The Peak District Bogs and Peatlands: 
Their cultural history and the implications for conservation

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Summary

• Bogs and other peatland environments were formerly much more widespread and extensive than those we see today.

• There was more peat removal in medieval and early industrial times from the Dark Peak than the Norfolk Broads at the same time.

• Community peat cutting has continued up to the present time at only one location – The Graveship of Holme. From the time of Henry V (1400s) according to the present Constable of the Graveship – Arthur Quarmby. This is the living cultural history of the bogs.

• Peat removal for a variety of reasons and through a number of agencies has a massive impact on both landscape and the wider environment – wildlife, hydrology etc.

• Not unique to the Peak District but widespread and frequently over-looked throughout the UK uplands.

• These landscapes are the peatland equivalents of Rackham’s lowland, ancient woods.

Introduction

The impact of upland fuel economy, with the cutting of peat and turf, and associated drainage of vast areas of hill-side, hill-top, and valley-bottom mires, was a major force in shaping the present landscape (Rotherham, 1998). These impacts were exacerbated, by widespread cutting of ling and gorse, and gathering kindling and other materials, for fuel, bedding and fodder. Birch and bracken were harvested for a diversity of uses, including fuel and building
materials. Both turf and ling were widely used as cheap materials for the construction of buildings for people and stock.

These and other uses occurred over many centuries, largely on a localised, domestic scale, but sometimes also on an industrial one (Ardron et al., 1995, 1996 and 1997). The effects on vegetation, on soil and on upland hydrology were massive, yet often overlooked by researchers and managers. This is for two reasons:

1. **Progressive cessation of many of these land-use practices, during the twentieth century, so that many workers are simply unaware that they may have occurred.**

2. **The wholesale nature of some of the exploitation, to the extent that almost all direct evidence of use has been removed.**

For most lowland areas, intensive land-use has obliterated almost all the evidence from the landscape.

**Peatland Extent**

The boundary of the high Peak District heather moors has long been known to have fluctuated dramatically over the centuries. In the White Peak almost the entire cover of limestone heath was lost in the 1700s and 1800s. There has been little attention to the moors and peatlands around the periphery, and the extent of the former eastern outliers, and the massive contraction away from the eastern lowlands in recent centuries has been ignored. Periods of
agricultural intensification were followed by abandonment and re-colonisation of moorland (Parry, 1977).

Evidence of major peat bogs and heaths extends many kilometres down towards the eastern lowlands with bogs and peat utilisation recorded from the western suburbs of Sheffield and Holmesfield for example, and then down to the valley mires and marshes of the Don and Rother Valleys. There was a well-known peat cut off Ringinglow Road close to Ringinglow Bog on the Sheffield fringe.

**The Maps of Gordon Scurfield**

These maps produced over a thirty-year period from detailed archival research, present a unique insight into the former extent and connectivity of the resource.

The overall impacts of the changes have included catastrophic losses on the biodiversity resource generally. Heaths, moors, commons and bogs typically provide excellent habitat for a whole range of fauna and flora, and usually have feature such as ponds, pools, marshes, woods etc. intimately associated with them. The overall changes related to enclosure and cultural severance, were massive.

**Peatlands**

‘Peatlands’ are fragile environments ranging from relatively productive, lowland fens to the low-nutrient, unproductive peat bogs, moorlands and heaths. Not all are truly “peatlands”, but for this discussion they have substantial elements in common and include:

- Lowland fens and mires;
- Upland blanket bogs;
- Upland and lowland raised bogs;
- Other bogs;
- Upland, wet, heather moorland;
- Upland, dry, heather moorland;
- Lowland heath;
- Grass moor;
- Grass and heath commons.

**Cultural Use**

Often described as ‘*wastes*’ and ‘*commons*’ by topographers and landowners, and relatively unproductive, they produced and provided sustainably over many centuries, fuel, food and building materials for local people, and grazing for domestic stock, across much of the countryside. Before enclosure and ‘improvement’, or abandonment, caused widespread and almost total destruction of commons, heaths, bogs and peripheral moorlands, most people relied on them for a diversity of products:

**Fuel:**

<table>
<thead>
<tr>
<th>Peat</th>
<th>Building Materials:</th>
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<tbody>
<tr>
<td>Turf</td>
<td>Peat</td>
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<tr>
<td>Ling</td>
<td>Turf</td>
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<tr>
<td>Sedge</td>
<td>Ling</td>
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<tr>
<td>Bracken</td>
<td>Stone</td>
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<tr>
<td>Gorse / furze</td>
<td><em>Sphagnum</em></td>
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<tr>
<td>Kindling</td>
<td>moss</td>
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<tr>
<td>Birch coppice / brushwood</td>
<td>Bracken or fern</td>
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<td></td>
<td>Birch poles</td>
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<td></td>
<td>Other wood</td>
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<tr>
<td>Rushes for lights</td>
<td>Rush</td>
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<td>Clay</td>
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**Grazing:**

- Sheep
- Cattle
- Ponies /
- horses
- Deer
- Rabbits
- Moss hay

Other foods, medicine / herbs / dyes gathered etc.
Even urban areas that now seem unlikely had rights to cut turf for fuel. According to the *Ecclesall Enclosure Act* (1779) for land south-west of Sheffield:

‘-----there are within the Manor and Township of Ecclesall in the Parish of Sheffield several open commons, moors and waste grounds containing in the whole, 1000 acres or thereabouts.’

Carolus Paulus (1927) notes that according to the books of the Vicar of Sheffield, Ecclesall in 1775 contained 1,128 families, the total population being about one and a half persons to the acre. The bulk of these people were described as cottagers, labourers, farm servants and squatters. The cottagers either owned or occupied cottages which by ancient custom had attached to them the rights of commonage on the wastes. These were of various kinds and included the right to pasture one or more animals on the common, to cut turf and to extract fuel.

**Peat Removal**

**The Scale of Cultural Utilisation**

A broad sweep of research has now confirmed the scale and extent much of this landscape utilisation; including peat cutting, ‘turf-getting’, ‘moss-gathering’, bracken and rush harvesting, and a multitude of other uses. On upland landscapes especially, this has been far greater than previously suspected. The extent of well-defined peat cuttings around remaining areas of Peak District blanket mire, or around the North Yorkshire moors, is considerable. Along with this, thin peats and turf, on low-level moors were stripped away. In many areas there has been extensive ‘turf-cutting’ and ‘paring and burning’. In some cases this was associated with land improvement for agriculture, and the creation of in-bye land. Peat and turf cutting in upland Britain have greatly influenced the pattern and expansion of in-bye; which in turn has had a major bearing on the appearance of the landscape and distribution of human settlement, particularly around the moorland fringe. The relative proportions of in-bye resulting from the removal of turf, thin peat, deep blanket mire, or ‘paring and burning’ are unknown, but the collective extent is considerable. This impact extended down the hills into the extensive lowlands, but in most areas the evidence has been swept away by the enclosures and subsequent agricultural intensification.
The shallow peat cutting, ‘turf-cutting’, and ‘paring and burning’ took place extensively across much of the upland landscape, including the valley-sides, and down to areas of cutting and utilisation in the lowlands. This affected valley mires, raised bogs and fens, and importantly, many areas of lowland heath and common, mostly now obliterated from the landscape. Where suitable landscape remains intact, upland or lowland, the widespread occurrence of drainage features and other cutting infrastructure, indicate that few ‘peatlands’ were unaffected.

Upland areas such as the English Pennines and particularly the Peak District, the Yorkshire Dales, the North Yorkshire Moors, much of Wales and large areas of Scotland have seen their landscapes changed dramatically through fuel exploitation – mostly for peat and turf. For parts of the Peak District and South Pennines as demonstrated by Ardron et al. (1998) there was more medieval peat cut from the South Pennines (c.34 million cubic metres), than from the Norfolk Broads at the same time (Ardron, 1999). Most was in the early medieval period. Lower-lying sites were often exploited and progressively destroyed during the sixteenth, seventeenth and eighteenth centuries. This was associated with Parliamentary and private ‘enclosures’ of heath, moor, common, bog and ‘waste’.

**Impacts and Implications**

Exploitation of landscape resources for fuel over many centuries brings about dramatic changes. Upland landscapes across Britain have been shaped and manipulated by fuel-associated management. This changed vegetation and soil with associated transformation in colour and texture across square kilometres of high ground. Drainage and the removal of metres of organic material changed water holding capacity and behaviour leading to huge impacts in both upland areas and in the lower drainage catchments. In low-lying areas such as the Humberhead Levels, the Cambridgeshire Fens, or the Somerset Levels, vast amounts of peat and turf were removed causing massive change to ecology and landscape. However, as long as the fuel demand and other subsistence uses of the landscape persisted, vast areas were maintained as peat moor and fen.

**Past Trends**

For the South Yorkshire / north Derbyshire / north Nottinghamshire study area, changes in land-use have led to a massive loss of heathland and low-lying moor, along with huge inroads into the uplands particularly from around 1600 AD., up to the present day. The remaining,
generally unenclosed landscape of the high moorland, has been subjected to immense changes. Most of the peat was removed in the early medieval period, whilst the greatest, catastrophic losses of lower-lying sites probably occurred during the sixteenth, seventeenth and eighteenth centuries, associated with Parliamentary and private ‘enclosures’ of heath, moor, common, bog and ‘waste’. The resulting landscape has heather moorland restricted largely to the uplands north-west of Sheffield, in the Peak District National Park. The remaining lowland sites in the east are generally small and highly fragmentary.

Environmental loss on this scale has led to the extinction of a number of specialist species, and severely diminished occurrence of many others. Whilst this is often poorly documented, evidence is accumulating to support this conclusion.

**When and Why Did The Practice Cease?**

Research so far, indicates a diversity of reasons for the end of this industry. Indeed, it also shows a wide range of dates for the abandonment across the UK. In some cases, such as much of the White Peak of Derbyshire, exhaustion of the supply, combined with loss of land to enclosures and improvement, were likely causes (perhaps during the 1700s and early 1800s).

**Conclusions**

**The Dynamics of the Peatland Environments**

Peatland landscapes continue to change, but no longer dominated by active utilisation such as cutting of peat or turf, and other subsistence exploitation. Contemporary moorland and heathland land-uses, such as sheep-grazing, grouse-shooting, and recreation, now contribute to the process, particularly in upland zones. The vegetation of remaining blanket mires and wet moorlands continues to change associated with the drains and linear cuttings which still affect the hydrology. In peat pits, linear cuttings, and on over-cut areas, secondary, ecological successions proceed, especially now that active cutting has generally ceased. These successional changes further influence associated animal communities, and through the dominant vegetation, determine the appearance of today’s contemporary landscape. As Paul Ardron has described in the Peak District uplands, the influence of the peat cutter’s hand is still there!

**Conservation Management Issues in Peatland Environments**

With extensive upland peat cutting largely unrecognised, its relevance has been overlooked. Furthermore, the former extent of peatland landscapes in the UK, and their cultural uses, have been dramatically under-appreciated. The hand-cut peatlands, and other aspects of the cultural heritage are important. The Somerset Levels were surveyed for peat cutting archaeology by the *Royal Commission on the Historical Monuments of England* (Eversham et al., 1994), and peat processing works at Fenn’s and Whixal Mosses are being managed with industrial heritage and its nature conservation interest in mind (Berry et al., 1996). However, this recognition and appreciation is still in its infancy, and developments are very localised and confined to sites of former lowland peat cutting. There should be widespread survey of all potentially-significant, peat or turf cut landscapes, and were possible the development of sympathetic management plans. Specifically, there is a need for the conservation and protection of at least some examples of both upland and lowland peat cut environments as important conservation landscapes, perhaps with areas of ancient peat cutting archaeology, scheduled as historic and cultural ‘monuments’. Lastly, an appreciation of the scale of this cultural impact is essential to inform the conservation of both this unique historic heritage, and the effective nature conservation of these same areas.
The Peat Resource

The exploitation of peat has been widespread, involving shallow as well as deep deposits, and the peat cover has often been more-or-less completely removed. Because of this, the remaining peat resource is even more diminished than previously perceived. The historical and ecological record preserved within the remaining peat deposits and buried tree remains, even if degraded, is of great scientific interest and value. The shallower blanket peats and topogenous deposits on middle and lower level moorlands, are now the most scarce resource. However, there is an urgent need to protect as many peatlands in general as possible and to actively conserve those that are deteriorating further. On the upland moors the further deterioration of the remaining mires might be checked by blocking any drains which are still functioning. Certainly no more drains should be dug, and existing drains should not be cleared.

The Peat Cut Landscape

Since peat cutting landscapes in the uplands have remained largely unrecognised, they have received no specific protection. Their protection up to now has been incidental, and due largely to the fact that land improvement over the centuries has been generally ineffective. Land uses such as sheep grazing and grouse shooting have found favour with the owners, and have served to protect the resource to at least some degree. However, enhanced and continuing drainage have been and continue to be extremely damaging.

The Environmental Consequences of the Changes

Eutrophication, Succession and Species Loss

There are serious and long-term implications of the cultural severance of these areas, from their subsistence exploitation over innumerable centuries. Whilst some of these, such as reinstatement of grazing for example, are being addressed by site managers, others are intractable. The long-term exploitation for fuel in particular must be seen as fundamental in maintaining low-nutrient status; essential for many of the specialist species. Abandonment of use has allowed a gradual but perhaps irreversible move towards eutrophication which will have profound implications in the long-term.

Overall impacts however vary from enhanced biodiversity through small-scale pits and pools for example, to complete loss of species through gross removal of peat and drainage of the landscape. These impacts are described and discussed elsewhere.

Furthermore, the long-term implications of contraction of area, of widespread drainage, of site fragmentation, and of peat removal, must be understood. This is especially so if future management is to be effectively directed, and successful in the achievement of its objectives. Indeed, the objectives set should be fully informed of the consequences of these findings.
Hydrology

The massive scale of peat and turf removal has dramatically affected upland hydrology along with that of the catchment below. Classic engineering hydrology approaches to bog drainage have overlooked significant landscape scale impacts. The overall impacts of change are defining for many sites and areas within the former peatland zones.

Carbon

The sheer scale of peat and organic matter removal must have long-term impacts through amongst other things, the release of stored Carbon. It is likely that this release is far more significant than was previously thought.

Fundamental Change

Perhaps the most important conclusions to stem from this work, relates to the fundamental scale of change in the landscape as discussed. Firstly, this is to do with the long-term use of these areas for subsistence farming, over many, many centuries. We believe that the scale of this and its impact have been grossly under-estimated. Secondly, the separation of these landscapes into lowlands and uplands often masks the human element. These are very much enclosed and unenclosed landscapes. The impact of associated changes was far greater in the lowlands. Enclosure, cutting and drainage, and finally, often catastrophic agricultural intensification or creeping urbanisation, have radically altered the lower ground, almost beyond recognition. However, even where the upland areas have escaped this fate, the impacts of drainage, of isolation, and of fragmentation, have certainly taken their toll. These peatlands are truly fragile environments, and cultural utilisation has caused fundamental change. The full scale of this is perhaps yet to be appreciated.

Cultural Landscapes

These upland environments can be seen in a new light. Just as Oliver Rackham highlighted the cultural and historical importance of ancient woods, so we can see history in the
peatlands. The long-term human impacts of these areas are basic to the landscape of today. Without understanding the impacts over thousands of years, it is difficult to fully address contemporary management needs. Furthermore, the effective conservation of the evidence of this use – the archaeology is of great importance and of huge interest. Along with the positive conservation of living heritage such as the Graveship of Holme, this approach presents serious challenges to traditional conservation.

Selected References


