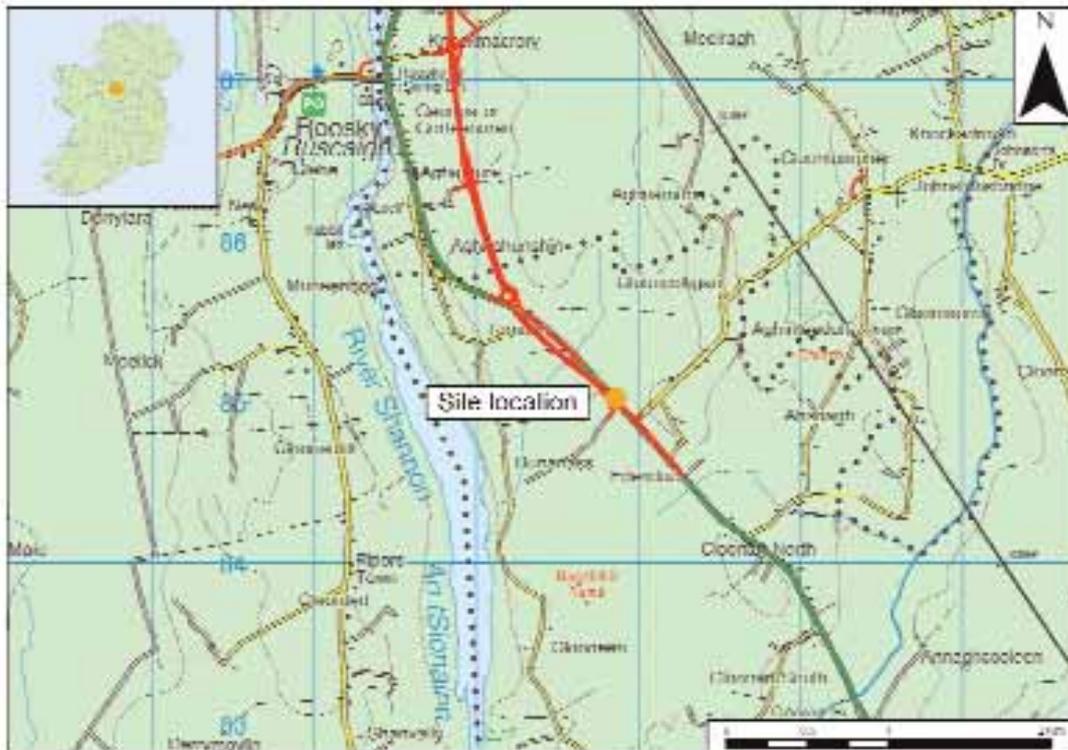


1. Old routes to new research: the Edercloon wetland excavations in County Longford

Caitríona Moore



Illus. 1—Location of site at Edercloon, Co. Longford (based on the Ordnance Survey Ireland map).

Almost 6,000 years ago a narrow trackway of branches and twigs was laid down on the wet surface of a County Longford bog, signalling the start of a practice that would continue for the following four millennia and would create one of the most remarkable archaeological complexes ever excavated in Ireland's wetlands. The bog in question lies in the townland of Edercloon, just south of the County Leitrim border and the village of Roosky in County Roscommon (Illus. 1). Archaeological deposits were first identified there by Cultural Resource Development Services Ltd (CRDS Ltd) in February 2006 during test excavations in advance of the construction of the N4 Dromod–Roosky Bypass on behalf of Leitrim County Council, Longford County Council and the National Roads Authority (NRA). The following April, the company returned to investigate further, and within days of opening more trenches it became apparent that beneath the grassy surface of the reclaimed bog was a perfectly preserved complex of wooden structures. In the following weeks, 28 excavation trenches were opened and over 100 archaeologists from 17 countries arrived to work on this remarkable excavation.¹

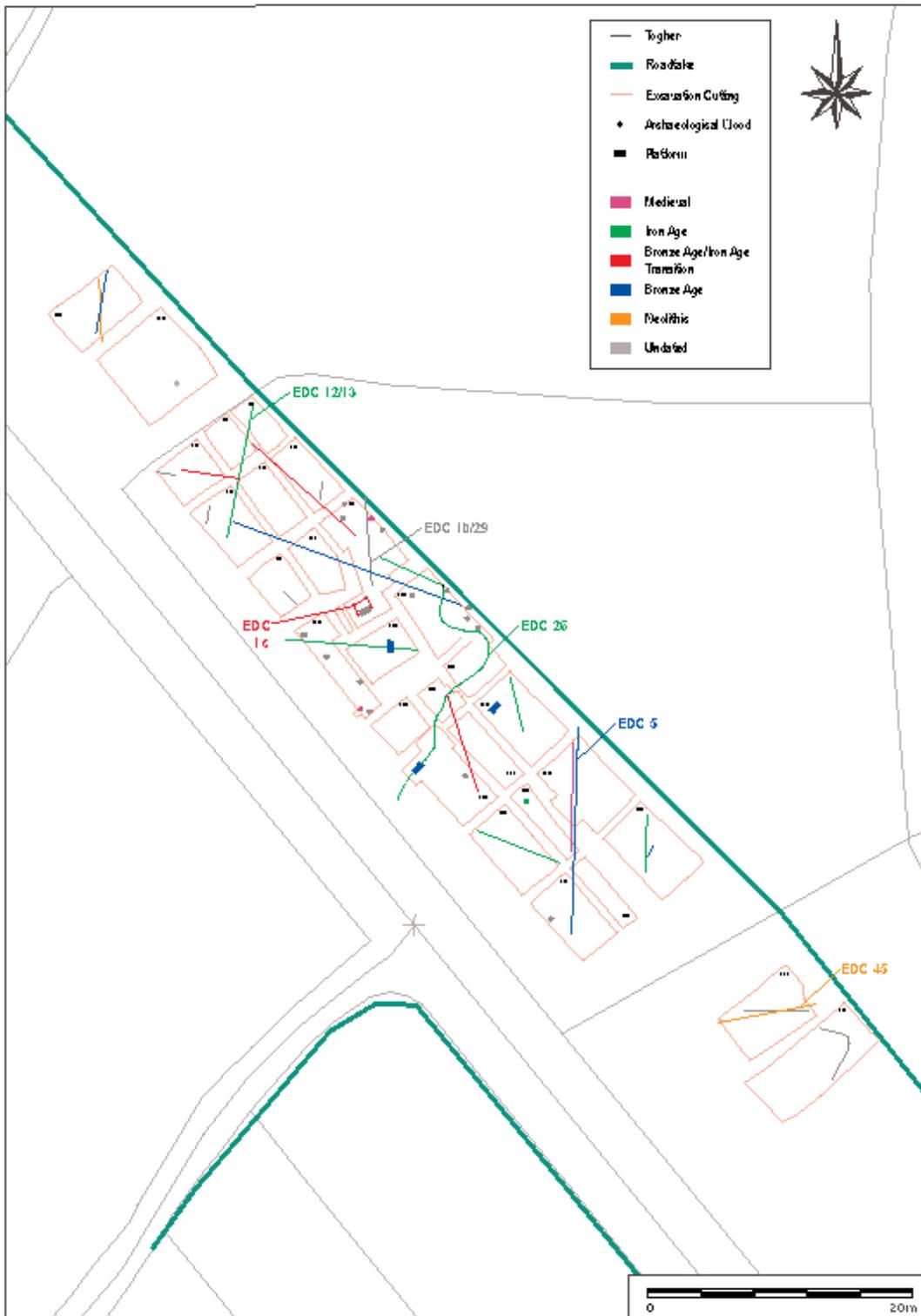
Old routes

The complex of sites at Edercloon was extremely dense, with 48 previously unknown wooden structures situated in an area measuring 170 m long and 30 m wide (Illus. 2). Despite their location in a reclaimed field, the sites were preserved by the wet, anaerobic (oxygen-free) environment of the bog. These conditions allow for the near-perfect preservation of organic material such as wood, which would usually rot away. The most numerous structures at Edercloon were toghers (from the Irish *tóchar*): wooden trackways built to cross and access areas of wetland. A total of 26 were excavated. Toghers are found throughout the raised bogs of Ireland and vary greatly in size and form (Raftery 1995, 4; Gowen et al. 2005, 223–82). To reflect this diversity of scale, they are categorised as primary, secondary or tertiary toghers, terms drawn up by the Irish Archaeological Wetland Unit (IAWU), Archaeological Development Services Ltd and the Archaeological Survey of Ireland. Primary toghers are large, clearly orientated structures with large structural components, several phases of construction, and evidence of long-term use and reuse (IAWU 2002, 23). Secondary toghers also have a clear orientation and structural definition, but are generally smaller and shorter constructions (ibid.). Finally, tertiary toghers are short stretches of reasonably well-structured trackway, laid down to cross a localised area of bog (ibid.). Examples of each category, dating from the Neolithic to the medieval period, were excavated at Edercloon.

Seven of the toghers excavated at Edercloon were large, deep structures averaging 3.5 m wide and were classified as primary toghers. Radiocarbon dating of five of these sites has revealed EDC 5 (Illus. 3) to be the earliest, and thus the first large-scale effort by people of the locality to cross or access this bog. Dated to 1206–970 BC (Wk-20961; see Appendix 1 for details), this togher ran north–south and was composed of longitudinal roundwoods, brushwood and timbers laid over and under transverse roundwood supports and pegged in position. Notably, this site was over 1 m deep, a trait it shared with several other primary toghers within the complex, all of which are later and date from the Iron Age. This great depth of construction is quite unusual and could be the result of several factors, ranging from a response to local environmental conditions to the possibility that these sites also functioned as boundaries or markers and were thus reinforced or maintained over time.

Moving down the scale slightly were the smaller, secondary toghers, of which there were also seven. The earliest of these toghers, and indeed the earliest site at Edercloon, was EDC 45 (Illus. 4), which dates from 3640–3370 BC (Wk-20960). This togher was located nearly 2 m below the field surface and was perfectly preserved in the wet basal peat of the bog. EDC 45 ran east–west and was built with a frame of longitudinal roundwoods loosely woven under and over transverse roundwoods. Between these were tightly packed brushwood rods forming a very well-structured narrow path, which meandered in a gradual S-shape, avoiding occasional small trees as it traversed the wet surface of the Neolithic bog. Other secondary toghers at Edercloon have been dated to the Bronze Age, Iron Age and medieval periods, demonstrating a persistent practice of building these simple, yet effective, routeways.

The last, but by no means least, category of togher is that of the tertiary togher (Illus. 5), and 12 sites of this type were identified. As already defined above, a tertiary togher is a short stretch of reasonably well-structured trackway, laid down to cross a localised area of bog. At Edercloon, these sites mostly consisted of a single layer of brushwood or roundwoods measuring from 2.5 m to 10 m in length. Six have been radiocarbon-dated,



Illus. 2—Overall schematic plan of toghers and other structures excavated at Edercloon (CRDS Ltd).



Illus. 3—Primary togher EDC 5, from north (CRDS Ltd).



Illus. 4—Secondary togher EDC 45, from east; note the accumulated depth of peat overlying this level of the bog (CRDS Ltd).



*Illus. 5—Tertiary
togher EDC 6, from
north (CRDS Ltd).*

with one dating from the Neolithic period and the remainder from the Bronze Age or Iron Age. Unlike the previously described larger toghers, these sites do not represent undertakings of any great scale and were probably built in a matter of minutes, perhaps as the need arose to cross short but unstable areas of bog.

In addition to the 26 toghers excavated at Edercloon, there were five platforms built of layers of brushwood and roundwoods pegged into position to form roughly square or rectangular surfaces. These sites were spread out over the excavation area and only EDC 1c (Illus. 6), radiocarbon-dated to 750–390 BC (Beta-217355), was in direct association with a togher. Of the remaining four platforms, three have been dated to the Bronze Age. The fourth is likely to be of this period. While the clear orientation of toghers allows for their interpretation as paths crossing or accessing the wetlands, platforms are more enigmatic. It seems probable that they were built to allow people to spend periods of time out in the bog, but for what purpose? From a modern perspective, bogs are often seen as wastelands, unsuitable for farming or habitation, abandoned and isolated, but an intact raised bog was and is an environment full of life. Secluded areas of open water provide an ideal habitat for waterfowl, and even today many gamebirds and small animals such as hares make their



Illus. 6—Platform EDC 1c being recorded (CRDS Ltd).

homes in Irish bogs. In addition, bog plants like heather and moss make primitive but effective building materials for use as insulation or bedding, and a variety of wild berries and herbs such as cranberry and bog myrtle flourish. As recently as the last century *Sphagnum* moss, which contains iodine, was used in the manufacture of wound dressings, and an extract from sundew (an insectivorous plant common in Irish bogs) was used as a treatment for warts (Tubridy & O'Connell 1987, 38). With this in mind, it is possible that the platforms of Edercloon were built to provide safe, dry areas upon which people could stand in order to hunt or gather and process the valuable raw materials of the surrounding environment.

Finally, scattered in and around the toghers and platforms were 17 sites classified simply as deposits of archaeological wood. Consisting of small, haphazard deposits of worked and unworked wood, many of these are likely to relate to the larger sites in their vicinity, perhaps representing surplus building material. Three of these deposits have been dated to the Iron Age and one to the medieval period.

Hidden gems

Archaeological excavation in bogs is at times painstaking, alternating between delicate work and heavy, uncomfortable labour; most who have undertaken it would agree, however, that the quality of the archaeological remains makes it all worthwhile. During the excavations at Edercloon this was no different, but this complex contained additional, hidden rewards.



Illus. 7—Iron Age bowl fragment (John Sunderland).

Buried within the 48 sites were 51 beautiful artefacts, nearly all made of wood and each one in itself an exciting discovery. The finds included the remains of nine wooden vessels, ranging from tubs and troughs to carved bowls and platters, all broken and some showing signs of use (Illus. 7). One of the most breathtaking discoveries was that of two broken spearshafts placed close together in the base of EDC 26, a togher dated to 360–170 BC (Wk-20201). The meaning of this clearly deliberate inclusion of valuable and important objects can only be guessed at, but perhaps these were an offering or prayer for a successful hunt on the bog.

Another very significant find at Edercloon was the remains of three wheels, the first instance in Ireland where wheels and toghers have been found in direct association. The first of these was discovered in EDC 12, a large primary togher dated to 730–230 BC (Wk-20198), and is in fact a portion of a wheel rim. Tiny pieces of gravel were still embedded in the outer surface of the rim. This discovery was made all the more significant by the finding of a second wheel portion of the same type. This fragment came from a secondary togher, also believed to be of Iron Age date. Although much smaller than the first fragment, it similarly contains embedded gravel. The third wheel portion from Edercloon is of a different type and is part of a block wheel. It was found in the base of EDC 5 and is a beautiful object, covered with over 300 pristine tool marks (Illus. 8). Curiously, the toghers at Edercloon were almost all composed of longitudinally laid roundwoods and transverse supports with quite uneven, bumpy surfaces—seemingly unlikely to have been suitable for wheeled vehicles.

Other finds from Edercloon include six pieces of brushwood around which a second piece has been trained to grow, creating a spiralling pattern (Illus. 9). Unparalleled in the archaeological record, these beautiful objects demonstrate a high knowledge of woodland



Illus. 8—Portion of a Bronze Age block wheel with over 300 individual tool marks (John Sunderland).



Illus. 9—Brushwood trained to grow in a spiral pattern (John Sunderland).

management stretching far beyond the mundane. Indeed, beautiful but mysterious wooden objects are very often found buried in toghers, and a most intriguing find from Edercloon is certainly such an item. Found in the base of togher EDC 29, and thought to be of Iron Age date, was an incomplete length of split timber with six equidistant rectangular notches cut into one side (Illus. 10). Into the side of each notch was inserted a tiny wooden dowel, or peg, of less than a centimetre in diameter. At one end the timber was worked into a shallow tenon, within which were a further four dowels. Clearly part of a composite and intricate wooden object, this piece again attests to people highly skilled in woodcraft. Added



Illus. 10—Notched and dowelled timber (John Sunderland).

to the finds described above were withies (twisted wooden ropes), tool handles, mallets, clubs and numerous other items that make this the largest and one of the most important artefact assemblages ever found in an Irish bog.

The deposition of wooden artefacts within toghers and bogs is well documented in the archaeological record, but the reasons behind it are less well understood. One theory is that these objects are simply refuse, added to toghers as foundation material; another possibility is that of ritual deposition. Archaeologists have long considered deposits of objects in watery places as being ritual in nature, and it seems likely, given the persistent inclusion of objects at Edercloon, that some degree of meaning was attached to the practice. Much as money is often placed in the foundations of modern houses, perhaps these people placed objects of value in the structures important to them. Whether they functioned as routeways or boundaries, the continual building of wooden structures and deposition of artefacts at this location points to Edercloon as a place of constant focus and great significance throughout the ages.

New research

Complexes of toghers and platforms have been recognised previously in Irish bogs, but the dense pattern of criss-crossing and abutting sites at Edercloon is very unusual. Another curious aspect of these sites is the preference for a north–south alignment, with 13 of the 25 toghers running this way, despite the fact that the closest dryland lies to the east. Generally interpreted as roads built to cross the wetland, these toghers appear to be entering the bog only, perhaps to gain access to some of its rich resources. These factors, coupled with the great depth of construction in the primary toghers and the numerous inclusions of artefacts, make Edercloon an atypical site, unique in our country.

The excavation at Edercloon took five months but in many ways this was only the beginning of the story. Once the last artefact was lifted and the final sample taken, those

involved were faced with the mammoth task of organising, categorising and understanding all that had been discovered in this remarkable bog. During the excavation each site was carefully recorded, drawn, photographed and sampled, creating an archive of over 100 drawings, thousands of photographs and a staggering 8,793 samples! While archaeologists themselves can deal with the sorting and primary categorisation of much of this material, specialist expertise is required to deal with the more scientific aspects of the site.

Structures within bogs are often a direct response to the characteristics and terrain of the wetlands and thus they are inextricably linked with their environment. The exceptionally high levels of preservation found in raised bogs means that they retain masses of environmental information that would otherwise be lost. Wood, plants, pollen and insects are all sealed within the wet peaty layers, which themselves are an integral part of understanding wetland sites. In order to extract this information and understand some of the questions raised by the excavation the samples relating to each site must be painstakingly studied so that we can create an accurate picture of Edercloon throughout time.

The study of peat morphology will allow us to understand exactly how this bog developed and will address a range of related questions. Was the construction of the complex a direct response to a changing environment? Or could the building of such large structures have itself affected or altered the bog? Analysis of beetle and insect remains will indicate features such as areas of standing water or forest close to the sites. Identification of the species of wood used to build the structures will allow reconstruction of the local woodlands and shed light on whether these woodlands were being managed. Were specific species selected or omitted? Were these species likely to be growing locally? Tied in with all these analyses is the study of pollen grains, vital to our understanding of the wider environment at Edercloon. The presence of various pollen types within the peat will indicate the type of land that surrounded the bog, be it pasture, forests or tilled fields, and will show when significant changes, such as the introduction of crops, occurred. Further studies will include analysis of plant macrofossils (such as plant seeds) and tephra (volcanic ash particles), and further radiocarbon and dendrochronological (tree-ring) dating. All these analyses will together build a complete picture of the palaeoenvironment (ancient environment) at Edercloon and greatly help our understanding of this remarkable site.

A final aspect of the research on Edercloon is the analysis of wood technology. Throughout each togher, platform and deposit were hundreds of beautifully preserved tool marks, many as crisp as if they were freshly cut. Through these the evolution of woodworking techniques and tools used at Edercloon can be traced, from the early stone axes of the Neolithic period to the sharp iron blades of the medieval period. This analysis will also examine methods of timber-felling and splitting, and seek to identify any material that may have been reused from elsewhere. The analysis of tool signatures, never before carried out in Ireland, will add an exciting aspect to this study of wood technology. Signatures are the marks left on a piece of wood when the blade of the tool is flawed and these flaws leave an impression in the form of incised or raised lines across a tool mark. Careful study of these will allow individual tools to be traced across a site or sites and may provide valuable dating evidence. The preliminary results of this analysis indicate that this work will form a fruitful line of investigation.

Conclusion

The story of Edercloon began almost 6,000 years ago, was forgotten and has remained unknown since medieval times, its secrets hidden by the dark, wet peat of the bog. When the new road met the old, these secrets were once more revealed and the story began again. Research on these extraordinary discoveries is now taking up the tale, and as more details about this remarkable site come to light, we can clearly see how these ancient roads are truly routes to new research.

Acknowledgements

Many thanks to the hard-working excavation team and especially to the Senior Site Supervisor, Jean O'Dowd. Thank you to site supervisors Fiona Beglane, Gianmarco Cattari, Vincent Cherubini, Ross Crawford, John Fletcher, Dominic Gallagher, Jane Hamill, Rachael Homan, Niall Jones, Igor Kolosuzk, Axel Lundell and Geze Sollzosi. Many thanks to NRA Senior Archaeologist Rónán Swan and NRA Archaeologist Orlaith Egan, and to David J O'Connor and Milica Rajic of CRDS Ltd. I would like to express my gratitude to all the specialists involved, and especially to Professor Barry Raftery and Conor McDermott of the UCD School of Archaeology for their continued advice and support. Any errors and omissions are my own.

Note

1. NGR 206861, 285027; height 25 m OD; excavation reg. no. E3313; ministerial direction no. A031/025.