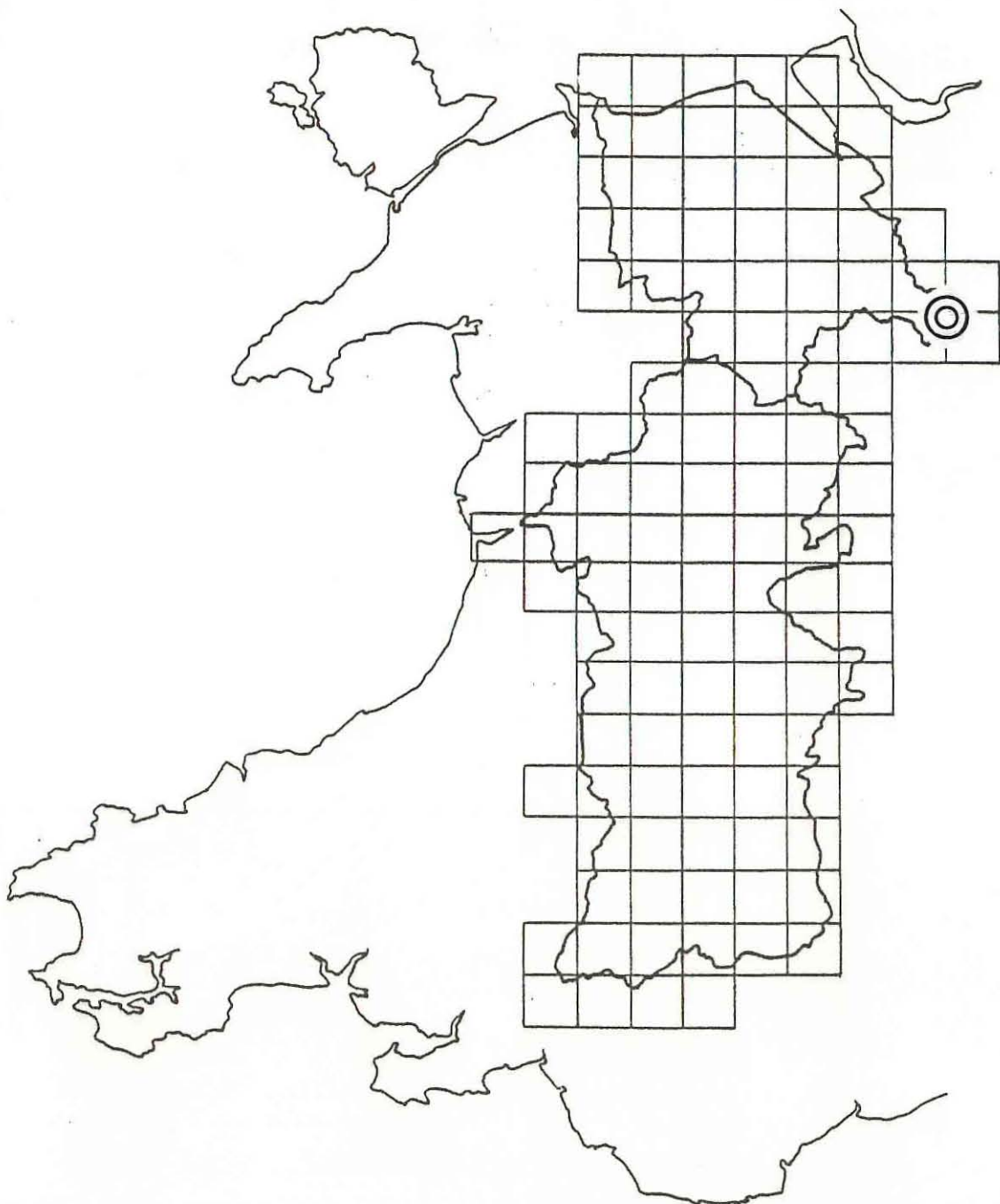


*An Archaeological Assessment of  
Fenn's and Whixall Mosses,  
Clwyd and Shropshire*



# **An Archaeological Assessment of Fenn's and Whixall Mosses, Clwyd and Shropshire**

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## **1 Introduction**

- 1.1 The raised mires of Fenn's and Whixall Mosses, centred on NGR SJ 490 365, straddle the Clwyd-Shropshire border. They are largely designated as a Site of Special Scientific Interest (SSSI) and cover an area of 684 ha (1690 acres). Approximately one-third of this area lies in England, the remainder in Wales.
- 1.2 The peat resources of the mosses have long been exploited, extending back into the medieval period, although this early activity is poorly documented. Commercial extraction started after enclosure of the mosses in c 1850, with large-scale exploitation following in the 1950s. The increased rate of commercial peat extraction for horticultural use in recent years was of great concern to the national conservation bodies in Wales and England, now known respectively as the Countryside Council for Wales and English Nature, to the county authorities in Shropshire and Clwyd and various archaeological bodies (Caseldine 1990, 5; Middleton and Wells 1990). As a direct response to the gradual destruction of the peat and its wetland habitat English Nature successfully negotiated the purchase of the peat extraction leasehold, though most of the mosses remain in the ownership of the Bettisfield Park Estate. From April 1991 cutting of peat by the previous leasee, Croxden Horticultural Products of Stoke-on-Trent, ceased. The effect on the wetland of 'private' peat cutting carried out by small family concerns, a minority cutting peat as fuel, others extracting peat for horticultural resale and operating without planning permission, remains a problem.
- 1.3 The potential archaeological resource offered by wetlands has been highlighted and demonstrated clearly in recent years, with significant discoveries in the Somerset Levels, the East Anglian fenlands, the Irish Midlands and the north-west of Ireland (see for instance Coles and Coles 1989; Raftery 1990). Areas such as Fenn's and Whixall Mosses are of considerable importance for integrated archaeological and palaeoenvironmental studies.
- 1.4 Both the North West Wetlands Survey and the Clwyd-Powys Archaeological Trust had expressed interest in the Fenn's and Whixall Mosses before the important change in the management of the area. Several factors influenced the promotion of an archaeological survey of the mosses, once their immediate future was more secure, namely the short-term opportunities provided by machine-cut section faces for archaeological observation and the need to advise English Nature on the archaeological interests which could be incorporated in the area's conservation management plan.
- 1.5 The funding of a rapid archaeological survey was provided by Cadw/Welsh Historic Monuments and English Heritage, the work being carried out jointly by the Clwyd-Powys Archaeological Trust and the North West Wetlands Survey. The survey was carried out by a team of two archaeologists over a 10-day period in late April and May 1991.

## **2 Method**

- 2.1 Commercial large-scale peat extraction had progressed by means of 'yard-deep' machine cuts, which enabled the peat blocks to be stacked to dry beside the trenches.



Controlled extraction over the years had created a pattern of cuts (flats) and sections, known to peat workers by name and number. Machine-cut sections from 1990 and 1991 were only moderately weathered, earlier cuts considerably so.

- 2.2 Hand-cut trenches, usually creating irregular, open and occasionally flooded areas were examined. The peat cutters in many places had worked around tree-stools and left stumps and roots in situ. Where possible the private peat cutters were asked whether they had found or were aware of the discovery of artefacts or worked wood in the peat. Six individuals were approached and in each case the answer was negative.
- 2.3 Fieldwalking involved checking standing sections for archaeological remains, worked wood, pre-peat surfaces and making a general record of the presence of *Sphagnum* peat (sometimes indicative of recurrence surfaces), in situ pine wood and birch. The aim of the exercise was a rapid assessment of the area's archaeological potential rather than a palaeoenvironmental survey, one of the limiting factors being the time available to clean and record standing sections. A few samples of the main peat units were taken for future analysis by Astrid Caseldine of St David's University College, Lampeter (SDUC).
- 2.4 It is estimated that 90% of the area within the SSSI boundary was examined, the main area not covered was the Bettisfield wood on the south-western edge of the mosses.
- 2.5 The main cartographic source for the survey was a Soil Survey plan (1989) at a scale of 1:5000 supplemented by extracts from a Nature Conservancy Council (NCC) report by Richard Lindsay prepared in the same year. Vertical aerial photograph cover at 1:10000, taken in October 1984, provided additional topographic control.

### **3 Known Archaeology**

- 3.1 Archaeological discoveries on the mosses are few. They include:
  - a a Middle Bronze Age looped palstave found during peat cutting in 1927 at the level of the 'pine horizon' on Whixall Moss at SJ 493 360 (Chitty 1933).
  - b a gold coin of William I reportedly found in the course of peat cutting in the 19th century (John Lord Hanmer [1877] quoted in Owen 1969, 150, note 64).
  - c late 19th-century discoveries, at various times, of three bog-bodies, reported in the local press. A possible site is at SJ 494 364 (information from Stephen Penney who is currently preparing an article on these discoveries for publication). One is described as the extended body of a male, lying face down at a depth of five feet at the junction of the dark brown and lower black peat.
  - d a 1930s peat processing and baling plant which functioned until the 1960s stands on the north-west edge of Fenn's Moss. This is a rare survival. The plant and structure have recently been given statutory protection (Scheduled Ancient Monument No F182).



- 3.2 Palaeoenvironmental work on the mosses, which provides a background to past human activity, has been intermittent over the last fifty years (see Middleton and Wells 1990, 14).

#### **4 Results of the Survey (maps in end pocket)**

- 4.1 Three major stratigraphic units were visible in the 'yard deep' cuts. At the top, where present, was a weakly humified *Sphagnum* peat, up to 40 cm thick. Below this was a middle unit of humified dark brown, fibrous peat which had a sharp boundary with a lower black peat.
- 4.2 Surface *Sphagnum* had been locally rotavated and removed by machine (information from Bill Allmark, former works foreman). In the Middle and Top sections where the surface vegetation had been mechanically stripped, *Sphagnum* domes of lensoid form, up to 50 cm thick and 4 m across, were present. These may relate to earlier peat cutting that created hollows in which rapid *Sphagnum* growth occurred.
- 4.3 Drift deposits, comprising light to dark grey sands and gravels were observed in the spoil from sumps located in the eastern quarter of the moss, and also in surface exposures at two locations on the northern and southern boundaries of the SSSI area.
- 4.4 Prominent in many of the hand cuts and apparently having a widespread distribution were in situ pine-stumps and root-stools; the tree stems varied from 15-30 cm in diameter. Damage to the mechanised peat cutter by tree-stumps had led to the abandonment of certain areas of the Moss, notably parts of the Canal and western Middle sections.
- 4.5 Birch wood in situ was occasionally recorded.
- 4.6 No stratified artefacts were recovered.
- 4.7 Our attention was drawn by Bill Allmark to two fragments of worked wood found years ago whilst mechanically excavating a ditch on the southern edge of the Maelor railway, at the east end of the railway section. Their purpose and age cannot be ascertained.
- 4.8 Equivocal evidence of possible human activity represented by charred pine roots in a hand-cut area at the north end of Tom Bailey's section (c SJ 4905 3606) could be the result of burning after the re-exposure of the pine horizon in modern times. The private cutters set fire to parts of the moss thereby clearing surface vegetation prior to extending their cuts. However, it is worth noting that there is a long history of uncovering fire-blackened trees in Fenn's Moss. Similar discoveries were recorded by Hanmer in 1877 (Owen 1969, 150, note 64) who suggested that this bog was the great wood within the lordship of Bettisfield mentioned in Domesday Book.
- 4.9 It is evident that the major evidence for past human activity in and around the Fenn's and Whixall Moss basins is to be found in the palynological record of the peats (for references see Middleton and Wells 1990, 14).



## 5 Recommendations

- 5.1 Archaeological monitoring of the private peat cutting should be maintained.
- 5.2 Any significant excavation of the peat (eg for dams, ditches and sluices) proposed by English Nature should be seen as an opportunity for recording and sampling deeper peats with a view to ensuring their preservation within the management plan. Should archaeological remains be uncovered during management works, controlled excavation and environmental sampling will be required.
- 5.3 A linked programme of recording, sampling and dating of deposits exposed during English Nature's programme of re-hydrating the mosses should ensure that as full a sequence as possible of the peats in different parts of these wetlands is preserved and investigated.
- 5.4 Consideration should be given to the preservation of areas of top peat which contain the record of man's more recent activities. Although the Cranberry Beds, Church Land and Oaf's Orchard have been least affected by cutting in the past, the stratigraphic position of their surface peats is unknown.
- 5.5 Land use changes on the margins of the basins should be seen as opportunities for renewing the field survey. Indeed the peat-drift junction may well be the most promising area for recovering evidence of prehistoric activity (cf the results from the East Anglian Fens and elsewhere).
- 5.6 Land on the north-western margin of the mosses at Cambrian Cottage and arable land to the north on an Economic Forestry Group nursery comprises basin and hummock terrain with fringing peat and is topographically a promising area for traditional fieldwalking.
- 5.7 The recently scheduled peat processing mill should be the subject of a full survey, preferably both measured and photographic. It would also be useful to draw on local knowledge of how the plant functioned, while the operators are still alive.
- 5.8 The maintenance of links between English Nature, Clwyd-Powys Archaeological Trust, Cadw, North West Wetlands Survey and English Heritage and the encouragement of the involvement of palaeoenvironmentalists in the well-being of the mosses will ensure that the record of man's activities in and around Fenn's and Whixall Mosses is both preserved and better understood.
- 5.9 The establishment of a forum of archaeologists and palaeoenvironmentalists to support and advise English Nature and to extend the archaeological brief to include other adjacent mosses and areas marginal to the Fenn's and Whixall SSSI is recommended.

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