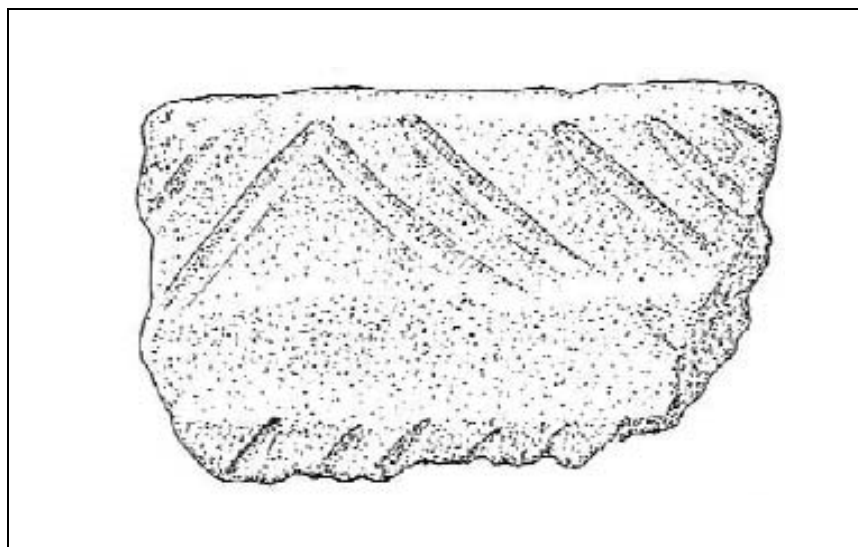


transport21
progress in motion



M1 DUNDALK WESTERN BYPASS

SITE 113: NEWTOWNBALREGAN 5
CHAINAGE 21.250
NGR: 302115/308829

FINAL REPORT

ON BEHALF OF
LOUTH COUNTY COUNCIL and the
NATIONAL ROADS AUTHORITY

LICENSEE: DAVID BAYLEY
LICENCE NUMBER: 03E0114

JULY 2009

IAC Irish Archaeological
Consultancy

NON-TECHNICAL SUMMARY

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

Prior to archaeological excavation a detailed test-trenching programme had been carried out to define the location, nature and extent of the archaeological resource in this area. These investigations revealed four areas of archaeological interest.

The archaeological excavation at Newtownbalregan 5 began on the 17th of February 2003 and was completed on the 2nd April 2003 using a team of six field archaeologists, directed by David Bayley.

The site comprised a prehistoric structure and two troughs associated with burnt mound material. A collection of large pits, postholes and stakeholes were also recorded. Finds recovered from the features associated with the structure included prehistoric pottery sherds as well as flint pieces. Both assemblages were sent for specialist analysis and returned dates from the Late Neolithic/Early Bronze Age period (Appendix 2.3 & 2.4).

Environmental samples taken from one of the burnt mounds included charcoal which when sent for radiocarbon dating returned a calibrated date of Cal.1270–970 BC, dating the burnt mound to the Middle Bronze Age (Appendix 2.2).

ACKNOWLEDGEMENTS

The archaeological excavation at Site 113, Newtownbalregan 5, 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.

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1 INTRODUCTION

This report refers to an excavation carried out at Site 113, Newtownbalregan 5 (Figure 1), in the townland of Newtownbalregan, c.2km to the northwest of Dundalk, Co. Louth. It was carried out as part of an archaeological mitigation programme associated with the Dundalk Western Bypass (DWB). Archaeological fieldwork was directed by David Bayley of Irish Archaeological Consultancy Ltd. (IAC Ltd.) and was funded by Louth County Council and the National Roads Authority.

1.1 Site location

The site was located in Newtownbalregan townland, c.2km north-west of Dundalk (Louth OS sheet number 007). The site was:

- Site 113, Newtownbalregan 5, Excavation Licence 03E0114, Ch 21.250, NGR 302115/308829

The site was identified as a result of the test trenching exercise undertaken by IAC in March 2002 (Licence Ref.: 02E0373). The site was located at the base of a slope adjacent to the N53 Castleblayney road.

1.2 The scope of the project

General

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

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

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

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

Specific

Site 113, Newtownbalregan 5 was located immediately to the north of the N53 Castleblayney road.

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

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

The area to be opened up for archaeological resolution measured approximately 50m x 50m.

1.3 Circumstances and dates of fieldwork

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

Topsoil stripping of Site 113, Newtownbalregan 5 commenced on the 17th February 2003 with a team of one Director and five Assistant Archaeologists and was completed by the 2nd of April 2003.

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

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

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

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

The town of Dundalk lies at the north end of Dundalk Bay and is the administrative centre of County Louth, located in the north east of Leinster. The area spans two geographical areas. To the west, the rural landscape surrounding the urban district consists of undulating topography, with low drumlins rising to 30-40m from the coastal plain. As is the case with much of Louth, this covers thick strata of Ordovician and Silurian slates, with some rock outcrops (Gosling 1993, 237) notable. 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 Ice Age in Ireland c.10,000 years ago.

At the time of the earliest habitation in Ireland, the Early Mesolithic period: (c.7000BC), the sea submerged the area of the town to a depth of 4-5m, although it continued to retreat to its present level until the Late Neolithic/Early Bronze Age period (c.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 route for the Dundalk Western Bypass–Northern Link is located within an area that avoids the major recorded archaeological monuments in the vicinity. This is a particularly rich archaeological landscape but the great majority of known sites lie beyond the perimeter of the original study area. It is important to note, however, that a significant number of sites in this part of Co. Louth survive as crop marks, where the above ground indication of the monument has been destroyed. The recognition of such monuments has often been the result of chance discovery from ploughing and construction work, or by observation from the air where the distinctive traces of the buried features can sometimes be observed. The strong tradition of arable agriculture in the locality has been largely responsible for this occurrence.

2.1 Prehistoric Period (7000BC-AD500)

The archaeological record provides evidence that the locality was occupied from the Late Mesolithic period (c.4200 BC) onwards, with the excavation of Mesolithic shell midden sites with flint material at Rockmarshall, c.5km from the town of Dundalk.

Above the ground, a large, granite standing stone known locally as *Dealg Fhinn* (LH 007-118-06) is the only remaining visible reminder of the prehistoric occupation of the area. Another standing stone, on the Bellew's Bridge Road, was removed at the beginning of the twentieth century. The pollen record for this area during the prehistoric period indicates that the indigenous forestry was not cleared and replaced by cereals until farming in Ireland was well into its second millennium (3000-2500BC).

2.1.1 The Neolithic Period (c.4000BC – c.2500BC)

Although we can say with confidence that a substantial Neolithic culture existed in Ireland shortly after 4000BC, which had many similar features with contemporary sites in Britain and West Europe, uncertainty still remains over how the culture arrived in Ireland and how the new economy altered the environment.

The origins of the Neolithic 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 habitation rather than an indication of the true chronology (Mitchell & Ryan 1997). A debate continues 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, cultural traits in architectural construction and domestic crafts bearing a striking resemblance to contemporary evidence in Britain has led some authors to suggest colonisation from outside 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 in the innovative beginnings of this era.

Arguments for the Neolithic culture as a native evolution makes the observation that the Irish Mesolithic was a period of isolation rather than contact, and that if the Megalithic tombs were constructed by a migrating population a prolonged period of consolidation would be required in advance of their construction (Mitchell & Ryan). Thus, it is possible that the Mesolithic peoples gradually adopted new customs and practices through contacts with Britain and the continent leading to the incremental growth of a distinctive economy before a consolidated Neolithic culture emerged.

The vast majority of the archaeological evidence for this period is to be found at the 4-5m (25ft) contour, which reflects the coastline during the maximum post-glacial marine transgression, and it has been suggested that this settlement location would have facilitated the exploitation of the higher ground for farming and the lower ground for summer grazing (Gosling 1993, 242). There is a concentration of Megalithic tombs in the Flurry Valley to the north-east of the site at Newtownbalregan 5 (with the nearest example located at Faughart Lower (LH004-062), c.4.5km to the north east) and scattered throughout the Cooley peninsula. Archaeological discoveries elsewhere on the DWB scheme revealed Late Neolithic/Early Bronze Age habitation activity including the truncated remains of a Late Neolithic/Early Bronze Age house identified at Site 101, Littlemill 1 (Ó Donnachadha, B. forthcoming (d)), located c.3.5km to the south of Site 113. A number of Neolithic huts with associated pits were excavated at Site 124, Carn More 1 (Delaney, S. forthcoming (b)), located c.3km north east of the site. Several pits containing Early Neolithic pottery were identified at Site 132, Faughart Lower 5 (Delaney, S. forthcoming (c)), located c.4.3km north east of the site. A Middle Neolithic to Late Neolithic/Early Bronze Age Beaker habitation site was identified at Site 108, Donaghmore 1 (Ó Donnachadha, B. forthcoming (e)) which was located on a low ridge only c.1.7km south of Site 113.

2.1.2 The Bronze Age (c.2500BC – c.500BC)

The archaeological remains found at Site 113, Newtownbalregan 5 provides considerable information regarding prehistoric settlement in this area. The archaeological remains discovered at Site 113 consisted of a probable structure with associated pits, postholes and stakholes and two Bronze Age burnt mounds/*fulachta fiadh*. A number of Bronze Age ring-barrows, a cist and a cairn were excavated at Site 127, Carn More 5 (Bayley, D. forthcoming (g)), located c.3.4km north east of Site 113. A total of 3 Bronze Age burnt mounds/*fulachta fiadh* were excavated along the route of the DWB including remains discovered at Site 113, Site 111, Newtownbalregan 1.1 and at Site 128, Faughart 1, 2 & 3. The burnt mound excavated at Site 102, Littlemill 2 dated to the medieval period (890-1250AD). A further 6 burnt mounds/*fulachta fiadh* were excavated by Archaeological Development Services Ltd (ADS Ltd.) as part of the archaeological resolution of the Dunleer/Dundalk Motorway.

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

2.1.3: The Iron Age (c.500BC – c.500AD)

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

2.2 Early Medieval Period (AD400-1169)

The study area lies within a rich early medieval landscape. The early medieval period is depicted in the surviving sources as entirely rural characterised by the basic territorial unit known as *túath*. Byrne (1973) estimates that there were probably at least one hundred and fifty kings in Ireland at any given time during this period, each ruling over his own *túath*. During this sometimes violent period, roughly circular defensive enclosures known as ringforts were constructed to protect farmsteads. Although most of the ringforts that have been excavated are shown to date to this period, some have earlier origins and may have been originally constructed during the Iron Age, or even earlier.

The ringfort or rath is considered to be the most common indicator of settlement during the early medieval period (c.500-1160 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 kings and lords. 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 are artificial underground structures, usually built of dry stone walling and comprising of passages and chambers with creeps connecting them. Souterrains are generally regarded as having had a defensive or protective function, as evidenced by the complex construction of many of the sites, with narrow winding passages, deliberate obstructions and small chambers. Raiding was endemic to early medieval society, and souterrains are thought to have served to house portable valuables and non-combatants during a raid. There is a previously recorded souterrain located 30m to the east of the CPO line at Ch17.640 (LH007-071).

The historical sources for the early medieval period indicate that the main population group in north Louth was the *Conaille Muirtheimne*. They controlled the areas of *Cuailgne* (Cooley) and *Mag Muirtheimne* (Plain of Muirtheimne) –corresponding to the area south of Dundalk, roughly equating with the modern baronies of Lower and

Upper Dundalk. It has been suggested (Gosling 1993, 46) that the ancient boundaries of this kingdom may coincide with the dense concentration of souterrains in north Louth. Though nominally a branch of the *Ulaid*, who had their capital at *Eamain Mhaca* or Navan Fort, Armagh. The *Conaille Muirtheimne* appear to have been subject to the kingdom of *Brega*, which had its capital at *Cnógbha* or Knowth in Co. Meath 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 was Carbon 14 dated to Cal 890AD -1250AD (968 ± 85BP). Site 102, Littlemill 2 was roughly circular in shape and it is suggested that these sites which are identified as early medieval and medieval in date, tend to be circular to oval in shape with no evidence for pit-lining (O'Neill, pers.comm, 2007). The example at Littlemill 2 however was wood-lined.

2.3 Medieval Period (AD1169-1700)

The motte and bailey at Castletown (LH 007-118-07) located c.0.5km east of Newtownbalregan 5 represents the initial phase of Anglo-Norman activity in the area. 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 Ireland with Louth being the most urbanised county.

The land in and around Castletown and Dundalk environs were granted to the Anglo-Norman Bertram de Verdon following his arrival in 1185, and corresponds to the modern barony of Upper Dundalk (Gosling, 1993, 252). The de Verdon estate passed onto the Bellews with many of the tower houses constructed at this time. 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 which was given 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 reliant 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 have 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 Castletown developed as the major urban centre. This was due to its market centre and port in addition to its more strategic sitting on the major routeway linking Dublin with Ulster. It is probable that another factor influencing the move of the de Verdon's was the nature of the topography of the general area. The unsatisfactory nature of the river at the Castletown location must have made it inaccessible to shipping even in the late 12th century. The new town also had the advantage of considerable natural defenses. 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 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 for the foundation of the "newtown" of Dundalk 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.

2.4 Post-Medieval Period (1700-1900)

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

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

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

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

3 THE EXCAVATION

3.1 Introduction

The excavation of Site 113, Newtownbalregan 5, was undertaken as part of the archaeological mitigation for the DWB in the townland of Newtownbalregan.

3.2 Methodology

Topsoil stripping of the excavation area commenced on Monday the 17th February 2003 with a team of one Director and five Assistant Archaeologists and the site was completed by the 2nd of April 2003.

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

3.3 Legends and Brackets

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

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

CONTEXT KEY;

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

PERIOD KEY:

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

4 EXCAVATION RESULTS

Stratigraphy

4.1 GROUP 1: Natural Drift Geology

4.1.1 SUBGROUP {1000}: NATURAL SUBSOIL

Contexts:

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

Finds:

None

Interpretation:

The natural subsoil was uniform in compaction and consistency across the extent of the site.

GROUP 1 DISCUSSION: Natural Drift Geology

Site 113, Newtownbalregan 5 is located in an agriculturally productive area of land that undulates between c.20m OD and c.40m OD that surrounds Dundalk. Such a topographical location would be ideal for agricultural habitation at any period. Site 113 lies at the base of a south facing slope, at 26m OD, beside the main N53 Castleblayney – Dundalk road.

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

4.2 GROUP 2

4.2.1 Subgroup {1001}: Middle/Late Neolithic Linear feature

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|-----------------|--|
| 99 | 10/20 | C172 | n/a | Deliberate fill | Brown black, sandy clay, w/ch, mod s-m sub-ang |
| 172 | 10/20 | n/a | C99 | Linear feature | Irreg linear in plan, sides gradually sloping, irreg concave base, 0.06d x 1.05l x 0.36, N-S |

Finds:

| C | Find No. | Material | Period | Pottery form | Artefact type | Comments |
|----|--------------|----------|---------------------------------|---------------|----------------|----------|
| 99 | 03E0114:99:1 | Flint | Late Neolithic/Early Bronze Age | | Thermal flake | |
| 99 | 03E0114:99:2 | Flint | | | | |
| 99 | 03E0114:99:3 | Pottery | Middle/Late Neolithic | Shouldersherd | Bipartite Bowl | |

Interpretation:

Shallow linear feature [C172] was filled with (C99). It appears that (C99) comprised refuse material that was dumped in a natural depression. The pottery recovered from (C99) was sent for specialist analysis. The fragment in question was identified as a shouldersherd from a Middle/Late Neolithic Bipartite bowl (Appendix 2.4).

DISCUSSION GROUP 2: Middle/Late Neolithic activity

| Group | Sub group | Subgroup type | Period by finds | Period by interpretation | Group Interpretation |
|-------|-----------|----------------|-----------------------|--------------------------|-----------------------|
| 2 | 1001 | Linear feature | Middle/Late Neolithic | Middle/Late Neolithic | Middle/Late Neolithic |

The linear feature [C172] represents the earliest phase of activity on site. It is probable that a number of the possible prehistoric features in group 5 were also Middle/Late Neolithic in date. The presence of a Late Neolithic/Early Bronze Age flint flake within the fill (C99) of the feature may be the result of disturbances by later agricultural activity.

4.3 GROUP 3: Early Bronze Age Beaker Activity

4.3.1 SUBGROUP {1002}: Structure

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|-------------------------|---|
| 59 | 10/10 | C174 | n/a | Natural silting | Med brown, loose silty sand, freq ch fl, s-l sub-rou |
| 62 | 10/10 | C160 | n/a | Fill of hearth | Dk brown black, silty sand, freq ch, rare s sub-ang+ sub-rou |
| 65 | 10/10 | C179 | n/a | Natural silting | Med/dk brown, loose, rare s stone, rare ch |
| 66 | 10/10 | C182 | n/a | Natural silting | Med/dk brown, loose, lsub-ang+fractures stones, ch, |
| 67 | 10/20 | C162 | n/a | Natural silting | Med brown, loose sandy silt, freq ch fl, mod s-med sub-rou |
| 68 | 10/10 | C154 | n/a | Poss burnt post | Dk grey brown, ch+ sandy clay, mod m-l sub-ang+occ s sub-rou |
| 73 | 10/10 | C166 | n/a | Natural silting | Med brown loose sandy silt, mod s-m stones, mod ch |
| 77 | 10/10 | C181 | n/a | Natural silting | Med-dk brown, loose sandy silt, freq ch fl, freq s-m sub-rou |
| 110 | 10/20 | C161 | n/a | Natural silting | Med grey brown, fairly loose, mod ch fl, mod m sub-ang |
| 147 | 10/10 | n/a | C223 | Posthole | Circular in plan, U-shaped prof, 0.09d x 0.24l x 0.20w |
| 154 | 10/10 | n/a | C68, C115 | Posthole | Sub-circular in plan, sides steep+smooth, base irreg slightly concave, 0.55d x 0.50l |
| 155 | 10/10 | C154 | n/a | Natural silting | Lt brown grey, sandy clay, occ ch fl, freq s-m sub-rou+occs sub-ang |
| 159 | 10/10 | C160 | n/a | Charcoal fill | Black, compact ch with sandy clay, mod sub-ang+sub-rou |
| 160 | 10/10 | n/a | C62, C 159 | Hearth | Sub-oval in plan, sides irreg+gradually sloping, irreg concave base, 0.15d x 1.00l x 0.50w, N-S |
| 161 | 10/20 | n/a | C110 | Posthole | Circular in plan, sides modin N steeper in S, base irreg, 0.18d x 0.48l x 0.35w |
| 162 | 10/10 | n/a | C67 | Posthole | Subcircular in plan, sides smooth+steep, base flat |
| 166 | 10/10 | n/a | C73, C169 | Posthole | Subcircular in plan, NW side slopes dramatically to lesser slope before base, SE side undercut, base irreg, inclination of axis approx 30%, 0.30d x 0.24l x 0.28w |
| 169 | 10/10 | C166 | n/a | Nat silting | Dk brown, loose sandy clay, occ stones+ ch |
| 174 | 10/20 | n/a | C59 | Posthole | Circular in plan, sides steep, base flat, 0.42d x 0.43l x 0.39w |
| 178 | 10/10 | C180 | n/a | Nat silting | Med brown, mod loosesilty clay, occ ch fl, rare s pebbles, some root activity |
| 179 | 10/10 | n/a | C65 | Posthole (roof support) | Oval in plan, U-shaped prof, 0.35d x 0.10l x 0.20w |
| 180 | 10/10 | n/a | C178 | Stakehole | Circular in plan, U-shaped prof, 0.21d x 0.11l x 0.10w |
| 181 | 10/10 | n/a | C77 | Posthole | Oval in plan, sides vert, base flat, 0.51 x 0.42l x 0.28w, SW-NE |
| 182 | 10/10 | n/a | C66 | Posthole (roof support) | Hexagonal in plan, sides steep, base flat generally |
| 223 | 10/10 | C147 | n/a | Nat silting | Dk brown, mod compacted sandy silt, heavy ch at E end, freq s-m ang+ sub-ang |

Finds:

| C | Find No. | Material | Period | Pottery form | Artefact type | Comment |
|----|--------------|----------|-------------------------|--------------|---------------|---------|
| 59 | 03E0114:59:1 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 59 | 03E0114:59:2 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 59 | 03E0114:59:3 | Pottery | Early Bronze Age Beaker | Basesherd | Beaker | |

| | | | | | | |
|----|---------------|---------|-------------------------|------------|--------|----------|
| 59 | 03E0114:59:4 | Pottery | Early Bronze Age Beaker | Basesherd | Beaker | |
| 59 | 03E0114:59:5 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 59 | 03E0114:59:6 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 59 | 03E0114:59:7 | Pottery | Early Bronze Age Beaker | Basesherd | Beaker | |
| 59 | 03E0114:59:8 | Pottery | Early Bronze Age Beaker | Rimsherd | Beaker | |
| 59 | 03E0114:59:9 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 59 | 03E0114:59:10 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 59 | 03E0114:59:11 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 59 | 03E0114:59:12 | Pottery | Early Bronze Age Beaker | Rimsherd | Beaker | |
| 59 | 03E0114:59:13 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 59 | 03E0114:59:14 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 59 | 03E0114:59:15 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 59 | 03E0114:59:16 | Pottery | Early Bronze Age Beaker | Basesherd | Beaker | |
| 59 | 03E0114:59:17 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 59 | 03E0114:59:18 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 59 | 03E0114:59:19 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 59 | 03E0114:59:20 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 59 | 03E0114:59:21 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 59 | 03E0114:59:22 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 59 | 03E0114:59:23 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 59 | 03E0114:59:24 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 59 | 03E0114:59:25 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 59 | 03E0114:59:26 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 59 | 03E0114:59:27 | Pottery | Early Bronze Age Beaker | Rimsherd | Beaker | |
| 59 | 03E0114:59:28 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 59 | 03E0114:59:29 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 59 | 03E0114:59:30 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 59 | 03E0114:59:31 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 59 | 03E0114:59:32 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 59 | 03E0114:59:33 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 59 | 03E0114:59:34 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 59 | 03E0114:59:35 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 59 | 03E0114:59:36 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 59 | 03E0114:59:37 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 59 | 03E0114:59:38 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 59 | 03E0114:59:39 | Pottery | Early Bronze Age Beaker | | | |
| 59 | 03E0114:59:40 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 59 | 03E0114:59:41 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 59 | 03E0114:59:42 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 59 | 03E0114:59:43 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 59 | 03E0114:59:44 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 59 | 03E0114:59:45 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 59 | 03E0114:59:46 | Pottery | Early Bronze Age Beaker | Basesherds | Beaker | |
| 59 | 03E0114:59:47 | Pottery | Early Bronze Age Beaker | Basesherds | Beaker | |
| 59 | 03E0114:59:48 | Pottery | Early Bronze Age Beaker | Basesherds | Beaker | |
| 59 | 03E0114:59:49 | Pottery | Early Bronze Age Beaker | Basesherds | Beaker | |
| 59 | 03E0114:59:50 | Pottery | Early Bronze Age Beaker | Necksherds | Beaker | |
| 59 | 03E0114:59:51 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 59 | 03E0114:59:52 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 59 | 03E0114:59:53 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 59 | 03E0114:59:54 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 59 | 03E0114:59:55 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 59 | 03E0114:59:56 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 59 | 03E0114:59:57 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 59 | 03E0114:59:58 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 59 | 03E0114:59:59 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 59 | 03E0114:59:60 | Flint | | | | Debitage |
| 62 | 03E0114:62:1 | Pottery | Early Bronze Age Beaker | Rimsherd | Beaker | |

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|----|---------------|-----------|---------------------------------|----------------|-----------------|--|
| 62 | 03E0114:62:2 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 62 | 03E0114:62:3 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 62 | 03E0114:62:4 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 62 | 03E0114:62:5 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 62 | 03E0114:62:6 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 62 | 03E0114:62:7 | Pottery | Early Bronze Age Beaker | Crumb Fragment | Beaker | |
| 62 | 03E0114:62:8 | Pottery | Early Bronze Age Beaker | Crumb Fragment | Beaker | |
| 62 | 03E0114:62:9 | Pottery | Early Bronze Age Beaker | Crumb Fragment | Beaker | |
| 62 | 03E0114:62:10 | Pottery | Early Bronze Age Beaker | Crumb Fragment | Beaker | |
| 62 | 03E0114:62:11 | Cancelled | | | | |
| 62 | 03E0114:62:12 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 62 | 03E0114:62:13 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 62 | 03E0114:62:14 | Pottery | Early Bronze Age Beaker | Basesherd | Beaker | |
| 62 | 03E0114:62:15 | Pottery | | | | |
| 62 | 03E0114:62:16 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 62 | 03E0114:62:17 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 62 | 03E0114:62:18 | Pottery | | | | |
| 62 | 03E0114:62:19 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 62 | 03E0114:62:20 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 62 | 03E0114:62:21 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 62 | 03E0114:62:22 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 62 | 03E0114:62:23 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 62 | 03E0114:62:24 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 66 | 03E0114:66:1 | Pottery | Early Bronze Age Beaker | | | |
| 66 | 03E0114:66:2 | Flint | Late Neolithic/Early Bronze Age | | Abraded lump | |
| 67 | 03E0114:67:1 | Flint | Late Neolithic/Early Bronze Age | | Flake debitage | |
| 67 | 03E0114:67:2 | Flint | Late Neolithic/Early Bronze Age | | Angular shatter | |
| 67 | 03E0114:67:3 | Flint | Late Neolithic/Early Bronze Age | | Flake debitage | |
| 67 | 03E0114:67:4 | Flint | Late Neolithic/Early Bronze Age | | Abraded lump | |
| 67 | 03E0114:67:5 | Pottery | Early Bronze Age Beaker | Rimsherd | Beaker | |
| 67 | 03E0114:67:6 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 67 | 03E0114:67:7 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 67 | 03E0114:67:8 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 67 | 03E0114:67:9 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 67 | 03E0114:67:10 | Pottery | Early Bronze Age Beaker | Basesherd | Beaker | |
| 67 | 03E0114:67:11 | Pottery | Early Bronze Age Beaker | | | |
| 67 | 03E0114:67:12 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 67 | 03E0114:67:13 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 67 | 03E0114:67:14 | Pottery | Early Bronze Age Beaker | | | |
| 67 | 03E0114:67:15 | Pottery | Early Bronze Age Beaker | | | |
| 67 | 03E0114:67:16 | Pottery | Early Bronze Age Beaker | | | |
| 67 | 03E0114:67:17 | Pottery | Early Bronze Age Beaker | | | |
| 67 | 03E0114:67:18 | Pottery | Early Bronze Age Beaker | | | |
| 67 | 03E0114:67:19 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 67 | 03E0114:67:20 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 67 | 03E0114:67:21 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 67 | 03E0114:67:22 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 67 | 03E0114:67:23 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 67 | 03E0114:67:24 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 67 | 03E0114:67:25 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 67 | 03E0114:67:26 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 67 | 03E0114:67:27 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 67 | 03E0114:67:28 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 67 | 03E0114:67:29 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |

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|----|---------------|---------|-------------------------|-----------|--------|--|
| 67 | 03E0114:67:30 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 67 | 03E0114:67:31 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 67 | 03E0114:67:32 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 67 | 03E0114:67:33 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 67 | 03E0114:67:34 | Pottery | Early Bronze Age Beaker | | | |
| 67 | 03E0114:67:35 | Pottery | Early Bronze Age Beaker | | | |
| 67 | 03E0114:67:36 | Pottery | Early Bronze Age Beaker | | | |
| 67 | 03E0114:67:37 | Pottery | Early Bronze Age Beaker | | | |
| 68 | 03E0114:68:1 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 68 | 03E0114:68:2 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 68 | 03E0114:68:3 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 68 | 03E0114:68:4 | Pottery | Early Bronze Age Beaker | Basesherd | Beaker | |
| 68 | 03E0114:68:5 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 68 | 03E0114:68:6 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 68 | 03E0114:68:7 | Pottery | Early Bronze Age Beaker | | | |
| 68 | 03E0114:68:8 | Pottery | Early Bronze Age Beaker | Basesherd | Beaker | |
| 68 | 03E0114:68:9 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 68 | 03E0114:68:10 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:11 | Pottery | Early Bronze Age Beaker | Basesherd | Beaker | |
| 68 | 03E0114:68:12 | Pottery | Early Bronze Age Beaker | Basesherd | Beaker | |
| 68 | 03E0114:68:13 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 68 | 03E0114:68:14 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 68 | 03E0114:68:15 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 68 | 03E0114:68:16 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:17 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:18 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:19 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:20 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:21 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:22 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:23 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:24 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:25 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:26 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:27 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:28 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:29 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:30 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:31 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 68 | 03E0114:68:32 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 68 | 03E0114:68:33 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 68 | 03E0114:68:34 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 68 | 03E0114:68:35 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 68 | 03E0114:68:36 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 68 | 03E0114:68:37 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 68 | 03E0114:68:38 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 68 | 03E0114:68:39 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 68 | 03E0114:68:40 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 68 | 03E0114:68:41 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:42 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 68 | 03E0114:68:43 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 68 | 03E0114:68:44 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 68 | 03E0114:68:45 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 68 | 03E0114:68:46 | Pottery | Early Bronze Age Beaker | Rimsherd | Beaker | |
| 68 | 03E0114:68:47 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 68 | 03E0114:68:48 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 68 | 03E0114:68:49 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 68 | 03E0114:68:50 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |

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|-----|----------------|-------------|---------------------------------|-----------|-----------------|--|
| 68 | 03E0114:68:51 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:52 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:53 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:54 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:55 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:56 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:57 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:58 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:59 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 68 | 03E0114:68:60 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 77 | 03E0114:77:1 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 77 | 03E0114:77:2 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 77 | 03E0114:77:3 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 77 | 03E0114:77:4 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 77 | 03E0114:77:5 | Pottery | Early Bronze Age Beaker | Bodyshed | Beaker | |
| 77 | 03E0114:77:6 | Pottery | Early Bronze Age Beaker | | | |
| 77 | 03E0114:77:7 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 77 | 03E0114:77:8 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 77 | 03E0114:77:9 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 77 | 03E0114:77:10 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 77 | 03E0114:77:11 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 77 | 03E0114:77:12 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 77 | 03E0114:77:13 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 77 | 03E0114:77:14 | Flint | Late Neolithic/Early Bronze Age | | Abraded lump | |
| 77 | 03E0114:77:15 | Flint | Late Neolithic/Early Bronze Age | | Abraded lump | |
| 77 | 03E0114:77:16 | Hammerstone | | | | |
| 155 | 03E0114:155:1 | Flint | | | | |
| 155 | 03E0114:155:2 | Flint | Late Neolithic/Early Bronze Age | | Abraded lump | |
| 155 | 03E0114:155:3 | Flint | Late Neolithic/Early Bronze Age | | Angular shatter | |
| 155 | 03E0114:155:4 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 155 | 03E0114:155:5 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 155 | 03E0114:155:6 | Pottery | Early Bronze Age Beaker | | | |
| 159 | 03E0114:159:1 | Pottery | Early Bronze Age Beaker | | | |
| 159 | 03E0114:159:2 | Pottery | Early Bronze Age Beaker | | | |
| 159 | 03E0114:159:3 | Pottery | | | | |
| 159 | 03E0114:159:4 | Flint | Late Neolithic/Early Bronze Age | | Abraded lump | |
| 159 | 03E0114:159:5 | Pottery | Late Neolithic/Early Bronze Age | Necksherd | Beaker | |
| 159 | 03E0114:159:6 | Pottery | Late Neolithic/Early Bronze Age | Bodysherd | Beaker | |
| 159 | 03E0114:159:7 | Pottery | Late Neolithic/Early Bronze Age | Bodysherd | Beaker | |
| 159 | 03E0114:159:8 | Pottery | Late Neolithic/Early Bronze Age | Bodysherd | Beaker | |
| 159 | 03E0114:159:9 | Pottery | Early Bronze Age Beaker | Rimsherd | Beaker | |
| 159 | 03E0114:159:10 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 159 | 03E0114:159:11 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 159 | 03E0114:159:12 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 159 | 03E0114:159:13 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 159 | 03E0114:159:14 | Pottery | Early Bronze Age Beaker | | | |
| 159 | 03E0114:159:15 | Pottery | Early Bronze Age Beaker | | | |
| 159 | 03E0114:159:16 | Pottery | Early Bronze Age Beaker | | | |
| 169 | 03E0114:169:1 | Pottery | Early Bronze Age Beaker | Rimsherd | Beaker | |
| 169 | 03E0114:169:2 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 169 | 03E0114:169:3 | Pottery | Early Bronze Age Beaker | | | |

| | | | | | | |
|-----|----------------|---------|-------------------------|-----------|--------|--|
| 169 | 03E0114:169:4 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 169 | 03E0114:169:5 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 169 | 03E0114:169:6 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 169 | 03E0114:169:7 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 169 | 03E0114:169:8 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 169 | 03E0114:169:9 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 169 | 03E0114:169:10 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 169 | 03E0114:169:11 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 178 | 03E0114:178:1 | Pottery | Early Bronze Age Beaker | Rimsherd | Beaker | |

Interpretation:

Structure {1002} comprised seven postholes, [C147], [C154], [C161], [C162], [C166], [C174] and [C181], with stakehole [C180] adjacent to [C181], arranged in a circle. The structure measured c.4m in diameter, with two postholes [C179] and [C182] at the centre, which probably functioned as roof supports. Charcoal from the fill (C73) was identified as oak, ivy, alder (*Alnus glutinosa*), cherry (*Prunus avium*) and hazel (Appendix 2.1). On the eastern side of the interior was a hearth [C60]. Five of the seven main postholes, as well as one of the internal roof supports ([C182]), stakehole [C180] and hearth [C160] produced numerous sherds of prehistoric pottery, which have been identified as Beaker Ware (Appendix 2.4, Figure 10). Specialist analysis of two pieces of flint recovered from a posthole indicates that the structure dated to the Late Neolithic/Early Bronze Age Beaker period. The structure appears to have served a domestic function, with numerous external pits and postholes (described below) serving as storage and refuse pits. All of the postholes silted up naturally, which indicates that the structure was dismantled when the site was abandoned.

4.3.2 SUBGROUP {1003}: Pit

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|---------------------|---|
| 51 | 10/10 | C151 | n/a | Deliberate backfill | Med grey brown, sandy clay, mod ch fl, mod m sub-ang |
| 151 | 10/10 | n/a | C51 | Pit | Oval in plan, sides irreg+shallow, base irreg concave, 0.14d x 0.98l x 0.32w, E-W |

Finds:

| C | Find No. | Material | Period | Pottery form | Artefact type | Comments |
|----|--------------|----------|---------------------------------|--------------|-------------------------|----------|
| 51 | 03E0114:51:1 | Flint | Late Neolithic/Early Bronze Age | | Flake debitage | |
| 51 | 03E0114:51:2 | Flint | Middle/Late Neolithic | | Modified Hollow scraper | |

Interpretation:

Pit [C151], filled with (C51) was located c.2m north of curvilinear trench [C129]. The hollow scraper recovered from (C51) was sent for specialist analysis and returned a date of Middle/Late Neolithic. The scraper also suggests that hide preparation may have been carried out in this area, but no animal bone was recovered from the area to confirm this (Appendix 2.3)

4.3.3 SUBGROUP {1004}: Possible Posthole

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|----|-------|---------|-------------|---------------------|---|
| 70 | 10/10 | C156 | n/a | Deliberate backfill | Dk brown black, ch+sandy clay, occs sub-rou+sub+ang |

| | | | | | |
|-----|-------|-----|-----|---------------|--|
| 156 | 10/10 | n/a | C70 | Poss posthole | Oval in plan, sides smooth+steep, E side much steeper than W, base rounded V-shape, poss post was not perpendicular to ground, 0.12d x 0.20l x 0.16w |
|-----|-------|-----|-----|---------------|--|

Finds:

| C | Find No. | Material | Period | Pottery form | Artefact type | Comments |
|----|---------------|----------|-------------------------|--------------|-----------------|----------|
| 70 | 03E0114:70:1 | Flint | Early Bronze Age Beaker | | Angular shatter | |
| 70 | 03E0114:70:2 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 70 | 03E0114:70:3 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 70 | 03E0114:70:4 | Pottery | Early Bronze Age Beaker | | | |
| 70 | 03E0114:70:5 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 70 | 03E0114:70:6 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 70 | 03E0114:70:7 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 70 | 03E0114:70:8 | Pottery | Early Bronze Age Beaker | | | |
| 70 | 03E0114:70:9 | Pottery | Early Bronze Age Beaker | | | |
| 70 | 03E0114:70:10 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 70 | 03E0114:70:11 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 70 | 03E0114:70:12 | Pottery | Early Bronze Age Beaker | | | |
| 70 | 03E0114:70:13 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 70 | 03E0114:70:14 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 70 | 03E0114:70:15 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 70 | 03E0114:70:16 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 70 | 03E0114:70:17 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 70 | 03E0114:70:18 | Pottery | Early Bronze Age Beaker | Bodysherd | Beaker | |
| 70 | 03E0114:70:19 | Pottery | Early Bronze Age Beaker | Necksherd | Beaker | |
| 70 | 03E0114:70:20 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 70 | 03E0114:70:21 | Pottery | Early Bronze Age Beaker | | | |

Interpretation:

The possible posthole [C154] was deliberately filled with (C70). The fill appeared to comprise charcoal-rich fire debris, but the lack of fire-reddened clay around the cut suggests that the material was burnt elsewhere and dumped in rather than being burnt *in situ*. [C154] was located immediately to the west of posthole [C156] which formed part of the structure. As the pottery recovered from (C70) linked [C154] with the structure chronologically, it is safe to assume that [C154] was related to the structure and may have functioned as an additional support post beside [C156]. Pottery sherds recovered from context (C70) were sent for specialist analysis and were identified as Beaker Ware (Appendix 2.4. Figure 10).

4.3.4 SUBGROUP {1005}: Curvilinear trench and Posthole

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|-------------------------|---|
| 78 | 10/10 | C190 | n/a | Natural silting | Lt-med grey brown, mod loose sandy silt, occ msub-ang, occ ch fl, |
| 190 | 10/10 | n/a | C78 | Curvilinear slot trench | Irreg curvilinear in plan, sides concave, base flat generally, 0.15d x 2.33l x 1.10w, N-S |
| 193 | 10/10 | n/a | C194 | Posthole | Circular in plan, S+W sides vert, N+E concave, base concave, 0.13d x 0.22l x 0.17w |
| 194 | 10/10 | C193 | n/a | Natural silting | Med-lt grey, mod loose sandy silt, freq chfl, freq pebbles, poss packing stones in base |

Finds:

| C | Find No. | Material | Period | Pottery form | Artefact type | Comments |
|----|--------------|----------|-------------------------|--------------|---------------|----------|
| 78 | 03E0114:78:1 | Pottery | Early Bronze Age Beaker | Rimsherd | Beaker | |
| 78 | 03E0114:78:2 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |

| | | | | | | |
|----|--------------|-------|---------------------------------|--|-----------------|--|
| 78 | 03E0114:78:3 | Flint | Late Neolithic/Early Bronze Age | | Angular shatter | |
|----|--------------|-------|---------------------------------|--|-----------------|--|

Interpretation:

The curvilinear trench [C190] had naturally silted up with (C78), with posthole [C193] at the northern end, which was filled by natural silting (C194). [C190] was located 1m to the southwest of the structure and is linked chronologically by the prehistoric pottery recovered from (C78). The pottery sherds recovered from (C78) were sent for specialist analysis and were subsequently identified as fragments of Early Bronze Age Beaker Ware. Charcoal sampled from the fill (C78) was identified as hazel (Appendix 2.1, Figure 10). Nothing was recovered to indicate the function of [C190] or [C193].

4.3.5 SUBGROUP {1006}: Pit

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|-----------------|--|
| 81 | 10/20 | C197 | n/a | Natural silting | Med brown, mod compacted silty clay, mod ch fl, mod s-m sub-ang, |
| 197 | 10/20 | n/a | C81 | Pit | Circular in plan, E+S sides regular, W+N sides irreg, base irreg concave, 0.40d x 1.26 x 1.20w |

Finds:

| C | Find No. | Material | Period | Pottery form | Artefact type | Comment |
|----|---------------|----------|---------------------------------|--------------|-----------------|---------|
| 81 | 03E0114:81:1 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 81 | 03E0114:81:2 | Pottery | Early Bronze Age Beaker | Fragment | Beaker | |
| 81 | 03E0114:81:3 | Flint | Late Neolithic/Early Bronze Age | | Flake debitage | |
| 81 | 03E0114:81:4 | Flint | Late Neolithic/Early Bronze Age | | Flake debitage | |
| 81 | 03E0114:81:5 | Flint | Late Neolithic/Early Bronze Age | | Flake debitage | |
| 81 | 03E0114:81:6 | Flint | Late Neolithic/Early Bronze Age | | Angular shatter | |
| 81 | 03E0114:81:7 | Flint | Late Neolithic/Early Bronze Age | | Flake debitage | |
| 81 | 03E0114:81:8 | Flint | Late Neolithic/Early Bronze Age | | Angular shatter | |
| 81 | 03E0114:81:9 | Flint | Late Neolithic/Early Bronze Age | | Flake debitage | |
| 81 | 03E0114:81:10 | Flint | Late Neolithic/Early Bronze Age | | Angular shatter | |
| 81 | 03E0114:81:11 | Flint | Late Neolithic/Early Bronze Age | | Angular shatter | |
| 81 | 03E0114:81:12 | Flint | Late Neolithic/Early Bronze Age | | Angular shatter | |

Interpretation:

The pit [C197] had naturally silted up with (C81). The nature of the finds recovered from (C81) suggested that [C197] functioned as a storage or refuse pit, and silted up naturally over time. Pottery finds retrieved from this context were included in the assemblage sent for specialist analysis. The pottery fragments recovered from (C80) were identified as Beaker Ware (Appendix 2.4).

4.3.7 SUBGROUP {1007}: Pit

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|-----------------|--|
| 117 | 10/20 | C200 | n/a | Natural silting | Med brown, mod compact sandy silt, occ ch fl, mod s-m sub-ang |
| 200 | 10/20 | n/a | C117 | Pit | Circular in plan, sides slope gently, irreg w/rocks projecting from the natural, base irreg +slightly concave, 0.31d x 0.86l x 0.86w |

Finds:

| C | Find No. | Material | Period | Pottery form | Artefact type | Comments |
|-----|---------------|----------|--------|--------------|---------------|----------|
| 117 | 03E0114:117:1 | Pottery | | | | |
| 117 | 03E0114:117:2 | Pottery | | | | |
| 117 | 03E0114:117:3 | Flint | | | | |
| 117 | 03E0114:117:4 | Flint | | | | |
| 117 | 03E0114:117:5 | Flint | | | | |

Interpretation:

The pit [C200] had naturally silted with (C117). It was located 2.40m to the north of the structure and is chronologically linked to the structure by the pottery recovered from (C117). It is probable that [C200] functioned as a storage pit for the occupants of the structure.

GROUP 3 DISCUSSION: Early Bronze Age Beaker Activity

| Group | Sub group | Subgroup type | Period by finds | Period by interpretation | Group Interpretation |
|-------|-----------|---------------------------------|-------------------------|--------------------------|-------------------------|
| 3 | 1002 | Structure | Early Bronze Age Beaker | Early Bronze Age Beaker | Early Bronze Age Beaker |
| 3 | 1003 | Pit | Early Bronze Age Beaker | Early Bronze Age Beaker | Early Bronze Age Beaker |
| 3 | 1004 | Poss. posthole | Early Bronze Age Beaker | Early Bronze Age Beaker | Early Bronze Age Beaker |
| 3 | 1005 | Curvilinear trench and posthole | Early Bronze Age Beaker | Early Bronze Age Beaker | Early Bronze Age Beaker |
| 3 | 1006 | Pit | Early Bronze Age Beaker | Early Bronze Age Beaker | Early Bronze Age Beaker |
| 3 | 1007 | Pit | Early Bronze Age Beaker | Early Bronze Age Beaker | Early Bronze Age Beaker |

The structure recorded on site was believed to be an Early Bronze Age Beaker round-house, based on specialist analysis of both the pottery and flint assemblages (Appendices 2.3 & 2.4).

4.4 Group 4: Middle Bronze Age Activity

4.4.1 SUGROUP {1008}: Burnt Spread

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|----------------------|---|
| 12 | 10/0 | n/a | n/a | Burnt mound material | Linear in plan, grey, ashy clay w/ ch fl, 0.12d x 20.50l x 10.00w E-W |
| 22 | 10/0 | n/a | n/a | Burnt spread | Irreg linear in plan, dk brown black, stoney ch-rich silty clay, bs, 0.14d x 7.50l x 4.20w E-W |
| 92 | 10/10 | C207 | n/a | Trough fill | Med brown, loose sandy clay, freq bs |
| 207 | 10/10 | n/a | C92, C208 | Trough | Rectangular in plan, rounded corners, sides vert, base flat (rises slightly to E), 0.40d x 2.90l x 1.52w, E-W, (6 postholes, 209, 211, 216, 217, 219, 221 in trough base) |
| 208 | 10/10 | C207 | n/a | Trough fill | Black, soft clayey silt, freq ch, freq m ang (heat affected) |
| 209 | 10/10 | n/a | C210 | Stakehole | Circular in plan, vert sides, base rounded+slightly tapered, 0.23d x 0.16l x 0.15w, |
| 210 | 10/10 | C209 | n/a | Deliberate backfill | Grey, loose sandy clay, mod ch fl, occ s stones |
| 211 | 10/10 | n/a | C212 | Stakehole | Circular in plan, sides vert, base slightly rounded, poss t'd, 0.29d x 0.15l x 0.19w |
| 212 | 10/10 | C211 | n/a | Deliberate backfill | Med brown grey, soft sandy clay, occ ch fl, |

| | | | | | |
|-----|-------|------|------|---------------------|---|
| | | | | | occ m sub-ang, mod tiny stones |
| 214 | 10/10 | C216 | n/a | Deliberate backfill | Dk brown black, loose silty clay, freq ch , occ s stones |
| 215 | 10/10 | C217 | n/a | Deliberate backfill | Black, soft silty clay, freq ch, |
| 216 | 10/10 | n/a | C214 | Stakehole | Oval in plan, sides vertical, base slightly tapered+rounded, 0.37d x 0.22l x 0.16w |
| 217 | 10/10 | n/a | C215 | Stakehole | irreg sub-rounded in plan, sides vertical generally, but W side stepped base flat, ang stones found in walls, 0.36d x 0.25l x 0.13w |
| 218 | 10/10 | C219 | n/a | Deliberate backfill | Grey, loose silty clay, mod ch fl, occ s stones, freq ch fl, |
| 219 | 10/10 | n/a | C218 | Stakehole | Circular in plan, sides vertical, base slightly tapered+rounded, 0.12d x 0.14l x 0.15w |
| 220 | 10/10 | C221 | n/a | Deliberate backfill | Med grey brown, soft silty clay, mod ch fl, mod s sub-ang+ occ m sub-ang |
| 221 | 10/10 | n/a | C220 | Stakehole | Circular in plan, sides nearly vert, Base concave, 0.40d x 0.23l x 0.2 |

Finds:

| C | Find No. | Material | Period | Pottery form | Artefact type | Comments |
|-----|---------------|----------|---------------------------------|--------------|------------------|----------|
| 92 | 03E0114:92:1 | Flint | Late Neolithic/Early Bronze Age | | Modified Scraper | |
| 220 | 03E0114:220:1 | Flint | Late Neolithic/Early Bronze Age | | Flake debitage | |

Interpretation:

{1008} comprised a sub-rectangular trough [C207], deliberately filled with (C92) and (C208). Six stake-holes were cut into the corners at the base of [C207] indicating that the trough was probably wood-lined. [C209] and [C211] were at the north-west and south-west corners respectively, while [C216] and [C219] were at the north-east corner, with [C217] and [C221] in the south-east corner. The stakes were removed from the stake-holes prior to the backfilling of the trough. The waste material from the *fulacht* was spread over a large area, and had been disturbed and truncated by post-medieval drainage activity and agricultural activity.

The flint finds from (C92) were sent for specialist analysis; one piece in particular was identified as a Late Neolithic/Early Bronze Age modified scraper (Appendix 2.3). The charcoal sampled from the fill (C92) was identified as oak () and alder (*Alnus glutinosa*) Environmental samples were also taken from (C208). These were sieved and provided charcoal fragments for radiocarbon dating. The charcoal retrieved from (C208) was identified as alder (*alnus glutinosa*) blackthorn (*Prunus spp*) and cherry (*Prunus avium*) (Appendix 2.1) and returned a date of 2915+/- 51 BP (Appendix 2.2) The 2 Sigma calibrated results from this sample produced a date of Cal. 1270BC – 970BC. This dates the deposits within these features to the Middle Bronze Age.

4.4.2 SUBGROUP {1009}: Trough and Possible Well

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|------|---------|--------------------|---------------------------|---|
| 26 | 20/0 | C213 | n/a | Trough fill | Med/Dk black grey, mod loose sandy silt, freq sub-ang+ang, freq ch fl, esp towards base |
| 30 | 20/0 | C206 | n/a | Poss burnt mound material | Dk brown black, silty clay, freq stones, occ bs, |
| 204 | 20/0 | C206 | n/a | Ash layer | Yellow grey, silt, occ ch fl, occ s stones |
| 205 | 20/0 | C206 | n/a | Re-deposited natural | Orange brown silty, sandy clay |
| 206 | 20/0 | n/a | C30, C204, C205 | Possible well | Sub-circular pit, steep sided, 6.50l x 4.5w x 1.00d. E-W |
| 213 | 30/0 | n/a | C26 | Trough | Sub-circular, E, S, N sides concave, W side convex, Base flat, 0.42d x 1.62l x 1.42w N-S |

Finds:

| C | Find No. | Material | Period | Pottery form | Artefact type | Comment |
|----|--------------|----------|---------------------------------|--------------|-----------------|---------|
| 30 | 03E0114:30:1 | Flint | Late Neolithic/Early Bronze Age | | Abraded lump | |
| 30 | 03E0114:30:2 | Flint | Late Neolithic/Early Bronze Age | | Abraded lump | |
| 30 | 03E0114:30:3 | Flint | | | Unworked pebble | |
| 30 | 03E0114:30:4 | Flint | | | | |

Interpretation:

{1009} comprised a sub-circular pit [C213] which was filled with burnt mound material (C26). To the south of [C213] was a large pit [C206], which filled with water when excavated. It is probable that the trough [C213] was associated with the burnt mound material and [C206] which was a well that was dug to provide water for use in the trough. It is possible that {1009} was contemporary with {1008}, but they could not be directly linked during the excavation. Flint finds from [C30] were included in an assemblage sent for specialist analysis and returned a date of Late Neolithic/Early Bronze Age. This corresponds with the feature type as *fulachta fiadh* are generally believed to date to the Bronze Age although the *fulacht fiadh* in subgroup {1008} returned a Middle Bronze Age date. *Fulachta fiadh* frequently occur in groups or cluster so it is likely that these *fulachta fiadh* were broadly contemporary.

GROUP 4 DISCUSSION: Middle Bronze Age *fulachta fiadh*

| Group | Sub group | Subgroup type | Period by finds | Period by interpretation | Group Interpretation |
|-------|-----------|---|--------------------------------|--------------------------|----------------------|
| 4 | 1008 | Trough and associated burnt mound | LateNeolithic/Early Bronze Age | Middle Bronze Age | Middle Bronze Age |
| 4 | 1009 | Trough, well and associated burnt mound | LateNeolithic/Early Bronze Age | Middle Bronze Age | Middle Bronze Age |

Group 4 consisted of two burnt mounds/*fulachta fiadh*. Similar burnt mounds were in use as recently as the medieval and post-medieval period, such as the burnt mound excavated at Site 102 at Littlemill 2 (O Donnachadha, B. forthcoming (f)) which was dated by C14 dating to between 890-1250 AD but the bulk of recorded examples have returned Bronze Age dates (Buckley 1990). The charcoal retrieved from (C208) was identified as alder (*alnus glutinosa*), blackthorn (*Prunus spp*) and cherry (*Prunus avium*) (Appendix 2.1) and returned a date of 2915+/- 51 BP (Appendix 2.2) The 2 Sigma calibrated results from this sample produced a date of Cal. 1270BC – 970BC. This dates the deposits within these features in subgroup {1008} to the Middle Bronze Age.

4.5 GROUP 5: Probable Prehistoric Activity

4.5.1 SUBGROUP {1010}: Linear Feature

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|----------------|--|
| 48 | 10/10 | C129 | n/a | Nat silting | Dk brown, mod compacted sandy silt, heavy ch at E end, freq s-m ang+ sub-ang |
| 129 | 10/10 | n/a | C48 | Linear feature | Linear in plan, shallow generally, but deeper at E end, flat base generally, 0.12dx6.30lx0.98w E-W |

Finds:

None

Interpretation:

The east-west oriented linear feature [C129] had naturally silted up with (C48). The fill (C48) contained charcoal which was identified as hazel and cherry (*Prunus avium*) (Appendix 2.1) It was located 1m to the southeast of the structure and was probably related to the structure; however nothing datable was recovered from the fill to confirm this. It was similar to [C190] in subgroup {1001} and may have performed a similar function.

4.5.2 SUBGROUP {1011}: Posthole

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|-------------------|---|
| 49 | 10/10 | C165 | n/a | Natural silting | Orange, slightly ch-rich sandy clay, rare s sub-ang, |
| 165 | 10/10 | n/a | C49 | Poss t'd posthole | Circular in plan, U-shaped prof, 0.07d x 0.27l x 0.20 |

Finds:

None

Interpretation:

Posthole [C165] was possibly truncated and had naturally filled with (C49). It was located to the south of the western end of the linear feature [C129] and may be related to it. Nothing to indicate a date was recovered from the fill of [C165].

4.5.3 SUBGROUP {1012}: Pit

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|----------------|---|
| 50 | 10/10 | C163 | n/a | Ch deposit | Ch with orange sandy clay mixed in, occ s ang |
| 163 | 10/10 | n/a | C50 | Poss pit | Sub-oval in plan, sides steep+ slightly concave, concave base, 0.18d x 0.62l x 0.40w, NW-SE |

Finds:

| C | Find No. | Material | Period | Pottery form | Artefact type | Comments |
|----|--------------|----------|--------|--------------|---------------|----------|
| 50 | 03E0114:50:1 | Flint | | | | |

Interpretation:

Pit [C163] was filled with fire debris (C50). The lack of fire-reddened clay from the edges of the pit suggests that the material was burned elsewhere and dumped into

the pit, rather than being burnt *in situ*. Pit [C60] was located adjacent to [C165] and [C129] described above and may be related to them. Nothing to indicate a date was recovered from the fill. Pit [C163] may have functioned as a refuse or storage pit.

4.5.4 SUBGROUP {1013}: Stakeholes

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|-----------------|---|
| 57 | 10/10 | C176 | n/a | Natural silting | Med brown, loose silty sand, freq ch fl, occ pebbles+s stones |
| 58 | 10/10 | C177 | n/a | Natural silting | Med brown, loose silty sand, occ s stones |
| 176 | 10/20 | n/a | C57 | Stakehole | Circular in plan, U-shaped prof, 0.09d x 0.09l x 0.10w |
| 177 | 10/20 | n/a | C58 | Stakehole | Circular inplan, U-shaped prof, 0.08d x 0.09l x 0.09w |

Finds:

None

Interpretation:

Stakeholes [C176] and [C177] were located 0.20m to the east of the posthole [C174], which formed part of the structure, and as such, it is probable that they were related to activity around the structure. Nothing to indicate a date was recovered from the fills of either of the stakeholes.

4.5.5 SUBGROUP {1014}: Pit

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|-----------------|--|
| 97 | 10/10 | C175 | n/a | Natural silting | Dk brown, mod loose silty clay, mod ch fl, rare s sub-ang, minor root activity |
| 175 | 10/10 | n/a | C97 | Poss pit | Oval in plan, U-shaped prof, 0.35d x 0.46l x 0.19w, NE-SW |

Finds:

None

Interpretation:

Pit [C175] naturally silted with (C97). It was located 4m to the north-east of the structure, and may have functioned as a storage pit. Nothing to indicate a date was recovered from the fill.

4.5.6 SUBGROUP {1015}: Possible hearth

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|------------------------|---|
| 103 | 10/20 | C167 | n/a | <i>In situ</i> burning | Dk brown, silty clay, mod ch, occm ang |
| 167 | 10/20 | n/a | C103, C168 | Possible hearth | Oval in plan, sides irreg+gradually sloping, base flat, generally, 0.14d x 0.87l x 0.76w, N-S |
| 168 | 10/20 | 167 | n/a | Fire reddened clay | Pink brown, mod loose sandy silt, occ m sub-ang, occ ch fl |

Finds:

None

Interpretation:

Hearth [C167] was filled with fire debris (C103) and a layer of fire reddened clay (C168). It was located 3.80m to the north of the structure and may be related to it. Nothing to indicate a date or a function for the hearth was recovered from the fill.

4.5.7 SUBGROUP {1016}: Posthole

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|---------------------|--|
| 104 | 10/20 | C171 | n/a | Deliberate backfill | Dk grey brown, loose silty clay, freq ch fl, occ s-m sub-ang |
| 171 | 10/20 | n/a | C104 | Poss posthole | Oval in plan, sides smooth+undercut on NW edge, flat base, 0.26d x 0.39l x 0.52w SE-NW |

Finds:

None

Interpretation:

Posthole [C171] was deliberately filled with (C104). It was located 3.40m to the northeast of the structure and may be related to it. No other postholes were in the vicinity of [C171], and nothing to indicate a date was recovered from the fill.

4.5.8 SUBGROUP {1017}: Stakehole

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|-----------------|--|
| 111 | 10/10 | C185 | n/a | Natural silting | Med brown, mod compact silty clay, occ ch fl, rare s pebbles |
| 185 | 10/10 | n/a | C111 | Poss stakehole | Circular in plan, sides vert, base flat, 0.13d x 0.07l x 0.07w |

Finds:

None

Interpretation:

Stakehole [C185] had naturally silted with (C111). The stakehole [C185] was located immediately north of [C161], which formed part of the structure and was probably related to the structure. Nothing to indicate a date was recovered from the fill.

4.5.9 SUBGROUP {1018}: Pit

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|-----------------|---|
| 113 | 10/20 | C164 | n/a | Natural silting | Dk brown, mod loose sandy silt, mod ch fl, mod s sub-ang |
| 164 | 10/20 | n/a | C113 | Pit | Circular in plan, smooth regular sides, concave base, 0.12d x 0.30l x 0.26w |

Finds:

None

Interpretation:

Pit [C164] had naturally filled by (C113). It was located 1.60m to the north of the structure and probably functioned as a storage pit for the occupants of the structure. Nothing to determine a date was recovered from the fill.

4.5.10 SUBGROUP {1019}: Kiln

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|-----------------------|---|
| 32 | 30/10 | C131 | n/a | Poss kiln material | Black, ch, rare s sub-ang |
| 39 | 20/10 | n/a | n/a | spread | |
| 131 | 20/10 | n/a | C32, C132 | Poss corn drying kiln | Oval in plan, sides irreg, E side stepped, base irreg, w/a circular shape in NW, 0.38d x 1.64l x 1.03w, E-W |
| 132 | 30/10 | C131 | n/a | Poss kiln material | Grey brown, very ch-rich clayey silt, freq m sub-rou+sub-ang |

Finds:

| C | Find No. | Material | Period | Pottery form | Artefact type | Comments |
|-----|---------------|----------|--------|--------------|---------------|----------|
| 132 | 03E0114:132:1 | Flint | | | Abraded lump | |

Interpretation:

The oval pit [C131] was filled with (C32) and (C132). The irregular nature of the sides and base of the pit, as well as the evidence of *in situ* burning contained in the fills has led to the suggestion that pit [C131] may have functioned as a corn drying kiln. However, no grain was recovered from the fills of the pit to confirm this. A thin spread of charcoal (C39) immediately to the north of [C131] may be the result of raking out of material from this kiln. Nothing to suggest a date or alternative function was recorded.

4.5.11 SUBGROUP {1020}: Spread

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|----|-------|---------|-------------|-----------------|--|
| 31 | 20/10 | n/a | n/a | Charcoal spread | Sub-circular in plan, orange, mod compacted ch-rich sandy clay, occ s ang, 0.07d x 1.04l x 0.94w |

Finds:

None

Interpretation:

Spread (C31) comprised a circular area of charcoal mixed with natural subsoil. It was located immediately to the north of possible kiln [C131] in subgroup {1019} and was possibly waste material from the activity carried out in the kiln. No finds to indicate a date were recovered from (C31).

4.5.12 SUBGROUP {1021}: Spread

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|----|-------|---------|-------------|----------------|---|
| 44 | 20/10 | n/a | n/a | Spread | Sub-circular in plan, thin spread, irreg base, Dk brown black, ch-rich silty clay, occ m sub-ang, 0.14d x 1.95 l x 1.00 w |

Finds:

None

Interpretation:

Spread (C44) was located 1.60m to the northwest of the possible kiln [C131] and may have comprised waste material from this kiln. No finds to indicate a date were recovered from (C44).

4.5.13 SUBGROUP {1022}: Posthole

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|---------------------|--|
| 33 | 20/10 | C134 | n/a | Deliberate backfill | Dk grey brown, ch-rich silty clay, rare s stones |
| 134 | 20/10 | n/a | C33 | Posthole | Circular in plan, U-shaped in profile, base concave, 0.05d x 0.15l x 0.18w |

Finds:

None

Interpretation:

Posthole [C134] was deliberately filled with (C33). The fill material may be waste material from the possible kiln [C131] (see {1019} above). [C134] was located 0.35m to the south of [C131], and is probably related to the activity undertaken there. No datable finds were recovered from [C134].

4.5.14 SUBGROUP {1023}: Linear arrangement of stakeholes

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|------------------|---|
| 42 | 20/10 | C141 | n/a | Poss burnt stake | Dk brown black, very ch-rich sandy clay, rare s sub-rou |
| 135 | 20/10 | n/a | C136 | Stakehole | Circular in plan, U-shaped in profile, base concave, 0.06d x 0.07l x 0.06w |
| 136 | 20/10 | C135 | n/a | Prob burnt stake | Dk Brown black, ch w/ sandy clay, rare s sub-rou |
| 137 | 20/10 | n/a | C138 | Stakehole | Circular in plan, sides irreg, base concave, 0.11d x 0.13l x 0.09w |
| 138 | 20/10 | C137 | n/a | Prob burnt stake | Dk Brown black, ch w/ sandy clay, rare s sub-rou |
| 139 | 20/10 | n/a | C140 | Stakehole | Circular in plan, sides smooth+gradually sloping, base shallow concave, 0.07d x 0.08l x 0.08w |
| 140 | 20/10 | C139 | n/a | Prob burnt stake | Dk Brown black, ch w/ sandy clay, rare s sub-rou |
| 141 | 20/10 | n/a | C42 | Stakehole | Circular in plan, sides smooth+ steeply sloped, concave base, 0.08d x 0.08l x 0.09w |

Finds:

None

Interpretation:

The four stakeholes, [C135], [C137], [C139] and [C141] were aligned in a north-east/south-west direction. [C135] was the southernmost posthole and was 0.40m from [C141]. There was then a gap of 1.30m to [C137], with [C139] a further 1m away. It is not clear what the function of this linear arrangement of stakeholes was for, but it may have been a wind-break or screen related to the activity carried out in the possible kiln [C131] in subgroup {1019}, which was located 1.40m to the southeast of [C135].

4.5.15 SUBGROUP {1024}: Pit

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|------|---------|-------------|---------------------|--|
| 17 | 0/10 | C173 | n/a | Deliberate backfill | Brown silty sand mixed w/ grey ch-rich clay, freq m-l ang+ sub-ang + sub-round |
| 173 | 0/10 | n/a | C17 | Pit | Circular in plan, side mod steep, flat base, 0.20d x 0.86l x 0.81w |

Finds:

None

Interpretation:

Pit [C173] was deliberately filled with (C17). Nothing to indicate a date or function was recovered from the fill. It is probable that [C173] was related to pits [C170], [C183] and [C188] as all four were located to the west of the site and contained similar stony fills.

4.5.16 SUBGROUP {1025}: Pit

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|------|---------|-------------|---------------------|--|
| 88 | | C170 | n/a | Deliberate backfill | Brown silty sand mixed w/ grey ch-rich clay, freq m-l ang+ sub-ang + sub-round |
| 170 | | n/a | C88 | Pit | Sub-rect in plan, side mod steep, flat base, 1.75 l x 0.94w x 0.20d |

Finds:

| C | Find No. | Material | Period | Pottery form | Artefact type | Comments |
|----|--------------|----------|-----------------|--------------|--------------------|----------|
| 88 | 03E0114:88:1 | Flint | Early Neolithic | | Modified Arrowhead | |
| 88 | 03E0114:88:2 | Flint | | | Flake debitage | |

Interpretation:

Pit [C170] was deliberately filled with (C88). A single flint artefact recovered from (C88) was sent for specialist analysis and was identified as a possible Early/Middle Neolithic modified arrowhead. It is probable that [C170] was related to pits [C173], [C183] and [C188] as all four were located to the west of the site and contained similar stony fills.

4.5.17 SUBGROUP {1026}: Pit

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|------|---------|-------------|---------------------|---|
| 89 | 0/10 | C183 | n/a | Deliberate backfill | Grey brown, silty clay, ch, very freq sub-ang+subrou stones of all sizes |
| 183 | 0/10 | n/a | C89 | Pit | Subcircular in plan, sides steep, base sloped down to W+ slightly concave, 0.35d x 1.30l x 1.12w, |

Finds:

| C | Find No. | Material | Period | Pottery form | Artefact type | Comments |
|----|--------------|----------|--------|--------------|---------------|----------|
| 89 | 03E0114:89:1 | Flint | | | Thermal flake | |
| 89 | 03E0114:89:2 | Flint | | | Abraded lump | |
| 89 | 03E0114:89:3 | Flint | | | Abraded lump | |
| 89 | 03E0114:89:4 | Flint | | | Abraded lump | |

Interpretation:

Pit [C183] was deliberately filled with (C89). Nothing to indicate a date or function was recovered from the fill. It is probable that [C183] was related to pits [C170], [C173] and [C188] as all four were located to the west of the site and contained similar stony fills.

4.5.18 SUBGROUP {1027}: Pit

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|--------|---------|-------------|----------------------|---|
| 188 | 10w/10 | n/a | C189, C192 | Pit | Circular in plan, sides steep+irreg, N side concave, base irreg concave, 0.70d x 1.46l x 1.2w |
| 189 | 10w/10 | C188 | n/a | Charcoal fire debris | Dk brown black, loose ch w/ silty clay, mod s-m sub-ang+sub-rou |
| 192 | 10w/10 | C188 | n/a | Deliberate backfill | Dk grey black, very stoney sandy silt, occ ch, very freq s-l sub-ang+sub-rou |

Finds:

| C | Find No. | Material | Period | Pottery form | Artefact type | Comments |
|-----|----------------|----------|--------|--------------|-----------------|----------|
| 192 | 03E0114:192:1 | Flint | | | Abraded lump | |
| 192 | 03E0114:192:2 | Flint | | | Abraded lump | |
| 192 | 03E0114:192:3 | Flint | | | Abraded lump | |
| 192 | 03E0114:192:4 | Flint | | | Abraded lump | |
| 192 | 03E0114:192:5 | Flint | | | Angular shatter | |
| 192 | 03E0114:192:6 | Flint | | | Angular shatter | |
| 192 | 03E0114:192:7 | Flint | | | Angular shatter | |
| 192 | 03E0114:192:8 | Flint | | | Angular shatter | |
| 192 | 03E0114:192:9 | Flint | | | Angular shatter | |
| 192 | 03E0114:192:10 | Flint | | | Angular shatter | |
| 192 | 03E0114:192:11 | Flint | | | Angular shatter | |

Interpretation:

Pit [C188] was deliberately filled with (C189) and (C192). The upper fill, (C189) was a layer of charcoal fire debris, but it was not burnt *in situ*, but was burnt elsewhere and dumped in. Nothing to indicate a function or a date was recovered from the fill, as the flint recovered was identified as angular shatter or abraded lumps, none of which were of diagnostic value. It is probable that [C188] was related to pits [C170], [C173] and [C183] as all four were located to the west of the site and contained similar stony fills.

4.5.19 SUBGROUP {1028}: Pit

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|--------|---------|-------------|-----------------|---|
| 21 | 10/10S | C196 | n/a | Natural silting | Dk grey, loose sandy silt, freq sub-ang stones+ch |
| 196 | 10/10S | n/a | C21 | Pit | Circular in plan, sides shallow+concave, base flat generally. 0.10d x 1.14l x 0.52 (feat. extends beyond S limit of excavation) |

Finds:

None

Interpretation:

Pit [C196] had naturally silted up with (C21). Only half of the pit was excavated as it extended beyond the southern limit of the site. Nothing was recovered to indicate a function or date.

4.5.20 SUBGROUP {1029}: Pit

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|------|---------|-------------|-----------------|--|
| 24 | 20/0 | C130 | n/a | Natural silting | Brown, sandy clay, freq ang+sob-rou |
| 130 | 20/0 | n/a | C24 | Pit | Sub-circular in plan, sides shallow in S, steeper in E+W, irreg base, 0.75d x 0.69l x 0.60 |

Finds:

None

Interpretation:

Pit [C130] had naturally silted up with (C24). Nothing was recovered from the fill to indicate either a function or a date.

4.5.21 SUBGROUP {1030}: Possible Hearth

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|------|---------|-------------|------------------|---|
| 121 | Fill | C144 | n/a | Charcoal deposit | V dk brown, black, ch with clay, freq sub-ang+sub-rou stones of various sizes |
| 144 | Cut | n/a | C121 | Possible hearth | Sub-oval in plan, very shallow, gradual sloping sides, concave base, 0.10d x 0.80l x 0.65w, E-W |

Finds:

None

Interpretation:

The shallow cut [C144] was filled with charcoal-rich deposit (C121). The fill represented *in situ* debris from a fire. Traces of reddening around the cut indicated that a fire was set in the cut. Nothing was recovered to indicate a date or a function for the fire. It may be associated with stake-hole [C202] described in {1031} below.

4.5.22 SUBGROUP {1031}: Stakehole

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|------|---------|-------------|-----------------|---|
| 122 | 30/0 | C202 | n/a | Deliberate fill | Grey brown, mod loose silty clay, freq ch fl, occ s pebbles |
| 202 | 30/0 | n/a | C122 | Stakehole | Circular in plan, U-shaped prof, 0.08d x 0.10l x 0.10w |

Finds:

None

Interpretation:

The shallow circular cut [C202], was filled with (C122). It appeared to be a stake-hole, and may be related to hearth [C144] (see {1030} above), which was located 0.20m to the west.

4.5.23 SUBGROUP {1032}: Posthole

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|------|---------|-------------|-----------------|---|
| 29 | 20/0 | C125 | n/a | Poss burnt post | Lt red brown, very ch-rich sandy soil, |
| 125 | 20/0 | n/a | C29 | Prob posthole | Sub-circular in plan, steep sides, flat base, 0.09d x 0.13l x 0.08w |

Finds:

None

Interpretation:

Posthole [C125] was filled with the burnt post (C29), which appeared to have been burnt *in situ*. Nothing to suggest a date or association with other features was recovered.

4.5.24 SUBGROUP {1033}: Posthole

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|-----------------|--|
| 56 | 10/10 | C148 | n/a | Poss burnt post | Grey brown, very ch rich sandy silt, mod m sub-ang |
| 148 | 10/10 | n/a | C56 | Poss posthole | Circular in plan, smooth regular sides, irreg slightly concave base, 0.07d x 0.26d x 0.25w |

Finds:

None

Interpretation:

The shallow pit [C148] was filled with a possible burnt *in situ* post (C56). Slight reddening of the clay around the fill suggests that the post may have been burnt *in situ*. Nothing to indicate a date or a relationship with other features was recovered.

4.5.25 SUBGROUP {1034}: Pit

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|------|---------|-------------|---------------------|---|
| 93 | 0/10 | C142 | n/a | Deliberate backfill | Dk brown, loose peat like fill, occ ch fl, occ stones |
| 142 | 0/10 | n/a | C93 | Pit | Sub-circular in plan, E side slopes gradually, W side steeper, base flat, 0.19d x 0.34l x 0.44, |

Finds:

None

Interpretation:

Pit [C142] was deliberately filled with (C93). Nothing to indicate a date or function was recovered from the fill.

4.5.26 SUBGROUP {1035}: Pit

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|----|------|---------|-------------|---------------------|--|
| 94 | 10/0 | C143 | n/a | Deliberate backfill | Dk brown/ black, loose fill, occ stones+ch |

| | | | | | |
|-----|-------|------|-----------|-----------------|---|
| 143 | 10/10 | n/a | C94, C150 | Pit | Sub-circular in plan, sides irreg, but near vert, base flat generally, w/ some irreg, 0.36d x 0.22l x 0.20w |
| 150 | 10/10 | C143 | n/a | Natural silting | Dk brown silty clay, occ ch fl, freq s stones |

Finds:

None

Interpretation:

Pit [C143] was filled by an episode of natural silting (C150) and deliberate backfill (C150). Nothing to indicate a function or date was recovered from the fill.

4.5.27 SUBGROUP {1036}: Pit

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|-----------------|--|
| 79 | 10/10 | C153 | n/a | Natural silting | Dk, loosely compacted, sparse yet strong concentrations of ch, minimal amounts of stone |
| 153 | 10/10 | n/a | C79 | Pit | Sub-oval in plan, dramatic slope to the N, much more gradual in the S, Base concave, 0.11d x 0.22l x 0.77w |

Finds:

None

Interpretation:

Pit [C153] had naturally silted up with (C79). Nothing to indicate a function or a date was recovered.

4.5.28 SUBGROUP {1037}: Stakehole

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|-----------------|--|
| 186 | 10/10 | C187 | n/a | Natural silting | Dk brown, mod loose silty clay, mod ch, rare s sub-ang |
| 187 | 10/10 | n/a | C186 | Stakehole | Circular in plan, U-shaped prof, 0.10d x 0.08l x 0.08w |

Finds:

| C | Find No. | Material | Period | Pottery form | Artefact type | Comments |
|-----|---------------|----------|--------|--------------|---------------|----------|
| 186 | 03E0114:186:1 | Flint | | | | |
| 186 | 03E0114:186:2 | Flint | | | | |

Interpretation:

Stakehole [C187] had naturally silted up with (C186). It was isolated on site and does not appear to be related to any other feature. The flint that was recovered was not of any diagnostic value.

4.5.29 SUBGROUP {1038}: Spread

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|-------|---------|-------------|----------------|---|
| 101 | 10/20 | n/a | n/a | Burnt spread | Linear in plan, med brown, loose sandy silt, mod ch fl, occ pebbles, 0.05d x 0.83l x 0.28 NE-SW |

Finds:

| C | Find No. | Material | Period | Pottery form | Artefact type | Comments |
|----|--------------|----------|--------|--------------|---------------|----------|
| 39 | 03E0114:39:1 | Flint | | | | |

Interpretation:

This feature was a thin spread of charcoal-rich clay (**C101**). It was located to the north of the site, and may be related to activity associated with the structure. Nothing to indicate a date was recovered from the spread.

GROUP 5 DISCUSSION: Probable Prehistoric Activity

| Group | Subgroup | Subgroup type | Period by finds/ stratigraphy | Period by interpretation | Group Interpretation |
|-------|----------|--------------------------------|-------------------------------|--------------------------|----------------------|
| 5 | 1010 | Linear feature | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1011 | Posthole | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1012 | Pit | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1013 | 2 stakeholes | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1014 | Pit | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1015 | Poss. hearth | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1016 | Posthole | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1017 | Stakehole | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1018 | Pit | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1019 | Kiln | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1020 | Spread | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1021 | Spread | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1022 | Posthole | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1023 | Linear arrangement of posthole | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1024 | Pit | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1025 | Pit | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1026 | Pit | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1027 | Pit | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1028 | Pit | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1029 | Pit | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1030 | Poss. hearth | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1031 | Stakehole | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1032 | Posthole | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1033 | Posthole | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1034 | Pit | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1035 | Pit | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1036 | Pit | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1037 | Stakehole | Prehistoric | Prehistoric | Prehistoric |
| 5 | 1038 | Spread | Prehistoric | Prehistoric | Prehistoric |

While none of the features included in Group 5 contained any diagnostic material, it is probable that they were all prehistoric features and were most likely related to the structure and probably functioned as storage or refuse pits, hearths and windbreaks. The possible kiln and associated features may also be contemporary with the structure.

4.6 GROUP 6: Post-Medieval Activity

4.6.1 SUBGROUP {1041}: Pit

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|------|---------|-------------|-----------------|--|
| 23 | Fill | C158 | n/a | Natural silting | Med brown, loose silty sand, occ s stones |
| 158 | Cut | n/a | C23 | Post-med pit | Circular in plan, U-shaped prof, 1.20l x 1.00w x 0.40d |

Finds:

| C | Find No. | Material | Period | Pottery form | Artefact type | Comments |
|----|--------------|----------|--------|--------------|---------------|----------|
| 23 | 03E0114:23:1 | Flint | | | | |
| 23 | 03E0114:23:2 | Metal | PH | | | |

Interpretation:

Pit [C158] had naturally silted with (C23). The metal find recovered from (C23) was a piece of modern, rusted iron. It is believed that pit [C158] may be related to the field boundary [C222], which lies immediately to the south.

4.6.2 SUBGROUP {1042}: Land Drain

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|------|---------|-----------------------|----------------------|---|
| 86 | - | C199 | n/a | | Med brown, mod compacted silty clay, freq ch fl, occ m-l sub-ang |
| 87 | - | C199 | n/a | | Med brown, very compact fill, very freq ch, freq s-l stones |
| 195 | - | C199 | n/a | | Very dk brown, mod compac sandy silt, occ ch, freq s-l ang |
| 201 | - | C199 | n/a | Burnt spread | Black, loose Ch w/sandy silt, freq sub-ang +heat-affected flint |
| 199 | - | n/a | C86, C 87, C195, C201 | Poss drainage system | Linear in plan, sides sloped gently, base flat+ undulating, 0.15d x 1.2w, N-S |

Finds:

| C | Find No. | Material | Period | Pottery form | Artefact type | Comments |
|----|---------------|----------|--------|----------------|---------------|----------|
| 86 | 03E0114:86:1 | Pottery | | | | |
| 86 | 03E0114:86:2 | Flint | | | | |
| 86 | 03E0114:86:3 | Flint | | | | |
| 86 | 03E0114:86:4 | Flint | | | | |
| 87 | 03E0114:87:1 | Pottery | | Bodysherd | | |
| 87 | 03E0114:87:2 | Pottery | | Bodysherd | | |
| 87 | 03E0114:87:3 | Pottery | | Bodysherd | | |
| 87 | 03E0114:87:4 | Pottery | | | | |
| 87 | 03E0114:87:5 | Pottery | | | | |
| 87 | 03E0114:87:6 | Pottery | | | | |
| 87 | 03E0114:87:7 | Pottery | | | | |
| 87 | 03E0114:87:8 | Pottery | | Crumb Fragment | | |
| 87 | 03E0114:87:9 | Pottery | | Crumb Fragment | | |
| 87 | 03E0114:87:10 | Pottery | | Crumb Fragment | | |
| 87 | 03E0114:87:11 | Pottery | | Crumb Fragment | | |
| 87 | 03E0114:87:12 | Pottery | | Crumb Fragment | | |
| 87 | 03E0114:87:13 | Pottery | | Crumb Fragment | | |
| 87 | 03E0114:87:14 | Pottery | | | | |
| 87 | 03E0114:87:15 | Pottery | | | | |
| 87 | 03E0114:87:16 | Pottery | | | | |
| 87 | 03E0114:87:17 | Flint | | | | |

| | | | | | | |
|----|---------------|-------|--|--|--|--|
| 87 | 03E0114:87:18 | Flint | | | | |
| 87 | 03E0114:87:19 | Flint | | | | |
| 87 | 03E0114:87:20 | Flint | | | | |
| 87 | 03E0114:87:21 | Flint | | | | |
| 87 | 03E0114:87:22 | Flint | | | | |

Interpretation:

The land drain [C199] was north-south oriented and was located in the western part of the site. It appears to represent an effort to drain the field and dates to the post-medieval period. Its proximity to the structure and the number of prehistoric finds recovered from the fill suggests that it may have truncated a number of features.

4.6.3 SUBGROUP {1043}: Field Boundary

Contexts:

| C | Area | Fill of | Filled with | Interpretation | Description |
|-----|------|---------|-------------|---------------------|--|
| 13 | | C222 | n/a | Deliberate backfill | Med brown silty clay with occ. ch and stone inclusions |
| 222 | - | n/a | C13 | Field Boundary | E-W oriented field boundary. U-shaped profile. |

Finds:

None

Interpretation:

The east-west oriented field boundary [C13] was deliberately filled with (C222). The finds indicate a post-medieval date and it probably formed part of the boundary around a house shown on the 1st edition OS map.

GROUP 6 DISCUSSION Post-Medieval activity

| Group | Subgroup | Subgroup type | Period by finds/ stratigraphy | Period by interpretation | Group Interpretation |
|-------|----------|----------------|-------------------------------|--------------------------|----------------------|
| 6 | 1041 | Pit | Post-medieval | Post-medieval | Post-medieval |
| 6 | 1042 | Land drain | Post-medieval | Post-medieval | Post-medieval |
| 6 | 1043 | Field boundary | Post-medieval | Post-medieval | Post-medieval |

Post-medieval activity recorded on site comprised three features, a north-south oriented land drain [C199], an east-west oriented field boundary [C222] and a pit [C158] adjacent to the field boundary. The 1st edition OS map shows that a house was situated in the vicinity of the site, but no evidence of this structure was recorded during the excavation. It is believed that the field boundary may represent part of the boundary around this structure and that the pit [C158] is also related to this structure. The drain [C199] represents efforts to improve drainage on the land.

4.7 GROUP 7: Topsoil

4.7.1 Subgroup: {1044} Topsoil

Contexts:

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

Finds:

| C | Find No. | Material | Period | Pottery form | Artefact type | Comments |
|---|--------------|----------|--------|--------------|-------------------------|----------|
| 1 | 03E0113:1:1 | Flint | | | Modified Scraper | |
| 1 | 03E0113:1:2 | Flint | | | Flake debitage | |
| 1 | 03E0113:1:3 | Flint | | | Modified Hollow scraper | |
| 1 | 03E0113:1:4 | Flint | | | Modified Scraper | |
| 1 | 03E0113:1:5 | Flint | | | Flake debitage | |
| 1 | 03E0113:1:6 | Flint | | | Thermal flake | |
| 1 | 03E0113:1:7 | Flint | | | Modified Edge retouched | |
| 1 | 03E0113:1:8 | Flint | | | Modified Hollow scraper | |
| 1 | 03E0113:1:9 | Flint | | | Flake debitage | |
| 1 | 03E0113:1:10 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:11 | Flint | | | | |
| 1 | 03E0113:1:12 | Flint | | | Modified Utilised | |
| 1 | 03E0113:1:13 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:14 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:15 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:16 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:17 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:18 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:19 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:20 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:21 | Flint | | | Angular shatter | |
| 1 | 03E0113:1:22 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:23 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:24 | Flint | | | Flake debitage | |
| 1 | 03E0113:1:25 | Flint | | | Thermally split pebble | |
| 1 | 03E0113:1:26 | Flint | | | Angular shatter | |
| 1 | 03E0113:1:27 | Flint | | | Thermally split pebble | |
| 1 | 03E0113:1:28 | Flint | | | Thermally split pebble | |
| 1 | 03E0113:1:29 | Flint | | | Thermally split pebble | |
| 1 | 03E0113:1:30 | Flint | | | Thermal flake | |
| 1 | 03E0113:1:31 | Flint | | | Thermally split pebble | |
| 1 | 03E0113:1:32 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:33 | Flint | | | Thermal flake | |
| 1 | 03E0113:1:34 | Flint | | | Thermal flake | |
| 1 | 03E0113:1:35 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:36 | Flint | | | Thermal flake | |
| 1 | 03E0113:1:37 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:38 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:39 | Flint | | | Thermally split pebble | |
| 1 | 03E0113:1:40 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:41 | Flint | | | Angular shatter | |
| 1 | 03E0113:1:42 | Flint | | | Angular shatter | |
| 1 | 03E0113:1:43 | Flint | | | Angular shatter | |
| 1 | 03E0113:1:44 | Flint | | | Thermal flake | |
| 1 | 03E0113:1:45 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:46 | Flint | | | Abraded lump | |

| | | | | | | |
|---|---------------|-----------|--------------------------|--|-------------------------|--|
| 1 | 03E0113:1:47 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:48 | Flint | | | Angular shatter | |
| 1 | 03E0113:1:49 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:50 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:51 | Flint | | | Modified Edge retouched | |
| 1 | 03E0113:1:52 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:53 | Flint | | | Flake debitage | |
| 1 | 03E0113:1:54 | Flint | | | Angular shatter | |
| 1 | 03E0113:1:55 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:56 | Flint | | | Thermal flake | |
| 1 | 03E0113:1:57 | Flint | | | Angular shatter | |
| 1 | 03E0113:1:58 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:59 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:60 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:61 | Flint | | | Abraded lump | |
| 1 | 03E0113:1:62 | Flint | | | Thermally split pebble | |
| 1 | 03E0113:1:63 | Flint | | | Angular shatter | |
| 1 | 03E0113:1:64 | Pottery | | | | |
| 1 | 03E0113:1:65 | Pottery | | | | |
| 1 | 03E0113:1:66 | Pottery | | | | |
| 1 | 03E0113:1:67 | Pottery | | | | |
| 1 | 03E0113:1:68 | Pottery | | | | |
| 1 | 03E0113:1:69 | Pottery | | | | |
| 1 | 03E0113:1:70 | Pottery | | | | |
| 1 | 03E0113:1:71 | Pottery | | | | |
| 1 | 03E0113:1:72 | Pottery | | | | |
| 1 | 03E0113:1:73 | Pottery | | | | |
| 1 | 03E0113:1:74 | Pottery | | | | |
| 1 | 03E0113:1:75 | Pottery | | | | |
| 1 | 03E0113:1:76 | Pottery | | | | |
| 1 | 03E0113:1:77 | Pottery | | | | |
| 1 | 03E0113:1:78 | Pottery | | | | |
| 1 | 03E0113:1:79 | Pottery | | | | |
| 1 | 03E0113:1:143 | Clay Pipe | Early 18 th C | | Clay Pipe | |

Interpretation:

The topsoil was fairly uniform in colour and compaction across the site; however it did vary in depth. The deepest areas were at the base of the slope, and in particular at the south-eastern part of the site, where deposits were up to 1m deep. This was mostly due to erosion from high ground to the north. The shallowest areas were generally areas further upslope. The majority of the worked lithics from the site were found in the topsoil. The assemblage was mainly derived from the local glacial till, but a small number were derived from beach pebbles. Most of the artefacts were typically Early and Middle Neolithic (Appendix 2.4) however one fragment of clay pipe was retrieved (Appendix 2.5).

4.8 SYNTHESIS

Open Area 2: Middle/Late Neolithic activity

The linear feature [C172] represents the earliest phase of activity on site. It is probable that a number of the possible prehistoric features in group 5 were also Middle/Late Neolithic in date. The presence of a Late Neolithic/Early Bronze Age flint flake within the fill (C99) of the feature may be the result of disturbances by later agricultural activity.

Open Area 3: Early Bronze Age Beaker activity

The Beaker-associated features consisted of a slot-trench and a cluster of pits and postholes, some of which appear to form the remains of a structure. Beaker pottery and associated lithics were found within these.

Open Area 4: Middle Bronze Age *fulacht fiadh*

Group 4 consisted of two burnt mounds/*fulachta fiadh*. The charcoal retrieved from (C208) was identified as alder (*alnus glutinosa*) (Appendix 2.1) and returned a date of 2915+/- 51 BP (Appendix 2.2). The 2 Sigma calibrated results from this sample produced a date of Cal. 1270BC – 970BC. This dates the deposits within the features in subgroup {1008} to the Middle Bronze Age and it is probable that the second *fulacht fiadh* was broadly contemporary.

Open Area 5: Probable prehistoric activity

None of the features included in Group 5 contained any diagnostic material but it is probable that they were all prehistoric features associated with domestic activity related to the structure. The majority of the pits probably functioned as storage or refuse pits, while the hearths and associated spreads of waste material indicate that certain domestic activities were carried out away from the main living area. The postholes and stakeholes probably represent temporary structures such as drying racks and windbreaks.

Open Area 6: Post-medieval activity

Post-medieval activity recorded on site comprised three features, a north-south oriented land drain [C199], an east-west oriented field boundary [C222] and a pit [C158] adjacent to the boundary. The drain [C199] represents efforts to improve drainage on the land.

Open Area 7: Topsoil

The topsoil was fairly uniform in colour and compaction across the site; however it did vary in depth. The deepest areas were at the base of the slope, and in particular at the south-eastern part of the site, where deposits were up to 1m deep. This was mostly due to erosion from high ground to the north. The shallowest areas were generally areas further upslope.

5 DISCUSSION

5.1 Realisation of the original research aims

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

Original Research Questions (ORQ) was prepared after the results of the test-trenching exercise were known and before the rescue excavations began. The following are the Original Research Questions relating to the excavation at site 113, Newtownbalregan 5 and Responses (R) based on preliminary assessment of the site data.

ORQ 1: *What is the full nature of the site at Newtownbalregan 5? Are there any buildings present, if so what were the construction methods and are there different phases of construction and use? If there are no buildings what was the site used for?*

R: The site at Newtownbalregan 5 consisted of a probable Late Neolithic/Early Bronze Age circular structure, made up of an arc of 7 postholes, with two central postholes that may have acted as roof supports. Beaker pottery and associated lithics were found within a number of these features. The diameter of this structure was approximately 5m. Outside the structure were two shallow, curvilinear trenches that may have formed a small boundary around the structure.

To the south was a large burnt mound trough, which measured 2.90m in length, 1.52m in width and was 0.40m deep. The trough contained 6 postholes in the corners. A second burnt mound trough was located in the southeastern corner of the site. This measured 1.62m in length, 1.42m in width and was 0.42m deep. The charcoal retrieved from the burnt mound located to the south was identified as alder (*alnus glutinosa*) (Appendix 2.1) and returned a date of 2915 \pm 51 BP (Appendix 2.2) The 2 Sigma calibrated results from this sample produced a date of Cal. 1270BC – 970BC. This dates the deposits within the features in subgroup {1008} to the Middle Bronze Age and it is probable that the second *fulacht fiadh* was broadly contemporary.

In addition to the structure, 12 pits were also recorded on site. One of the pits appeared to have experienced *in situ* burning, and it has been suggested that it served as a kiln or oven. The site appears to have served a domestic function, as no evidence of any industrial activity was recorded on site.

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

R: Based on the analysis of the pottery and lithic assemblages (Appendix 2.3 & 2.4), the possible structure and associated features were Late Neolithic/Early Bronze Age in date. The charcoal retrieved from the burnt mound located to the south returned a date of 2915 \pm 51 BP (Appendix 2.2) The 2 Sigma calibrated results from this sample produced a date of Cal. 1270BC – 970BC. It is probable that the second *fulacht fiadh* was broadly contemporary.

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

R: The site seems to have served a domestic function only. No evidence of industrial activity was recorded during the excavation.

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

R: A total of 276 sherds of Late Neolithic/Early Bronze Age Beaker pottery were recovered, mostly from the group of postholes that formed the structure. 212 pieces of flint were also recovered, ranging from hollow scrapers and blades to pieces of debitage.

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

R: No evidence for burial or ritual activity was uncovered during the excavation.

ORQ 6: *Does the site relate to the N53 Castleblayney Road?*

R: It is unlikely that the site is directly related to the N53 Castleblayney Road. The fact that the site is unenclosed and undefended, and also predates the formation of the towns of Castleblayney and Dundalk makes it unlikely that the location of the site is in any way related to the N53.

5.2 General discussion of potential

Discussion of Beaker activity on Site 113, Newtownbalregan 5 (by Neil Carlin MA)

Evidence for Beaker activity dating to the start of the Early Bronze Age was discovered on a multiperiod excavation at Newtownbalregan 5, Co. Louth. This site was situated at the base of a gentle south-facing slope within a low-lying landscape that undulates between c. 20–40m O.D. It is less than 4km west of Dundalk Bay and 2km west of the Castletown River. The site is c. 0.6km from Newtownbalregan Lough which is depicted on the 1835 edition of the Ordinance Survey map, but was subsequently drained. The soils in the area are predominantly brown earths and brown podzolics, which are typically light well-drained soils that would have provided an attractive area for settlement and burial purposes (Cooney 1987a, 130; Aalen *et al* 1997, 16).

Another Beaker site was excavated (0.5km to the south) in the same townland by the author (2005a) with additional Beaker evidence also being noted to the north at Carn More (Bayley 2005b) and south at Donaghmore as part of the same investigations. When combined with the previously known evidence, this suggests there was much Beaker and Early Bronze Age activity in the locale.

This excavation also provided evidence for the use of Newtownbalregan 5 in the Early Neolithic, Middle Neolithic and Late Bronze Age. Early Neolithic activity was demonstrated by a sherd of a Carinated Bowl and a large quantity of diagnostic lithics found during topsoil removal. A sherd of a Middle Neolithic bipartite bowl and a number of typically Middle Neolithic hollow scrapers were found in various different pits. Two *fulachta fiadh* were excavated and the trough from one of these produced a radiocarbon date (WK-18556) of 1270–930 BC (2σ).

The Beaker-associated features consist of a slot-trench and a cluster of pits and postholes, some of which may form the remains of a structure. Beaker pottery and associated lithics were found within these.

The possible structure {1001} was represented by two central postholes that are circumscribed by a roughly circular ring (5m in diameter) of seven postholes that are spaced an average of 1.5–2m apart. The sub-circular-shaped, external postholes range from 0.24–0.50 m in diameter and 0.10–0.50m in depth. All had straight vertical sides and flat bases and were filled with a dark to medium brown sandy silt. Most had a single fill although two postholes contained two layers. Beaker pottery

and lithics were discovered within five of these features. Two sherds each were found in two of the postholes, while another contained 10 sherds from the same vessel. One of the larger postholes contained 63 sherds from six different vessels, a piece of angular flint shatter and a small undiagnostic scraper. The fill of another included a flint flake and 59 Beaker sherds from five vessels. Another posthole contained 13 sherds from three vessels, a diorite pebble that was used as a hammerstone and two abraded lumps of unworked flint. One of the aceramic posthole fills produced two bipolar flakes, one of which was retouched. Many of the sherds within the structural features were derived from the same vessels.

A sub-rectangular pit [C60] (1.0m x 0.50m x 0.15m) filled with two separate deposits was located inside this ring of posts. Twenty-five Beaker sherds from five different pots, a split flint pebble and a large amount of oak charcoal (Appendix 2.2, 2.3 & 2.4) occurred in the basal fill, while 15 sherds from a single pot and an abraded lump of unworked flint were discovered in the top layer. Again, most of these sherds were derived from the same pots that occurred in the postholes.

A curvilinear slot-trench {1004} (2.33m x 0.22m x 0.15m) was located 1m southwest of the possible structure. It had concave sides, a flat base and a single fill that produced two Beaker sherds and a piece of angular flint shatter. A single posthole [C193] was found within the northern end of the posthole. A circular pit {1005} (1.26m x 1.20m x 0.40m) situated 3m north of the structure contained two Beaker sherds, six bipolar flint flakes and some angular shatter – all of these were in a fresh condition and one piece of shatter was burnt (Appendix 2.4).

None of the features included in Group 5 contained any diagnostic material but it is probable that they were all prehistoric features associated with domestic activity related to the structure. The majority of the pits probably functioned as storage or refuse pits, while the hearths and associated spreads of waste material indicate that certain domestic activities were carried out away from the main living area. The postholes and stakeholes probably represent temporary structures such as drying racks and windbreaks.

The Beaker aspect of the ceramic assemblage from Newtownbalregan 5 consists of a 166 sherds of pottery representing between 10 and 15 'fine' Beaker vessels including at least two undecorated types (Appendix 2.4). The pottery was in good condition with little evidence for heavy wear, yet the assemblage was heavily fragmented with few sherds refitting. This led Grogan and Roche to conclude that 'while the assemblage suffered relatively little post-depositional disturbance the pottery was deposited in sherds and probably represents domestic debris'. All of the pots appear to be medium-sized vessels less than 20cm in diameter, though the high degree of fragmentation prevents an exact measurement of size. This pottery is coil-built, thin-walled (7–8mm), has a high quality finish and decoration and is made of a very fine fabric and (Appendix 2.4). Most of the vessels display the typical Beaker S-shaped profile (although one pot has a markedly constricted waist and a short everted neck) and simple horizontally arranged zonal ornamentation. Pottery of this kind can be classified as belonging to Clarke's European Bell Beaker, or his Wessex/Middle Rhine types (1970) and to Case's (1995) Style 2 which is considered to date from c. 2450–2200 BC.

Decoration predominantly consists of bands of comb-impressed lines alternating with blank panels, which is one of the most common designs found on Irish Beakers. It occurred on vessels from sites such as Knowth, Co. Meath, (Eogan 1984), Dalkey Island Site 5, Co. Dublin, (Liversage 1968), Lough Gur Sites C, D (Ó Riordáin 1954), L (Grogan & Eogan 1987) and 10, Co. Limerick, (ibid), and Kilgobbin, Co. Dublin

(Hagen forthcoming 1; Grogan 2004) and is also represented on the Beaker pottery from Newtownbalregan 2 (Grogan & Roche 2005a). The two undecorated Beakers are paralleled by similar pots from Newtownbalregan 2 (Grogan & Roche 2005a), Knowth (Eogan 1984, 268–9, fig. 96 and Kilgobbin (Grogan 2004). The outer surfaces of at least four of the pots appear to have been burnished. Vessels with this finish also occur at Newtownbalregan 2 (Grogan & Roche 2005a), and has been noted on pottery from a small number of sites including Newgrange, Co. Meath (Cleary 1983); Knowth, Co. Meath (Eogan & Roche 1997); Mell, Co. Louth (Roche & Grogan 2005b); Hill of Rath, Co. Louth (Duffy 2002). Grogan and Roche observed that the 'the Newtownbalregan Beaker pottery is of an unusually fine quality that is only occasionally matched at other sites such as Knowth, Dalkey Island and possibly the Hill of Rath'. Strong similarities exist between this assemblage and that from the nearby broadly contemporary pottery from Newtownbalregan 2 including the sinuous profiles and the decorative motifs, the burnishing of several vessels and the occurrence of undecorated pots. However, there are clear differences in the structure of the fabric from both sites as indicated by the much smaller quantity and size of the inclusions at Newtownbalregan 5.

The lithics assemblage consists of 211 flint artefacts and one ground stone implement (Nelis, this report). The majority of these (142 out of 211) were unworked lumps of flint and most of the worked lithics were found in the topsoil. The assemblage was mainly derived from the local glacial till, but a small number were derived from beach pebbles. Most of the artefacts were typically Early and Middle Neolithic (*ibid*, this report), but the present discussion is only concerned with the 23 flint artefacts recovered from definitively Beaker contexts. The Beaker assemblage consisted of eight unworked pieces, three core-trimming flakes, six pieces of angular shatter derived from knapping, and eight pieces of flake debitage exhibiting evidence for the use of both platform and bipolar reduction strategies. Only one modified tool was present in a Beaker context – a small scraper (28mm x 26mm x 8mm).

These lithics indicate the preparation and reduction of cores and the secondary production of tools in association with the use of Beaker pottery; however, the absence of cores and the lack of production sequences suggests that this assemblage 'represents the partial remains of numerous knapping events' (*ibid*, this report). The exploitation of bipolar reduction methods and small *remainie* ground pebbles at Newtownbalregan 5 is typical of Bronze Age lithic technology. It was at the start of this period that the use of locally available stone resources and bipolar reduction strategies became prevalent (O'Hare 2005; Woodman *et al* 2006, 126–7). There appears to have been a decline in the platform reduction of cores during the Early Bronze Age (see Edmonds 1995, 177); however, evidence for this has been found here and the contemporary site at Newtownbalregan 2.

The occurrence of Beaker pottery in 10 separate features indicates that at least some of the activities from the multiperiod site at Newtownbalregan 5 date to the start of the Early Bronze Age. Beakers emerged in Ireland c. 2500 BC and their use appears to have ceased c.1900 BC (Brindley 2005, 334; 2007, 321). Given that this pottery is not of a late Beaker style, it seems likely that the Beaker activity here dates to the earlier part of this range: c. 2400–2200 BC. The distribution of the Early Bronze Age features appears to be restricted to a spatially discrete cluster suggesting that these are indeed contemporary; however, in the absence of any radiocarbon dating of any of these, it is possible that some of the Beaker material may be in a residual context.

The subcircular arrangement of a ring of postholes {1001} around a central post and the regular vertical sides of these features suggests that these represent the surviving remains of a structure. No structural evidence such as postpipes or packing

stones was detected, but the excavator has suggested that the posts of the possible structure may have been pulled out and that the voids left by this action subsequently became filled in over time through natural silting processes. However, this explanation is problematic because evidence for the cumulative infilling of these contexts or for any surviving packing material was not detected. The latter occurrence could potentially be explained by the possibility that any stone or clay packing was removed in conjunction with the possible uprooting of the posts, but none of these features display any evidence of being left open for a prolonged period. Nor do they exhibit any erosion to the sides and base suggestive of previous use or of posts being pulled out.

This interpretation is further complicated by the large size of the postholes which are consistent with those found in the settlement architecture of the Middle and Late Bronze Age but not that of the Beaker period. Towards the end of the Early Neolithic c. 3600 BC, domestic architectural technology appears to have become much less substantial and it was not until the Middle Bronze Age, that it regained a strongly recognisable character with a durable footprint. The typical Beaker site in Ireland consists of occupational spreads, and pits and postholes that lack any discernable pattern. There does not appear to be a particular size, shape, or construction-style that is common to all the Beaker structures in Ireland or Britain – sizes range from 3.7m to 10m in diameter and the area of space within each structure ranges from 11 to 78 m² – shapes in plan vary from circular, oval and rectangular to totally unrecognisable (Carlin 2005a; Darvill 1996, 90; Bamford 1982, 53; Simpson 1971; Gibson 1987). The one recurrent aspect of most Beaker associated structures is their ephemerality – Irish examples consisting of sub-rectangular and sub-circular arrangements of stakeholes have been excavated at Ahanagloch, Co. Waterford (Tierney forthcoming) and Ross Island, Co. Kerry (O'Brien 2005).

The discovery of large numbers of sherds in some of the postholes of the possible structure raises further questions. One posthole contained 63 sherds from six different vessels, while another produced 59 sherds from five vessels. These were derived from the same five vessels and represent 123 out of the total of 166 Beaker sherds from the excavation. It is unlikely that these artefacts found their way into these contexts without any human intervention and thus, it seems improbable that some of the postholes were filled through natural processes. At least a few of them contain deliberately deposited occupational debris that was derived from the same source, probably a midden. The occurrence of multiple unworn and unabraded sherds from the same vessel within the different contexts filling these features suggests that the postholes were rapidly backfilled (see Brück 1999, 377). It seems highly probable that these postholes were dug specially in order to contain that which filled it.

There is strong evidence to suggest that the cultural material from most of the features at Newtownbalregan 5 was in a different context prior to deposition within the context in which it was recovered. Burnt and unburnt, fresh and abraded lithics occur within the same contexts. Some of the worn flints suffered from post-use damage indicating that they had been exposed to the elements for some time before they were deposited, but this did not apply to all the lithics from the pits, thereby indicating that the wear occurred before their final deposition. The pottery was in good condition with little evidence for heavy wear, yet the assemblage was heavily fragmented with few sherds refitting. The presence of a few sherds from multiple fragmented pots within many of the Newtownbalregan features suggests that these deposits were not created by the deposition of refuse on a daily basis whereby debris was formed and then disposed of immediately (see Gibson 2003, 141). The potsherds are highly fragmented yet in a very well preserved condition suggesting

that they had been stored post-breakage but pre-deposition in an intermediate context such as a midden that would have completely protected them from the elements (Woodward 2002, 1040; Brück 1999).

These characteristics lead to difficulties in interpreting the structural evidence. A potential explanation is that a structure was built and then demolished at the end of its use-life by removing the posts, recutting the postholes and deliberately filling these voids with occupational debris, possibly as part of an abandonment ritual.

An alternative interpretation is that the features were not the postholes of a structure at all, instead they represent a circular cluster of pits. Such pits are often the only surviving traces of Beaker occupation occurring on sites in Britain and Ireland. These features usually have a much more concave profile and are far shallower than the Newtownbalregan examples and thus, it is not possible to rule out either interpretation.

Evidence for a substantial amount of energy and time being invested at this location in the Early Bronze Age was not found. There was an extremely restricted range of tools, a very low number of modified tools as a percentage of the total chipped stone assemblage and no evidence of cereal cultivation in the form of carbonised cereal grains and quernstones. Although this scenario could potentially result from poor preservation of the original remains, the lack of evidence at Newtownbalregan for the indicators of longer term settlement which are a common occurrence on many Irish Beaker sites (Carlin 2005b) raises questions about the duration and nature of the activity here.

Beaker associated features were excavated on four sites along the route of the Dundalk Western Bypass: Donaghmore 1 (Bailey and Ryan 2006); Newtownbalregan 2, (Bailey 2005a), Newtownbalregan 5 (Bailey 2005b) and Carn More 5 (Bailey 2005c). Located within the north western extent of the central plain of Co. Louth, the route transects the Castletown River and traverses the low-lying landscape undulating between c. 20 – 40m O.D to the west of Dundalk Bay and south of the Carlingford Mountains. The soils in the area are predominantly brown earths and brown podzolics, which are typically light well-drained soils that would have provided an attractive area for settlement and burial purposes (Cooney 1987a, 130; Aalen et al 1997, 16).

Two Beaker pits excavated at Donaghmore 1 represented the re-use of a site that was previously used for episodic activity in the Early and Middle Neolithic. One of these pits was extremely large and may have been associated with cooking. The ceramic assemblage from this site was very small and the Early Bronze Age activity appears to have been of a short duration. A larger Beaker assemblage was recovered from pits excavated at Newtownbalregan 2, less than 1km north of this, at what appears to be a short term occupation possibly associated with feasting. A rare form of Northern and Central European pottery: a polypod bowl was found to have been deposited in an upright position within one of these pits. Less than 500m away, the investigations at Newtownbalregan 5 revealed a circular arrangement of Beaker pits and posts representing either a structure or a pit circle. An Early Bronze Age cemetery complex at Carn More 5, Co. Louth situated 4km to the north east included a Bowl-associated cremation pit that was sealed by a cairn and encircled by four cists containing Bowl burials. Beaker sherds and a Bowl decorated in a typical Beaker fashion occurred within this cairn (see Grogan and Roche 2005b).

The deliberate deposition of occupational debris derived from middens into pits was a consistent feature of the Beaker evidence and this was particularly the case at both

Newtownbalregan sites. Another recurrent aspect of these Beaker sites is their occurrence of multiperiod sites with evidence for previous Neolithic activity as discovered at Donaghmore 1, Newtownbalregan 5 and Carn More, successive Bronze Age activity was also noted on the latter two sites. The continual albeit episodic use and re-use of these places suggests that they were regarded as important in prehistory and that the cultural and/or physical aspects of their location remained attractive to them over a long duration.

All of these characteristics are typical of Beaker sites in Ireland, pit deposits containing large amounts of cultural material Ireland are being excavated with an ever-increasing frequency. Beaker activity forms part of the well known multiperiod prehistoric complexes such as Newgrange (O'Kelly 1983) and Knowth (Eogan and Roche 1997), Co. Meath. The Dundalk sites were found in stereotypical locations that exploit as large a variety of biospheres as possible. Most Beaker sites are found on free draining fertile soils in slightly undulating topography on south and southeast facing slopes within 8 kms of the coast and within 1 km of a river (see Carlin 2005a; 2005b). An unusual aspect of the Beaker sites from the scheme was the absence of evidence for cereal cultivation in the form of carbonised cereal grains and quernstones as these are a common aspect of contemporary sites in Ireland (Carlin 2005a; 2005b). Although this scenario could potentially be a result of the sampling strategies employed and/or the poor preservation of the original remains.

The Beaker pottery from the scheme was exceptionally fine and generally very well made in terms of finish, fabric and decoration. Almost all of these displayed the typical Beaker S-shaped profile and simple horizontally arranged zonal ornamentation. Pottery of this kind can be classified as belonging to Clarke's European Bell Beaker, or his Wessex/Middle Rhine types (1970) and to Case's (1995) Style 2 which is considered to date from c. 2450–2200 BC. Vessels with burnished exteriors were found on both both Newtownbalregan sites, as were plain undecorated pots. The former has been noted on only a small number of sites including Newgrange, Co. Meath (Cleary 1983); Knowth, Co. Meath (Eogan & Roche 1997); Mell, Co. Louth (Roche & Grogan 2005); Hill of Rath, Co. Louth (Duffy 2002). In general, the Dundalk assemblage is highly comparable to those from other Beaker sites such as Knowth, Co. Meath, (Eogan 1984), Dalkey Island Site 5, Co. Dublin, (Liversage 1968), Lough Gur Sites C, D (Ó Ríordáin 1954), L (Grogan & Eogan 1987) and 10, Co. Limerick, (ibid), and Kilgobbin, Co. Dublin (Hagen forthcoming 1; Grogan 2004a). However, Grogan and Roche (2005a) observed that 'the Newtownbalregan Beaker pottery is of an unusually fine quality that is only occasionally matched at other sites such as Knowth, Dalkey Island and possibly the Hill of Rath'. The exceptional quality of some of these Beakers is consistent with their association with the polypod bowl, the distribution of which appears to be concentrated around the Boyne Valley complex.

By placing the site into its local context, it may be possible to achieve a better understanding of the nature of the human interactions that occurred here at the start of the Early Bronze Age. There is rich evidence for activity that was broadly contemporary with the Beaker sites discovered on the bypass within their immediate locale. A pit at Farrandreg, Co. Louth, 1.5km east of Newtownbalregan, was found to contain Beaker sherds and a possible collared urn (Bolger 2002). An uncontexted sherd of Beaker pottery was found in the townland of Faughart Lower which adjoins this cemetery complex (John Turrell, pers. comm.). Beaker pottery has been found in the court tombs immediately north of Carlingford Lough at Clontygora Large Co. Down and Ballyedmond, Co. Down (Herity 1987).

Irish Beakers date from c.2500–1900 BC (Brindley 2005, 334; 2007, 321) and at least some of the Beaker activity from the north Louth region such as that from Newtownbalregan 2 dates from c.2200–2100 BC and may be contemporary with some of the many Food Vessel sites in the surrounding area. It has long been argued that the emergence of the Food Vessel pottery tradition and especially the Bowl was strongly influenced by Beakers (Case 1995, 23; Waddell 1976, 286; Apsimon 1969, 37). The use of Bowls in Ireland date from c.2160 BC until 1930/20 BC (Brindley 2007, 250) and they seem to have appeared as part of a newly adopted funerary ritual involving crouched inhumations that is closely comparable to the British Beaker burial tradition. This distinctive form of burial dates from c.2150–1900 BC (Brindley 2007, 373). It seems likely that early Food Vessels were part of the same ceramic repertoire as Beaker pottery, thus there may be a strong relationship between the Bowl-associated sites and crouched inhumations located around Dundalk Bay and Beaker-associated activity.

Including Carn More 5, a number of Bowl burials occur in the immediate vicinity of this excavation – including the cist graves found 0.6km to the south at Newtownbalregan, Co. Louth (Manning 1987), 1km west at Tankardsrock, Co. Louth (Waddell 1990, 113; Cooney 1987b) and 7km to the north east at Aghanaskeagh, Co. Louth (Waddell 1990, 111). A Bowl-associated cremation and a crouched inhumation were found at Ramparks, Co. Louth slightly further to the northeast on the Carlingford peninsula (Campbell 2004). Crouched inhumations in cists have been excavated 5km to the southwest at Newtown, Co. Louth (Waddell 1990, 113) and 4km to the southeast at Crumlin, Co. Louth (Lynch 2002). Apparently non-funereal Bowl-associated activity has been recorded 5km to the southeast at Marshes Upper, Co. Louth (O'Hara 2004) and 5km to the north east at Navan, Co. Louth (Opie 1994).

Wedge tombs were built from 2400–2100 BC (Brindley and Lanting 1991/92, 25), Beaker sherds have been found in association with cremated and un-burnt human bone in apparently primary positions in up to nine wedge tombs and these monuments are almost certainly of Final Neolithic–Early Bronze Age construction. Two of these tombs occur within the fertile plain surrounding the Castletown River estuary – Lurgankeel is 3km to the north and Proleek is 6km to the north east (de Valera and Ó Nualláin 1982, 130).

A cluster of outcrop rock art panels occurs to the west of Dundalk Bay (Clarke 1981; 1982), which are decorated with cup-marks, a tradition dating from the Late Neolithic–Early Bronze Age (Bradley 1997; Burgess 1990). Sites in the vicinity of Newtownbalregan include Tankardsrock (0.8km west), Cortial (2km south west), Carrickallan (3km southwest), Drumsinnot and Carrickrobin (5 and 6km west, respectively).

The north western extent of the central plain of Co. Louth was clearly a focus of intense activity from 2400–2000 BC and it seems that the Beaker-associated sites formed a clear part of this node. A very strong spatial association exists between the Beaker activity at Newtownbalregan 2 and 5, Dongahmore 1, Farrandreg, Carn More, and Faughart, the Bowl-associated activity at Carn More, Newtownbalregan, Tankardsrock, Aghanaskeagh, Ramparks, Marshes Upper, and Navan, the crouched inhumations at Crumlin and Newtown, the wedge tombs at Proleek and Lurgankeel, and the outcrop rock art at Tankards Rock, Cortial and Carrickallan. Cooney (1987a, 128) observed a degree of clustering in the location of Early Bronze Age burials in north Co. Louth and it is significant to note that the subsequently discovered Beaker sites add another dimension to this core. The funerary, ritual and settlement activities seem to be completely intertwined and in this regard, there are strong parallels between this and other Early Bronze Age landscapes such as The Burren, Co. Clare

(Jones 1998), the Lough Gur complex, Co. Limerick (Grogan 2005) and the southern foothills of the Dublin Mountains (Carlin 2005b).

The Early Bronze Age evidence is only one aspect of a long tradition of human activity in this micro-region. Early Neolithic settlement is indicated by the dense grouping of court tombs, portal tombs on the slopes of the Carlingford Mountains, the rectangular houses at Haggardstown (Gill McLoughlin, pers. comm.) and Plaster (John Turrell, pers. comm.) and the various sites found on the route of the Dundalk Western Bypass – Littlemill 1, Donaghmore 1a, Faughart 5, and Newtownbalregan 5 (Ó Donnchadha 2003a; 2002; Bayley 2004; Grogan and Roche 2006a; 2006b; Grogan and Roche 2005a). Middle Neolithic activity is also richly represented by sites such as the passage tombs in the Carlingford Mountains at Ravensdale, Co. Down and Killin, Co. Louth, the collection of smaller sites at Newtownbalregan 5, Littlemill 1 and 4/5, and Donaghmore 1 (Bayley 2005; Ó Donnchadha 2003a; 2003c; 2002; Grogan and Roche 2005a; 2006a; 2006b; 2006d) and Balregan (Grogan and Roche 2006b). Evidence for Late Neolithic (Grooved Ware) activity in north Co. Louth is provided by the embanked enclosure at Balregan (Grogan and Roche 2006c) and possibly at Carn Beg, Co. Louth (Buckley and Sweetman 1991, 70). The longevity and density of past human activity in the north Louth region suggests that it was an important Neolithic core which was clearly abreast of wider regional and international developments. Perhaps this is the context within which the discovery of the polypod bowl at Newtownbalregan is best understood. The north Louth core continued to be major focus in the Early Bronze Age and although the monuments of the past would have continued to play a role in the cultural landscape, there seems to have been a greater diversity in the distribution of activity with settlement extending further into the lowland areas.

The discoveries from the Dundalk Western Bypass add considerably to the growing distribution of Irish Beakers in Ireland. New findings such as the concentrations of sites occurring in south Munster and south Leinster show that there is a much wider dispersal of Beaker pottery than was previously realised. Less than a decade ago, there were no such sites known from south Munster or south Leinster and the only known Beaker sites in the north Leinster region were those of Newgrange, Monknewtown and Knowth from the Boyne Valley (O'Kelly 1983; Sweetman 1976; Eogan 1984). Beaker sites in the vicinity of these have subsequently been discovered at Hill of Rath (Duffy 2002) and Mell (McQuade 2005) in Co. Louth and at Rathmullan 9, 10 and 12 (D. Neill 2002; Bolger 2001a; 2001b), Carranstown (O'Carroll 2004), and Oldbridge (Matt Seavers, pers. comm.) in Co. Meath. New Beaker sites found near the Hill of Tara include Ardsallagh 4, Johnstown 3, Berrilstown, Dunboyne 3, Screen 3, and Lismullin 1, Co. Meath (Grogan and Roche 2007). Beaker activity also occurred near Ashbourne, at Harlockstown and Cookstown, Co Meath (O'Connor 2004; Clutterbuck 2004) and at Kilmainham, Co. Meath, west of Kells (Fintan Walsh, pers. comm.). Further Beaker sites have been excavated in the north Dublin coastal area at Beaverstown, Balrothery, Broomfield, and Lusk (Hagen forthcoming 2; Grogan 2006; O'Brien 1988; Roche 2004b). The wedge tombs at Paddock on the slopes of the Rathkenny-Mount Oriel uplands in south Co. Louth and at Edengora, Co. Meath to the north of Kells can be seen as further indicators of widespread Beaker activity in north Leinster. At present, there appears to be a gap in the distribution of Grooved Ware, Beakers and Food Vessels along the north Leinster coastline stretching from Dunleer to Dundalk which may suggest that the north Louth core was quite distinct from the Boyne Valley complex.

In conclusion, the discoveries of the new sites on the Dundalk Western Bypass demonstrates that Beaker activity in Ireland was more widespread than previously

thought (e.g Harbison 1979) and that the Neolithic core in north Co. Louth continued to be a major focus of activity in the Early Bronze Age.

Middle Bronze Age *fulachta fiadh*

Burnt mounds or *fulachta fiadh* are very common in Ireland and have been recorded in every county. Similar sites are also known in Britain, especially Scotland. The dates of *fulachta fiadh* have been established from radiocarbon and thermoluminescence dating methods, small finds, pollen studies and references in early Irish literature. The majority of dates range from a period beginning at c.1400 BC and extend well into the early medieval period indicating that *fulachta fiadh* were a Bronze Age innovation. Despite the large number of *fulachta fiadh* in Ireland, only a small percentage of the total number has been excavated.

A typical *fulacht fiadh* usually consisted of a rectangular water trough lined with either slabs of stone or wood and there were generally hearths nearby. Adjacent to the trough you would commonly find a pile of discarded, heat-shattered stones in a horse-shoe shape. The shape of *fulachta fiadh* is usually determined by their location and by the amount of damage or erosion that the monument has suffered. They generally survive as relatively small grass-covered mounds of burnt and broken stone, ash and charcoal. They can vary greatly in size from only a few meters in diameter to over 20m in some cases. While the height of the mounds can vary greatly, most measure between 1m and 2m in height.

Most *fulachta fiadh* are located in waterlogged or marshy areas, by a stream or near springs or wells. While changes in the climate and the topography of the landscape may have taken place in the three thousand years since these sites were first in use, it can be assumed that *fulachta fiadh* would have also had a waterside location in antiquity.

Although some of the excavated sites have produced artefacts, little pottery or implements of stone or metal have been found. This has contributed much to the debate as to their exact function. This lack of artefacts, coupled with the large number and varied distribution of the sites, might suggest that their users were unable to make or acquire vessels in which to cook/heat liquids. It is also suggested that the *fulachta fiadh* were used by nomadic hunters, who would not necessarily have carried such vessels with them.

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APPENDIX 1: CATALOGUE OF PRIMARY DATA

Context Index:

| C | Area | Fill of | Filled by | Interpretation | Description |
|----|--------|---------|-----------|------------------------------|--|
| 1 | Site | n/a | n/a | Topsoil | Mid brown sandy clay, mod firm, freq s, m, lg mixed, mod ch fls & frags |
| 2 | Site | n/a | n/a | Natural | Brown orange sandy, silty clay |
| 3 | | | | Void | |
| 4 | | | | Void | |
| 5 | | | | Void | |
| 6 | | | | Void | |
| 7 | | | | Void | |
| 8 | | | | Non archaeological | |
| 9 | | | | Non archaeological | |
| 10 | | | | Non archaeological | |
| 11 | | | | Non archaeological | |
| 12 | | n/a | n/a | Spread | Linear in plan, grey, ashy clay w/ ch fl, 0.12d x 20.50l x 10.00w E-W |
| 13 | | n/a | C222 | Field boundary | E-W oriented field boundary. U-shaped profile. |
| 14 | | | | Void | |
| 15 | | | | Void | |
| 16 | | | | Void | |
| 17 | 0/10 | C173 | n/a | Fill | Brown silty sand mixed w/ grey ch-rich clay, freq m-l ang+ sub-ang + sub-round |
| 18 | | | | Void | |
| 19 | | | | Non archaeological | |
| 20 | | | | Void | |
| 21 | 10/10S | C196 | n/a | Fill | Dk grey, loose sandy silt, freq sub-ang stones+ch |
| 22 | 10/0 | n/a | n/a | Poss fulacht waste | Irreg linear in plan, dk brown black, stoney ch-rich silty clay, bs, 0.14d x 7.50l x 4.20w E-W |
| 23 | | C158 | n/a | Natural silting | Med brown, loose silty sand, occ s stones |
| 24 | 20/0 | C130 | n/a | Fill | Brown, sandy clay, freq ang+sob-rou |
| 25 | | | | Non archaeological | |
| 26 | 20/0 | C213 | n/a | Fill | Med/Dk black grey, mod loose sandy silt, freq sub-ang+ang, freq ch fl, esp towards base |
| 27 | | | | Non archaeological | |
| 28 | | | | Non archaeological | |
| 29 | 20/0 | C125 | n/a | Poss burnt post | Lt red brown, very ch-rich sandy soil, |
| 30 | 20/0 | C206 | n/a | Poss <i>fulacht</i> material | Dk brown black, silty clay, freq stones, occ bs |
| 31 | 20/10 | n/a | n/a | Charcoal spread | Sub-circular in plan, orange, mod compacted ch-rich sandy clay, occ s ang, 0.07d x 1.04l x 0.94w |
| 32 | 30/10 | C131 | n/a | Poss kiln charcoal | Black, ch, rare s sub-ang |
| 33 | 20/10 | C134 | n/a | Poss burnt post | Dk grey brown, ch-rich silty clay, rare s stones |

| | | | | | |
|----|-------|------|-----|--------------------|---|
| 34 | | | | Void | |
| 35 | | | | Non archaeological | |
| 36 | | | | Non archaeological | |
| 37 | | | | Non archaeological | |
| 38 | | | | Non archaeological | |
| 39 | 20/10 | n/a | n/a | spread | |
| 40 | | | | Non archaeological | |
| 41 | | | | Non archaeological | |
| 42 | 20/10 | 141 | n/a | Poss burnt post | Dk brown black, very ch-rich sandy clay, rare s sub-rou |
| 43 | | | | Non archaeological | |
| 44 | 20/10 | n/a | n/a | Poss Kiln material | Sub-circular in plan, thin spread, irreg base, Dk brown black, ch-rich silty clay, occ m sub-ang, 0.14d x 1.95 l x 1.00 w |
| 45 | | | | Non archaeological | |
| 46 | | | | Non archaeological | |
| 47 | | | | Non archaeological | |
| 48 | 10/10 | C129 | n/a | Poss nat silting | Dk brown, mod compacted sandy silt, heavy ch at E end, freq s-m ang+ sub-ang |
| 49 | 10/10 | C165 | n/a | Fill | Orange, slightly ch-rich sandy clay, rare s sub-ang, |
| 50 | 10/10 | C163 | n/a | ch deposit | Ch with orange sandy clay mixed in, occ s ang |
| 51 | 10/10 | C151 | n/a | Fill | Med grey brown, sandy clay, mod ch fl, mod m sub-ang |
| 52 | | | | Non archaeological | |
| 53 | | | | Void | |
| 54 | | | | Void | |
| 55 | | | | Void | |
| 56 | 10/10 | C148 | n/a | Poss burnt post | Grey brown, very ch rich sandy silt, mod m sub-ang |
| 57 | 10/10 | C176 | n/a | Poss burnt post | Med brown, loose silty sand, freq ch fl, occ pebbles+s stones |
| 58 | 10/10 | C177 | n/a | Fill | Med brown, loose silty sand, occ s stones |
| 59 | 10/10 | C174 | n/a | refuse pit fill | Med brown, loose silty sand, freq ch fl, s-l sub-rou |
| 60 | | | | Void | |
| 61 | | | | Void | |
| 62 | 10/10 | C160 | n/a | Fill | Dk brown black, silty sand, freq ch, rare s sub-ang+ sub-rou |
| 63 | | | | Void | |
| 64 | | | | Non archaeological | |
| 65 | 10/10 | C179 | n/a | Fill | |
| 66 | 10/10 | C182 | n/a | Fill | Med/dk brown, loose, lsub-ang+fractures stones, ch, |
| 67 | 10/20 | C162 | n/a | Refuse pit fill | Med brown, loose sandy silt, freq ch fl, mod s-med sub-rou |
| 68 | 10/10 | C154 | n/a | Poss burnt post | Dk grey brown, ch+ sandy clay, mod m-l sub-ang+occ s sub-rou |
| 69 | | | | Void | |
| 70 | 10/10 | C156 | n/a | Poss burnt post | Dk brown black, ch+sandy clay, |

| | | | | | |
|-----|-------|------|-----|---------------------------------|---|
| | | | | | occs sub-rou+sub+ang |
| 71 | | | | Void | |
| 72 | | | | Void | |
| 73 | 10/10 | C166 | n/a | Fill | Med brown loose sandy silt, mod s-m stones, mod ch |
| 74 | | | | Void | |
| 75 | | | | Void | |
| 76 | | | | Void | |
| 77 | 10/10 | C181 | n/a | Fill | Med-dk brown, loose sandy silt, freq ch fl, freq s-m sub-rou |
| 78 | 10/10 | C190 | n/a | Fill | Lt-med grey brown, mod loose sandy silt, occ msub-ang, occ ch fl, |
| 79 | 10/10 | C153 | n/a | Fill | Dk, loosely compacted, sparse yet strong concentrations of ch, minimal amounts of stone |
| 80 | | | | Non archaeological | |
| 81 | 10/20 | C197 | n/a | Fill | Med brown, mod compacted silty clay, mod ch fl, mod s-m sub-ang, |
| 82 | | | | Void | |
| 83 | | | | Void | |
| 84 | | | | Void | |
| 85 | | | | Void | |
| 86 | 0/10 | C199 | n/a | Fill | Med brown, mod compacted silty clay, freq ch fl, occ m-l sub-ang |
| 87 | 0/10 | C199 | n/a | Fill | Med brown, very compact fill, very freq ch, freq s-l stones |
| 88 | | C170 | N/a | Deliberate backfill | Brown silty sand mixed w/ grey ch-rich clay, freq m-l ang+ sub-ang + sub-round |
| 89 | 0/10 | C183 | n/a | Fill | Grey brown, silty clay, ch, very freq sub-ang+subrou stones of all sizes |
| 90 | | | | Void | |
| 91 | | | | Void | |
| 92 | 10/10 | C207 | n/a | Poss <i>fulacht</i> trough fill | Med brown, loose sandy clay, freq bs |
| 93 | 10/0 | C142 | n/a | | Dk brown, loose peat like fill, occ ch fl, occ stones |
| 94 | 10/0 | C143 | n/a | Poss burnt spread | Dk brown/ black, loose fill, occ stones+ch |
| 95 | | | | Void | |
| 96 | | | | Void | |
| 97 | 10/10 | C175 | n/a | Fill | Dk brown, mod loose silty clay, mod ch fl, rare s sub-ang, minor root activity |
| 98 | | | | Non archaeological | |
| 99 | 10/20 | C172 | n/a | Fill | Brown black, sandy clay, w/ch, mod s-m sub-ang |
| 100 | | | | Non archaeological | |
| 101 | 10/20 | n/a | n/a | Burnt spread | Linear in plan, med brown, loose sandy silt, mod ch fl, occ pebbles, 0.05d x 0.83l x 0.28 NE-SW |
| 102 | | | | Non archaeological | |
| 103 | 10/20 | C167 | n/a | Burnt area | Dk brown, silty clay, mod ch, occm ang |

| | | | | | |
|-----|-------|------|-----------|-----------------------|---|
| 104 | 10/20 | C171 | n/a | | Dk grey brown, loose silty clay, freq ch fl, occ s-m sub-ang |
| 105 | | | | Non archaeological | |
| 106 | | | | Void | |
| 107 | | | | Non archaeological | |
| 108 | | | | Non archaeological | |
| 109 | | | | Void | |
| 110 | 10/20 | C161 | n/a | Fill | Med grey brown, fairly loose, mod ch fl, mod m sub-ang |
| 111 | 10/10 | C185 | n/a | Fill | Med brown, mod compact silty clay, occ ch fl, rare s pebbles |
| 112 | | | | Void | |
| 113 | 10/20 | 164 | n/a | Fill | Dk brown, mod loose sandy silt, mod ch fl, mod s sub-ang |
| 114 | | | | Void | |
| 115 | | | | Void | |
| 116 | | | | Void | |
| 117 | 10/20 | C200 | n/a | Fill | Med brown, mod compact sandy silt, occ ch fl, mod s-m sub-ang |
| 118 | | | | Void | |
| 119 | | | | Void | |
| 120 | | | | Void | |
| 121 | 30/0 | C144 | n/a | Charcoal deposit | V dk brown, black, ch with clay, freq sub-ang+sub-rou stones of various sizes |
| 122 | 30/0 | C202 | n/a | Fill | Grey brown, mod loose silty clay, freq ch fl, occ s pebbles |
| 123 | | | | Void | |
| 124 | | | | Void | |
| 125 | 20/0 | n/a | C29 | Prob posthole | Sub-circular in plan, steep sides, flat base, 0.09d x 0.13l x 0.08w |
| 126 | | | | Void | |
| 127 | | | | Void | |
| 128 | | | | Void | |
| 129 | 10/10 | n/a | C48 | Cut | Linear in plan, shallow generally, but deeper at E end, flat base generally, 0.12dx6.30lx0.98w E-W |
| 130 | 20/0 | n/a | C24 | Cut | Sub-circular in plan, sides shallow in S, steeper in E+W, irreg base, 0.75d x 0.69l x 0.60 |
| 131 | 20/10 | n/a | C32, C132 | Poss corn drying Kiln | Oval in plan, sides irreg, E side stepped, base irreg, w/a circular shape in NW, 0.38d x 1.64l x 1.03w, E-W |
| 132 | 30/10 | C131 | n/a | Poss kiln material | Grey brown, very ch-rich clayey silt, freq m sub-rou+sub-ang |
| 133 | | | | Non archaeological | |
| 134 | 20/10 | n/a | C33 | Poss posthole | Circular in plan, U-shaped in profile, base concave, 0.05d x 0.15l x 0.18w |
| 135 | 20/10 | n/a | C136 | Poss posthole | Circular in plan, U-shaped in profile, base concave, 0.06d x 0.07l x 0.06w |

| | | | | | |
|-----|-------|------|------------|--------------------|---|
| 136 | 20/10 | C135 | n/a | prob burnt post | Dk Brown black, ch w/ sandy clay, rare s sub-rou |
| 137 | 20/10 | n/a | C138 | Prob posthole | Circular in plan, sides irreg, base concave, 0.11d x 0.13l x 0.09w |
| 138 | 20/10 | C137 | n/a | Prob burnt post | Dk Brown black, ch w/ sandy clay, rare s sub-rou |
| 139 | 20/10 | n/a | C140 | Prob posthole | Circular in plan, sides smooth+gradually sloping, base shallow concave, 0.07d x 0.08l x 0.08w |
| 140 | 20/10 | C139 | n/a | Prob burnt post | Dk Brown black, ch w/ sandy clay, rare s sub-rou |
| 141 | 20/10 | n/a | C42 | Prob posthole | Circular in plan, sides smooth+steeply sloped, concave base, 0.08d x 0.08l x 0.09w |
| 142 | 0/10 | n/a | C93 | Poss posthole | Sub-circular in plan, E side slopes gradually, W side steeper, base flat, 0.19d x 0.34l x 0.44, |
| 143 | 10/10 | n/a | C94, C150 | Cut | Sub-circular in plan, sides irreg, but near vert, base flat generally, w/ some irreg, 0.36d x 0.22l x 0.20w |
| 144 | 30/0 | n/a | C121 | Poss hearth | Sub-oval in plan, very shallow, gradual sloping sides, concave base, 0.10d x 0.80l x 0.65w, E-W |
| 145 | | | | Non archaeological | |
| 146 | | | | Non archaeological | |
| 147 | 10/10 | n/a | C48 | Poss posthole | Circular in plan, U-shaped prof, 0.09d x 0.24l x 0.20w |
| 148 | 10/10 | n/a | 56 | Poss posthole | Circular in plan, smooth regular sides, irreg slightly concave base, 0.07d x 0.26d x 0.25w |
| 149 | | | | Void | |
| 150 | 10/10 | C143 | n/a | Fill | Dk brown silty clay, occ ch fl, freq s stones |
| 151 | 10/10 | n/a | C51 | Shallow pit | Oval in plan, sides irreg+shallow, base irreg concave, 0.14d x 0.98l x 0.32w, E-W |
| 152 | | | | Non archaeological | |
| 153 | 10/10 | n/a | C79 | Cut | Sub-oval in plan, dramatic slope to the N, much more gradual in the S, Base concave, 0.11d x 0.22l x 0.77w |
| 154 | 10/10 | n/a | C68, C 115 | Poss posthole | Sub-circular in plan, sides steep+smooth, base irreg slightly concave, 0.55d x 0.50l |
| 155 | 10/10 | C154 | n/a | Fill | Lt brown grey, sandy clay, occ ch fl, freq s-m sub-rou+occs sub-ang |
| 156 | 10/10 | n/a | C70 | Poss posthole | Oval in plan, sides smooth+steep, E side much steeper than W, base rounded V-shape, poss post was not perpendicular to gound, 0.12d x 0.20l x 0.16w |
| 157 | | | | Non archaeological | |
| 158 | | N/a | C23 | Post med-pit | Circular in plan, U-shaped prof, 1.20l x 1.00w x 0.40d |
| 159 | 0/0 | C160 | n/a | Charcoal spread | Black, compact ch with sandy |

| | | | | | |
|-----|-------|------|------------|--------------------------------|---|
| | | | | | clay, mod sub-ang+sub-rou |
| 160 | 10/10 | n/a | C62, C159 | Poss hearth | Sub-oval in plan, sides irreg+gradually sloping, irreg concave base, 0.15d x 1.00l x 0.50w, N-S |
| 161 | 10/20 | n/a | C110 | Poss pit | Circular in plan, sides mod in N steeper in S, base irreg, 0.18d x 0.48l x 0.35w |
| 162 | 10/10 | n/a | C67 | Refuse pit | Subcircular in plan, sides smooth+steep, base flat |
| 163 | 10/10 | n/a | C50 | Poss pit | Sub-oval in plan, sides steep+slightly concave, concave base, 0.18d x 0.62l x 0.40w, NW-SE |
| 164 | 10/20 | n/a | C113 | Poss pit | Circular in plan, smooth regular sides, concave base, 0.12d x 0.30l x 0.26w |
| 165 | 10/10 | n/a | C49 | Poss t'd posthole | Circular in plan, U-shaped prof, 0.07d x 0.27l x 0.20 |
| 166 | 10/10 | n/a | C73, C169 | Poss angled posthole | Subcircular in plan, NW side slopes dramatically to lesser slope before base, SE side undercut, base irreg, inclination of axis approx 30%, 0.30d x 0.24l x 0.28w |
| 167 | 10/20 | n/a | C103, C168 | Cut | Oval in plan, sides irreg+gradually sloping, base flat, generally, 0.14d x 0.87l x 0.76w, N-S |
| 168 | 10/20 | C167 | n/a | Fill | Pink brown, mod loose sandy silt, occ m sub-ang, occ ch fl |
| 169 | 10/10 | C166 | n/a | Poss nat silting | Dk brown, loose sandy clay, occ stones+ ch |
| 170 | | | | Void | |
| 171 | 10/20 | n/a | C104 | Poss posthole | Oval in plan, sides smooth+undercut on NW edge, flat base, 0.26d x 0.39l x 0.52w SE-NW |
| 172 | 10/20 | n/a | C99 | Cut | Irreg linear in plan, sides gradually sloping, irreg concave base, 0.06d x 1.05l x 0.36, N-S |
| 173 | 0/10 | n/a | C17 | Poss hearth | Circular in plan, side mod steep, flat base, 0.20d x 0.86l x 0.81w |
| 174 | 10/20 | n/a | C59 | Refuse pit | Circular in plan, sides steep, base flat, 0.42d x 0.43l x 0.39w |
| 175 | 10/10 | n/a | C97 | Poss pit | Oval in plan, U-shaped prof, 0.35d x 0.46l x 0.19w, NE-SW |
| 176 | 10/20 | n/a | C57 | Poss stakehole | Circular in plan, U-shaped prof, 0.09d x 0.09l x 0.10w |
| 177 | 10/20 | n/a | C58 | Poss stakehole | Circular in plan, U-shaped prof, 0.08d x 0.09l x 0.09w |
| 178 | 10/10 | C180 | n/a | nat silting | Med brown, mod loose silty clay, occ ch fl, rare s pebbles, some root activity |
| 179 | 10/10 | n/a | C65 | Posthole | Oval in plan, U-shaped prof, 0.35d x 0.10l x 0.20w |
| 180 | 10/10 | n/a | C178 | Poss stakehole | Circular in plan, U-shaped prof, 0.21d x 0.11l x 0.10w |
| 181 | 10/10 | n/a | C77 | Pit or Poss structural support | Oval in plan, sides vert, base flat, 0.51 x 0.42l x 0.28w, SW-NE |
| 182 | 10/10 | n/a | C66 | Poss posthole | Hexagonal in plan, sides steep, base flat generally |

| | | | | | |
|-----|--------|------|-----------------------|---------------------------------|--|
| 183 | 0/10 | n/a | C89 | Poss pit | Subcircular in plan, sides steep, base sloped down to W+ slightly concave, 0.35d x 1.30l x 1.12w, |
| 185 | 10/10 | n/a | C111 | Poss stakehole | Circular in plan, sides vert, base flat, 0.13d x 0.07l x 0.07w |
| 184 | | | | | |
| 186 | 10/10 | C187 | n/a | Fill | Dk brown, mod loose silty clay, mod ch, rare s sub-ang |
| 187 | 10/10 | n/a | C186 | Poss stakehole | Circular in plan, U-shaped prof, 0.10d x 0.08l x 0.08w |
| 188 | 10w/10 | n/a | C189, C192 | Cut | Circular in plan, sides steep+irreg, N side concave, base irreg concave, 0.70d x 1.46l x 1.2w |
| 189 | 10w/10 | C188 | n/a | Charcoal spread | Dk brown black, loose ch w/ silty clay, mod s-m sub-ang+sub-rou |
| 190 | 10/10 | n/a | C78 | Cut | |
| 191 | | | | Void | Irreg curvilinear in plan, sides concave, base flat generally, 0.15d x 2.33l x 1.10w, N-S |
| 192 | 10w/10 | C188 | n/a | Fill | Dk grey black, very stoney sandy silt, occ ch, very freq s-l sub-ang+sub-rou |
| 193 | 10/10 | n/a | C194 | Poss stakehole | Circular in plan, S+W sides vert, N+E concave, base concave, 0.13d x 0.22l x 0.17w |
| 194 | 10/10 | C193 | n/a | Fill | Med-lt grey, mod loose sandy silt, freq chfl, freq pebbles, poss packing stonmes in base |
| 195 | 10/10 | C199 | n/a | Fill | Very dk brown, mod compac sandy silt, occ ch, freq s-l ang |
| 196 | 10/10S | n/a | C21 | Poss pit | Circular in plan, sides shallow+concave, base flat generally. 0.10d x 1.14l x 0.52 (feat. extends beyond S limit of excavation) |
| 197 | 10/20 | n/a | C81 | Poss pit | Circular in plan, E+S sides regular, W+N sides irreg, base irreg concave, 0.40d x 1.26 x 1.20w |
| 198 | | | | Void | |
| 199 | 10/10 | n/a | C86, C 87, C195, C201 | Poss drainage system | Linear in plan, sides sloped gently, base flat+ undulating, 0.15d x 1.2w, N-S |
| 200 | 10/20 | n/a | C117 | Poss pit | Circular in plan, sides slope gently, irreg w/rocks projecting from the natural, base irreg +slightly concave, 0.31d x 0.86l x 0.86w |
| 201 | 0/10 | C199 | n/a | Burnt spread | Black, loose Ch w/sandy silt, freq sub-ang +heat-affected flint |
| 202 | 30/0 | n/a | C122 | Poss stakehole | Circular in plan, U-shaped prof, 0.08d x 0.10l x 0.10w |
| 203 | | | | Non archaeological | |
| 204 | 20/0 | C206 | n/a | Poss ash layer | Yellow grey, silt, occ ch fl, occ s stones |
| 205 | 20/0 | C206 | n/a | Poss non-arch | Orange brown silty, sandy clay |
| 206 | 20/0 | n/a | C30, C 204, C205 | Cut for <i>fulacht</i> material | Sub-circular pit, steep sided, 6.50l x 4.5w x 1.00d. E-W |

| | | | | | |
|-----|-------|------|-----------|------------------------|---|
| 207 | 10/10 | n/a | C92,C 208 | fulacht trough | Rectangular in plan, rounded corners, sides vert, base flat (rises slightly to E), 0.40d x 2.90l x 1.52w, E-W, (6 postholes, 209, 211, 216, 217, 219, 221 in trough base) |
| 208 | 10/10 | C207 | n/a | Fill | Black, soft clayey silt, freq ch, freq m ang (heat affected) |
| 209 | 10/10 | n/a | C210 | Posthole | Circular in plan, vert sides, base rounded+slightly tapered, 0.23d x 0.16l x 0.15w, |
| 210 | 10/10 | C209 | n/a | Fill | Grey, loose sandy clay, mod ch fl, occ s stones |
| 211 | 10/10 | n/a | C212 | Posthole | Circular in plan, sides vert, base slightly rounded, poss t'd, 0.29d x 0.15l x 0.19w |
| 212 | 10/10 | C211 | n/a | Fill | Med brown grey, soft sandy clay, occ ch fl, occ m sub-ang, mod tiny stones |
| 213 | 30/0 | n/a | C26 | Poss trough | Sub-circular, E, S, N sides concave, W side convex, Base flat, 0.42d x 1.62l x 1.42w N-S |
| 214 | 10/10 | C216 | n/a | Fill | Dk brown black, loose silty clay, freq ch, occ s stones |
| 215 | 10/10 | C217 | n/a | Fill | Black, soft silty clay, freq ch, |
| 216 | 10/10 | n/a | C214 | Posthole | Oval in plan, sides vertical, base slightly tapered+rounded, 0.37d x 0.22l x 0.16w |
| 217 | 10/10 | n/a | C215 | Posthole (poss double) | irreg sub-rounded in plan, sides vertical generally, but W side stepped base flat, ang stones found in walls, 0.36d x 0.25l x 0.13w |
| 218 | 10/10 | C219 | n/a | Fill | Grey, loose silty clay, mod ch fl, occ s stones, freq ch fl, |
| 219 | 10/10 | n/a | C218 | Posthole | Circular in plan, sides vertical, base slightly tapered+rounded, 0.12d x 0.14l x 0.15w |
| 220 | 10/10 | C221 | n/a | Fill | Med grey brown, soft silty clay, mod ch fl, mod s sub-ang+ occ m sub-ang |
| 221 | 10/10 | n/a | C220 | Posthole | Circular in plan, sides nearly vert, Base concave, 0.40d x 0.23l x 0.2 |
| 222 | | n/a | C13 | Deliberate backfill | Med brown silty clay with occ. ch and stone inclusions |

Finds Register:

| Context | Find | Description |
|---------|--------------|---|
| 1 | 03E0114:1:1 | Flint end scraper |
| 1 | 03E0114:1:2 | Broken flint blade |
| 1 | 03E0114:1:3 | Flint side scraper |
| 1 | 03E0114:1:4 | Flint end scraper |
| 1 | 03E0114:1:5 | Flint flake |
| 1 | 03E0114:1:6 | Flint chunk |
| 1 | 03E0114:1:7 | Flint flake |
| 1 | 03E0114:1:8 | Double-sided flint concave side scraper |
| 1 | 03E0114:1:9 | Flint flake |
| 1 | 03E0114:1:10 | Flint chunk flake |
| 1 | 03E0114:1:11 | Pottery |
| 1 | 03E0114:1:12 | Broken flint blade |
| 1 | 03E0114:1:13 | Non-arch flint |
| 1 | 03E0114:1:14 | Struck flint |
| 1 | 03E0114:1:15 | Non-arch flint |
| 1 | 03E0114:1:16 | Chunk flint |
| 1 | 03E0114:1:17 | Chunk flint |
| 1 | 03E0114:1:18 | Chunk flint |
| 1 | 03E0114:1:19 | Chunk flint |
| 1 | 03E0114:1:20 | Chunk flint |
| 1 | 03E0114:1:21 | Chunk flint |
| 1 | 03E0114:1:22 | Chunk flint |
| 1 | 03E0114:1:23 | Non-arch flint |
| 1 | 03E0114:1:24 | Struck flint |
| 1 | 03E0114:1:25 | Split pebble flint |
| 1 | 03E0114:1:26 | Non-arch flint |
| 1 | 03E0114:1:27 | Flint chunk |
| 1 | 03E0114:1:28 | Split pebble flint |
| 1 | 03E0114:1:29 | Flint chunk |
| 1 | 03E0114:1:30 | Flint struck |
| 1 | 03E0114:1:31 | Split pebble flint |
| 1 | 03E0114:1:32 | Non-arch flint |
| 1 | 03E0114:1:33 | Struck flint |
| 1 | 03E0114:1:34 | Struck flint |
| 1 | 03E0114:1:35 | Flint chunk |
| 1 | 03E0114:1:36 | Flint chunk |
| 1 | 03E0114:1:37 | Flint chunk |
| 1 | 03E0114:1:38 | Flint chunk |
| 1 | 03E0114:1:39 | Flint chunk |
| 1 | 03E0114:1:40 | Non-arch flint |
| 1 | 03E0114:1:41 | Flint chunk |
| 1 | 03E0114:1:42 | Struck flint |
| 1 | 03E0114:1:43 | Struck flint |
| 1 | 03E0114:1:44 | Non-arch flint |
| 1 | 03E0114:1:45 | Flint chunk |
| 1 | 03E0114:1:46 | Flint chunk |
| 1 | 03E0114:1:47 | Non-arch flint |

| Context | Find | Description |
|---------|--------------|---------------------|
| 1 | 03E0114:1:48 | Struck flint |
| 1 | 03E0114:1:49 | Non-arch flint |
| 1 | 03E0114:1:50 | Non-arch flint |
| 1 | 03E0114:1:51 | Struck flint |
| 1 | 03E0114:1:52 | Struck flint |
| 1 | 03E0114:1:53 | Struck flint |
| 1 | 03E0114:1:54 | Struck flint |
| 1 | 03E0114:1:55 | Non-arch flint |
| 1 | 03E0114:1:56 | Struck flint |
| 1 | 03E0114:1:57 | Flint chunk |
| 1 | 03E0114:1:58 | Flint chunk |
| 1 | 03E0114:1:59 | Flint chunk |
| 1 | 03E0114:1:60 | Non-arch flint |
| 1 | 03E0114:1:61 | Struck flint |
| 1 | 03E0114:1:62 | Struck flint |
| 1 | 03E0114:1:63 | Struck flint pebble |
| 1 | 03E0114:1:64 | Burnt flint |
| 1 | 03E0114:1:65 | Non-arch flint |
| 1 | 03E0114:1:66 | Non-arch flint |
| 1 | 03E0114:1:67 | Struck flint |
| 1 | 03E0114:1:68 | Split pebble flint |
| 1 | 03E0114:1:69 | Non-arch flint |
| 1 | 03E0114:1:70 | Struck flint |
| 1 | 03E0114:1:71 | Struck flint |
| 1 | 03E0114:1:72 | Struck flint |
| 1 | 03E0114:1:73 | Struck flint |
| 1 | 03E0114:1:74 | Struck flint |
| 1 | 03E0114:1:75 | Flint flake |
| 1 | 03E0114:1:76 | Non-arch flint |
| 1 | 03E0114:1:77 | Struck flint |
| 1 | 03E0114:1:78 | Struck flint |
| 1 | 03E0114:1:79 | Struck flint |
| 1 | 03E0114:1:80 | Struck flint |
| 1 | 03E0114:1:81 | Struck flint |
| 1 | 03E0114:1:82 | Struck flint |
| 1 | 03E0114:1:83 | Flint chunk |
| 1 | 03E0114:1:84 | Struck flint |
| 1 | 03E0114:1:85 | Split pebble flint |
| 1 | 03E0114:1:86 | Chunk flint |
| 1 | 03E0114:1:87 | Chunk flint |
| 1 | 03E0114:1:88 | Struck flint |
| 1 | 03E0114:1:89 | Chunk flint |
| 1 | 03E0114:1:90 | Struck flint |
| 1 | 03E0114:1:91 | Chunk flint |
| 1 | 03E0114:1:92 | Chunk flint |
| 1 | 03E0114:1:93 | Struck flint |
| 1 | 03E0114:1:94 | Flint blade |
| 1 | 03E0114:1:95 | Chunk flint |

| Context | Find | Description |
|---------|---------------|----------------|
| 1 | 03E0114:1:96 | Struck flint |
| 1 | 03E0114:1:97 | Struck flint |
| 1 | 03E0114:1:98 | Chunk flint |
| 1 | 03E0114:1:99 | Struck flint |
| 1 | 03E0114:1:100 | Chunk flint |
| 1 | 03E0114:1:101 | Chunk flint |
| 1 | 03E0114:1:102 | Non-arch flint |
| 1 | 03E0114:1:103 | Non-arch flint |
| 1 | 03E0114:1:104 | Non-arch flint |
| 1 | 03E0114:1:105 | Non-arch flint |
| 1 | 03E0114:1:106 | Non-arch flint |
| 1 | 03E0114:1:107 | Non-arch flint |
| 1 | 03E0114:1:108 | Non-arch flint |
| 1 | 03E0114:1:109 | Non-arch flint |
| 1 | 03E0114:1:110 | Non-arch flint |
| 1 | 03E0114:1:111 | Flint |
| 1 | 03E0114:1:112 | Flint |
| 1 | 03E0114:1:113 | Flint |
| 1 | 03E0114:1:114 | Flint |
| 1 | 03E0114:1:115 | Flint |
| 1 | 03E0114:1:116 | Flint |
| 1 | 03E0114:1:117 | Flint |
| 1 | 03E0114:1:118 | Flint |
| 1 | 03E0114:1:119 | Flint |
| 1 | 03E0114:1:120 | Flint |
| 1 | 03E0114:1:121 | Flint |
| 1 | 03E0114:1:122 | Flint |
| 1 | 03E0114:1:123 | Flint |
| 1 | 03E0114:1:124 | Flint |
| 1 | 03E0114:1:125 | Flint |
| 1 | 03E0114:1:126 | Flint |
| 1 | 03E0114:1:127 | Flint |
| 1 | 03E0114:1:128 | Flint |
| 1 | 03E0114:1:129 | Flint |
| 1 | 03E0114:1:130 | Flint |
| 1 | 03E0114:1:131 | Flint |
| 1 | 03E0114:1:132 | Flint |
| 1 | 03E0114:1:133 | Flint |
| 1 | 03E0114:1:134 | Flint |
| 1 | 03E0114:1:135 | Flint |
| 1 | 03E0114:1:136 | Flint |
| 1 | 03E0114:1:137 | Flint |
| 1 | 03E0114:1:138 | Flint |
| 1 | 03E0114:1:139 | Flint |
| 1 | 03E0114:1:140 | Flint |
| 1 | 03E0114:1:141 | Metal object |
| 1 | 03E0114:1:142 | Metal object |
| 1 | 03E0114:1:143 | Clay pipe |

| Context | Find | Description |
|---------|---------------|----------------------------|
| 1 | 03E0114:1:144 | Mod pottery |
| 1 | 03E0114:1:145 | Pottery |
| 1 | 03E0114:1:146 | Pottery |
| 1 | 03E0114:1:147 | Flint end scraper+C191 |
| 1 | 03E0114:1:148 | Pottery |
| 1 | 03E0114:1:149 | Pottery |
| 1 | 03E0114:1:150 | Pottery |
| 1 | 03E0114:1:151 | Pottery |
| 1 | 03E0114:1:152 | Pottery |
| 1 | 03E0114:1:153 | Pottery |
| 1 | 03E0114:1:154 | Pottery |
| 1 | 03E0114:1:155 | Pottery frags |
| 1 | 03E0114:1:156 | Pottery frags |
| 1 | 03E0114:1:157 | Pottery frags |
| 1 | 03E0114:1:158 | Pottery frags |
| 1 | 03E0114:1:159 | Pottery frags |
| 1 | 03E0114:1:160 | Pottery frags |
| 1 | 03E0114:1:161 | Pottery frags |
| 1 | 03E0114:1:162 | Pottery frags |
| 1 | 03E0114:1:163 | Pottery frags |
| 1 | 03E0114:1:164 | Pottery |
| 1 | 03E0114:1:165 | Flint |
| 1 | 03E0114:1:166 | Pottery |
| 1 | 03E0114:1:167 | Pottery |
| 1 | 03E0114:1:168 | Pottery |
| 1 | 03E0114:1:169 | Metal object |
| 12 | 03E0114:12:1 | Flint flake |
| 23 | 03E0114:23:1 | Flint chunk |
| 23 | 03E0114:23:2 | Small piece of metal |
| 30 | 03E0114:30:1 | Non-arch flint |
| 30 | 03E0114:30:2 | Struck flint |
| 30 | 03E0114:30:3 | Non-arch flint |
| 30 | 03E0114:30:4 | Non-arch flint |
| 39 | 03E0114:39:1 | Core frag flint |
| 50 | 03E0114:50:1 | Non-arch flint |
| 51 | 03E0114:51:1 | Struck flint |
| 51 | 03E0114:51:2 | Burnt flint hollow scraper |
| 59 | 03E0114:59:1 | Bodysherd Beaker |
| 59 | 03E0114:59:2 | Necksherd Beaker |
| 59 | 03E0114:59:3 | Basesherd Beaker |
| 59 | 03E0114:59:4 | Basesherd Beaker |
| 59 | 03E0114:59:5 | Bodysherd Beaker |
| 59 | 03E0114:59:6 | Fragment Beaker |
| 59 | 03E0114:59:7 | Basesherd Beaker |
| 59 | 03E0114:59:8 | Rimsherd Beaker |
| 59 | 03E0114:59:9 | Necksherd Beaker |
| 59 | 03E0114:59:10 | Bodysherd Beaker |
| 59 | 03E0114:59:11 | Bodysherd Beaker |

| Context | Find | Description |
|---------|---------------|-------------------|
| 59 | 03E0114:59:12 | Rimsherd Beaker |
| 59 | 03E0114:59:13 | Bodysherd Beaker |
| 59 | 03E0114:59:14 | Bodysherd Beaker |
| 59 | 03E0114:59:15 | Necksherd Beaker |
| 59 | 03E0114:59:16 | Basesherd Beaker |
| 59 | 03E0114:59:17 | Bodysherd Beaker |
| 59 | 03E0114:59:18 | Bodysherd Beaker |
| 59 | 03E0114:59:19 | Bodysherd Beaker |
| 59 | 03E0114:59:20 | Bodysherd Beaker |
| 59 | 03E0114:59:21 | Necksherd Beaker |
| 59 | 03E0114:59:22 | Necksherd Beaker |
| 59 | 03E0114:59:23 | Necksherd Beaker |
| 59 | 03E0114:59:24 | Necksherd Beaker |
| 59 | 03E0114:59:25 | Necksherd Beaker |
| 59 | 03E0114:59:26 | Bodysherd Beaker |
| 59 | 03E0114:59:27 | Rimsherd Beaker |
| 59 | 03E0114:59:28 | Necksherd Beaker |
| 59 | 03E0114:59:29 | Necksherd Beaker |
| 59 | 03E0114:59:30 | Bodysherd Beaker |
| 59 | 03E0114:59:31 | Necksherd Beaker |
| 59 | 03E0114:59:32 | Bodysherd Beaker |
| 59 | 03E0114:59:33 | Necksherd Beaker |
| 59 | 03E0114:59:34 | Necksherd Beaker |
| 59 | 03E0114:59:35 | Bodysherd Beaker |
| 59 | 03E0114:59:36 | Necksherd Beaker |
| 59 | 03E0114:59:37 | Necksherd Beaker |
| 59 | 03E0114:59:38 | Necksherd Beaker |
| 59 | 03E0114:59:39 | |
| 59 | 03E0114:59:40 | Fragment Beaker |
| 59 | 03E0114:59:41 | Fragment Beaker |
| 59 | 03E0114:59:42 | Fragment Beaker |
| 59 | 03E0114:59:43 | Fragment Beaker |
| 59 | 03E0114:59:44 | Fragment Beaker |
| 59 | 03E0114:59:45 | Basesherds Beaker |
| 59 | 03E0114:59:46 | Basesherds Beaker |
| 59 | 03E0114:59:47 | Basesherds Beaker |
| 59 | 03E0114:59:48 | Basesherds Beaker |
| 59 | 03E0114:59:49 | Necksherds Beaker |
| 59 | 03E0114:59:50 | Fragment Beaker |
| 59 | 03E0114:59:51 | Fragment Beaker |
| 59 | 03E0114:59:52 | Fragment Beaker |
| 59 | 03E0114:59:53 | Fragment Beaker |
| 59 | 03E0114:59:54 | Fragment Beaker |
| 59 | 03E0114:59:55 | Fragment Beaker |
| 59 | 03E0114:59:56 | Fragment Beaker |
| 59 | 03E0114:59:57 | Fragment Beaker |
| 59 | 03E0114:59:58 | Fragment Beaker |
| 59 | 03E0114:59:59 | Fragment Beaker |

| Context | Find | Description |
|---------|---------------|-----------------------|
| 59 | 03E0114:59:60 | Flint debitage |
| 62 | 03E0114:62:1 | Rimsherd Beaker |
| 62 | 03E0114:62:2 | Bodysherd Beaker |
| 62 | 03E0114:62:3 | Bodysherd Beaker |
| 62 | 03E0114:62:4 | Bodysherd Beaker |
| 62 | 03E0114:62:5 | Bodysherd Beaker |
| 62 | 03E0114:62:6 | Fragment Beaker |
| 62 | 03E0114:62:7 | Crumb Fragment Beaker |
| 62 | 03E0114:62:8 | Crumb Fragment Beaker |
| 62 | 03E0114:62:9 | Crumb Fragment Beaker |
| 62 | 03E0114:62:10 | Crumb Fragment Beaker |
| 62 | 03E0114:62:11 | |
| 62 | 03E0114:62:12 | Bodysherd Beaker |
| 62 | 03E0114:62:13 | Bodysherd Beaker |
| 62 | 03E0114:62:14 | Basesherd Beaker |
| 62 | 03E0114:62:15 | |
| 62 | 03E0114:62:16 | Bodysherd Beaker |
| 62 | 03E0114:62:17 | Bodysherd Beaker |
| 62 | 03E0114:62:18 | |
| 62 | 03E0114:62:19 | Bodysherd Beaker |
| 62 | 03E0114:62:20 | Fragment Beaker |
| 62 | 03E0114:62:21 | Fragment Beaker |
| 62 | 03E0114:62:22 | Fragment Beaker |
| 62 | 03E0114:62:23 | Fragment Beaker |
| 62 | 03E0114:62:24 | Bodysherd Beaker |
| 66 | 03E0114:66:1 | Pottery sherd |
| 66 | 03E0114:66:2 | Non-arch flint |
| 67 | 03E0114:67:1 | Struck flint |
| 67 | 03E0114:67:2 | Struck flint |
| 67 | 03E0114:67:3 | Struck flint |
| 67 | 03E0114:67:4 | Struck flint |
| 67 | 03E0114:67:5 | Rimsherd Beaker |
| 67 | 03E0114:67:6 | Bodysherd Beaker |
| 67 | 03E0114:67:7 | Bodysherd Beaker |
| 67 | 03E0114:67:8 | Bodysherd Beaker |
| 67 | 03E0114:67:9 | Bodysherd Beaker |
| 67 | 03E0114:67:10 | Basesherd Beaker |
| 67 | 03E0114:67:11 | |
| 67 | 03E0114:67:12 | Necksherd Beaker |
| 67 | 03E0114:67:13 | Fragment Beaker |
| 67 | 03E0114:67:14 | |
| 67 | 03E0114:67:15 | |
| 67 | 03E0114:67:16 | |
| 67 | 03E0114:67:17 | |
| 67 | 03E0114:67:18 | |
| 67 | 03E0114:67:19 | Necksherd Beaker |
| 67 | 03E0114:67:20 | Necksherd Beaker |
| 67 | 03E0114:67:21 | Bodysherd Beaker |

| Context | Find | Description |
|---------|---------------|------------------|
| 67 | 03E0114:67:22 | Bodysherd Beaker |
| 67 | 03E0114:67:23 | Bodysherd Beaker |
| 67 | 03E0114:67:24 | Bodysherd Beaker |
| 67 | 03E0114:67:25 | Bodysherd Beaker |
| 67 | 03E0114:67:26 | Bodysherd Beaker |
| 67 | 03E0114:67:27 | Bodysherd Beaker |
| 67 | 03E0114:67:28 | Bodysherd Beaker |
| 67 | 03E0114:67:29 | Bodysherd Beaker |
| 67 | 03E0114:67:30 | Bodysherd Beaker |
| 67 | 03E0114:67:31 | Bodysherd Beaker |
| 67 | 03E0114:67:32 | Bodysherd Beaker |
| 67 | 03E0114:67:33 | Bodysherd Beaker |
| 67 | 03E0114:67:34 | |
| 67 | 03E0114:67:35 | |
| 67 | 03E0114:67:36 | |
| 67 | 03E0114:67:37 | |
| 68 | 03E0114:68:1 | Bodysherd Beaker |
| 68 | 03E0114:68:2 | Bodysherd Beaker |
| 68 | 03E0114:68:3 | Bodysherd Beaker |
| 68 | 03E0114:68:4 | Basesherd Beaker |
| 68 | 03E0114:68:5 | Necksherd Beaker |
| 68 | 03E0114:68:6 | Bodysherd Beaker |
| 68 | 03E0114:68:7 | |
| 68 | 03E0114:68:8 | Basesherd Beaker |
| 68 | 03E0114:68:9 | Necksherd Beaker |
| 68 | 03E0114:68:10 | Fragment Beaker |
| 68 | 03E0114:68:11 | Basesherd Beaker |
| 68 | 03E0114:68:12 | Basesherd Beaker |
| 68 | 03E0114:68:13 | Necksherd Beaker |
| 68 | 03E0114:68:14 | Bodysherd Beaker |
| 68 | 03E0114:68:15 | Bodysherd Beaker |
| 68 | 03E0114:68:16 | Fragment Beaker |
| 68 | 03E0114:68:17 | Fragment Beaker |
| 68 | 03E0114:68:18 | Fragment Beaker |
| 68 | 03E0114:68:19 | Fragment Beaker |
| 68 | 03E0114:68:20 | Fragment Beaker |
| 68 | 03E0114:68:21 | Fragment Beaker |
| 68 | 03E0114:68:22 | Fragment Beaker |
| 68 | 03E0114:68:23 | Fragment Beaker |
| 68 | 03E0114:68:24 | Fragment Beaker |
| 68 | 03E0114:68:25 | Fragment Beaker |
| 68 | 03E0114:68:26 | Fragment Beaker |
| 68 | 03E0114:68:27 | Fragment Beaker |
| 68 | 03E0114:68:28 | Fragment Beaker |
| 68 | 03E0114:68:29 | Fragment Beaker |
| 68 | 03E0114:68:30 | Fragment Beaker |
| 68 | 03E0114:68:31 | Bodysherd Beaker |
| 68 | 03E0114:68:32 | Necksherd Beaker |

| Context | Find | Description |
|---------|---------------|------------------|
| 68 | 03E0114:68:33 | Bodysherd Beaker |
| 68 | 03E0114:68:34 | Necksherd Beaker |
| 68 | 03E0114:68:35 | Necksherd Beaker |
| 68 | 03E0114:68:36 | Necksherd Beaker |
| 68 | 03E0114:68:37 | Bodysherd Beaker |
| 68 | 03E0114:68:38 | Bodysherd Beaker |
| 68 | 03E0114:68:39 | Bodysherd Beaker |
| 68 | 03E0114:68:40 | Necksherd Beaker |
| 68 | 03E0114:68:41 | Fragment Beaker |
| 68 | 03E0114:68:42 | Bodysherd Beaker |
| 68 | 03E0114:68:43 | Bodysherd Beaker |
| 68 | 03E0114:68:44 | Bodysherd Beaker |
| 68 | 03E0114:68:45 | Bodysherd Beaker |
| 68 | 03E0114:68:46 | Rimsherd Beaker |
| 68 | 03E0114:68:47 | Necksherd Beaker |
| 68 | 03E0114:68:48 | Necksherd Beaker |
| 68 | 03E0114:68:49 | Necksherd Beaker |
| 68 | 03E0114:68:50 | Fragment Beaker |
| 68 | 03E0114:68:51 | Fragment Beaker |
| 68 | 03E0114:68:52 | Fragment Beaker |
| 68 | 03E0114:68:53 | Fragment Beaker |
| 68 | 03E0114:68:54 | Fragment Beaker |
| 68 | 03E0114:68:55 | Fragment Beaker |
| 68 | 03E0114:68:56 | Fragment Beaker |
| 68 | 03E0114:68:57 | Fragment Beaker |
| 68 | 03E0114:68:58 | Fragment Beaker |
| 68 | 03E0114:68:59 | Fragment Beaker |
| 68 | 03E0114:68:60 | Fragment Beaker |
| 70 | 03E0114:70:1 | Struck flint |
| 70 | 03E0114:70:2 | Bodysherd Beaker |
| 70 | 03E0114:70:3 | Bodysherd Beaker |
| 70 | 03E0114:70:4 | |
| 70 | 03E0114:70:5 | Fragment Beaker |
| 70 | 03E0114:70:6 | Bodysherd Beaker |
| 70 | 03E0114:70:7 | Bodysherd Beaker |
| 70 | 03E0114:70:8 | |
| 70 | 03E0114:70:9 | |
| 70 | 03E0114:70:10 | Necksherd Beaker |
| 70 | 03E0114:70:11 | Bodysherd Beaker |
| 70 | 03E0114:70:12 | |
| 70 | 03E0114:70:13 | Bodysherd Beaker |
| 70 | 03E0114:70:14 | Bodysherd Beaker |
| 70 | 03E0114:70:15 | Bodysherd Beaker |
| 70 | 03E0114:70:16 | Bodysherd Beaker |
| 70 | 03E0114:70:17 | Bodysherd Beaker |
| 70 | 03E0114:70:18 | Bodysherd Beaker |
| 70 | 03E0114:70:19 | Necksherd Beaker |
| 70 | 03E0114:70:20 | Fragment Beaker |

| Context | Find | Description |
|---------|---------------|----------------------------------|
| 70 | 03E0114:70:21 | Pottery sherd (poss prehistoric) |
| 77 | 03E0114:77:1 | Necksherd Beaker |
| 77 | 03E0114:77:2 | Necksherd Beaker |
| 77 | 03E0114:77:3 | Necksherd Beaker |
| 77 | 03E0114:77:4 | Bodysherd Beaker |
| 77 | 03E0114:77:5 | Bodysherd Beaker |
| 77 | 03E0114:77:6 | |
| 77 | 03E0114:77:7 | Fragment Beaker |
| 77 | 03E0114:77:8 | Fragment Beaker |
| 77 | 03E0114:77:9 | Fragment Beaker |
| 77 | 03E0114:77:10 | Fragment Beaker |
| 77 | 03E0114:77:11 | Fragment Beaker |
| 77 | 03E0114:77:12 | Fragment Beaker |
| 77 | 03E0114:77:13 | Fragment Beaker |
| 77 | 03E0114:77:14 | Possible flint debitage |
| 77 | 03E0114:77:15 | Possible flint debitage |
| 77 | 03E0114:77:16 | Possible hammerstone |
| 77 | 03E0114:77:17 | Seeds |
| 78 | 03E0114:78:1 | Prehistoric pottery |
| 78 | 03E0114:78:2 | Prehistoric pottery |
| 78 | 03E0114:78:3 | Flint |
| 81 | 03E0114:81:1 | Pottery |
| 81 | 03E0114:81:2 | Pottery |
| 81 | 03E0114:81:3 | Struck flint |
| 81 | 03E0114:81:4 | Struck flint |
| 81 | 03E0114:81:5 | Struck flint |
| 81 | 03E0114:81:6 | Struck flint |
| 81 | 03E0114:81:7 | Struck flint |
| 81 | 03E0114:81:8 | Struck flint |
| 81 | 03E0114:81:9 | Flint flake |
| 81 | 03E0114:81:10 | Flint debitage |
| 81 | 03E0114:81:11 | Flint debitage |
| 81 | 03E0114:81:12 | Flint debitage |
| 86 | 03E0114:86:1 | Pottery |
| 86 | 03E0114:86:2 | Struck flint |
| 86 | 03E0114:86:3 | Struck flint |
| 86 | 03E0114:86:4 | Struck flint |
| 87 | 03E0114:87:1 | Bodysherd |
| 87 | 03E0114:87:2 | Bodysherd |
| 87 | 03E0114:87:3 | Bodysherd |
| 87 | 03E0114:87:4 | |
| 87 | 03E0114:87:5 | |
| 87 | 03E0114:87:6 | |
| 87 | 03E0114:87:7 | |
| 87 | 03E0114:87:8 | Crumb Fragment |
| 87 | 03E0114:87:9 | Crumb Fragment |
| 87 | 03E0114:87:10 | Crumb Fragment |
| 87 | 03E0114:87:11 | Crumb Fragment |

| Context | Find | Description |
|---------|----------------|--|
| 87 | 03E0114:87:12 | Crumb Fragment |
| 87 | 03E0114:87:13 | Crumb Fragment |
| 87 | 03E0114:87:14 | Pottery |
| 87 | 03E0114:87:15 | Pottery |
| 87 | 03E0114:87:16 | Pottery |
| 87 | 03E0114:87:17 | Struck flint |
| 87 | 03E0114:87:18 | Split pebble |
| 87 | 03E0114:87:19 | Flint debitage |
| 87 | 03E0114:87:20 | Flint debitage |
| 87 | 03E0114:87:21 | Flint debitage |
| 87 | 03E0114:87:22 | Flint debitage |
| 88 | 03E0114:88:1 | Large struck flake of flint |
| 89 | 03E0114:89:1 | Struck flint |
| 89 | 03E0114:89:2 | Probable struck flint |
| 89 | 03E0114:89:3 | Probable struck flint |
| 89 | 03E0114:89:4 | Probable struck flint |
| 92 | 03E0114:92:1 | Flint side scraper |
| 99 | 03E0114:99:1 | Flint debitage |
| 99 | 03E0114:99:2 | Flint debitage |
| 99 | 03E0114:99:3 | Decorated pottery possibly early Neolithic |
| 117 | 03E0114:117:1 | Pottery (missing) |
| 117 | 03E0114:117:2 | Pottery (missing) |
| 117 | 03E0114:117:3 | Flint chunk |
| 117 | 03E0114:117:4 | Non-arch flint |
| 117 | 03E0114:117:5 | Non-arch flint |
| 132 | 03E0114:132:1 | Flint core frag |
| 155 | 03E0114:155:1 | Flint end + side scraper |
| 155 | 03E0114:155:2 | Flint chunk |
| 155 | 03E0114:155:3 | Flint debitage |
| 155 | 03E0114:155:4 | Pottery |
| 155 | 03E0114:155:5 | Pottery |
| 155 | 03E0114:155:6 | Pottery |
| 159 | 03E0114:159:1 | Pottery sherds (possibly prehistoric) |
| 159 | 03E0114:159:2 | Pottery sherds (possibly prehistoric) |
| 159 | 03E0114:159:3 | Pottery sherds (possibly prehistoric) |
| 159 | 03E0114:159:4 | Poss debitage |
| 159 | 03E0114:159:5 | Necksherd Beaker |
| 159 | 03E0114:159:6 | Bodysherd Beaker |
| 159 | 03E0114:159:7 | Bodysherd Beaker |
| 159 | 03E0114:159:8 | Bodysherd Beaker |
| 159 | 03E0114:159:9 | Rimsherd Beaker |
| 159 | 03E0114:159:10 | Bodysherd Beaker |
| 159 | 03E0114:159:11 | Bodysherd Beaker |
| 159 | 03E0114:159:12 | Bodysherd Beaker |
| 159 | 03E0114:159:13 | Bodysherd Beaker |
| 159 | 03E0114:159:14 | Pottery sherds (possibly prehistoric) |
| 159 | 03E0114:159:15 | Pottery sherds (possibly prehistoric) |
| 159 | 03E0114:159:16 | Pottery sherds (possibly prehistoric) |

| Context | Find | Description |
|---------|----------------|--------------------------------|
| 169 | 03E0114:169:1 | Rimsherd Beaker |
| 169 | 03E0114:169:2 | Bodysherd Beaker |
| 169 | 03E0114:169:3 | |
| 169 | 03E0114:169:4 | Bodysherd Beaker |
| 169 | 03E0114:169:5 | Bodysherd Beaker |
| 169 | 03E0114:169:6 | Fragment Beaker |
| 169 | 03E0114:169:7 | Fragment Beaker |
| 169 | 03E0114:169:8 | Fragment Beaker |
| 169 | 03E0114:169:9 | Fragment Beaker |
| 169 | 03E0114:169:10 | Fragment Beaker |
| 169 | 03E0114:169:11 | Fragment Beaker |
| 178 | 03E0114:178:1 | Pottery |
| 186 | 03E0114:186:1 | Struck flint |
| 186 | 03E0114:186:2 | Flint chunk |
| 192 | 03E0114:192:1 | Split flint pebble |
| 192 | 03E0114:192:2 | Probable struck flint debitage |
| 192 | 03E0114:192:3 | Probable struck flint debitage |
| 192 | 03E0114:192:4 | Probable struck flint debitage |
| 192 | 03E0114:192:5 | Probable struck flint debitage |
| 192 | 03E0114:192:6 | Probable struck flint debitage |
| 192 | 03E0114:192:7 | Probable struck flint debitage |
| 192 | 03E0114:192:8 | Probable struck flint debitage |
| 192 | 03E0114:192:9 | Probable struck flint debitage |
| 192 | 03E0114:192:10 | Probable struck flint debitage |
| 192 | 03E0114:192:11 | Probable struck flint debitage |
| 192 | 03E0114:192:12 | Probable struck flint debitage |
| 192 | 03E0114:192:13 | Probable struck flint debitage |
| 192 | 03E0114:192:14 | Probable struck flint debitage |
| 192 | 03E0114:192:15 | Probable struck flint debitage |
| 198 | 03E0114:198:1 | Pottery |
| 220 | 03E0114:220:1 | Struck flint |

APPENDIX 2: SPECIALIST REPORTS

APPENDIX 2.1: SPECIES IDENTIFICATION OF CHARCOAL SAMPLES REPORT

SPECIES IDENTIFICATION
OF CHARCOAL SAMPLES
FROM
NEWTOWNBALREGAN 5 (03E0114),
CO. LOUTH

ELLEN OCARROLL
DECEMBER 2007

1. INTRODUCTION

Nine charcoal samples were submitted for analysis from Newtownbalregan 5, Dundalk by-pass. Newtownbalregan 5 was located 1 km west of Dundalk town. The main area of activity at this site comprised a circular structure, c.5m in diameter. This structure was formed by a series of deep postholes, each of which contained between twenty and sixty pieces of prehistoric pottery of Late Neolithic/early Bronze Age in date. Associated with this structure were two shallow curvilinear trenches, which may have formed a small enclosure around the structure. The site also contained numerous pit features and two Middle Bronze Age *fulachta fiadh* troughs, one of which was rectangular in shape and contained six postholes in the corners. The second trough was circular in shape. A large spread of heat affected stones, probably originating from the *fulachts*, was also recorded on site.

The samples received for analysis from the above excavations were retrieved from the fill of two hearths (**C60 & C159**) and the fill of two postholes (**C73 & C169**) located at the eastern side of the interior of the Late Neolithic/Early Bronze Age structure, the fill of three *fulacht* troughs (**C208, C26 & C92**), the fill of the curvilinear slot trench (**C78**) and the fill of a linear structure (**C48**).

The charcoal was sent for species identification prior to ¹⁴C dating and also to give an indication of the range of tree species which grew in the vicinity. Charcoal and wood analyses may also provide information on the utilization of certain species for various functions. Wood used for fuel at pre-historic sites would generally have been grown at locations close to the site. Therefore species identifications may, but do not necessarily, reflect the composition of the local woodlands.

2. METHODS

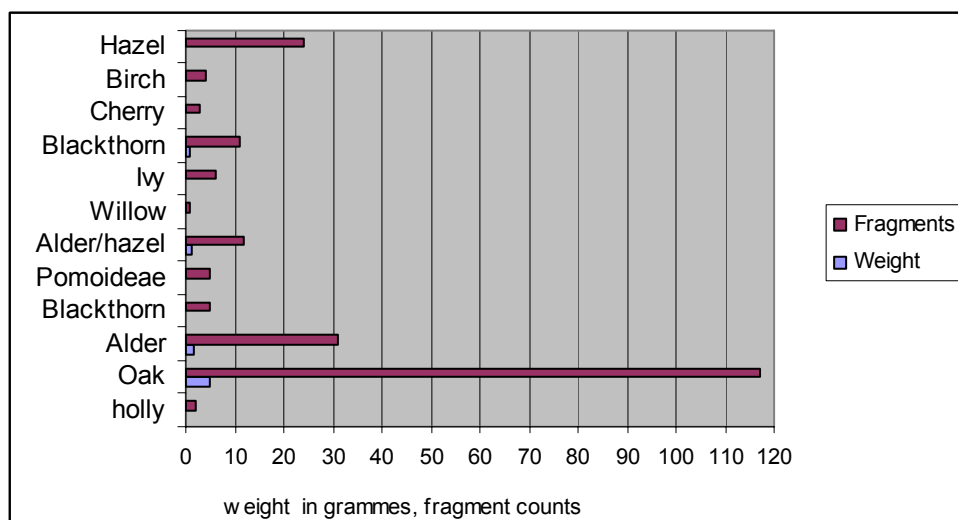
The process for identifying wood, whether it is charred, dried or waterlogged is carried out by comparing the anatomical structure of wood samples with known comparative material or keys (Schweingruber 1990). The identification of charcoal material involves breaking the charcoal piece so that a clean section of the wood can be obtained. This charcoal is then identified to species under a Nikon SM800 & a Nikon Y100 compound microscope. By close examination of the microanatomical features of the samples the species are determined. The diagnostic features used for the identification of charcoal are micro-structural characteristics such as the vessels and their arrangement, the size and arrangement of rays, vessel pit arrangement and also the type of perforation plates. Each fragment was identified and then grouped into species type and then counted and weighed. Where possible all fragments were identified and where there was a large amount of fragments an average of 50 fragments were identified.

3. QUANTIFICATION/RESULTS

Table 1: Results from charcoal identifications

| Site no. | Context No and type | Sample No | Identification | Weight and comment |
|----------------------------|----------------------------|-----------|--|--|
| Newtownbalregan 5, 03E0114 | C159, Hearth | 36 | Oak, (1g, 10 fragments) | 1g, Miniscule pieces of oak |
| Newtownbalregan 5, 03E0114 | C208, Trough {1008} | 66 | Alder (1.1g, 21 fragments), Prunus spp - blackthorn/Cherry.(0.4g, 5 fragments), Pomoideae -apple type, (0.1g, 1 fragment), Oak (0.1g, 1 fragment) | 1.7g various |
| Newtownbalregan 5, 03E0114 | C92, Trough {1008} | 65 | Oak (0.1g, 2 fragments) Alder/Hazel (1.1g, 12 fragments) | 1.1g, Alder/hazel was gnarly and difficult to id |
| Newtownbalregan 5, 03E0114 | C26, Trough {1009} | 67 | Hazel (0.6g, 12 fragments) Pomoideae (0.3g, 3 fragments), Willow (0.1g, 1 fragment), Ivy (0.2g, 3 fragments), Blackthorn (0.7g, 11 fragments) | 1.9g various |
| Newtownbalregan 5, 03E0114 | C73, fill of posthole | 30 | Oak (0.3g, 13 fragments), Ivy (0.1g, 2 fragments), Alder (0.2g), 5 fragments Cherry (0.1g, 1 fragment) | 0.5g various |
| Newtownbalregan 5, 03E0114 | C78, slot trench | 57 | Hazel (0.2g, 2 fragments) | 0.2g |
| Newtownbalregan 5, 03E0114 | C48, fill of linear trench | 5 | Hazel (0.8g, 10 fragments) Prunus/cherry (0.1g, 2 fragments) | 0.9g, various |
| Newtownbalregan 5, 03E0114 | C159, fill of hearth | 36 | Oak (1.5g, 50 fragments), Ivy (0.1g, 1 fragment) | 1.6g |
| Newtownbalregan 5, 03E0114 | C169, fill of posthole | 31 | Oak (1.7g, 41 fragments), Birch (0.1g, 4 fragments), Holly (0.1g, 1 fragment), Alder (0.2g, 5 fragments) Pomoideae (0.05g, 1 fragment) | 2.15g |

Figure 2: Taxa types identified from the assemblage



4. PROVENANCE & DISCUSSION

The samples received for analysis from the excavations at Newtownbalregan 5 were retrieved from the fill of two hearths (C60 & C159) located at the eastern side of the

interior of the possible Late Neolithic structure, the fill of two postholes (**C73 & C169**), the fill of the curvilinear slot trench (**C78**) and the fill of a linear structure (**C48**) also dated to the Late Neolithic/Beaker period.

Charcoal fill from two *fulacht* troughs (**C208, C26 & C92**) were also analysed. Environmental samples taken from one of the burnt mounds included charcoal which when sent for radiocarbon dating returned a calibrated date of Cal.1270BC-970BC, dating the burnt mound to the Middle Bronze Age. The site was located at the base of a south facing slope beside the main N53 Castleblayney – Dundalk road, on an agriculturally productive area of land c.20m OD.

Hearths - Late Neolithic/Early Bronze Age

Oak dominates in the charcoal assemblage identified from the hearths associated with the Late Neolithic/Early Bronze Age structures. One fragment of ivy was also identified from the hearth material. The oak identified suggests that there was a sufficient supply of oak in the surrounding environment at the time of use of the site to use as firewood in the hearths. Sessile oak (*Quercus petraea*) and pedunculate oak (*Quercus robur*) are both native and common to Ireland. The wood of these species cannot be differentiated based on its microstructure. Pendunculate oak is found on heavy clays and loams particularly where the soil is of alkaline pH. Sessile oak is found on acid soils often in pure stands and although it thrives on well-drained soils it is also tolerant of flooding (Beckett 1979, 40-41). Both species of oak grow to be very large trees (30-40m) and can live to an age of about 400 years. The oak could have been selected from mixed woodlands nearby.

The ivy may have wound it's around the oak in the woods and therefore by association was used in the hearths as firewood. Ivy is an evergreen climbing vine that attaches to the bark of trees, brickwork, and other surfaces by way of small rootlike structures which exude a sticky substance that helps the vines adhere to various surfaces. Older vines have been reported to reach 1 foot in diameter. Leaves are dark green with white veins, waxy to somewhat leathery, and arranged alternately along the stem.

Postholes - Late Neolithic/Early Bronze Age

Oak was the dominant taxa identified from the posthole material which may indicate that oak posts were used in the posts. Other taxa identified from the postholes were birch, holly, alder, pomoideae, cherry and ivy. The habitats of alder, pomoideae, cherry and ivy are discussed elsewhere. Birch along with the alder is a wetland tree while pomoideae, holly and cherry are smaller scrub like trees while ivy is a woody creeper. Oak is the only large tree represented in the posthole assemblage and may be taxa used as the posts.

Holly is a shrub found quite commonly in hedgerows alongside blackthorn and gorse and in the understory of oak woods. The *Bretha Comaithchesa* (Laws of neighbourhood) which are listed in the ancient Irish law tracts records holly as one of the five nobles of the wood namely for its use in the construction of cart-shafts and its leaves were valuable as cattle fodder during the winter months (Nelson 1993, 43).

Hairy birch (*Betula pubescens Ehrh*) and silver birch (*Betula pendula Roth*) cannot be distinguished microscopically. Silver birch requires light and dry soil while hairy birch grows on wet-marginal areas. Birch more often occurs on wet marginal areas and is one of the first trees to establish itself on raised bogs. The wood from birch trees is strong but it rots quickly when exposed to outdoor conditions.

Slot trench and linear trench- Late Neolithic/Early Bronze Age

Small charcoal fragments of hazel and cherry were identified from the curving slot trench (C78) and the linear trench (C48). Hazel and cherry are both small dryland trees. It is difficult to attribute a function to these taxa identified as the function of the linear trench is enigmatic. One may speculate that a hazel wattle structure was present in the curvilinear structure which surrounded the Late Neolithic features as hazel was the dominant taxa identified from the curvilinear slot trench.

Troughs – Middle Bronze Age

Alder, oak, blackthorn, cherry, pomoideae, willow, ivy and hazel were all identified from the fill of the trough associated with the *fulachta fiadh*. The charcoal may simply represent kindling used at the *fulacht* sites. These trees are all representative of mixed woodland vegetation. The willow and alder are normally associated with wetter areas.

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

Oak as discussed above consists of two native species and pendunculate oak grows on heavy clays and loams particularly where the soil is of alkaline pH while sessile oak is also found on acid soils often in pure stands and although it thrives on well-drained soils it is also tolerant of flooding.

Blackthorn and cherry charcoal was also identified from the trough associated with the *fulacht fiadh*. The genus *Prunus* spp. includes *Prunus spinosa* (Blackthorn), *Prunus avium* (Wild cherry) and *Prunus padus* (Bird cherry). Wood of the genus *Prunus* can be difficult to differentiate microscopically. Wild cherry and blackthorn are more common in Ireland than bird cherry. There is very little archaeological evidence for the use of cherry wood in Ireland although the wild cherry tree is commonly found in many hedgerows (Nelson 1993, 167). It is a very durable wood and is as strong as oak. The sloe bush as blackthorn is commonly referred to is a very durable wood and is as strong as oak. It is a thorny shrub found in woods and scrub on all soil types. In a woodland situation it is more likely to occur in clearings and at the woodland edges.

Small amounts of willow was identified from trough (C26). Willow is a very strong wood in tree form and is excellent for the use as posts. It is also a very flexible wood and was commonly used for the construction and weaving of baskets. It is a native species in Ireland and can be found in a tree and shrub form. According to Webb (1971, 160-2) thirteen species of willow are found growing wild in Ireland, of which eight are certainly native. The wood of *salix* trees and shrubs cannot be differentiated to species on the basis of anatomical features.

Pomoideae which includes apple, pear, hawthorn and mountain ash was identified from the fill of both troughs. It is impossible to distinguish these wood species anatomically but as wild pear is not native and crab apple is a rare native species in Ireland it is likely that the species identified from the site are hawthorn or mountain ash (rowan) (Nelson 194-200, 1993). Hawthorn (*Crataegus monogyna*) is a native species, and is found in many hedgerows throughout Ireland. Mountain ash (*Sorbus aucuparia*) is also a common tree in Ireland growing particularly well in rocky and hilly mountainous places.

Hazel is a native species and was very common up to the end of the 17th century. McCracken (1971, 19) points out that “it was once widespread to a degree that is

hard to imagine today". With the introduction of brick, steel and slate the crafts associated with hazel became obsolete, and today the woods that supplied hazel have diminished rapidly. Hazel is normally only about 3-5m in height and is often found as an understory tree in broadleaf woods dominated by oak. It also occurs as pure copses on shallow soils over limestone as seen today in The Burren in Co. Clare and survives for 30 to 50 years. Its main advantage is seen in the production of long flexible straight rods through the process known as coppicing. Hazel also makes good fuel.

5. CONSERVATION

The alder, hazel, holly, ivy, birch, willow and blackthorn/cherry identified from the assemblage are all suitable for conventional ^{14}C dating. As oak can grow to be a very old tree (300-400 years) it is generally unsuitable for ^{14}C dating. The oak samples represent the inner part of a tree of unknown age and it was not possible to tell from identification how much larger, if at all, the whole piece was. As a result «The old-wood effect» may need to be taken into consideration when ^{14}C dates are returned (Warner 1979, 159-172). The samples identified could be of a more recent date than the rings represented on the sample. The old wood effect is particularly important in relation to later dated sites such as the transition from Early Christian to Viking to Medieval. Since the time span of pre-historic periods are wider and less transparent it is my belief that the old wood effect is not as significant when the ^{14}C dates are returned.

6. COMPARATIVE MATERIAL

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

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

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

The charcoal assemblage identified from Newtownbalregan 5 fits in well with other analysed assemblages in Ireland. Oak has been identified in substantial quantities from Neolithic structures examined throughout Ireland therefore it is not surprising that large amounts of oak was identified from the hearths and the postholes. Oak was the preferred species used as construction material in the early pre-historic periods. This can be seen at other Neolithic sites in Ireland, particularly at Kilgobbin

in Co. Dublin (03E0306, Unpublished specialist report 2005), Ballynagilly, Co. Tyrone (Pilcher & Hall 2001, 29), Monanny, Co. Monaghan (03E0888, Unpublished specialist report, 2005) Unpublished specialist report 2005) and Beaverstown, Co. Dublin (03E1364, Unpublished specialist report 2004).

The author has carried out a large number of charcoal identifications from excavated *fulacht fiadh* or burnt mound sites and a range of species are generally identified from these cooking places. Charcoal analysed from excavated *fulacht* sites along the N11 Wicklow by-pass (A022-46, 41, 43 and 45) produced a similar array of charcoal taxa. Alder (*Alnus glutinosa*) is generally the most dominant species identified from excavated *fulachta fiadh* along with oak, ash, hazel, willow, holly, birch and pomoideae represented among these assemblages

7. CONCLUSIONS AND SUMMARY

All of the wood taxa identified from the excavations were of native origin. Oak was the dominant taxa identified from the hearth and posthole material associated with the Late Neolithic/Early Bronze age structures. Oak may have been used as posts in the postholes and there was a ready supply of oak trees for use as fuel in the hearths. Other taxa identified in smaller amounts from the hearths and postholes include ivy, alder, birch, pomoideae and cherry. These taxa are probably representative of firewood used at the site.

Hazel and cherry was identified from the slot trench and the linear structure also dated to the Late Neolithic/Early Bronze Age. The hazel from the curvilinear trench which surrounded the Late Neolithic/Early Bronze Age features may be representative of a wattle feature which once lay in the trench.

A variety of taxa were identified from the trough material associated with the *fulacht fiadh*. These were alder, oak, blackthorn, cherry, pomoideae, willow, ivy and hazel.

The earlier Neolithic sites are suggestive of a more dryland terrain although birch and alder, wetland species, were also identified from one of the postholes. There was probably a readily available supply of oak trees located in the surrounding environment of Newtownbalregan 5 during the period of use of the pre-historic structures. Similar analyses undertaken from excavated Neolithic houses throughout Ireland have produced similar results, which indicated that oak was the main constructional material prevalent in the assemblage. The oak would have grown in drier conditions preferring free-draining soils and nutrient rich clays, although it can grow on wetter areas during dry periods.

The wood assemblage analysed from the Bronze Age troughs is indicative of a mixed wetland and dryland environment which is a typical location for *fulacht fiadh* or burnt spread site.

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APPENDIX 2.2: RADIOCARBON DATING REPORT

The University of Waikato Radiocarbon Dating Laboratory
One C 14 date was established for the site at Newtownbalregan 5

The un-calibrated result is as follows:

| | |
|----------|---|
| Wk18555 | Newtownbalregan 5; 02E0114: (C208) alder (<i>Alnus glutinosa</i>) |
| (31.7g) | |
| dC13 | 26.1+/-0.2 |
| % modern | 69.6 +/-0.4 |
| Result | 2915+/-51 BP |

The calibrated results were processed using the Intcal 04 calibration curve. The result (93.9% probability) was as follows:

| | |
|---------|---|
| Wk18555 | Newtownbalregan 5; 02E0114: (C208) alder (<i>Alnus glutinosa</i>) |
| (31.7g) | |
| | Cal 1270 BC – 970 BC (93.9% probability) |

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

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Report on Radiocarbon Age Determination for Wk- 18555

Submitter Ii Johnston
Submitter's Code Newtownbalregan 5/208/66
Site & Location Dundalk Western Bypass, Ireland
Sample Material Alnus glutinosa
Physical Pretreatment Possible contaminants were removed. Washed in ultrasonic bath.
Chemical Pretreatment Sample washed in hot 10% HCl, rinsed and treated with hot 0.5% NaOH. The NaOH insoluble fraction was treated with hot 10% HCl, filtered, rinsed and dried.

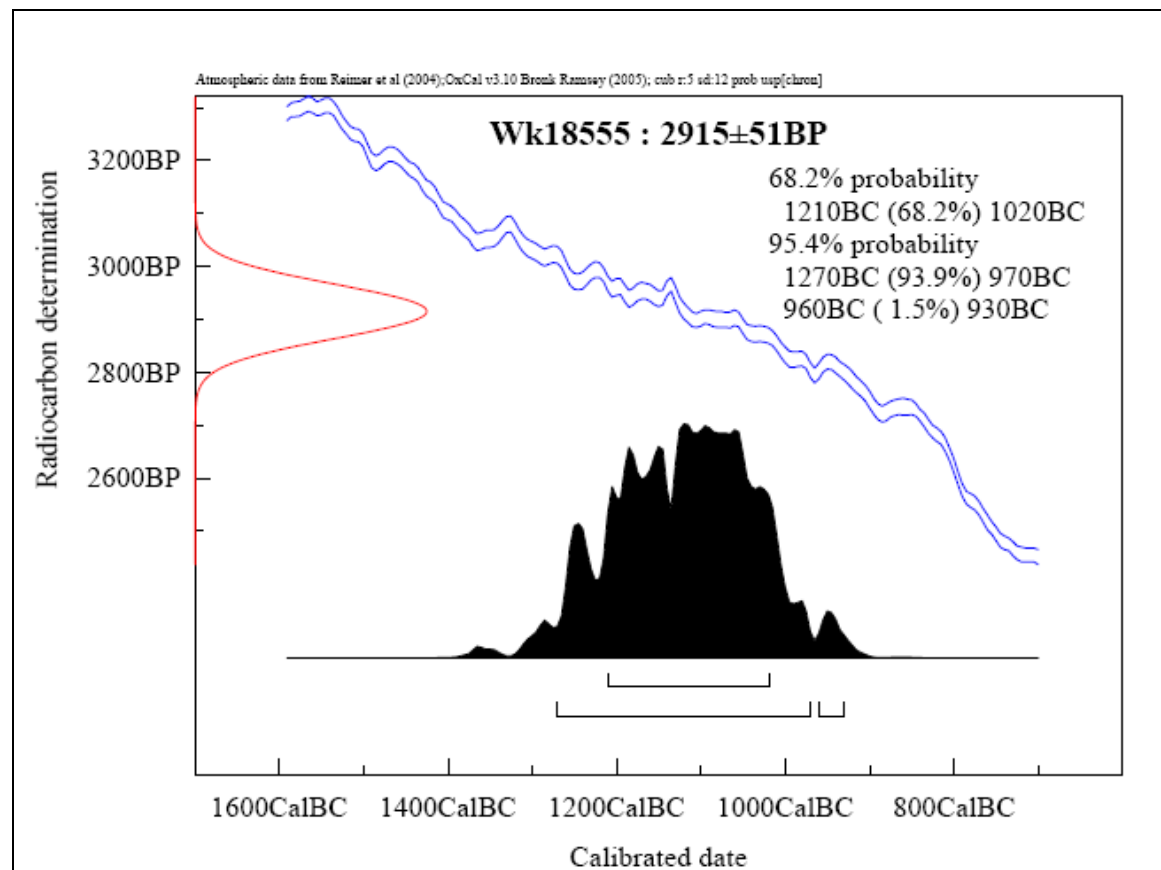
| | | |
|-------------------------|------------------|---|
| $\delta^{14}\text{C}$ | -305.8 ± 4.4 | ‰ |
| $\delta^{13}\text{C}$ | -26.1 ± 0.2 | ‰ |
| D^{14}C | -304.3 ± 4.4 | ‰ |
| % Modern | 69.6 ± 0.4 | % |

Result 2915 ± 51 BP

Comments

3/5/06

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



APPENDIX 2.3: LITHIC REPORT

CHIPPED STONE AND WORKED STONE ASSEMBLAGE ANALYSIS REPORTS AND CATALOGUES FOR NEWTOWNBALREGAN 5 (03E0114)

**DR EIMÉAR NELIS
MA PHD MIAI**

CHIPPED FLINT AND NON-FLINT ASSEMBLAGE

Introduction

A total of 211 flint artefacts were recovered during excavation at Newtownbalregan 5 (03E0114) (Bayley 2005c). The majority of these were unworked (142 pieces, 58.2%); of the remainder, most were flake debitage (31 pieces, 14.7%), and a quantity of angular shatter was also found (24 pieces, 11.4%). A single core was found (1 piece), as well as a number of modified tools (13 pieces, 6.2%) (Table 1).

| Unique No | Basic Character | Classification | Condition | Cortex | Fragment (mm) | Length (mm) | Breadth (mm) | Thickness (mm) | Mass (g) |
|--------------|-----------------|---------------------------|-----------|-----------|---------------|-------------|--------------|----------------|----------|
| 02E0114:1:1 | Modified | Scraper | Fresh | Secondary | - | 42 | 25 | 6 | 6.41 |
| 02E0114:1:2 | Flake debitage | Blade shatter distal | Patinated | Tertiary | 30 | 0 | 16 | 4 | 2.24 |
| 02E0114:1:3 | Modified | Hollow scraper | Fresh | Secondary | 46 | 0 | 25 | 8 | 5.07 |
| 02E0114:1:4 | Modified | Scraper | Fresh | Secondary | - | 49 | 24 | 8 | 10.49 |
| 02E0114:1:5 | Flake debitage | Blade | Fresh | Secondary | - | 30 | 9 | 2 | .59 |
| 02E0114:1:6 | Unworked | Thermal flake | Patinated | Tertiary | - | 41 | 22 | 14 | 15.47 |
| 02E0114:1:7 | Modified | Edge retouched | Fresh | Secondary | - | 41 | 29 | 8 | 9.89 |
| 02E0114:1:8 | Modified | Hollow scraper | Fresh | Tertiary | - | 35 | 18 | 4 | 2.51 |
| 02E0114:1:9 | Flake debitage | Flake shatter proximal | Fresh | Tertiary | 25 | 0 | 17 | 3 | 1.78 |
| 02E0114:1:10 | Unworked | Abraded lump | Abraded | Secondary | - | 23 | 14 | 9 | 3.53 |
| 02E0114:1:12 | Modified | Utilised | Fresh | Tertiary | 25 | 0 | 24 | 2 | 2.45 |
| 02E0114:1:13 | Unworked | Abraded lump | Abraded | Secondary | - | 42 | 32 | 23 | 43.88 |
| 02E0114:1:14 | Unworked | Abraded lump | Abraded | Secondary | - | 38 | 30 | 21 | 28.66 |
| 02E0114:1:15 | Unworked | Abraded lump | Abraded | Secondary | - | 53 | 32 | 28 | 50.13 |
| 02E0114:1:16 | Unworked | Abraded lump | Abraded | Secondary | - | 35 | 25 | 23 | 20.58 |
| 02E0114:1:17 | Unworked | Abraded lump | Abraded | Secondary | - | 53 | 51 | 21 | 78.85 |
| 02E0114:1:18 | Unworked | Abraded lump | Abraded | Secondary | - | 28 | 32 | 20 | 15.96 |
| 02E0114:1:19 | Unworked | Abraded lump | Abraded | Secondary | - | 40 | 33 | 13 | 19.13 |
| 02E0114:1:20 | Unworked | Abraded lump | Abraded | Secondary | - | 23 | 23 | 15 | 9.92 |
| 02E0114:1:21 | Unworked | Angular shatter - thermal | Abraded | Secondary | - | 33 | 17 | 15 | 7.91 |
| 02E0114:1:22 | Unworked | Abraded lump | Abraded | Secondary | - | 29 | 25 | 14 | 13.15 |
| 02E0114:1:23 | Unworked | Abraded lump | Abraded | Secondary | - | 42 | 25 | 20 | 24.81 |
| 02E0114:1:24 | Flake debitage | Bipolar | Patinated | Tertiary | - | 22 | 26 | 5 | 3.29 |
| 02E0114:1:25 | Unworked | Thermally split pebble | Abraded | Secondary | - | 38 | 28 | 19 | 25.64 |
| 02E0114:1:26 | Unworked | Angular shatter - thermal | Abraded | Secondary | - | 42 | 21 | 13 | 12.15 |
| 02E0114:1:27 | Unworked | Thermally split pebble | Abraded | Secondary | - | 24 | 18 | 17 | 11.42 |
| 02E0114:1:28 | Unworked | Thermally split pebble | Abraded | Secondary | - | 28 | 25 | 16 | 14.53 |
| 02E0114:1:29 | Unworked | Thermally split pebble | Abraded | Secondary | - | 35 | 31 | 17 | 22.56 |
| 02E0114:1:30 | Unworked | Thermal flake | Abraded | Secondary | - | 28 | 26 | 10 | 11.45 |
| 02E0114:1:31 | Unworked | Thermally split pebble | Abraded | Secondary | - | 46 | 45 | 25 | 85.55 |
| 02E0114:1:32 | Unworked | Abraded lump | Abraded | Secondary | - | 42 | 27 | 23 | 24.23 |
| 02E0114:1:33 | Unworked | Thermal flake | Abraded | Tertiary | - | 27 | 20 | 9 | 7.15 |
| 02E0114:1:34 | Unworked | Thermal flake | Abraded | Tertiary | - | 25 | 25 | 9 | 6.39 |
| 02E0114:1:35 | Unworked | Abraded lump | Abraded | Secondary | - | 35 | 25 | 20 | 18.46 |
| 02E0114:1:36 | Unworked | Thermal flake | Abraded | Tertiary | - | 31 | 25 | 10 | 12.58 |
| 02E0114:1:37 | Unworked | Abraded lump | Abraded | Secondary | - | 28 | 18 | 15 | 10.11 |
| 02E0114:1:38 | Unworked | Abraded lump | Abraded | Secondary | - | 36 | 32 | 17 | 25.21 |
| 02E0114:1:39 | Unworked | Thermally split pebble | Abraded | Secondary | - | 32 | 28 | 16 | 20.25 |
| 02E0114:1:40 | Unworked | Abraded lump | Abraded | Secondary | - | 42 | 35 | 22 | 52.55 |
| 02E0114:1:41 | Unworked | Angular shatter - thermal | Abraded | Tertiary | - | 26 | 22 | 6 | 4.44 |

| | | | | | | | | | |
|--------------|-----------------|---------------------------|--------------|-----------|----|----|----|----|-------|
| 02E0114:1:42 | Unworked | Angular shatter - thermal | Abraded | Secondary | - | 28 | 17 | 13 | 10.15 |
| 02E0114:1:43 | Unworked | Angular shatter - thermal | Abraded | Secondary | - | 31 | 22 | 16 | 12.96 |
| 02E0114:1:44 | Unworked | Thermal flake | Abraded | Secondary | - | 25 | 21 | 10 | 9.39 |
| 02E0114:1:45 | Unworked | Abraded lump | Abraded | Secondary | - | 36 | 32 | 19 | 28.18 |
| 02E0114:1:46 | Unworked | Abraded lump | Abraded | Secondary | - | 27 | 26 | 17 | 16.90 |
| 02E0114:1:47 | Unworked | Abraded lump | Water rolled | Secondary | - | 45 | 27 | 14 | 17.03 |
| 02E0114:1:48 | Unworked | Angular shatter - thermal | Abraded | Secondary | - | 45 | 42 | 19 | 48.22 |
| 02E0114:1:49 | Unworked | Abraded lump | Abraded | Secondary | - | 35 | 21 | 17 | 16.02 |
| 02E0114:1:50 | Unworked | Abraded lump | Abraded | Secondary | - | 31 | 25 | 17 | 16.38 |
| 02E0114:1:51 | Modified | Edge retouched | Burnt | Secondary | - | 28 | 22 | 6 | 5.24 |
| 02E0114:1:52 | Unworked | Abraded lump | Abraded | Secondary | - | 57 | 22 | 16 | 28.92 |
| 02E0114:1:53 | Flake debitage | Bipolar | Fresh | Secondary | - | 35 | 25 | 15 | 12.57 |
| 02E0114:1:54 | Unworked | Angular shatter - thermal | Abraded | Secondary | - | 35 | 22 | 14 | 15.66 |
| 02E0114:1:55 | Unworked | Abraded lump | Abraded | Secondary | - | 25 | 22 | 14 | 8.31 |
| 02E0114:1:56 | Unworked | Thermal flake | Abraded | Secondary | - | 26 | 25 | 7 | 7.49 |
| 02E0114:1:57 | Unworked | Angular shatter - thermal | Patinated | Secondary | - | 29 | 17 | 16 | 11.69 |
| 02E0114:1:58 | Unworked | Abraded lump | Abraded | Secondary | - | 25 | 16 | 12 | 4.33 |
| 02E0114:1:59 | Unworked | Abraded lump | Patinated | Secondary | - | 22 | 21 | 13 | 5.16 |
| 03E0114:1:60 | Unworked | Abraded lump | Abraded | Primary | - | 56 | 47 | 28 | 96.29 |
| 03E0114:1:61 | Unworked | Abraded lump | Abraded | Secondary | - | 31 | 22 | 10 | 7.56 |
| 03E0114:1:62 | Unworked | Thermally split pebble | Abraded | Secondary | - | 22 | 16 | 10 | 4.52 |
| 03E0114:1:63 | Unworked | Angular shatter - thermal | Abraded | Secondary | - | 21 | 17 | 9 | 4.05 |
| 03E0114:1:64 | Unworked | Abraded lump | Abraded | Secondary | - | 20 | 15 | 7 | 3.22 |
| 03E0114:1:65 | Unworked | Abraded lump | Abraded | Secondary | - | 18 | 17 | 9 | 4.87 |
| 03E0114:1:66 | Unworked | Abraded lump | Abraded | Secondary | - | 19 | 17 | 8 | 4.52 |
| 03E0114:1:67 | Unworked | Thermal flake | Patinated | Tertiary | - | 18 | 17 | 9 | 2.88 |
| 03E0114:1:68 | Unworked | Abraded lump | Abraded | Secondary | - | 21 | 15 | 5 | 1.72 |
| 03E0114:1:69 | Unworked | Thermal flake | Burnt | Secondary | - | 25 | 15 | 5 | 1.40 |
| 03E0114:1:70 | Unworked | Thermal flake | Patinated | Secondary | - | 20 | 12 | 6 | 1.63 |
| 02E0114:1:71 | Unworked | Angular shatter - thermal | Abraded | Secondary | - | 25 | 17 | 8 | 2.95 |
| 02E0114:1:72 | Flake debitage | Regular | Abraded | Secondary | - | 22 | 13 | 5 | 2.51 |
| 02E0114:1:73 | Unworked | Angular shatter - thermal | Abraded | Secondary | - | 25 | 13 | 10 | 2.63 |
| 02E0114:1:74 | Unworked | Angular shatter - thermal | Abraded | Secondary | - | 24 | 13 | 12 | 5.10 |
| 02E0114:1:75 | Flake debitage | Regular | Patinated | Tertiary | - | 22 | 21 | 3 | 2.06 |
| 03E0114:1:76 | Unworked | Abraded lump | Abraded | Secondary | - | 21 | 15 | 10 | 5.18 |
| 02E0114:1:77 | Unworked | Angular shatter - thermal | Abraded | Tertiary | - | 27 | 17 | 9 | 5.18 |
| 02E0114:1:78 | Unworked | Angular shatter - thermal | Abraded | Secondary | - | 28 | 18 | 9 | 4.36 |
| 02E0114:1:79 | Unworked | Angular shatter - thermal | Abraded | Secondary | - | 25 | 14 | 12 | 5.24 |
| 03E0114:1:80 | Angular shatter | Angular shatter - bipolar | Abraded | Secondary | - | 30 | 18 | 11 | 6.92 |
| 03E0114:1:81 | Unworked | Angular shatter - thermal | Abraded | Secondary | - | 32 | 15 | 6 | 4.44 |
| 03E0114:1:82 | Unworked | Thermal flake | Abraded | Secondary | - | 25 | 20 | 7 | 4.60 |
| 03E0114:1:83 | Unworked | Abraded lump | Abraded | Secondary | - | 25 | 17 | 14 | 7.54 |
| 03E0114:1:84 | Unworked | Thermal flake | Abraded | Secondary | - | 24 | 16 | 7 | 3.60 |
| 03E0114:1:85 | Unworked | Thermally split pebble | Abraded | Secondary | - | 24 | 19 | 12 | 4.60 |
| 03E0114:1:86 | Unworked | Angular shatter - thermal | Abraded | Tertiary | - | 25 | 18 | 12 | 7.46 |
| 03E0114:1:87 | Unworked | Angular shatter - thermal | Abraded | Tertiary | - | 35 | 20 | 14 | 10.36 |
| 03E0114:1:88 | Flake debitage | Flake shatter distal | Patinated | Tertiary | 22 | - | 23 | 6 | 3.15 |
| 03E0114:1:89 | Unworked | Thermal flake | Abraded | Secondary | - | 25 | 21 | 9 | 6.18 |
| 02E0114:1:90 | Unworked | Abraded lump | Abraded | Secondary | - | 25 | 24 | 10 | 5.33 |
| 02E0114:1:91 | Unworked | Abraded lump | Abraded | Secondary | - | 35 | 22 | 16 | 13.05 |
| 02E0114:1:92 | Unworked | Abraded lump | Abraded | Secondary | - | 25 | 22 | 14 | 9.86 |

| | | | | | | | | | |
|---------------|-----------------|---------------------------|-----------|-----------|----|----|----|----|-------|
| 02E0114:1:93 | Unworked | Angular shatter - thermal | Abraded | Secondary | - | 30 | 26 | 13 | 7.22 |
| 03E0114:1:94 | Flake debitage | Regular | Patinated | Tertiary | - | 40 | 15 | 5 | 3.56 |
| 03E0114:1:95 | Unworked | Angular shatter - thermal | Abraded | Secondary | - | 20 | 20 | 10 | 4.11 |
| 03E0114:1:96 | Unworked | Abraded lump | Abraded | Tertiary | - | 28 | 23 | 13 | 7.02 |
| 03E0114:1:97 | Flake debitage | Blade shatter proximal | Fresh | Tertiary | 20 | 0 | 16 | 6 | 2.34 |
| 03E0114:1:98 | Unworked | Abraded lump | Abraded | Tertiary | - | 23 | 14 | 10 | 4.34 |
| 03E0114:1:99 | Unworked | Thermal flake | Abraded | Secondary | - | 35 | 25 | 11 | 11.33 |
| 03E0114:1:100 | Flake debitage | Blade shatter distal | Fresh | Tertiary | 25 | 0 | 16 | 12 | 4.45 |
| 03E0114:1:101 | Unworked | Angular shatter - thermal | Patinated | Tertiary | - | 32 | 17 | 15 | 7.56 |
| 03E0114:1:102 | Unworked | Abraded lump | Abraded | Tertiary | - | 28 | 16 | 11 | 4.64 |
| 03E0114:1:103 | Unworked | Abraded lump | Abraded | Tertiary | - | 25 | 20 | 16 | 9.19 |
| 03E0114:1:104 | Unworked | Abraded lump | Abraded | Secondary | - | 17 | 14 | 10 | 3.73 |
| 03E0114:1:105 | Unworked | Abraded lump | Abraded | Tertiary | - | 18 | 15 | 10 | 2.62 |
| 03E0114:1:106 | Unworked | Abraded lump | Abraded | Secondary | - | 17 | 12 | 8 | 2.68 |
| 03E0114:1:107 | Unworked | Abraded lump | Abraded | Tertiary | - | 17 | 12 | 6 | 1.63 |
| 03E0114:1:108 | Unworked | Abraded lump | Abraded | Tertiary | - | 15 | 13 | 9 | 2.12 |
| 03E0114:1:109 | Unworked | Abraded lump | Abraded | Secondary | - | 17 | 15 | 8 | 3.67 |
| 03E0114:1:110 | Unworked | Abraded lump | Abraded | Tertiary | - | 20 | 12 | 8 | 2.13 |
| 02E0114:1:111 | Unworked | Abraded lump | Abraded | Secondary | - | 16 | 15 | 10 | 2.16 |
| 02E0114:1:112 | Unworked | Abraded lump | Abraded | Secondary | - | 22 | 10 | 6 | 2.07 |
| 02E0114:1:113 | Unworked | Abraded lump | Abraded | Secondary | - | 17 | 15 | 6 | 2.26 |
| 02E0114:1:114 | Unworked | Abraded lump | Abraded | Tertiary | - | 15 | 11 | 7 | 1.82 |
| 02E0114:1:115 | Unworked | Abraded lump | Abraded | Tertiary | - | 17 | 10 | 4 | .96 |
| 02E0114:1:116 | Flake debitage | Blade shatter distal | Patinated | Tertiary | 22 | 0 | 12 | 3 | .98 |
| 02E0114:1:117 | Flake debitage | Flake shatter proximal | Fresh | Tertiary | 15 | 0 | 17 | 1 | .64 |
| 02E0114:1:118 | Flake debitage | Flake shatter distal | Fresh | Tertiary | 20 | 0 | 8 | 2 | .63 |
| 02E0114:1:119 | Flake debitage | Flake shatter distal | Patinated | Tertiary | 12 | 0 | 17 | 8 | 1.11 |
| 02E0114:1:120 | Unworked | Thermal flake | Abraded | Secondary | - | 15 | 11 | 6 | 1.84 |
| 02E0114:1:121 | Unworked | Angular shatter - thermal | Abraded | Secondary | - | 15 | 10 | 7 | 1.59 |
| 02E0114:1:122 | Angular shatter | Angular shatter | Abraded | Tertiary | - | 15 | 17 | 6 | 1.69 |
| 02E0114:1:123 | Angular shatter | Angular shatter | Abraded | Tertiary | - | 18 | 10 | 8 | 2.37 |
| 02E0114:1:124 | Angular shatter | Angular shatter | Abraded | Secondary | - | 15 | 10 | 6 | .71 |
| 02E0114:1:125 | Angular shatter | Angular shatter | Patinated | Secondary | - | 14 | 11 | 5 | 1.20 |
| 02E0114:1:126 | Angular shatter | Angular shatter | Abraded | Tertiary | - | 8 | 7 | 5 | .46 |
| 02E0114:1:127 | Angular shatter | Angular shatter | Patinated | Tertiary | - | 15 | 10 | 8 | 1.18 |
| 02E0114:1:128 | Angular shatter | Angular shatter | Patinated | Tertiary | - | 14 | 11 | 5 | 1.11 |
| 02E0114:1:129 | Angular shatter | Angular shatter | Abraded | Tertiary | - | 15 | 8 | 6 | .82 |
| 02E0114:1:130 | Angular shatter | Angular shatter | Abraded | Tertiary | - | 15 | 8 | 7 | 1.14 |
| 02E0114:1:131 | Unworked | Abraded lump | Abraded | Tertiary | - | 15 | 15 | 8 | 2.69 |
| 02E0114:1:132 | Unworked | Abraded lump | Abraded | Secondary | - | 17 | 15 | 10 | 3.06 |
| 02E0114:1:133 | Unworked | Abraded lump | Abraded | Tertiary | - | 18 | 15 | 8 | 2.96 |
| 02E0114:1:134 | Unworked | Abraded lump | Abraded | Secondary | - | 18 | 17 | 6 | 5.51 |
| 02E0114:1:135 | Unworked | Abraded lump | Abraded | Secondary | - | 17 | 15 | 10 | 2.83 |
| 02E0114:1:136 | Unworked | Abraded lump | Abraded | Secondary | - | 15 | 12 | 9 | 3.10 |
| 02E0114:1:137 | Unworked | Abraded lump | Abraded | Tertiary | - | 15 | 10 | 6 | 1.45 |
| 02E0114:1:138 | Unworked | Abraded lump | Abraded | Tertiary | - | 10 | 8 | 6 | 1.12 |
| 02E0114:1:139 | Unworked | Thermal flake | Patinated | Tertiary | - | 19 | 19 | 5 | 1.43 |
| 02E0114:1:140 | Unworked | Angular shatter | Patinated | Tertiary | - | 20 | 12 | 8 | 1.88 |
| 03E0114:1:147 | Modified | Hollow scraper | Fresh | Tertiary | - | 28 | 24 | 6 | 3.84 |
| 03E0114:1:165 | Modified | Biface - percussion | Fresh | Tertiary | - | 30 | 28 | 6 | 5.51 |
| 03E0114:12:1 | Flake debitage | Regular | Patinated | Tertiary | - | 42 | 39 | 8 | 10.93 |

| | | | | | | | | | |
|---------------|-----------------|-----------------------------|--------------|-----------|----|----|----|----|-------|
| 03E0114:23:1 | Unworked | Angular shatter - thermal | Patinated | Tertiary | - | 30 | 25 | 17 | 16.79 |
| 03E0114:30:1 | Unworked | Abraded lump | Abraded | Secondary | - | 48 | 45 | 28 | 71.13 |
| 03E0114:30:2 | Unworked | Abraded lump | Abraded | Secondary | - | 31 | 26 | 16 | 6.41 |
| 03E0114:30:3 | Unworked | Unworked pebble | Water rolled | Secondary | - | 42 | 21 | 16 | 22.12 |
| 03E0114:39:1 | Core | Single platform part flaked | Patinated | Secondary | - | 25 | 42 | 22 | 33.26 |
| 03E0114:50:1 | Unworked | Angular shatter - thermal | Patinated | Tertiary | - | 12 | 10 | 6 | 1.15 |
| 03E0114:51:1 | Flake debitage | Blade shatter distal | Burnt | Secondary | 32 | 0 | 25 | 6 | 4.41 |
| 03E0114:51:2 | Modified | Hollow scraper | Burnt | Secondary | 32 | 0 | 35 | 5 | 5.44 |
| 03E0114:59:60 | Flake debitage | Retouch flake - pressure | Fresh | Tertiary | - | 12 | 13 | 2 | .62 |
| 03E0114:66:2 | Unworked | Angular shatter - thermal | Abraded | Tertiary | - | 15 | 10 | 6 | .94 |
| 03E0114:67:1 | Flake debitage | Bipolar | Fresh | Tertiary | - | 25 | 10 | 8 | 2.11 |
| 03E0114:67:2 | Angular shatter | Angular shatter - bipolar | Abraded | Tertiary | - | 17 | 10 | 3 | .58 |
| 03E0114:67:3 | Flake debitage | Retouch flake - pressure | Patinated | Tertiary | - | 10 | 11 | 1 | .23 |
| 03E0114:67:4 | Unworked | Abraded lump | Abraded | Secondary | - | 14 | 11 | 6 | 1.08 |
| 03E0114:70:1 | Angular shatter | Angular shatter | Abraded | Secondary | - | 22 | 22 | 12 | 5.38 |
| 03E0114:77:14 | Unworked | Abraded lump | Abraded | Tertiary | - | 17 | 13 | 9 | 2.42 |
| 03E0114:77:15 | Unworked | Abraded lump | Abraded | Tertiary | - | 13 | 10 | 6 | .90 |
| 03E0114:78:3 | Unworked | Angular shatter - thermal | Abraded | Secondary | - | 31 | 19 | 17 | 9.07 |
| 03E0114:81:10 | Angular shatter | Angular shatter | Fresh | Tertiary | - | 25 | 12 | 8 | 2.88 |
| 03E0114:81:11 | Unworked | Angular shatter - thermal | Abraded | Tertiary | - | 15 | 14 | 11 | 2.17 |
| 03E0114:81:12 | Unworked | Angular shatter - thermal | Abraded | Secondary | - | 10 | 7 | 6 | .84 |
| 03E0114:81:3 | Flake debitage | Core trimming | Fresh | Tertiary | - | 35 | 31 | 13 | 13.40 |
| 03E0114:81:4 | Flake debitage | Regular | Fresh | Tertiary | - | 25 | 12 | 2 | 1.10 |
| 03E0114:81:5 | Flake debitage | Regular | Fresh | Tertiary | - | 25 | 14 | 6 | 1.86 |
| 03E0114:81:6 | Angular shatter | Angular shatter - burnt | Fresh | Secondary | - | 20 | 15 | 10 | 3.83 |
| 03E0114:81:7 | Flake debitage | Core trimming | Patinated | Tertiary | - | 25 | 20 | 14 | 4.88 |
| 03E0114:81:8 | Angular shatter | Angular shatter - thermal | Patinated | Tertiary | - | 40 | 21 | 16 | 13.07 |
| 03E0114:81:9 | Flake debitage | Blade shatter distal | Fresh | Tertiary | 27 | 0 | 17 | 3 | 1.66 |
| 03E0114:86:2 | Flake debitage | Core trimming | Fresh | Tertiary | - | 17 | 22 | 3 | 2.14 |
| 03E0114:86:3 | Unworked | Angular shatter - thermal | Abraded | Secondary | - | 20 | 11 | 11 | 2.62 |
| 03E0114:86:4 | Flake debitage | Indeterminate shatter flake | Abraded | Tertiary | - | 10 | 10 | 3 | .34 |
| 03E0114:87:18 | Unworked | Abraded lump | Abraded | Secondary | - | 25 | 15 | 14 | 7.87 |
| 03E0114:87:19 | Angular shatter | Angular shatter | Fresh | Tertiary | - | 18 | 10 | 8 | 1.68 |
| 03E0114:87:20 | Unworked | Abraded lump | Abraded | Tertiary | - | 14 | 10 | 7 | 1.54 |
| 03E0114:87:21 | Flake debitage | Indeterminate shatter flake | Fresh | Tertiary | 12 | 0 | 9 | 2 | .19 |
| 03E0114:87:22 | Angular shatter | Angular shatter | Fresh | Tertiary | - | 14 | 6 | 3 | .20 |
| 03E0113:88:1 | Modified | Arrowhead | Fresh | Tertiary | 15 | 0 | 23 | 4 | 1.64 |
| 03E0113:88:2 | Flake debitage | Regular | Patinated | Tertiary | - | 30 | 27 | 10 | 5.07 |
| 02E0114:89:1 | Unworked | Thermal flake | Abraded | Secondary | - | 28 | 17 | 10 | 3.38 |
| 02E0114:89:2 | Unworked | Abraded lump | Abraded | Secondary | - | 20 | 17 | 10 | 5.95 |
| 02E0114:89:3 | Unworked | Abraded lump | Abraded | Tertiary | - | 10 | 8 | 5 | .47 |
| 02E0114:89:4 | Unworked | Abraded lump | Abraded | Tertiary | - | 10 | 6 | 4 | .47 |
| 02E0114:92:1 | Modified | Scraper | Patinated | Tertiary | 35 | 0 | 23 | 13 | 12.05 |
| 03E0113:117:3 | Unworked | Abraded lump | Abraded | Secondary | - | 35 | 25 | 20 | 20.78 |
| 03E0113:117:4 | Unworked | Abraded lump | Abraded | Tertiary | - | 25 | 11 | 8 | 2.69 |

| | | | | | | | | | |
|----------------|-----------------|----------------------------|-----------|-----------|---|----|----|----|-------|
| 03E0113:117:5 | Unworked | Abraded lump | Abraded | Tertiary | - | 8 | 6 | 4 | .39 |
| 03E0113:132:1 | Unworked | Abraded lump | Abraded | Secondary | - | 35 | 20 | 16 | 19.39 |
| 02E0114:155:2 | Unworked | Abraded lump | Abraded | Secondary | - | 28 | 25 | 14 | 15.76 |
| 02E0114:155:3 | Angular shatter | Angular shatter - thermal | Abraded | Secondary | - | 8 | 7 | 5 | .53 |
| 03E0113:155:1 | Modified | Scraper | Fresh | Secondary | - | 28 | 26 | 8 | 7.58 |
| 03E0113:159:4 | Unworked | Abraded lump | Abraded | Tertiary | - | 9 | 8 | 4 | .41 |
| 03E0113:186:1 | Unworked | Thermal flake | Fresh | Secondary | - | 14 | 15 | 3 | .99 |
| 03E0113:186:2 | Unworked | Abraded lump | Abraded | Tertiary | - | 16 | 15 | 13 | 3.35 |
| 02E0114:192:1 | Unworked | Abraded lump | Abraded | Secondary | - | 25 | 15 | 12 | 7.51 |
| 02E0114:192:10 | Angular shatter | Angular shatter | Abraded | Tertiary | - | 8 | 5 | 1 | .07 |
| 02E0114:192:11 | Angular shatter | Angular shatter | Abraded | Tertiary | - | 15 | 10 | 5 | .91 |
| 02E0114:192:12 | Angular shatter | Angular shatter | Abraded | Tertiary | - | 8 | 6 | 4 | .51 |
| 02E0114:192:13 | Angular shatter | Angular shatter | Abraded | Tertiary | - | 10 | 8 | 4 | .38 |
| 02E0114:192:14 | Angular shatter | Angular shatter | Abraded | Tertiary | - | 8 | 4 | 3 | .28 |
| 02E0114:192:15 | Flake debitage | Retouch flake - percussion | Fresh | Tertiary | - | 14 | 13 | 2 | .38 |
| 02E0114:192:2 | Unworked | Abraded lump | Abraded | Secondary | - | 19 | 15 | 10 | 3.93 |
| 02E0114:192:3 | Unworked | Abraded lump | Abraded | Secondary | - | 15 | 15 | 8 | 2.22 |
| 02E0114:192:4 | Unworked | Abraded lump | Abraded | Secondary | - | 15 | 12 | 8 | 1.95 |
| 02E0114:192:5 | Unworked | Angular shatter - thermal | Abraded | Tertiary | - | 6 | 5 | 1 | .10 |
| 02E0114:192:6 | Unworked | Angular shatter - thermal | Abraded | Tertiary | - | 8 | 6 | 3 | .25 |
| 02E0114:192:7 | Unworked | Angular shatter - thermal | Abraded | Tertiary | - | 12 | 8 | 7 | .86 |
| 02E0114:192:8 | Unworked | Angular shatter - thermal | Abraded | Tertiary | - | 10 | 8 | 5 | .51 |
| 02E0114:192:9 | Angular shatter | Angular shatter | Abraded | Tertiary | - | 6 | 5 | 1 | .10 |
| 03E0113:220:1 | Flake debitage | Regular | Patinated | Secondary | - | 25 | 15 | 7 | 1.79 |

Table 1: Dundalk Western Bypass: Newtownbalregan 5 (02E0114): showing basic composition of the flint assemblage.

The majority of the flint seemed to have been sourced or found within the local drift geology, with a small number being derived from beach pebbles (7 pieces); most of the beach pebbles had been unworked (4 pieces), with the remainder being accounted for by flake debitage (1 piece) and modified tools (2 pieces: 03E0114:1:3-4). The assemblage has mainly survived in an abraded condition (148 pieces), the majority of which are unworked or angular shatter. The bulk of the remaining artefacts are either in a fresh (31 pieces) or patinated (29 pieces) condition; fresh artefacts mainly comprised flake debitage and modified tools, with most of the patinated material either being unworked or flake debitage. Only a small number of pieces had been subjected to burning (4 pieces), which included unworked material (1 piece), flake debitage (1 piece) and two of the modified tools (03E0114:1:51 and 03E0114:51:2).

Assemblage summary: NEWTOWNBALREGAN 5 (03E0114)

Unworked

The unworked assemblage was mainly comprised of small abraded lumps of flint (81 pieces), with one additional intact beach pebble; a further number had suffered thermal damage, surviving as thermal flakes (18 pieces) or pockled, thermally split lumps (42 pieces: including the remaining beach pebbles). The unworked assemblage varied in size from 6-57mm in maximum length, but the majority measured between 10-45mm (>80%) (Fig13.1). They were recovered in small

numbers from most contexts where flint was found (Table 2), but most were retrieved from topsoil (**C1**: 107 pieces); a small concentration of unworked material was found in **C198**, the fill of **C188** (Group 3).

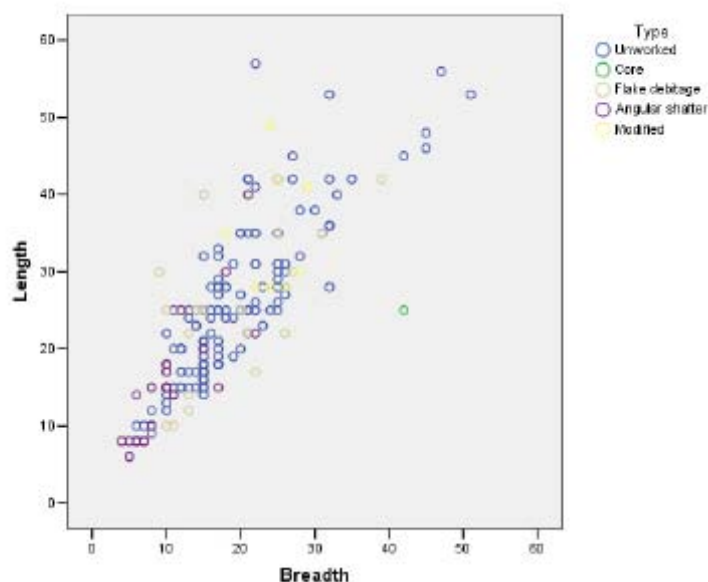


Fig 1: Dundalk Western Bypass: Newtownbalregan 5 (03E0114): Length by breadth (mm) of complete artefacts.

Cores

A single core was found (03E0114:39:1), found in relation to Group 3 activity: this was a single platform core, which exhibited intensive reduction and quite a degree of platform preparation and complexity: it was heavily reduced with its platform being flaked in the round (Plate 1-3), retaining only a limited degree of cortex at its base. It produced a combination of flakes and blades, with the latest flakes (reduced in its current state) being quite short (approximately 25mm in length); these were reduced from a faceted platform, showing signs of platform edge preparation. A direct relationship between the core and flake debitage assemblage was not discerned.

Flake debitage

A quantity of flake debitage was recovered (31 pieces) (Table 1), which includes both platform-derived (17 pieces) and bipolar-derived (14 pieces) debitage; no refit groups were discerned. Flake debitage ranged in length from 10-42mm (Fig 1), with most measuring less than 30mm (75%). The platform debitage comprised complete (8 pieces) and fragmentary (9 pieces) material. The complete platform debitage was mainly comprised of flakes (7 pieces), with one blade being found (1 piece); the flakes included non-specific flake types (3 pieces), as well as one piece related to the core preparation process (1 core trimming flake) and a number resulting from the secondary production of tools (3 retouch flakes: 2 pressure flaked, 1 percussion flaked). The platform flake shatter assemblage included flake fragments (2 proximal, 2 distal) and blade fragments (3 distal fragments), as well as a number of indeterminate fragments (2 pieces). Where platforms survived (10 pieces) they tended to be quite complex, with small platforms and edge preparation, and suggested the use of indirect percussion (6 pieces); indirect percussion involves the use of a

hammer and punch, and is suggested by the presence of punctiform platforms and prominent bulbs of percussion. The remaining platforms had splintered (2 pieces) or simple, planar types (2 pieces). Complete platform debitage tended to be quite small, measuring between 10-42mm in maximum length. The majority was found in topsoil (9 pieces), with single examples being found in contexts relating to Group 3 activity (**C12**, **C51**, **C59**, **C67**), Group 4 (**C192**) and Group 6 (**C87**), and two pieces being found in C86 (also Group 5). The remainder of the flaked debitage assemblage was comprised of bipolar material (14 pieces), most of which was complete (10 pieces: 7 flakes, 3 blades). The fragmentary pieces included a flake (1 distal fragment) but were mainly comprised of blades (3 pieces: 1 proximal, 2 distal). Complete bipolar debitage had a more limited size range than platform related material, measuring between 25-40mm. Bipolar debitage was recovered from a number of contexts, particularly topsoil (6 pieces) and (**C81**) (either Group 3 or Group 6 activity: 5 pieces: none of which appeared to be related), with further individual pieces being found in (**C67**) (Group 3), (**C220**) (Group 3), C88 (Group 3).

Angular shatter

A number of pieces of angular shatter were found (24 pieces); these are thought to have derived from the knapping process, but included a small number which had been further damaged by thermal action (2 pieces), and one burnt example; of the remainder, two pieces may have derived from bipolar knapping, in particular (**C1** and **C67**). Angular shatter tended to be diminutive, ranging from 6-40mm in maximum length, but the majority measured less than 22mm (>90%). Angular shatter was found in numerous contexts, including topsoil (C1: 10 pieces), (**C81**) (Group 3/6: 3 pieces), (**C67**) (Group 3: 1 piece), (**C70**) (Group 3: 1 piece), (**C155**) (Group 3: 1 piece), (**C192**) (Group 4: 6 pieces) and (**C87**) (Group 6: 2 pieces).

Modified tools

A total of 13 modified tools were found, which mainly include scrapers (4 pieces: 03E0114:1:1; 03E0114:1:4; 03E0114:91:1; 03E0114:155:1) (Plates 13.4-6) and hollow scrapers (4 pieces: 03E0114:1:3; 03E0114:1:8; 03E0114:1:147; 03E0114:155:1) (Plates 13.7-9), as well as a number of edge retouched tools (2 pieces: 03E0114:1:7; 03E0114:1:51) and utilised (1 piece: 03E0114:1:12) tools, perhaps used for cutting. The remaining tools were slightly irregular bifacial tools, which may have been projectiles (2 pieces: 03E0114:1:165; 03E0114:88:1) (Plate 10).

The scrapers include two similar pieces formed on long fine flakes (03E0114:1:1 & 4; Plates 4-5), both of which were quite delicately retouched at the distal end only; the remaining scrapers are small, heavy types: one of these is unusual in that it alternates the axis of the tool in relation to the flake axis, that is, the scraping edge is along the right lateral edge, rather than the distal end, as is more commonly the case (03E0114:92:1; Plate 6).

The hollow scrapers have a varied morphology, with only one example (03E0114:51:2; Plate 9) being formed on a 'typical' trapezoidal flake; the remainder are unusual, but are also very finely produced: these include two examples based on long flakes, with their hollows formed along the lateral edges (03E0114:1:3 & 8), the latter being a double hollow scraper (Plate 7). The remaining piece is curiously formed on a flake which might be more akin to those which are usually intended as blanks for fine arrowheads, and may have been a curated blank, put to use as a hollow scraper as it was required (03E0114:1:147).

The remaining tools include edge retouched and utilised pieces which may have served as cutting tools; these include a burnt fragment (03E0114:1:51), a small flake (03E0114:1:7) and an apparently utilised flake fragment (03E0114:1:12). Both remaining tools may be projectiles, neither of which could be described as typical examples of arrowheads: one of these is a small percussion flaked leaf-shaped bifacial tool, similar to laurel leaves (03E0114:1:165; Plate 10); the remaining piece is a fragment of a minimally but bifacially retouched leaf-shaped piece, which may have been broken during manufacture (03E0114:88:1).

The majority of the modified assemblage was recovered from topsoil (**C1**: 9 pieces), with only a small number of tools being recovered from archaeological deposits, most of which relate to Group 3 activity; these include two of the scrapers (Group 3: **C92**, **C155**), one of the hollow scrapers (Group 3: **C51**: the more 'typical' example); one of the possible projectiles was recovered from Group 4 activity (**C88**).

General provenance of the material

The majority of the flint assemblage at Newtownbalregan 5 was recovered from topsoil (**C1**: 141 pieces), and this includes most of the unworked material, as well as approximately one-half of the flake debitage and angular shatter, and almost threequarters of the modified tools (Table 2).

Just one-tenth of the assemblage was recovered from features relating to Group 3 activity, thought to relate to Late Neolithic or Early Bronze Age periods (Bayley 2005c). The flake debitage from Group 3 includes a distal platform blade fragment (**C51**), a retouch pressure flake (**C59**), a further retouch pressure flake and bipolar blade (**C67**), a platform flake (**C12**) and a bipolar flake (**C220**); none could be refitted, nor did they seem to relate to the same knapping episode. Group 3 deposits also yielded three modified tools, including two small, heavy scrapers (**C92**): a spread related to the *fulacht*, and (**C155**): the fill of posthole (**C154**); the remaining piece is a burnt hollow scraper, recovered from (**C51**), the fill of the posthole (**C151**).

| Context No | Description | Unworked | Core | Flake Debitage | Angular shatter | Modified | TOTAL |
|------------|---|----------|------|----------------|-----------------|----------|-------|
| 59 | Group 2: Subgroup 1001: Structure: Fill of posthole C174 | - | - | 1 | - | - | 1 |
| 66 | Group 2: Subgroup 1001: Structure: Fill of posthole C182 | 1 | - | - | - | - | 1 |
| 67 | Group 2: Subgroup 1001: Structure: Fill of posthole C162 | 1 | - | 2 | 1 | - | 4 |
| 77 | Group 2: Subgroup 1001: Structure: Fill of posthole C181 | 2 | - | - | - | - | 2 |
| 155 | Group 2: Subgroup 1001: Structure: Fill of posthole C154 | - | - | - | 1 | 1 | 2 |
| 159 | Group 2: Subgroup 1001: Structure: Hearth C160 | 1 | - | - | - | - | 1 |
| 51 | Group 2: Subgroup 1002: Structure: Fill of posthole C151 | - | - | 1 | - | 1 | 2 |
| 151 | Group 2: Subgroup 1002: Posthole C151 | 1 | - | - | - | - | 1 |
| 70 | Group 2: Subgroup 1003: Structure: Fill of posthole C156 | - | - | - | 1 | - | 1 |
| 78 | Group 2: Subgroup 1004: Structure: Fill of slot trench C190 | 1 | - | - | - | - | 1 |
| 117 | Group 2: Subgroup 1007: Fill of pit C200 | 3 | - | - | - | - | 3 |
| 12 | Group 2: Subgroup 1008: Fulacht: spread | - | - | 1 | - | - | 1 |
| 92 | Group 2: Subgroup 1008: Fulacht: spread | - | - | - | - | 1 | 1 |
| 220 | Group 2: Subgroup 1008: Fulacht: fill of stakehole C221 | - | - | 1 | - | - | 1 |
| | | | | | | | |
| 30 | Group 3: Subgroup 1009: Fill of possible well C206 | 3 | - | - | - | - | 3 |
| 50 | Group 3: Subgroup 1012: Fill of pit C163 | 1 | - | - | - | - | 1 |
| 88 | Group 3: Subgroup 1025: Fill of pit C170 | - | - | 1 | - | 1 | 2 |
| 89 | Group 3: Subgroup 1026: Fill of pit C183 | 4 | - | - | - | - | 4 |
| 192 | Group 3: Subgroup 1027: Fill of pit C188 | 8 | - | 1 | 6 | - | 15 |
| 186 | Group 3: Subgroup 1037: Fill of stakehole C187 | 2 | - | - | - | - | 2 |

| | | | | | | | |
|-------|--|-----|---|----|----|----|-----|
| 39 | Group 3: Subgroup 1038: Spread | - | 1 | - | - | - | 1 |
| 132 | Group 3: Subgroup 1019: Fill of possible kiln C131 | 1 | - | - | - | - | 1 |
| 23 | Group 4: Subgroup 1041: Fill of pit C158 | 1 | - | - | - | - | 1 |
| 81 | Group 2/5: Subgroup 1005/1042: Fill of pit C197/C199 | 2 | - | 5 | 3 | - | 10 |
| 1 | Group 5: Subgroup 1044: Topsoil | 107 | - | 15 | 10 | 9 | 141 |
| 87 | Group 5: Subgroup 1042: Fill of drain C199 | 2 | - | 1 | 2 | - | 5 |
| 86 | Group 5: Subgroup 1042: Fill of drain C199 | 1 | - | 2 | - | - | 3 |
| Total | | 142 | 1 | 31 | 24 | 13 | 211 |

Table 2: Dundalk Western Bypass: Newtownbalregan 5 (02E0114): showing distribution and basic composition of the flint assemblage.

The scrapers found in relation to Group 3 activity offer little assistance as chronological indicators, and could relate to Neolithic or Bronze Age activity. Hollow scrapers, however, are among the few flint tool types in Ireland which are strongly linked to a limited period of activity: that is, they begin to be found later in the Early Neolithic (apparently after the construction and use of rectangular houses) and have their main period of use during the Middle Neolithic; there is some limited evidence to suggest that they continue into the Late Neolithic, but they certainly seem to have fallen out of use by the arrival of Grooved ware into the Irish ceramic repertoire (ie by the Late Neolithic/Early Bronze Age) (Nelis 2003; Nelis 2004). The hollow scraper found within (**C51**) at Newtownbalregan 5 is of the most typical form found: that is, it is based on a fine trapezoidal flake; as such, this strongly suggests production during the Middle Neolithic period, and deposition either during this period or at a time subsequently.

A total of 29 artefacts were found in relation to Group 4 deposits, the majority of which were unworked. The worked assemblage includes a core (the only example found at Newtownbalregan 5: (**C39**)), two pieces of flake debitage (unrelated to the core: (**C88**): a bipolar flake; (**C192**): a retouch percussion flake) and a quantity of angular shatter. In addition, a single modified tool was found (**C88**): this was a fragment of a minimally retouched, atypical projectile, which may have been broken during manufacture. The possible projectile found in this deposit, therefore, is an atypical example of such artefacts, and therefore does not clearly point to any specific period of production.

Together with the core and flake debitage assemblage, it is possible that these artefacts were produced at any time during the Neolithic and Bronze Age periods. A small quantity of artefacts were found in relation to later activity (Table 2): these include an unworked piece from Group 5 (**C23**), and unworked material, flake debitage and angular shatter from Group 3/6 (**C81**); the flake debitage from this deposit was entirely comprised of bipolar debitage (5 pieces: 4 complete, 1 fragmentary) (Table 1); none of these could be rejoined, nor did they seem to relate to the same knapping episode, but they do suggest a dominance of bipolar reduction techniques during the time that the pit (**C197/C199**) was filled. In addition to topsoil deposits, other post-medieval features yielded small quantities of unworked material, flake debitage (3 platform pieces: 1 core trimming flake, 2 indeterminate shatter) and angular shatter. It is probable that this material represents residual deposition, which is further suggested by the extremely fragmentary condition of two of the pieces, which were barely recognisable as flake debitage.

Discussion: Newtownbalregan 5 (03E0114)

The assemblage at Newtownbalregan 5 is mainly populated by unworked material, but the worked assemblage includes a varied assemblage of primary knapping debitage, as well as an interesting assemblage of modified tools. These include a varied collection of scrapers and hollow scrapers. It is, however, unfortunate that the majority of the modified tools were recovered from topsoil (C1: 9 pieces), with only two of the scrapers (Group 3: (C92, C155)), one of the hollow scrapers (Group 3: (C51): the more 'typical' example) and one of the possible projectiles (Group 3: (C88)) being directly recovered from archaeological contexts. Most of the modified tools recovered from *in situ* deposits relate to Group 3 activity, which may date to the Late Neolithic or Early Bronze Age (Bayley 2005c). Of these, the scrapers are small, heavy examples; scrapers are a tool type which have extremely variable morphology, which is more commonly related to functional variability rather than chronological phasing, and they are therefore (with few exceptions) quite difficult to date; those found in relation to Group 2 could derive from any period during the Neolithic or Bronze Age; it is interesting (if frustrating) that the examples found in topsoil, formed on long fine flakes, are similar to scrapers which tend to be more commonly found (but again not exclusively so) during the Early Neolithic in Ireland; quite how they relate to occupation at Newtownbalregan 5, however, is unknown.

Most of the remaining tools are poor chronological indicators. This includes a possible, broken projectile which, as an unusual example, cannot be closely dated (C88); in addition, the projectile recovered from topsoil may be a small laurel leaf (03E0114:1:165), which are percussion-produced types, generally found during the Early Neolithic period. The edge retouched and utilised pieces may have been produced during any period since prehistory, and therefore offer little information on prehistoric and historic activity at Newtownbalregan 5.

As outlined above, hollow scrapers are among the few flint tool types in Ireland which have a well-defined and limited existence during the Irish Neolithic, and may be of most assistance in relation to the analysis of flintwork at Newtownbalregan 5. Hollow scrapers emerge later in the Early Neolithic (apparently after the construction and use of rectangular houses), and have their main period of use during the Middle Neolithic; there is some limited evidence to suggest that they continue into the Late Neolithic, but they certainly seem to have fallen out of use by the arrival of Grooved ware into the Irish ceramic repertoire (ie by the Late Neolithic/Early Bronze Age) (Nelis 2003; Nelis 2004).

The development of the hollow scraper, which is thought to be an indigenous development, seems to occur at least partly as a response to a change in the functional imperatives behind flint tool production (ibid): essentially, hollow scrapers are an effective tool type which serve a variety of functions, mainly relating to cutting and paring, and which are easily and quickly produced; it may be no coincidence that their emergence appears to coincide with the decline in the production of planoconvex knives, an altogether more difficult and skillful tool to produce. There is some limited evidence to suggest that, in their earliest form, hollow scrapers may have been formed on 'typical' leaf-shaped flakes, with the development of the 'classic' trapezoidal flake being a somewhat later development; more research, however, is required in order to clarify this scenario. The development of the trapezoidal flake signifies a crucial shift in primary reduction during the Irish Neolithic: with its development, more emphasis is placed in the production of blanks for tools, and less skill seems to be focused on the secondary production of this tool type; that is, Early Neolithic types, such as arrowheads and knives, exhibit their main skill in the secondary production, while the production of their blank can be more simply achieved; conversely, by the Middle Neolithic, the production of hollow scrapers

requires more skill in the production of the blank, and less in the secondary, production of the tool itself, which can be achieved expediently and with little skill.

As such, most of the hollow scrapers at Newtownbalregan 5 may relate to the earlier stages in the development of hollow scrapers, being formed on leaf-shaped flakes and (in one case) on a flake which would also have been suitable as an arrowhead blank (03E0114:1:147); this piece, therefore, may have been a curated blank, which was then used for the production of a hollow scraper when required. The curation of similar flake types is more commonly seen in relation to arrowhead production, and also in the curation of trapezoidal flakes as hollow scraper blanks, but it again points in a general sense to the practice of curating blanks for the later production of a simple but effective tool type. The hollow scraper found within (C51) at Newtownbalregan 5 is of the most typical form found, and may indicate a Middle Neolithic date, by which time the 'classic' form of the tool type had been well developed: that is, it is based on a fine trapezoidal flake; as such, this strongly suggests production and use during the Middle Neolithic period, and deposition either during this period or at a time subsequently.

The assemblage, therefore, points to a limited production and use of flint tools within the vicinity of Newtownbalregan 5, which hints at activity from the Early Neolithic through to the Middle Neolithic periods, in particular. This is suggested by a number of the scrapers, formed on long, fine flakes, and by the small laurel leaf/projectile, as well as, in particular, the assemblage of hollow scrapers. The recovery of most of these artefacts from topsoil limits the extent to which this timeline can be applied to the archaeological remains at the site, however, although the recovery of a single classic hollow scraper from (C51) points to deposition either during the Middle Neolithic period or thereafter. The remainder of the assemblage exhibits the reduction of a small amount of flint using both platform and bipolar based reduction techniques, over an unknown period of time; the lack of refit groups and production sequences, and the general dearth of cores, suggests that the assemblage represents the partial remains of numerous knapping events, rather than retaining the full integrity of a single knapping episode,

NEWTOWNBALREGAN 5: (03E0114) WORKED STONE ASSEMBLAGE

Introduction

03E0114:77:16

Hammerstone

Diorite pebble: 70mm (L); 67mm (L); 58mm (T); Mass 409.4g.

With biotite mica, quartz and feldspar. Sub-rectangular water rolled pebble, with flattened, intensively abraded face on narrow end (Worked area diameter: 32-40mm), with gouge (30mm (L) x 12mm (W) x 3mm (Depth)).



Plate 1: Newtownbalregan 5 (03E0114): Single platform core (03E0114:39:1):
showing platform face.



Plate 2: Newtownbalregan 5 (03E0114): Single platform core (03E0114:39:1):
showing platform, from



Plate 3: Newtownbalregan 5 (03E0114): Single platform core (03E0114:39:1): showing platform base.



Plate 4: Newtownbalregan 5 (03E0114): Scraper (03E0114:1:1).



Plate 5: Newtownbalregan 5 (03E0114): Scraper (03E0114:1:4).



Plate 6: Newtownbalregan 5 (03E0114): Scraper (03E0114:92:1): showing functional axis of tool with scraping edge to the top of the image; the axis of the flake, however, is perpendicular to this, with the platform to the right of the image.



Plate 7: Newtownbalregan 5 (03E0114): Hollow scraper (03E0114:1:8).



Plate 8: Newtownbalregan 5 (03E0114): Hollow scraper (03E0114:1:147).



Plate 9: Newtownbalregan 5 (03E0114): Hollow scraper (03E0114:51:2).



Plate 10: Newtownbalregan 5 (03E0114): Possible laurel leaf (03E0114:1:165).

APPENDIX 2.4: PREHISTORIC POTTERY REPORT

THE PREHISTORIC POTTERY
FROM
NEWTOWNBALREGAN 5, CO. LOUTH
(03E0114)

EOIN GROGAN AND HELEN ROCHE

Summary

There are 168 sherds of prehistoric pottery (12 rim-, 45 neck/shoulder-, 14 base- and 98 bodysherds as well as 64 fragments and 30 crumbs) representing at least 13 vessels. The assemblage has a total weight of 980g. The pottery represents one Early Neolithic Carinated bowl (No. 13), 1 Middle Neolithic Bipartite bowl (No. 1), while the remainder, Nos 2-12, are Final Neolithic /Early Bronze Age Beakers.

Condition

The pottery is in good condition and there is relatively little evidence for heavy wear. The surfaces and edges are generally well-preserved but there is abrasion to a small number (e.g. Vessel 5). Nevertheless, there are relatively few re-fitting sherds. This evidence, and the variable survival of the vessels represented, suggests that while the assemblage suffered relatively little post-depositional disturbance the pottery was deposited in sherds and probably represents domestic debris.

General comment

The Early Neolithic

Carinated bowls have occurred at a wide variety of sites in the region including the settlement contexts at Knowth and Newgrange, Co. Meath (Eogan 1984; Eogan and Roche 1997; O'Kelly *et al.* 1978), and the court tomb at Clontygora Large, Co. Armagh (Davies and Patterson 1936-7).

The Middle Neolithic

Although only a single sherd of Vessel 1 is present the pot can be widely paralleled: similar vessels occur within the region in court tombs at Ballyedmond (Evans 1938), Co. Down, Annaghmare, Co. Armagh (Waterman 1965), the portal tomb at Ballykeel, Co. Armagh (Collins 1965)(see Herity 1982, figs 47.3, 49.2, 31-3), and in the assemblage at Balregan, Co. Louth (Ó'Donnchadha 2003; Grogan and Roche 2005a, vessel 7). Within this general type (Case 1961: 'Ballyalton bowls'; Herity 1982: 'Necked Vessels'; Sheridan 1995: 'decorated bipartite bowls') those associated with so-called 'single burials'¹, especially those in Linkardstown tombs (Brindley and Lanting 1989/90: 'Drimnagh Style bowls') provide the particular background for the Newtownbalregan vessel.

The vessel itself has features, such as the slightly curved scores set in alternating bands and the irregular application of ornament, typical of several of this type (see Herity 1982, figs 20-2); the overall profile is similar to the vessels from Ballintruer More, Co. Wicklow (Raftery 1973). The main period for this distinctive pottery type is firmly dated to c. 3525-3350 cal. BC (Brindley and Lanting 1989/90, 4-5, figs 1-2) but wider associations indicate that similar pottery forms may have continued later.

The Late Neolithic /Early Bronze Age Beaker assemblage

The Beakers from Newtownbalregan were all of good quality with evenly finished generally very fine fabric. There is little variation in the walls of individual vessels and these are generally 7-8mm thick.

There is a restricted range of inclusions with crushed quartzite being the most frequent; shale and sandstone are occasionally present as are flecks of mica. In general the inclusions are small ($\leq 1-1.5\text{mm}$) but most vessels contain some larger pieces (up to 3 x 2mm or occasionally larger). Vessel 11 contained only sandgrade² inclusions. With the exception of Vessel 9, which has a distinctive sandy texture,

¹ These are not exclusively the burials of single individuals.

² Particles too small to be identified in hand samples.

inclusions rarely appear on the surface of the pots. There is no surviving evidence for organic temper. Vessels 2-4, 6 and 10 have exceptionally fine finishes and the smooth deep red-brown fabric has been burnished, an unusual feature on Irish Beaker pottery; the upper part of the inner surface, at least, has also been burnished on Vessels 1-4 and 10. Traces of a similar finish survive on Vessels 5 and 7 as well as some of the unassigned sherds (**C70.11**, **C59.28**, **C59.50** and **C67.12**). Cleary (1983) refers to burnishing on several vessels from Newgrange, Co. Meath, and there are also some vessels with this finish at Newtownbalregan 2 (Grogan and Roche 2005b). All of the Newtownbalregan 5 vessels were coil built.

Most of the vessels have soft S-shaped profiles although No. 8 has a short everted neck and a marked, constricted waist; however, the lower body of even this pot had a more gently curved profile. Generally there are simple rounded and unexpanded rims with slightly everted necks, gently curved rounded bodies and flat unfooted bases. The fragmentation of the assemblage prevented any accurate assessment of size but all appear to be small to medium vessels with rim diameters of less than 20cm.

Vessels of this type have generally been assigned to Clarke's European Bell Beaker, or his Wessex/Middle Rhine types (1970). More recently, following reviews by, for example, Lanting and van der Waals (1972), there has been a greater recognition of the regional development of Beaker. Case's (1993) simpler threefold scheme, and its specific application to the Irish material, provides a straightforward medium for insular comparison (Case 1995). The Newtownbalregan material, with its classic Bell Beaker profile and simple horizontally arranged zonal ornament, conforms to his style 2 and is dated to c.2450-2200 BC.

There are 8 decorated pots (Nos 2-5 and 7-9). At a general level alternating horizontal bands of ornament form one of the principal decorative arrangements in the Irish repertoire. Decoration with bands of usually comb-impressed lines alternating with blank panels forms one of the most common designs. Examples include Knowth concentrations B, C, and D (Eogan 1984, 266-8, fig. 94.1565-95, fig. 95.1596-1618, 277-80, figs 100-1, 294, fig. 110), Dalkey Island Site 5 (Liversage 1968, 72, fig. 8.p51-2), Lough Gur Sites C, D (including a reconstructed example; Ó Ríordáin 1954, 277-8, pls 36-7, and 394, fig. 36.1-12.), L (Grogan and Eogan 1987, 407, fig. 46) and 10 (Grogan and Eogan 1987, 451, fig. 68.V.5 and V.6). Similar ornamental bands with intervening plain zones consisting of scored or incised lines rather than comb, as on Vessel 4, also have a wide currency and occur, for example, at Kilgobbin, Co. Dublin (Grogan 2004). Pendant fringes, as on Vessels 2 and 3, are another common part of Beaker decoration.

Vessels 6 and 10, and possibly 11, were plain. Undecorated Beakers are present at several other sites including that from a burial at Knowth (Eogan 1984, 308-12, fig. 117, pl. 80), vessels from Knowth concentration B (Eogan 1984, 268-9, fig. 96), and Kilgobbin, Co. Dublin (Grogan 2004; Hagen forthcoming 1). The Newtownbalregan Beaker pottery is of an unusually fine quality that is only occasionally matched at other sites such as Knowth, Dalkey Island and possibly the Hill of Rath (Duffy 2002).

The Newtownbalregan material is a significant addition to our understanding of the patterning of Beaker in the north Leinster Region (Fig. 1). Other important assemblages include those from Knowth, Newgrange and Monknewtown (Cleary 1983; Sweetman 1976) in the Boyne Valley, the Hill of Rath and Mell, Co. Louth (McQuade forthcoming), Rathmullan, Co. Meath (Bolger 2002), Dalkey Island and Kilgobbin, Co. Dublin. Other recent excavations include Lusk, Beaverstown, and Laughanstown, Co. Dublin (Roche 2004; Hagen forthcoming 2; Seaver 2004), Charlesland, Templerrainy and Rathdown Lower, Co. Wicklow (Molloy 2003; 2004;

Phelan forthcoming; Ó Ríordáin, B. 1998; Eogan, J. 1998), and Kerloge, Co. Wexford (Elder 2004). These highlight not only the increasing concentration of Beaker in the north Leinster area but also the largely coastal distribution of this material.

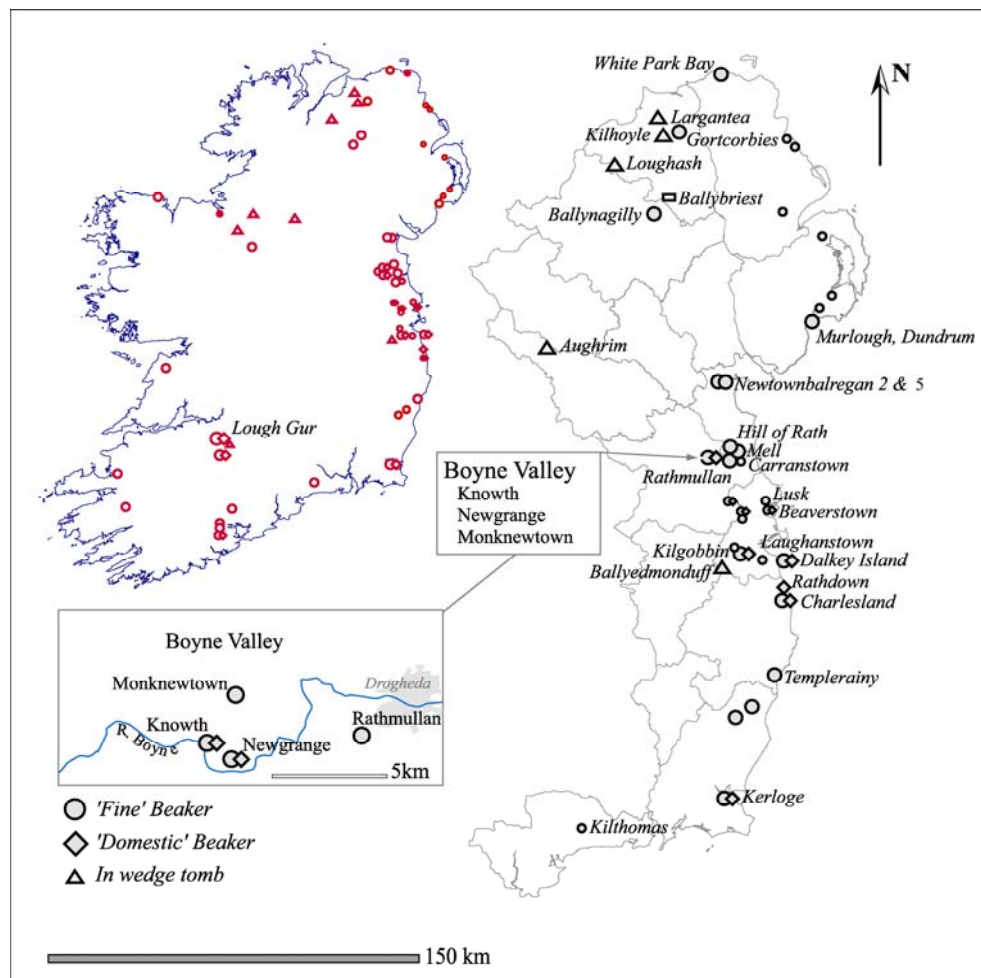


Fig. 1 Distribution of Beaker pottery.

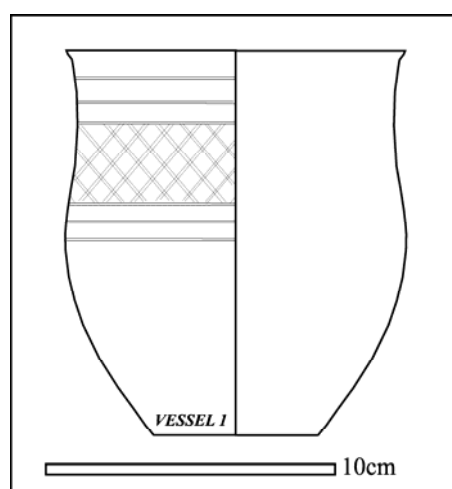


Fig. 2. Conjectural reconstruction of Vessel 2.

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CATALOGUE

The excavation number 03E0114 is omitted throughout; only the context number followed by the find number is included.

Where the pottery is listed in the catalogue the context numbers are in bold: e.g. bodysherds: **59**.1, 12, 18-9, 35, 37.

Numbers in square brackets (e.g. **67**.[6, 7, 11]) indicate that the sherds are conjoined.

R = Rimsherd N = Necksherd B = Bodysherd S = shouldersherd f = fragment w = worn
The thickness refers to an average dimension; where relevant a thickness range is indicated.

Vessel numbers have been allocated to pottery where some estimation of the form of the pot is possible. Individual sherds that could not be definitely ascribed to a specific vessel are described separately; these may come from further pots that are not, however, included in the calculations of minimum numbers of vessels.

Early Neolithic pottery

Vessel 13. A rounded, sharply out-turned rim (**1**.148, and a fragment: **1**149), from a fine Early Neolithic carinated bowl of smooth, burnished dark grey fabric with a low to medium content of crushed quartzite inclusions (up to 3 x 2mm).

Middle Neolithic pottery

Vessel 1. There is a single shouldersherd (**99**.3) from a Middle Neolithic Bipartite bowl. This is from a large vessel with a sharply inward sloping shoulder further accentuated by a scored gully; although broken it appears to rise to a short inverted neck. The fabric is quite coarse and although the inner face has sheared off the body is 19mm thick. Nevertheless, the outer face is smooth and well finished and there are no protruding inclusions. There are traces of burning on the outer surface. There is a high content of elongated angular granite inclusions (up to 12 x 5mm) with smaller crushed and uncrushed shale pebbles.

Decoration Wide deep V-sectioned and slightly curved scores of alternating oblique bands form a pendant chevron pattern immediately beneath the shoulder. Below this is a wide (13mm) shallow horizontal gully with part of what may be a repeated chevron pattern.

This context clearly represents residual activity.

Late Neolithic/Early Bronze Age Beaker pottery (Figure 10)

There are 166 sherds (11 rim-, 44 neck-, 14 base-, and 98 bodysherds, plus 63 fragments and 30 crumbs) of Beaker pottery representing at least 10 and not more than 15 vessels. At least 2 of these (Nos 6 and 10, and possibly 11) were undecorated.

Vessel 2 (Fig. 2). There are 20 sherds (1 rimsherd: **67**.5; 18 bodysherds: **67**.[6, 7, 11], [8-10B], 15-6, **62**.12-3, **68**.2-3, **70**.2-3, 13, 15-8; 1 basesherd: **67**.10) with a rounded, slightly everted rim, a soft S-shaped profile and a flat un-footed base. The fabric is very smooth, red-brown throughout with a highly burnished surface. There is

a medium, content of crushed quartzite, red sandstone and shale inclusions ($\leq 1.5\text{mm}$, up to $6 \times 4\text{mm}$). Neck thickness: 6.7mm ; body: $7.5\text{--}8.5\text{mm}$. Total weight: 100g .

Decoration There are three scored horizontal lines beneath the rim: the lower fringes a 26mm high panel of lattice formed by scored oblique lines. This panel is fringed below by another line with two further lines below. It is clear that, unusually, the decoration was applied after the surface had been burnished: this is evident from the broken edges of the contains a medium quantity of crushed quartzite inclusions ($\leq 1.5\text{mm}$, up to $6 \times 4\text{mm}$). Thickness: 8mm . Total weight: 100g .

Decoration There is a deeply scored horizontal line on the belly and this sherd (**58.1**) appears to have broken along a second line 5mm above. Beneath the line is an oblique fringe of sharp elongated Y-shaped stab marks (possibly applied with a modified bird bone). The line and the impressions were applied after the surface of the vessel had been burnished. Necksherd **68.37** has a horizontal line with what may be a fringe of oblique stab marks (possibly finger nail) beneath.

Vessel 3. There are 17 sherds (5 necksherds: **59.2**, 15, 29, **67.19-20**; 6 bodysherds: **59.1**, 12, 18, 35, **68.1**, 37; 6 basesherds: **62.14**, **59.4**, 7, 48-9f, 3) from a vessel with a soft S-shaped profile. The fabric is of exceptional quality, a deep red-brown colour throughout and burnished both externally and internally. It contains a medium quantity of crushed quartzite inclusions ($\leq 1.5\text{mm}$, up to $6 \times 4\text{mm}$). Thickness: 8mm . Total weight: 100g .

Decoration There is a deeply scored horizontal line on the belly and this sherd (**58.1**) appears to have broken along a second line 5mm above. Beneath the line is an oblique fringe of sharp elongated Y-shaped stab marks (possibly applied with a modified bird bone). The line and the impressions were applied after the surface of the vessel had been burnished. Necksherd **68.37** has a horizontal line with what may be a fringe of oblique stab marks (possibly finger nail) beneath.

Vessel 4. There are 46 sherds (2 rimsherds: **59.8**, 27; 12 necksherds: **59.9**, 23-25, 34, 37-8, **68.9**, 40, **70.19**, **77.3**, 5; 27 bodysherds: **59.5**, [10, 14], [11, 19], 17, 20, 26, 30, 32, **62.2-5**, [16, 19], 17, **68.6**, 14-5, 43-5, **70.14**, **77.4**; 5 basesherds: **59.**[16, 21B, 13B], 46-7f, **68.11-2f**; 16 fragments: **59.40-5**, **62.6**, 20-3, **68.10**, 50-1, **70.5**, 20) from a vessel with a rounded, slightly everted, rim, a soft S-shaped profile and a flat slightly footed base. The red-brown fabric is of very good quality, burnished inside and out, and having a medium quantity of finely crushed quartzite inclusions ($\leq 1.5\text{mm}$, up to $6 \times 4\text{mm}$). Neck thickness: 7mm ; body: $7\text{--}8\text{mm}$. There is a burnt accretion on the inner face of **59.23**. Total weight: 120g .

Decoration consists of scored, occasionally discontinuous, horizontal lines restricted to the upper part of the vessel. Two lines occur beneath the rim and others, possibly grouped in pairs, occur on the lower neck and the belly; the lines are 6mm to 10mm apart.

Other small or worn bodysherds from Vessels 2-4: **67.25-33**, **159.6-8**, 10-13, **1.11**, 146.

Vessel 5. There are 4 much worn sherds (3 necksherds: **68.5**, 36, **155.5**; 1 basesherd: **68.4**) from a vessel with traces of a very smooth red-brown outer surface. The base has a distinct protruding rounded foot. The core is orange-brown and there is a low content of crushed quartzite inclusions ($\leq 1\text{mm}$). Neck thickness: $6.2\text{--}6.8\text{mm}$.

Decoration consists of three horizontal lines of comb executed with an elongated quadrangular implement with broad square teeth giving the ornament an irregular appearance. A chevron fringe of alternating oblique lines executed with the same toothed implement occurs beneath the horizontal band.

Vessel 6. There are 24 sherds (3 rimsherds: **59.56**, **68.46f**, **159.9**; 8 necksherds: **[68.32, 155.5]**, **68.34-5**, **47-9**, **77.1**; 13 bodysherds: **67.[21-2]**, **23-4**, **68.31**, **33**, **38-9**, **42**, **70.[6-7]**, and probably **62.18**, **24**) from a small plain, fine-walled vessel with a very smooth red-brown burnished surface. There is a simple rounded rim and a moderately curved S-shaped profile. Neck and body thickness: 4-4.5mm.

Vessel 7. There are worn 4 necksherds (**59.31**, **36**, **68.13**, **155.4**) from a vessel with traces of a smooth red-brown surface and an orange-buff core. There is a medium content of crushed quartzite inclusions ($\leq 1\text{mm}$, up to $3 \times 2\text{mm}$). Neck thickness: 7mm.

Decoration consists of closely spaced horizontal lines of comb; these are grouped (5 occur on **155.4**) and the surviving sherds indicate they were concentrated on the neck and belly of the vessel. Although worn it appears that the decoration was applied with a fine implement (1.2mm wide) with regular rectangular teeth.

Vessel 8. There are 2 sherds (rimsherd: **62.1**; necksherd: **77.2**) from a vessel with a simple rounded rim, an everted neck and a marked, constricted waist. The lower body appears to be more gently curved. The smooth compact fabric is red-buff throughout with a medium content of crushed quartzite ($\leq 1\text{mm}$) and occasional shale inclusions (up to $4 \times 3\text{mm}$). Neck and body thickness: 7mm.

Decoration There are two slightly irregular horizontal scores, below the rim and in the angle (waist) of the neck; beneath the second is a fringe of deep oblique scores or stab marks. A 6mm high panel of slightly curved oblique stab marks or scores flanked on top by a single line and beneath by two scored lines occurs on, or immediately beneath the belly. The oblique stabs were applied after the horizontal flanking lines.

Vessel 9. There is a single necksherd (**159.5**) from a vessel of compact, slightly sandy texture with a medium content of finely crushed quartzite inclusions (1mm, up to $3 \times 2\text{mm}$) that appear on, and protrude through, the surface. Thickness: 7mm.

Decoration consists of two deeply scored horizontal lines.

Vessel 10. There are 8 sherds (2 rimsherds: **70.12**, **169.1**; 2 necksherds: **59.[21-2]**, 4 bodysherds: **59.13**, **169.2**, **4-5**; 5 fragments: **169.6-10**) from a plain vessel with a rounded, sharply everted rim and a rounded S-shaped profile. The red-brown to buff-brown fabric is very smooth and has a low content of crushed quartzite. Neck and body thickness: 6.2mm.

This undecorated vessel is very similar in finish and form to Vessel 4.

Vessel 11. There 2 rimsherd (**78.1**, **1.155**), one bodysherd (**1.156**), a possible basesherd (**68.8**) and 8 crumbs (**1.157-64**) from a vessel with an out-turned rounded rim of smooth buff fabric with a grey core and sandgrade inclusions. Neck thickness: 9.2mm.

Vessel 12. There are two sherds (necksherd: **1.150**; bodysherd: **1.151**) from a vessel with a soft S-shaped profile of very worn buff fabric with a darker core. There is a medium content of quartzite inclusions with some shale (up to $5 \times 4\text{mm}$). Neck thickness: 5-7mm.

Decoration on the neck consists of a loosely arranged lattice of deeply scored, slightly curved, lines.

Other decorated sherds

70.11 is a necksherd of compact smooth burnished red-brown to orange-red fabric with a dark core. It has a low content of crushed quartzite and shale inclusions ($\leq 1\text{mm}$). Thickness: 6.5mm. Decoration consists of 2 horizontal lines with, beneath, a chevron pattern of alternating oblique impressions. This has been applied with an irregularly toothed implement with a curved pointed oval face.

59.28 is a necksherd with a slightly raised horizontal cordon. The compact smooth, slightly worn, red-brown to orange buff fabric has possible traces of burnishing and contains a small quantity of crushed quartzite inclusions ($\leq 1\text{mm}$). Decoration consists of 2 rows of oblique scores, the lower one cutting across the cordon.

59.33, 50 are necksherds. The compact very smooth red-brown fabric has a low content of crushed quartzite inclusions ($\leq 1\text{mm}$). Thickness: 6.5mm. Decoration consists of interrupted vertical, or near vertical, scores.

67.12 is a necksherd of slightly abraded red-brown fabric with evidence for a very smooth burnished external surface. It has a medium content of crushed quartzite and shale inclusions ($\leq 1\text{mm}$) with occasional sandstone (up to $3 \times 2\text{mm}$). Thickness: 6-6.8mm. Decoration consists of a panel (15mm high) of deep vertical scores with a sharp V-shaped section fringed top and bottom by pairs of deeply scored horizontal lines; the vertical lines cut across the lower pair.

67.18, 169.3, a worn neck- and bodysherd, are of red-brown fabric with an orange-buff core and a very low content of finely crushed quartzite inclusions ($\leq 0.5\text{mm}$). Thickness: 6mm. There are traces of burnish on the outer surface on **67.18**. Decoration consists of a scored horizontal line with a fringe of short oblique stab marks (these are in opposed directions on the neck and body).

1.[152-3] bodysherds decorated with horizontal scored lines.

Other sherds

8 small or very worn sherds: **59.6, 67.12a, 13(N), 68.41, 77.5, 81.1** (burnt accretion internally), **198.1, 169.12**,

41 very small sherds and fragments: **59.51-6, 62.7-10, 68.16-30, 52-60, 87.1-2, 3** (base f), **4-7, 1.154**,

19 crumbs: **77.7-13, 78.2, 81.2, 86.1, 87.8-16, 1.166-8**.

| Vessel | Context | No. of sherds | Rim | Neck/shoulder | Basesherds | Body | Fragments | Crumbs | Rim type | Inclusions | Vessel size | VESSEL SIZE | BURNISHED | POTTERY TYPE |
|--------|-----------------------------|---------------|-----|---------------|------------|------|-----------|--------|----------|------------|-------------|-------------|-----------|--------------|
| 1 | 47 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | - | Sh G | V L | - | ✓ | MNBB |
| 13 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | R E | Q | | | ✓ | ENCB |
| 2 | 62/67/68/70 | 20 | 1 | 0 | 1 | 18 | 0 | 0 | R | cQ/Sh/RS | S | - | ✓ | Beaker |
| 3 | 59/62/67/68 | 17 | 0 | 5 | 6 | 6 | 0 | 0 | - | cQ | M | - | ✓ | Beaker |
| 4 | 59/62/68/70/77 | 46 | 2 | 12 | 5 | 27 | 16 | 0 | R | cQ | S | | ✓ | Beaker |
| 2-4 | 68/159 | 18 | 0 | 0 | 0 | 18 | 0 | 0 | | | | | | Beaker |
| 5 | 68 | 4 | 0 | 3 | 1 | 0 | 0 | 0 | - | cQ | S | | ✓ | Beaker |
| 6 | 59/62/67/68/70/77/155 | 24 | 3 | 8 | 0 | 13 | 0 | 0 | R | | | | ✓ | Beaker |
| Other | 59/62/68/77/78/81/86/87/198 | 7 | 0 | 1 | 0 | 7 | 42 | 22 | | cQ | | | | Beaker |
| 7 | 59/68/155 | 4 | 0 | 4 | 0 | 0 | 0 | 0 | | cQ | | | | Beaker |
| 8 | 62/77 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | R | cQ/ Sh | | | | Beaker |
| 9 | 159 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | | cQ | | | | Beaker |
| 10 | 59/70/169 | 8 | 2 | 2 | 0 | 4 | 5 | 0 | R | cQ | | | | Beaker |
| 11 | 78 | 4 | 2 | 0 | 1 | 1 | 0 | 8 | R O | sg | | | | Beaker |
| 12 | 1 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | - | Q Sh | | | | Beaker |
| | Other decorated sherds | 9 | 0 | 6 | 0 | 3 | 0 | 0 | - | | | | | Beaker |
| | Beaker total | 166 | 11 | 44 | 14 | 98 | 63 | 30 | | | | | | Beaker |

c crushed Q quartzite Sg shale RS red sandstone sg sandgrade

Table 1. Vessels and other sherds from Newtownbalregan 5.

Recommended sherds for illustration

| Vessel | Context | Sherds to draw | Sherds to section only | Photograph | Decorated |
|--------|-----------|---|-----------------------------|------------|-----------|
| 1 | 99 | N: 99.3 | | ✓ | ✓ |
| 2 | 67 | R: 67.5, B: 67.[6, 7, 11], [8-10] | Base 67.10 | ✓ | ✓ |
| 3 | 59 | B: 59.1 | | ✓ | ✓ |
| 4 | 59 | R: 59.8, 27 | Base: 59.[16, 21, 13] | ✓ | ✓ |
| 5 | 68 | N: 68.5, 36 | Base: 68.4 | ✓ | ✓ |
| 6 | 59/62/155 | | R: 59.57, N: [68.32, 155.5] | - | - |
| 7 | 155 | N: 155.4 | | | ✓ |
| 8 | 62/77 | R: 62.1; N: 77.2 | | | ✓ |
| 9 | 159 | N: 159.5 | | | ✓ |
| 10 | 59/70 | | R: 70.12, N: 59.[21-2] | | - |
| 11 | 78 | | R: 78.1 | | - |
| 12 | 1 | 1.150 | | | ✓ |
| Other | | 70.1, 59.28, 59.28, 67.12, 67.18, 169.3 | | | ✓ |

APPENDIX 2.5 SMALL FINDS REPORT

SMALL FINDS REPORT
NEWTOWNBALREGAN 5
DUNDALK WESTERN BYPASS

LICENCE NO: 03E0114

BY
SIOBHÁN SCULLY MA MA
MARGARET GOWEN & CO. LTD
JOB NO. 08103-R8

1 Clay Tobacco Pipe

1.1 A single clay pipe bowl (03E0114:1:143) was recovered from the excavations at Newtownbalregan 5. The top of the bowl and the heel are broken off. It is a large bowl with a flowing forward curve on the front of the bowl and is similar to Oswald's 10G flat-heeled bowls or 21G spur-heeled bowls in his typology of English clay pipe bowls, both of which date between 1700 and 1740. It is possible to suggest that the partial bowl from Newtownbalregan 5 was probably imported from England and dates to the first half of the 18th century.

Catalogue

| Find Number | Description | Date |
|---------------|--|---------------------------|
| 03E0114:1:143 | Partial bowl. Top of bowl and heel broken off. Large bowl with flowing forward curve. English? | Early to mid-18th Century |

Bibliography

Oswald, A. 1975 *Clay Pipes for the Archaeologist*. British Archaeological Reports (British Series) 14.