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M1 DUNDALK WESTERN BYPASS

SITE 116: BALREGAN 1 AND 2
CHAINAGE: CH. 22.470 – 22.600
NGR: 302674 / 309977

FINAL REPORT

ON BEHALF OF
LOUTH COUNTY COUNCIL AND THE
NATIONAL ROADS AUTHORITY

LICENSEE: BRIAN Ó DONNCHADHA
LICENCE NUMBER: 03E0157

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11 AUGUST 2010

IAC Irish Archaeological
Consultancy

Non Technical Summary

Irish Archaeological Consultancy Ltd. (IAC Ltd.), funded by Louth County Council and the National Roads Authority, completed an excavation at Site 116 in Balregan townland (Fig. 3, Pls 1–2). The site was located in a triangular tongue of land forming a low knoll (11.68m OD) at the confluence of the Castletown (to the north of the site) and Kilcurry (to the south) Rivers which merge at the eastern, narrow, end of the site (Louth OS sheet 007, river level c. 3m OD). The site is located (National Grid Co-ordinates: 302674 309977) on flattish land generally between 8m OD and 11m OD. The site is at the centre of a wide plain formed by Castletown and Kilcurry Rivers with extensive views in all directions; the two rivers flow out as the Castletown River at the head of Dundalk Bay, 2.5km to the east.

The site, part of which is listed in the Record of Monuments and Places (RMP LH007:001), was highlighted in the Environmental Impact Statement of 1992 and was previously tested by IAC Ltd. in March 2002 (Delaney 2002, Test Excavation Licence 02E0372). The focus of the site (part of a ceremonial enclosure) is only partly located (c. 15%) within the Lands Made Available and, as such, the majority of this site remains *in situ* beyond the limit of the road fence line.

Both Middle Neolithic and Late Neolithic activity were recorded at Balregan 1 are of regional and national importance; in particular the ceremonial enclosure with its associated Grooved Ware assemblage has provided potentially the best context for Late Neolithic monument construction that has yet been identified in Ireland. Balregan is at the centre of a distinctive Neolithic settlement cluster on the fringes of Dundalk Bay while both Early and Middle Iron Age activity suggest that the site remained at least episodically important into later prehistory.

ACKNOWLEDGEMENTS

The archaeological excavation at Site 116, Balregan 1 and 2 Co. 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.

The authors would like to thank Sean Molony, Louth County Council, David McGuill, DWB Resident Engineer, Louth County Council, Niall Roycroft, Project Archaeologist, National Roads Design Office, Navan, Rob Lynch, Dermot Nelis, Paul Higgins and Maeve Tobin, IAC Ltd., for their assistance during the excavation and post-excavation process. Our thanks also to Helen Roche, Eiméar Nelis and Ellen O Carroll for their expert contributions. Our particular gratitude to Shane Delaney, Senior Archaeologist, IAC Ltd., for support and discussion during the report production.

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Dates

- 1/47/112 Wk-18569, Unable to date as the sample was too small
- 1/33/2 Wk-18568, 2278±35 BP, 410–200 cal. BC fill of firepit cutting upper fill of external layer
- 2/304/53 Wk-18563, 2441±38 BP, 760—400 cal. BC
- 2/305/8 Wk-18565, 2172±43 BP, 380–100 cal. BC

Site no.	Context No and type	Sample No	Identification	Weight and cor	Date
Balregan 1 03E1057	C33, fill of fire pit C6	2	Alder (<i>Alnus glutinosa</i>) & hazel (<i>Corylus avellana</i>)	Alder (100g) & hazel (60g)	Wk-18568
Balregan 1 03E1057	C47, layer which sealed earlier activity	112	Hazel (<i>Corylus avellana</i>) twigs	1g	Wk-18569
Balregan 2 03E1057	C304, layer which sealed pit	53	Hazel (<i>Corylus avellana</i>)	110g	Wk-18563
Balregan 2 03E1057	C305, layer which Sealed postholes	8	Alder (<i>Alnus glutinosa</i>) & hazel (<i>Corylus avellana</i>) a and oak (<i>Quercus</i> sp.)	105g. A 5g bag hazel has been bagged for datin	Wk-18565

1 INTRODUCTION

This report describes an excavation carried out in the townland of Balregan (Site 116 Excavation Licence 03E0157) as part of an archaeological mitigation programme associated with the M1 Dundalk Western Bypass (DWB). The site is c. 2km to the northwest of Dundalk, Co. Louth (Figs 1–2). Archaeological fieldwork was directed by Brian Ó Donnchadha of Irish Archaeological Consultancy Ltd. (IAC Ltd.) and was funded by Louth County Council and the National Roads Authority. The site has two distinct parts, Balregan 1 which consists of a ceremonial enclosure and pre-enclosure activity and Balregan 2 which is a levelled occupation terrace.

1.1 Site location

The site (116) is located in Balregan townland (Fig. 3, Pls 1–2) in a triangular tongue of land forming a low knoll (11.68m OD) at the confluence of the Castletown (to the north of the site) and Kilcurry (to the south) Rivers which merge at the eastern, narrow, end of the site (Louth OS sheet 007, river level c. 3m OD). To the west the land slopes down to 10m OD and to the east it slopes down to 3.5m OD. Balregan 1, at the western side of the site, is at 10m OD while Balregan 2 is at 7.6m OD. The two rivers have cut sharp channels through to the north and south of the knoll. The site is located (National Grid Co-ordinates: 302674 309977) on flattish land generally between 8m OD and 11m OD. The site is at the centre of a wide plain formed by Castletown and Kilcurry Rivers with extensive views in all directions; the two rivers flow out as the Castletown River at the head of Dundalk Bay, 2.5km to the east.

The site, part of which is listed in the Record of Monuments and Places (RMP LH007:001), was highlighted in the Environmental Impact Statement of 1992 and was previously tested by IAC Ltd. in March 2002 (Delaney 2002, Test Excavation Licence 02E0372). The focus of the site (part of a ceremonial enclosure) is only partly located (c. 15%) within the Lands Made Available and, as such, the majority of this site remains *in situ* beyond the limit of the road fence line.

1.2 The scope of the project

The excavations were undertaken to offset the adverse impact of road construction on known and potential subsoil archaeological remains in advance of Louth County Council's proposed construction of the 'Dundalk Western Bypass – Northern Link' motorway with associated ancillary roads and other structures. In this context a large triangular area at Balregan (150m wide at the western side by 150m in length) was opened incorporating the entire undisturbed area of the confluence zone within the roadtake. An area of disturbed and reclaimed land (previously tested, Delaney 2002) to the east of the stripped area was used to mound topsoil. The site thus encompassed approximately 1.5ha. Initial topsoil stripping commenced on 27 January 2003 and excavation concentrated on the ceremonial enclosure (Balregan 1) from 17 February to 16 May and on Balregan 2 from 19 May to 6 June 2003.

1.3 The local site context

The site at Balregan lies partly within an archaeological complex identified by the Record of Monuments and Places (LH007:001). Within this complex Wright (1758) illustrated a complex including two cairns, three standing stones, a stone alignment, two or possibly three stone circles and a tower house (see Fig. 9). The only archaeological feature still visible above ground today is the ruined tower house. It appears the main period of site clearance was after 1758, and before the OS 1st Edition survey of 1835, where the area is unreferenced. The ceremonial enclosure (Balregan 1) is located to the east of the position where Wright (1758, 7, pl. 1)

sketches 'Site B'. The drawing shows a stone circle (a ring of 13 stones with hints of a second ring) but the features are described as a 'Burying place or sort of family sepulchre'. It is therefore probable that 'Site B' was a kerbed cairn (Buckley and Sweetman 1991, site nos 111–112, 176, 182, 212–13).

1.4 Methodology

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 National Roads Authority Project Archaeologist and *Dúchas* -The Heritage Service/Department of Environment, Heritage and Local Government (DoEHLG). All contexts are described in Appendix C.

1.5 The natural context

The site is covered by natural drift geology disturbed in places by subsequent agricultural practices (ploughing) that have mixed many finds (some modern) into its upper surface levels in the area surrounding the ceremonial enclosure. This glacial till [2]¹ was changeable across the site but predominantly a silty yellowy/brown with many sharp edged greywacke stones and occasional very silty banding possibly representing on-site soil erosion. The easternmost part of the site had been disturbed and was filled with ground raising dumps pushing the river confluence further to the east (Pl. 2). As this land was reclaimed recently and had been tested by trial trenching (Delaney 2002) it was not investigated during the course of this excavation.

1.6 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 northeast 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 period in Ireland c. 10000 years ago.

At the time of the earliest habitation in Ireland, the Early Mesolithic period: (c.7000BC), the sea would have 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.2400BC), replacing the submerged area with salt marshes and tidal flats. At various stages from the 17th century onwards, these areas were improved by reclamation projects.

The proposed 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

¹ Throughout this report context numbers are shown in square brackets and in bold thus: [67]; artefacts are referenced with the context number in bold followed by the find number thus: 67:27.

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 situation. Given this pattern of buried remains, it is entirely likely that the topsoil stripping associated with the proposed scheme will uncover new sites that previous ploughing activity has helped to remove from view. An aerial survey was carried out with the objective of discovering such sites and features before the main construction phase commenced, and this identified five of the sites in the EIS.

1.6.1 Prehistoric Period (7000BC–AD400)

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 (3000–2500BC).

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). 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 northeast of the site at Carn More 1 (with the nearest example located at Faughart Lower (LH004-062), c. 0.2 km to the northeast) and scattered throughout the Cooley peninsula. Archaeological discoveries elsewhere on the DWB scheme revealed Late Bronze Age/Early Neolithic settlement activity at Site 115, Newtownbalregan 5 (Bayley, D. (c)), located c. 3km southwest of Site 124 and the truncated remains of a Late Neolithic/Early Bronze Age House identified at Site 101, Littlemill 1 (Ó Donnachada, B. (d)), located c. 5.7km to the southwest of the site. A collection of pits dating to the Late Neolithic/Early Bronze Age were identified at Site 103, Littlemill 4 & 5 (Ó Donnachada, B. (c)), c. 5.4km south of Site 124 (Carn

More 1). A Middle Neolithic to Late Neolithic/Early Bronze Age Beaker settlement was also identified at Site 108, Donaghmore 1 (Ó Donnachada, B. (e)) which was located c. 4.3km south of Site 124.

From the relatively scant prehistoric archaeological evidence, there are indications that the area was not densely settled until the beginning of the Bronze Age (2400 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.

Bronze Age discoveries along the DWB consisted of an early Bronze Age Beaker (2500–2200BC) settlement at Site 112, Newtownbalregan 2 (Bayley, D. (e)), located c. 3.2km southwest 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. (g)), located c. 3km northeast of Site 124. 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. (c)) and at Site 128, Faughart 1, 2 & 3 (Delaney, S. (a)).

There is a marked lack of known Iron Age (500BC–AD400) activity within the surrounding area. The ring barrow identified at Site 131, Donaghmore 7 (Ó Donnachada, B. (g)) has been dated to the Iron Age. 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. The dates returned confirmed that the ring barrow belongs to the Iron Age period, specifically the mid-Iron Age based on Cal 170BC–130BC. A late Iron Age date was returned from a dumb bell shaped cereal drying kiln at Balriggeran and from the drip gully of a round house at the Fort Hill site.

1.6.2 Early Medieval Period (AD400–1169)

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. (d)) consisted 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. 400AD–c. 1100 AD). 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 families. At Site 124, Carn More 1, 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 were artificial underground structures, usually built of dry stone walling and comprised 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 may 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 7th 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 12th century.

The fulacht fiadh identified at Site 102, Littlemill 2 (Ó Donnachada, B. (f)) was Carbon 14 dated to Cal 890AD–1250AD (968 ± 85BP). Site 102, Littlemill 2 was roughly circular in shape and it has been suggested that these sites which were identified as early medieval and medieval in dating, tend to be circular to oval in shape with no evidence for pit lining. The example at Littlemill 2, however was lined with wooden planks.

1.6.3 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 15th 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 13th 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 siting on the major routeway linking Dublin with Ulster. It is probable that another factor influencing the move of the de Verdons 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 12th 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 13th century surviving property deeds make the distinction between the late 12th 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.

1.6.4 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 Donnachada, B. (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 19th century.

2 BALREGAN 1

This is on the westernmost part of the site near the knoll summit. Two principal phases of prehistoric activity were identified. Only a small area encompassing part of the Phase 2 ceremonial enclosure formed part of the Lands Made Available and most of the site on the western side survives *in situ* beyond the limit of the roadtake.

2.1 Balregan 1 Phase 1

No.	Area		Description and dimensions (L. W D) m	Fill	Fill description
162	10W/30N	Stakehole	Oval 0.15 x 0.13 x 0.11	181	Fine loose sand with large charcoal inclusions
163	10W/30N	Stakehole	Oval 0.12 x 0.15 x 0.11	182	Brown sandy earth with high charcoal content
164	10W/30N	Firepit	Part: 1.10 x 0.46 x 0.30	165	Dark brown silty sand with charcoal inclusions
166	10W/30N	Stakehole	Circular 0.08 x 0.08 x 0.09	167	Fine sand with charcoal inclusions
168	10W/30N	Stakehole	Circular 0.06 x 0.06 x 0.06	169	Fine sand with charcoal inclusions
170	10W/30N	Stakehole	Circular 0.06 x 0.06 x 0.06	171	Fine sand with charcoal inclusions
172	10W/30N	Stakehole	Circular 0.11 x 0.11 x 0.16	173	Black coarse sand with high charcoal content
177	10W/30N	Pit	Oval 0.27 x 0.18 x 0.12	176	Dark brown silty clay
183	10W/30N	Stakehole	Circular 0.09 x 0.09 x 0.11	184	Coarse sandy fill with small charcoal content
185	10W/30N	Stakehole	Oval 0.11 x 0.07 x 0.13	186	Coarse sand with charcoal inclusions
187	10W/30N	Stakehole	Oval 0.11 x 0.08 x 0.12	188	Coarse sand with charcoal inclusions
189	10W/30N	Stakehole	Circular 0.05 x 0.05 x 0.07	190	Fine sand with charcoal inclusions
191	10W/30N	Stakehole	Circular 0.07 x 0.07 x 0.09	192	Fine sand with charcoal inclusions
194	10W/30N	Stakehole	Circular 0.37 x 0.37 x 0.13	193	Fine sand with charcoal inclusions
196	10W/30N	Stakehole	CONTEXT SHEET MISSING	195	Charcoal flecked mid-brown fill
198	10W/30N	Stakehole	Oval 0.10 x 0.09 x 0.20	197	Dark brown stony fill with charcoal inclusions
200	10W/30N	Pit	Oval 0.25 x 0.21	201	-
202	10W/30N	Pit	Oval 0.38 x 0.22	202	-
175	10W/30N	Pit	Oblong 1.70 x 0.95 x 0.55	174	Dark brown sandy silt, 40% content large river rolled stones
179	0E/30N	Pit	Oval 2.28 x 1.20 x 0.65	178	Dark brown sandy silt, 60% content of large stones
147	0E/30N	Pit	Circular 1.16 x 1.16 x 0.58 cut by [66]	142	Upper: light yellow/brown sandy clay with charcoal + stone
				157	Lower: orange/brown sandy clay with stone / charcoal inclusions
037	0E/20N	Spread	Layer under stone setting [4] 3.6 E-W x 3.3		Charcoal rich dark brown/grey silty sand
047	0E/20N	Spread	Layer under stones [4]		Mid brown friable sandy clay some small and medium stones
132	0E/30N	Spread	Charcoal rich spread 1.5 N-S X 1.4		Dark brown charcoal-rich silty sand
133	10W/30N	Spread	Charcoal rich spread 6.6 N-S x 4.8+		Dark brown charcoal-rich silty sand
139	0E/30N	Spread	Charcoal rich spread 1.6 N-S x 0.60		Dark brown charcoal rich silty sand
141	0E/30N	Spread	Charcoal rich spread 0.20 x 0.18		Dark brown/black charcoal-rich silty sand
143	0E/30N	Pit	Oval conical 0.99 x 0.92 x 0.25	140	Mid/dark brown friable clay with 10% charcoal inclusion
144	0E/20N	Spread	Layer under [37]		Compact orange/brown charcoal-rich clay
150	0E/30N	Spread	Patch of burnt clay 1.2 x 1		Mid to dark orangey/red silty clay
151	0E/30N	Spread	Charcoal rich spread 1.9 x 1.8		Grey/brown compact charcoal-rich spread

Table 1 Balregan 1, Phase 1 features

The activity of Phase 1 is represented by a series of features preserved, principally, beneath the bank [04] of the Phase 2 ceremonial enclosure (Fig. 4: see also Inset A; Pl. 3; Table 1). These include five pits [175, 177, 143, 200, 202], 14 stakeholes [162–63, 166, 168, 170, 172, 177, 183, 185, 187, 189, 191, 194, 196, 198], and a firepit [164]; these were partly sealed by a discontinuous layer represented by charcoal-rich spreads [37, 47, 132–33, 139, 141, 144, 150–51] (Table 1). Charcoal from [47] was identified as small hazel (*Corylus avellana*) twigs (Appendix D) unfortunately it was too small to be successfully dated.

Layer [144] consists of hard, compact, orange to grey-brown clay with frequent patches and flecks of charcoal. This underlay deposit [37], an area of burnt material located at the south end of the spreads. Layer [144] may have been affected by [37] and may represent an area of buried sod. Spread [47] occurs immediately north of [37] but contained no burnt material. Further smaller and thinner burnt spreads [132, 139, 141, 150 and 151] occur close to each other in the northern area. The largest spread [133] occurs to the north of the others and extends beyond the site to the west. Pottery came from spreads [47, 132, 133, 139] and [133] also contained some worked flint (see section 2.3).

Only part of the firepit [164] extended onto the site; the remainder occurred beyond the roadtake to the northwest. This feature contained a high proportion of charcoal. The two large oblong pits [175 and 179] contained large stones. Otherwise their fills and those of the other pits and stakeholes were similar to the material in the spreads and it is probable that these filled naturally with the overlying material after the stakes had rotten, apparently *in situ*. The stakeholes were slight features averaging less than 0.09m in diameter and ranging in depth from 0.06–0.16m: these presented no discernible pattern but were concentrated in the northern area around pits [164, 175 and 177] and were covered by spread [133].

Some of the Phase 1 features were disturbed during the preparation of the site for the construction of the Phase 2 ceremonial enclosure which appears to have included the stripping of sod over the entire area. The two enclosure ditches [65 and 66] also cut through the phase 1 activity and pottery from Phase 1 occurred in the ditch fills. Apart from pit [147] (see section 2.5), on the northeast side of the enclosure and cut by the outer ditch [66], the remaining features only occurred beneath the enclosure bank and it is possible that other features associated with this phase further to the east may since have been removed: phase 1 pottery occurred in the topsoil [01]. It is also apparent that this activity extended beyond the roadtake and may cover a much more extensive area possibly focussed on the summit of the knoll to the west of the site.

2.2 The Phase 1 artefactual assemblage (Tables 2–3 and 6)

A substantial assemblage of pottery and lithics came from Phase 1 while there is also material disturbed from these contexts in Phase 2 at Balregan 1 and on other parts of the site. The ceramic evidence, in particular, shows that this phase is dated to the Middle Neolithic (c. 3600–3300 BC).

Context		Broad-rimmed	Globular	Bipartite Closed	Bipartite upright	Grooved Ware
047	Phase 1 spread	172/204/101		5/0/0	58/27/0	
037	Phase 1 spread	15/15/0		2/0/0		
139	Phase 1 spread			2/4/30		
144	Phase 1 spread				3/0/0	
132	Phase 1 spread	3/15/0				
133	Phase 1 spread				4/3/0	
140	Phase 1 pit [143] fill				0/1/0	
180	Phase 1 spread?				3/23/11	
049	Phase 2 scoop [48] fill	47/98/13	1/0/0		2/0/0	122/96/12
045	Phase 2 ditch [65] fill			3/0/0		
052	Phase 2 ditch [65] fill				4/10/10	
062	Phase 2 pit [71] fill					14/5/0
067	Phase 2 ditch [66] fill					98/44/50
091	Phase 2 ditch [65] fill				1/0/0	
110	Phase 2 ditch [66] fill	1/0/0				
001	Topsoil	3/0/0				0/25/0
002	Subsoil level					2/2/0

Table 2 Balregan 1 pottery distribution by context and type (sherds/fragments/crums).

Pottery type	Contexts	Vessels	Sherds	Rim	N/S	Body	Frgs	Crumb
Broad rimmed	1, 37, 45, 47, 49, 52, 110, 132, 180	1–6, 10–14, 16–20, 25	172	37	2	133	204	101
Bipartite shouldered	47, 49, 133, 140, 144, 180	7, 8, +	5	0	1	4	0	0
Bipartite bowls	37, 45, 47, 139	9, 21–24	42	8	3	31	27	0
Globular bowls	47, 49	15, 26, +	14	3	0	11	5	0
Middle Neolithic other	Various		30	1	1	28	8	30
Middle Neolithic total		26 +	263	49	7	207	244	131

Table 3 The Middle Neolithic pottery from Balregan 1

The pottery assemblage

A total of 262 sherds (plus 244 fragments and 131 crumbs) representing at least 25 Middle Neolithic vessels were derived from Phase 1 (Table 2). Most of this came from spreads [47] (238 sherds) and [37] (17) but there were small quantities from spreads [133, 139, 144] and the fill [140] of pit [143]. There were other disturbed sherds from the fills of the inner [45, 52, 91] and outer [67, 110] enclosure ditches, and the overlying topsoil layers [01, 02].

This is a very important ceramic assemblage described in detail in Appendix A (Table 3). The Impressed Ware (Eogan and Roche 1997, 97–98; Gibson 2002, 78–82) pottery is dominated by Broad Rimmed Bowls (17 vessels) but there are three bipartite shouldered bowls, five bipartite bowls and at least two globular bowls (Table 3). Amongst the Broad Rimmed pots (Case 1961: ‘Dundrum bowls’; Herity 1982: ‘Broad-Rimmed Vessels’) is a group of 11 vessels (Nos 1–6, 10–12 and 16–17) exceptional for the homogeneity of size, production, decoration and firing. These are all over 40cm in rim diameter and would have weighed 6.4–8kg making them some of the largest pots discovered from the Irish Neolithic. It is possible that these were used, and possibly displayed, together suggesting high status feasting or communal

activity, possibly in a ritual or ceremonial context (see Appendix A). There is a wide range of parallels for this pottery with a very particular concentration in north Leinster and southeast Ulster (Appendix A, Fig. 4).

The bipartite shouldered bowls (Case 1961: 'Ballyalton bowls'; Herity 1982: 'Necked Vessels; Sheridan 1995: 'decorated bipartite bowls') can be closely compared to those from Linkardstown tombs (Brindley and Lanting: 'Drimnagh Style bowls'). The bipartite bowls are a development from Early Neolithic carinated bowls and are of slightly finer fabric than the other Impressed Ware vessels at Balregan. The distribution of bipartite bowls (Case 1961: 'Sandhills Ware: Goodland bowls'; Herity 1982: 'Globular bowls') is concentrated in east Ulster, particularly in Antrim, Derry and Tyrone but there are many examples from the area immediately to the north of Balregan in Armagh and Down (Appendix A, Fig. 4).

The dating for the Balregan Impressed Ware is based principally on associations at other sites and a very small number of well-dated assemblages. Of the vessels present at Balregan the bipartite shouldered bowls are amongst the earliest and the 'Drimnagh bowls' are firmly dated to c. 3525–3350 BC (Brindley and Lanting 1989/90). This date range would comfortably encompass the Broad Rimmed Bowls although the globular bowls were probably only emerging towards the end of this period. Broadly contemporary assemblages from the region include Murlough ('Dundrum Sandhills'², see Herity 1982), Co. Down, Knowth, Co. Meath (Eogan and Roche 1997), Townleyhall 2, Co. Louth (Eogan 1963), and Dalkey Island, Co. Dublin (Liversage 1968).

The lithic assemblage

The material from Balregan is detailed in Appendix B. The lithic assemblage consisted of 65 pieces of chipped stone (Appendix B, table 4) of which the majority came from spreads [37] (22 pieces) and [47] (31). Most are flint debitage (39 examples) but there was also some unworked material (seven), four cores, four pieces with angular shatter and seven modified tools. Amongst the tools there were two hollow scrapers (37:31, 47:381) which Nelis (Appendix B, 151, Fig. 2; see also Nelis 2004) identifies as a Middle Neolithic type; three hollow scrapers from other contexts (02:36, 68:1, 49:344) were probably disturbed from Phase 1 features. Little of the other material from Phase 1 was diagnostic although there is a butt-trimmed flake (47:485) that might be a residual Late Mesolithic artefact.

Animal bone

A small quantity of unidentifiable burnt animal bone came from spreads [37], [47] and [141] (total weight: 4.6g; Lofqvist Appendix E).

2.3 Phase 2: the ceremonial enclosure

No.	Area (E/N)		Description and dimensions (L. W, D m)	Fill No.	Fill description (dimensions in m)
04	0/0-0/40	Stone bank	Arc 32 x 5-6 x 0.30		Compact band of large stones
65		Ditch	Inner ditch	52	Light brown, loose sandy silt, some small angular + sub-angular stones 0.05–0.12 deep
	†		Possible ash dump	85	Dark black brown, moderately compact charcoal-rich crumbly silt, some burnt wood, some small-medium sub-angular to round stones
	†			92	Mid brown sandy silt with moderate quantity of

² The townlands of Murlough Upper and Lower, in the Newcastle area of county Down along Dundrum Bay, have generally been referred to as 'Dundrum Sandhills'; these can easily be confused with 'Murlough Bay' (probably Bighouse townland) on the north Antrim coast.

					small stones
	†		Natural silting	96	Mid yellow brown silty sand, frequent small-medium round + fragmented stones
	†		Natural silting	97	Light grey brown, compact silty clay, some charcoal flecks, some small-medium sub-round pebbles
				45	Dark brown, compact silty sand, frequent charcoal flecks, some small sub-angular stones
				90	Light orange brown, mod loose sandy silt, some small + occasional larger stones
			Probably deliberate backfill?	91	Orange brown friable silty sand, medium-large stones
			Natural silting	94	Light brown, loose silty sand, some round +sub-angular stones
			Fill	95	Light brown grey, soft silty sand, some pebbles
			Natural silting	98	Dark brown firm silty clay, rare small + some larger angular stones
			Possible natural silting	99	Orange brown silty sand, very freq small-med stones
			Fill	100	Beige brown soft silt, mod large stones
66	10W/40			116	Grey/brown medium sand, some stones
			Deliberate backfill	108	Bright orange grey sandy silt, frequent small-medium stones
			Deliberate backfill	109	Orange grey, sandy silt, frequent small sub-angular + pebbles
				114	Yellow/brown redeposited natural
				115	Mid brown silty sand, some stones
			ash dump	107	Grey-brown, loose charcoal-rich sandy silt, some small sub-round +sub-angular stones
			Deliberate backfill	110	Grey brown, compact sandy silt, some small angular + large sub-angular stones
		Ditch	External ditch 49 x 3.50 x 1.10	68	Light brown, compact sandy silt, some small + rare larger angular stones. bone (cattle and sheep/goat)
			Deliberate backfill?	67	Dark brown, loose sandy silt, some charcoal, burnt bone (dog, horse), rare small angular stones+ very rare larger stones
71		Pit	Part of Ditch 66? 3.55 x 2.90 x 0.71		Irregular plan, flat base with vertical to concave sides
			Upper fill	62	CONTEXT SHEET MISSING
			Fill	64	Mid brown, loose stony silt, frequent charcoal, some burnt bone, large angular to sub-angular
			Possible hearth debris	72	Dark brown, loose silt, frequent charcoal + burnt bone
			Natural silting	73	Light yellow brown fill
			Deliberate backfill	74	Mid orange brown, loose sandy silt, some charcoal + burnt bone
			Natural silting	93	Mid brown sandy silt

Table 4 Balregan 1: contexts associated with the Phase 2 ceremonial enclosure.

C	Find No.	Material	Period	Pottery form	Artefact type	Comments
037	03E0157:37:1-3	Flint	PH			Struck
037	03E0157:37:4-10	Pottery	PH			
037	03E0157:37:11-13	Flint	PH			Struck+burnt
037	03E0157:37:14-15	Pottery	PH			
037	03E0157:37:16-17	Flint	PH			Struck
037	03E0157:37:18-22	Quartz	PH		Worked	
037	03E0157:37:23	Pottery	PH	Rim	Decorated	
037	03E0157:37:24-30	Flint	PH		Flakes and debitage	
037	03E0157:37:31	Flint	PH		Hollow scraper	
037	03E0157:37:32	Flint	PH		Blade	
037	03E0157:37:33-35	Flint	PH		Debitage	

C	Find No.	Material	Period	Pottery form	Artefact type	Comments
037	03E0157:37:36–38	Pottery	PH			
037	03E0157:37:39–40	Flint	PH			Burnt
047	03E0157:47:1	Flint	PH		Side scraper	
047	03E0157:47:2–49	Pottery	PH			
047	03E0157:47:50–52	Flint	PH		Struck	
047	03E0157:47:53–54	Pottery	PH			
047	03E0157:47:55	Flint	PH		Struck	
047	03E0157:47:56–380	Pottery	PH			
047	03E0157:47:381	Flint	PH		Double concave side scraper	
047	03E0157:47:382	Flint	PH		Flake	
047	03E0157:47:383–387	Pottery	PH			
047	03E0157:47:388–390	Flint	PH			
047	03E0157:47:391–430	Pottery	PH			
047	03E0157:47:431	Flint	PH		Debitage	
047	03E0157:47:432–456	Pottery	PH			
047	03E0157:47:457–459	Flint	PH		Flake	
047	03E0157:47:460–479	Pottery	PH		Fragments	
047	03E0157:47:480–486	Flint	PH			Struck
047	03E0157:47:487	Pottery	PH			
047	03E0157:47:488–563	Pottery	PH			
132	03E0157:132:1	Pottery	PH			
132	03E0157:132:2–20	Flint	PH			Struck
133	03E0157:133:1–3	Flint	PH			Struck
133	03E0157:133:4–10	Pottery	PH			
133	03E0157:133:11	Flint	PH		Blade	
133	03E0157:133:12	Flint	PH		Debitage	
139	03E0157:139:1–7	Pottery	PH			
139	03E0157:139:8	Flint	PH		Debitage	
139	03E0157:139:9–101	Pottery	PH		Fragments	
140	03E0157:140:1	Flint	PH		Debitage	
140	03E0157:140:2	Pottery	PH			
144	03E0157:144:1	Quartz	PH			Prob struck
144	03E0157:144:2–4	Pottery	PH			
151	03E0157:151:1	Chert	PH		Non archaeological	
151	03E0157:151:2	Chert	PH		Flake	w/poss retouch
151	03E0157:151:3	Flint	PH			Struck

Table 5 Balregan 1: finds from Phase 1 and 2

During the Late Neolithic an apparently circular enclosure defined by two ditches [65, 66] and an intervening bank [04] was constructed on the western side of the site. Only a small part of the eastern circumference of this enclosure was available for excavation but it appears to have been c. 57–60m in maximum external diameter and encompassed the highest part of the natural knoll.

2.3.1 The bank foundation [04]

A compact stone bank [04] consisting of river rolled stones appears to form the foundation construction for the enclosure bank (Fig. 4). This rested directly on the exposed surface of the Phase 1 charcoal-rich spreads: this suggests that part of the preparation for the construction of the enclosure may have included stripping a sod layer from the site area. It was constructed prior to the excavation of the flanking ditches [65 and 66]. The stones were probably sourced in the Castletown and Kilcurry rivers located immediately to the north and south of the site. The stones averaged c. 0.20 by 0.20 by 0.10m but included some larger material up to 0.40 by 0.30 by 0.25m as well as occasional earthfast boulders (PIs 4–7). The setting 5–6m

wide and 0.30m in average depth and had an exposed length of 32m. This defines an arc to a circle c. 74m across externally and c. 60m internally. There is a possible terminal on the southern side that may indicate the location of an entrance. There is no other surviving evidence for the earth, or earth and sod, bank that was probably erected on top of bank [04] and derived from the flanking ditches. The bank foundations produced no artefactual evidence.

2.3.2 The inner ditch [65]

An arc c. 32m in length was excavated: this formed the inner eastern extent of the ceremonial enclosure and continued, to the north and south, beyond the roadtake to the west (Pls 8–11). The ditch [65] has a U-shaped profile (2m–4.20m wide by 1m–1.40m deep) and occurs on the inner edge of the stone bank [04]; the gap between these features is c. 0.30m (Figs 5–7). The ditch appears to describe part of a circle that is externally c. 44m–48m in diameter and c. 40m in internal diameter. It seems to have functioned as a quarry for the bank that overlay the stone foundation and was allowed to stay open and fill naturally.

The basal ditch fills [52, 92, 96–97] consist of silty clay material with small to moderate quantities of small stones (Table 4). One of these layers [52] was 0.05–0.12m deep and contained a small quantity of Middle Neolithic pottery disturbed from Phase 1 as well as some flint (Table 2; Appendices 1 and 2). Above this was layer of intensely burnt material [85] including twigs and small branches that occurred along the inner edge of the ditch. This was discontinuous and patchy but in some areas it reached a maximum thickness of 0.34m. This layer represents material dumped into the ditch rather than *in situ* burning and it is probable that this was derived from activity within the ceremonial enclosure. If this is the case then it is evident that the ditch was allowed to gradually silt up during the lifetime of the monument. The middle and upper fills of the ditch [45, 90–91, 94–95, 98–100] appear to represent natural slumping and gradual silting of the ditch. This may have occurred during the use period of the enclosure.

2.3.3 The outer ditch [66]

An arc c. 44m in length was excavated: this formed the outer eastern extent of the ceremonial enclosure and continued, at the northern end, beyond the edge of the roadtake to the west (Fig. 4, Pls 12–15). It was excavated after the stone bank foundations [04] had been constructed. The ditch [66] has a U- to V-shaped profile (1.70–3.50m wide by 1.40m deep; Figs 5 and 7) and occurs on the outer edge of the stone bank [04]; towards the southern end the bank occurs along the inner ditch lip but to the north the gap between these features is up to 1.40m. The ditch describes part of a circle that is externally c. 82m in diameter and c. 75m in internal diameter. It seems to have functioned as a quarry for the bank that overlay the stone foundation.

The ditch sides appeared to be un-weathered suggesting that it was allowed to silt up and fill naturally from an early stage. The main lower fill [116] occurs through most of the ditch but in the central and southern areas there is a more complex early history suggested by layers [109, 108] that indicate rapid slip or slumping from the inner side (Fig. 4, NE and SW faces Trench 10). Overlying these is a layer of charcoal-rich material [107] that may represent a deliberate dump of material, possibly derived from enclosure-associated activity, rather than a natural accumulation (Fig. 5, NE and SW faces Trench 10, main section at north). The profiles of most of these primary fills (Fig. 7, Table 4) suggest weathering, silting and perhaps slump from both sides: this indicates the possibility that there was also an external bank (see Fig. 7, sections 7–8). Throughout most of the ditch the upper fill consists of a homogenous layer of compact sandy silt. However, towards the northern end this is overlain by, and further north replaced by, fills [68 and 67]. Layer [67] contained charcoal and

some burnt bone (not identified) as well as a large quantity of Late Neolithic pottery (Tables 2 and 3; Appendix A).

2.3.4 The entrance

The entrance consists of a well-defined 8m wide gap in the inner ditch on the southeast side of the site. On the northern side is a slightly expanded terminus which corresponds to a similar feature in the outer ditch (see below; Fig. 6: section 5A–5B). Beyond this the ditch continues as a broad shallow gully that survives to a maximum depth of 0.20m (Fig. 6: sections 3A–3B, 4A–4B, 5A–5B; Fig. 7: section 6A–6B). The southern side of the entrance is marked by an oval, stone edged, pit ([24], Table 6) that occurred in the upper fill of the ditch [65]; although the purpose of the pit is uncertain it appears to be located to enhance and emphasise the entrance. Although this may have supported a standing stone such as those illustrated by Wright (1758, 7, pl. 1; Fig. 9) associated with a group of monuments to the west of the site he does not indicate any features in this area (see sections 2.4.3, 2.7).

A corresponding gap occurs in the outer ditch; the northern side of the entrance is represented by an expanded terminus to the ditch. This coincided with the southern extremity of the stone bank [04]. The arrangement of the entrance here is different to that across the inner ditch. Beyond a c. 1.90m gap there is a large irregular pit [71]: the lower fills are similar to those in the ditch while the uppermost [62] contained sherds from a single Grooved Ware vessel (No. 31, Appendix A) as did the upper fill [67] of the outer ditch (No. 30, Appendix A). This indicates that pit [71] is contemporary with the ditch but it is not clear if this is the other side of a narrower entrance in the outer ditch or a screening or blocking feature within it. The difficulty of assessing the entrance in this area is compounded by the excavation limits and the ditch does not continue within the exposed area. A stone-edged pit [390] occurred in the northeastern base of [71] (Fig. 5, Pl. 16): this represents a similar enhancing feature to [24] in the inner ditch.

2.3.5 Finds from the ceremonial enclosure

Fills [45, 52 and 91] of the inner ditch [65], and fill [110] of the outer [66] produced small quantities of Middle Neolithic pottery disturbed from Phase 1 (Tables 2–3; Appendix A). Grooved Ware pottery apparently contemporary with the ceremonial enclosure came from fills [67] (vessels 29/30; 98 sherds) and [62] (vessel 30; 14 sherds) of ditch [66] and the pit [71] respectively. Further pottery, probably disturbed from fill [67] came from the fill [49] of a large shallow scoop [48] that cut the ditch (section 2.5 below); all of the Grooved Ware from Balregan 1 is discussed here.

The site produced 236 sherds of Grooved Ware (plus 157 fragments and 67 crumbs) representing at least five vessels (Nos 27–31; Appendix A). These are flat-bottomed, bucket-shaped pots of fine, well-fired, buff-brown to red-brown fabric with flat to slightly rounded unexpanded rims, very gently curved body profiles and flat unfooted bases. Two vessels (Nos 27 and 29) have decoration in the form of a slightly irregular shallow channel on the inner surface immediately beneath the rim. The pottery can be closely paralleled in the Knowth and Newgrange, Co. Meath, assemblages (Eogan and Roche 1997, 101–222, figs 20–48; Cleary 1983; Sweetman 1985), as well as at Ballygalley, Co. Antrim (Moore 1996; Roche 1997), and at Ballynahatty and the ‘Dundrum Sandhills’, Co. Down³ (Hartwell 1998; Collins 1952; 1959)(Roche 1995: ‘Knowth Style 1’; Brindley 1999: ‘sub style Dundrum-Longstone’). There is clear evidence, in the form of burnt food residue (accretions), on all the vessels that they had been used for cooking. This may have occurred in a

³ The townlands of Murlough Upper and Lower, in the Newcastle area of county Down, along Dundrum Bay

purely domestic context, on the site or at a nearby habitation, but it is also possible that the vessels were used to prepare food as part of ceremonial or ritual activity.

A small assemblage of chipped stone (27 pieces) came from the Phase 2 features (Appendix B, table 4). Most of this is unworked (16) but there are two cores (85.2, 91:1 [quartz]), six pieces of flake debitage and three modified tools including a knife (107:2), a hollow scraper (68:1) disturbed from Phase 1 and a thumbnail scraper (68:2).

A small quantity of burnt animal bone came from fill [68] of the external ditch [66]; this was identified as cattle (*bos Taurus*) and a single burnt skull fragment possibly of sheep/goat (*caprinae*; Lofqvist Appendix E). Fragments identified as dog (*canis*) and horse (*equus*) came from the upper, possibly deliberate, fill [67]. There is also unidentifiable burnt bone from the silt layer [45] in the inner ditch [65]. The horse may have been introduced into Ireland towards the end of the Neolithic and the earliest examples are from the Chalcolithic (Beaker) levels at Newgrange, Co. Meath (McCormick and Murray 2007, 24). On current evidence this provides a *terminus ante quem* for these Balregan deposits in the Chalcolithic period (2450–2200 BC).

2.4 Balregan 1: other possible Phase 2 features

No.	Area		Description and dimensions (L. W, D) m	Fill No.	Fill description (measurements in m)
51	10W/ON	Pit	Oblong, 1.20 NW–SE x 0.92 x 0.25	50	Dark brown sandy silt with frequent charcoal + some stone
87	10W/ON	Pit	Oval 0.83 x 0.59 x 0.25	86	Dark orangey brown sandy silt with frequent charcoal inclusions
				88	Black friable silty sand, no inclusions
130	10W/ON	Pit	Circular 0.42 x 0.40 x 0.16	129	Mid brown silty sand human cremation + some charcoal
149	10W/ON	Pit	Circular 0.61 x 0.45 x 0.28	148	Dark brown sandy silt with stone + some charcoal
48	0E/30N	Cut/hollow	Saucer shaped 6.80 x 3–5 x 100–170	46	Stone setting 6.80 long x 3–5 wide x 0.10–0.17 deep
				49	Mid brown fill between stones [46]
22	0E/40N	Pit/scoop	Irregular shallow 2.20 x 0.97 x 0.08	21	Mid brown sandy silt, frequent charcoal + stone
158	0E/20N	Pit	Circular 0.34 x 0.34 x 0.11	159	Dark grey/brown charcoal-rich fill with some stone

Table 6 Balregan 1: possible contexts associated with the Phase 2 ceremonial enclosure.

A number of features in the vicinity of the enclosure post-date the construction phase but may be associated with its use history (Fig. 4; Table 5). Others have no stratigraphic relationship to the enclosing feature so may belong to this or other phases of activity at Balregan 1.

A large shallow cut [48] occurred on the northeastern edge of the outer enclosure ditch [66] (Fig. 4, Pl. 17). This appears to have cut into the upper ditch fill [67] as well as into a Phase 1 pit [147]. The base of this hollow was covered with a layer of mid brown silt [49] from which 75 pieces of struck flint, 324 pottery sherds (Appendices A and B) and a small amount of burnt animal bone (not identifiable) were recovered. Overlying the basal deposit was a compact layer of river rolled stones [46] possibly forming a formal setting (Pl. 5). The fill [49] of this feature produced a large quantity of both Middle Neolithic pottery, probably ultimately derived from the Phase 1 pit, and Grooved Ware, probably derived in part from the upper fill [67] of the ditch. The fills ([49], [50]) of pits [48] and [51] produced small fragments of unidentifiable burnt bone (total weight: 1.5g; Lofqvist Appendix E).

2.4.1 Cremation pit

Four pits [51], [87], [130] and [149] occur in the interior of the enclosure, within the internal ditch [65] (Fig. 4). Pits [51] and [149] are beside each other and [130] is to the south. A shallow pit [22] was situated at the south end of the enclosure bank [04].

The single fill [129] of pit [130] produced 393.5g of burnt bone (Fig. 4; Lofqvist Appendix E). The bone was well-burnt and represented mainly by small fragments (2–30mm). The bone represents part of an adult and the skull fragments may indicate a young adult female. While some disturbance to the deposit cannot be ruled out this appears to be an intact burial composed of selected bone from a funerary pyre. As Lofqvist (Appendix E, Table 1) indicates the bone is considerably less than the expected cremated material from an adult female (range: 952–2,278g).

Unaccompanied cremations in cists or pits have a lengthy currency and include Early and Middle Neolithic examples at, for example, Altanagh, Co. Tyrone (Williams 1986), and Monknewtown, Co. Meath (Sweetman 1976, 28–36). They are, however, a more characteristic Bronze Age tradition and over 200 examples have been identified from the published literature (Grogan 2004, table 10.5). The process of selecting bone for burial is a feature of the Middle to Late Bronze Age as is the reduction or comminution of bone resulting in the small size of the recovered fragments at Balregan (Grogan 2004; Grogan *et al.* 2007).

2.4.2 Balregan 1: later features cut into the Phase 2 fills (Figs 6–7)

No.	Area		Description and dimensions (L, W, D) m	Fill No.	Fill description (measurements in m)
06	0E/40N	Hearth pit	Oval 1.93 x 1.60 x 0.36	05	Grey/yellow clayey silt
				33	Dark brown/black sticky charcoal rich clayey silt
				34	<i>In situ</i> burning, red/orange natural at base
				43	Pure charcoal layer
79	0E/40N	Hearth pit	Oval 1.10 x 0.86 x 0.18	78	Light orange/brown silty sand with small stones
				104	Charcoal-rich basal fill
				209	Stone hearth setting 0.60 x 0.60 x 0.12
08	0E/40N	Pit	Oval 0.64 x 0.43 x 0.08	07	Mid brown sandy silt with small stones + charcoal
26	10W/40N	Pit	Oblong shallow 0.72 x 0.40 x 0.07	25	Dark brown charcoal rich sandy silt
28	10W/40N	Pit	Circular 0.80 x 0.75 x 0.12	27	Charcoal rich silty sand
36	10E/10N	Posthole	Oval 0.31 x 0.22 x 0.10	35	Dark brown/black charcoal-rich silty clay
30	10W/40N	Pit	Circular 0.80 x 0.75 x 0.12	29	Dark brown silty clay with some charcoal
				44	Charcoal rich fill
10	0E/40N	Pit	Irregular plan 2.72 x 1.30 x 0.20	09	Dark organic sandy silt with stone
20	0E/40N	Pit	Oval 1.20 x 0.62 x 0.11	19	Dark brown silty organic fill with some charcoal + large stones
18	0E/50N	Pit	Oval 0.62 x 0.47 x 0.14	17	Dark brown charcoal-rich silty sand

Table 7 Balregan 1: later features post-dating the Phase 2 ceremonial enclosure.

Seven features had been cut into the upper fill [67] of the outer ditch [66]; most of these contained burnt material or *in situ* burning and appear to be related features belonging to a much later phase of activity. The base of firepit [06] contained a thin layer of silt [05] with, above, a dark layer of charcoal-rich silt [33]. The main fill

consisted of a layer in intense *in situ* burning [34] over which there was a thick layer of charcoal [43]. Charcoal from layer [33] was identified as alder (*Alnus glutinosa*) and hazel (*Corylus avellana*) (Appendix D) and a hazel sample produced a date of 410–200 BC (Wk-18568, 2278±35 BP).

To the south of [06] was possibly stone-edged hearth [79]: the main fill was a charcoal-rich layer [104] (Fig. 4). Overlying this was a circular setting of stones, possibly a deliberate fill or a renewed base for the hearth activity. To the east of [06] was a smaller, shallower pit [08] that may be a refuse pit for burnt material from the more substantial firepits in the vicinity. Two shallow pits [26, 28], a posthole [36] and another firepit [30] were also inserted into the upper ditch fill.

A substantial EW ditch [84] cuts through the Phase 1 and 2 features in the centre of the site (Figs 4 and 5: section 1A–1B, Table 14). This is up to 2.60m wide and 0.60m deep. The ditch extends 75m eastwards and downhill along the peninsula and joins with a similar feature [313] in Balregan 2. The juxtaposition of [313] and a linked feature [320] with an ESB pole indicate that these are modern field drains.

2.4.3 Balregan 1: later features external to the ceremonial enclosure

Pits [10] and [20] occur beyond the external ditch to the north (Fig. 4). A piece of struck flint was found in the fill [09] of pit [20] (Appendix B). Further north was a charcoal rich pit [18]. These may relate to the features cut into the upper fill of the outer enclosure ditch (see above).

2.5 Balregan 1: discussion

Two main phases of activity were identified at Balregan 1. Both are dated by associated ceramic and, to a lesser extent, lithic associations. Phase 1 dates to the Middle Neolithic and Phase 2 to the Late Neolithic. There is slight evidence, in the form of a single necksherd from a carinated bowl (Appendix A), for a presence on site during the Early Neolithic (4000–3600 BC). Subsequent activity, probably including some unstratified features, may date to the Middle Iron Age as indicated by a radiocarbon date of 410–200 BC for a recut in the upper fill of a Phase 2 ditch; further disturbance dating to the early medieval period is also suggested by a radiocarbon date of AD 770–970 (Wk-18569) [47].

2.5.1 Balregan 1. Phase 1: the Middle Neolithic

A group of features, including pits and stakeholes, were sealed by a discontinuous layer represented by charcoal rich spreads and were associated with an extensive assemblage of Middle Neolithic Impressed Ware. These survived only beneath the bank of the Phase 2 enclosure and more extensive activity is indicated by pottery from Phase 2 contexts. As with the ceremonial enclosure the main focus of activity was probably to the west of the excavated area.

The main focus of activity was towards the north of the site where most of the pits and stakeholes were identified. No clear evidence for structures was identified and the specific function of the pits was not discernible. The stakeholes, although clustered, did not reveal any coherent plan although they could represent a flimsy feature such as a windbreak associated with some of the pits.

In the absence of more extensive evidence two possible explanations for the activity can be suggested. The features may represent the eastern edge of a habitation area and the spreads may be the protected remnants of a layer of domestic debris. The pottery assemblage represents at least 26, and possibly more than 30 vessels; the assemblage is dominated by Broad Rimmed vessels of which 17 examples were identified (Appendix A, Figs 2 and 6). In addition there were smaller quantities of

bipartite (five pots) and bipartite shouldered (two or more) bowls and two or more globular bowls. A similar assemblage, although containing a much smaller proportion of Broad Rimmed vessels, came from the extensive domestic site sealed beneath Site 1 (the main mound) of the passage tomb cemetery at Knowth, Co. Meath (Eogan and Roche 1997, 51–100). Other domestic contexts containing this material, although lacking clear evidence for structures, occurred in the region at Site 5 Dalkey Island (Liversage 1968) and Newtown Little (Phelan 2004; Grogan and Roche 200), Co. Dublin, Townleyhall 1 and 2, The Hill of Rath (Liversage 1960; Eogan 1963; Duffy 2002), Co. Louth, and Newgrange, Co. Meath (Cleary 1983).

Although there are a small number of burnt sherds amongst the assemblage there is no evidence for domestic use, in the form of sooting or burnt food residue (accretions), on any of the vessels. This may indicate a non-domestic context for the pottery. In addition some of the vessels, and in particular the 11 very large finely made and decorated Broad Rimmed vessels, suggest a more particular context possibly associated with ritual or ceremonial activity. Vessels 16, 10–12 and 16–17 are very large pots more than 40cm in rim diameter and form a homogenous group very similar in style, shape and decorative treatment. The size and weight (6.4–8kg) of these suggests that they were not mobile pieces and it may be that they were displayed together and formed part of a 'set'. While some of the elaborate Impressed Ware vessels have been recovered, in small quantities, from domestic sites (see above) the majority are from ritual, and particularly funerary, contexts.

2.5.2 Balregan 1. Phase 2: the Late Neolithic ceremonial enclosure

The Balregan enclosure was defined by a bank flanked by two ditches and had a maximum external diameter of c. 57–60m. The dating for the site is largely dependent on the stratigraphic relationship between the enclosure and the Middle and Late Neolithic pottery assemblages. It appears that the Neolithic pottery was partly disturbed during the construction of the monument. The Grooved Ware came from the upper layer [67] of the external ditch [65] and a deposit [49] that overlay the fill: If, as is suggested here, this ditch remained open for only a short period the pottery evidence indicates that the enclosure is Late Neolithic in date. However, some caution is required with this interpretation as the Grooved Ware could represent residual activity disturbed by the digging of the enclosure ditches.

The Balregan enclosure belongs to the broad group of monuments misleadingly described as 'henges' but more appropriately designated as embanked enclosures by Stout (1991) in her study of these monuments in the Meath area (Fig. 10). There are 13 sites which includes clusters in the Boyne Valley, at Tara, Fourknocks and in the Kilbrew-Irishtown area. A small number of embanked enclosures have been identified outside this region at, for example, Ballynahatty ('The Giant's Ring'), Co. Down, Knockadoobrusna, Co. Roscommon (RO006:11801, 11807, Condit 1993), and Ballynacree, Co. Limerick (TS058:046, Condit and Simpson 1998, 47, fig. 4.2). Typically, these sites are defined by broad earthen banks; the material for the banks is scarped from the ground inside the banks leaving a wide, shallow scoop or hollow in the interior of the site. In the case of the very large sites, such as Dowth, Co. Meath (ME020:010), and Ballynahatty, the scarp forms an annular hollow with an unmodified low central dome within the enclosure. Shared general morphology with the Meath sites suggests the inclusion of enclosures at, for example, Coogaun, Co. Limerick (CL034:143), and Castletown, Co. Waterford (WA017:060001) (Fig. 9; Stout 1991, 281–84; Condit 1993; Condit and Gibbons 1988; Condit *et al.* 1991; Condit and Simpson 1998).

Only a very small number of embanked enclosures have been excavated. Work at Monknewtown, Co. Meath (ME019:016001), was largely confined to the northern

side of the interior. There was no dating evidence for the primary construction of the monument although there was some evidence for residual Middle Neolithic activity represented by modified carinated and simple bowls (Sweetman 1976, 60–62, fig. 19). A small Beaker associated settlement occurred on the southern side of the enclosure. Several burials were located in an arc within the curve of the northern bank: one of these (burial II) was a cremation of a child partly contained in a Middle Neolithic Carrowkeel bowl (Sweetman 1976, 28, pls Vb, VI). While some of the other burials may date to this period the cists (burials V and VI) are probably Early Bronze Age while two other burials, nos VIII and XIII were accompanied by coarse domestic pottery and date to the Middle Bronze Age (Sweetman 1976, 32, 34–36, figs 5–6, pls Xa, XIa). Limited excavation was carried out on the enclosing bank at Ballynahatty; while this revealed important evidence about the structure of the bank it did not produce any dating evidence (Collins 1954a; 1957). Extensive excavation within the Ballynahatty complex, is focussed on a group of probably related sites immediately to the northwest of the enclosure (Hartwell 1998). Three small subterranean chambers or cists produced cremations associated with Carrowkeel bowls which reflects a Middle Neolithic background for the complex reflected by the small passage tomb in the centre of the enclosure (MacAdam and Getty 1855; Hartwell 1998, 32–36, fig. 3.2).

Within the external complex Hartwell (1998, 39–44, figs 3.4–3.6) has uncovered a timber circle within an oval, double-post enclosure. These produced an important assemblage of Grooved Ware that is closely paralleled by the pottery from Balregan 1, the Knowth, Co. Meath, timber circle and the interior of the enclosure at Longstone (Cullen), Co. Tipperary (P. Danaher 1974; Roche 1996; Eogan and Roche 1997).

Longstone is the only fully excavated embanked enclosure; it is defined by a broad, shallow ditch that is located immediately inside the bank. The site remains unpublished (but see Roche 1996) and the relationship between the enclosure and the substantial Grooved Ware assemblage from the interior is unclear. A hearth associated with Carrowkeel pottery was sealed beneath the Grooved Ware layer. A central mound covers a sub-megalithic cist and the mound was subsequently the location of an Early Bronze Age cemetery. An externally ditched enclosure at Forenaghts Great ('Longstone Rath', KD019:022001), Co. Kildare, is also undated although a low, centrally located mound covered a sub-megalithic cist appeared to produce a wrist bracer and sherds of Beaker (Macalister *et al.* 1913).

The site at Dún Ruadh, Co. Tyrone, is an internally ditched enclosure with some similarities to Balregan. However, an Early Bronze Age date of 2037–1940 cal. BC (UB-3047) came from the basal fill of the ditch (Simpson 1993, 15) which suggests it is contemporary with the cemetery cairn within the interior of the site that produced bowl burials while a later burial was inserted into the bank. Two morphologically similar sites at Lough Gur – the Grange Stone Circle and Circle O – are defined by earthen banks retained by large stone facades (Ó Ríordáin 1951; Grogan and Eogan 1987). Circle O has an internal, partly rock-cut, quarry ditch; the site produced no dating evidence. The construction sequence and dating of the Grange enclosure have recently been re-examined by Roche (2004) who has demonstrated that the monument was erected in the Late Bronze Age. The close similarity of Circle O indicates that this site is of the same date; other enclosures defined by a combination of earthen banks and stone kerbs or facades, such as Athgreany and Castleruddery, Co. Wicklow (Walsh 1931; Grogan and Kilfeather 1997, 32–32; Grogan and Hillery 1993), and Ballynamona, Co. Limerick (O'Kelly 1943, 178, fig. 10) are probably of the same period.

A close comparison for Balregan is provided by the site at Tonafortes, Co. Sligo (Joubert 2007; E. Danaher 2007, 43–59, figs 4.1–4.4). This circular enclosure is 85m in maximum external diameter; it is defined by two earthen banks with an intervening U-sectioned ditch that define a flat central area 45m in diameter. Only a very small portion of the eastern side of the site was excavated but revealed what appears to be the sole entrance. A very limited artefact assemblage, consisting of a bodysherd of probable Middle to Late Bronze Age pottery, flint scrapers and flakes, and a chalk ball, came from the site. Material from the ditch produced two possibly primary dates of 2460–2140 BC (Beta-199778) and 1760–1610 BC (Beta-196296). It was not possible to differentiate between these contexts stratigraphically so it is possible that either may date the construction phase; however, it is also possible that the enclosure dates to an earlier period.

Despite the restricted excavation at each site Balregan and Tonafortes appear to have very similar morphologies. However, the external ditch at Balregan has been interpreted as a quarry ditch that remained open for only a short period while part of the single ditch at Tonafortes was very shallow. In effect the intended completed monument at Balregan consisted of an internal ditch and external bank while Tonafortes had two spaced banks.

In summary there is a range of enclosure forms amongst the sites that have been ascribed to this period. The direct association between the enclosures and Grooved Ware is not clearly demonstrated although the stratigraphy at Balregan appears to provide the most direct evidence available. Other sites, such as Dún Ruadh, Forenaghts and Tonafortes, suggest that the construction of similar ceremonial sites continued in the Chalcolithic and Early Bronze Age while the Grange Stone Circle and Lugg, Co. Dublin (Kilbride-Jones 1950; Roche and Eogan 2007), were erected in the Late Bronze Age. This at least episodic tradition of large ceremonial monuments has been discussed by Gibson (2000) and Condit and Simpson (1998) and continues into the Middle Iron Age including, for example, phase 2 at Emain Macha (Navan Fort; Waterman 1997).

2.5.3 The regional context

The site is located at a prominent position within the local landscape; on a promontory above the confluence of the Kilcurry and Castletown Rivers Balregan overlooks the lower reaches of the Castletown as it winds its course through gently undulating fertile terrain down to the estuary at Dundalk Bay 3.5km to the southeast. To the north the area is bounded by higher ground including the drumlin terrain of the Armagh Hills and, to the northeast, the uplands of the Cooley Peninsula.

2.5.4 The Early to Middle Neolithic

Until the archaeological investigations associated with the road scheme the pattern of Neolithic settlement was largely confined to the area between the Castletown Valley and the northern uplands. Most of the evidence is represented by megalithic tombs including court tombs at Aghnaskeagh and Drumnasillagh, portal tombs at Aghnaskeagh, Lurganakeel, Monascreebe, and Proleek, and passage tombs at Killin and Ravensdale Park (Fig. 11; Ó Nualláin and Walsh 1991). Early Neolithic settlement has since been identified at Donaghmore (sites 1a and 4), Littlemill 1, Faughart Lower 5 and Newtownbalregan 2 (Ó Donnchadha 2009e; 2009h; 2009d; Delaney 2009c; Bayley 2009e) which produced small quantities of Early Neolithic carinated bowls of the type represented by a single sherd at Balregan 1 (Appendix A). These sites, including the tombs, ring Dundalk Bay while more extensive settlement occurs at Haggardstown and Haynestown which are closer to the coast (McLoughlin 2010a; 2010b).

In the Middle Neolithic further domestic evidence comes from Carn More 5, Newtownbalregan 5, Donaghmore (sites 1 and 4), Littlemill 1 and Haynestown (Bayley 2009g; 2009c). The quantities of pottery from these sites is small, representing fewer than three vessels, and contrasts with the very large assemblage from Balregan 1. This focus of settlement around Dundalk Bay is further emphasised by the contemporary deposits in tombs at Annaghmare, and Clontygora, Co. Armagh, Ballyedmond and Ballykeel, Co. Down, and Aghnaskeagh (Waterman 1965; Davies and Patterson 1936–37; Evans 1938a; Collins 1965; Evans 1938; Herity 1982; Fig. 11; Appendix A). Current dating evidence suggests that other monuments, such as the portal tombs at Proleek, Lurganakeel and Monascreebe, should date to this period.

Balregan forms part of a general concentration of Middle Neolithic activity, represented most frequently by decorated pottery, that has a particular concentration along the east coast with a particularly high density in north Leinster and north to east Ulster (Appendix A, Fig. 9). This provides the western component of a common Impressed Ware ceramic tradition that extend across the Irish Sea; similar developments occur in western Scotland from the Hebrides and Skye down to the Clyde region (Megaw and Simpson 1979, 119–26), to the Isle of Man and further south to Wales (Gibson 1995). The importance of this context has been highlighted by Sheridan (1995, 15) and Eogan and Roche (1997, 97–98), and especially by Gibson (2002, 78–82) who emphasised the widespread emergence of an Impressed Ware tradition in Ireland and Britain while noting the importance of regional variations. This aspect of regionalism has also been discussed by Cooney (2000, especially 58–60) in a wider Neolithic context.

At a regional level Balregan is at a focal point within the complex that rings Dundalk Bay; this is concentrated along the valleys of the Castletown/Kilcurry and Flurry Rivers to the west of the mountainous Cooley peninsula with a further distribution along another (confusingly) Castletown River that drains a fertile valley within the upland area. It is clear that this represents stable settlement continuing from the Early Neolithic; this is emphasised by the number of settlement sites with material from both periods (Donaghmore 4, Littlemill 1, Newtownbalregan 5 and Haynestown) and the ongoing use of megalith tombs.

Within the wider distribution of Middle Neolithic settlement in the northeast other distinct clusters can be identified. To the south there is the major complex centred on the Boyne Valley and associated, in particular, with passage tombs. A significant part of this evidence comes from the domestic sites at Knowth and Townleyhall 2; outlying centres occur in the Tara (O'Sullivan 2005) and Kells area (McLoughlin and Walsh 2008). To the north of Dundalk Bay another concentration occurs beyond the Mourne Mountains along the fringes of Dundrum Bay; this includes domestic sites at Murlough and the court tombs at Goward and Mourne Park (Collins 1952; 1959; Davies and Evans 1932–3; Davies 1937–8; Herity 1982, 362–64). Further north is significant complex around the mouth of Carlingford Bay which includes the tombs at Audleystown, Ballyalton and Millin Bay (Collins 1954b; Evans and Davies 1934; Collins and Waterman 1955).

These effectively coastal zones, which are mirrored along the Antrim coast and in south Dublin and include significant island settlement at Rathlin, Lambay and Dalkey, appear to reflect separate communities that look to the Irish Sea as a major communication network. The Dundalk Bay and Boyne Valley areas in particular occupy pivotal points that allow coastal interaction as well as providing riverine access to inland resources.

2.5.5 The Late Neolithic

Balregan has produced the first significant evidence for Late Neolithic activity in the area. Although the site produced no pottery of this period contemporary activity is reflected by the date of 3940–3650 BC (4971±44 BP; Wk-18551) from Donaghmore 1. A small quantity of Grooved Ware came from Murlough on Dundrum Bay (Roche 1995; see Herity 1982, 364: 13) while a timber circle has recently been identified at Inch (McQuillan 2000). There is a significant concentration in the Boyne Valley area which is associated, in particular, with timber circles including examples at Knowth, Newgrange, Balgatheran and Bettystown (Eogan and Roche 1997; Clearly 1983; Brindley 1999, 33, fig. 3: 6; Eogan, J. 1999). As discussed above (section 2.6.2) other components in this complex, which extends southwards to Fourknocks and Tara, include post or pit circles at Newgrange (Sweetman 1985; 1987) and probably a distinctive form of embanked enclosure (Stout 1991). These elements are also present at Ballynahatty (Hartwell 1998; 2000). As in the Middle Neolithic there is a significant coastal element to the distribution (Fig. 10) that again reflect the importance of connections across the Irish Sea.

The particular association at Balregan, of Grooved Ware with an internally ditched enclosure, provides some contrast with the abovementioned complexes. While there are a small number of passage tombs in the area they are not, as in the Boyne Valley, a dominant component of the Middle Neolithic landscape. While other Grooved Ware elements may occur in the substantial unexcavated portion of the site as yet the area has not produced evidence for timber or post circles. In this regard the absence of a Carrowkeel Ware component in the ceramic assemblage may also be significant. The evidence from Wright's (1758) illustration of Carn Beg ('Ballynahattin'), with an internally ditched bank enclosing two concentric stone circles, may indicate further regional diversity if, indeed, this now destroyed monument can be taken to be Late Neolithic. Wright's (1758; Fig. 9) view of Balregan certainly suggests a stone circle component (his 'A' and 'B', although 'B' may be a kerbed cairn) as well as monoliths and possible stone rows. Together with the Balregan excavation results this evidence may indicate a localised Late Neolithic tradition. The loosening of the pattern of passage tomb/Grooved Ware/timber circle associations is also indicated by new discoveries such as those from Kilbride, Co. Mayo, Scart, Co. Kilkenny and Ask, Co. Wexford (Cotter 2008; Laidlaw 2009; Stevens 2007).

At a regional level the continuity of early prehistoric settlement and communication extends at least from the Early Neolithic to the Chalcolithic as is particularly well-attested in the Boyne Valley. As yet, only Balregan has provided a Late Neolithic chapter for Dundalk Bay but significant a Chalcolithic (Beaker) presence occurs at Newtownbalregan while domestic activity is also attested at Carn More 5, Donaghmore 1, Haggardstown and Haynestown (Bayley 2009e; 2009c; 2009g; Ó Donnchadha 2009e; McLoughlin 2010a; 2010b).

2.5.6 Balregan 1: later activity

As noted above (section 2.5.1) there are a small number of intrusive features and, in particular, those that overly or were cut into the Phase 2 ceremonial enclosure. These include Middle Iron Age activity represented by firepit [06] and possibly other features, including [79, 08, and 30], from a similar stratigraphic context. Broadly contemporary and more extensive activity occurs at Balregan 2 (see below) and it is possible that the Balregan 1 features represent associated events. Intrusive material from one of the Phase 1 spread [47] suggests a much more isolated event in the early medieval period.

The date of the young adult female burial from pit [130] is more difficult to assess. The location, beside the northern terminus in the inner ceremonial ditch may indicate an intentional enhancement of the entrance. There are very few Grooved Ware associated burials in Ireland: there are deposits in the satellite tombs 6 and 18 at Knowth (Eogan and Roche 1997, 211–12) while the Steelstown, Co. Dublin, produced a cremation and Grooved Ware pottery (Duffy 2005). However, simple cremations in pits are also found in Early Neolithic contexts, as at Altanagh, Co. Armagh (Williams 1986), while the selective and comminuted nature of the Balregan bone hints at a Middle to Late Bronze Age date (Grogan 2004). The potential significance of the burial certainly warrants further investigation and, in particular, radiocarbon dating.

2.5.7 Balregan 1&2: Post-Medieval activity

A substantial east to west running ditch cut through the Phase 1 and 2 features in the centre of the Balregan 1 (Figs 4 and 5: section 1A–1B, Table 14). This was up to 2.60m wide and 0.60m deep. The ditch extended 75m eastwards and downhill along the peninsula and joined with a similar feature [313] at Balregan 2. The juxtaposition of [313] and a linked feature [320] with an ESB pole indicate that these are modern field drains.

The sites at Balregan 1 and 2 lie partly within an archaeological complex identified by the Record of Monuments and Places (LH007:001). Within this area Wright (1758) illustrated a complex including two cairns, three standing stones, a stone alignment, two or possibly three stone circles and a tower house (see Fig. 9). The only archaeological feature still visible above ground today is the ruined tower house. It appears the main period of site clearance was after 1758, and before the OS 1st Edition survey of 1835, where the area is unreferenced. This indicates clearance of all these features over a relatively short timespan.

The historic mapping then has the area depicted as largely unfenced and was probably used for pasture. The topsoil across the site was a silty clay and was up to 0.40m in depth.

3 BALREGAN 2

3.1 Summary

This is on the eastern part of the site on the upper slopes of the knoll 80m to the southeast of the enclosure (Figs 3 and 8; Pls 1, 2 and 18). Two principal phases of prehistoric activity were identified. The first consisted of the creation of a level platform or terrace cut into the hill slope: some activity, represented by pits, spreads, stake- and postholes occurred on this surface. The second phase consists of layers of redeposited earth and stone within the hollow apparently representing domestic activity. Other un-stratified activity, some of which may have been associated with the terrace, occurred in the vicinity. The central part of the terrace (an area of 2.5m x 2.5m) was not within the Lands Made Available for excavation as it was occupied by an isolated Electricity Supply Board (ESB) pole.

3.2 The terrace

C	Area	Fills	Filled by	Interpretation	Description
372	0E/0N	-	305, 339, 304, 303	Terrace cut	Flat sub-circular terrace cut, 21.10m diameter x 0.850m deep (max at western end). Steeper on S and SW. Shallows out on east side
309	0E/0N	-	-	Bank material	Orangey/brown friable sandy silt with some charcoal flecks
373	0E/0N	-	-	Trench for bank?	Wide (3.15m), shallow (0.20m) N-S cut, steep sides, flat base
356	0E/10N	357	-	Fill	Charcoal rich with stone inclusions
357	0E/10N	-	356	Cut of pit	Sub-rectangular pit 0.69m diameter x 0.40m deep
358	0E/10N	359	-	Fill	Dark brown charcoal flecked sandy soil
359	0E/10N	-	358	Cut stakehole of	Small round cut, 0.10m diameter x 0.10m deep.
360	0E/10N	361	-	Fill	Dark brown sandy silt with 10% charcoal inclusions
361	0E/10N	-	360	Cut stakehole of	Oval shaped cut, 01.5m diameter x 0.08m deep
362	0E/10N	363	-	Fill	Dark brown sandy silt with 10% charcoal inclusions
363	0E/10N	-	362	Cut stakehole of	Sub round shape, 0.12m diameter x 0.09m deep
326	10E/10N	372	-	Layer	Brown charcoal flecked deposit, 9 x 9m x 0.20m deep
305	0E/0N	372	-	Fill of [372]	Black/brown silty sand, abundant charcoal, 18.6 x 15m x 0.15–0.25m deep
307	10E/10N	308	-	Upper fill	Grey/brown compacted fine silty sand with some charcoal and small stones
308	10E/10N	-	307, 319, 311, 321	Cut of pit	Irregular keyhole pit; 2.38m long x 0.60m–1.34m wide x 0.60m deep
311	10E/10N	308	-	Fill	Very dark grey/black charcoal rich fill, 60% charcoal inclusions
319	10E/10N	308	-	Fill	Dark grey charcoal flecked silty sand
321	10E/10N	308	-	Fill	Stone layer with 10% dark grey silty sand between stones
331	0E/10N	378	-	Fill	Dark blackish/brown silty clay, frequent charcoal and bone inclusions
366	0E/10N	368	-	Upper fill	Dark grey/brown silty clay with charcoal some bone inclusions
367	0E/10N	368	-	Lower fill	Light yellow/brown gravelly clay
368	0E/10N	-	366, 367	Cut of posthole	Round shaped cut of posthole, 0.70m diameter x 0.20m deep
369	0E/10N	370	-	Fill	Mid to light orangey/brown silty clay with frequent charcoal inclusions
370	0E/10N	-	369, 371	Cut of posthole	Oval cut 0.42m diameter x 0.38m deep
371	0E/10N	370	-	Fill	Dark grey/black sticky silty clay with frequent charcoal flecks
378	0E/10N	-	331	Cut	Small re-cut made into the top of [368]
339	0E/10N	372	-	Stony surface	Small angular stones, mid-brown sandy clay with charcoal, 6m x 2m x 0.10–0.20m deep
340	0E/10N	372	-	Deposit	Light brown sandy silt, with some stone and charcoal inclusions
374	0E/0N	-	375, 376	Cut of pit	Elongated cut, 1.30m long and 0.42m deep

375	0E/0N	374	-	Fill	Mid brown sticky silty clay with charcoal flecks
376	0E/0N	374	-	Fill	Mid grey/brown silty clay, charcoal rich
304	0E/0N	372		Fill	Dark brown/grey soft silty sand

Table 8 Balregan 2: contexts associated with the terrace.

C	Find No.	Material	Period	Pottery form	Artefact type	Comments
309	03E0157:309:1	Flint				Struck
309	03E0157:309:2	Pottery				Fragmented pot sherd
309	03E0157:309:3–6	Flint				Struck
309	03E0157:309:7–15	Pottery				Fragmented pot sherds
305	03E0157:305:1–8	Flint				Struck
305	03E0157:305:9	Hazelnut				
375	03E0157:375:1	Pottery				Fragments
304	03E0157:304:2	Flint				Flake
304	03E0157:304:3–6	Flint				Struck
304	03E0157:304:7–8	Flint				Non -Arch
304	03E0157:304:9–11	Pottery				Fragments

Table 9 Balregan 2: finds from the terrace.

At a level of approximately 8m OD a horizontal terrace [372] was cut into the sloping ground, midway between, and overlooking the confluence of, the Castletown and Kilcurry Rivers (Figs 3 and 8; Pls 1–2 and 18–19; Table 8). The terrace cut was roughly circular and measured 22.80m (NE-SW) by 20.50m (NW-SE); it was cut to subsoil level on the down-slope east side but up to 1m deep to the west. The sides of the cut are gentle. On the upslope edge of the cut was a low bank [309] that appeared to surround it on the west, northwest and southwest sides. It was more pronounced to the west and northwest. The bank material appears to have come primarily from the terrace cut but wide, shallow linear cut [373] may have provided additional material: this feature may have been designed to prevent run-off water entering the terrace.

There is limited evidence for activity on the terrace and this is largely confined to the northern side. There are postholes on the north [370] and west [368] sides while a pit [357] with three apparently associated stakeholes [359, 361, 363] occurred on the north side of the terrace. Posthole [368] contained a re-cut [378]. Burnt bone (not identified) was retrieved from fills [356] of pit [357], and both [367] and [331] of posthole [368/78].

A keyhole-shaped pit [308] was located to the northeast of the centre of the terrace; it contained a dense, charcoal-rich layer [311] overlying a basal layer of stone [321], and may have functioned as a hearth or oven. A small linear pit [374] occurred at the edge of the terrace and the upper fill [375] produced pottery fragments (03E0157:375:1; Table 9).

Two successive and extensive spreads [326] and [305] were located in the central area of the terrace. Struck flint and burnt flint debitage (03E0157:305:1–8; Table 9; Appendix B) came from [305] and charcoal from this layer was identified as alder (*Alnus glutinosa*), hazel (*Corylus avellana*) oak (*Quercus* sp.) and hazelnut (Appendix D). These layers may have been derived from activity, possibly domestic, associated with the pits and postholes on the terrace floor but appear to have been deliberately spread across the interior. A more limited deposit [340] occurred in the central area while overlying all of these, but covering a more restricted area, was a stony, possibly prepared, surface [339].

The uppermost redeposited layer [304] filled the terrace within the cut and was defined by bank [309]; this had a maximum depth of 0.32m. This layer produced small amounts of pottery (03E0157:304:9–11, Appendix A) and flint (03E0157:304:1–8, Appendix B) (Table 9). Charcoal from this layer was identified as hazel (*Corylus avellana*; O Carroll Appendix D) and produced a date of 760–400 BC (2441±38 BP, Wk-18563).

3.2.1 Features external to the terrace cut (Fig. 8; Tables 10–11)

C	Area	Fill of	Filled by	Interpretation	Description
332	0E/10N	348	-	Fill	Mid-brown silty clay, some charcoal
348	0E/10N	-	332, 355	Posthole cut	Circular posthole, 0.55m diameter x 0.22m deep
355	0E/10N	348	-	Fill	Dark brown silty clay, frequent charcoal
306	10E/10N	322	-	Fill	Upper fill, black/brown silty clay, abundant charcoal and some burnt bone
323	10E/10N	322	-	Fill	Dark grey/brown sandy silt, frequent charcoal lumps
324	10E/10N	322	-	Fill	Light grey/brown compact silty clay, some charcoal flecks
325	10E/10N	322	-	Fill	Grey/brown sandy silt, some charcoal flecks
322	10E/10N	-	396, 323–25	Pit cut	Circular pit, 0.95m diameter x 0.31m deep.
346	10W/10N	350	-	Upper pit fill	Mid brown/grey silty sand, frequent charcoal inclusions
351	10W/10N	350	-	Fill	Reddish/brown sandy silt, some charcoal
352	10W/10N	350	-	Fill	Yellowish/brown silty sand, frequent of pebbles, some charcoal
354	10W/10N	350	-	fill	Orange/grey silty sand, some stone and charcoal
350	10W/10N	-	346, 351–52, 354	Irregular pit cut	Oblong pit, 1.48m long x 0.51m deep.
341	20E/10N	342	-	Fill	Light brown silty, abundant pebbles and some charcoal
342	20E/10N	-	341	Posthole cut	Stone-lined sub-circular cut, 0.40m diameter x 0.39m deep
344	20E/10N	343	-	Fill	Mid brown sandy silt, some charcoal inclusions
343	20E/10N	-	344	Stakehole cut	Circular cut, 0.08m diameter x 0.24m deep
345	10W 10N	349	-	Fill	Light brown sandy silt, charcoal inclusions
349		-	345	Posthole cut	Circular posthole, 0.43m diameter x 0.31m deep
353	10W/10N	379	-	Fill	Orange/brown silty sand, frequent pebbles, some charcoal
364	10W/10N	365	-	Fill	Dark brown silty clay, frequent charcoal flecks
365	10W/10N	-	364	Stakehole cut	Circular cut, 0.15m diameter x 0.17m deep
379	10W/10N	-	353	Re-cut	Circular round re-cut made into upper fills [350], 0.48m long and 0.14m deep

Table 10 Balregan 2: features external to the terrace cut.

C	Find No.	Material	Period	Pottery form	Artefact type	Comments
353	03E0157:353:1	Flint				See Appendix B

Table 11 Balregan 2: finds from features external to the terrace cut.

A number of isolated and undated features, pits [322], [350], postholes [348], [342], [354], [349] and stakeholes [343] and [365], occur in the vicinity of the terrace cut. Some of these ([322], [342], [349], [350]) are on the sloping lip of the cut itself. It is probable that these features are associated with the activity on the terrace.

3.2.2 Features in the vicinity of the terrace cut (Fig. 8; Table 12)

C	Area	Fill of	Filled by	Interpretation	Description
384	Grid 3	385	-	Fill	Brown/red charcoal flecked silty sand
385	Grid 3	-	384	Pit cut	Oblong pit, 0.60m long x 0.20m wide x 0.80m deep

386	Grid 3	387	-	Fill	Red/ brown silty sand
387	Grid 3	-	386	Pit cut	Oval pit, 0.50m long x 0.30m wide x 0.07m deep
388	Grid 3	389	-	Fill	Dark reddish/brown silty sand, some charcoal
389	Grid 3	-	388	Cut	Shallow cut , 0.60m long x 0.40m wide x 0.07m deep
314	Grid 3	-	382, 380, 318	Cut	Oblong pit, 3.55m long x 2.90m wide x 0.71m deep
318	Grid 3	314	-	Fill	Mid brown stony silt, frequent charcoal, some burnt bone
380	Grid 3	314	-	Fill	Dark brown sandy silt , frequent charcoal and burnt bone
381	Grid 3	383	-	Fill	Mid brown sandy silt
382	Grid 3	314	-	Fill	Mid orange/brown sandy silt, some charcoal and burnt bone
383	Grid 3	-	381	Cut	Small circular cut, may have been part of stone socket
303				Hill wash	Brown/yellow compacted sterile silty soil, this is natural

Table 12 Balregan 2: features in the vicinity of the terrace cut.

C	Find No.	Material	Period	Pottery form	Artefact type	Comments
303	03E0157:303:1	CU			Pin	Copper alloy
303	03E0157:303:2–7	Flint				Flakes and debitage
303	03E0157:303:9	Iron			fragment	Iron fragment
303	03E0157:303:10–11	Flint				Flake
303	03E0157:303:12–19	Pottery	Medieval			Pot sherd

Table 13 Balregan 2: finds from the hill wash layer [303].

A large oval pit [314] is located 12m of pit [350] on the northwest side of the terrace cut.⁴ In the base of this was a small, stone-edged, cut [381] that contained fill [383] and may be the butt of a posthole. Pit [314] contained three fills [318], [380] and [382]: the latter may represent a small re-cut on the north side of the pit. Another pit [385] occurred 12m west of [314] while pit [387] is located 3.80m east of [385] and there is a shallow pit [389] southeast of [387].

3.3 Later activity

Context	Area	Fill of	Filled by	Interpretation	Description
083	0E/20N	84	-	Fill	Red/brown loose silty sand fill of ditch boundary
084	0E/20N	-	83	Cut	E-W linear ditch, cuts enclosure
320	0E/10N	-	333–34, 336–38, 347	Modern ditch	Ditch segment. 10m long x 2.08m wide x 0.60m deep
333	0E/10N	320	-	Fill	Light brown clayey silt, some sub-angular stones
334	0E/10N	320	-	Fill	Light grey/brown friable sandy clay, some charcoal
335	0E/10N	320	-	Fill	Light brown grey, soft fill, moderate large stones
336	0E/10N	320	-	Fill	Compact orangey/brown sandy clay
347	0E/10N	320	-	Fill	Orange/brown gritty clay
337	0E/10N	320	-	Fill	Grey/brown silty clay with 50% stone inclusions
338	0E/10N	320	-	Fill	Grey/brown sticky silty clay
312	10E/10N	313	-	Fill	Dark brown friable gravel, some charcoal
313	10E/10N	-	312–13, 315–17, 328, 330	Ditch cut	Linear N-S ditch, 11.18m long x 2.20m wide x 0.65m deep
315	10E/10N	313	-	Fill	Brown friable sandy upper fill of modern ditch cut
316	10E/10N	313		Fill	Mid brown friable sandy clay, 20% incl. small stones
317	10E/10N	313		Fill	Dark brown friable gravel with 30% stones inclusions

⁴ In an earlier version of this report this feature was identified as a probable stone socket and related to an isolated standing stone on Wright's (1758) illustration of the site: this is based on an erroneous interpretation of Wright's plan which shows no features at this location on the peninsula between the Castletown and Kilcurry Rivers.

328	10E/10N	313		Fill	Brown friable sandy fill of modern ditch cut
330	10E/10N	313		Fill	Charcoal rich lens

Table 14 Balregan 2: post-medieval and modern features.

C	Find No.	Material	Period	Pottery form	Artefact type	Comments
315	03E0157:315:1	Pottery	Medieval		Pot sherd	

Table 15 Balregan 2: finds from post-medieval and modern features.

An extensive layer of compact sterile silty yellow-brown soil [305] covers the terrace and the surrounding area; this appears to be natural hill wash. The layer contained some flint flakes and debitage (Appendix B) and sherds of post-medieval or modern pottery (Table 13). This masked any irregularities created by the earlier activity and Wright (1758) does not record any features in this area of the peninsula. Charcoal from this layer was identified as alder (*Alnus glutinosa*), hazel (*Corylus avellana*) and oak (*Quercus* sp.), and a hazel sample produced a date of 380–100 BC (2172±43 BP, Wk-18565).

A number of linear features cut through the hill wash layer [305] (Table 14); these appear to be modern drainage features as the principal components, ditches [320] and [313], respect the location of the ESB pole (this appears to explain the sharp kink in the ditch at this point). These ditches are a continuation of the large example [84] that cuts through Balregan 1 (Fig. 3; see section 3.5.1). A single sherd of post-medieval or modern pottery (03E0157:315:1; Table 15) came from the upper fill [315] in ditch [313].

3.4 Balregan 2: discussion

The artificial terrace [272] appears to have been created to provide a level working area on the sloping ground of the peninsula. Upcast from the terrace area was used to create a low bank around the gently sloping edges; this was most prominent on the north, south and west sides but may have been degraded through erosion on the down slope eastern side. While the location of the terrace, on a prominent position on the peninsula overlooking the confluence of the Castletown and Kilcurry Rivers and beyond this the lowland valley of the Castletown, might suggest a place for special activities the features, and the material derived from them, appears to have been domestic. Other features in the area around the terrace may relate to associated and contemporary activity. The spreads may have been introduced to retain a clean, level working area and spread [304] appears to be debris derived from activity on the terrace itself. A stony layer, which overlay [304], provided a working platform in the centre of the terrace. The final layer [304] filled the hollow of the terrace within the original bank.

There is no evidence to suggest that there was a more substantial feature built on top of the terrace: there is no indication in the vicinity of disturbed material or redeposited layers that might have been derived from a covering mound. The activity is sealed by a layer of largely sterile hill wash [305] that contained medieval pottery. Furthermore, Wright's (1758) generally accurate drawing does not indicate any features in this area of the peninsula.

Two radiocarbon dates (Wk-18563 and Wk-18565) suggest that the Balregan 2 activity dates to the Iron Age. However, even at two standard deviations these, 760–400 BC and 380–100 BC, do not overlap and may indicate episodic activity. Broadly contemporary activity at Balregan 1, perhaps related to the terrace use, is

indicated by a date of 410–200 BC (2278±35 BP, Wk-18568) from fill [33] of fire pit [06].

4 BALREGAN 1 AND 2: CONCLUSIONS

The Balregan complex represents a very significant addition to the pattern and content of prehistoric activity in the Dundalk Bay area. It occupies a dominant and singular position on the peninsula above the confluence of the Castletown and Kilcurry Rivers and enjoys a spectacular view of the landscape of the lower Castletown Valley towards the Bay. Balregan 1 and 2 form the easternmost components of a monument complex identified by Wright (1758); while this appeared to be destroyed the information recovered during these excavations suggests that while the other elements were levelled some significant residual data may be preserved.

Both Phase 1 (the Middle Neolithic) and Phase 2 (the Late Neolithic) at Balregan 1 are of regional and national importance; in particular the ceremonial enclosure with its associated Grooved Ware assemblage has provided potentially the best context for Late Neolithic monument construction that has yet been identified in Ireland. Balregan is at the centre of a distinctive Neolithic settlement cluster on the fringes of Dundalk Bay while both Early and Middle Iron Age activity suggest that the site remained at least episodically important into later prehistory.

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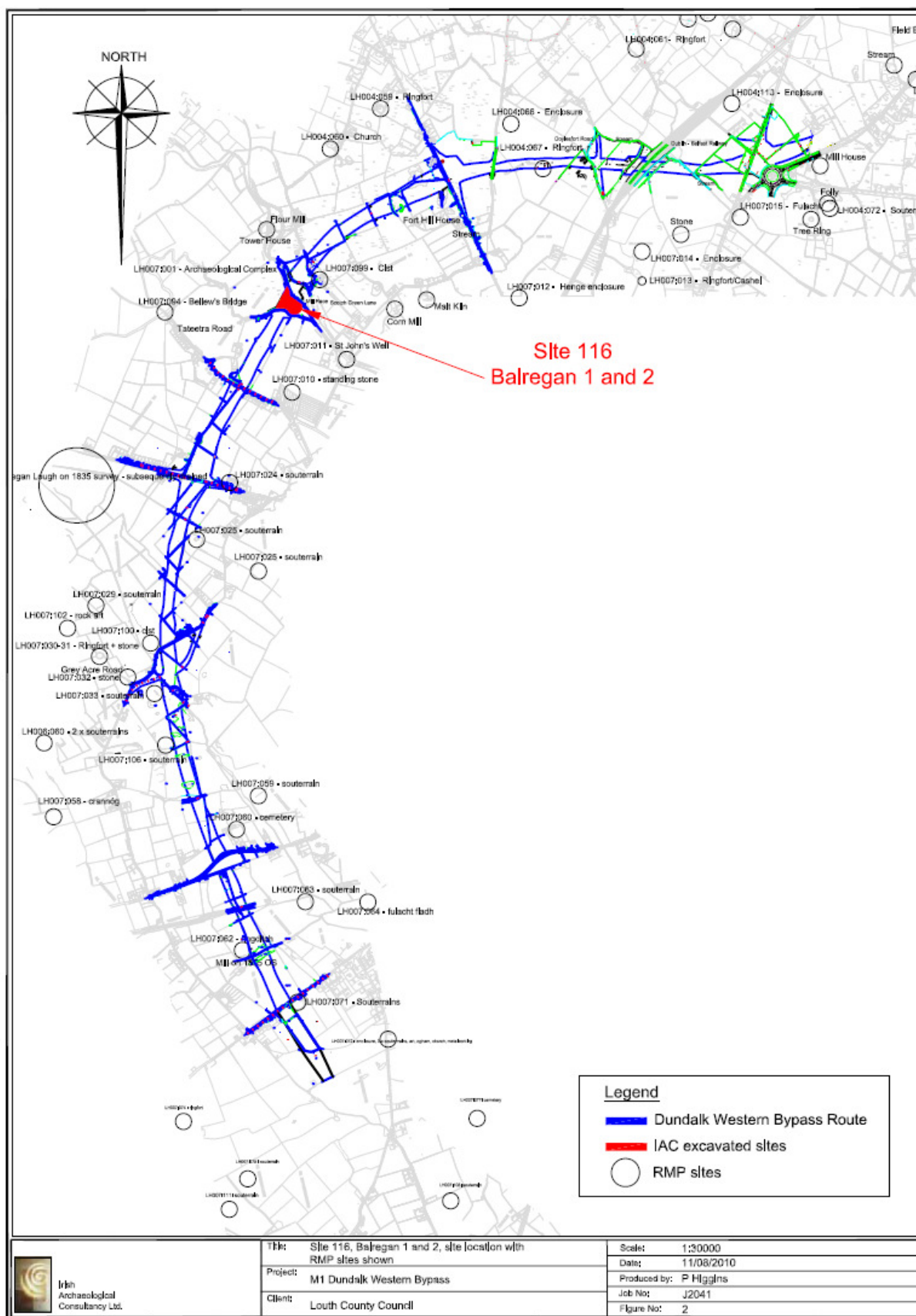
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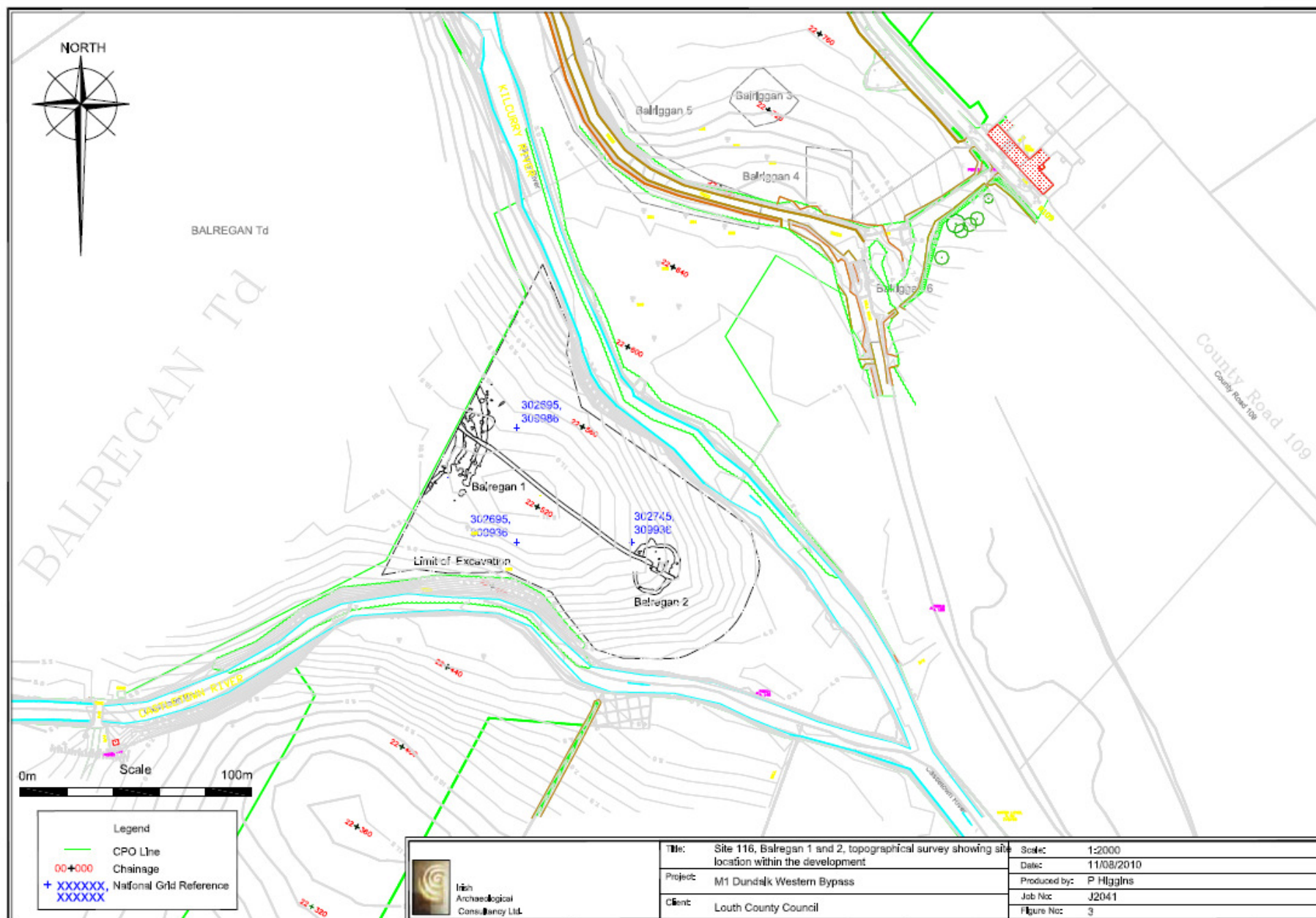


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Title: Site 116, Balregan 1 and 2 - site location
Project: M1 Dundalk Western Bypass
Client: Louth County Council

Scale: N.T.S.
Date: 11/08/2010
Produced by: P. Higgins
Job No: J2041
Figure No: 1





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Title: Site 116, Balregan 1 and 2, topographical survey showing site location within the development
Project: M1 Dundalk Western Bypass
Client: Louth County Council

Scale: 1:2000
Date: 11/08/2010
Produced by: P Higgins
Job No: J2041
Figure No: 3