

1. Summary

The Inishowen Studies Group (ISG), on behalf of the Lands of Éogain project group (LoÉ) has undertaken an eighth successive year of fieldwork on the Inishowen Peninsula. Following a first evaluative trench in 2016, trial excavations carried out in the field surrounding the graveyard at Cooley, Moville revealed more of the complex series of ditch and enclosure features, including a metalled causeway entrance to the enclosure on the N side.

2. Evaluative excavation at Cooley ecclesiastical complex, Moville 2019

2.1 Fieldwork Summary

The Inishowen Studies Group, in association with *Lands of Éogain* projects and the University of Newcastle upon Tyne, undertook a 2-week evaluative field season in the field to the N of the graveyard, under licence from the Department of Arts, Heritage and the Gaeltacht and with the kind permission of the landowner, Mr Andrew Norris.

A 6m X 4m trench was excavated in the field north-west of the cemetery, immediately adjacent to the 2016 trench, with the aim of identifying and sampling the suspected palisade slot left unexcavated that season. The new trench encountered the unexpected terminal of the ditch and an equally unexpected causeway crossing it. The palisade trench was not identified in the ditch terminal, but a carefully constructed soakaway and traces of industrial activity show that the area was subject to intensive activity. No obvious further dating material was recovered; small finds were limited.

Samples from key deposits have been retrieved and will be analysed in due course; but the overwhelming feature of the deposits filling the ditch terminal evidenced aggressive mineralising and acidification of the deposits, leaving little hope, for now, of recovering meaningful organic materials or samples suitable for dating the main stratigraphic sequence.

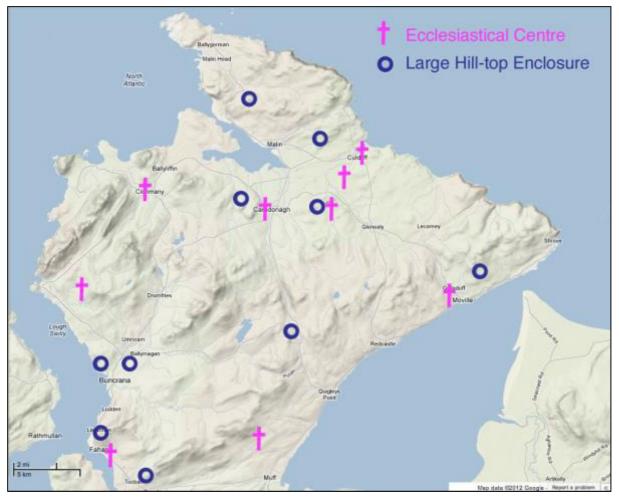


Figure 1: The early Christian context of Inishowen

2.2 Background and report on previous work

The Bernician Studies Group has been investigating the Early Christian landscapes of North Inishowen since 2012 (Adams and O'Brien 2013; O'Brien and Adams 2016). Preliminary geophysical survey of the known burial ground at Carrowmore revealed a double vallum of suspected monastic nature, whose relationship to the two famous high crosses demonstrates that the latter stand in their original positions. These enclosure ditches were subjected to trial excavation in 2013 and yielded a sequence of ditch fills dated between the late 6th century and the 11th century (BSG 2014) and the remains of a metalworking hearth. Subsequent geophysical surveys at nearby Clonca (2013) and at Cooley graveyard in Moville have revealed similar outlines of known or suspected monastic foundations. At Clonca an existing high cross is associated with a standing but ruined church of uncertain date; gradiometry revealed a complex series of enclosures, trackways and a possible area of burials surrounding the high cross. Once again, the enclosure seems to have been formed by a double, concentric ring earthwork of typical form for the earliest monastic establishments in Ireland (O'Brien, Adams, Haycock, O'Meara and Pennie 2016).

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At Cooley, overlooking Lough Foyle and Magilligan Point, a high cross and 'skull house' and the remains of more than a dozen early cross-marked memorials can now be seen, as a result of detailed survey work in 2014 and 2015, to have lain at the core of a substantial complex containing rectilinear and circular buildings and possible metalworking sites.

The high cross and a now-disused graveyard containing an intact tomb-shrine, now known as the 'skull house', remains of two other buildings, row graves of suspected Post-medieval, Medieval and Early Medieval date, and monumental grave plots of the past three centuries occupy a hill-side setting above the town of Moville and the west shore of Lough Foyle. This is identified as the site of the Early Medieval ecclesiastical complex of *Domnach Magh Bile*, which Dr Paddy Gleeson (pers. comm.) argues belongs to an Early Medieval polity, the Bredagh. A community-run group is currently actively researching the geography and history of this landscape, while the cemetery is maintained by the Cooley Graveyard Heritage Committee.

The complex at Cooley offers potential for several key issues to be explored. The first revolves around its identification as the site of a *domnach* church (Bhreathnach 2014, 168-70). So far as the authors are aware, no *domnach* church complex has yet been dated by scientific excavation. This is a key priority in broader agendas for studying Ireland's landscapes of Christianisation. Cooley would also provide an invaluable set of comparanda for the results obtained previously at Carrowmore. The recent publication of the Ballyhanna research project (McKenzie et al 2015) demonstrates the value of recording burial communities in their context (although no excavation of human remains will be undertaken at Cooley and no excavation is planned inside the graveyard). Much less intrusive options may be available here.

On a broader, more international scale, the identification and analysis of the populations of maritime and estuarine communities has recently been identified by Carver et al (Carver 2013) as a high-priority in Early Medieval European studies. Cooley's row graves belong to a maritime community in a monastic and regional polity context and place it in a wider, Atlantic and European setting. Ongoing work by the BSG and others is demonstrating the transmarine intercultural significance of the early memorials – that they belong to a tradition linking Pictish and Dál Riatan sculptural and ecclesiastical traditions, particularly those of Iona, with the North of Ireland. Cooley thus represents a highly significant focus of scholarly interest, combined with a very high level of potential for supporting a community sense of Inishowen's unique identity.

2.3 Previous work at Cooley

Detection Licences: 13R78 (2013) 14R0095 (2014) and 15R0066 (2015) Excavation licence 2016: 16E0334 National Monuments Service Reference No: DG 021-008001 National Grid reference: 259844 438384 Townlands: Cooley, Gort

Gradiometer surveys of the pasture fields surrounding the Cooley Graveyard were carried out in three seasons between September 2013 and September 2015, using a Geoscan Fluxgate Gradiometer FM256. Results were processed using Geoplot 3.0.

Surveys and subsequent reporting were carried out in accordance with English Heritage's guide to *Geophysical Survey in Archaeological Field Evaluation* (2008), the IfA's *Standard and Guidance for Archaeological Geophysical Survey (Draft)* (IfA, 2010) and the ADS's *Geophysical Data in Archaeology: A Guide to Good Practice* (Schmidt, 2001).

The resulting composite, below, shows clearly that, as at Carrowmore, a double circular enclosure existed around the graveyard. At about 150-160 m in diameter, it was constructed on a larger scale than that at Carrowmore (and, as is now confirmed, Carndonagh). The significance of detecting three (now five) of these monuments in North Inishowen, all roughly of the same form, cannot be overstated; it will be considered in detail in later reports. The incidence of a high magnetic response within the anomaly which indicates the outer 'ditch' of this enclosure on its east side (although given the anomalies, these could equally represent banks rather than ditches) is to be considered in the context of the metalworking debris and evidence of a hearth in a similar relative location at Carrowmore. There was obvious scope for the sort of evaluative excavation carried out at Carrowmore to determine the nature, date and vulnerability of the sub-surface features identified here; further, there was the possibility of testing the geophysical survey by addressing key questions on the nature, longevity and abandonment of the complex.

More detailed geophysical surveys in 2014 and 2015 used the same instrument and software as used at Cooley previously, with an enhanced setting of 0.1NT at intervals of 0.125 m X 0.5 m on a non-parallel traverse of 20 m x 20 m grids.

An arc of a circle curves around the east (right hand) edge of the graveyard and continues counter-clockwise in a loop around the top of the survey area. Beyond this arc, further east, north and south of the graveyard, is an external arc, concentric with the first. This can be seen to continue clockwise south of the graveyard and it is supposed that it might still exist beneath the surrounding fields to the west. The inner arc describes a circle of some 100 m diameter, and if the outer arc also forms a circle, as suspected from the trial survey in 2013, its diameter would be 150-160 m. Again, we have evidence of a double-circle precinct, comparable with those at Carrowmore and Cooley and, as at both of these sites, the high cross can now be seen to be sited within the inner precinct.

Extremely high readings (red patches on the plot) are likely to show the sites of small-scale industrial processes. Two prominent patches exist by the outer precinct boundary, a position comparable with that of hearths identified in excavation at Carrowmore. Within the inner precinct, circular marks, possibly the outlines of buildings or small enclosures, show north of the graveyard and a large rectangular outline at the edge of the field, close to the high cross by the graveyard gate, seems likely to reflect a building foundation.

In the 2015 field season the field to the south of that previously surveyed was mapped and shows that the return of the inner ditch survives, if perhaps in truncated form, where the break of the ground indicates erosion of the surface by ploughing.

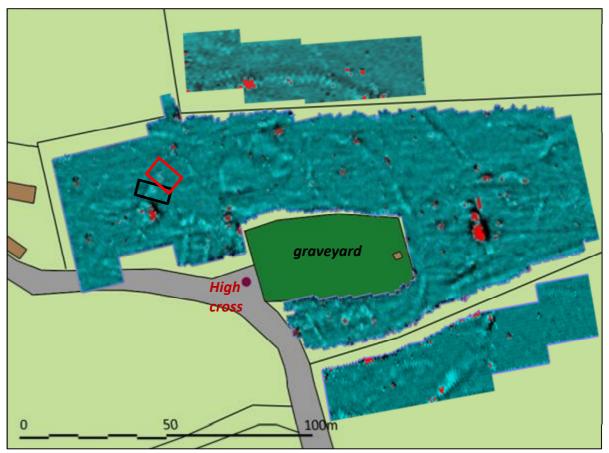


Figure 2: Cooley graveyard area showing geophysical plots and trench locations. Red= 2019 trench

Within the graveyard, the group has now completed a survey of the grave marker stones, plotting their positions to high accuracy with a Leica TS20 Total Station Theodolite (TST). This survey shows that the apparent jumble of stones resolves out into head and foot markers of graves arranged in very tightly packed rows (Figure 3: below). The date range of these graves is unknown but some points of sequence through horizontal stratigraphy are now clear: the rows respect the position of the skull house; the first three rows stop short of the north and south sides of the skull house, while the fourth row, which is continuous across the graveyard, curves slightly around its west edge; graves are more tightly packed



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towards the east end of the graveyard, near the skull house, than towards the west; the graves extend in unbroken rows across what is supposed to be the interior space of a medieval church, represented now by a single standing wall. Where they are exposed the graves have been shown to consist of two predominant forms: lintel graves, comprising a stone long-cist covered by several squarish slabs with a head and foot stone marker; and capstone graves, where the same arrangement is covered by a single stone. Only one of these, exposed during a previous clearing programme, has yielded firm evidence of a medieval date in the form of a decorated cap stone slab (DH021-008010). It is estimated that the graveyard contains a minimum number of individuals between 800 and 900. It is not yet possible to determine if there are underlying layers of earth-cut graves: to the east where the field shelves away there is a substantial drop from the internal height of the graveyard to the exterior; elsewhere the graveyard is raised above the surrounding field by between 0.5 m and 1 m.

The BSG has identified and recorded twenty grave marker stones formed in the shape of a cross or with a cross shape carved into the stone; ten of these are ring-headed crosses. Most survive as broken fragments and are re-used in the positions in which they now occur; they constitute evidence of an earlier stage of use of the graveyard. Three crosses show skeuomorphic elements, two in the form of a point at the base of the cross shaft (photo, right), and one in which the shaft appears to be set into a base stone. In most cases, the inscribed cross slabs can be shown to be in secondary contexts. Survey results have now been incorporated into the National Monument Records for Cooley, courtesy of Mr Caimin O'Brien.

It is now strongly apparent that any received wisdom on dates and phasing of features in this graveyard is likely to be unreliable and that models must be developed from the logic of horizontal stratigraphy from a detailed survey shown on the previous page. It was evident that visual assessment of individual graves and rows would provide valuable new data from which to develop a model of burial practice here.

2.4 2016 programme

Excavation

In order to evaluate the stratigraphic and environmental potential of the presumed ecclesiastical enclosure at Cooley, an initial trial excavation of 8m X 3m was carried out between 15th and 29th August 2016 across a section of what is probably the inner enclosure ditch.

Approximately 22 cm of re-worked plough soils, containing fragments of post-medieval domestic refuse, were removed in four horizontal spits before undisturbed archaeological

levels were reached. The subsoil was a compact orange-brown silty loam with small angular fragments of 'brash'. To either side of the supposed line of the inner enclosure ditch¹, located by magnetometry, parallel linear stone settings were revealed. These consisted of irregular thin slabs of schist set vertically, close-packed, into what may have been soft upcast from the original excavation of the ditch (photo above: F7, east end of trench). There was evidence of patching with small water worn pebbles as cobbling, and the wear of traffic along or across (F6; 22).

External to the enclosure ditch on the west side, partially-revealed settings of stone, and a pit filled with a very hard concretion, provided evidence that the zone was used for industrial activities after the end of the lifetime of the ditch. At the east end of the trench, and therefore lying between the outer and putative inner enclosure ditch, a single large post hole was excavated (F20)

The uppermost ditch fill lying between the two linear stone settings was a thin slump, some 10 cm thick (Ctxt 18), of the re-worked ploughsoil. Into this a stakehole (F23) had been driven, close to the edge of a complex metalworking feature, initially identified from a blackish linear stain, the remnants of a stone-lined flue (F11). Excavation of the flue revealed deposits of ash and charred material (both sampled) and a series of small flat schist stones upcast onto the surface (Ctxt 10). Sectioning and removal of the flue revealed a much larger, deeper pit (photo below right: F26) more than 1m in diameter and full of flat stones in a dark orange-brown brashy matrix which yielded a number of finds of ironworking debris. These included slag fragments, part of a tuyère and a plano-convex hearth base similar to those found at Carrowmore in 2013.

The excavation of the furnace pit (F26) substantially delayed excavation of the ditch fills, further complicated by part of a series of linear industrial features running parallel to the eastern ditch edge (F28; F36). These were sampled and part-sectioned.

The bulk of the fill of the enclosure ditch (F29), some 3.6m broad and gently curving from south-west to north-east, was a homogenous deposit of stony orange-brown subsoil (42), apparently introduced in only two or three dumps after a re-cutting episode (F48) which may have removed a more complex stratigraphic sequence. The fill was so loose that it proved impossible to maintain a standing section. The deposit was so apparently sterile that its inferred origin is material which once formed a bank to the ditch: its original upcast, perhaps. The parallel stone settings, in that case, are inferred to have been constructed after the major re-deposition episode, and are perhaps best associated with the ditch's reuse as an area for metalworking.

Removal of the homogenous fill revealed that an apparent palisade trench (F45), with straight sides, post settings and some internal structural complexity, had been inserted into

¹ This is not absolutely certain; – because of slope error on the geophysical survey, it is possible that the excavations have been made across the outer ditch.

the ditch after the accumulation of stone-free, turfy fills on either edge (41; 49). These, in turn, overlaid what appears to have been a deliberately-placed lining of flattish, small stones. One post setting had been revealed as a post-pipe or stake-hole (F40) truncated by the furnace pit. The other was evidenced by two long, thin vertically placed packing stones (F44) which have been left *in situ*.

The palisade trench was only revealed during the last few hours of the excavation. Such is its likely structural complexity that the decision was taken not to excavate but to take a small sample from its sandy, ashy fill, and re-cover it with sterile builder's sand. Visible features were planned and photographed. Initial inspection showed a dark, thin, linear stain on either side, which may represent the decayed remains of a plank lining.

Samples and finds await alteration and export licences. The interim report will be updated after their analysis.

2.5 2019 Excavation

Its objectives were as follows.

<u>Objective 1</u>: to obtain C14 samples, stratigraphic profiles and environmental samples from the inner ditch and/or bank of the enclosure outside the cemetery, as identified by gradiometry and by the 2016 trench. The proposed trench would measure 8m X 4m (see details of excavation method below) and be sited to the immediate east of the 2016 trench.

<u>Objective 2</u>: to determine the survival, date and nature of the apparent palisade trench identified but not excavated during the 2016 season.

Excavation was carried out under the direction of Max Adams on behalf of the Bernician Studies Group and Lands of Éogain Group under Licence 19E0455 between 17th and 29th August 2019. All deposits were excavated by hand. Recording was by single context using the University of Durham 1998 recording sheet and methodology. Plans were drawn at 1:20; sections at 1:10 or 1.20. All stratified finds were recorded in 3D using a TST laser theodolite. Photographs were taken using an X-pro 1 digital rangefinder camera and recorded in RAW mode.

Trench description (See Figures 4, 5, 6 & 7 below)

An area of 6m X 4m was opened – smaller than that proposed in the licence. The trench was located relative to the 2016 trench by TST survey points, designed for a small overlap (see Plan 1). Site conditions were challenging: a sustained period of heavy rain lasted for most of the excavation.

Approximately 22mm of turf and topsoil was removed to reveal a more compact, homogeneous buried plough soil (4). The NE corner of the 2016 trench was revealed in the

S corner and its fills removed to reveal a very shaley brash (27) – effectively the natural subsoil into which features have been cut.

Removal of the buried soil revealed a linear spread of river worn cobbles and angular stones compacted and forming a metalled surface (F10: 9, *Figures 4, 10*) along the E baulk of the trench. Stones blacked in on Plan 1 had been burned a dark red. Edging the metalled surface to the W was a very hard, reddish-brown raised 'lip'. The redness appears to derive from a high iron content in the soil, sufficiently hard to be impossible to excavate with hand tools. A substantial fragment of a drill-pierced circular stone artefact was retrieved from among the stones (SMF 8: *Figure 8*). This might have been a loom weight; but by analogy with very similar objects from Tintagel, it may have been used as a jar stopper – the pierced hole designed to take a knotted cord. Removal of the layer of cobbles partially revealed a substantial stone-filled sunken feature in the N corner, defined by large thin stones set on edge. Because of the small part exposed in the trench, this feature was not further excavated.

The roadway cannot be dated; but the structural detail of the edged stones below the cobbled surface (*Figure 11*), and the inclusion of burnt, probably industrial debris, suggests that its use was contemporary with the life of the enclosure ditch, which terminates 1.5m to the SW.

The fills of two shallow but substantial post holes were revealed by the removal of (4): F17, towards the east side of the trench, contained a dark brown turfy fill (16). A second post hole (F8) contained much charred wood and charcoal dust. One fragment appeared on initial inspection to be the charred rim of a wooden bowl – yet to be confirmed. Samples of the charcoal have been retained; but the post hole has no direct stratigraphic relationship with either the main enclosure ditch (F29) or the metalled road surface (F10), so its value as the only probable dating from the site is very limited. Both post holes may have had structural relationships with the roadway or ditch (see Plan 1: Figure 4).

West of the roadway a circular pit feature (F13: *Figures 4, 9*) contained large stone slabs (11) – some with burnt edges but none with burned faces. Below the stones a dark grey-black fill (15) indicated the dumping into the pit of burned material; but it could not represent *in situ* burning because the yellow-grey clay lining of the pit (12) showed no signs of having been affected by heat. The feature may, therefore, have been a quenching pit filled, on disuse, with hearth waste.

The pit lay at the E edge of what was subsequently revealed as the terminal edge of the enclosure ditch (F29: Plan 1; Section; *Figure 12*). In a turfy mid-grey-brown matrix (18), sub-angular stones of between 10-20cm diameter formed a coherent sub-rectangular mass emerging from the SW section and sloping inwards towards the centre. As the section later revealed, this deposit overlay the S edge of the ditch, indicating that it was formed after the last effective fill of the ditch (19). It appears to have been deposited as a levelling-up dump.

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Immediately to the E of the edge of (18) a circular pit (F30) some 40cm deep contained a handful of angular white quartz fragments in a burnt, dark reddish silty matrix. Immediately below lay a very large (more than 25kg in weight) thick angular rock slab which extended beyond the edges of the pit. This was later revealed to be part of the capping of the soakaway feature that lay below (F37: *Figure 13*).

Excavation of the enclosure ditch F29 (= 2016 trench F29) showed that it terminated 1.5m short of the roadway (F10). At its deepest point the base was 1.95m below the modern ground surface and 1.63m below the topmost fill. As Plan 2 (Figure 5) shows, such a small part of the base was revealed that it was not possible to determine if the supposed palisade trench identified some 2.5m to the W in 2016 was present. The base, as excavated, lay below the water table and consisted of medium sized angular and sub angular stones in a very dense, hard, blackened and mineralised deposit characteristic of being formed in permanent or seasonal highly acidic water.

During excavation a series of deposits, all very heavily leached and lacking in organics or small finds, was seen to form a sequence in which they sloped NW to SE against the inner edge of the ditch. Above the very wet, compacted base fill (36), which may represent several fill episodes, was a deposit of grey silty clay (33) some 20cm thick. This represents a very different depositional environment from the deposit(s) below: formed over a long period in the presence of pooled water. In section, it appears that (33) was the primary fill of a recut of the ditch not recognised during excavation (Figure 6: section, the base of (33)). Above (33), a more stony and turfy brown deposit (34) may represent the turfing over of the ditch in a drier period. This turfing was followed by another period of very wet conditions in which a gritty, hard black mineralised pan formed (32).

F20 was a cut identified during excavation, delineated by a stony surface and by the top of the mineralised deposit (32). In retrospect, and confirmed in section, F20 was not a recut of the ditch but a hiatus between successive depositional and environmental episodes. Overlying the F20 interface was a thick (30cm) deposit consisting of discrete lenses of material in a yellow-orange silty clay (28) – the apparent accumulation of material over a long period.

Overlying (28), a stony orangey-yellow fill (23) on the SE side of the ditch seemed, on examination and cleaning of the section, to represent the fill of a narrow recutting/cleaning out of the ditch late in its life. Above this, a mid-brown silty loam (19) with small numbers of stone fragments appears to constitute a period when the last fills of the ditch silted over. An intrusive, very loose loamy fill encountered in a pocket on the SE edge of the ditch (26) appears to have been the fill of an animal burrow.

Close to the base of the ditch on its SE edge what appeared, on first exposure, to be the fill (44) of a post hole was revealed as part of a soakaway structure (F37: Figure 5). A concentration of rounded and flattish stone of average 10-15cm diameter filled a slot that

emerged from the ditch side. One of the stones was a non-local gritstone; others were rounded, very bright red in colour and productive of an ochre-like 'paint'. Removal of a dump of homogeneous yellow clay (25) above the ditch edge revealed a very substantial arrangement of large and medium-sized stones (38: Figure 5), sloping inwards from NE and SW. Planned, but unexcavated, these appear to be the top of a gully that fed water from within the enclosure into the base of the ditch. A discrete lip of very silty clay (42) exposed beneath the stones in the edge of the ditch and overlying the soakaway stones (44) was sampled for organics and possible dating material. It is unfortunate that no time was available to examine the feature in more detail; it is unclear whether the soakaway performed merely a drainage function or whether it was related to industrial activity in the area.

Small finds from the 2019 trench were very limited: one unstratified endscraper; three small fragments of ceramic vessels a possible hammer stone; a fragment of iron slag and another perforated stone. No samples likely to produce dating evidence were retrieved, and this must be a function of the very aggressive chemical conditions in the ditch.

2.5 Discussion of excavation results

The inner² enclosure ditch at Cooley is of similar broad form and dimensions to the outer enclosure ditch at Carrowmore; and in its last phase it, too, had been utilised for industrial activity, including probable iron-working. There the similarities end. The insertion into a monastic enclosure ditch of a palisade feature, if confirmed, is rare (one of the authors excavated a similar feature in a 1st -century AD Romano-British enclosure in Northumberland (Adams and Carne 1997)). So far, a literature search has not yet found an equivalent in an Irish context. The only chronologically diagnostic find came from a deposit late in the sequence in 2016: a substantial rim sherd of Souterrain ware, which seems to show evidence of external sooting. A fragment of possibly Early Medieval pale blue glass (also from 2016) will be analysed for the final publication report.

That the massive enclosure ditch (more than 3m wide and almost 2m deep) enjoyed a complex life history is beyond doubt. It is not at all clear whether a similar sequence can be anticipated along the entire length of the inner ditch or at all in the outer enclosure ditch. Primary ditch fills offering dating and environmental evidence and sealed beneath the palisade trench might be anticipated during any future work. The presence of such a feature and its prominent location relative to the hilltop enclosure at Carnagarve marks Cooley as a possible candidate for a reused prehistoric enclosure. The large investment of labour and engineering skill required for such a pretentious piece of architecture argues for the sort of prestige reflected in the quality and quantity of the memorial sculpture identified in the graveyard and in Cooley's geo-political setting.

² But see above, p. 9

Cooley is established as a very significant ecclesiastical and perhaps secular site, with artistic and probably political links to Iona and beyond. Its likely status as the mother church of the small kingdom of Bredagh suggest obvious parallels with another *domnach* church at Carndonagh, and with St Maura's church at Fahan.

A systematic programme of further research by excavation may produce dating evidence in the known double enclosure at Carndonagh. Cooley's value for a campaign of major excavations and for exposing the grave covers in the cemetery is high by virtue of its historical and sculptural status; archaeologically, however, the site has so far shown limited potential for retrieving substantial artefactual, stratigraphic and environmental evidence. And future excavation should concentrate on two issues: opening sufficiently large areas to understand the structural layout of the complex; and identifying more tractable stratified deposits to establish a dating sequence. These ambitions lie beyond the present capabilities of the Inishowen Studies Group.

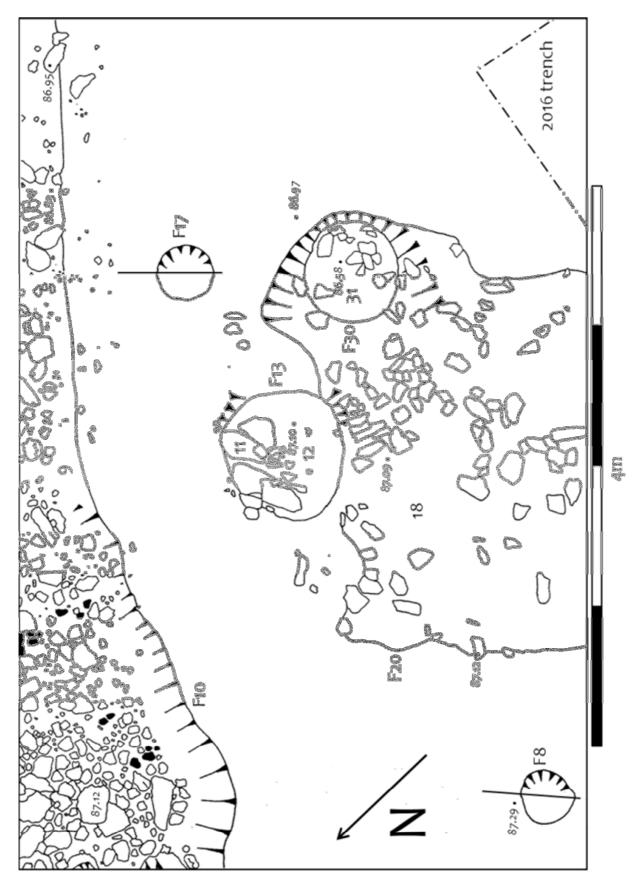


Figure 4: Trench plan showing metalled 'roadway' and upper fills of the ditch terminal

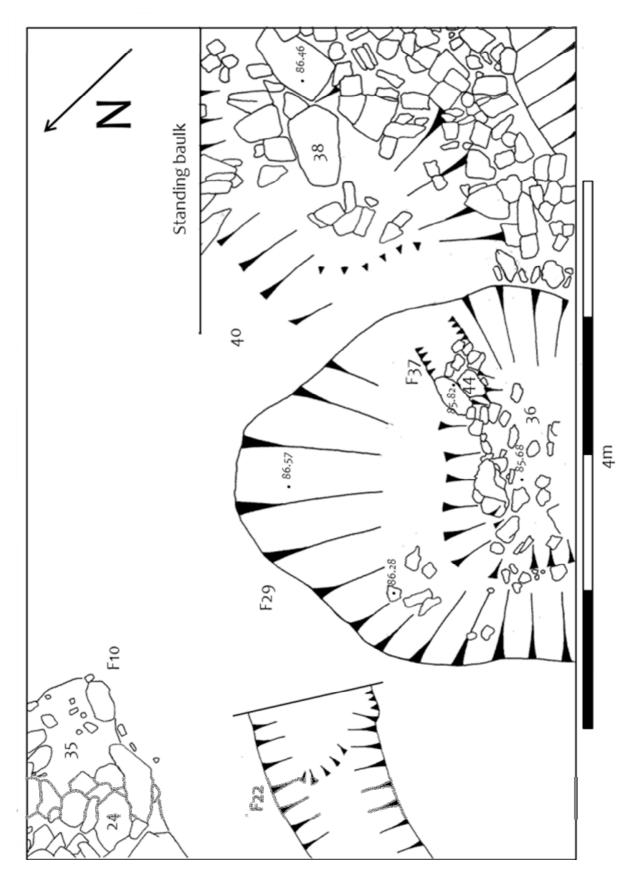


Figure 5: Excavated trench showing filled pit in N corner; base of ditch terminal and fills of soakaway

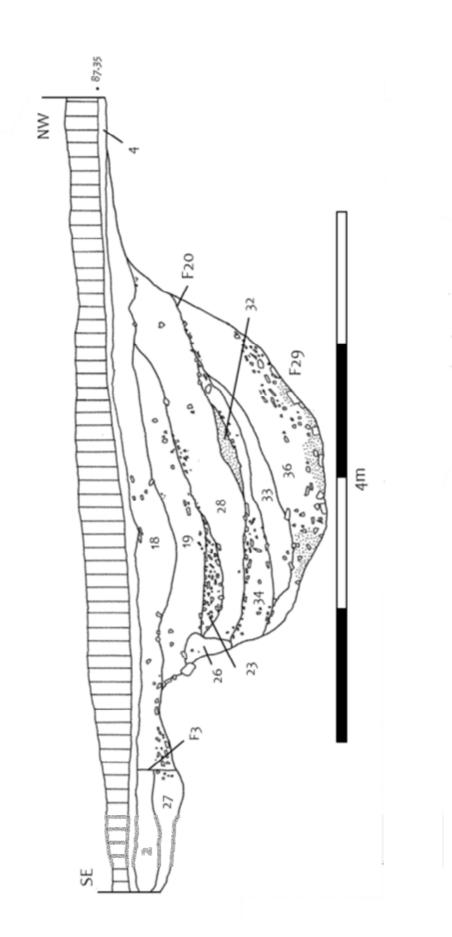


Figure 6: NE facing section through ditch F29

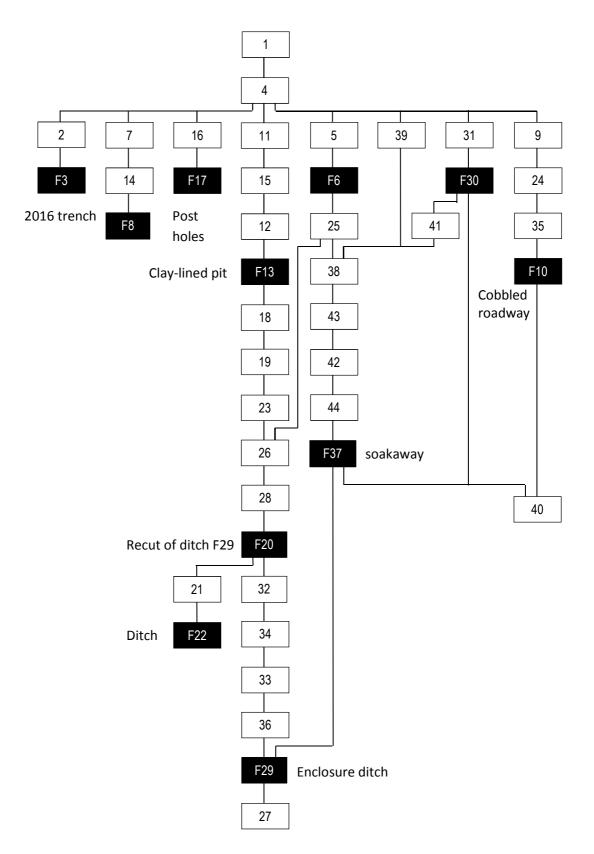






Figure 8: Perforated stone SMF 8



Figure 9: ?quenching pit F13 with ditch dump 18 to bottom right



Figure 10: Roadway F10 looking SE



Figure11: Pit with edging stones below F10



Figure 12: Ditch F29, section



Figure 13: Soakaway F37, looking E

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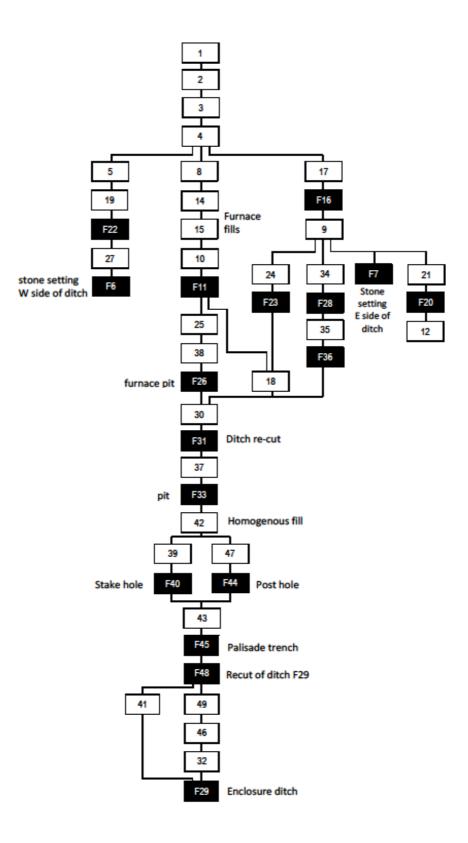


Figure 6: Stratigraphic sequence, evaluation trench

25 MA COB DH JP