

RESULTS OF FIELDWORK 2012 AND 2013



Deb Haycock and Joy Rutter setting out a survey grid at Carrowmore

The Bernician Studies Group
Newcastle upon Tyne
January 2014

The Work of the Bernician Studies Group on Inishowen

In 2012 and again in 2013, we carried out archaeological survey work and excavation on the Inishowen peninsula of County Donegal in the Republic of Ireland at Carrowmore, Clonca and at the Cooley Cemetery by Moville. These operations are part of a wide-ranging study of connections built through networks, communication, travel and the exchange of knowledge in the early medieval world of Western Europe between the 6th and the 8th centuries. From our own home base in the north east of England, in the territory of the former Northumbrian sub-kingdom of Bernicia, we have followed an early medieval trail back to County Donegal to seek out connections. In doing so, we have begun to build our own networks of knowledge and friendships.

Research Concept: Networks and Communications

A thirst for learning brought together European people of the sixth – eighth centuries in networks of knowledge exchange which drew together Ireland, at the extreme edge of Europe, Northumbria and Dál Riata, the Frankish realm, the frontiers of Christendom in Germany, the heartlands of the Roman world and, beyond that, the Holy Land itself, the symbolic centre of the known world.

We have adopted the term *Ecclesiastical Superhighway*, coined by one of our group, to characterise these networks, recognising that they were, in their day, as radical a development as the information systems of the late-twentieth century. Information in the electronic web today is directed through nodes and so, to extend the metaphor, we can think of the monasteries of early Christian Europe as being the nodes through which knowledge was exchanged.



Inishowen, Iona, Lindisfarne

Connections: I

In the year 563, Columcille, who was born and raised in Donegal, sailed across to the British Isles and established a monastery on the small island of Iona off the western coast of Scotland, within the offshoot of the Irish kingdom of Dál Riata. In the early years of the 7th century, exiled princes from the English kingdom of Bernicia took refuge in Dál Riata and were educated at Iona by Columcille's successors. Then, in the year 635, Oswald, one of these princes, returned to his home and won back the kingdom. The community of Iona then sent out Bishop Aidan who set up a daughter-house on the small island of Lindisfarne, off the north east coast of England. In this way, an Irish strand of Christianity came to Oswald's kingdom.

The Setting: Inishowen and Cenél nÉogain

In the early medieval period, Inishowen was the land of a small kingdom, the homeland territory of Cenél nÉogain and its ruling dynasty which emerged in the 5th and 6th centuries, and the centre from which this group expanded its influence beyond the peninsula in the 7th and 8th centuries to become the dominant entity in the region.

Inishowen is a peninsula, with an area of little under 3,000 square kilometers between the sea-loughs of Foyle on the east and Swilly on the west. It is connected along its south edge to the main land mass by a strip of low-lying land between the two loughs on a line from just north of Derry to Inch Island. On the satellite view, Inch Island shows clearly, tucked in on the edge of Lough Swilly; The city centre of Derry is along the river Foyle, a little below the point where it flows into the lough. Malin Head, the northern tip of the peninsula, is the most northerly point on the mainland of Ireland. Hills in the centre of the peninsula around Sliabh Sneacht, break up the land into smaller, discrete units of cultivable land: a narrow strip alongside Lough Foyle; a basin around Buncrana on the west side, where two rivers flow from the hill massif; Urris in the north-west; and, in particular, a large basin north of the hills, around Trawbreaga Bay which faces north west into the Atlantic, with the sub-peninsula of Malin in its north side. The entrance to the bay is partly blocked by Doagh Island. This was once an island but it is now connected to the land on the south side by sand which has washed in.



Connections: 2

Aldfrith, King of Northumbria 685-703, was the son of King Oswiu by a relationship with an Irish woman, Fina. She was possibly sister of Finan, who in 651 was appointed bishop of Lindisfarne on the death of Aidan. Fina was daughter of Colman Rimidh, the fifth king in the line of succession from Éogain, founder of the kin group and the dynasty, whose name has become attached to the peninsula of Inishowen. It is likely therefore that our Northumbrian king was born and raised on Inishowen.

Early Medieval Archaeological Features of Inishowen

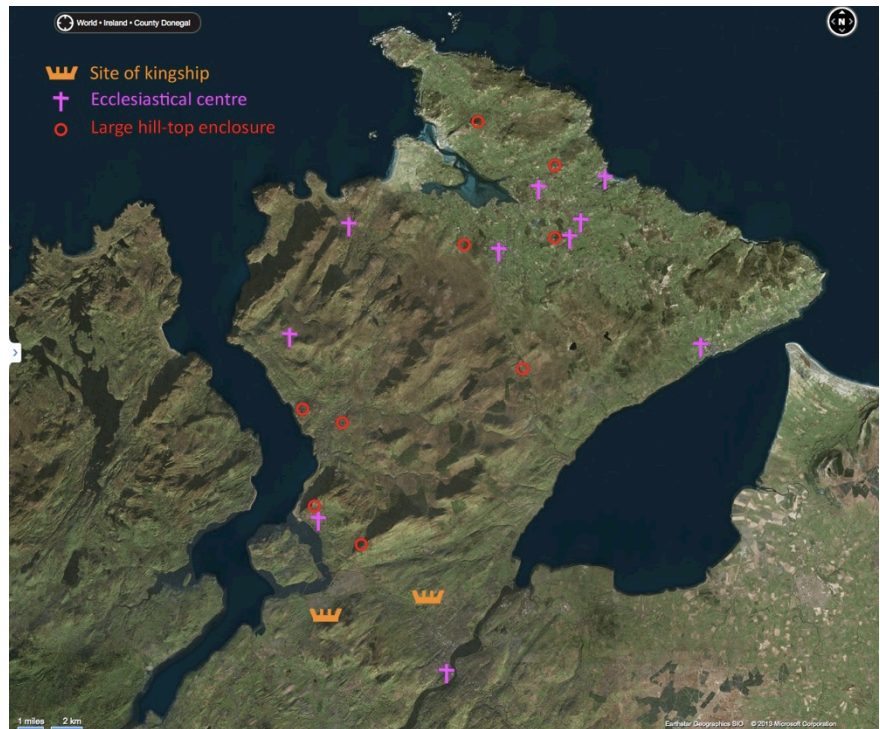
A set of archaeological features known on Inishowen gives us a starting point for understanding where both religious and secular centres occur.

Inishowen has a distinctive cluster of notable early ecclesiastical centres (we think of them as monasteries). Some are well known because of the high crosses which we can still see, or because the sites continued to be used for burials and so graveyards (mostly now disused) and ruined chapels are to be seen.

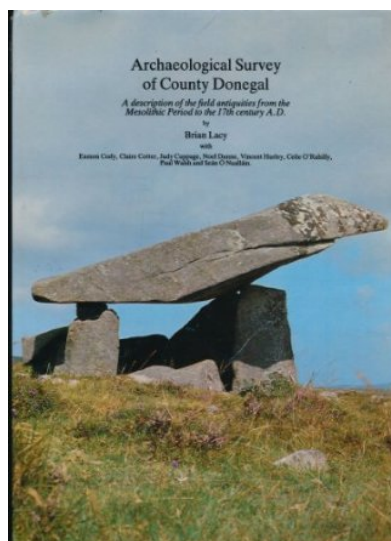
A set of large stone enclosures on hilltop or hill-slope settings suggests something of the context of elite secular centres existing alongside the ecclesiastical. These might be understood as defensive or monitoring structures operating within the political and military geography of the early medieval period.

The Cenél nÉogain kings built their first centre at the south east tip of the peninsula at Elaghmore; and later, when their power reached beyond the peninsula, they built Grianán of Aileach within the ring of the prehistoric hillfort.

This view does not show a complete record of all sites of the period: there are a great many raths and cashels. The types selected emphasise the connections between high-status religious and secular sites.



Ecclesiastical sites (marked with purple crosses) include Derry in the south east, Fahn, close to Inch Island, Destertegny and Straid (Clonmany) along the west side, and Moville on the west bank of Lough Foyle. The cluster of sites around Trawbreaga Bay, and their links to the hill-top enclosures (red rings) are discussed in more detail later. Note the enclosure in the central hill massif. This is Glen Tochair.



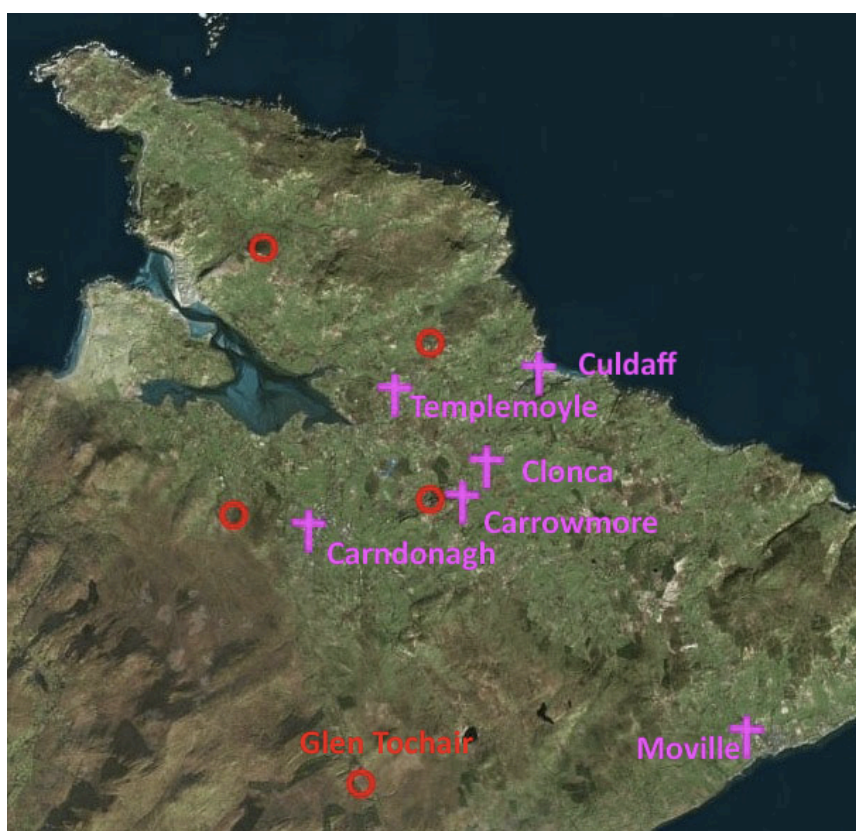
How we know

The archaeological record for County Donegal as a whole is based to a great extent on the findings of a survey under the direction of Dr Brian Lacey, published in 1983. For Inishowen, he drew on the records of Mabel Colhoun from her field observations in the mid-20th century. All these records are now within the database of the National Monuments Service, accessible on the Web.

Magh Tóchair: a cultural coreland

The land in the north of Inishowen, around Trawbreaga Bay and with Carndonagh now as its principal town, is the sort of land unit, fertile, productive and to some extent self-contained, which has been characterised as a 'cultural coreland'. These are lands used and warmed by cultivation again and again over long periods which, in the early medieval era, emerged as small kingdoms in their own right. In Ireland, the topographic term for such corelands is the *Magh*, or fertile plain. This part of Inishowen is identified as the sub-kingdom of *Magh Tóchair*.

The hill-top enclosure of Glen Tochair is at the watershed from where the Glentogher River runs north cross the plain for 12 kilometres to Trawbreaga Bay. This marks the entrance to the coreland. The land takes the form of a basin around the inlet. Of six ecclesiastical centres, four look inwards towards the bay in a ring around the edge of the flat wetlands. From the north clockwise, Templemoyle at the base of the Malin peninsula, Clonca and Carrowmore, and then Carndonagh at the end of the route through the hills. Two look outwards to sea-going travel, Culdaff, at the estuary of the Culdaff river which loops around the edge of the plain, and Moville at the end of a routeway out to Lough Foyle.



Three of the hill-top enclosures are close to ecclesiastical sites, in a way which suggests there is some working relationship:

Doonmore to Templemoyle, Crockaughrim to Carrowmore, and Glenmackee to Carndonagh. Crockraw, in the middle of the Malin peninsula, is an outlier. Or is there a missing monastery nearby?

The Plain of the Causeway

The name *Magh Tóchair* translates as the 'Plain of the Causeway'. We do not know where this causeway lay; nor indeed whether there was one single causeway or many across these wet lands and peat bogs. Mabel Colhoun reported unconfirmed accounts of a causeway across the valley of the Gleneely River between Carrowmore and Clonca discovered during turf cutting. Maybe there were many, and among them one in particular which lent its name to the whole territory. If so, perhaps it led to Doagh Island where the many prehistoric features of standing stones and panels of rock art allow us to think of this island as having been a special place, set apart from everyday settlement, as early as the Bronze Age.

Our Fieldwork Techniques

For the first stages of fieldwork, we have focused on the two ecclesiastical sites of Carrowmore and Clonca, about 1km apart, immediately above the valley floor of the Gleneely-Culdaff River, just at the point where it emerges from hilly terrain to the east out on to the plain and curves in a wide loop away from Trawbreaga Bay to the north-east coast by Culdaff.



The instrument we use is a fluxgate gradiometer. It is light, easily carried and quick to use because it takes readings at regular intervals as the operator walks along the survey lines; there is no need to stop. Here, Geoff Taylor is surveying a field at Carrowmore.

Magnetometry Survey

The two high crosses at Carrowmore are well known, and the keen eye will detect the low earthen banks marking out a rectangular area by one of the crosses. This is a former graveyard. But we would expect a monastery to have a defined precinct, in much the same way that the many raths in the Irish landscape have their ditch-and-bank profiles. Carrowmore is thought to be the site of the monastery known from early records as *Both Chonais*, but it is not visible. The questions for archaeological research are therefore: is there a precinct here; if so, where is it; and how can we find it if it is not visible on the ground surface?

To test for a precinct, we deployed a method from geophysics for detecting features which survive below the surface. This is magnetometry survey and it measures at high precision the earth's magnetic field at points on the surface. The survey instrument records numerical values for the intensity of the magnetic field. Variations above and below a background norm across a survey area pick out places where the ground has been disturbed, in construction works, for example, or where there has been burning. The principle is like that of the weather map in which isobar lines can be drawn to join points of equal pressure. In this way, patterns are revealed. The raw data are then processed by a computer programme which transforms the numbers into areas of tone in a graphic display.

Carrowmore Magnetometry Survey

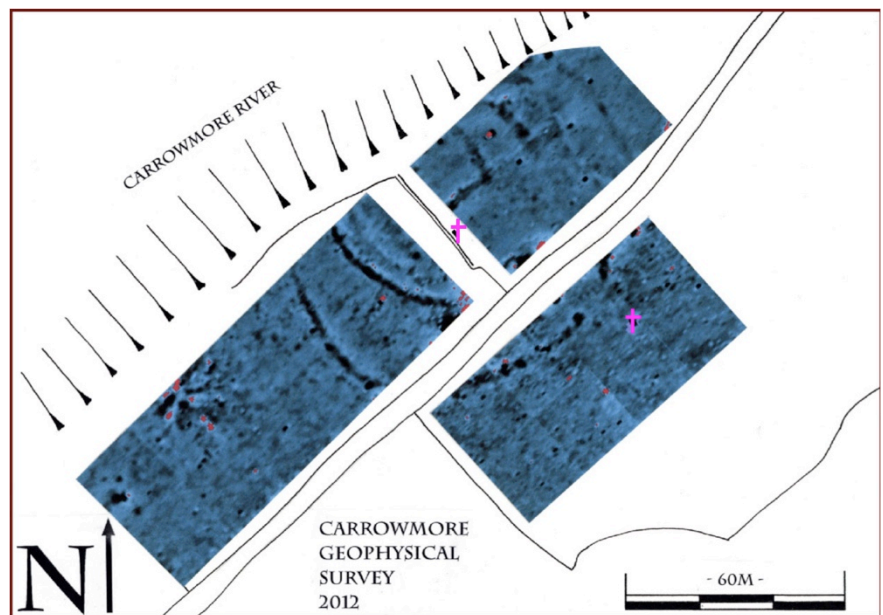
The magnetometry survey at Carrowmore has shown, for the first time here, evidence of a double-circle precinct. This is a characteristic form for an early monastery in Ireland, visible, for instance, in well-known stone-walled precincts at Devenish in County Fermanagh or Nendrum in County Down. The form is also known from the west of Scotland at Whithorn in Galloway and Hoddum in Dumfriesshire.

A minor road runs through the site, dividing it into east and west parts and a field boundary divides the west side into two areas. The eroding edge of a river-cut gorge has taken away the western edges of the precinct.

An outer precinct boundary shows strongly as a strip of dark tone on the south-west, picks up east of the road, and returns more faintly at the north. It encloses an almost circular area of some 115 metres diameter. A 10-metre wide gap on the east side is likely to be the main entrance into the precinct. By its north edge are two rows of small pits, possibly post settings for a building.

An inner boundary defines a precinct of 60 metres diameter. The line is strongly defined in the south-west but its east edge disappears under the road. It returns faintly in the north, where the graveyard masks the detail of the boundary and the interior area.

South-west, beyond the precincts, are two areas of high magnetic response (black and red patches). It is not possible to interpret these from these results alone, but they might be indicators of areas of small-scale industrial workings.



Interpretation

This survey plan for the first time offers a convincing landscape context for the two high crosses whose positions (marked with purple crosses) have until now made no evident sense. The east cross stands some 15 metres directly outside the main entrance through the outer precinct boundary, and the west cross is sited more or less in the centre of the inner precinct. This has profound implications for interpreting the site as a whole: that the enclosures and crosses are contemporary and connected as elements of a coherent complex; that the crosses have stood on their present sites since the period of use of this complex; and that the location of *Both Chonais* is now confirmed and its form precisely defined.



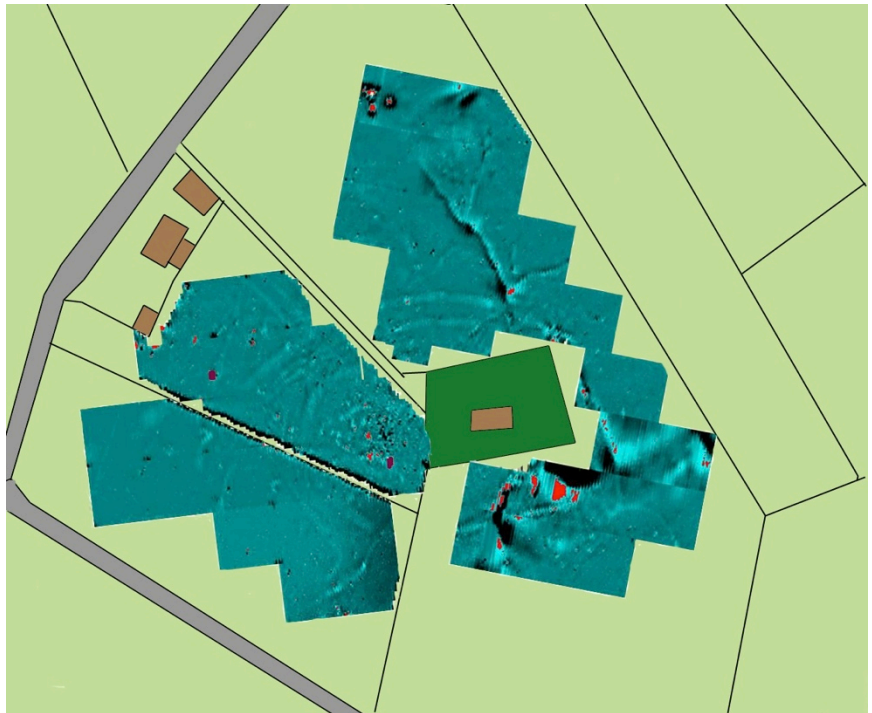
The fluxgate gradiometer, supported on its home-made stand of wooden branches. If iron is close by while it is in use, it will distort the readings. This is why we have to keep a good distance from wire fences and why those using the instrument must not wear anything metallic within their clothes (shoes, for instance), nor carry anything metallic.

Clonca Magnetometry Survey

We surveyed the fields around the Clonca graveyard at a very high resolution and the results are outstanding. Again, as at Carrowmore, we have indications of a double-circle precinct, but here there is a much more complex, possibly multi-period, landscape.

The survey takes in the fields on all sides of the disused graveyard. It looks as though the graveyard might once have been more extensive on the south and east sides. Here again, we have traces of a double circle, some 95 metres in diameter, clearly visible north and west and becoming fainter at the south-west where the land begins to drop down on to the valley floor. But this sits within a complex landscape setting, for another double-line feature merges with this north west of the graveyard and extends in a wider arc west and south-west until this too is lost on the downslope. From near the point where the two curves merge, a double line runs north-west, parallel with the field boundary. We might think of these features as being from droveways to manage the movement of stock between the valley floor and land on the plateau. Land boundaries extend north from the graveyard.

A high cross stands in the wedge-shaped field west of the graveyard, close to its boundary. This, we can now see, is within the circuit of the double ring. Part of the head and a base of another lie on the ground some 70 metres west of this, beyond the precinct. We cannot be sure that they are in their original position (though the base is a large boulder, not easily moved).



Interpretation

The high cross standing within the precinct in an area with a great density of small features. To interpret this cluster from this evidence alone would be difficult, but it is worth speculating. The small features might be graves; and they are grouped within, and spill over the edges of, what seems to be a small single-ditched enclosure with an entrance facing west. Do we here have an early cemetery clustering around the grave-shrine of a founder-saint, with the high cross then set up later to mark and preserve the memory? Again, as at Carrowmore, it looks as though one cross stands within the inner precinct and one beyond.

The complexity of this site warrants further study, and possibly excavation. But we have to ask whether small-scale excavation would not merely serve to confuse interpretation. Whatever we are to make of these features, the richness and complexity of detail revealed in the magnetometry warn against assuming that this site was in use for just one purpose at one time.

Excavation at Carrowmore

We tested the Carrowmore magnetometry results in a small excavation. We wished to assess the conditions of preservation beneath the surface: were the features suffering damage from recent cultivation of the ground; how substantial were the precinct boundaries; were other, smaller features present; would small objects and layers of fill give any confirmation of how the site was used and when?

We opened two small trenches, one over each of the precinct boundaries. Both proved to be substantial, well-preserved ditches. In both cases, they had begun to silt in naturally and the inner ditch was re-cut at some stage. In the middle zones of both ditch fills there were boulders, probably from revetments or retaining walls which had collapsed from disrepair or else been slighted deliberately.

Small finds from the fills of the inner ditch included a set of polished pebble gaming counters, Fragments of iron slag and hearth set on the top of the fills of the outer precinct ditch strongly suggest that metalworking was being practiced here. Both the gaming counters and the metalworking are not unusual at monasteries.

The small scale of the excavation meant that other features which we encountered, retaining walls and small pits, could not be readily interpreted; but the work did show that features were well preserved and not being eroded, and consequently that there is a good potential here for a more extensive archaeological study.



L-R: front, Sue Ward, Dessie McCallion; middle, Deb Haycock, John McNulty, Sara Anderson; back Joy Rutter.



Profile of the inner precinct ditch



Gaming counters found in ditch fill.
The scale is in centimetres

Scenes on Site



A small hearth within the fill of the outer ditch: charcoal for radiocarbon dating.



John Hegarty and Mervyn Watson, Inishowen friends who came to help us.



John McNulty working over upper fill layers of the inner precinct ditch.



Survey point – Deb Haycock



I see no ships. L-R Jack Pennie, Ray Shepherd, Geoff Taylor, Richard Tipping



Keeping the records



Sean Boyd from Buncrana who came to help us.



After the Topsoiling: L-R Max Adams, Joy Rutter, Deb Haycock, Cowan Duff, Geoff Taylor

Behind the Scenes

The fieldwork we have described is intensive and focused on small areas at site-specific scale. We support this with other investigations, from maps and records, or in the field, at different scales on a three-tier model, so that each scale of investigation can inform the others.

We begin with analysis at what we call the wide-terrain scale, in this case, Inishowen as a whole. We examine maps to see how the land lies and how farms, villages and roads are sited in the landscape, and we draw down from the Web the archaeological data base for the county

This is the work which underlies the analysis presented here in pages 4 and 5, in which we looked at how some key monument types are spread across the peninsula and their proximity one to another.

This is the scale of analysis which has led us to concentrate our attention on the area of the Magh Tóchair.



Sara Anderson and Geoff Taylor marking up maps.



Richard Tipping

Our intermediate scale of analysis is the bridge between the wide-terrain and the site-specific. We might think of it as being on the scale of a Townland, or we might structure our approach around particular topographical units. The latter is the case we have adopted for this study. Our monasteries are at edge places, between the wet lands and the hillier terrain, and to understand the rationale for their siting we need to understand how the valley of the Culdaff River and the flat plain have developed over the millennia. Richard Tipping, a distinguished environmental scientist from the University of Stirling, joined us to take on this aspect of the study. While we were doing magnetometry and excavation, he conducted an appraisal of the landforms and took cores from the sediments.

Current Tasks

We now have the tasks of carrying out analysis and comparative studies of the finds and the samples we recovered from excavation, of putting our site records into good order so that they can be deposited in an appropriate archive, and of writing a detailed and definitive account of our excavation for future reference. We also have to finish our magnetometry survey at Cooley Graveyard. It looks as though there is a double-circle precinct here as well but we need a full survey to confirm this.

Cowan Duff (right) conducts laboratory analysis on finds.



Our Commitment to Public Information

Our work has attracted a good deal of interest from communities on Inishowen. Some came out to see us, and others who had come to visit the high crosses, not knowing we were on site, stopped to talk to us. We are making a point of responding to this level of interest by presenting our work and our findings not only in specialist archaeological journals but also to the wider community.

We spoke about our findings at an evening event in the Back Room of McGrory's Hotel in Culdaff, to which 75 people came. The project leaders gave a presentation and the whole team was on hand to talk and show finds from the excavation.

We also gave a presentation in Moville to members of the Cooley Graveyard Heritage Group.

This document is another element of public information.



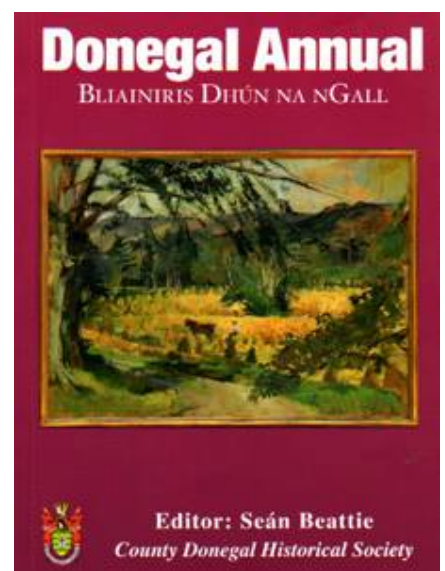
Colm O'Brien answering questions at the presentation at McGrory's in Culdaff



Georgina Ascroft with visitors to site

On the day of our evening presentation in Culdaff, we set up an open day at the Carrowmore excavation site. Team members were on hand to show people around.

We have written a more formal report on the Carrowmore magnetometry which, thanks to the editor, Sean Beattie, is now published in the 2013 issue of the Donegal Annual. We expect to write on Clonca for the 2014 issue.



We have a facebook presence under the name **Friends of Bernice**. Like the site and you will see the postings we make from time to time.

Our Thank You

We have benefitted from the kindness and the assistance of many people. We are pleased to offer here our thanks to people and organisations in three countries who have assisted us and to all who have taken an interest in our work.

The University of Sunderland has been the principal funder for our fieldwork in both 2012 and 2013 and has provided administrative support.

P&O Ferries and the Lough Foyle Ferry Company have sponsored us with assistance on travel costs.

Ann, John and Neil McGrory and their staff at McGrory's of Culdaff have been generous in making facilities available to us.

Academic staff of the Universities of Newcastle and Stirling participated in our fieldwork in 2013.

Seamus and Cressida Canavan of The Moville Holiday Hostel have provided us with accommodation.

John Cronin Archaeological Associates and the University of Newcastle lent us equipment for excavation and survey.

Without the consent and assistance of landholders on Inishowen, we could not have undertaken our fieldwork: Michael Hegarty, Billy McKeague, Charlie McConalogue, Harry Molloy Jnr, Paddy Mooney, Roger Mooney, The Heritage & Gaeltacht Minister for Arts.

People from Inishowen came to help us as volunteers on site: Sean Boyle, John Hegarty, Kristy Little, Dessie McCallion, Ciaran McKinney, Karlis Nandins, Mervyn Watson.

We have received help with press and public information from Eilis Haden, Martin McGinley, Linda McGrory.

We have benefited from advice, discussion, information generously offered by: Sean Beattie, Caroline Carr, Ursula Cutliffe, Áine ní Dhiubhne, Mary Haggan, Martin Hopkins, Brian Lacey, Bettina Linke, Thomas McErlean, Fr Jim McGonagle, Neil McGrory, Seoirse O Dochartaigh, Sam Turner.



The Bernician Studies Group

The Bernician Studies Group is a community-based seminar and research group which arises out of university lifelong learning, with links to the universities of Newcastle and Sunderland and under the academic and tutorial guidance of Max Adams and Colm O'Brien.



At work: up close with the maps and marker pens. Max Adams (foreground) with Sue Ward and Jack Pennie.

Group Members

Sara Anderson, Georgina Ascroft, Donal Donnelly-Wood, Cowan Duff, Bridget Gubbins, Deborah Haycock, John McNulty, Jack Pennie, Sandra Richardson, Joy Rutter, Ray Shepherd, Geoff Taylor, Sue Ward.

David Astbury and Richard Tipping contributed their expertise to the Inishowen fieldwork, while Hermann Moisl and Brian Roberts bring their academic expertise to our seminars.

...and at play:
dining at McGrory's.
Clockwise from bottom left:
Georgina Ascroft, Sue Ward,
Deb Haycock, Colm O'Brien, Max Adams, Jack Pennie, Joy Rutter, Geoff Taylor, Ray Shepherd.



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