



## M1 DUNDALK WESTERN BYPASS

SITE 111B: NEWTOWNBALREGAN 1.2  
CHAINAGE 20.470  
NGR: 301953/308076

### FINAL REPORT

ON BEHALF OF  
LOUTH COUNTY COUNCIL and the  
NATIONAL ROADS AUTHORITY

LICENSEE: DAVID BAYLEY  
LICENCE NUMBER: 02E1836

JULY 2009



## NON-TECHNICAL SUMMARY

Irish Archaeological Consultancy Ltd. (IAC Ltd.), funded by Louth County Council and the National Roads Authority, undertook a licenced excavation in the townland of Newtownbalregan c.2km to the north-west of Dundalk in advance of the construction of the Dundalk Western Bypass (DWB). The excavation was undertaken to ensure all subsoil archaeological remains were preserved by record in advance of groundwork.

The previously unknown site was discovered at route chainage 20.470, during a test trenching programme undertaken by IAC Ltd. in March 2002 (Licence Ref.: 02E0370). The site was located at the base of a slope c.800m south of the N53 Castleblaney Road.

Resolution excavation at Newtownbalregan 1.2 began on the 13<sup>th</sup> of January 2003 and was completed on the 28<sup>th</sup> of January 2003 using a team of five Assistant Archaeologists, directed by David Bayley.

At Site 111B, Newtownbalregan 1.2, two adjacent sub-rectangular cuts, which appear to be broadly contemporary, and may form sunken foundations for temporary structures or dwellings were recorded. Two pieces of flint struck off a parallel core, suggesting a Late Neolithic/Early Bronze Age date, were recovered from the fill of the structure. A radiocarbon date was obtained from charcoal retrieved from the fill of a possible slot trench [C25]. Charcoal retrieved from this fill returned a date of 3649 +/- 49BP (WK – 18558) (Appendix 2.2). The 2 Sigma calibrated results from this sample produced a date of Cal 2150–1890 BC dating the site to the Early Bronze Age.

## ACKNOWLEDGEMENTS

The archaeological excavation at Site 111B Newtownbalregan 1.2, County Louth was carried out on behalf of Louth County Council and the National Roads Authority in advance of the construction of the M1 Dundalk Western Bypass.

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# 1 INTRODUCTION

This report refers to an excavation carried out at Site 111B, Newtownbalregan 1.2, in the townland of Newtownbalregan, c.2km to the northwest of Dundalk, Co. Louth. It was carried out as part of an archaeological mitigation programme associated with the Dundalk Western Bypass (DWB). Archaeological fieldwork was directed by David Bayley of Irish Archaeological Consultancy Ltd. (IAC Ltd.) and was funded by Louth County Council and the National Roads Authority.

## 1.1 Site location

Site 111B is located in Newtownbalregan townland, c.2km northwest of Dundalk (Louth OS sheet 007). The site is:

- Site 111B, Newtownbalregan 1.2 Excavation Licence Ref.: 02E1836, route Ch 20.470, NGR 301953/308076.

The site was identified as a result of a test trenching exercise undertaken by IAC Ltd. in March 2002 (Licence Ref.: 02E0373). The site is in a sheltered location, lying in a gentle hollow on a south-facing slope, approximately 100m to the south of a stream.

## 1.2 The scope of the project

### *General*

Louth County Council proposed to construct a motorway called the 'Dundalk Western Bypass – Northern Link'. The scheme also included ancillary roads and other structures.

The Dundalk Western Bypass – Northern Link connects the existing Dunleer-Dundalk Motorway, which terminated in the area of the N52 Ardee Road, to the N1 Ballymascanlan Roundabout in an arc situated c.2.5km - 3km to the west and north of Dundalk.

The scheme was divided into two sections. Section 1 (7.8km main centre line chainage (Ch)) ran from Ch16.000 to Ch23.870 (the Armagh Road, R177). Work on the southern end of Section 1 was previously commenced so that the main cutting and rough surfacing for the road had been completed to chainage point Ch17.100. The chainage zone Ch16.000 – 17.100 had therefore not been investigated archaeologically under the present contract. Section 2 (2.08km main centre line chainage) ran from the Armagh Road Ch23.870 to the Ballymascanlan Roundabout, Ch25.950.

Therefore the archaeological potential of the route represented a distance of 8.49km (Ch17.100 – 25.950). The route corridor varied between 60m and 200m (not including side roads) and was on average 100m wide. The archaeological site area was thus approximately 85 hectares.

### *Specific*

The excavation undertaken at site 111B, Newtownbalregan 1.2 was located c. 750m south of the N53 Castleblayney road.

Background historical research undertaken as part of the EIS and test trenching programme revealed Newtownbalregan townland to contain two sites listed in the Record of Monuments and Places, namely, a souterrain located to the east of

Newtownbalregan 5 (LH007-24), and a polygonal cist burial located to the south-west of Newtownbalregan 1.1, 1.2 and 2.

The area to be opened up for archaeological resolution was approximately 30m x 30m.

### **1.3 Circumstances and dates of fieldwork**

The excavation was undertaken to offset the adverse impact of road construction on known and potential subsoil archaeological remains in order to preserve the site by record.

Topsoil stripping of the area commenced on Monday the 13<sup>th</sup> of January 2003 with a team of one Director and five Assistant Archaeologists. The excavation finished on Tuesday the 28<sup>th</sup> of January 2003.

After initial bulk stripping the area of excavation was hand cleaned in order to identify potential archaeological remains. All features were subsequently fully excavated and recorded by hand, using the single context recording system with plans and sections being produced at a scale of 1:50 or 1:20 (sections were recorded generally at 1:10) and photographs where necessary. All works were carried out in agreement with the Project Archaeologist and The National Monuments Section of the Department of Environment, Heritage and Local Government (formerly *Dúchas*-The Heritage Service). Samples were taken of any environmental and datable material.

It was agreed in advance that adequate funds to cover excavation, post-excavation, conservation and dating analysis would be made available by Louth County Council. Dating involved pottery analysis through typological study and radiocarbon analysis. The site archive, finds, samples *et cetera* were kept in safe storage by IAC Ltd. during the post-excavation stage.

## 2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The following archaeological and historical background refers to the wider archaeological landscape through which the DWB passes.

The town of Dundalk lies at the northern end of Dundalk Bay and is the administrative centre of Co. Louth, located in the north-east of Leinster. The area spans two geographical areas. To the west, the rural landscape surrounding the urban district is one of undulating topography, with low drumlins rising to 30-40m from the coastal plain. As with much of Louth, this covers thick strata of Ordovician and Silurian slates, with some rock outcrops (Gosling 1993, 237). To the east of the urban district, the flat, low lying coastal plain is comprised of recent estuarine and alluvial clays and silts, shaped by the sea level changes following the end of the last Ice Age in Ireland c.10,000 years ago.

At the time of the earliest habitation in Ireland, (Early Mesolithic Period: c.7000BC), the sea submerged the area of the town to a depth of 4-5m, although it continued to retreat to its present level until the Late Neolithic/Early Bronze Age period (c.2500BC), replacing the submerged area with salt marshes and tidal flats. At various stages from the 17<sup>th</sup> century onwards, these areas were improved by reclamation projects.

The route for the Dundalk Western Bypass–Northern Link is located within an area that avoids the major recorded archaeological monuments in the vicinity. This is a particularly rich archaeological landscape but the great majority of known sites lie beyond the perimeter of the original study area. It is important to note, however, that a significant number of sites in this part of Co. Louth survive as crop marks, where the above ground indication of the monument has been destroyed. The recognition of such monuments has often been the result of chance discovery from ploughing and construction work, or by observation from the air where the distinctive traces of the buried features can sometimes be observed. The strong tradition of arable agriculture in the locality has been largely responsible for this occurrence.

### 2.1 Prehistoric Period (7000BC-AD500)

The archaeological record provides evidence that the locality was occupied from the Late Mesolithic period (c.4200 BC) onwards, with the excavation of Mesolithic shell midden sites with flint material at Rockmarshall, c.5km from the town of Dundalk. Above the ground, a large, granite standing stone known locally as *Dealg Fhinn* (LH 007-118-06) is the only remaining visible reminder of the prehistoric occupation of the area. Another standing stone, on the Bellew's Bridge Road, was removed at the beginning of the twentieth century. The pollen record for this area during the prehistoric period indicates that the indigenous forestry was not cleared and replaced by cereals until farming in Ireland was well into its second millennium (3000BC - 2500BC).

#### 2.1.1 The Neolithic Period (c.4000-500BC)

The origins of Neolithic activity in Ireland are disputed. Pollen records reveal forest clearances occurring before our earliest dated Neolithic sites or monuments; however this may be a reflection of some modern dating methods being too crude to discriminate between Early and Late Neolithic settlement rather than an indication of the true chronology (Mitchell & Ryan 1997). A debate ensues over whether the culture evident in Ireland during the Neolithic was a product of a migrating people into Ireland or an indigenous development from Mesolithic populations.

The introduction of certain flora and fauna species, landscape management techniques, traits in architectural construction and domestic crafts, bearing with a striking resemblance to contemporary evidence in Britain has lead some authors to suggest colonisation from outside of Ireland Mitchell & Ryan (1997, 57). Recent studies (Cooney 2000, 13) have suggested that a combination of small-scale movement across the Irish Sea by migrating communities and developments within the existing Mesolithic populations within Ireland resulted in the innovative beginnings of this era.

The vast majority of the archaeological evidence for this period is to be found at the 4-5m (25ft) contour, which reflects the coastline during the maximum post-glacial marine transgression, and it has been suggested that this settlement location would have facilitated the exploitation of the higher ground for farming and the lower ground for summer grazing (Gosling 1993, 242). There is a concentration of Megalithic tombs in the Flurry Valley to the north-east of the site at Newtownbalregan 1.2 (with the nearest example located at Faughart Lower (LH004-062), c.3.2km to the northeast) and scattered throughout the Cooley peninsula. Archaeological discoveries elsewhere on the DWB scheme revealed Late Neolithic/Early Bronze Age habitation site at Site 115, Newtownbalregan 5 (Bayley, D. forthcoming (c)), located 0.8km north of Site 111A and the truncated remains of a Late Neolithic/Early Bronze Age House identified at Site 101, Littlemill 1 (Ó Donnachadha, B. forthcoming (d)), located c.2.8km to the south-south-east of Site 111B. A collection of pits dating to the Late Neolithic/Early Bronze Age were identified at Site 103, Littlemill 4 & 5 (Ó Donnachadha, B. forthcoming (c)), c.2.45km south of Site 111B (Newtownbalregan 1.2) and a number of Neolithic huts with associated pits were excavated at Site 124, Carn More 1 (Delaney, S. forthcoming (b)), located 3.06km southwest of the site. A Middle Neolithic to Late Neolithic/Early Bronze Age Beaker habitation site was also identified at Site 108, Donaghmore 1 (Ó Donnachadha, B. (e)) which was located c.0.70km south of Site 111B.

### **2.1.2 The Bronze Age (c.2500-500BC)**

From the relatively scant prehistoric archaeological evidence, there are indications that the area was not densely settled until the beginning of the Bronze Age (2500BC). The vast majority of the archaeological evidence for this period is to be found at the 4-5m (25ft) contour, which reflects the coastline during the maximum post-glacial marine transgression, and it has been suggested that this settlement location would have facilitated the exploitation of the higher ground for farming and the lower ground for summer grazing (Gosling 1993, 242). Bronze Age activity is distributed fairly evenly across the study area. These are indicated in the antiquarian drawings of Wright at the Castletown/Kilcurry confluence.

Bronze Age discoveries along the DWB consist of an Early Bronze Age Beaker (2500-2200BC) habitation site at Site 112, Newtownbalregan 2 (Bayley, D. forthcoming (e)), located c.1.5km south of the site. A number of Bronze Age ring-barrows, a cist and a cairn were excavated at Site 127, Carn More 5 (Bayley, D. forthcoming (g)), located c.3km north-east of Site 111B. A total of 3 Bronze Age burnt mounds/*fulachta fiadh* were excavated along the route of the DWB at Site 113, Newtownbalregan 5 (Bayley, D. forthcoming (c)) and at Site 128, Faughart 1, 2 and 3 (Delaney, S. forthcoming (a)). The burnt mound excavated at Site 102, Littlemill 2 dated to the medieval period (890-1250AD). A further 6 burnt mounds/*fulachta fiadh* were excavated by Archaeological Development Services Ltd (ADS Ltd.) as part of the archaeological resolution of the Dunleer/Dundalk Motorway.

### **2.1.3 The Iron Age (c.500BC-500AD)**

There is a marked lack of known Iron Age (500BC-AD500) activity within the surrounding area. The ring barrow identified at Site 131, Donaghmore 7 (Ó Donnachadha, B. forthcoming (g)) is the sole example of a definitive Iron Age site identified through the DWB archaeological investigations. The site consists of a small ring barrow and a single piece of unworked flint was found in the barrow with remains of three charred wooden planks found within the barrow ditch. These were taken for specialist analysis and were submitted for Carbon 14 dating. The dates returned confirmed that the ring barrow belongs to the Iron Age period, specifically the mid-Iron Age based on Cal 120BC-60AD.

## 2.2 Early Medieval Period (AD500-1169)

The study area lies within a rich early medieval landscape. By far the most numerous type of monument to be recorded within the study area is the 'enclosure' site. This tends to be equated with the dispersed farmstead of the pre-twelfth-century era, known as the ringfort or *rath*. Such sites are classically identified as circular enclosures of c.30m internal diameter with a series of earthen banks and fosses outside to define the boundary and protect the complex. Site 13 on the DWB for example was identified as a possible ringfort in the EIS (March 2000). These were the homes of farmers who practiced a mixed-farming economy. Ringforts are one of the most common site types in north Co. Louth. Many have had their surface remains destroyed, with the banks ploughed back into the soil. To the north of the northern end of Section 1 there is a concentration of ringforts or earthworks.

Site 114 at Newtownbalregan 6 (Bayley, D. forthcoming (d)) consists of a ringfort and souterrain. The ringfort or rath is considered to be the most common indicator of settlement during the early medieval Period (c.500AD – c.1100AD). The most recent study of the ringfort (Stout 2000) has suggested that there are a total of 45,119 potential ringforts or enclosure sites throughout Ireland. They are typically enclosed by an earthen bank and exterior ditch, and range from 25m to 50m in diameter. The smaller sized and single banked type (univallate) were more likely to be home to the lower ranks of society while larger examples with more than one bank (bivallate/trivallate) housed the more powerful kings and lords. At Site 124, Carn More 1 (Delaney, S. forthcoming (b)), (Area 1) a ringfort identified in the RMP as LH004-067 was excavated in advance of the motorway's construction, with the RMP originally listing the monument as a circular enclosure.

Souterrains are artificial underground structures, usually built of dry stone walling and comprising of passages and chambers with creeps connecting them. Souterrains are generally regarded as having had a defensive or protective function, as evidenced by the complex construction of many of the sites, with narrow winding passages, deliberate obstructions and small chambers. Raiding was endemic to early medieval society, and souterrains are thought to have served to house portable valuables and non-combatants during a raid. There is a previously recorded souterrain located 30m to the east of the CPO line at Ch17.640 (LH007-071).

The historical sources for the early medieval period indicate that the main population group in north Louth was the *Conaille Muirtheimne*. They controlled the areas of *Cuailgne* (Cooley) and *Mag Muirtheimne* (Plain of *Muirtheimne*)-corresponding to the area south of Dundalk, roughly equating with the modern baronies of Lower and Upper Dundalk. It has been suggested (Gosling 1993, 46) that the ancient boundaries of this kingdom may coincide with the dense concentration of souterrains in north Louth. Though nominally a branch of the *Ulaid*, who had their capital at *Eamain Mhaca* or Navan Fort, Co. Armagh, the *Conaille Muirtheimne* appear to have been subject to the kingdom of *Brega* at the time of its greatest political cohesion, during the first half of the 7<sup>th</sup> century A.D. Their earliest appearance in the annals is in

688 A.D. as allies of the Knowth branch of the *Síl nÁeda Sláine* at the battle of *Imblech Pich* (Emlagh, Co. Meath), which was a key event in the political fragmentation of the *Síl nÁeda Sláine* dynasty. They were subsumed by the *Airgialla* in the early 12<sup>th</sup> century.

The *fulacht fiadh* identified at Site 102, Littlemill 2 (Ó Donnachadha, B. forthcoming (f)) was Carbon 14 dated to Cal 890AD -1250AD (968  $\pm$  85BP). Site 102, Littlemill 2 is roughly circular in shape and it is suggested that these sites which are identified as Early Medieval and Medieval in dating, tend to be circular to oval in shape with no evidence for pit lining (O'Neill, pers.comm, 2007). The example at Littlemill 2, however was lined with wooden planks.

### 2.3 Medieval Period (AD1169-1700)

The motte and bailey at Castletown (LH 007-118-07) located c.2km west of Newtownbalregan 1.1 represents the initial phase of Anglo-Norman activity in the area. The decision to create a motte and bailey as an initial Anglo-Norman base was the easiest way to construct a headquarters, in contrast to the construction of stone castle structures which required substantial time, materials and organisation. It is not the case however that these constructions were always replaced by a stone structure. Although there are some suggestions that John de Courcy was responsible for this development, it is generally accepted that it represents the initial headquarters of the de Verdon family in their new territory. The Anglo-Normans were responsible for the construction of a network of towns throughout the Ireland with Louth being the most urbanised county.

The land in Castletown and the Dundalk environs was granted to the Anglo-Norman Bertram de Verdon following his arrival in 1185, and corresponds to the barony of Upper Dundalk (Gosling, 1993, 252). The de Verdon estate passed onto the Bellews. It was at this time that many of the tower houses were constructed, and the Bellews contributed two large examples in 1472 and 1479, of which only the later survives, in the grounds of St. Louis convent (LH007-11801). The earlier tower house is known to have stood at Castletown cross (LH007-11803), but no traces of the tower house survive above ground. In 1429, Henry IV introduced a £10 subsidy to encourage the King's 'liege men' to build tower houses in the Pale, under the condition that they were built within ten years. This venture was so successful that twenty years later a limit was imposed on their construction. In Counties Louth, Kildare and Meath, the towers were mostly concentrated along the borders of the Pale (Davin 1982). The surviving tower house at Castletown (LH007-11801), most likely functioned as the centre of the Bellew manor of Dundalk during the 15<sup>th</sup> century. Garstin's map of 1655 shows it protected by a bawn wall, which also enclosed outhouses.

For information of the Anglo-Norman land ownership we are dependent on documentary sources, and in Louth this information is recorded in the 'Dowdall deeds'. The lack of documentary sources and archaeological excavations in the area has led to large gaps in the record regarding the size of the Anglo-Norman settlement and how it was laid out. By the 13<sup>th</sup> century it seems that Castletown had its own church and burgesses. Garstin's map does point out the existence of burgage plots and streets in the vicinity of Mill road and Castletown cross. A watermill, most likely attached to the manor, is known from documentary sources although its precise location is not known. The Anglo-Normans were responsible for the network of towns throughout the country, with Louth being the most heavily urbanised county (Barry 1987, 118).

At this time however the new town of Dundalk, which lies c.2km to the east of the motte, developed as the major urban centre. This was due to its market centre and

port in addition to its more strategic sitting on the major routeway linking Dublin with Ulster. It is probable that another factor influencing the move of the de Verdon's was the nature of the topography of the general area. The unsatisfactory nature of the river at the Castletown location must have made it inaccessible to shipping even in the late 12<sup>th</sup> century. The new town also had the advantage of considerable natural defences. The site of the new town, which was to grow into the modern town of Dundalk, was thus better situated than Castletown from a commercial and a defensive perspective. As Dundalk developed and became the focus for Anglo-Norman settlement in the area, Castletown fell into decline and Dundalk became the economic heart of the Lordship. The precise date of the foundation of the "*newtown*" was established is unclear. However by the late 13<sup>th</sup> century surviving property deeds make the distinction between the late 12<sup>th</sup> century settlement at Castletown and the Newtown or '*nove ville de Dundalc*'.

As a result of the low-lying nature of the surrounding landscape and the form of the gravel ridge on which the Newtown (Dundalk) was located, the town developed a markedly linear aspect which is still apparent today.

#### **2.4 Post-Medieval Period (1700-1900)**

Post-medieval archaeological remains identified in the study area relate to industrial structures particularly mills and kilns surrounding the Castletown and Kilcurry River waters, with these structures usually being served by a millrace. A mill and associated race occur near to the Castletown-Kilcurry confluence. A quarry for limestone is situated to the north of the corridor. Small-scale extraction cuts are also known sunk into natural rock outcrops such as the one at Ch19.200.

Site 102 at Littlemill 2 (O Donnachadha, B. forthcoming (f)) contained the remains of a post-medieval structure, which cartographic evidence demonstrates supports its existence at this location since the first edition OS map dating to 1836. It is probable that this structure was a small vernacular style residence accompanied by a small farmyard as was typical of the area and indeed most of Ireland during the 19<sup>th</sup> century.

At Site 119, Balregan 3 & 4 (Delaney, S. forthcoming (d)), the subsurface remains of a north-south oriented masonry structure was recorded. The foundations measured 21m in length and 6.5m in width and consisted of two rooms. The building appears to have been of 19<sup>th</sup> century construction based on the artefactual evidence and identifiable construction methods, however, the structure is not depicted on the 1835 or the 1908-9 1:10, 560 scale Ordnance Survey editions. Anecdotal evidence from a local landowner notes that a structure formerly located at this site was demolished around the mid 20<sup>th</sup> century; it is likely the building dates from the later 19<sup>th</sup> century and fell out of use at the same time as the Scotch Green Mill.

Site 118, Balregan 5 & 6 (Delaney, S. forthcoming (e)), contained the remains of a post-medieval water mill, which even in its ruinous condition showed a complete example of this form. Millrace, millpond, main sluices, internal wheel race and a number of main rooms along with the access road and access road and yard for the mill buildings were present.

### 3 THE EXCAVATION

#### 3.1 Introduction

The excavation of Site 111B, Newtownbalregan 1.2, was undertaken as part of the archaeological mitigation for the DWB in the townland of Newtownbalregan.

#### 3.2 Methodology

Topsoil stripping of the site commenced on Friday the 18<sup>th</sup> of January 2003 with a team of one Director and five Assistant Archaeologists and was completed on the 28<sup>th</sup> of January 2003.

The topsoil was removed by a machine equipped with a flat toothless bucket under strict archaeological supervision. After initial bulk stripping the area of excavation was hand cleaned in order to identify potential archaeological remains. All features were subsequently fully excavated and recorded by hand, using the single context recording system with plans and sections being produced at a scale of 1:50 and 1:20 (sections were recorded generally at 1:10) and photographs where necessary. All works were carried out in agreement with the Project Archaeologist and The National Monuments Section of the Department of Environment, Heritage and Local Government (DoEHLG) (formerly *Dúchas*-The Heritage Service). All contexts are described in Appendix 1.

#### 3.3 Legends and Brackets

In the following text, the authors have used three types of brackets:

- { } = These enclose Subgroup numbers.
- ( ) = These enclose Deposit numbers
- [ ] = These enclose both Cut and Masonry Structure numbers

#### CONTEXT KEY;

- prof = profile
- NSEW = Compass points, Eg; 'N-S' = North-South oriented feature
- All dimensions are given in metres
- d/l/w = depth/width/length
- s/m/lg = small/medium/large
- ang/sub-ang/rou/sub-rou = refer to stones, Eg; 's sub-ang' = small sub-angular stone
- mixed = ang + sub-ang + rou + sub-rou
- Dk/Lt = dark/light
- mod = moderate/moderately
- freq/occ = frequent/occasional
- ch = charcoal
- Hb/Ht = Human bone/teeth
- Ab/At = Animal bone/teeth
- frags/fls = fragments/flecks
- vert = vertical
- constr = construction
- sk = skeleton
- t'd/unx/s'd = truncated/unexcavated/segmented
- w/- = with
- pres = preservation

#### PERIOD KEY:

- PH: Prehistoric
- EM: Early Medieval
- MD: Medieval
- PM: Post-medieval
- MOD: Modern

## 4 EXCAVATION RESULTS

### STRATIGRAPHY

#### 4.1 GROUP 1: Natural Geology and Topography

##### 4.1.1 SUBGROUP {1001}: Natural Subsoil

###### Contexts:

C	Area	Fill of	Filled with	Interpretation	Description
2	Site	n/a	n/a	Natural	Brown orange sandy, silty clay

###### Finds:

None

###### Interpretation:

The Natural drift geology in subgroup {1001} was uniform in colour and compaction and generally consisted of firm yellowish brown silty clay.

#### GROUP 1 DISCUSSION: Natural Geology and Topography

The Newtownbalregan sites are all located on an agriculturally productive area of land that undulates between c.20m OD and c.40m OD that surrounds Dundalk. Such a topographical location would be ideal for agricultural habitation at any period. Site 111B, Newtownbalregan 1.2, is situated in a hollow on a south-facing gentle slope at 35m OD, approximately 50m south of a stream.

The DWB in this area crosses a zone of prime agricultural land, with soils in the category of 'Wide Use Range' being very suitable for grassland and tillage enterprises. In general terms the ground conditions comprise typically 3m to 5m of glacial till over bedrock. The glacial nature of the sand and stone-strewn natural subsoil ensures the area is well drained. Bedrock consists of Silurian siltstones, mudstones and sandstones, and locally Dinavian limestone.

## 4.2 GROUP 2: Prehistoric Activity

### 4.2.1 SUBGROUP {1002}: Pit

#### Contexts:

C	Area	Fill of	Filled with	Interpretation	Description
3	0/10	n/a	C4	Pit	Sub-circular pit, steep sides, uneven base, 0.42d x 2.42l x 1.52w
4	0/10	C3	n/a	Natural silting	Orange brown, loose sandy silt, occ s-m ang+rou, rare ch fl on top of fill

#### Finds:

None

#### Interpretation:

The subgroup {1002} comprised a large pit located to the north of the main area of activity on site. The natural sediment fill (**C4**) indicates that it was left open for a time after digging, possibly for use as a store. No diagnostic material was recovered from this feature, but it is probably related to the subgroups {1003} or {1005}.

### 4.2.2 SUBGROUP {1003}: Hut

#### Contexts:

C	Area	Fill of	Filled with	Interpretation	Description
15	0/0	n/a	C16, C17	Poss shelter	Irreg circular in plan, mod steep sides, curved base, 0.40d x 3.00l x 2.80w
16	0/0	C15	n/a	Re-deposited Natural	Orange grey, mod s-m sub-ang
17	0/0	C15	n/a	Natural silting	Grey clay, occ ch, mod s ang+sub-ang

#### Finds:

C	Find No.	Material	Period	Artefact type	Comments
17	02E1836:17:1	Flint		Unworked	
17	02E1836:17:2	Flint		Unworked	
17	02E1836:17:3	Flint		Unworked	
17	02E1836:17:4	Flint		Unworked	
17	02E1836:17:5	Flint		Unworked	
17	02E1836:17:6	Flint		Unworked	
17	02E1836:17:7	Flint		Unworked	
17	02E1836:17:8	Flint		Unworked	
17	02E1836:17:9	Flint		Unworked	
17	02E1836:17:10	Flint		Unworked	
17	02E1836:17:11	Flint		Unworked	
17	02E1836:17:12	Flint		Unworked	

#### Interpretation:

The subgroup {1003} comprised a sub-circular hollow [**C15**] measuring 3m x 2.8m x 0.4m deep. No stakeholes were found in the base of hollow [**C15**] (Plate 3).

The basal fill of the hollow [**C15**] was a layer of re-deposited natural (**C16**). Fill (**C16**) may have formed from 'walls' made of the excavated material that had slumped into the hollow after it had been abandoned. The upper fill of the hollow [**C15**] comprised a layer of natural silting, (**C17**). The only finds recovered consisted of washed-in pieces of flint from fill (**C17**).

The feature in subgroup {1003} has been interpreted as a hut or temporary dwelling: Building 1. It is believed that the depression was dug in order to provide extra shelter for the occupants. It is possible that an entrance existed on the northern side, as the

cut was shallower at this end. This dwelling was probably only used for a very limited period of time (possibly one season).

The washed in flint suggests that the contemporary surrounding land surface was covered with scatters of flint.

### 4.2.3 SUBGROUP {1004}: Hut

#### Contexts:

C	Area	Fill of	Filled with	Interpretation	Description
24	0/0	n/a	C26, C27, C28	Pit	Circular in plan, irreg concave sides, flat base generally, 0.38d x 2.40l x 2.05w N-S
26	0/0	C24	n/a	Deliberate fill	Brown, firm silty clay, mod m sub-ang,
27	0/0	C24	n/a	Natural silting	Grey, firm clayey silt, mod ch fl, mod s sub-ang
28	0/0	C24	n/a	Re-deposited Natural	Lt yellow brown, hard clayey sand, mod s sub-ang, occ m sub-rou
29	0/0	C24	n/a	Deliberate fill	Dk brown grey, loose ch-rich clayey silt, occ l sub-ang, occ s sub-ang

#### Finds:

C	Find No.	Material	Period	Artefact type	Comments
26	02E1836:26:1	Flint		Unworked	
26	02E1836:26:2	Flint		Unworked	
26	02E1836:26:3	Flint		Unworked	
26	02E1836:26:4	Flint	Late Neolithic/Early Bronze Age	Flake debitage	
26	02E1836:26:5	Flint	Late Neolithic/Early Bronze Age	Angular shatter	
27	02E1836:27:1	Flint	Late Neolithic/Early Bronze Age	Angular shatter	
27	02E1836:27:2	Flint		Unworked	
27	02E1836:27:3	Flint		Unworked	
27	02E1836:27:4	Flint	Late Neolithic/Early Bronze Age	Flake debitage	
27	02E1836:27:5	Flint	Late Neolithic/Early Bronze Age	Flake debitage	
28	02E1836:28:1	Flint	Late Neolithic/Early Bronze Age	Flake debitage	

#### Interpretation:

The subgroup {1004} was very similar to the feature in subgroup {1003}, and located immediately north of it. {1004} comprised a circular hollow [C24] (Plate 4) 2.4m x 2.05m x 0.38m deep. No stakeholes were found in the base of the hollow.

The basal fill of the hollow was a layer of natural silting (C27), which was overlain by dumped infills (C26), (C28) and (C29) (Plate 5). Fill (C26) was a localised fill along the northern edge of hollow [C24] and contained a flint blade. Site analysis of this blade shows that it was struck from a parallel core, which indicates a possible Late Neolithic/Early Bronze Age date (Appendix 2.3). Fill (C26) was overlain by (C29), a charcoal-rich silty clay that was situated along the western side of [C24]. Fill (C28) was the main fill of [C24] and comprised re-deposited natural; possibly slumped 'walls' of the excavated material. Fill (C28) was cut on the eastern side by slot [C30], which was part of the subgroup {1006}.

The subgroup {1004} is interpreted as a sunken hut or temporary dwelling, Building 2, similar to Building 1 {1003} described above. It is believed that Buildings 1 and 2 are broadly contemporary, but it could not be determined if they were used simultaneously. It is possible that an entrance to [C24] existed on the southern side, as the depression is shallower at this end.

As with the fills of Building 1 in subgroup {1003}, a considerable quantity of washed in flint was recovered from the fills of Building 2.

## SUBGROUP {1007}: Spread

### Contexts:

C	Area	Fill of	Filled with	Interpretation	Description
22	Spread	n/a	n/a	Charcoal spread	ch, rare s sub-ang, 0.04d x 0.70l x 0.65w N-S

### Finds:

C	Find No.	Material	Period	Artefact type	Comments
22	02E1836:22:1	Flint		Unworked	

### Interpretation:

The subgroup {1007} was comprised of (C22), a thin layer of charcoal, located to the east of slot trench {1006} (Plate 7). It appears to be a natural depression that filled with a layer of charcoal, possibly from activity relating to {1006}. No diagnostic material was recovered from (C22).

## GROUP 2 DISCUSSION: Prehistoric Activity

Group	Subgroup	Subgroup type	Period by finds/stratigraphy	Period by interpretation	Group Interpretation
2	1002	Pit		Early Bronze Age	Repeated temporary settlement
2	1003	Hut, Building 1		Early Bronze Age	Repeated temporary settlement
2	1004	Hut, Building 2		Early Bronze Age	Repeated temporary settlement
2	1007	Spread		Early Bronze Age	Repeated temporary settlement

The activity in Group 2 appears to represent the repeated re-use of the site over a period of time, when perhaps a seasonal (temporary) shelter was re-built a number of times, with the site being disused between occupations.

**Structure 1** {1003} comprised a sub-circular hollow measuring 3m x 2.8m x 0.4m deep [C15]. No stakeholes were found in the base of hollow [C15]. It is possible that an entrance existed on the northern side as the cut was shallower at this end.

The base fill of the hollow [C15] was a layer of re-deposited natural (C16). Fill (C16) may have formed from 'walls' made of the excavated material that had slumped into the hollow after it had been abandoned. The upper fill of the hollow [C15] comprised a layer of natural silting, (C17). The only finds recovered consist of washed-in pieces of flint from fill (C17), showing that the contemporary surrounding land surface was covered with many pieces of flint at this time.

**Structure 2** {1004} comprised a sub-circular hollow 2.4m x 2.05m x 0.38m deep. No stakeholes were found in the base of the hollow, which was located immediately north of Structure 1.

The basal fill to the hollow [C24] in {1004} was a layer of natural silting (C27), which was overlain by fills (C26), (C28) and (C29). Fill (C26) was a localised fill along the northern edge of hollow [C24] and contained a flint blade. Charcoal from (C26) was identified as hazel (*Corylus avellana*) and holly (Appendix 2.1.1) Site analysis of the blade shows that it was struck from a parallel core, which indicates a possible Late Neolithic/Early Bronze Age date (Appendix 2.3). Fill (C26) was overlain by (C29), a charcoal-rich silty clay that was situated along the western side of [C24]. Fill (C28) was the main fill of [C24] and comprised re-deposited natural; possibly slumped 'walls' of the original excavated material.

### 4.3 Group 3: Later Bronze Age Activity

#### 4.3.1 SUBGROUP {1005}: Linear gully/slot trench

##### Contexts:

C	Area	Fill of	Filled with	Interpretation	Description
18	0/0	n/a	C20	Poss wattle fence trench	Linear in plan, U-shaped prof, 0.26d x 3.00 x 0.5, E-W
20	0/0	C18	n/a	<i>In situ</i> burning	Burnt in situ ch w/ some fl grey clay, mod heat affected ang, rare l sub-ang

##### Finds:

None

##### Interpretation:

The subgroup {1004} comprised a linear trench [C18] (Plate 4) (3m long x 0.5m wide x 0.26m deep) that was U-shaped in profile (Plate 6). It cut through the subgroup {1003} and was filled by (C20), a layer of charcoal that suggests *in situ* burning and (C19). Although nothing to determine function was recovered during the course of the excavation, it is believed that [C18] may be a slot trench for a later structure or wind break, and that [C18] may be related to [C30], which is part of the subgroup {1006} described below.

#### 4.3.2 SUBGROUP {1006}: Curving slot trench

##### Contexts:

C	Area	Fill of	Filled with	Interpretation	Description
30	0/0	n/a	C25, C 32	Re-cut	Linear in plan w/rounded corners, U-shaped in prof, 0.20d x 2.55d x 0.70w N-S
25	0/0	C30	n/a	<i>In situ</i> burning	90% Ch, mod med sub-ang, rare s rou
32	0/0	C29	n/a	Deliberate fill	Dk brown, firm silty clay, mod ch fl+ s

##### Finds:

C	Find No.	Material	Period	Artefact type	Comments
25	02E1836:25:1	Flint		Unworked	

##### Interpretation:

The subgroup {1006} comprised of [C30], a U-shaped curvilinear slot trench measuring 2.55m long x 0.70m wide x 0.20m deep, that cut the eastern side of the hollow [C24]. It was filled by (C25), a layer of black charcoal-rich clay that may indicate *in situ* burning. The fill (C25) was overlain by (C32), a dumped fill.

It is possible that the curving slot trench in {1006} is related to linear slot trench in {1005}, as the fills (C20) and (C25) are very similar and both {1005} and {1006} are stratigraphically the latest features on site. Nothing to determine a function for {1006} was recovered during the excavation, but it is possible that {1005} and {1006} may have formed a temporary structure, Structure 1, that was later burned *in situ*. A radiocarbon date was obtained from charcoal retrieved from fill (C25). Charcoal retrieved from this fill returned a date of 3649 +/- 49 BP (WK – 18558) (Appendix 2.2). The 2 Sigma calibrated results from this sample produced a date of Cal AD 2150 – 1890 BC. The charcoal identified for this radiocarbon date was Alder (*Alnus glutinos*) (Appendix 2.1.2).

### Group 3 DISCUSSION: Later Bronze Age activity

Group	Subgroup	Subgroup type	Period by finds/stratigraphy	Period by interpretation	Group Interpretation
2	1005	Slot trench, Structure 1		Later Bronze Age	Repeated temporary settlement
2	1006	Slot trench, Structure 1		Later Bronze Age	Repeated temporary settlement

**Structure 3.** Both the backfilled Structures 1 and 2 were cut into by slot trenches {1005} and {1006} respectively. Since these slot trenches share a similar stratigraphic position and their fills seemed very similar it is possible they represent a single structure, Structure 1.

On site activities included much flint reduction (as seen by the fills of both Structure 1 and Structure 2) as well as possible storage (seen by pit {1001}) and cooking/burning (seen by spread of charcoal-rich material – possible hearth rakings – {1007}).

## GROUP 4: Topsoil

### 4.4.1 SUBGROUP {1008}: Topsoil

#### Contexts:

C	Area	Fill of	Filled with	Interpretation	Description
1	Site	n/a	n/a	Topsoil	Mid brown sandy clay, mod firm, freq s, m, lg mixed, mod ch fls & frags

#### Finds:

C	Find No.	Material	Period	Pottery form	Artefact type	Comments
1	02E1836:1:1	Pottery	Post-medieval			
1	02E1836:1:2	Pottery	Post-medieval			
1	02E1836:1:3	Pottery	Post-medieval			
1	02E1836:1:4	Pottery	Post-medieval			
1	02E1836:1:5	Flint			Unworked	
1	02E1836:1:6	Flint			Unworked	
1	02E1836:1:7	Flint			Unworked	
1	02E1836:1:8	Flint			Core	
1	02E1836:1:9	Flint			Unworked	
1	02E1836:1:10	Flint			Unworked	
1	02E1836:1:11	Flint			Unworked	
1	02E1836:1:12	Flint			Unworked	
1	02E1836:1:13	Flint			Unworked	
1	02E1836:1:14	Flint			Flake debitage	
1	02E1836:1:15	Flint			Unworked	
1	02E1836:1:16	Flint			Unworked	
1	02E1836:1:17	Flint			Unworked	
1	02E1836:1:18	Flint			Unworked	
1	02E1836:1:19	Flint			Unworked	
1	02E1836:1:20	Flint			Unworked	
1	02E1836:1:21	Flint			Unworked	
1	02E1836:1:22	Flint			Unworked	
1	02E1836:1:23	Flint			Unworked	
1	02E1836:1:24	Flint			Unworked	
1	02E1836:1:25	Flint			Unworked	
1	02E1836:1:26	Flint			Unworked	
1	02E1836:1:27	Flint			Unworked	
1	02E1836:1:28	Flint			Unworked	
1	02E1836:1:29	Flint			Unworked	
1	02E1836:1:30	Flint			Unworked	
1	02E1836:1:31	Flint			Unworked	
1	02E1836:1:32	Flint			Unworked	
1	02E1836:1:33	Flint			Unworked	
1	02E1836:1:34	Flint			Unworked	
1	02E1836:1:35	Flint			Unworked	
1	02E1836:1:36	Flint			Unworked	
1	02E1836:1:37	Flint			Unworked	
1	02E1836:1:38	Flint			Unworked	
1	02E1836:1:39	Flint			Unworked	
1	02E1836:1:40	Flint			Unworked	
1	02E1836:1:41	Flint			Unworked	
1	02E1836:1:42	Flint			Unworked	
1	02E1836:1:43	Flint			Unworked	
1	02E1836:1:44	Flint			Unworked	
1	02E1836:1:45	Flint			Flint debitage	

1	02E1836:1:46	Flint			Unworked	
1	02E1836:1:47	Flint			Unworked	
1	02E1836:1:48	Flint			Unworked	
1	02E1836:1:49	Flint			Unworked	
1	02E1836:1:50	Flint			Modified	
1	02E1836:1:51	Flint			Unworked	
1	02E1836:1:52	Flint			Unworked	
1	02E1836:1:53	Flint			Unworked	
1	02E1836:1:54	Flint			Unworked	
1	02E1836:1:55	Flint			Unworked	
1	02E1836:1:56	Flint			Unworked	
1	02E1836:1:57	Flint			Unworked	
1	02E1836:1:58	Flint			Unworked	
1	02E1836:1:59	Flint			Unworked	
1	02E1836:1:60	Flint			Unworked	
1	02E1836:1:61	Flint			Unworked	
1	02E1836:1:62	Flint			Unworked	
1	02E1836:1:63	Flint			Unworked	
1	02E1836:1:64	Flint			Unworked	
1	02E1836:1:65	Flint			Unworked	
1	02E1836:1:66	Flint			Unworked	
1	02E1836:1:67	Flint			Unworked	
1	02E1836:1:68	Flint			Unworked	
1	02E1836:1:69	Flint			Unworked	
1	02E1836:1:70	Flint			Unworked	
1	02E1836:1:71	Flint			Unworked	
1	02E1836:1:72	Flint			Unworked	
1	02E1836:1:73	Flint			Unworked	
1	02E1836:1:74	Flint			Unworked	
1	02E1836:1:75	Flint			Unworked	
1	02E1836:1:76	Flint			Unworked	
1	02E1836:1:77	Flint			Unworked	
1	02E1836:1:78	Flint			Unworked	
1	02E1836:1:79	Flint			Unworked	
1	02E1836:1:80	Flint			Unworked	
1	02E1836:1:81	Flint			Unworked	
1	02E1836:1:82	Flint			Unworked	
1	02E1836:1:83	Flint			Unworked	

## 4.5 SYNTHESIS

### Open Area 1, Group 1, Natural Geology and Topography

The site was located in low, gentle ridge, approximately 50m south of a stream, on an agriculturally productive area of land at c.35m OD, c.2km to the west of Dundalk.

### Open Area 2, Group 2, Domestic Settlement Activity: Early Bronze Age Period

The activity appears to represent the repeated re-use of the site over a period of time, when perhaps a seasonal (temporary) shelter was re-built a number of times, with the site being disused between occupations.

**Structure 1** {1003} comprised a sub-circular hollow measuring 3m x 2.8m x 0.4m deep [C15]. No stakeholes were found in the base of hollow [C15]. It is possible that an entrance existed on the northern side as the cut was shallower at this end.

The base fill of the hollow [C15] was a layer of re-deposited natural (C16). Fill (C16) may have formed from 'walls' made of the excavated material that had slumped into the hollow after it had been abandoned. The upper fill of the hollow [C15] comprised a layer of natural silting, (C17). The only finds recovered consist of washed-in pieces of flint from fill (C17), showing that the contemporary surrounding land surface was covered with many pieces of flint at this time.

**Structure 2** {1004} comprised a sub-circular hollow 2.4m x 2.05m x 0.38m deep. No stakeholes were found in the base of the hollow, which was located immediately north of Building 1.

The basal fill to the hollow [C24] in {1004} was a layer of natural silting (C27), which was overlain by fills (C26), (C28) and (C29). Fill (C26) was a localised fill along the northern edge of hollow [C24] and contained a flint blade. Site analysis of this blade shows that it was struck from a parallel core, which indicates a probable Neolithic, or possibly a Mesolithic date. Fill (C26) was overlain by (C29), a charcoal-rich silty clay that was situated along the western side of [C24]. Fill (C28) was the main fill of [C24] and comprised re-deposited natural; possibly slumped 'walls' of the original excavated material.

### Open Area 3: Later Bronze Age activity

**Structure 3.** Both the backfilled Buildings 1 and 2 were cut into by slot trenches {1005} and {1006} respectively. Since these slot trenches share a similar stratigraphic position and their fills seemed very similar it is possible they represent a single structure, Structure 1, 2.50m x 1.25m or potentially a further building, Building 3.

On site activities included much flint reduction (as seen by the fills of both Building 1 and Building 2) as well as possible storage (seen by pit {1001}) and cooking/burning (seen by spread of charcoal-rich material – possible hearth rakings – {1007}).

### Open Area 4: No discernable activity.

From the Group 2 activity to the post-medieval period there is no evidence for archaeological land use at Site 111B.

### Open Area 5: Group 3, Post-medieval and modern activity

Modern topsoil {1008} was fairly thin over the site and ploughing had truncated the underlying archaeological remains considerably.

## 5 DISCUSSION

### 5.1 Realisation of the original research aims

This section examines the extent to which preliminary assessment of the results of the excavations reveals how the original research aims have been or can be answered.

Original Research Questions (**ORQ**) were prepared after the results of the test-trenching exercise were known and before the rescue excavations began. The following are the Original Research Questions relating to the excavation at site 111B, Newtownbalregan 1.2 and Responses (**R**) based on preliminary assessment of the site data.

**ORQ 1:** *What is the full nature of the site at Newtownbalregan 1.2? Are there any buildings present, if so what were the construction methods and are there different phases of construction and use? If there are no buildings what was the site used for?*

**R:** Site 1.2 consisted of two adjacent sub-rectangular cuts, which appear to be broadly contemporary, and may form sunken foundations for temporary structures or dwellings. The southern cut measured 3.00m in length, 2.80m in width and was 0.40m in depth. Immediately to the north, the second cut measured 2.40m in length, 2.05m in width and was 0.38m in depth. Both features appear to have been re-cut, which suggests that the site was re-used, possibly on a seasonal basis.

**ORQ 2:** *What are the dates of occupation and how does the site change through time?*

**R:** It was originally believed that the flint artefacts from [C24] may point to a Mesolithic or Neolithic date for this particular feature, Nelis (Appendix 2.2) suggests that none of these artefacts are sufficiently diagnostic to refine this proposition, and while a date during the Mesolithic perhaps appears less likely, the assemblage may have been produced during the Late Neolithic/Early Bronze Age period. However charcoal retrieved from the fill of cut [C30] returned a date of 3649 +/- 49 BP (WK – 18558) (Appendix 2.2). The 2 Sigma calibrated results from this sample produced a date of Cal AD 2150 – 1890 BC dating the site to the Early Bronze Age. Therefore, it is possible that the flint flakes recovered may have been produced during a transitional period between the Late Neolithic and the Early Bronze Age.

**ORQ 3:** *Are there areas where different activities were undertaken?*

**R:** The only function of the site appears to have been domestic in nature. The only archaeological features recorded on site appears to have been foundation cuts for temporary structures, which appear to have been re-used, possibly on a seasonal basis. The close proximity to the stream and lake, which once occupied the area and the sheltered location in a hollow, would have provided an ideal location for a summer camp.

**ORQ 4:** *What is the nature of the finds and the environmental evidence? What type of evidence is present here and do they give indications for specific activities?*

**R:** The finds consisted solely of flint. According to Nelis (Appendix 2.2), the flint artefacts from [C24] may point to a Neolithic or Bronze Age date for this particular feature, however, none of these artefacts are sufficiently diagnostic to refine this proposition.

**ORQ 5:** *Is there any evidence for burial or ritual activity?*

**R:** No evidence of ritual or burial activity was recorded.

## 5.2 Conclusions

From the relatively scant prehistoric archaeological evidence, there are indications that the area was not densely settled until the beginning of the Bronze Age (2500 BC). The vast majority of the archaeological evidence for this period is to be found at the 4-5m (25ft) contour, which reflects the coastline during the maximum post-glacial marine transgression, and it has been suggested that this settlement location would have facilitated the exploitation of the higher ground for farming and the lower ground for summer grazing (Gosling 1993, 242). Bronze Age activity is distributed fairly evenly across the study area. These are indicated in the antiquarian drawings of Wright at the Castletown/Kilcurry confluence.

The Early Bronze Age temporary settlement site at Newtownbalregan 1.2 is situated in a rich prehistoric landscape and other Bronze Age discoveries along the DWB consist of an Early Bronze Age Beaker (2500-2200BC) habitation site at Site 112, Newtownbalregan 2 (Bayley, D. forthcoming (e)), located c.1.5km south of the site. A number of Bronze Age ring-barrows, a cist and a cairn were excavated at Site 127, Carn More 5 (Bayley, D. forthcoming (g)), located c.3km northeast of Site 111B. A total of 3 Bronze Age burnt mounds/*fulachta fiadh* were excavated along the route of the DWB at Site 113, Newtownbalregan 5 (Bayley, D. forthcoming (c)) and at Site 128, Faughart 1, 2 & 3 (Delaney, S. forthcoming (a)). The burnt mound excavated at Site 102, Littlemill 2 dated to the medieval period (890-1250AD). A further 6 burnt mounds/*fulachta fiadh* were excavated by Archaeological Development Services Ltd (ADS Ltd.) as part of the archaeological resolution of the Dunleer/Dundalk Motorway.

This excavation at Newtownbalregan 5 (Bayley, D. forthcoming (c)) located c.1.4km south of the site revealed a multi-period site including activity from the Early and Middle Neolithic and the Early and Late Bronze Age. The Early Bronze Age Beaker-associated features consisted of a slot-trench and a cluster of pits and postholes, some of which may form the remains of a structure. Beaker pottery and associated lithics were found within these. Two *fulachta fiadh* were also excavated and the trough from one of these produced a radiocarbon date (WK-18556) of 1270–930 BC (2σ).

The archaeological features on Site 111B consisted of a possible temporary structure in subgroup {1003} and comprised a sub-circular hollow [C15]. No stakeholes were found in the base of hollow and it is possible that an entrance existed on the northern side as the cut was shallower at this end. The temporary structure in subgroup {1004} also comprised a sub-circular hollow [C24] with no stakeholes discovered in the base, which was located immediately north of the structure in subgroup {1003}. The prehistoric activity at Site 111B, Newtownbalregan 1.2 appears to represent the repeated re-use of an occupation site over a period of time, when perhaps a seasonal (temporary) shelter was re-built a number of times, with the site being disused between occupations. A radiocarbon date was obtained from charcoal retrieved from fill (C25) of the cut [C30] which returned a date of 3649 +/- 49 BP (WK – 18558) (Appendix 2.2). The 2 Sigma calibrated results from this sample produced a date of Cal 2150–1890 BC. The charcoal identified for this radiocarbon date was Alder (*Alnus glutinos*) (Appendix 2.1).

According to O Carroll (Appendix 2.1) alder alone was identified from the fill of the cut [C30] associated with building 1. The charcoal may be the burnt residual remains of the planks or posts which the hut was constructed from. Alder (*Alnus glutinosa*) is a widespread native tree and occurs in wet habitats along streams and riverbanks. Alder also grows frequently on fen peat. It is an easily worked and split timber and

does not tear when worked. Alder is commonly identified from wood remains associated with wet/boggy areas.

Regarding the flint recovered from the excavation, Nelis (Appendix 2.2) suggests that the small assemblage of flint artefacts represents very limited evidence for on site flint reduction and tool production. Only a single core, and small number of blades and flakes point to the reduction of flint; none of which are clear chronological indicators, although a date during the Neolithic or Bronze Age is possible, based on the inclusion of both platform and bipolar reduction. Nelis indicates that no modified tools were found within archaeological contexts, with a single, very dubious, example of gunflint being recovered from topsoil. This piece is not thought to relate to the remainder of the assemblage, nor to the *in situ* contexts, which may relate to prehistoric activity.

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Irish  
Archaeological  
Consultancy Ltd.

Title: Location of Site 111b, Newtownbalregan 1.2

Project: M1 Dundalk Western Bypass

Client: Louth County Council

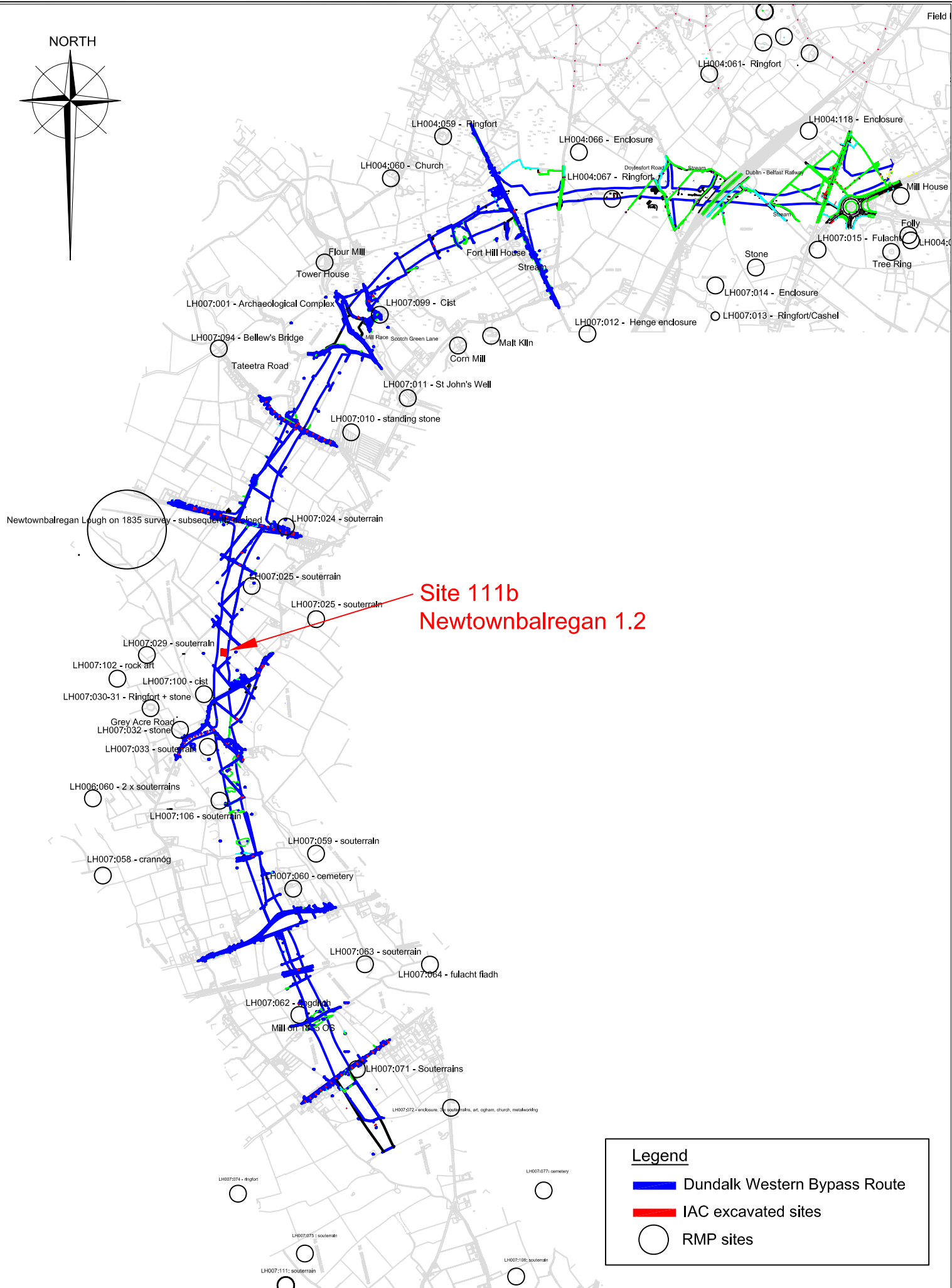
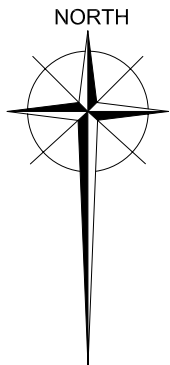
Scale: N.T.S.

Date: 19/11/07

Produced by: P Higgins

Job No: J2041

Figure No: 1



Irish  
Archaeological  
Consultancy Ltd.

Title: Site location with RMP sites shown  
Project: M1 Dundalk Western Bypass  
Client: Louth County Council

Scale: 1:30000  
Date: 19/11/07  
Produced by: P Higgins  
Job No: J2041  
Figure No: 2

NORTH

LH007:025 - souterrain

Site 111b  
Newtownbalregan 1.2  
Licence No. 02E1836

Site 111a  
Newtownbalregan 1.1  
Licence No. 02E1835

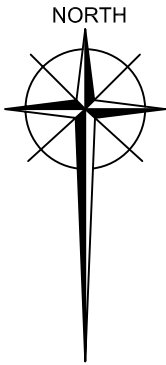
Legend:  
— Site Extent  
— CPO Line  
— Limit of Archaeology



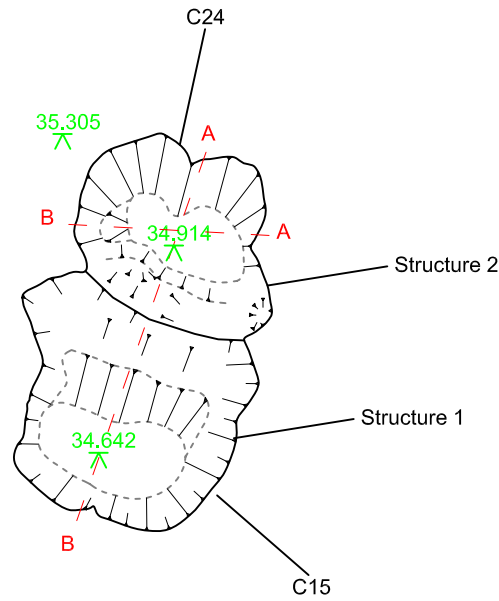
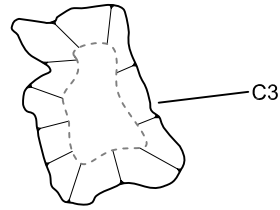
Irish  
Archaeological  
Consultancy Ltd.

Title: Site 111b Newtownbalregan 1.2 - General site location  
Project: M1 Dundalk Western Bypass  
Client: Louth County Council

Scale: 1:2000  
Date: 19/11/06  
Produced by: P Higgins  
Job No: J2041  
Figure No: 3



301938E  
308066N



301938E  
308046N

301967E  
308046N

Legend	
C##	Cut number
- - -	Section line
- - -	Limit of excavation
0.00	OD Levels



Irish  
Archaeological  
Consultancy Ltd.

Title: Site 111B, Newtownbalregan 1.2 - Post- ex plan of structures 1 & 2

Project: M1 Dundalk Western Bypass

Client: Louth County Council

Scale: 1:100

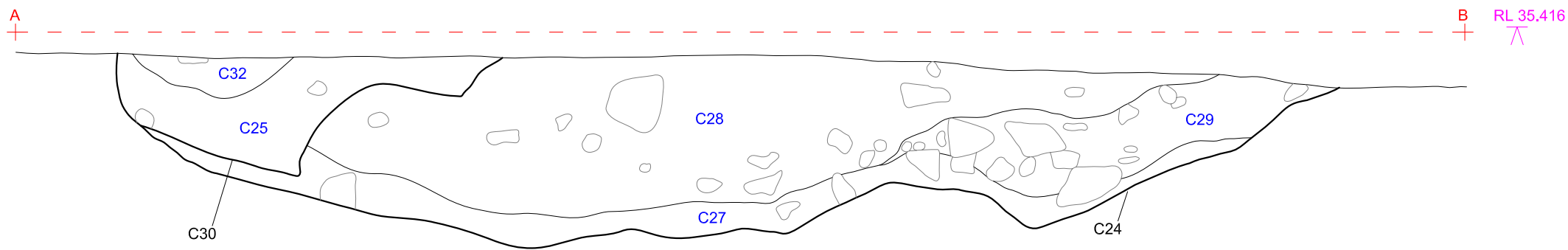
Date: 19/11/07

Produced by: P Higgins

Job No: J2041

Figure No: 4

Newtown Balregan 1.2  
North facing section of C24



Legend

- C## Fill numbers
- C## Cut number
- Stone

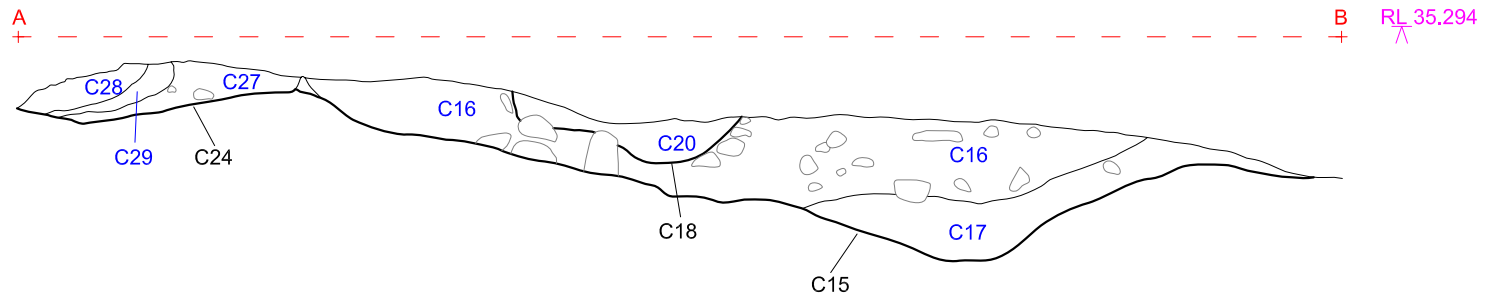


Irish  
Archaeological  
Consultancy Ltd.


Title: Section across structure 1004  
Project: M1 Dundalk Western Bypass  
Client: Louth County Council

Scale: 1: 20  
Date: 19/11/07  
Produced by: P Higgins  
Job No: J2041  
Figure No: 5a

Newtown Balregan 1.2  
North West facing section of C15



# Legend

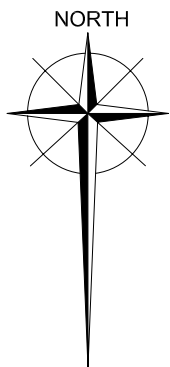
- C## Fill numbers
- C## Cut number
-  Stone



**Irish  
Archaeological  
Consultancy Ltd.**

Title:	Section across structure 1003
Project:	M1 Dundalk Western Bypass
Client:	Louth County Council

Scale:	1: 20
Date:	19/11/07
Produced by:	P Higgins
Job No:	J2041
Figure No:	5b



35.424  
^

C24

Heavy  
Charcoal

C30

C25

35.314  
^

Redeposited  
Natural

35.29  
^

C28

C29

Heavy  
Charcoal

C2

35.089  
^

C2

C17

C16

Heavy  
Charcoal

C18

34.929  
^

C15

Structure 3

C22  
35.14  
^

34.892  
^

301947E  
308066N

301947E  
308048N

301995E  
308048N

### Legend

C## Fill numbers  
C## Cut number  
^ Levels



Irish  
Archaeological  
Consultancy Ltd.

Title:	Pre- ex plan of structure 3 highlighting linear trench C18 and curving trench C30
Project:	M1 Dundalk Western Bypass
Client:	Louth County Council

Scale:	1: 50
Date:	19/11/07
Produced by:	P Higgins
Job No:	J2041
Figure No:	6

## PLATES



Plate 1: Overhead view of site 111B (foreground), facing south (Studiolab)



Plate 2: Site 111B showing [C15] and [C24], facing west



Plate 3: Section of [C15] cut by C18, facing south-east



Plate 4: Section of [C24], facing south



Plate 5: Section of [C24], facing south-east



Plate 6: Section of [C18] cut by [C15], facing south



Plate 7: Pre-ex of [C22], facing north

## APPENDIX 1: CATALOGUE OF PRIMARY DATA

### Context Register

C	Area	Fill of	Filled by	Interpretation	Description
1	Site	n/a	n/a	Topsoil	Mid brown sandy clay, mod firm, freq s, m, lg mixed, mod ch fls & frags
2	Site	n/a	n/a	Natural	Brown orange sandy, silty clay
3	0/10	n/a	C4	Pit	Sub-circular pit, steep sides, uneven base, 0.42d x 2.42l x 1.52w
4	0/10	C3	n/a	Natural silting	Orange brown, loose sandy silt, occ s-m ang+rou, rare ch fl on top of fill
5				Non Archaeological	-
6				Non Archaeological	-
7				Non Archaeological	-
8				Non Archaeological	-
9				Non Archaeological	-
10				Non Archaeological	-
11				Non Archaeological	-
12				Non Archaeological	-
13				Non Archaeological	-
14				Non Archaeological	-
15	0/0	n/a	C16, C17	Poss shelter	Irreg circular in plan, mod steep sides, curved base, 0.40d x 3.00l x 2.80w
16	0/0	C15	n/a	Re-deposited Natural	Orange grey, mod s-m sub-ang
17	0/0	C15	n/a	Natural silting	Grey clay, occ ch, mod s ang+sub-ang
18	0/0	n/a	C19,C20	Poss wattle fence trench	Linear in plan, U-shaped prof, 0.26d x 3.00 x 0.5, E-W
19				Same as C1	-
20	0/0	C18	n/a	<i>In situ</i> burning	Burnt in situ ch w/ some fl grey clay, mod heat affected ang, rare l sub-ang
21				Non Archaeological	-
22	0/0	n/a	n/a	Charcoal spread	ch, rare s sub-ang, 0.04d x 0.70l x 0.65w N-S
23				Non Archaeological	-
24	0/0	n/a	C26, C Plate 2: Site 111B showing [C15] and [C24], facing west	Curved feature	Circular in plan, irreg concave sides, flat base generally, 0.38d x 2.40l x 2.05w N-S
25	0/0	C30	n/a	<i>In situ</i> burning	90% Ch, mod med sub-ang, rare s rou
26	0/0	C24	n/a	Deliberate fill	Brown, firm silty clay, mod m sub-ang,
27	0/0	C24	n/a	Natural silting	Grey, firm clayey silt, mod ch fl, mod s sub-ang
28	0/0	C24	n/a	Re-deposited Natural	Lt yellow brown, hard clayey sand, mod s sub-ang, occ m sub-rou
29	0/0	C24	n/a	Deliberate fill	Dk brown grey, loose ch-rich clayey silt, occ l sub-ang, occ s sub-ang
30	0/0	n/a	C25, C32	Re-cut	Linear in plan w/rounded corners, U-shaped in prof, 0.20d x 2.55d x 0.70w N-S
31				Number not used	-

32	0/0	C29	n/a	Deliberate fill	Dk brown, firm silty clay, mod ch fl+ s
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## Finds Register

Context	Find	Artefact type	Description
1	02E1836:1:1		Pottery – Post-medieval
1	02E1836:1:2		Pottery – Post-medieval
1	02E1836:1:3		Pottery – Post-medieval
1	02E1836:1:4		Pottery – Post-medieval
1	02E1836:1:5	Unworked	Flint
1	02E1836:1:6	Core	Flint
1	02E1836:1:7	Unworked	Flint
1	02E1836:1:8	Unworked	Flint
1	02E1836:1:9	Unworked	Flint
1	02E1836:1:10	Unworked	Flint
1	02E1836:1:11	Unworked	Flint
1	02E1836:1:12	Unworked	Flint
1	02E1836:1:13	Unworked	Flint
1	02E1836:1:14	Flake debitage	Flint
1	02E1836:1:15	Unworked	Flint
1	02E1836:1:16	Unworked	Flint
1	02E1836:1:17	Unworked	Flint
1	02E1836:1:18	Unworked	Flint
1	02E1836:1:19	Unworked	Flint
1	02E1836:1:20	Unworked	Flint
1	02E1836:1:21	Unworked	Flint
1	02E1836:1:22	Unworked	Flint
1	02E1836:1:23	Unworked	Flint
1	02E1836:1:24	Unworked	Flint
1	02E1836:1:25	Unworked	Flint
1	02E1836:1:26	Unworked	Flint
1	02E1836:1:27	Unworked	Flint
1	02E1836:1:28	Unworked	Flint
1	02E1836:1:29	Unworked	Flint
1	02E1836:1:30	Unworked	Flint
1	02E1836:1:31	Unworked	Flint
1	02E1836:1:32	Unworked	Flint
1	02E1836:1:33	Unworked	Flint
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1	02E1836:1:41	Unworked	Flint
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1	02E1836:1:43	Unworked	Flint
1	02E1836:1:44	Unworked	Flint
1	02E1836:1:45	Flake debitage	Flint
1	02E1836:1:46	Unworked	Flint
1	02E1836:1:47	Unworked	Flint
1	02E1836:1:48	Unworked	Flint
1	02E1836:1:49	Unworked	Flint
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17	02E1836:17:9	Unworked	Flint
17	02E1836:17:10	Unworked	Flint
17	02E1836:17:11	Unworked	Flint
17	02E1836:17:12	Unworked	Flint
22	02E1836:22:1	Unworked	Flint
25	02E1836:25:1	Unworked	Flint
26	02E1836:26:1	Unworked	Flint - Blade
26	02E1836:26:2	Unworked	Flint
26	02E1836:26:3	Unworked	Flint
26	02E1836:26:4	Flake debitage	Flint
26	02E1836:26:5	Angular shatter	Flint
27	02E1836:27:1	Angular shatter	Flint
27	02E1836:27:2	Unworked	Flint
27	02E1836:27:3	Unworked	Flint
27	02E1836:27:4	Flake debitage	Flint
27	02E1836:27:5	Flake debitage	Flint
28	02E1836:28:1	Flake debitage	Flint
28	02E1836:28:2	Angular shatter	Flint
28	02E1836:28:3	Unworked	Flint
28	02E1836:28:4	Unworked	Flint
28	02E1836:28:5	Unworked	Flint
28	02E1836:28:6	Unworked	Flint

## **APPENDIX 2: SPECIALIST REPORTS**

### **APPENDIX 2.1: SPECIES IDENTIFICATION OF CHARCOAL SAMPLES**

#### **SPECIES IDENTIFICATION OF CHARCOAL SAMPLES FROM NEWTOWNBALREGAN 1.2 (02E1836), CO. LOUTH**

**ELLEN OCARROLL**

**February 2006**

## 1. INTRODUCTION

One charcoal sample was submitted for analysis from Newtownbalregan 1.2, Dundalk by-pass. Newtownbalregan 1.2 was located c. 1 km west of Dundalk town. The excavated site produced evidence of pre-historic activity in the form of two adjacent sub-rectangular cuts, which appear to be broadly contemporary. These cuts may have formed the foundations of temporary dwellings or huts. A flint flake possibly of Mesolithic or Neolithic date was retrieved from one of this cuts.

The sample received for analysis from the above excavations were retrieved from the fill of the cut [C25] to determine the species of wood used in the construction of these huts and to give an indication of the range of tree species which grew in the vicinity. Charcoal and wood analyses may also provide information on the utilization of certain species for various functions. Wood used for fuel at pre-historic sites would generally have been grown at locations close to the site. Therefore species identifications may, but do not necessarily, reflect the composition of the local woodlands.

## 2. METHODS

The process for identifying wood, whether it is charred, dried or waterlogged is carried out by comparing the anatomical structure of wood samples with known comparative material or keys (Schweingruber 1990). The identification of charcoal material involves breaking the charcoal piece so that a clean section of the wood can be obtained. This charcoal is then identified to species under an Olympus SZ3060 zoom stereomicroscope. By close examination of the microanatomical features of the samples the species are determined. The diagnostic features used for the identification of charcoal are micro-structural characteristics such as the vessels and their arrangement, the size and arrangement of rays, vessel pit arrangement and also the type of perforation plates.

## 3. QUANTIFICATION/RESULTS

Table 1: Results from charcoal identifications

Site no.	Context No and type	Sample No	Identification	Weight and comment
Newtownbalregan 1.2, 03E1836	C25, Fill of sub-rectangular cut	1	Alder ( <i>Alnus glutinosa</i> )	68.6g

## 4. PROVENANCE

The sample received for analysis from the excavations at Newtownbalregan 1.2 was retrieved from the fill of a sub rectangular cut [C25]. These cuts may have formed the foundations of temporary dwellings or huts. Newtownbalregan 1. 2 lay in a hollow on a south facing gentle slope, c 50m south of a stream at 35m OD.

Alder alone was identified from the fill of the cut associated with the temporary dwelling structure. The charcoal may be the burnt residual remains of the planks or posts which the hut was constructed from. Alder (*Alnus glutinosa*) is a widespread

native tree and occurs in wet habitats along streams and riverbanks. Alder also grows frequently on fen peat. It is an easily worked and split timber and does not tear when worked. Alder is commonly identified from wood remains associated with wet/boggy areas.

## 5. CONSERVATION

The alder identified from the fill of the cut [C25] is suitable for conventional  $^{14}\text{C}$  dating.

## 6. COMPARATIVE MATERIAL

Wood was a vital and widely used raw material from prehistoric to medieval times although its importance is rarely reflected in the analysis of archaeological assemblages mainly due to its perishable nature. It is important to note that people in prehistoric, Early Christian and medieval communities were mainly dependant on woodland resources for the construction of buildings and for the manufacture of most implements. The woods in a surrounding catchment area were exploited and often managed to provide an essential raw material for the community. The economic importance of wood cannot be overestimated.

A study of the range of species on an archaeological site offers an indication of the composition of a local woodland in its period of use. When some trees are felled the stool left in the ground will produce several new stems, which will grow rapidly. This type of management is known as coppicing. In many woodland areas a number of species of wood are suitable for the production of crops of long narrow stems used for fences, brushwood, hurdle trackways and wattle walls.

From the preliminary studies mentioned above it is clear that oak was the most common species used for wall-posts and planks, hazel was preferred for wattle structures and species such as ash, willow, alder, birch and holly were utilised for a variety of other structural requirements. The work carried out on species selection suggests that availability around a given catchment area was probably the main factor which influenced choice of timber.

The author has carried out a large number of charcoal identifications from excavated Neolithic houses. The wood most frequently used at these sites is oak (*Quercus* sp).

A preliminary date of Neolithic/Mesolithic has been attributed to Newtownbalreagan 1.2. The alder (*Alnus glutinosa*) identified from Newtownbalreagan 1.2 may suggest that the structure excavated here was indeed a temporary dwelling or small hut feature as if it functioned as a house it would probably have been constructed from oak.

## 7. DISCUSSION

Alder was exclusively identified from the material associated with the cut features. Alder is indicative of a wetland terrain, which suggests that there was a water source or marshy area near to the site.

Similar analyses undertaken from excavated Neolithic houses throughout Ireland have produced results, which indicates that oak was the main constructional material prevalent in the assemblage type. Therefore the analysis from Newtownbalreagan 1.2 suggests that the alder identified from the cuts may have been associated with a temporary dwelling or hut as indicated by the excavator.

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## APPENDIX 2.2 RADIOCARBON DATING RESULTS

The University of Waikato Radiocarbon Dating Laboratory

One C 14 date was established for the site at Newtownbalregan 1.2

The un-calibrated result is as follows:

Wk18558                      Newtownbalregan 1.2; 02E1836: **(C25)**, alder (*Alnus glutinosa*)  
(1.2g)

d 14 C	-367.2+/-3.8
d 13 C	-26.6+/-0.2
D 14 C	-365.1+/-3.8
% modern	63.5+/-0.4
Result	3649+/-49 BP

The calibrated results were processed using the Intcal 04 calibration curve. The result (95.4% probability) was as follows:

Wk18558                      Newtownbalregan 1.2; 02E1836: **(C25)**, alder (*Alnus glutinosa*)  
(1.2g)

Cal BC 2150-1890BC (95.4% probability)

**Intcal 04 reference:** Reimer, P. J., Baillie, M. G. L., Bard, E., Bayliss, A., Beck, J. W., Bertrand, C. J. H., Blackwell, P. G., Buck, C. E., Burr, G. S., Cutler, K. B., Damon, P.E., Edwards, R. L., Fairbanks, R. G., Friedrich, M., Guilderson, T. P., Hogg, A. G., Hughen, K. A., Kromer, B., McCormac, G., Manning, S., Bronk Ramsey, C., Reimer, R. W., Remmele, S., Southon, J. R., Stuiver, M., Talamo, S., Taylor, F. W., van der Plicht, J., Weyhenmeyer, C. E., IntCal04 Terrestrial Radiocarbon Age Calibration, 0 - 26 ka cal BP, *Radiocarbon* 46 (nr 3, 2004).

**The University of Waikato**  
**Radiocarbon Dating Laboratory**



Private Bag 3105  
Hamilton,  
New Zealand.  
Fax +64 7 838 4192  
Ph +64 7 838 4278  
email c14@waikato.ac.nz  
Head: Dr Alan Hogg

**Report on Radiocarbon Age Determination for Wk-**

**18558**

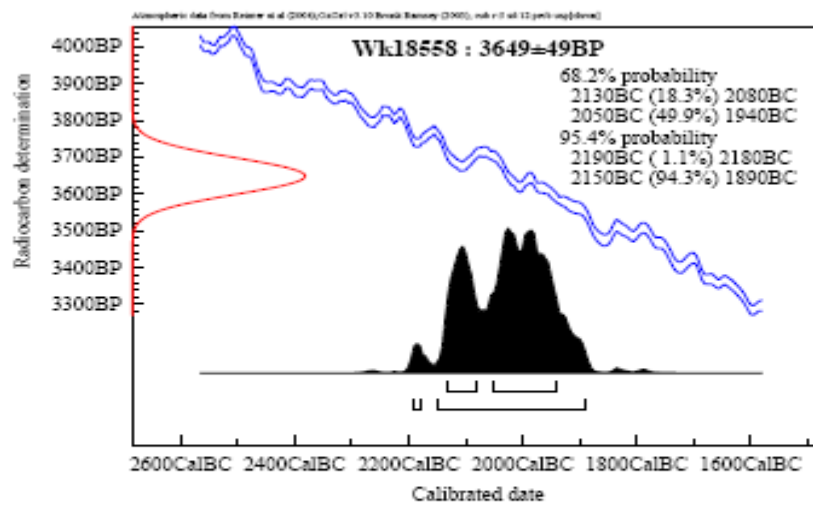
**Submitter** Li Johnston  
**Submitter's Code** Newtownbalregan 2/25/1  
**Site & Location** Dundalk Western Bypass, Ireland  
**Sample Material** *Alnus glutinosa*  
**Physical Pretreatment** Possible contaminants were removed. Washed in ultrasonic bath.  
**Chemical Pretreatment** Sample washed in hot 10% HCl, rinsed and treated with hot 0.5% NaOH. The NaOH insoluble fraction was treated with hot 10% HCl, filtered, rinsed and dried.

$\delta^{14}\text{C}$	$-367.2 \pm 3.8$	‰
$\delta^{13}\text{C}$	$-26.6 \pm 0.2$	‰
$\text{D}^{14}\text{C}$	$-365.1 \pm 3.8$	‰
% Modern	$63.5 \pm 0.4$	%
<b>Result</b>	<b>3649 ± 49 BP</b>	

**Comments**

  
3/5/06

- Result is *Conventional Age* or % Modern as per Stuiver and Polach, 1977, Radiocarbon 19, 355-363. This is based on the Libby half-life of 5568 yr with correction for isotopic fractionation applied. This age is normally quoted in publications and must include the appropriate error term and Wk number.
- Quoted errors are 1 standard deviation due to counting statistics multiplied by an experimentally determined Laboratory Error Multiplier of 1.
- The isotopic fractionation,  $\delta^{13}\text{C}$ , is expressed as ‰ wrt PDB.
- Results are reported as % Modern when the conventional age is younger than 200 yr BP.



## **APPENDIX 2.3: LITHICS REPORT**

### **CHIPPED STONE AND WORKED STONE ASSEMBLAGE ANALYSIS REPORTS AND CATALOGUES FOR NEWTONBALREGAN 1.2: (02E1836)**

**DR EIMÉAR NELIS  
MA PHD MIAI**

## CHIPPED FLINT AND NON-FLINT ASSEMBLAGE

### Introduction

A small assemblage of 109 flint artefacts was recovered during excavations at Newtownbalregan 1.2 (Bayley 2004c) (Table 1). These were mainly comprised of unworked material (98 pieces), and included a small quantity of primary knapping debitage, consisting of a single core, flake debitage (6 pieces) and three pieces of angular shatter; in addition, a single modified tool was recovered (Table 1-2).

Unique No	Basic Character	Classification	Condition	Cortex	Fragment (mm)	Length (mm)	Breadth (mm)	Thickness (mm)	Mass (g)
03E1836:1:8	Core	Flaked pebble	Abraded	Secondary	-	38	43	36	74.30
03E1836:1:9	Unworked	Abraded lump	Abraded	Secondary	-	36	31	19	25.14
03E1836:1:10	Unworked	Abraded lump	Abraded	Secondary	-	31	26	18	18.68
03E1836:1:11	Unworked	Abraded lump	Abraded	Secondary	-	45	39	28	62.18
03E1836:1:12	Unworked	Abraded lump	Abraded	Secondary	-	32	28	18	17.69
03E1836:1:13	Unworked	Angular shatter - thermal	Abraded	Secondary	-	23	13	12	4.10
03E1836:1:14	Flake debitage	Regular	Patinated	Secondary	-	21	15	4	1.65
03E1836:1:15	Unworked	Thermal flake	Patinated	Secondary	-	27	15	8	4.37
03E1836:1:16	Unworked	Thermal flake	Abraded	Secondary	-	22	16	6	3.04
03E1836:1:17	Unworked	Abraded lump	Abraded	Secondary	-	27	16	14	6.36
03E1836:1:18	Unworked	Abraded lump	Abraded	Secondary	-	25	18	9	4.24
03E1836:1:19	Unworked	Abraded lump	Abraded	Secondary	-	26	24	13	10.36
03E1836:1:20	Unworked	Abraded lump	Abraded	Secondary	-	25	19	12	7.02
03E1836:1:21	Unworked	Angular shatter - thermal	Abraded	Secondary	-	30	23	18	16.28
03E1836:1:22	Unworked	Abraded lump	Abraded	Tertiary	-	18	18	8	4.22
03E1836:1:23	Unworked	Abraded lump	Patinated	Secondary	-	28	25	13	15.34
03E1836:1:24	Unworked	Angular shatter - thermal	Abraded	Secondary	-	22	20	18	9.79
03E1836:1:25	Unworked	Abraded lump	Abraded	Secondary	-	30	18	12	8.21
03E1836:1:26	Unworked	Abraded lump	Abraded	Secondary	-	30	17	15	9.63
03E1836:1:27	Unworked	Abraded lump	Abraded	Secondary	-	25	18	12	8.80
03E1836:1:28	Unworked	Abraded lump	Abraded	Secondary	-	28	17	11	6.26
03E1836:1:29	Unworked	Abraded lump	Abraded	Secondary	-	25	18	15	7.44
03E1836:1:30	Unworked	Abraded lump	Abraded	Secondary	-	25	16	13	5.62
03E1836:1:31	Unworked	Thermally split pebble	Abraded	Secondary	-	31	21	18	15.53
03E1836:1:32	Unworked	Abraded lump	Abraded	Secondary	-	20	19	14	6.48
03E1836:1:33	Unworked	Abraded lump	Abraded	Secondary	-	25	18	14	9.36
03E1836:1:34	Unworked	Abraded lump	Abraded	Secondary	-	30	22	18	12.02
03E1836:1:35	Unworked	Thermal flake	Abraded	Secondary	-	38	25	19	19.14
03E1836:1:36	Unworked	Thermal flake	Abraded	Secondary	-	23	18	9	3.46
03E1836:1:37	Unworked	Thermally split pebble	Abraded	Secondary	-	26	25	18	14.66
03E1836:1:38	Unworked	Angular shatter - thermal	Abraded	Secondary	-	26	21	13	7.72
03E1836:1:39	Unworked	Thermal flake	Abraded	Secondary	-	28	23	13	10.33
03E1836:1:40	Unworked	Angular shatter - thermal	Abraded	Secondary	-	43	25	23	21.83
03E1836:1:41	Unworked	Angular shatter - thermal	Abraded	Secondary	-	28	26	15	15.02
03E1836:1:42	Unworked	Abraded lump	Abraded	Secondary	-	25	20	11	8.93
03E1836:1:43	Unworked	Abraded lump	Abraded	Secondary	-	41	35	24	40.78
03E1836:1:44	Unworked	Thermal flake	Abraded	Secondary	-	26	23	8	5.94
03E1836:1:45	Flake debitage	Core trimming	Abraded	Tertiary	-	14	28	6	2.43
03E1836:1:46	Unworked	Thermally split pebble	Patinated	Secondary	-	38	16	15	13.99
03E1836:1:47	Unworked	Angular shatter - thermal	Abraded	Secondary	-	25	15	14	6.98
03E1836:1:48	Unworked	Angular shatter - thermal	Abraded	Secondary	-	38	35	19	45.98

03E1836:1:49	Unworked	Angular shatter - thermal	Abraded	Secondary	-	30	28	19	14.96
03E1836:1:50	Modified	Edge retouched	Patinated	Tertiary	-	21	18	5	2.72
03E1836:1:51	Unworked	Abraded lump	Abraded	Secondary	-	19	15	15	5.67
03E1836:1:52	Unworked	Abraded lump	Water rolled	Secondary	-	19	15	10	5.35
03E1836:1:53	Unworked	Abraded lump	Abraded	Secondary	-	25	18	11	6.23
03E1836:1:54	Unworked	Abraded lump	Abraded	Tertiary	-	22	18	10	4.44
03E1836:1:55	Unworked	Abraded lump	Abraded	Tertiary	-	17	16	10	3.64
03E1836:1:56	Unworked	Abraded lump	Abraded	Secondary	-	20	12	11	4.04
03E1836:1:57	Unworked	Abraded lump	Water rolled	Tertiary	-	15	12	10	2.59
03E1836:1:58	Unworked	Abraded lump	Abraded	Tertiary	-	20	10	8	2.24
03E1836:1:59	Unworked	Abraded lump	Abraded	Tertiary	-	18	12	6	2.18
03E1836:1:60	Unworked	Abraded lump	Abraded	Tertiary	-	18	11	7	1.70
03E1836:1:61	Unworked	Abraded lump	Abraded	Secondary	-	18	13	13	4.42
03E1836:1:62	Unworked	Abraded lump	Abraded	Secondary	-	18	12	10	4.60
03E1836:1:63	Unworked	Abraded lump	Abraded	Tertiary	-	17	16	8	3.07
03E1836:1:64	Unworked	Abraded lump	Abraded	Secondary	-	20	12	8	2.91
03E1836:1:65	Unworked	Abraded lump	Abraded	Secondary	-	19	18	6	2.49
03E1836:1:66	Unworked	Abraded lump	Abraded	Secondary	-	14	12	8	2.96
03E1836:1:67	Unworked	Abraded lump	Abraded	Secondary	-	21	15	9	2.74
03E1836:1:68	Unworked	Abraded lump	Abraded	Tertiary	-	16	14	8	2.32
03E1836:1:69	Unworked	Abraded lump	Abraded	Tertiary	-	18	12	6	2.14
03E1836:1:70	Unworked	Abraded lump	Abraded	Tertiary	-	18	12	10	3.34
03E1836:1:71	Unworked	Abraded lump	Abraded	Tertiary	-	15	11	6	1.93
03E1836:1:72	Unworked	Abraded lump	Abraded	Tertiary	-	19	12	8	3.18
03E1836:1:73	Unworked	Abraded lump	Abraded	Tertiary	-	20	12	9	2.62
03E1836:1:74	Unworked	Abraded lump	Abraded	Tertiary	-	13	12	12	2.92
03E1836:1:75	Unworked	Abraded lump	Abraded	Tertiary	-	16	13	10	3.66
03E1836:1:76	Unworked	Abraded lump	Abraded	Tertiary	-	17	10	6	2.35
03E1836:1:77	Unworked	Abraded lump	Abraded	Secondary	-	19	12	8	1.88
03E1836:1:78	Unworked	Abraded lump	Abraded	Tertiary	-	18	10	7	2.01
03E1836:1:79	Unworked	Abraded lump	Abraded	Tertiary	-	18	14	6	2.19
03E1836:1:80	Unworked	Angular shatter - thermal	Abraded	Secondary	-	18	17	12	4.38
03E1836:1:81	Unworked	Angular shatter - thermal	Abraded	Tertiary	-	25	17	9	4.10
03E1836:1:82	Unworked	Angular shatter - thermal	Abraded	Secondary	-	16	11	9	1.77
03E1836:1:83	Unworked	Angular shatter - thermal	Abraded	Tertiary	-	17	14	8	2.66
03E1836:17:4	Unworked	Angular shatter - thermal	Abraded	Tertiary	-	18	17	6	2.28
03E1836:17:7	Unworked	Thermal flake	Abraded	Tertiary	-	23	12	10	2.14
03E1836:17:1	Unworked	Thermal flake	Abraded	Secondary	-	19	14	8	2.33
03E1836:17:2	Unworked	Abraded lump	Abraded	Secondary	-	31	23	20	16.32
03E1836:17:3	Unworked	Angular shatter - thermal	Abraded	Tertiary	-	25	12	8	2.61
03E1836:17:5	Unworked	Abraded lump	Abraded	Secondary	-	25	15	13	6.79
03E1836:17:6	Unworked	Abraded lump	Abraded	Secondary	-	25	17	16	9.29
03E1836:17:8	Unworked	Abraded lump	Abraded	Secondary	-	23	19	17	8.77
03E1836:17:9	Unworked	Abraded lump	Abraded	Secondary	-	20	15	11	4.23
03E1836:17:10	Unworked	Abraded lump	Abraded	Secondary	-	20	15	13	5.19
03E1836:17:11	Unworked	Abraded lump	Abraded	Secondary	-	11	10	6	1.14
03E1836:17:12	Unworked	Abraded lump	Abraded	Tertiary	-	16	10	8	1.95
03E1836:22:1	Unworked	Angular shatter - thermal	Abraded	Tertiary	-	17	14	10	1.14
03E1836:25:1	Unworked	Angular shatter - thermal	Abraded	Secondary	-	20	14	10	2.27
03E1836:26:1	Unworked	Angular shatter - thermal	Abraded	Tertiary	-	15	15	7	2.58
03E1836:26:2	Unworked	Abraded lump	Abraded	Secondary	-	16	15	10	3.48
03E1836:26:3	Unworked	Abraded lump	Abraded	Secondary	-	39	22	13	11.98
03E1836:26:4	Flake debitage	Regular	Patinated	Secondary	-	35	17	5	5.37
03E1836:26:5	Angular shatter	Angular shatter	Patinated	Tertiary	-	12	10	8	.73
03E1836:27:1	Angular shatter	Angular shatter	Patinated	Tertiary	-	11	9	6	.55
03E1836:27:2	Unworked	Abraded lump	Abraded	Primary	-	20	18	14	9.27
03E1836:27:3	Unworked	Abraded lump	Abraded	Secondary	-	13	10	6	1.52

03E1836:27:4	Flake debitage	Regular	Patinated	Secondary	-	30	22	3	3.05
03E1836:27:5	Flake debitage	Blade shatter proximal	Fresh	Tertiary	31	-	15	5	3.11
03E1836:28:1	Flake debitage	Core trimming	Fresh	Tertiary	-	13	21	7	2.21
03E1836:28:2	Angular shatter	Angular shatter	Fresh	Secondary	-	15	11	10	2.84
03E1836:28:3	Unworked	Abraded lump	Fresh	Tertiary	-	8	7	5	.71
03E1836:28:4	Unworked	Abraded lump	Abraded	Secondary	-	35	28	17	23.45
03E1836:28:5	Unworked	Abraded lump	Abraded	Secondary	-	35	28	1316	.
03E1836:28:6	Unworked	Abraded lump	Abraded	Secondary	-	29	21	10	8.14

Table 1: Dundalk Western Bypass: Newtownbalregan 1.2 (02E1836): showing basic composition of the flint assemblage.

The majority of flint appears to derive locally within drift geology, with only a small number of pieces being identified as beach pebbles (3 pieces), which include unworked material (2 pieces) and the core (02E1836:1:5). Most of the assemblage was in an abraded condition (96 pieces), which mainly comprised the unworked artefacts, as well as the core and a piece of flake debitage. Most of the remaining artefacts were in a fresh (4 pieces) or patinated (9 pieces) condition, which included most of the flake debitage and angular shatter, and the modified tool (02E1836:1:47).

#### Assemblage summary and general provenance: NEWTONBALREGAN 1.2 (02E1836)

The unworked assemblage is mainly constituted of small, abraded lumps (69 pieces), with the remainder (including the pebbles) having suffered thermal damage (29 pieces). The unworked material measures between 8-45mm in maximum length, with most having a length of 30mm or less (85%) (Fig 1). Unworked material was recovered from topsoil (C1) and also from a number of features relating to Group 2 activity (Table 2).

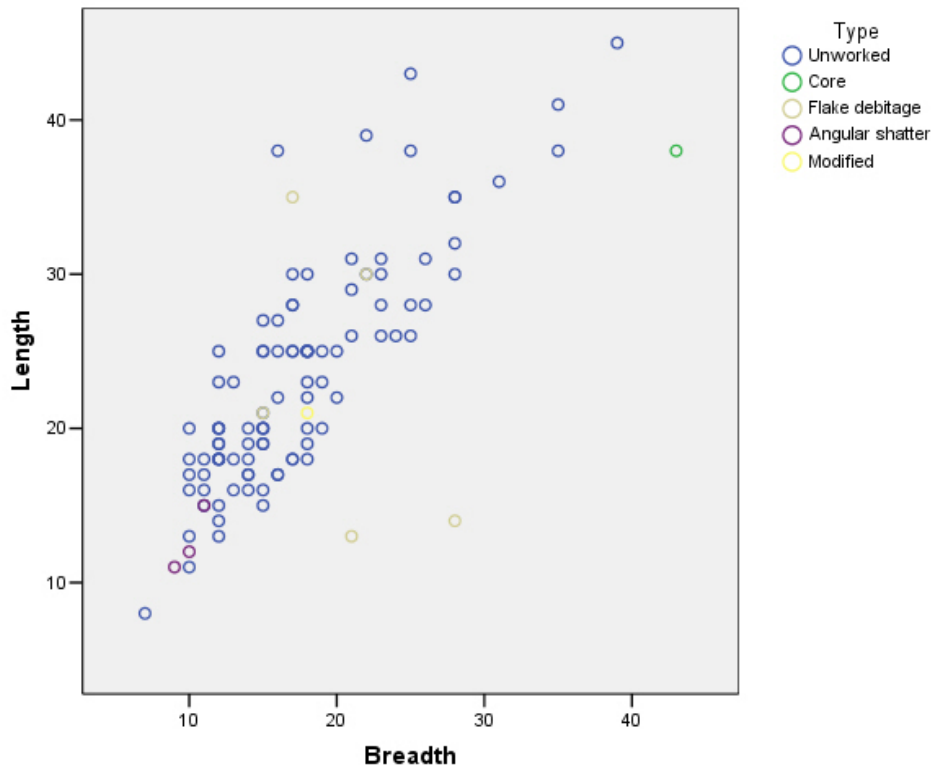


Fig 2: Dundalk Western Bypass: Newtownbalregan 1.2 (02E1836): showing Length (mm) by Breadth (mm) of complete artefacts.

The single core was a small bipolar example, formed on a beach pebble (02E1836:1:5), measuring just 38mm in maximum length; it was recovered from topsoil (C1). The limited flake debitage assemblage is mainly comprised of platform debitage (5 pieces) but also includes a bipolar flake (1 piece). The platform debitage includes complete flakes (3 pieces), of which two are core trimming flakes, related to the process of core preparation, and a complete blade (1 piece); the proximal fragment of a blade was also found. One of the core trimming flakes and the bipolar flake were found in topsoil, with the remainder being found in fills of pit (C24). No refit groups were discerned within the flake debitage assemblage, and the debitage found in (C24) appeared to be unrelated. Complete flake debitage ranged in length from 12-35mm, with the platform blade being the longest, and the core trimming flakes being the shortest. It has been suggested that the flint artefacts from (C24) may point to a Mesolithic or Neolithic date for this feature (Bayley 2004c), however, none of these artefacts are sufficiently diagnostic to refine this proposition, and while a date during the Mesolithic perhaps appears less likely, the assemblage may have been produced during the Neolithic period.

Context No	Description	Unworked	Core	Flake Debitage	Angular shatter	Modified	TOTAL
17	Group 2: Subgroup 1003: Hut: Spread	12	-	-	-	-	12
26	Group 2: Subgroup 1004: Hut: Fill of pit C24	2	-	1	2	-	5
27	Group 2: Subgroup 1004: Hut: Fill of pit C24	1	-	3	1	-	5
28	Group 2: Subgroup 1004: Hut: Fill of pit C24	6	-	-	-	-	6
25	Group 2: Subgroup 1006: Hut: Fill of recut slot trench C30	1	-	-	-	-	1
22	Group 2: Subgroup 1007: Hut: Spread	1	-	-	-	-	1
1	Group 3: Subgroup 1008: Topsoil	75	1	2	-	1	79
Total		98	1	6	3	1	109

Table 3: Dundalk Western Bypass: Newtonbalregan 1.2 (02E1836): showing distribution and basic composition of the flint assemblage.

(C24) also yielded a small number of pieces of angular shatter (3 pieces), which measured less than 15mm in maximum length, and survived in a fresh condition; all three pieces appeared to derive from the knapping process, but offered no further information regarding their production. A single modified tool was found (02E1836:1:47). This was a small, square fragment of a flake with irregular surface morphology, which exhibited some limited retouch along one edge; it is a possible, but not entirely convincing, example of a gunflint, however, it has been cautiously included as a possible example because the current lack of understanding of gunflint in an Irish context precludes it being clearly disregarded. It was recovered from topsoil, and therefore if Group 2 activity is thought to relate to Mesolithic/Neolithic activity, this artefact is unconnected to this phase of activity. The origins of gunflint are found during the later 16th century, at the earliest, and continue until the 19th century (de Lotbiniere 1984); if this piece is to be identified as such, it is probable that it represents an isolated occasion of discard or loss within the Early Modern period.

### **Discussion (Newtonbalregan 1.2: 02E1836)**

A small assemblage of flint artefacts was recovered during excavations at Newtonbalregan 1.2, and represents very limited evidence for flint reduction and tool production. Only a single core, and small number of flakes and blades, point to the reduction of flint; none of which are clear chronological indicators, although a date during the Neolithic or Bronze Age is possible, based on the inclusion of both platform and bipolar reduction. No modified tools were found within archaeological contexts, with a single, very dubious, example of gunflint being recovered from topsoil. This piece is not thought to relate to the remainder of the assemblage, nor to the *in situ* contexts, which may relate to prehistoric activity.

## **APPENDIX 2.4: MEDIEVAL AND POST-MEDIEVAL POTTERY REPORT**

A NOTE ON THE MEDIEVAL AND POST-MEDIEVAL POTTERY  
FROM THE  
DUNDALK WESTERN BYPASS  
AT NEWTOWNBALREGAN 1:2 (02E1836),

CLARE MCCUTCHEON MA MIAI

**Newtownbalregan 1:2 (02E1836):**

Four sherds of pottery were recovered. Following reassembly this was reduced to three sherds of which one dates to the later 13th or 14th century.

Feature	Fabric	Finds number	Form	Date
1	Medieval local fine ware North Devon gravel free Glazed red earthenware	3+4(B) 2 1	Jug Bowl Bowl	L13th- E14th 17th 18th-19th

**Table 1:** Pottery from Newtownbalregan 1:2: 02E1836