The Bogs and Our Past Beneath Them

WL17 - ENFO

Most Irish bogs are under threat from drainage and peat extraction programmes. Botanists and naturalists are interested in the conservation of a representative sample of Irish bogs because of their unique flora and wildlife. Archaeologists, too, are concerned because bogs contain many important archaeological sites. Where bogs have been opened up by either hand-cutting or machine harvesting, drainage patterns are altered, only small amounts of peat are left in place and the original flora and fauna of the undeveloped bog are destroyed. It is easy to understand why such opened bogs are considered to be too damaged to be worth preserving. But important archaeological remains often underlie such opened bogs and these prehistoric sites make the cutaway bogs worthy of preservation also, even though their botanical value may be greatly diminished. This account describes some of the discoveries which have been made under bogland and sets out how anyone in the vicinity of such bogs can search for similar type sites in their own area.

STEPPING BACK THROUGH TIME

Imagine that you wake one morning to find that your stairs' carpet has become a magic carpet to transport you not through space, but through time. As you descend the stairs you are brought back in time five hundred years at every step. On your portable radio you listen for the latest news and because of your hay-fever you wait anxiously for news of the pollen count for the day.

At your first step, news is coming in of a mad Italian who intends travelling to India by sailing westwards across the Atlantic. At the second step there is local news of trouble at Clontarf between the Irish and some Scandinavian visitors. The third step reports an unusual court case between two holy men, Finian and Colmcille, about the copyright to a manuscript. The fourth step announces the execution of a revolutionary in the Near East because He preached universal love. The fifth step is all of wars in Europe and how the new weapons of iron have escalated the conflict. Step six reports "the worst weather since records began": step seven, the boom in Irish gold production and exports; step eight, the introduction of the new technology of bronze working into Ireland. Step nine reports the completion of Egypt's finest pyramid, unbelievably almost five hundred feet high. The tenth step takes you to the ground floor and in time, to 3000 BC. The news on the ground floor is all about the steady stream of immigrants into Ireland who no longer depend on fishing and hunting for their food. The newcomers have a magical control over the massive animals which they bring with them, and they eat the seeds of strange new grasses which they plant in the ground. They have new tools and new materials, they bake clay into pottery, they make cloth from fibres, and they man-handle enormous rocks into position to construct megalithic tombs for their dead. Your hay-fever has not improved in your five thousand year trip back in time so you wait for the day's pollen count as you did at every step on the way down.

CUTTING BACK THROUGH TIME

Something approaching very closely in real life to this fantasy of a magic carpet into the past is to be found in many pans of Ireland particularly in the West. There people cut turf for fuel. The bogs are cut with special spades into sods about 30 cm. in length. The sods are cut vertically, six or seven to a strip about a yard wide and each layer is cut off before descending to the next layer. As the turf-cutter descends layer by layer he steps back in time so that he stands on the plant remains of hundreds of years earlier every layer he goes down.

When finally he has cut to the bottom of the bog and he stands on the soil beneath, he has descended a time stairs and stands on a land surface last walked on five thousand years ago. The items he finds in that landscape, the fields and farms, the tombs and houses, the pottery vessels and the tillage gardens, he can be sure are prehistoric because they lie at the base of the bog, the time stairs which separates them from today.

Archaeologists reconstruct the story of man's past from the objects and structures which he left behind. The remains of past structures from the stone age, particularly the megalithic tombs do survive in places and can tell a lot about what man considered important at least for his spiritual well being. But one area of research about which we know very little is how man exploited the landscape in prehistoric times. In most places in Europe man has continued to farm those same areas which were farmed in prehistoric times. Because of this continual ploughing, herding, dividing and reallocating as land passes from one generation to the next, it is now virtually impossible to discern any evidence of prehistoric farming in the modem landscape. This lack of visual evidence on the ground has led archaeologists to think of prehistoric farming as very simple and primitive. Early farmers in the stone age were at one time thought to have cleared small patches in the forest for tillage and to have then moved on when the fertility of the soil became depleted. Cattle were thought to have been reared by making use of rough grazing in the forest and on high ground. How large an area was farmed by one group or what size of community was attached to each tomb were matters for guesses as nothing of the original landscape survived to provide the answers.

In contrast the landscape exposed when turf-bogs are cut away offers a unique opportunity to study a Neolithic landscape untouched by man for over four thousand years. The picture that is emerging of this prehistoric landscape is radically changing our understanding of early farming practices. It is now clear that Neolithic farming was already at a fairly sophisticated level with land divided up into fields just as it is today. Extensive tracts of over one thousand acres were cleared of forest, divided up into strips of land over a mile in length and were then sub-divided by cross-walls into fields of five to fifteen acres. In places in the west today where most fields lie below the five hundred foot contour, Neolithic fields extend over the summits of eight-hundred-foot-high hills, altitude obviously having no effect on settlement. Tombs which in other areas lie as fossils in the modern landscape, can be studied under bogland in their contemporary landscape.

On occasion, houses have been discovered under the bog and where detailed excavation has been carried out, traces of cultivation such as ridges and plough

marks have been uncovered. Detailed formal excavation has one disadvantage however; it must of necessity confine itself to a limited area and therefore cannot extensively investigate the total landscape sealed by hundreds of square miles of bog. The unique opportunity to examine a fully sealed landscape could therefore be lost if research were devoted solely to excavation.

At any rate formal archaeological excavation is largely unnecessary as normal turfcutting which has gone on for centuries yields much of the results. The most important new insight into Neolithic farming which has emerged from pre-bog research is the enormous extent of the field boundaries which were constructed. These field boundaries of stone or of earth or of a combination of both are readily recognisable on the old ground surface in cutaway bog wherever the bog has been cut to its base. It is true that the boundaries may not appear very substantial when seen in cutaway bogs but there are a number of reasons for this. Firstly, turf-cutters when they hit an obstruction like a stone way will not remove the turf completely around it so that it remains partly covered by bog. Secondly, turfcutters dump the top 'scraw' of about six inches thick because this top of the bog will not dry into fuel for burning. There is therefore every year a certain amount of resodding of the surface with the top scraw and this can result in sizeable walls appearing as insignificant lines of stones.

HOW SITES ARE DISCOVERED

An aspect of this research into the prehistoric landscape is that it can be undertaken by anyone with an interest in the past and in fact most accounts of pre-bog field boundaries have been passed on to professional archaeologists by local observers.

A very simple method has been devised to overcome the problems of boundaries which have been reburied by top scraw or which have not been fully cut to the base of the bog. About twenty bamboo rods are shoved into the ground across the line of a wall and spaced at about 30 cm. intervals. The bamboos can be inserted easily into the bog but will not penetrate the soil beneath. The twenty bamboos thus record the profile of the pre bog land surface including the boundary. This method is especially useful for showing details of earthen banks and ditches. Extensive tracts of prehistoric landscape can therefore be reconstructed simply by mapping those areas of early settlement revealed by turfcutting.

But even though turf cutting has revealed far more than could ever be done by formal excavation of the bogs, nevertheless these bog cuttings usually only reveal to us part of the prehistoric landscapes and interesting archaeological structures, partly exposed, often run on in under the uncut bog. To study the manmade structures under the uncut bog, archaeologists have re-introduced a traditional tool in use for centuries in bogland areas. In the bleak treeless areas of the west of Ireland up to the last century, timber for roofing houses was obtained by locating fallen trees preserved in the bog. The trees were located by shoving iron rods or probes into the deep bog. The feel and sound of the iron hitting wood is quite distinct from the feel and sound of stone or soil. The iron probes were used to establish the length of the tree and its depth in the bog.

Using similar probes to trace the walls and earthen banks is now a straightforward process. By probing across the line of the wall the profile of the prehistoric land surface and any manmade structures such as walls built on it, can be measured on the surface of the bog. By putting in short bamboos to retain the height of the probe above the bog before it is withdrawn, the pre-bog profile and structures can be visually transferred to the surface. In this way it has been possible to extend the site of Behy/Glenulra in north Mayo from 250 acres mapped in cutaway bog to over 1,000 acres mapped by probing. Probing now means that the prehistoric landscape, so altered and tamed by man, can be studied in some detail without either formal expensive excavation or even casual turf-cutting.

This method of studying the preserved pre-historic landscape has much to recommend it. Firstly, it demands no costly equipment-ordinary 3/8" building rod iron with a 12"T head welded on and a few dozen bamboos are all that is required. The total cost can be less than £10. Secondly, because there is nothing more involved than shoving an iron into the ground and retaining the rod height by bamboos, the method can be carried out even by schoolchildren. Thirdly, the method is extremely cost effective as it allows investigation of extensive tracts of the manmade landscape at a fraction of 1% of formal excavation costs.

WHERE TO LOOK

Where is the interested amateur, armed with his probe and his bunch of bamboos, likely to discover traces of early settlements preserved by bog? Very few regions have so far been examined in detail, but structures and field boundaries visible in cutaway bogs have been recorded from all the main counties with extensive tracts of blanket bog. Field walls under bogs have been reported from Cork, Kerry, Clare, Galway, Mayo, Sligo, Donegal, Derry, Fermanagh, Tyrone, Antrim, and the Dublin/Wicklow mountains. In recent years the main research has been carried out in Co. Mayo but much work, in which the amateur archaeologist can play an important and even central role remains to be done in other counties. Indeed, the amateur can dispense with even the basic equipment and can discover numerous unrecorded sites simply by walking the areas where bog is being cut or where it has been cut away in the recent past.

What type of manmade structures is the bog-walker likely to discover in his or her reconnoitre of cutaway bogs? Many megalithic tombs dating to the period 3000-2000 BC have still not been recorded, in some cases because they have only recently been exposed by turfcutting. House foundations, both of round and of rectangular form are now being recognised under bogs but it must be admitted that such houses can easily be covered up again even with a thin top scraw. Often, therefore, house foundations will only show up in the current year's cut but will not be visible where the top scraw has been redeposited. By far the most common manmade structure likely to be encountered is the ordinary field boundary, built of either earth or stone. The bog walker is unlikely to find many artifacts in his travels but on occasion, objects such as axes, scrapers and arrowheads, turn up. Again the current year's cutting is where such artifacts are likely to be found.

The prospect of finding nothing more exciting than some tumbledown stone walls or denuded banks should not deter the bog walker from examining areas of cutaway

bog. Twenty or thirty metres of exposed field wall in the bottom of the bog will inevitably look very mundane and unexciting but when it is realised that the short length of wall exposed may be part of an integrated field system enclosing up to two square miles of land and totalling over fifteen miles of boundary wall then some idea of the significance of these simple structures can be appreciated. The discovery and mapping of whole stretches of organised landscape now allows us to study at first hand how the early farmers organised and farmed their land.

Formal archaeological excavation is required where detailed information on dating or function of a site has to be established. Fragile artifacts such as sheds of pottery which would not be got in casual turf cutting have been recovered in archaeological excavations. These formal excavations can yield much more evidence of past activity than just pottery and other artifacts. For example at two sites in Co. Mayo, at Carrownaglogh near the Sligo border and at Belderg Beg on the north coast, cultivation ridges have been discovered on the soil beneath the bog. These ridges are exactly the same as modern potato ridges and show the great antiquity of this method of cultivation. Wheat and barley would have been grown on similar ridges in parts of Ireland well into this century. Belderg Beg also had evidence of a different form of cultivation. Grooves cut into the subsoil in a criss-cross pattern were identified as the marks of a primitive plough which was used for ploughing in two directions.

IF YOU DISCOVER SOMETHING

If you discover an object or some structure under bog you should report your discovery to one of the institutions which deal with archaeological remains.

Portable objects should be reported to:

The National Museum of Ireland, Kildare Street, Dublin 2
Tel: (01677 7444 Fax: (01) 676 6116
The Ulster Museum, Botanic Gardens, Belfast.Tel: 01232 383000 Fax: (01) 01232 383003

Newly discovered structures should be reported to:

Duchas: The Heritage Service, 51 St Stephen's Green, Dublin 2. Tel: (01) 661 3111 Fax: (01) 661 6764.
email: visits@indigo.ie

The Archaeological Survey, 66 Balmoral Avenue, Belfast.

Information may also be sent to any one of the Departments of Archaeology in the Universities in Belfast, Cork, Dublin and Galway. Do not expect however, that the find you report will lead to a full excavation.

More important still, do not attempt any digging "to have a better look". Quite apart from it being illegal to excavate without a licence, such digging will destroy valuable information.

ANOTHER STORY

The list of counties where pre-bog remains can be seen may at first glance seem surprising. What of the great midland bogs? These deep bogs are different in that they had started growing in lakes and swamps before man came to Ireland. Traces of man's activity do not usually come from under these bogs but from within them. The great wealth of archaeological material in these midland bogs and the continuing threat of destruction is, however, a separate story in itself.

IT'S AN ILL WIND...

Finally: the wind which carries the pollen from plants to attics the hay lever sufferer also carries the pollen onto the bogs where it is preserved. The microscopic pollen grains of every plant can be specifically identified and this can tell us of the natural environment and of man's impact on it through the centuries. But the story of the microscopic pollen and the massive bog timbers, and how they can also help us reconstruct man's past, must await telling elsewhere.

The text of this leaflet is based on a Resource Source Leaflet prepared by Dr. Seamus Caulfield and produced originally by the Department of Environmental Studies, University College Dublin.

ENFO drop in centre is open at 17 St. Andrew Street, Dublin 2 from Monday to Saturday, 10.00 to 17.00. Admission and all ENFO services are free of charge. For further details, contact Reception at 01 888 2001 or 1890 200 191 (calls at local rate)

email: info@enfo.ie

http://www.enfo.ie/