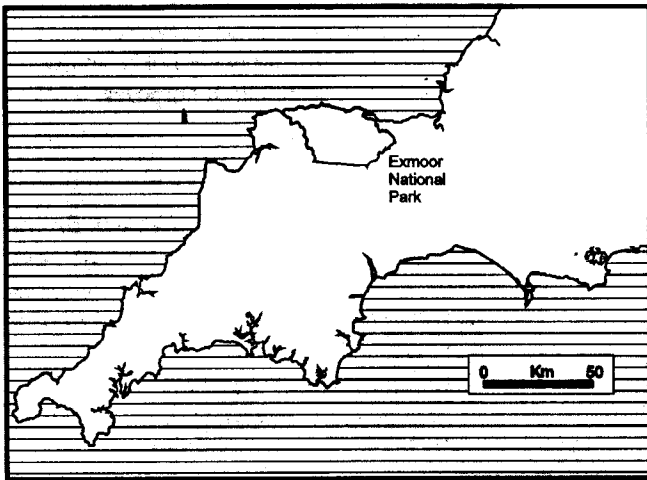


Fig. 1. Exmoor National Park. Location

## INTRODUCTION

National Parks have tended to be seen as areas of remote wilderness, untouched by human hands and unpopulated, except by itinerant shepherds grazing their flocks. Lying in the 'outback' of the two counties of Devon and Somerset, the landscape of Exmoor has received remarkably little attention from antiquarians or archaeologists when compared with that given to other areas in the South-West such as Dartmoor, Wessex or the Somerset Levels. As a result it has accumulated only a sparse record of sites in the County Sites and Monuments Records and this has tended to reinforce the misleading idea that nothing much in the way of human activity has occurred here.

The reasons for this have been considered elsewhere (Heal 1995), but perhaps the most crucial consequence has been poor appreciation among those who work and manage the land that it is the human impact on Exmoor over millennia which has shaped the present landscape. The idea of a 'natural wilderness' has resulted in resources and staffing to cover ecological interests and to conserve habitats, but the low profile of archaeological interest has attracted minimal resources until recently. It is necessary to set archaeology in the National Park in context before focusing on the industrial aspects, because this helps to explain the current position with regard to investigation and management. It is also important to understand that our approach to the historic environment of Exmoor is an holistic one; considering the area as an integrated landscape and seeking to decipher chronological and spatial relationships within it, in the context of its development as a whole.

In recent years occasional opportunities have arisen to

improve understanding of Exmoor as an historic landscape. For example, interpretation of aerial photographic cover of Exmoor, carried out by Richard McDonnell, identified many sites during the 1980s. Although these were variously incorporated in the Devon and Somerset SMRs, very little ground checking or investigation followed. Also in the 1980s, an archaeological survey of one area of the National Park Authority's own estate was commissioned as part of the basis of a management plan for land around Warren Farm, Simonsbath: this revealed a plethora of sites on the moorland. However, without the direction of resources to follow these results up and demonstrate the richness of the archaeological resource, the opportunity they offered to change the perception of those who use, manage and enjoy the land of Exmoor was not exploited.

In common with other National Park Authorities, Exmoor eventually appointed an archaeologist to join the existing, predominantly ecological, specialists on its staff. Since 1991 there has been an internal advocate seeking resources to develop an accurate understanding of the historic environment of Exmoor, equivalent and complementary to that of the natural environment. This is vital if we are to manage the non-renewable archaeological resource appropriately and to pursue fully the National Park purposes of preservation and public enjoyment of the landscape.

This appointment co-incided with completion of a survey of lithic monuments by the Royal Commission on the Historical Monuments of England [RCHME] (Dunn *et al* 1992): the first comprehensive survey of any class of monument on Exmoor. The effect of these events was to help substantially in focusing professional attention on Exmoor and on the significant shortcomings of its archaeological record, both as data and as a tool for management. As a result the RCHME decided to carry out a six-year survey of the whole of Exmoor, beginning in 1993. Now half way to completion, this has clarified and added substantially to the known record.

The RCHME survey and other surveys for archaeological management, carried out for the NPA on its own estate and for its Farm Conservation Scheme and for the National Trust's Holnicote Estate, have augmented the palimpsest glimpsed from the patchy pre-existing record and have enhanced understanding of the extent and make-up of the historic environment. The sites recorded extend in date from mesolithic flint scatters and later prehistoric sites, through medieval settlements to unique experimental installations built during the Second World War. They range in size from single finds and small monuments to prehistoric field systems and extensive water management and industrial complexes.

The wealth of evidence for human exploitation of Exmoor since the end of the last ice age, some ten thousand years ago, is becoming more clearly apparent and more pro-actively incorporated in general management strategies. We are in an ever strengthening position to identify research priorities and the potential for education, interpretation and public enjoyment. In order to maximise the use of our own limited resources, we work in partnership with national and local bodies to pursue our objectives and seize new opportunities.

### INDUSTRIAL ARCHAEOLOGY

One of the first aspects of Exmoor's archaeology to be considered publicly by the National Park was its industrial archaeology. The major iron mining and ore transporting complex on the Brendon Hills and the less extensive but equally fascinating iron, silver-lead, copper and slate industries in other parts of the Park have been keenly, but disparately, studied. In 1992 a day seminar was held in Dulverton, this provided an opportunity to bring the work together and to consider how best to investigate and conserve the rural industrial sites and landscapes (Atkinson (ed) 1997).

As a result of the meeting, the Exmoor Mines Research Group was established. This has provided a forum for discussion and consultation and a source of expertise and advice on industrial processes on Exmoor and the identification and management of the surviving sites. The following summarises work in hand and priorities for future work.

### THE BRENDON HILLS MINES AND THE WEST SOMERSET MINERAL LINE

The extent and diversity of the remains of the mining industry on the Brendon Hills and the West Somerset Mineral Line, built during the middle years of the 19th century to transport iron ore from the mines to the port at Watchet, have resulted in an exceptional archaeological resource. They also provide some exceptionally interesting problems in considering recording, conservation and interpretation.

The complex extends some 9km along the Brendon Hills, from Gupworthy and Kennisham to Colton and some 10km from the inclined plane at Brendon Hill to Watchet; on the Hills alone it lies in at least twenty different ownerships. The remains vary from abandoned track bed, through crumbling station and ancillary buildings to mine shafts, adits, openworks, remains of engine houses and an inclined plane some 1030 metres in length at a gradient of 1 in 4.

Some aspects of active and passive conservation have been carried out. In the late 1980s, Burrow Farm Engine House was repaired by the National Park Authority and a permissive access route has been established with the owner. Other parts of the line and associated structures lie within farms in the Farm Conservation Scheme, which prescribes appropriate site management. At Seaview Farm work has been underway through the Farm Conservation Scheme to clear growing and fallen trees from the sides and bed of the incline and to

re-direct surface water into the original drainage system.

In order to assess the survival and condition of the mining sites and the Mineral Line and its associated structures the NPA has commissioned a survey and report from Michael Jones, the acknowledged expert on the complex (Jones 1995). The brief covers not only the status quo, but also consideration of the extent of works of repair and consolidation which would be desirable and the potential for access and interpretation. The report will be used to formulate a viable strategy for the complex in partnership with its many owners and in keeping with its quiet rural setting.

Any attempt to establish a coherent management strategy has to consider a wide range of conservation problems and to approach many owners to obtain their agreement on proposed works, access or interpretation provisions. We also have to consider any impact on the local community and to inform and consult where appropriate. There is considerable potential for partnership in these works, with other local authorities and with English Heritage through a recently established Conservation Area Partnership.

### OTHER IRON MINING AND WORKING SITES

Although the Brendon Hills complex tends to dominate the picture of mineral exploitation on Exmoor, there are many other identified mining and working sites on the moor and around its landward and coastal fringes. The date of the earliest iron exploitation is not known, though there is reference to iron mining at Bampfyld in Domesday (Dixon 1996), medieval silver-lead mining is recorded by Claughton and there are indications that German miners may have worked on Exmoor in the Tudor period (Claughton in Atkinson (ed) 1997)

Both on the Brendon Hills and associated with the iron-bearing deposits across the moor there are openworks and other trial works which require investigation to establish their period of origin. Some of these are close to more recent shafts and adits, as at Carnarvon Pit, Brendon Hill and Burcombe, Simonsbath, and may relate to earlier, undocumented working. There are also iron working sites, represented by slag heaps and scattered slag and processing debris as at Sherracombe Ford, High Bray (Wilson-North this volume, Fig. 3.) and recently located sites on Horner Water and the River Barle.

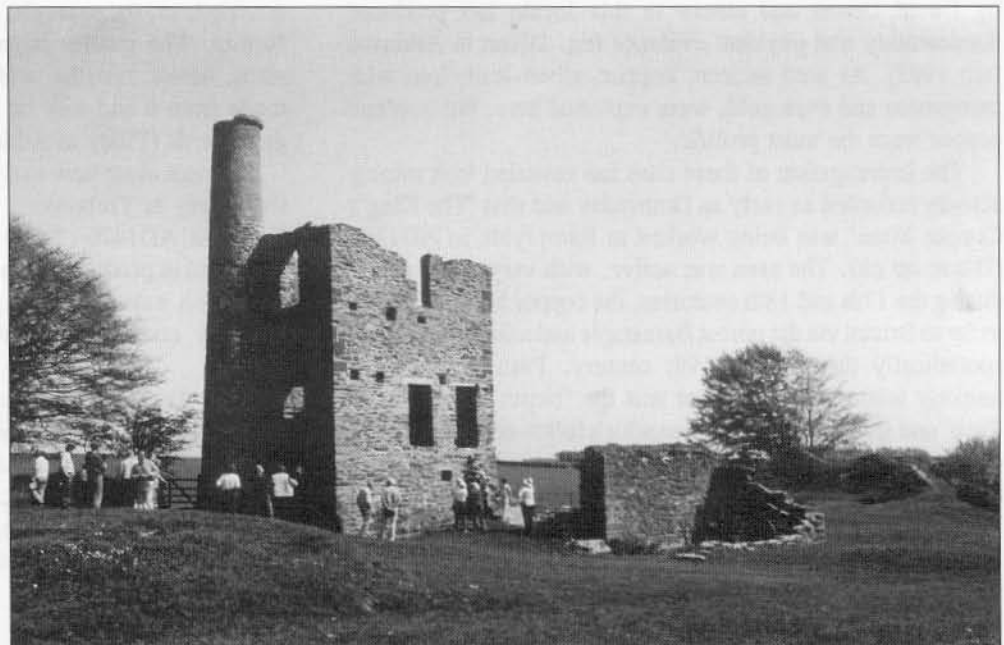


Plate 1. Burrow Farm Engine House.

These undocumented sites are the subject of an evaluation due to take place this summer (1996), in partnership with the National Trust (Holnicote Estate) and in co-operation with the Exmoor Mines Research Group and other local archaeological groups.

The aim of the evaluation is to investigate the nature of the operations and processes, their scale and date. The location of the sites close to water and in woodland with evidence for charcoal burning, will bring the relationship of water power and management and possible fuel processing into the scope of the study as well. As with all our work, we will seek to link the focal sites into their landscape and to establish chronological and spatial relationships where possible. This will inform the management of the sites themselves and the natural and historic environment in which they lie.

### SILVER-LEAD

As Peter Claughton has described elsewhere silver-lead mining is documented at Combe Martin, on the north-west margin of Exmoor, for over six centuries (Claughton *op cit*) and the remains of later working probably overlie the physical evidence for earlier workings. There are other recorded silver-lead mining sites, for example at Brushford and Parracombe and in the Molland area, but the Combe Martin sites predominate. Claughton and others have investigated several of the mines, many of which now lie beneath the gardens and streets of the village and have found traces of earlier workings and the remains of pumping equipment (*ibid*).

The investigation and management of these sites is complicated by the multiple ownership and domestic location of most of the mines. They are also bisected by the National Park Boundary, making a comprehensive approach less straightforward. It is apparent from the work of local investigators and others, that this is an important resource for the technological history of mining and has high potential for the preservation of earlier, possibly medieval remains.

### COPPER AND OTHER NON-FERROUS METALS

The existence of mineable and exploited minerals around the perimeter of the National Park also occurs in the Molland/Heasley Mill area on the south-western fringe. Intensive work by David Dixon and others in this locale has produced documentary and physical evidence (eg. Dixon in Atkinson (ed) 1997). As well as iron, copper, silver-lead, iron with manganese and even gold, were exploited here, but iron and copper were the most prolific.

The investigation of these sites has revealed iron mining activity recorded as early as Domesday and that 'The King's Copper Mine' was being worked at Bampfylde in AD1346 (Dixon *op cit*). The area was active, with varying fortunes, during the 17th and 18th centuries, the copper being exported as far as Bristol via the port at Barnstaple and mining continued sporadically through the 19th century. Perhaps the most unlikely feature of the period was the 'North Molton Gold Rush' and fraudulent speculation which followed the discovery of small quantities of gold in Higher Mines Wood (Dixon *ibid*).

As is the case with most of the mining sites on Exmoor, these have not been extensively recorded, a notable exception being Bampfylde Mine recorded in detail recently by the RCHME (Wilson-North this volume fig. 4). The mines, their infrastructure and the tramways which served them survive in varying condition. Again, the fact that these sites extend

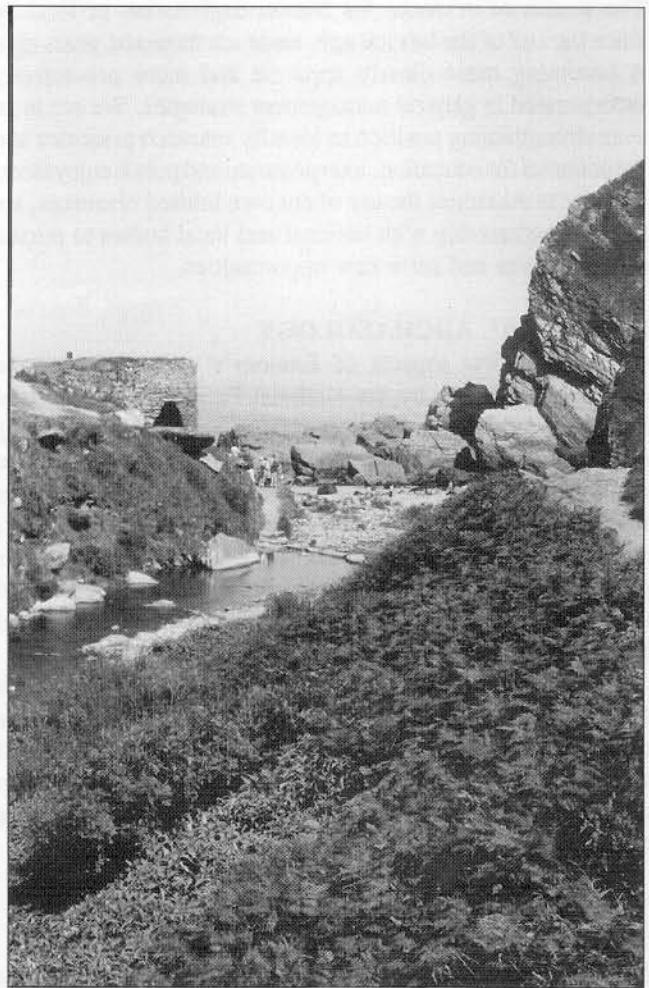


Plate 2. Lime kilns at Heddon's Mouth.

beyond the National Park boundary and are in different ownerships, makes a comprehensive management strategy more complicated, but it is apparent that the sites, particularly the buildings, are at risk and a programme of recording and some consolidation is needed.

### SLATE

The Devonian Morte Series produced slate outcrops in a few places within Exmoor National Park, some of which were quarried, as, for example, at Treborough and Chibbett Ford, Exford. The quality is generally poor, but roofing slates, slabs, lintels, hearths, water cisterns and grave stones were made from it and may be found in houses, outbuildings and graveyards (Tilley in Atkinson (ed) 1997).

It is not clear how early the outcrops were exploited, but the quarry at Treborough provided 2000 slates for Dunster Castle in AD1426 (Tilley *loc cit*). The Treborough quarry remained in production, though not continuously, until 1939, extraction extended to a depth of 300 feet and an aerial ropeway and tramway were constructed during the 19th century.

The Treborough quarry is in a nature reserve and management of the reserve is governed by the interests of wildlife. There are concessions to be made between the needs of conservation and public enjoyment and, as National Park policy guidance indicates, the fragility of the natural or historic environment sometimes requires that public access be restricted.

### LIMESTONE

There is an intermittent band of limestone which runs across

Exmoor trending south-west to north-east. Where it outcrops it has been exploited, as at Newlands, near Exford and Clicket Valley near Luxborough. The size and complexity of some kilns points to significant investment in the process of lime burning. Lime was a critical resource for sweetening the acid soil of Exmoor and for use in the manufacture of lime mortar and lime plaster in building.

Though the local supply was worked, most limestone had to be imported, as is shown by the numerous limekilns along the coast. The majority of limestone was imported from South Wales, often as a return cargo, dumped on the beach and burned close by, with the burnt lime being carted away. The kilns at Brendon Hill may have been supplied by limestone brought up from Watchet on the West Somerset Mineral Line, as a return cargo for the iron ore taken to the smelting works in South Wales.

There is considerable interest in limekilns and the associated processes in Devon and more surveys are needed to locate and record the nature of the kilns and associated structures. It is intended to include a survey of limekilns in the National Park's Historic Exmoor Landscape Project, a parish-based scheme staffed by volunteers. From this we will be able to identify examples to target for conservation and interpretation.

## CONCLUSION

In attempting to investigate and manage industrial sites in Exmoor National Park we encounter problems common to industrial sites elsewhere. As David Stocker has found in setting up an MPP for industrial sites, we are lacking in the basic information which is usually available for other types of site and the information which does exist is often held by interested individuals or local groups and not necessarily linked to curatorial organisations (Stocker 1995). On Exmoor we are beginning to overcome this through collaboration with the Exmoor Mines Research Group and their contacts.

On the investigative side, we have already benefited from the results of the RCHME survey of West Exmoor and anticipate further information gains from the East Exmoor survey which is just beginning. This will be combined with the existing work on the sites on the Brendon Hills, the moorland and the periphery of the Park in order to provide as comprehensive a picture as possible.

Through the project to evaluate potentially earlier ironworking sites on Exmoor, which will focus on the periods about which we know least, we aim to develop a better understanding of the chronology and technology of iron exploitation and working here. This will also help determine the contribution of earlier industrial activities on the development of the historic landscape.

Management of industrial sites is often particularly problematic because of their sheer scale, possible implications for health and safety and the costs of active repair and consolidation. As resources are always limited, difficult choices have to be made as to how the available funds can best be employed. Major complexes require partnership with organisations such as English Heritage, Countryside Stewardship, the ESA and the Rural Development Commission, in order to fund proper assessment and appropriate action.

The multiple ownership of sites also requires greater consultation and discussion in order to encourage a co-operative approach to conservation and access. Owners may gain no financial benefit from works necessary to preserve structures on their land and may require considerable persuasion to participate in schemes for increased public access. The

question of public access has also to be considered in the light of any increased erosion or damage which might result.

The possible concerns of owners and disinclination to invest in non-beneficial repairs must be met with positive responses and reassurance, if not grant-aid. This depends upon having developed a sound strategy and explored possible sources of funding and partnership. Any scheme, however exciting and worthwhile in theory, has to be approached realistically and assessed rigorously if it is to stand a good chance of success.

Industrial archaeology, like all archaeology, is about past communities of people who lived, worked and died in the landscape they shaped by their activities. An approach which we are finding particularly helpful in creating a better record, increasing understanding of the evidence and developing a wider public appreciation of the value and interest of the archaeological resource, is through the involvement of the present community in the study of their past.

The participation of local people in survey, research and putting schemes into action is raising awareness in the community who live and work on Exmoor, as well as providing members of archaeological groups with opportunities to get actively involved. Through working with the Exmoor Mines Research Group, Historic Exmoor Landscape Project, North Devon and West Somerset Archaeological Societies and the Tiverton Archaeological Group we are able to benefit from their knowledge of the area and to keep in contact with and get feedback from, the local community.

Britain's National Parks were designated because of the particular character of their landscapes. The activities of past communities shaped the landscapes we see today by using the resources of the land: farming the soil, managing woodlands and extracting and processing the rocks and minerals beneath. We are charged with the purposes of preservation of the natural and cultural heritage and encouragement of public enjoyment: the investigation and management of the historic environment has a vital role in achieving those purposes.

If we are to manage the present landscape of Exmoor well, for its own sake and for public benefit, we need to investigate and understand its genesis and to communicate the information we amass in ways which inform and enthuse. In pursuing this goal, we seek to involve the resident community actively and to provide enhanced enjoyment for both locals and visitors and a sound educational resource for all.

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