Irish Bogs: The Time Is Now

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The archaeological wealth of the bogland of Ireland is steadily being eroded through drainage and quarrying of peat. There is a strong case for an intensive archaeological survey which would lead to the identification of important areas of bogland for permanent preservation. Recent developments indicate that the time for such action is short.

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The appearance of a book on Irish wetlands which discusses conservation in a rational way is sufficiently unusual to warrant a review of the present position of archaeology and the boglands, although the book in question barely touches archaeology and does not attack the real problem (van Eck *et al* 1984). The programme of research leading to the book *Irish Bogs. A Case for Planning* was carried out by four Dutch students. Their aim was to investigate the conflicting nature of the many interests in the bogland of Ireland. The book is subtitled 'The controversy between exploitation and conservation of ombrotrophic peatlands in the Republic of Ireland', but it is mainly a review of the varying ways by which the wetlands have been treated over the past 100 years, with only a short section on the strategy for dealing with the conflicts. All of their investigations were carried out south of the Six Counties, and when this review therefore talks about Ireland, it will mean the Republic and not the whole island, more's the pity.

Just under 20% of the land of Ireland is peatland of one sort or another, with the two major types, raised bog and blanket bog, dominating the landscapes, particularly in central Ireland, and in west and north, respectively. Turf from these bogs has been cut by hand since recorded times, providing fuel for heating and cooking in all walks of life. Through this hand-cutting, particularly in the nineteenth century, many hundreds of archaeological finds were made, some of them surviving, and they form a major part of the holdings of the National Museum of Ireland. It is estimated that as much as 60% of the collections are from bogland of one sort or another, and certainly the recent survey of such National Museum finds provides an excellent quarry for further research (Halpin 1984). None of that appears in the book under review, and it is disappointing that only the barest reference is given to archaeological discoveries; further comment appears below.

In a survey of peatlands in 1810-1814, it was discovered that in all of Ireland there were 1.2 million ha of peat, uniquely rich in flora and in fauna, for both blanket and raised bog have specialised acidic regimes which attract certain forms of wildlife, and repel most. *Spaghnum* moss is only one of the favoured and eager plants of the raised bog, acting like a giant sponge to hold water and create a totally isolated and irreplaceable ecosystem, filtering and cushioning. It is said that a single footprint, impressed into active moss, will be identifiable for up to two years, so fragile are the strands of life making up the surface of such boglands. And bursters, where an overloaded bog breaks at an edge and flows inexorably downslope to engulf all in its path, is a phenomenon well-recorded in nineteenth century Ireland.

The threats to bogland in Ireland today are not those of passing traffic or water in excess. They are the reverse of these: permanent exploitation by man, animal, and machine, and drainage of water from the bogs. Today only 6% of the original raised bogland remains

undamaged, at the most optimistic estimate. The single factor accounting for most of this dramatic event was the establishment of a national peat body in 1946, Bord na Móna, with the aim to produce peat for fuel, to provide employment in otherwise difficult areas of settlement, to assist in a state forestry scheme on peatland, and to help develop drained and cut bogland for agriculture. To achieve these ends, Bord na Móna had to acquire land, to develop it, and to produce peat from it, through a set of Development Programmes, in 1946, in 1950, and in 1974. Many thousands of people were and are employed in these schemes, and this is an important economic and political factor.

At the present time, Bord na Móna is the second largest peat producer in the world, only the USSR achieving more (from a rather larger area of bogland!), and about five million tonnes is produced each year, most for the Electricity Supply Board for their ten or so turf-fired stations. It has never been acknowledged how inefficient turf is for energy production, nor is it mentioned in this book. About one tonne of peat yields the equivalent of about two barrels of oil; the annual output of oil from even one of the major world's resources would totally submerge all Irish peat in terms of equivalent energy. Of course the argument is a bit sterile for Ireland, if there is no local alternative to peat for energy. But there is, as peat only supplies about 15% of the primary electricity at present; and unlike electric power from water, whether riverine or tidal, and other sources of energy, peat is exhaustible and finite; peat is not only dead plants, it is a dying energy source, irreplaceable.

Well over 80,000 ha of peatland is in Bord na Móna's hands at present. It is worked for its turf in many ways, most of them explained in the book, but the initial activity is the most dramatic and destructive to the ecosystem. Drainage channels are cut, up to 100 cm deep, widened and deepened as time goes by, as the enormous machines cut, rotovate, shred, turn, push, blow and pick up the peat in the form of blocks or milled peat. Hand-cutting of the past, and of the present too, in many areas of both raised bog and blanket bog can still reveal and recover ancient artifacts, structures, and buried landscapes, as the many stone and metal objects in museums, records of bog roads, and field and settlement patterns attest. Caulfield's work in Co. Mayo is a notable achievement (1982). Bord na Móna machines are not as observant, and although it is admitted and acknowledged that the Board makes an effort to recover and record archaeological finds, and to pass them to the National Museum, recently this is little more than lip-service, and it cannot be an adequate response to the threat to Irish heritage.

Other activities that effect the unique character and quality of Irish boglands include forestry. Records suggest that vast areas of Ireland were wooded up to the sixteenth century, when drainage and destruction began, leaving the treeless expanses of recent Ireland. The reforestation by the state is a relatively modern event, and in 1982 there were over 160,000 ha of Irish peatland which had been drained, fertilized, planted, fenced and cropped for wood. The effects of these actions on the natural vegetation needs no emphasis here. If not forested, then drained bogland provides enormous areas for cropping, pasture and rough grazing, and these activities are of course the third major exploitive agency: turf-burning for fuel (>80,000 ha), forestry (>160,000 ha), agriculture including pasture (>180,000 ha). These figures are only for drained bogland, not the vast adjacent areas affected by such desiccation; it is obvious that a drained area will draw upon itself the waters from nearby untouched bogland, so that all are affected in varying degrees. One rather ironic and actual example comes to mind. In the Somerset bogland of England, two fields lie side by side; one is a Nature Reserve for wetland wildlife, the other is farmland. The latter is drained, for EEC agricultural purposes; the peat thus shrinks, while partly drawing water from the Nature Reserve. When heavy rain descends, the farm field floods

as it is now lower than all around it. So the Reserve gets drier, and the agricultural field gets wetter—exactly the reverse of what each agency wants! The cleverness of man constantly amazes; his response is to drain the field more severely, thus accelerating the above results.

How much of the original huge bogland of Ireland still survives these activities is difficult to gauge, but according to the authors there is partial protection of 1,680 ha of blanket bog, and 480 ha of raised bog and transitional bog; this is not a lot, as it has to satisfy the needs of many interested parties, all ecologists of one sort or another. Among these, botanists must figure large, as peatlands hold the best record of past environmental and climatic changes, in the pollen and macroscopic plant remains. But coleoptera specialists, and others interested in the vertebrates, and in recent wetland flora, are as involved. Education about ecological balance, the fragility of ecosystems, the unique landscape of Ireland unmatched anywhere in the world, all of these are hard to quantify in terms of energy, timber, and food, but they are nonetheless important for the Irish heritage. A glance at a sample of current publishers' lists of books reveals titles such as *The Politics of Wilderness Preservation*; *Population, Environment and the Quality of Life*; *A Search for Environmental Ethics*; *Ecological Beliefs and Behaviours* (references in the bibliography). Where are the Irish books on these subjects? Why does it take four Dutch students to try to set out the exploitive values of Irish peatlands, even if they are unable to present a viable strategy (see below)?

Archaeology has a place in this debate although it has little space in the book under review. After acknowledging that the peatlands hold much evidence of the past, in the form of artifacts, bog roads (toghers), field systems, the only comment is that it is better to leave them buried, because there are not enough archaeologists in Ireland to study them, and by inference there are no conservation facilities able to cope. This last is certainly true, as an examination of the wooden artifacts in the National Museum will show. But surely not the first; there are plenty of archaeologists about, and all that is needed is interest and commitment. In England, for example, several small projects have in a short time revolutionised our knowledge about ancient environments and cultural behaviour, at relatively little expense compared with the sums spent on dryland tombs and settlements where only inorganic stone, flint, pottery, and mineral stains survive.

Ethnographic evidence from almost every region of the world, including the same latitudes as Ireland, demonstrates the use of organic materials in almost all activities: fences, barns, houses, tools, weapons and containers of wood, clothing, tents and blankets of textiles and skins. Artistic work, and the symbols of the communities, are in wood or in textiles, rather than in the stone, flint or fired clay which we spend so much unprofitable time studying. I readily acknowledge the Irish High Crosses! But it is clear that if we as archaeologists and prehistorians could obtain evidence about the organic content of ancient society, we would be in a much better position to analyse and interpret the remains, and we could be more confident in our attempts to understand what went on in the past; ideas about human behaviour are what we are after, and wetlands are the only environment in Europe that will give us the evidence. A look at the phenomenal preservation of Neolithic and Bronze Age settlements in the lake muds of Switzerland, of Mesolithic camps in Danish waters, of the Iron Age fortress of Biskupin in Polish peats, will demonstrate the potential for wetland archaeology (Coles 1984 has a survey of these regions, and foreshadows a definitive book of essays on the achievements of wetland studies, Coles and Lawson *in press*).

The area of the world closest to Ireland in the nature of the peatland expanses, the archaeological content, and the threat, is Florida (Purdy 1982). Here 6,000-year-old structures and artifacts in amazing variety and quality have survived, and provide a starting

point for a record of organic archaeological remains up to about AD 1600, now seriously under threat of drainage, desiccation and peat-cutting.

The authors of the book under review have identified the many interests in Irish peatlands, and they list them; there is no archaeological entry. There are conflicts of course, even without our discipline, and they are listed and tabulated as: on one side, industrial and private turf-cutting, afforestation, agricultural reclamation and rough grazing; on the other, ecology, science, and landscape. For the raised bogs of central Ireland, turf-cutting poses the greatest threat to all the conservation interests, and for blanket bogs it is forestry that is the major source of conflict and interest.

What is proposed is simple and logical, but it won't work. The authors believe that in the short term, vital peatlands should be designated as nature reserves and national parks, and obtain protection as a part of the Irish heritage. In the long term, there should be a national committee of all interests, to make an inventory of peatlands, draw up priority lists based on different criteria, impose planning consent restrictions and inducements, and exercise a commitment to Irish boglands which will never vary in intensity. However, destruction of Irish peatland has been going on for decades, and there has been no national response which has succeeded in deflecting the commercial agencies from their avowed and state-directed aims.

For archaeology, there has been no recognition of the unique quality of evidence and opportunity offered for peatland work in the deep and waterlogged bogs, yet even this reviewer on his sojourns in Ireland can see locations and areas full of potential for keyhole investigation, and of course the distribution of artifacts of all periods, if ever assembled in a usable form, would identify these localities in a more precise way.

Multi-disciplinary projects are required, bringing together natural scientists and archaeologists in collaborative efforts to investigate the wetlands. Mitchell's Presidential Address to the Royal Irish Academy had much of relevance to this discussion, although not referring to wetlands as such (Mitchell 1978). Wetland sites cannot be saved except in very special positions, where adjacent drainage is controlled through topography or other circumstances and these places may well not be those of highest archaeological merit or potential. The projects have to go straight to the best locations and begin work, by an environmentally-guided sampling strategy, aided by dating through radio-carbon (dendrochronology may come later with its unique precision), and very small-scale investigative excavation, leading to a build-up of information, identification of prime locations and development of major programmes of excavation and post-excavation studies; the latter will cost about ten times as much as the survey and excavation. Is it worth it? We know almost nothing about Irish prehistory except the stone tombs, and inorganic artifacts (Herity and Eogan 1977). Unlike many areas in western Europe, we have the chance to know a hundred times as much, through wetland work. Ireland is the *only* country in Europe which has extensive wetlands and which has *no* archaeological presence to deal specifically with them, and seemingly little interest to establish one. In the year 2000, it will all be gone, drained or quarried to extinction, and we will be the poorer, in lost (or rather unfound) knowledge, and in the lost landscapes which once made Ireland unique. It is our last chance; the time is now.

References

Allen, C.W., 1982: *The Politics of Wilderness Preservation.* Greenwood, London.

Anglemyer, M., E.R. Seagraves, & C. Lemaistre, 1980: *A Search for Environmental Ethics.* Smithsonian Institute, London.

Caulfield, S., 1982: "The Neolithic settlement of North Connaught", in T. Reeves-Smyth and F. Hamond (eds.), *Landscape Archaeology in Ireland, BAR,* 116, pp. 195-215.

Coles, J., 1984: *The Archaeology of Wetlands.* University Press, Edinburgh.

Coles, J.M. & A.J. Lawson (eds.), forthcoming. *European Wetlands in Prehistory.* University Press, Oxford.

Gray, D.B., 1985: *Ecological Beliefs and Behaviours.* Greenwood, London.

Halpin, A., 1984: *A preliminary survey of archaeological material recovered from peatlands in the Republic of Ireland.* Office of Public Works, Dublin.

Herity, M. & G. Eogan, 1977: *Ireland in Prehistory.* Routledge, London.

Marden, P.G. & D. Hodgson, 1975: *Population, Environment and the Quality of Life.* Mecklen, London.

Mitchell, G.F., 1978: Planning for Irish Archaeology in the Eighties. *Irish Archaeological Research Forum 5,* pp. 1-14.

Purdy, B., 1982: Survey, recovery and treatment of wooden artifacts in Florida. In D. Grattan (ed.) *Proceedings of the I.C.O.M. Waterlogged Wood Working Group conference, Ottawa 1981,* pp. 159-169, I.C.O.M. Ottawa.

van Eck, H., A. Govers, A. Lemaire & J. Schaminée, 1984: *Irish Bogs. A Case for Planning.* Catholic University, Nijmegen.