IRISH ARCHAEOLOGICAL WETLAND UNIT

TRANSACTIONS: VOLUME 4

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BLACKWATER SURVEY & EXCAVATIONS

ARTEFACT DETERIORATION IN PEATLANDS

LOUGH MORE, Co.MAYO
Cover Photographs:

Front: View of Bofeenaun Crannóg (MA-BN 0001) during excavation.

Back:
Top - Detail of Carta 1, Co.Galway (GA-CA 0001).
Bottom left - Worked wood from Blackwater Survey.
Bottom right - Clonfinlough 12, Co. Offaly (OF-CFL-0012).
A roadway in Bloomhill Bog was first recorded when it was uncovered during the initial Bord na Móna drainage works in the bog in 1976. The site runs from a large 'bog island' in Cloncraff or Bloomhill Td., Co. Offaly (O.S. 6" Sheet 6) into Ballynahownwood Td. Co. Westmeath (O.S. 6" Sheet 35). The site is catalogued by the Wetland Unit as OF-CBL 0001 and WM-BDH 0021 in these counties respectively (Section 1.7, Maps 4 & 5). The Sites and Monuments Record for Co. Offaly records the site as OF006-001. The greater part of its total length of 1.2km is in Co. Westmeath.

After the commencement of full peat harvesting the importance of the site was recognised and the excavations of four cuttings were undertaken by Breen in 1983 and 1986 (Section 1.7, Map 5). These consisted of two adjoining cuttings totalling 19m in length at the southern end of the site and two smaller cuttings 53m apart toward the northern end. The southern excavations revealed a complex structure consisting of many superimposed layers while the northern end was of simpler construction.

An excavation was carried out by the Unit in 1992 because of the continuing destruction of the site by peat milling. A cutting 6m long and 5m wide was excavated in Co. Westmeath almost half way along the site from the northern end. The road is within a complex of wooden structures recorded during the Unit's Survey of the bog.

This excavation revealed a three phase structure similar to that uncovered by Breen at the northern end of the site.
Phase II

Below Phase III there was a horizon of peat growth with brushwood at its base which directly overlay a flagstone trackway.

The peat was very well humified and measured 8cm in maximum depth. It covered the flag layer below with the exception of a number of flags which protruded through to Phase III. This peat was sealed by the clays and gravels of Phase III above it. Along the sides of the site it was washed through with clay and it was not possible to distinguish this from similar peats which flanked the site. (Fig. 7, no. 6; Fig. 4)

The brushwood was of hazel, birch and wil-
This wood appears to be an addition to the flagstone layer below in an attempt to create a drier walking surface as peat started to grow over the site.

Directly below this peat and wood a surface of stone flags 2m wide was uncovered. There were marked gaps between many of the flags and these spaces were filled with sand and other deposits.

low and in a very poor state of preservation. It seems to have been deliberately arranged since all of the recorded pieces were either transversely or longitudinally orientated to the line of the track. In some cases these pieces overlay each other. However, the poor quality of the wood made any further attempt to discern a structure impossible.

Figure 4. Plan of sealed peat containing brushwood over Phase II.
These produced a reasonably uniform surface with most unevenness being produced by the naturally split or rounded finish of the stones (Figs. 6 & 7, F11; Plate 8).

The flags were up to 1.4m long, 0.95m wide and 8cm-15cm in thickness. A number of these appeared to have a flat, weathered finish. Other flags had quite undulating surfaces which may have been the result of splitting, but there is no evidence that this splitting was deliberately carried out since there are no visible traces of wedge or chisel marks. The large flags are consistently of the same sandstone type. Smaller rocks of dimensions less than 40cm are more rounded in many cases and very few show angularity and have a smooth surface probably indicating that they come from a source of more abraded origin, perhaps from a water rolled or glacial context. Within the group of smaller stones of less than 40cm in size there are other sandstone types.

Two examples of limestone flags were recorded. One of these, measuring 45x20cm, had been badly affected by the acidic conditions in the peat resulting in a black pasty surface with more resilient fossils standing proud. Smaller stones of this type occurred in upper layers but these had completely decayed leaving only a black residue. The sides and under surfaces of the sandstone flags tended to be stained by a ferrous or magnesium oxide which appears to have leached out of the rocks. Examples which were broken showed that the acid conditions had discoloured the surface of the rocks often to a depth of 4-5cm. One example of a quartzite type stone was uncovered. This was part of the rubble fill between the flags and was rounded in appearance.

Phase I

The earliest construction phase consisted of a thick layer of boulder clay and course gravel (Fig. 7, no. 26). This measured 46cm in depth at the centre tapering toward the sides and was 3.1m in width. Over this layer on the eastern side, and extending beyond it, there were a number of dumps of gravelly-clays and clay which created a total width of 3.8m. The upper surface of these layers was not uncovered during the excavation and was recorded in the section of a test trench 1m wide at the northern end of the cutting. This section showed that these layers had washed into the surrounding peats and had eventually become covered by peat. These peats seal the lowest level of the site.

No finds were recorded from the excavation and the only dating evidence comes from Breen’s excavations.

DISCUSSION

Breen’s excavations near the northern and southern ends of this site produced two very different sequences and types of construction. The cuttings at the southern end showed that the site was first constructed prior to the seventh century and Breen suggests that it is unlikely to date earlier than the sixth century AD. A dendrochronological date and a series of artefacts, mainly horseshoes, show that the site continued in use until at least the thirteenth century. There were eight recorded phases of building, although the birch brushwood and sod layers may have been a single construction episode (See summary of Breen’s southern excavations and dating in Fig. 8). The lowest layer recorded by Breen was only partially exposed and the possibility of another layer or layers below remains. This is in contrast with just three phases Breen recorded at the northern end (Breen 1988) and those excavated by the Unit.

One of the objectives of the Unit’s excavation was to try to explain how and why the structure changed so dramatically along its length. As a result of this, the 1992 cutting was placed between...
the earlier excavations. However, the results show that here there are also three phases of construction and that the changes take place closer to the southern end. Further investigation is required south of the 1992 cutting as well as dating evidence for the northern portion of the site and along its length. The exact relationship between the eight southern and three northern phases of construction is not known. It can be suggested that the flag layer represents one phase consistent along its length. However, to take this further and link Breen’s fourth phase of substantial deposits of clay and gravel with phase I toward the north implies that there were at least three phases of construction at the southern end.
Figure 7. Section of Bloomhill Road.
mentioned above. It is likely that a complex bog hydrology and surface topography produced the different responses represented in the structure here. Parkes and Bradshaw’s work shows that the pollen evidence indicates that the upper stone and timber levels may have been constructed to cope with increased flooding in fen like conditions. They also noted similar fen peats 100m to the south near the island today (ibid. 338-9). It seems that people using this site had to contend with wet conditions and as is often the case with bog trackways people seem to have been more interested in safety than dry feet.

The energy expended to transport the large amount of glacial clays and gravels as well as the flags for the various phases was considerable. The flags are a quartz rich sandstone which could have come from two possible sources. Firstly, there is a hill of Old Red Sandstone approximately 3km east-northeast of Bloomhill island. This source is on line with the projected northern end of the roadway and could have been exploited. The second source is on the island itself. The Geological Survey of Ireland records that the surface of the island is strewn with glacially deposited blocks of calcareous sandstone, conglomerate and calcareous shale. It seems probable that selective collection of these surface deposits could also have produced sandstone flags. The complete absence of quarrying or splitting marks and the rounded nature of some of the recorded stones would suggest that this source may also have been used.

Breen states that the clay layers uncovered during his excavations of the site were whitish-grey in colour and that they are similar to deposits along the banks of the Shannon 2.7km to the west. The clays excavated by the Unit were blue-grey and the same material seems to have been used in both Phases I and III. This material could probably have come from a number of glacial deposits at either end of the road. The complete absence of quarrying or splitting marks and the rounded nature of some of the recorded stones would suggest that this source may also have been used.

Breen suggests two alternatives to explain the changes along the site. Firstly, the northern end of site may have been wider and was denuded by the removal of stones for building purposes. Secondly, the absence of lower strata at the northern end and a local tradition that this ‘Giants’ Road’ was unfinished could indicate the site was never completed as intended at this end (ibid., 333). While the site, as a whole, was wider at the southern end there was no clear evidence for robbing out of stones in the Unit’s excavations. In addition, there were dry-land sources of flags, described below, at each end of the road which could have been exploited by people in search of building material. Finally, the idea that a site was not completed to its original design because sub-strata had not been laid down in preceding centuries seems unlikely. The most probable reason is the bog itself.

Bog surfaces are far from uniform with hummocks and hollows and marked slopes on the side of the raised bog dome being notable features. Bloomhill island is a prominent limestone hill rising to 215 feet (c.64.50m) above sea level compared to an average height for the bog of around 140-150 feet (c.42-45m). The bog continues north to the meandering Boor River on more even ground. The projected end of the Bloomhill road joins the dry land close to where this river does. The exact surface conditions of the bog at the time of each construction phase is not known. However, we can speculate that it changed across the bog between the landscapes completely absent from the north.

Breen noted that local tradition said this road formed part of a pilgrimage route from

<table>
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<tr>
<th>'Bloomhill' Roadway Construction Sequence of Southern End</th>
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<tbody>
<tr>
<td><strong>Peat</strong></td>
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<tr>
<td>Birch Roundwoods &amp; 2 Oak Timbers 1226±9AD</td>
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<tr>
<td>Flags  c. mid 13th C</td>
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<tr>
<td>Sod Layer</td>
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<tr>
<td>Birch Brushwood and Gravel Pockets</td>
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<tr>
<td>Whitish Grey Clay, Stone and Gravel</td>
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<tr>
<td>Timbers</td>
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<tr>
<td>Whitish Grey Clay, Stones and Large Pieces of Wood 566-770 AD</td>
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<td>Clay, Gravel and Stone</td>
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Figure 8. Construction sequence from Breen’s excavations at the southern end of the site.
Toward the east another previously known site of this type has recently been recorded by the Unit at Lemanaghan and it too is in close association with a church site (I.A.W.U. forthcoming.)

The proximity of the site to Clonmacnoise and its longevity suggest contemporary but not necessarily dependent use. The dating of the site is broadly in keeping with events at the monastery. The first phase of construction excavated by Breen at the southern end of the site was undateable. The second phase dates between 566 and 770AD. If the true construction date were in the latter half of this bracket it would mean the first phase could have been constructed around the time of the foundation of Clonmacnoise in the 540'sAD (Manning 1994, 9). Interestingly, the final phase of use coincides with a decline of the monastery in the thirteenth century (ibid., 15). However, strong local tradition regarding the site indicates knowledge of its existence and probable use much later even if no further construction occurred.

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REFERENCES


I.A.W.U. Forthcoming Survey Results from Lemanaghan Co.Offaly.


Memoirs of the Geological Survey of Ireland to accompany Sheets 96, 97, 106 & 107