

**ARCHAEOLOGICAL RESOLUTION  
OF COOLCHOLLY 1**

**N15 BUNDORAN TO BALLYSHANNON  
STAGE 2 ARCHAEOLOGICAL SERVICES**

**NGR. 18839/36194**

**ON BEHALF OF  
DONEGAL COUNTY COUNCIL**

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## NON-TECHNICAL SUMMARY

This report, prepared on behalf of Donegal County Council, has been undertaken to describe the results of archaeological resolution carried out in advance of the proposed N15 Bundoran to Ballyshannon Bypass in the townland of Coolcholly, Co. Donegal. Archaeological fieldwork was directed by Brian O Donnchadha of Irish Archaeological Consultancy Ltd. (IAC Ltd.), Licence no. 04E0011.

Linear testing (Licence Ref. 03E1012) was carried out by Irish Archaeological Consultancy Ltd along the route of the proposed scheme in summer 2003. Coolcholly 1 was identified as a possible worked timber within an area of bogland, Test Area 15, during the testing exercise. This feature was recorded *in situ* during the Stage 1 test excavation programme.

Topsoil stripping of the area took place on 5<sup>th</sup> February 2004 with 1 site supervisor. A 15m x 15m area was stripped of topsoil by a track machine equipped with a flat toothless bucket. After initial bulk stripping the area of excavation was hand cleaned in order to identify potential archaeological remains.

Excavation revealed nothing of archaeological significance. It was clear that the timber uncovered in testing was a piece of naturally occurring bog timber.

As a result it was recommended that no further archaeological work would be required on site.

## 1 INTRODUCTION

### 1.1 General

This report, prepared on behalf of Donegal County Council, has been undertaken to describe the results of archaeological resolution carried out in advance of the proposed N15 Bundoran to Ballyshannon Bypass in the townland of Coolcholly, Co. Donegal. Archaeological fieldwork was directed by Brian O Donnchadha of Irish Archaeological Consultancy Ltd. (IAC Ltd.). The project was funded by Donegal County Council and the National Roads Authority.

- **Test excavation**

Linear testing (Licence Ref. 03E1012) was carried out by Irish Archaeological Consultancy Ltd along the route of the proposed scheme in Summer 2003. Coolcholly 1 was identified as a possible worked timber within an area of bogland (Test Area 15). This feature was recorded *in situ* during the Stage 1 test excavation programme.

- **Archaeological excavation**

It was proposed by Donegal County Council that the site be fully excavated in advance of construction works. Topsoil stripping of an area c.15m x 15m around the site was proposed to allow features to be revealed and assessed.

### 1.2 Site location

Coolcholly 1 is located at the base of a steeply sloping drumlin and lies approximately 200m north of Camp 1 (licence# 04E0096) which was also resolved as part of the N15 Bundoran to Ballyshannon project. Coolcholly 1 comprised a possible worked timber, rectangular in section, and 0.30m wide. It was located 0.40m below PGL within a deep deposit of peat. The timber appeared to be split or roughly dressed. There were no other features or timbers associated with the identified piece. It may have formed part of a trackway or may have been a naturally occurring bog timber.

Although it was possible that Coolcholly 1 was a naturally occurring bog timber its location close to the dry-land/bog interface and its worked appearance led to it being flagged as a site of archaeological potential.

### 1.3 The scope of the project

Donegal County Council proposes to by-pass the N15 around the towns of Bundoran and Ballyshannon. The scheme will also include ancillary road junctions and other structures including a new bridge across the river Erne at Ballyshannon.

The development involves the construction of approximately 10.5 km of new National Primary Route and will commence east of the Bundrowes Bridge and will extend in an easterly direction to bypass Bundoran Town to the south and extends further east to bypass Ballyshannon to the east and ends at Cotton Hill, 1km north of Ballyshannon town. To facilitate the construction of the bypass it is required to construct a new bridge over the Erne River. It is also proposed to construct a new link road, ca 1km in length, from the proposed N15 roundabout at Cotton Hill to link in with the existing Rosstown road to the west.

The route crosses through (from W to E) the townlands of:

Magheracar, Ardfarn, Drumacrin, Finner, Rathmore, Dunmuckrum, Carrickboy, Ballymunterhiggin, Sminver, Ballyhanna, Ballynacarrick, Tully, Townpark, Camp, Coolcholly.

#### **1.4 Circumstances and dates of fieldwork**

The excavations were undertaken to offset the adverse impact of road construction on known and potential subsoil archaeological remains in order to preserve these sites by record.

Topsoil stripping of the area took place on 5<sup>th</sup> February 2004 with 1 site supervisor. A 15m x 15m area was stripped of topsoil by a tracked machine equipped with a flat toothless bucket. After initial bulk stripping the area of excavation was hand cleaned in order to identify potential archaeological remains. All works were carried out in agreement with the Project Archaeologist and The National Monument Section of the Heritage and Planning Division, Department of Environment, Heritage and Local Government.

It was agreed in advance that Donegal County Council would make available adequate funds to cover excavation, post-excavation, conservation and dating analysis.

## 2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The following archaeological and historical background refers to the wider archaeological landscape through which the N15 Bundoran-Ballyshannon Bypass passes (fig. 2).

### **Prehistoric Period (7000BC-AD400)**

While palaeoenvironmental evidence and the presence of flint artefacts provides a strong indication for early Mesolithic (pre 5500 BC) activity in Donegal, the coastal site at Urrismanagh on Dunaff Bay is the only definite Mesolithic site in the county. A number of estuarine environments in the county may provide scope for the discovery of early Mesolithic deposits.

Neolithic and early Bronze Age activity is extremely well represented in Donegal by megalithic tombs (court tombs, portal tombs, passage tombs and wedge tombs). Approximately 10% of all the megaliths in Ireland are found in Donegal, including 40 known court tombs and 20 portal tombs (Lacy B 1995, 9). Two passage tombs have been identified on the coast in the townlands of Finner and Magheracar, to the southwest of Bundoran. Two further passage tombs in these townlands are also known from 19<sup>th</sup> century accounts (ibid, 12). Ballymunterhiggin court tomb, situated c. 2km south of Ballyshannon, is one of the finest examples of this tomb type in Donegal (Lacy, 1983, 14). The recovery of a number of worked flint artefacts also suggests widespread occupation of Donegal in the Neolithic (ibid). Lacy has also suggested that the scale and elaboration of the megalithic monuments indicated the presence of a highly sophisticated society by the 3<sup>rd</sup> millennium BC (ibid).

The archaeological landscape of the Bronze Age (c. 2500 BC to 600 BC) is dominated by religious and burial monuments, although there are changes in burial practices and in artefact types. Numerous artefacts from the Bronze Age have been recovered from Donegal. In Donegal as a whole approximately 75 cists are known. While long cists date from the Bronze Age to the Medieval period, the shorter polygonal cists usually date to the Bronze Age and can occur singularly or in flat cemeteries or in mounds either singularly or in groups (Lacy 1983, 64). Stone circles, alignments and standing stones also occur in Donegal and approximately 300 examples of the latter monument are known (Lacy 1995, 13), including a recorded example in Rathmore townland. While a number of these are likely to date to later periods, decorated examples such as the standing stones in the townlands of Altashane and Ardmore are likely to date to the Bronze Age. Examples of rock art found in Donegal are also likely to be Bronze Age in date.

In other parts of Ireland, the most widespread Bronze Age domestic sites are 'fulachta fiadh' (or burnt mounds), although some of these may date to the Medieval period. These sites consist of an L-shaped mound of burnt stone often associated with a water-filled trough. It is thought that heated stones were added to the water in the trough to heat it, although for what purpose remains open to interpretation. The most popular suggestions are that these were used for cooking or as sweat lodges. Only three known examples were recorded in Donegal by the Archaeological Survey, located in the northwest of the county (Lacy 1993). Examples of burnt mounds have however been excavated in advance of road constructions, for example on the R252 (Halpin 1998) and Donegal Bypass (King 1997),

Settlement sites of the Iron Age (c. 700 BC - 300 AD) are extremely difficult to identify, although many artefactual finds testify to activity during this period. These include the Ballyshannon sword hilt and stone heads from Raphoe, although an Iron Age date for these has been questioned on stylistic grounds. Three definite hillforts

and a further 11 large hillslope and hilltop enclosures of probable Iron Age date have been identified in Donegal, although such sites may have late Bronze Age origins. During the Iron Age, linear earthworks were constructed. While they are often very long (up to 20km), they were not continuous, but may have joined with naturally impassable areas. They are found in Counties Dublin, Kildare, Meath, Monaghan, Fermanagh, Longford, Leitrim and Roscommon. The Doon of Drumsna, Co. Roscommon is one of the country's more spectacular examples. It is situated in a loop of the river Shannon between Drumsna and Jamestown. Some of its sections are 30m wide and 6m high. Wood from its base has been dated to the mid 4<sup>th</sup> Century BC. It is likely that such earthworks were remodelled and redefined in later periods.

Based on comparisons with other sites on the Atlantic seaboard it is also possible that promontory forts date to the Iron Age. However the dating of such sites in Ireland is problematic. Promontory forts were formed by constructing earth banks and ditches or stone walls across the neck of a promontory or a spur of land. Coastal and inland examples are known in Donegal, where approximately 35 such sites have been recorded.

### **Early Medieval Period (AD400-1169)**

The archaeology of the Early Medieval period (400-800 AD) in this area is characterised by ringforts, souterrains and, more rarely, ecclesiastical enclosures. Rath is used where a ringfort is defined by an earthen bank, such as the bivallate example in Rathmore townland. Cashel is the term used where the enclosure is defined by a stone wall. While the Grianan of Aileach provides a spectacular example of this class of monument, a more typical example is the example in Rathmore townland (DL 107/066). Approximately 200 cashels have been identified in Donegal, along with 250 earthen ringforts and 250 destroyed enclosures. Univallate, bivallate, multivallate and platform ringforts are all known. Univallate enclosures, where the site is defined by a single bank, are the most common type of ringfort. The entrance into a ringfort usually consisted of an unexcavated causeway of natural geology across the ditch leading to a gap in the bank(s). It is probable that each ringfort was a farmstead occupied by a single family unit and their retainers (Stout 1997, 32). While such sites had a protective function, such as the defence of stock from cattle raiding, the size and type of enclosure may also have reflected the status of the inhabitants.

Souterrains are underground or semi-subterranean passages used for refuge or storage and have been found with ecclesiastical sites, enclosed and unenclosed settlements as isolated examples may indicate the presence of an unenclosed settlement. A variety of techniques are used in the construction of souterrains. Earth cut or rock cut or a combination of earth cut and rock cut or, less commonly, tunnelled souterrains, all exist. The supporting walls are commonly of drystone construction and are roofed with stone, although wooden variants have also been excavated. Internal features of souterrains include creeps and blinds, drains and murder holes. These features suggest that souterrains were used for refuge, although they may also have been used for storage. The majority of souterrains date from the Early Medieval period, with a flourishing from the 8<sup>th</sup> to the 12<sup>th</sup> century BC (Clinton 2001).

A wide variety of sites are termed holy wells. It is possible that some holy wells may indicate earlier ecclesiastical activity in the area. Examples have been found associated with early ecclesiastical sites such as Fahan and Taughboyne (IAC 1999, 13). Other examples are of recent origin.



**Medieval Period (AD1169-1700)**

By the 6<sup>th</sup> century the northern Ui Neill dominated the whole of the county. The rivalry between the O'Neills and the O'Donnells had its origins in the Medieval period and power struggles between Cenel Conaill and the Cenel Eogain. The area between the Rivers Drowes and the Erne was controlled by Cenel Conaill and was known as Magh Eine (Simms 1995, 187). Historical sources also indicate that this area formed part of the cantred of Cairbre (ibid). This cantred was later granted by Hugh de Lacy to Maurice FitzGerald in circa 1235. The presence of a number of Anglo-Norman mottes have been suggested in Donegal (Lacy 1983, 9). Two house types, sub circular and more substantial sub rectangular houses may have been built during this period in rural areas (O'Connor 1998).

The strategic importance of the Erne crossing at Ballyshannon is reflected by an O'Donnell castle, built in 1423 and the presence of an English garrison from the early 17<sup>th</sup> century. During the 17<sup>th</sup> century the barony of Tirhugh was planted by English and Scottish undertakers, although an area around Ballyshannon was excepted on military grounds. In 1654 the plain between the Rivers Drowes and Erne was owned by Thomas Lord Folliott.

**Post Medieval Period (AD1700-1900)**

Throughout the Post-Medieval period the economic focus of the area remained firmly agricultural. A survey of 1715 lists crops including potatoes, oats barley and flax grown and the raising of livestock, mainly cattle. This survey also indicated that arable agriculture was on the increase. Historical sources suggest that in Tirhugh, the rundale system of agriculture, with its clachans and open fields, was practiced at least from the early 18<sup>th</sup> century (James 1995), and it was largely this system that was described by James McParlan in 1802. There is considerable debate however, as to the antiquity of the rundale system. In 1802 a farming society was formed in Ballyshannon and there was a move to break up the clachans and redistribute the land, and this resulted in the landscape of small enclosed fields, dispersed farmsteads and small villages visible on the Ordnance Survey 6" 1<sup>st</sup> edition of the 1830s.

### **3 THE EXCAVATION**

The excavation took place on the 5<sup>th</sup> of February 2004.

Topsoil **C1** with a depth of 0.10-0.40m (plate 1) was removed by a mechanical digger fitted with a toothless bucket under strict archaeological supervision. Topsoil was a mid to dark brown peat-rich silt with moderate amounts of rounded stones. Topsoil stripping exposed the natural bedrock and natural subsoil **C2**, which consisted of a grey-brown sandy clay (plate 3). The bedrock was prominent across the majority of the site where it protruded from the surrounding ground level (plate 2). No worked timbers were recovered, no archaeological features were uncovered and no artefacts were retrieved from site.

## **4 RESULTS**

Excavation revealed nothing of archaeological significance. It is probable that the timber uncovered during testing was a naturally occurring bog timber.

## **5 RECOMMENDATIONS**

Nothing of archaeological significance was uncovered at Coolholly 1, as a result it is recommended that no further archaeological work is required on site.

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### **Cartographic Sources**

Ordnance Survey. Map Editions 1836, 1851-5, 1900-5, 1948-54.

**APPENDIX 1: CONTEXTS**

<b>Context</b>	<b>Description</b>
<b>C1</b>	Topsoil: 0.10-0.40m deep, mid-dark brown peat-rich silt with moderate amounts of rounded stones.
<b>C2</b>	Natural Subsoil/natural bedrock

## **APPENDIX 2: SMR SITES WITHIN THE SURROUNDING AREA**

There are no recorded monuments in the immediate vicinity of Coolholly 1.



## **APPENDIX 3: IMPACT ASSESSMENT AND THE ARCHAEOLOGICAL RESOURCE**

### **Potential Impacts on Archaeological Remains**

Impacts can be identified from detailed information about a project, the nature of the area affected and the range of archaeological resources potentially affected. Development can affect the archaeological resource of a given landscape in a number of ways.

- Permanent and temporary land-take, associated structures, landscape mounding, and their construction may result in damage to or loss of archaeological remains and deposits, or physical loss to the setting of historic monuments and to the physical coherence of the landscape.
- Archaeological sites can be affected adversely in a number of ways: disturbance by excavation, topsoil stripping and the passage of heavy machinery; disturbance by vehicles working in unsuitable conditions; or burial of sites, limiting accessibility for future archaeological investigation.
- Hydrological changes in groundwater or surface water levels can result from construction activities such as de-watering and spoil disposal, or longer-term changes in drainage patterns. These may desiccate archaeological remains and associated deposits.
- Visual impacts on the historic landscape sometimes arise from construction traffic and facilities, built earthworks and structures, landscape mounding and planting, noise, fences and associated works. These features can impinge directly on historic monuments and historic landscape elements as well as their visual amenity value.
- Landscape measures such as tree planting can damage sub-surface archaeological features, due to topsoil stripping and through the root action of trees and shrubs as they grow.
- Ground consolidation by construction activities or the weight of permanent embankments can cause damage to buried archaeological remains, especially in colluviums or peat deposits.
- Disruption due to construction also offers in general the potential for adversely affecting archaeological remains. This can include machinery, site offices, and service trenches.
- Although not widely appreciated, positive impacts can accrue from developments. These can include positive resource management policies, improved maintenance and access to archaeological monuments, and the increased level of knowledge of a site or historic landscape as a result of archaeological assessment and fieldwork.

### **Predicted Impacts**

There is no standard scale against which the severity of impacts on the archaeological and historic landscape may be judged. The severity of a given level of land-take or visual intrusion varies with the type of monument, site or landscape features and its existing environment. Severity of impact can be judged taking the following into account:

- The proportion of the feature affected and how far physical characteristics fundamental to the understanding of the feature would be lost;
- Consideration of the type, date, survival/condition, fragility/vulnerability, rarity, potential and amenity value of the feature affected;
- Assessment of the levels of noise, visual and hydrological impacts, either in general or site specific terms, as may be provided by other specialists.

Impacts are defined as ‘the degree of change in an environment resulting from a development’ (EPA, 1995, 31]. They are described as profound, significant or slight impacts on archaeological remains. They may be negative, positive or neutral, direct, indirect or cumulative, temporary or permanent.

## APPENDIX 4: MITIGATION MEASURES AND THE ARCHAEOLOGICAL RESOURCE

### Potential Mitigation Strategies for Archaeological Remains

Mitigation is defined as features of the design or other measures of the proposed development that can be adopted to avoid, prevent, reduce or offset negative effects.

The best opportunities for avoiding damage to archaeological remains or intrusion on their setting and amenity arise when the site options for the development are being considered. Damage to the archaeological resource immediately adjacent to developments may be prevented by the selection of appropriate construction methods. Reducing adverse effects can be achieved by good design, for example by screening historic buildings or upstanding archaeological monuments or by burying archaeological sites undisturbed rather than destroying them. Offsetting adverse effects is probably best illustrated by the full investigation and recording of archaeological sites that cannot be preserved *in situ*.

### Definition of Mitigation Strategies

The ideal mitigation for all archaeological sites is preservation *in situ*. This is not always a practical solution, however. Therefore a series of recommendations are offered to provide ameliorative measures where avoidance and preservation *in situ* are not possible.

*Full Archaeological Excavation* involves the scientific removal and recording of all archaeological features, deposits and objects to the level of geological strata or the base level of any given development. Full archaeological excavation is recommended where initial investigation has uncovered evidence of archaeologically significant material or structures and where avoidance of the site is not possible.

*Archaeological Test Trenching* can be defined as ‘a limited programme... of intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site on land or underwater. If such archaeological remains are present test trenching defines their character and extent and relative quality.’ (IFA 1994c, 1)

*Archaeological Monitoring* can be defined as a ‘formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons within a specified area or site on land or underwater, where there is possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.’ (IFA 1994b, 1).



**Plate 1: Topsoil C1, looking east. (trowel = 20cm)**



**Plate 2: Site looking southwest, protruding bedrock visible**



Plate 3: C2 in base of trench, looking north