



## M1 DUNDALK WESTERN BYPASS

SITE 124: CARN MORE 1  
CHAINAGE 24.350 – 24.550  
NGR: 304357 / 310846

## FINAL REPORT

ON BEHALF OF  
LOUTH COUNTY COUNCIL AND THE  
NATIONAL ROADS AUTHORITY

LICENSEE: SHANE DELANEY  
LICENCE NUMBER: 03E0867

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## Non Technical Summary

Irish Archaeological Consultancy Ltd. (IAC Ltd.), funded by Louth County Council and the National Roads Authority, completed an excavation at Site 124, Carn More 1 in the townland of Carn More c. 2km north-west of Dundalk in advance of the construction of the 8.5km M1 Dundalk Western Bypass (main chainage 17.100 – 25.600). The excavations were undertaken to ensure all subsoil archaeological remains were preserved by record in advance of groundwork.

Site 124 was highlighted in the Environmental Impact Statement (Keeley, 2000) as being listed in the Record of Monuments and Places (LH004:067) as a circular enclosure with a possible attached field system. Site 124 was subject to Geophysical Investigation (GSB 2001) and was specifically tested during a test trenching programme undertaken by IAC in March 2002 (Licence 02E0370). Resolution excavations were completed between June and August 2003 (Licence 03E0867) with an average of 15 staff, directed by Shane Delaney.

The site fell into two distinct areas. The western area, Area 2, was in a sheltered location, centred at Chainage 24.420. It comprised of the remains of Bronze Age huts, a human cremation and a number of probable cooking pits. The huts consisted of shallow hollows (c. 3m in diameter), which were roughly surrounded with posts/stakes. One hut appears to have had a porch arrangement. All the hollows were filled with a homogenous stone layer, possibly a surface or the collapsed low surrounding walls. Finds from the site include sherds of Bronze Age pottery, a polished stone adze head and a fragment from a circular lignite hoop. The cooking pits were recorded to the north and west of the huts with the cremation to the west. The western limit of Area 2 contained a very large post-medieval linear field boundary (illustrated on 1908-9 OS map).

The eastern area, Area 1, was centred on Chainage 24.500 (RMP LH004:067, Louth Archaeological Survey 729, 730 and 880) and comprised one half of a c. 30m diameter ringfort (the site was bisected by the road take fence line). The ringfort had a westward facing causewayed entrance and internally there was a 'W' shaped souterrain of a single gallery 19m long with no chambers (the souterrain was roofless and backfilled). The ringfort showed evidence for severe truncation and there were few other internal features present. The site was dated by an assemblage of souterrain ware pottery. Redeposited human bone from the souterrain backfill suggests a nearby cemetery has been disturbed. This cemetery may have been contemporary with the ringfort, and located to the south of the excavated area, beyond the Lands Made Available.

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## 1 INTRODUCTION

This stratigraphic report describes the excavation of Site 124, Carn More 1 carried out in the townland of Carn More 1, c.2km to the north of Dundalk, Co. Louth as part of an archaeological mitigation program associated with the M1 Dundalk Western Bypass (DWB). Archaeological fieldwork was directed by Shane Delaney of Irish Archaeological Consultancy Ltd. (IAC Ltd.) and was funded by Louth County Council and the National Roads Authority.

### 1.1 Site location

Site 124, Carn More 1 was located in Carn More townland, to the east of County Road 108 off the R177 Armagh Road, c. 2km north of Dundalk (Louth OS sheet 004). The site is:

- Site 124, Excavation Licence 03E0867, route chainage (Ch) 24.350 –24.550, NGR 304357 / 310846

The site is listed on the Record of Monuments and Places (RMP) (LH004:067, circular enclosure with a possible attached field system) and had been previously identified in the Environmental Impact Statement (2000) and was specifically tested by IAC Ltd. in March 2002 (Test Excavation Licence 02E0371, Fintan Walsh). The area (within the lands made available) comprised a low lying knoll which overlooked lower ground to the north and east. The site was located 700m to the east of previously unknown site, Site 121, Balriggeran 1 (excavated by Shane Delaney, 02E01325, Ch 23.600 – 23.870). Site 121 was a very large early medieval enclosed settlement at the base of a broad, shallow basin. Site 124, Carn More 1 occupies the outer 'lip' of this basin and as such may be an outlying ringfort connected with the focal site Site 121, Balriggeran 1.

### 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 included ancillary roads and other structures.

The Dundalk Western Bypass – Northern Link will connect 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 has been completed to chainage point Ch17.100. The chainage zone Ch16.000 – 17.100 has therefore not been investigated archaeologically under the present contract. Section 2 (2.08km main centre line chainage) runs from the Armagh Road Ch23.870 to the Ballymascanlan Roundabout, Ch25.950.

Therefore the archaeological potential of the route represented a distance of 8.49km (Ch17.100 – 25.950). The route corridor varied between 60m and 200m (not

including side roads) and was on average 100m wide. The archaeological site area was thus approximately 85 hectares.

#### Specific

The excavations at Site 124, Carn More 1 were located between route chainage Ch24.350 and Ch24.550. Within the site there were two foci of occupation, Area 1 (early medieval ringfort) at Ch24.500 and Area 2 (prehistoric settlement activity) at Ch24.420.

The excavation covered an area approximately 200m x 50m.

The site is Recorded Monument LH 004:067 (Louth Archaeological Survey 729, 730 and 880): Enclosure with possible second 'annex' enclosure and associated field system.

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

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

Topsoil stripping of the area commenced on Monday the 12<sup>th</sup> of June 2003 and the fieldwork was completed on 27<sup>th</sup> August 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 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 *Dúchas*-The Heritage Service/ National Monument Section of Department of Environment, Heritage and Local Government. Samples were taken of any environmental and burnt material.

It was agreed in advance that adequate funds to cover excavation, post-excavation, conservation and dating analysis would be made available by Louth County Council. Dating involved pottery analysis through typological study and radiocarbon analysis.

## 2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

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

The town of Dundalk lies at the northern end of Dundalk Bay and is the administrative centre of Co. Louth, located in the northeast of Leinster. The area spans two geographical areas. To the west, the rural landscape surrounding the urban district is one of undulating topography, with low drumlins rising to 30-40m from the coastal plain. As with much of Louth, this covers thick strata of Ordovician and Silurian slates, with some rock outcrops (Gosling 1993, 237). To the east of the urban district, the flat, low lying coastal plain is comprised of recent estuarine and alluvial clays and silts, shaped by the sea level changes following the end of the last Ice Age period in Ireland c. 10000 years ago.

At the time of the earliest habitation in Ireland, the Early Mesolithic period: (c.7000BC), the sea would have submerged the area of the town to a depth of 4-5m, although it continued to retreat to its present level until the Late Neolithic/Early Bronze Age period (c.2400BC), replacing the submerged area with salt marshes and tidal flats. At various stages from the 17<sup>th</sup> century onwards, these areas were improved by reclamation projects.

The proposed route for the Dundalk Western Bypass–Northern Link is located within an area that avoids the major recorded archaeological monuments in the vicinity. This is a particularly rich archaeological landscape but the great majority of known sites lie beyond the perimeter of the original study area. It is important to note, however, that a significant number of sites in this part of Co. Louth survive as crop marks, where the above ground indication of the monument has been destroyed. The recognition of such monuments has often been the result of chance discovery from ploughing and construction work, or by observation from the air where the distinctive traces of the buried features can sometimes be observed. The strong tradition of arable agriculture in the locality has been largely responsible for this situation. Given this pattern of buried remains, it is entirely likely that the topsoil stripping associated with the proposed scheme will uncover new sites that previous ploughing activity has helped to remove from view. An aerial survey was carried out with the objective of discovering such sites and features before the main construction phase commenced, and this identified five of the sites in the EIS.

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

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

The origins of Neolithic activity in Ireland are disputed. Pollen records reveal forest clearances occurring before our earliest dated Neolithic sites or monuments, however this may be a reflection of some modern dating methods being too crude to

discriminate between early and late Neolithic settlement rather than an indication of the true chronology (Mitchell & Ryan 1997). A debate ensues over whether the culture evident in Ireland during the Neolithic was a product of a migrating people into Ireland or an indigenous development from Mesolithic populations.

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

The vast majority of the archaeological evidence for this period is to be found at the 4-5m (25ft) contour, which reflects the coastline during the maximum post-glacial marine transgression, and it has been suggested that this settlement location would have facilitated the exploitation of the higher ground for farming and the lower ground for summer grazing (Gosling 1993, 242). There is a concentration of Megalithic tombs in the Flurry Valley to the northeast of the site at Carn More 1 (with the nearest example located at Faughart Lower (LH004-062), c. 0.2 km to the northeast) and scattered throughout the Cooley peninsula. Archaeological discoveries elsewhere on the DWB scheme revealed Late Bronze Age/Early Neolithic settlement activity at Site 115, Newtownbalregan 5 (Bayley, D. forthcoming (c)), located c. 3km southwest of Site 124 and the truncated remains of a Late Neolithic/Early Bronze Age House identified at Site 101, Littlemill 1 (Ó Donnachada, B. forthcoming (d)), located c. 5.7km to the southwest of the site. A collection of pits dating to the Late Neolithic/Early Bronze Age were identified at Site 103, Littlemill 4 & 5 (Ó Donnachada, B. forthcoming (c)), c. 5.4km south of Site 124 (Carn More 1). A Middle Neolithic to Late Neolithic/Early Bronze Age Beaker settlement was also identified at Site 108, Donaghmore 1 (Ó Donnachada, B. (e)) which was located c. 4.3km south of Site 124.

From the relatively scant prehistoric archaeological evidence, there are indications that the area was not densely settled until the beginning of the Bronze Age (2400 BC). The vast majority of the archaeological evidence for this period is to be found at the 4-5m (25ft) contour, which reflects the coastline during the maximum post-glacial marine transgression, and it has been suggested that this settlement location would have facilitated the exploitation of the higher ground for farming and the lower ground for summer grazing (Gosling 1993, 242). Bronze Age activity is distributed fairly evenly across the study area. These are indicated in the antiquarian drawings of Wright at the Castletown/Kilcurry confluence.

Bronze Age discoveries along the DWB consisted of an early Bronze Age Beaker (2500-2200BC) settlement at Site 112, Newtownbalregan 2 (Bayley, D. forthcoming (e)), located c. 3.2km southwest of the site. A number of Bronze Age ring-barrows, a cist and a cairn were excavated at Site 127, Carn More 5 (Bayley, D. forthcoming (g)), located c. 3km northeast of Site 124. A total of 3 Bronze Age burnt mounds/*fulachta fiadh* were excavated along the route of the DWB at Site 113, Newtownbalregan 5 (Bayley, D. forthcoming (c)) and at Site 128, Faughart 1, 2 & 3 (Delaney, S. forthcoming (a)).

There is a marked lack of known Iron Age (500BC-AD400) activity within the surrounding area. The ring barrow identified at Site 131, Donaghmore 7 (Ó Donnachada, B. forthcoming (g)) has been dated to the Iron Age. The site consists of a small ring barrow and a single piece of unworked flint was found in the barrow with



remains of three charred wooden planks found within the barrow ditch. The dates returned confirmed that the ring barrow belongs to the Iron Age period, specifically the mid-Iron Age based on Cal 170BC-130BC. A late Iron Age date was returned from a dumb bell shaped cereal drying kiln at Balriggeran and from the drip gully of a round house at the Fort Hill site.

## 2.2 Early Medieval Period (AD400-1169)

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

Site 114 at Newtownbalregan 6 (Bayley, D. forthcoming (d)) consisted of a ringfort and souterrain. The ringfort or rath is considered to be the most common indicator of settlement during the early medieval Period (c. 400AD – c. 1100 AD). The most recent study of the ringfort (Stout 2000) has suggested that there are a total of 45,119 potential ringforts or enclosure sites throughout Ireland. They are typically enclosed by an earthen bank and exterior ditch, and range from 25m to 50m in diameter. The smaller sized and single banked type (univallate) were more likely to be home to the lower ranks of society while larger examples with more than one bank (bivallate/trivallate) housed the more powerful families. At Site 124, Carn More 1, Area 1, a ringfort identified in the RMP as LH004-067 was excavated in advance of the motorway's construction, with the RMP originally listing the monument as a circular enclosure.

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

The historical sources for the early medieval period indicate that the main population group in north Louth was the *Conaille Muirtheimne*. They controlled the areas of *Cuailgne* (Cooley) and *Mag Muirtheimne* (Plain of Muirtheimne)-corresponding to the area south of Dundalk, roughly equating with the modern baronies of Lower and Upper Dundalk. It has been suggested (Gosling 1993, 46) that the ancient boundaries of this kingdom may coincide with the dense concentration of souterrains in north Louth. Though nominally a branch of the *Ulaid*, who had their capital at *Eamain Mhaca* or Navan Fort, Co. Armagh, the *Conaille Muirtheimne* appear to have been subject to the kingdom of *Brega* at the time of its greatest political cohesion, during the first half of the 7<sup>th</sup> century A.D. Their earliest appearance in the annals is in 688 A.D. as allies of the Knowth branch of the *Síl nÁeda Sláine* at the battle of *Imblech Pich* (Emlagh, Co. Meath), which was a key event in the political

fragmentation of the *Síl nÁeda Sláine* dynasty. They were subsumed by the *Airgialla* in the early 12<sup>th</sup> century.

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

### 2.3 Medieval Period (AD1169-1700)

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

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

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

At this time however the new town of Dundalk, which lies c. 2km to the east of the motte, developed as the major urban centre. This was due to its market centre and port in addition to its more strategic siting on the major routeway linking Dublin with Ulster. It is probable that another factor influencing the move of the de Verdon was

the nature of the topography of the general area. The unsatisfactory nature of the river at the Castletown location must have made it inaccessible to shipping even in the late 12<sup>th</sup> century. The new town also had the advantage of considerable natural defences. The site of the new town, which was to grow into the modern town of Dundalk, was thus better situated than Castletown from a commercial and a defensive perspective. As Dundalk developed and became the focus for Anglo-Norman settlement in the area, Castletown fell into decline and Dundalk became the economic heart of the Lordship. The precise date of the foundation of the “*newtown*” was established is unclear. However by the late 13<sup>th</sup> century surviving property deeds make the distinction between the late 12<sup>th</sup> century settlement at Castletown and the Newtown or ‘*nove ville de Dundalc*’.

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

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

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

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

### **Site Specific**

The site is not marked on the 1835 OS Survey and was discovered as a cropmark during aerial photography in the 1950s (CUCAP, BDH 3, 4). The Louth Archaeological Survey lists the site as 729: Enclosure, 730: Enclosure (underlying circular or subsidiary/annex), 880: Possible Field System. The photograph is illustrated as Louth Archaeological Survey, Plate 90. The RMP lists the site as LH004, 067 – Enclosure Site. An Aerial survey undertaken for the M1 Dundalk Western Bypass EIS in 2000 (Keeley 2000) showed no sign of the cropmark.

The site was subject to detailed magnetometer survey in 2001 (GSB, 2002), but this also failed to locate the site. Testing results by IAC were limited due to the survey being curtailed by withdrawal of access by the landowner. However, the test trenches that were opened identified a stone lined feature (the souterrain in Area 1) and a number of possible, shallow pits (the Activity Area in Area 2).

## **2.5 Archaeological Typology Background (Raths/Ringforts)**

This section was prepared by Jonathan Kinsella.

Raths or ringforts were enclosed farmsteads dating to the early medieval period. The majority were univallate, surrounded by one ditch and bank, but some were surrounded by two and, to a lesser extent, three enclosing ditches and banks and were known as bivallate and trivallate raths respectively (for example Garranes, Co.

Cork, Ó Ríordáin 1942). Another morphological variation consisted of the platform or raised rath – the former resulting from the construction of the rath on a naturally raised area (for example Big Glebe, Co. Derry, Lynn 1988) while the latter's height resulted from prolonged occupation over many centuries (for example Rathmullan, Co. Down, Lynn 1981/82). Most raths were circular or oval in shape but they also occurred as D-, pear- and sub-rectangular-shaped enclosures (Kinsella 2007).

Many raths were situated on valley sides and on the brow of drumlins whilst avoiding low-lying terrain and the uplands (Stout 1991, 206; 1997, 106–7). Various local and regional studies have shown that the majority of raths occur between 30m and 200m OD and are rarely found above or below these altitudes. In Skibbereen, Co. Cork, 80% of surviving raths are located below 120m and are most densely distributed between 60m and 120m (Fahy 1969). In the Lisleagh area of Co. Cork and Munster generally, raths are sited in elevated positions between 60m and 120m (Monk 1998, 40). Their builders avoided areas below 30m in the Dingle area, building them between 30m and 60m OD and in south Donegal most were built between 60m and 90m OD (Barrett and Graham 1975, 38–9). The most recent study of rath locations in northwest Ulster has revealed similar findings (Kerr 2007).

While raths, for the most part, were located to avoid the extreme low and uplands, they also indicate that there was a preference for areas with the most productive soils (Stout 1997, 107). Evidence from the above local and regional studies further supports this view as raths generally were not built on unproductive highland and peaty lowland soils (Barrett and Graham 1975, 39; Fahy 1969; Kerr 2007, 76–9). Stout (1997, 107) argues that raths were deliberately located to avail of soils best suited to pasture while Kerr (2007) has developed this idea to suggest that platform and raised raths were positioned in areas more suited to tillage unlike typical univallate raths.

The dating of raths has been a cause of contention (see Limbert 1996 for his argument that they have their origins in the Iron Age) but Stout (1997, 24) has shown that the majority were occupied from the beginning of the seventh until the end of the ninth centuries, covering a 300-year period. Kerr's (2007, 99) recent research has revealed that raised and platform raths are slightly later in date and were constructed between approximately the mid-eighth and mid-tenth centuries AD.

Raths were essentially early medieval enclosed farmsteads. The majority were simple univallate enclosures, surrounded by a bank and ditch, which enclosed a number of domestic and agricultural structures. Excavations (for general overviews see Comber 2008; Edwards 1990, 6–33; Mallory and McNeill 1991, 181–248; Mytum 1992; Proudfoot 1961, 94–122; Stout 1997) and historical research (Kelly 1997) has revealed houses, out-buildings and artefacts that typically illustrated a range of activities associated with self-sufficient farmers, their families and retainers. A smaller number of raths were high-status sites and were archaeologically differentiated from the majority by an increased quantity and quality of artefacts, noticeably items of adornment, evidence for non-ferrous metalworking and, in some cases, by their larger size and scale of defences (Kinsella 2007). Recent excavations, in advance of major developments, is challenging accepted traditional discourse on the function and role of raths throughout the early medieval period and it is now becoming evident that they were constructed in a variety of shapes and sizes, were situated in many differing landscape settings and they were occupied by a range of people from the lowest to the highest social grades (Kinsella 2007; 2008, 98–103).

### 3 THE EXCAVATION

#### 3.1 Introduction

The excavation at Site 124, Carn More 1 was undertaken as part of the archaeological mitigation for the M1 Dundalk Western Bypass in the townland of Carn More (Figures 1 and 2). Excavations began on Thursday 12 June and were completed 27 August 2003. The site comprised two areas;

- Area 1 (focussing on Ch24.500) was an early medieval univallate ringfort with an internal stone built souterrain (unroofed and backfilled).
- Area 2 (focussing on Ch24.420) was a concentration of prehistoric activity including huts, a number of probable cooking pits and a cremation burial.

#### 3.2 Geology, Topography and Landscape

##### *Geology and topography*

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

The main focus of the site (Area 1, ringfort and souterrain) was situated on well drained ground made up of glacially mixed gravels and is located approximately 28m OD. The western Area 2 was in a sheltered 'hollow' at 24m OD (Figure 3).

The site was within view of a number of early medieval sites including Site 121, Balriggeran 1, 700m to the west (Delaney, 02E01325) and was overlooked from the north by the South Armagh and Cooley mountains. From Site 124, Carn More 1 it was possible to view the sea to the northeast and the wide, low lying valley area at the base of the Armagh and Cooley mountains. Topsoil over the site generally varied from 200mm-400mm. The topsoil across the site overlay boulder clay.

##### *Landscape*

The ringfort at Site 124, Carn More 1 occupied the northern high point of a glacial ridge. The site was well positioned and was intervisible from the high ground at Faughart Hill and from vantage points all around in the undulating landscape.

The prehistoric activity area, Area 2, was located in a low, sheltered saddle, near to a possible ancient pool (c. 30m to the south of the Lands Made Available). The area of settlement activity had good views to the northeast.

The area to the northwest of Site 124, Carn More 1 comprised a concentration of RMP monuments to the west of Faughart Hill and Faughart Hill itself (LH004: 018 – 027, 061 – 065, 97, 109, 111, 112, 119). These monuments appear to coincide with the location of the ancient 'Gap of the North' road.

#### 3.3 Dates and Methodology

The excavation took place between 16<sup>th</sup> June 2003 and 27 August 2003.

The topsoil was removed using a machine with a flat edged bucket across the entire area and then the areas of potential were cleaned down using shovels with any potential archaeology excavated by hand. All archaeological material was fully recorded and then excavated by hand until natural geological layers were reached. All contexts are described in Appendix 1.

The environmental sample policy was to recover soil samples from individual features where it was felt there was some potential for revealing environmental information and from a selection of features on the site to see if there was any overall environmental information.

Once off site the soil samples were scanned for potential for environmental remains. In combination with checked stratigraphic and artefact information, individual samples were then selected, based on those with the most potential for adding to site knowledge. These samples were processed with the residues sorted and assessed by material. Based on the results of these assessments;

- Some or all of the sample residues were selected for analysis
- Further processing was undertaken to expand the information recovered
- No samples were sent for analysis.

Analysis of the processed samples from Carn More 1 are included as the various Specialist reports in Appendix 2 of this report.

### 3.4 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.

The author has allocated Subgroup numbers based on the selection of one of the context numbers contained within that Subgroup, usually a cut number. For example;

- Subgroup {x} consists of Cut [x] and fills (y) and (z)
- Subgroup {a} consists of Cut [a] and fill (b), Cut [c] and fill (d), Cut [e] and fill (f). Cuts [a], [c], and [e] have been shown to be related and can therefore be placed in one collective Subgroup.

#### 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

### 4.1 Group 1: Natural Geology

#### 4.1.1 Subgroup {2}: Natural Subsoil

##### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
2					Firm yellow-grey sandy clay freq mixed	Natural subsoil

##### Finds:

None

##### Interpretation:

The natural subsoil {2} was uniform in compaction and consistency across the extent of the site. There were also occasional areas of protruding bedrock, most notably along the western edge of the ditch [C5].

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

The main focus of the site (Area 1, ringfort and souterrain) was situated on well drained ground made up of glacially mixed gravels and is located approximately 28m OD. The western Area 2 was in a sheltered 'hollow' at 24m OD.

The site was within view of a number of early medieval sites including Site 121, Balrigan 1, 700m to the west (Delaney, 02E01325) and was overlooked from the north by the south Armagh and Cooley mountains. From Site 124, Carn More 1 it was possible to view the sea to the northeast and the wide, low lying valley area at the base of the Armagh and Cooley mountains. Topsoil over the site generally varied from 200mm-400mm. The topsoil across the site overlay boulder clay.

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The area to the northwest of Site 124, Carn More 1 comprised a concentration of RMP monuments to the west of Faughart Hill and Faughart Hill itself (LH004: 018 – 027, 061 – 065, 97, 109, 111, 112, 119). These monuments appeared to coincide with the location of the ancient 'Gap of the North' road.



## 4.2 Group 2: Dated and Associated Prehistoric Activity

### 4.2.1 Subgroup {153}: Pit

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
153		1.42	0.80	0.54	Sloped sides, irregular base, bowl shaped	Sub oval pit
245	153				Ch and burnt black pottery in top of fill	Deliberate backfill

#### Finds:

Context	Find Number	Material	Period	Description
245	1 – 5	Ceramic	Bronze Age	Pottery

#### Interpretation:

Pit [153] (Figure 6 and 7), was filled with (245), a deliberate deposit of waste material probably a refuse tip or pit oven (though no evidence for *in-situ* burning was recovered). Prehistoric pottery was recovered from this fill, which indicates a probable association with the activity around huts {154} and {270}. It was located just south of possible hut {154}.

The pottery is simple in form and stylistically has been dated to the late Bronze Age pottery (Grogan and Roche; Appendix 2.8).

### 4.2.2 Subgroup {154}: Hut

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
154		3.60	3.15	0.52	Oval, grad sides uneven base	Hut pit
253	154				Loose dk brown grey silty clay freq ch	Deliberate backfill
301		0.34	0.33	0.10	Gentle sides tapered blunt base	Sub circular posthole
302		0.34	0.30	0.26	Vertical sides tapered blunt base.	Sub circular posthole
303		0.22	0.16	0.20	Steep sides concave base	Sub circular posthole
304		0.15	0.14	0.12	Grad sides tapered round point	Sub circular stakehole
307		0.22	0.16	0.12	Vertical sides flat base	Sub circular posthole
315	301				Loose mid brown grey silty sand, occ s	Deliberate backfill
316	302				Loose brown grey silty clay, occ s, mod ch.	Deliberate backfill
317	303				Loose brown grey silty clay, occ s, occ ch.	Deliberate backfill
318	307				Loose lt brown grey silty clay, occ s ang, freq ch.	Deliberate backfill
319	304				Loose lt brown grey silty clay, occ s ang, occ ch.	Deliberate backfill

#### Finds:

Context	Find Number	Material	Period	Description
253	1	Lithic	Bronze Age	Flint scraper
253	2	Lithic	Bronze Age	Bipolar flake
253	3 – 5	Ceramic	Bronze Age	Pottery
253	6	Lithic	Bronze Age	Lignite bracelet
253	7 – 13	Ceramic	Bronze Age	Pottery
253	14	Lithic	Prehistoric	Platform core
253	15	Lithic		Flint
253	16	Lithic		Stone base plate
253	17	Lithic	Prehistoric	Flint blade
316	1	Ceramic	Bronze Age	Pottery

#### Interpretation:

Subgroup {154} comprised cut [154], an oval depression, deliberately filled with (253) an occupation deposit (Plate 1 and 2). Cut into the base of this depression and sealed by (253) were four stakeholes; [301], in the centre of the base, [302] slightly to the northeast, [303] again to the northeast and [304] southwest of [301]. These stakeholes were each filled with similar material to (253), indicating that the backfilling of all five cuts was simultaneous, and may signify an 'end-of-season' abandonment. [307] was a stakehole on the south-western edge of [154], also filled

with similar material. Finds recovered from the fills of this feature were Bronze Age and mostly associated with domestic/settlement activity.

The Subgroup {154} has been interpreted as a hut or temporary dwelling, with a possible entrance on the south-western side and a possible hearth on the deeper western side of the cut. The internal stakeholes may have helped support the structure, although it is likely that the superstructure was formed on bent rods arched over the hollow and held in place in the topsoil. [C307] may have housed a doorpost or light windbreak. This feature was very likely to be broadly contemporary with similar hut and {270}, and possible hut {139}.

The scraper found in C253 (03E0867:253:1) is steeply retouched on the left lateral ventral edge of a small bipolar flake, which may have been heat-treated prior to modification; the utilised piece (03E0867:253:17) seems to have been a bilateral cutting tool, based on a platform blade which was put to use without modification (Nelis; Appendix 3.4). A large regular flat sided stone was identified with a shallow hollow chipped on to one side which may have been the base plate for a support post (03E0867:253:16). Shale bracelets are found in Ireland from the late prehistoric (particularly Bronze Age) period into the early medieval period. Unfortunately, the fragmentary condition of the Carn More 1 (03E0867:253:6; Figure 15)) example precludes a conclusion on its original morphology, and also its likely chronological context, but a Bronze Age origin for this piece is possible.

The pottery represents one vessel, a large bucket shaped vessel. It is suggested that based on its characteristics that this is a middle to late Bronze Age pot (Grogan and Roche; Appendix 2.8).

The environmental evidence from the hut site has indicated a variety of *taxa*. Ash, prunus, hazel, birch, pine were all identified and it is the specialists opinion that these represent wood that was freely available and locally collected for kindling for the fire. It also suggests that the environment in the locality was quite wooded at the time (O'Carroll Appendix 2.3). One radiocarbon date was returned from the hut feature which returned a middle Bronze Age date of 1460–1260BC (Wk 18566; Appendix 2.1). This date was derived from the charcoal of short lived species, hazel and ash.

#### 4.2.3 Subgroup {270}: Hut

##### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
146		0.51	0.29	0.43	Grad sides concave base	Sub oval pit
256	146				Dk brown clay silt, mod ch, bb	Post burnt <i>in-situ</i>
257		0.33	0.22	0.27	Vertical sides flat-concave base	Circular posthole
258		0.10	0.08	0.08	Straight sided concave base	Stakehole
259		5.50	2.40	0.10	Firm mid yellow brown silty sand, occ bb & ch, s mixed	Floor of possible hut
268		0.80	0.70	0.41	Steep sides pointed base	Sub circ posthole
269	C268				Mid brown sandy clay occ ch, s ang	Deliberate backfill
270		0.60	0.55	0.37	Steep sides pointed base	Sub circ posthole
271	C270				Mid brown sandy clay, occ ch, s ang	Deliberate backfill
273		0.48	0.38	0.42	Steep sides pointed base	Sub circular posthole
277		0.43	0.38	0.31	Steep sided concave base.	Sub circular posthole
278		0.22	0.22	0.09	Gradual sides concave base	Sub circular posthole
282		0.49	0.41	0.68	Vertical sides flat base, n-s.	Sub rectangular pit
283		0.34	0.23	0.16	Vertical sides concave base ne-sw.	Sub oval posthole
285		0.23	0.23	0.19	Vertical sides north side undercut flat base	Circular posthole
286		0.30	0.20	0.17	Vertical sides concave base n-s.	Oval posthole
287		0.20	0.19	0.23	Vertical sides concave base	Circular posthole
288		0.32	0.21	0.14	Slightly concave sides and base. N-S.	Oval posthole
289		0.40	0.24	0.14	Slightly concave sides +base. Sw-Ne.	Sub oval posthole
294	273				Mid yellow brown sandy silty clay, occ ch, mod s,m,l mixed.	Deliberate backfill

299	283				Mid brown silty sand, occ ch, mod s,m sub-ang	Natural silting
305		0.10	0.10	0.32	Gradual sides tapered point	Sub circular stakehole
306		0.18	0.11	0.14	Vertical sides flat base .	Bracer for 283
310	305				Lt yellow brown silty sand, mod s sub-rou	Deliberate backfill
311	282				Lt grey brown silty sand freq s,m,l mixed mod ch. Occ bb.	Natural silting
312		0.32	0.27	0.33	Steep sides flat base	Sub circular posthole
313	312				Lt yellow brown silty sand, mod s,m ang & sub-ang, occ bb.	Deliberate backfill
320		0.78	0.51	0.09	Slightly concave sides & base E-W.	Sub oval pit
321	320				Yellow brown clay sand mod small ang stone.	Natural silting
322	277				Mid brown silty clay, mod s ang	Packing fill
323		0.32	0.22	0.20	Steep sides concave base, sw-ne.	Oval posthole
324	323				Lt yellow brown silty sand, occ ch, occ s,m ang & sub-ang.	Deliberate backfill
325	282				Lt red brown sand, mod s mixed, occ ch.	Natural silting
327		0.28	0.27	0.17	Vertical sides concave base	Circular posthole
326	278				Lt brown clay silt, occ ch, occ s mixed.	Natural silting
334		0.29	0.24	0.23	Steep-vertical sides flat base, sw-ne	Oval posthole
335	285				Mid-dk yellow brown sandy silt, mod ch, occ m ang & sub-ang.	Natural silting
336	286				Mid yellow brown sandy silt, occ ch, mod s,m ang	Natural silting
339	287				Lt brown silty clay, occ s ang	Deliberate backfill
340	288				Lt brown clay silt, occ s ang, one l flat	Packing fill
341	289				Mid brown silty clay occ s ang mixed, two l flat	Packing fill
342	334				Mid yellow brown firm sandy silt mod ch, l sub ang	Natural silting
344	327				Mid brown silty sand, occ s,m ang & sub-ang, mod ch.	Deliberate backfill
350		0.43	0.32	0.38	Steep sides concave base	Sub circ posthole
351	350				Loose dk grey brown silty clay occ ch, s mixed	Deliberate backfill

### Finds:

Context	Find Number	Material	Period	Description
259	1 – 2	Ceramic	Bronze Age	Pottery sherd
259	3	Lithic		Struck Flint
259	4	Lithic	Prehistoric	Polished stone axe
259	5	Lithic		Water rolled stone, unworked
259	6	Lithic		Angular shatter
259	7 – 9	Ceramic	Bronze Age	Pottery sherd
259	10	Lithic	Bronze Age	Bipolar flake
259	11	Lithic		Flint nodule
313	1 – 2	Lithic	Prehistoric	Bipolar flake
313	3 – 4	Lithic		Angular shatter
335	1	Ceramic	Bronze Age	Pottery sherd
336	1	Ceramic	Bronze Age	Pottery sherd

### Interpretation:

The subgroup {270} comprised a compact spread of material (C259) which sealed seven postholes, [C268], [C270], [C273], [C305], [C312], [C323], [C327], and was adjacent to several more (Figure 6; Plate 4). The group of seven postholes were all deliberately backfilled in order to level the ground surface. It is likely that these postholes represent fragments of the superstructure of a temporary hut, similar to hut {154} and possible hut {139}. Flint fragments recovered from (C313), the fill of [C312], were undiagnostic, but (C259) yielded a number of finds which gave a prehistoric date for the deposition of the spread. As well as pottery and flint debitage, a polished stone axe/adze was recovered.

The postholes bordering (C259) were in two groups, those on the eastern edge, and those on the western. The postholes to the east appeared to form two parallel lines, possibly representing an entrance or a porch into the structure of which (C259) was

the base. Postholes [C288] and [C289], both contained remnants of packing, (C340) and (C341) respectively, form the northern edge of this entrance, and a roughly parallel line 1m south consisted of [C285], [C286], [C287], [C334], and [C350]. Of these, [C287] and [C350] both contained remnants of packing, (C339) and (C351) respectively. Pottery sherds recovered from the fills of [C285] and [C286], (C335) and (C336) respectively, provided a prehistoric date for their silting.

The postholes to the west were in not arranged in any discernible pattern and may represent several different phases of occupation. However, [C146], [C257] and [C258] were all filled with (C256), which may be the remnants of the *in-situ* burning of posts. The charcoal content of the fill and fire-reddening around the edges of the cuts suggest this, and indicate that the three cuts may be contemporary. A small amount of burnt bone was also recovered from the fill of these postholes. [C146] may be the footing for a large post, supported by two smaller ones in [C257] and [C258]. Of the remaining features in {259}, [C283] and [C306] had both naturally silted up with (C299), and may represent another large post with a bracer. [C277] and [C278] were both postholes, the former containing remnants of packing, (C322); the latter had naturally silted up with (C326). (C322) was cut by [C320]; a pit naturally silted up with (C321) and contained nothing to indicate a possible function or date.

Pit [C282] had naturally silted up as a result of collapse from the sides which was deposited on the base (C325), and washed-in occupation debris (C311). The latter may have been associated with activity associated with {270} but nothing was recovered from the fill to confirm this.

This was the remains of a temporary shelter and was probably associated with the truncated remains of similar structures {154} and possible hut {139}. The pottery has been identified as mid to late Bronze Age bucket shaped pottery (Grogan and Roche; Appendix 2.8). A small porcellanite adze head (03E0867:259:4; Figure 15) was also recovered from the site from the same deliberate backfill (Leon; Appendix 2.5).

The environmental evidence from the hut site has indicated a variety of *taxa*. The range of species identified from the Carn More 1 excavations includes large (ash, oak, pine), smaller (alder, birch) trees and some scrub (blackthorn, cherry and hazel). It suggests that the environment in the locality was quite wooded at the time (O'Carroll Appendix 2.3). The surprising and most interesting result from the analysis at Carn More 1 was the amount of pine identified from the posthole features. Pine is not generally identified in such large quantities, if at all, from prehistoric sites. The charcoal material identified above probably represents kindle/firewood collected for use during the last phase of occupation at the site.

One radiocarbon date was returned from the hut feature which returned a Neolithic date of 2870–2500BC (Wk 18567; Appendix 2.1). This date was derived from the charcoal of ash (*fraxinus excelsior*). This date is not reliable as the finds from this hut appear to indicate contemporaneity with the adjacent hut {154}, which has returned a middle Bronze Age date.

#### 4.2.4 Subgroup {159}: Pit

##### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
159		2.20	1.70	0.25	Grad sides uneven base	Sub circular pit
232	159				Mid yellow brown sandy clay, occ ch, mod s,m mixed	Natural silting

**Finds:**

None

**Interpretation:**

The pit [C159] silted up naturally (Figure 6; Plate 6). Inclusions of washed-in charcoal suggested a possible association with the activity at {154}, although no finds were recovered from (C232) to indicate contemporaneity.

**4.2.5 Subgroup: {152} Pit****Contexts:**

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
152		1.07	0.82	0.30	Grad sides irreg base, n-s.	Sub oval pit
263	152				Mid red-brown silty sand occ ch, occ s mixed.	Natural silting
264	152				Mid red-brown fine sand occ ch, occ s mixed.	Lens of fill in 263

**Finds:**

None

**Interpretation:**

Truncated pit [152] had naturally silted (Plate 3). No finds were recovered to indicate either a function or a date.

**4.2.6 Subgroup {139}: Possible Hut****Contexts:**

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
139		1.13	0.68	0.11	Grad sides concave base, east to west orientated	Sub oval pit
218		0.36	0.28	0.11	Grad sides concave base, north to south orientated	Posthole
219		0.47	0.31	0.16	Grad sides concave base, e-w	Posthole
220		0.41	0.34	0.16	Grad sides pointed base, e-w.	Posthole
226	220				Lt brown silty clay, s,m mixed, occ ch.	Natural silting
223	219				Lt brown silty clay, mod s,m mixed.	Packing fill & silting
233		1.83	1.30	0.16	Grad sides concave base 1.83x1.3wx.16d E-W.	Oval pit
237	C139				Mid brown silty clay mod s,m mixed.	Natural silting
238	C218				Lt grey brown clay silt mod s sub-rou	Natural silting
239	C233				Yellow brown clay silt occ s mixed.	Natural silting
244	C233				Dk brown silty clay, occ s rou	Natural silting

**Finds:**

None

**Interpretation:**

Subgroup {139} consisted of two pits [C233] and [C139], and postholes [C218], [219] and [220] (Figure 6; Plate 5). All five features had silted up naturally. It is possible that [C233] represented the base of a shallow hut floor similar to the less truncated huts {154} and {270} to the south. Posthole [C218] may have housed a central supporting post for the roof of such a structure. Although no finds were recovered from {139}, both {154} and {270} produced prehistoric artefacts including small sherds of prehistoric pottery and a polished stone adze head.

Posthole [219] was filled with a mixture of natural silting and the remnants of the original post-packing (223). No finds were recovered from this feature to indicate a date. Posthole [220] silted naturally. No finds were recovered from this feature to indicate a date.

#### 4.2.7 Subgroup: {182} Pit

##### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
182		0.44	0.34	0.38	Steep sides concave base nw-se.	Sub oval pit
260	182				Firm brown soil mod s,m ang.	Natural silting

##### Interpretation:

Pit [182] had silted naturally. No finds were recovered to indicate either a date or a function for this feature.

#### 4.2.8 Subgroup {235}: Pit Burial

##### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
186	235				Loose v.dk brown ch rich silt v.freq cremated bone.	Burial deposit
187		0.30	0.30	0.30	Steep sides concave base	Circular pit
235		0.82	0.61	0.31	Steep-grad sides flat base. Nw-Se.	Deliberate backfill
236	235				Mix of (2) and (186)	Bioturbational mixing.
240	187				Firm dk grey brown silty clay, mod ch occ bb, s mixed.	Deliberate backfill

##### Finds:

None

##### Interpretation:

The pit [C187] was deliberately filled with (C240), a deposit rich in charcoal and occasional flecks of burnt bone. This feature by location is associated with cremation pit {235}. It may represent a token deposit possibly of pyre material associated with the cremation.

The pit [C235] was filled with the deposit (C236) which was a mix of the natural subsoil (C2) and the top fill (C186) probably disturbed material mix from when the pit was first dug (Figure 5; Plates 8 and 9). The top fill (C186) was extremely rich in charcoal and burnt bone. The large deposit of cremated bone was human and indicates that {235} represents the remains of a pit burial.

The total weight of the bone was 1,557.5g and only 12.9% (200.5g) could be identified. The only identifiable fragments were all determined to be human and they included skull and teeth fragments along with vertebrae, costae, humerus, radius, ulna, tibia, fibula, patella, tarsal and phalanges fragments (Lofqvist; Appendix 2.7). In modern crematoria, the burning of a male would yield on average 2,004g of burnt bone while a female corps would yield 1,540g. The bone assemblage from {235} was most likely from one single individual as no duplicate bones were retrieved and as the weight of the cremation was so low.

All the cremated bone had a chalky white and fragmented appearance. This indicates a high heat of the funeral pyre, that all the bones or a selection of bones were either disturbed or removed from the pyre while still warm and brittle, causing further breakage to the bone, before being deposited in the ground.

Although slightly removed from the occupation area it is suggested that the burial was probably associated with the activity at {139}, {154} and {270}. Curiously a formal Bronze Age flat cemetery was excavated (Carn More 5; Bayley, D. forthcoming (g)) on the same scheme approximately 500m to the east.

### 4.3 Group 3: Probable Prehistoric Activity

#### 4.3.1 Subgroup {175}: Truncated Posthole

##### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
175		0.42	0.42	0.12	Steep sides concave base	Circular posthole
215	175				Mid-dk brown loose burnt clay, freq ch, occ s mixed.	Natural silting

##### Finds:

None

##### Interpretation:

The posthole [C175], silted up naturally. Washed-in debris including charcoal flecks may have been associated with the activity around {270}, {154} and {139}, although no finds were recovered to indicate contemporaneity.

#### 4.3.2 Subgroup {110}: Pit

##### Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
110		0.55	0.55	0.31	Vertical sides flat base	Pit
111		0.68	0.68	0.28	Vertical sides flat base	Pit
113		0.42	0.42	0.22	Vertical sides flat base .42lx.42wx.22d.	Pit
198	113				Grey brown sandy silt, mod ch.	Natural silting
207	111				Black-brown sandy silt freq ch, s sub ang mixed.	Deliberate backfill
208	111				Lt grey-brown sandy silt occ ch, mod s,m,l sub-ang & flat	Natural silting
209	110				Dk black-brown sandy silt, freq s,m,l mixed, occ ch.	Natural silting

##### Finds:

Context	Find Number	Material	Period	Description
198	1	Ceramic	Modern	Creamware
207	1	Lithic		Thermal flake unworked
208	1	Lithic	Bronze Age	Bipolar flake
209	1	Lithic	Bronze Age	Bipolar flake

##### Interpretation:

The pit [110] naturally silted up with (209) (Figure 5; Plate 7). One piece of flint was recovered, but it was not of sufficient quality to be diagnostic. Three small fragments of burnt bone were also recovered from the fill of the pit. The similarity in shape and dimensions between this feature and [111] and [113] (located beside it), may indicate an association.

The pit [C111] had silted naturally up with (C208), and then filled with (C207) (Figure 5; Plate 7). The depth of silting in the base of the cut indicates that it was left open for a time after digging, before the deposition of a charcoal-rich deposit containing burnt bone. Although the area was not heat affected it may be the remnant of a cooking pit. Alternatively it may simply be a refuse pit. The flint recovered from (C207) was undiagnostic. The similarity in shape and dimensions between this feature and pits [110] and [113] (located beside it), may indicate an association.

The pit [C113] had silted up naturally. This feature was of a similar shape and had dimensions to the pits [110] and [111], which may indicate an association. A single sherd of post-medieval pottery was recovered, but this may be intrusive as it was found in the upper part of (C198).

### 4.3.3 Subgroup {348}: Posthole

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
347	348				Loose lt yellow brown silty clay occ s stones, ch.	Natural accumulation
348		0.33	0.28	0.22	Gentle sides concave base, e-w.	Sub oval posthole

#### Finds:

None

#### Interpretation:

The posthole [C348] silted up naturally. Nothing was recovered from the fill to indicate a possible date, although it may be associated with {270}.

### 4.3.4 Subgroup {149}: Pit

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
149		0.85	0.52	0.20	Steep sides uneven base e-w.	Sub oval pit
252	149				Lt-mid brown silty clay, mod l mixed.	Natural silting

#### Finds:

None

#### Interpretation:

Possible pit [149] naturally silted. No finds were recovered to indicate either a function or a date, may be a stone socket.

### 4.3.5 Subgroup: {290} Pit

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
290		0.70	0.60	0.20	Vertical sides flat base, ne-sw	Sub circular pit
296	290				Mid-lt brown sandy clay, freq s sub ang	Natural silting

#### Finds:

Context	Find Number	Material	Period	Description
296	1	Ceramic	Modern	Cream ware
296	2 – 3	Ceramic	Early medieval	Souterrain ware

#### Interpretation:

Pit [290], naturally silted with (296). Post-medieval material was recovered from the fill but may be intrusive. It is likely that due to its location to the prehistoric activity that the pottery identified as souterrain ware is actually Bronze Age bucket shaped pottery.



## 4.4 Group 4: Undated Field Clearance

### 4.4.1 Subgroup {80}: Pit

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
80		1.65	1.50	0.90	Vertical sides flat base e-w.	Truncated pit
81	81				Mid brown silty clay freq l ang	Deliberate deposition

#### Finds:

None

#### Interpretation:

The pit [C80] silted up naturally with (C81). This feature contained a large boulder (0.8 x 0.7 x 0.7m), and was cut by the ditch {5} (Figure 9). Along with {82}, {80} may represent field clearance prior to or during the early medieval period.

### 4.4.2 Subgroup {82}: Pit

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
82		1.26	1.22	0.38	Grad sides concave base	Truncated circular pit
83	82				Dk brown yellow gravely silty sand, freq m, mixed	Deliberate backfill

#### Finds:

None

#### Interpretation:

The pit [C82] naturally silted up with (C83). This fill contained a number of large stones, and was cut by ditch {5} (Figure 9). Along with {80}, {82} may represent field clearance prior to or during the early medieval period.

### 4.4.3 Subgroup {204}: Land Drain

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
204		25	1.10	0.55	Vertical sides flat-concave base s-n.	Linear cut
205	C204				Firm, mid brown sandy clay, freq s,m ang	Natural silting
206	C204				Firm, yellow brown sandy clay, freq s ang	Natural silting

#### Finds:

Context	Find Number	Material	Period	Description
204	1	Ceramic	Modern	Cream ware
206	1	Lithic	Prehistoric	Struck flint

#### Interpretation:

The feature [C204] consisted of a long land drain feature running downslope (Figure 9). The drain was filled with two episodes of natural silting. These were comprised of material washed down the slope to the south of this feature. One flint item was recovered from fill (206) but was not diagnostic. Stratigraphically [C204] preceded {5} and {16}, both early medieval features. This may indicate that the land drain is associated with the early field clearance works represented by [C80] and [C82] prior to or during the early medieval period.

## 4.5 Group 5: Early Medieval Enclosure Ditch

### 4.5.1 Subgroup {5}: Enclosure Ditch

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
5		51	3	1.25	U shape profile, steep sides, flat to concave base	Enclosure ditch
7	5				Soft dk grey sandy silt, freq ch, occ s sub ang	Natural silting
8	5				Firm lt yellow-brown silty sand, freq s,m,l mixed, occ ch	Natural silting
19	5				Mid yellow-brown sandy clay, mod ang & sub-ang, occ ch	Natural silting
20	5				Dk brown firm sandy silt, mod s ang & sub-ang, occ ch	Natural silting
31	5				Loose dk brown peaty clay occ mixed, freq ch.	Natural silting

#### Finds:

Context	Find Number	Material	Period	Description
7	1 – 3	Ceramic	Early medieval	Souterrain Ware (same pot)
8	1 – 155	Ceramic	Early medieval	Souterrain Ware
8	156	Lithic		Large flint core
8	157	Lithic		Unworked lump of flint
8	158	Lithic		Unworked flake
8	159 – 170	Ceramic	Early medieval	Souterrain Ware fragments
8	171	Lithic		Unworked thermal flake
19	1 – 4	Lithic		Flint flakes
19	5 – 8	Ceramic	Early medieval	Fragments

#### Interpretation:

This group consisted of the enclosing ditch [C5] and its primary fills (Figure 9; Plate 10,12, 18–21). The ringfort defined by the ditch was situated on well drained ground made up of glacially mixed gravels and was located approximately 28m OD with clear views in all directions. The ditch was generally 1.3m deep, U-shaped in profile and circular in plan. Only the 50% of the ditch included within the road take was excavated. The internal diameter was 30m. There was no evidence for bank material associated with the ditch. There was a slight narrowing along its western edge that resulted from the presence of a large natural and unquarried protrusion of bedrock, which forced the ditch-diggers to alter the course of the ditch to avoid it. This may indicate that time was a factor in the construction of the ditch.

The entrance to the enclosure was located on the western edge and was represented by a 'causeway' of unexcavated natural. Due to later agricultural truncation the ditch dimensions varied from 2.7m wide x 1m deep to the west, to 1.3m wide x 0.50m deep to the east. The ditch contained some irregularities in plan as the excavators had avoided very large rocks in the underlying glacial till.

The primary fill comprised of material eroded from the sides of the cut and slumped to the base, (C8). The presence of early medieval coarse ware (souterrain ware) and fragments of both burnt and unburnt animal bone within this layer indicated their deposition occurred soon after the excavation of the enclosure ditch. The ditch was not recut or emptied to the original depth suggesting that this period of use was only short-term. The deposition of probable water-borne sediments (C7) and (C20) sealing (C8), and the presence of early medieval pottery within the former, further indicates that [C5] was allowed to silt up not long after it was dug. A second, more localised collapse of the sides of [C5] resulted in the deposition of (C19) sealing

these sedimentary layers. A small, deliberate deposit of stones (C22) also sealed these layers and represents field clearance of agricultural land around {5}. (C19) was sealed by deliberate dumped material {27}.

In summary:

Ditch [C5] was filled by numerous episodes of deliberate and natural back-filling:

- 1 The basal fill was natural silting (C8) and contained some pottery and bone.
- 2 This was succeeded by a phase of natural silting (C7) followed by (C20).
- 3 The subsequent fill (C19) sealed the silts and was side slump of the ditch. A small deposit of stones (C22) appeared to have been dumped into the open ditch at this stage and probably represented medieval field clearance.
- 4 Subsequent use and interference with the ditch in the 18<sup>th</sup>-19<sup>th</sup> centuries has been defined as separate Subgroup {27}.

A total of three different pots were identified from the three consecutive fills in the ditch, 8, 7 and 19 (Zajac; Appendix 2.9).

## 4.6 Group 6: Early Medieval Souterrain

### 4.6.1 Subgroup {18}: Souterrain

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
12	16				Dk brown organic sandy clay freq ch.	Deliberate backfill
16		20	1.90	1.30	Zigzag rectilinear shape, vertical sides under cut in places, flat base sloping se-nw	Construction cut
17	16				Firm mid yellow-brown sandy clay freq s mixed	Deliberate backfill
18	16				Random coursed with stressed corners, generally fair-face subrect, some sub rounded.	Corbelled walls
23	16				Firm mid grey-brown sandy clay freq m,l mixed, occ ch and ab	Deliberate backfill
26	16				Firm lt-mid brown grey sandy clay freq s,m,l mixed occ ch	Deliberate backfill
44	16				Loose yellow brown gritty sandy clay.	Natural silting
125	16				Firm gritty dk grey brown sandy clay freq s mixed, occ l mixed (collapse)	Deliberate backfill

#### Finds:

Context	Find Number	Material	Period	Description
12	1-5	Ceramic	Early medieval	Souterrain ware fragments
23	3-5	Lithic		Unworked abraded lumps
44	1-3	Lithic		Flint flakes
125	1	Ceramic	Early medieval	Souterrain ware
125	2	Glass	Early medieval	Bead fragment

#### Interpretation:

The main remaining internal feature of the ringfort enclosure was a 'W' shaped souterrain c.19m in length [C18] within construction cut [C16] (Figures 9, 12; 23 and 14; Plates 11, 12 and 13). The 'W' shaped souterrain was laid on an east to west long axis with the entrance on the eastern side. The western end of the souterrain was adjacent to the ditch [C5], immediately north of the enclosure entrance. This end of the souterrain must have been located under (and perhaps rising within) the ringfort bank. The souterrain gallery was approximately 0.90m wide and survived up to 1.30m high. The capstones had been deliberately removed and it had been backfilled (C23). The excavation cut was approximately 20m long and up to 1.90m wide.

The construction method consisted of the placing of large random shaped stones at the base with fieldstones forming the upper courses of the drystone walls [C18]. The wall was constructed with stressed corners, generally fair-face constructed blocks of sub-rectangular to sub-rounded, cobble to boulder size stones. This stone lined passage was generally no more than 1m in width. There was no obvious floor lining within the structure. The surviving walls were up to 1.30m high in places, but dropped to around 0.45m at the south-eastern end where an entrance 'ramp' was located. A second entrance was located at the north-western end of [C18], where earthen steps were cut into the natural geology. Between [C18] and the sides of the cut [C16] a deliberate construction backfill (C17), was deposited.

It is likely that the capstones were initially dislodged as a result of agricultural disturbance and ploughing. This ploughing also truncated sections of the corbelled walls, this was especially evident around the central corner, where a large boulder (1.2 x 1 x 0.65m) had been dumped in a void in the passage, displacing all but the lower two courses.

It is not evident when the souterrain was decapped and backfilled. Only finds of an early medieval date were recovered from the backfill but it is quite likely that they

were intrusive and it is possible that the finds represent material that was dumped in from elsewhere. For the purpose of Interpretation it is better to include the dismantling and backfilling sequence here.

The souterrain was decapped and deliberately back-filled with (C125), which mostly comprised the stones from the upper courses of the walls at the south-eastern end of the souterrain. Finds recovered from this layer are of an early medieval date and are consistent with those from the ditch but are probably intrusive and reflect the disturbance of early medieval material at a later unknown date. The backfill (C125) was sealed by (C23) and (C12) (Plate 17). Both fills consisted of large stones, probably from the upper courses of the souterrain. A human skull and some disarticulated long bones found within (C23) were redeposited from elsewhere possibly from a truncated burial area in the unexcavated 50% of the site, no burials were found on site. These fills were sealed by the naturally deposited (C44). Finally (C26) was deposited in the depression left by the decapped souterrain and probably represents material leached from the topsoil that has collected in the hollow. It is likely that this happened no earlier than the medieval period when the landscape began to be more intensively cultivated.

The human skull recovered from the disturbance deposit in the souterrain appears to be from a female 25-35 (Kidner; Appendix 2.6). A partial glass bead (03E0867:125:2) was recovered from C125, the deliberate backfill of the souterrain (Figure 15). It is made from clear glass with opaque yellow stripes running lengthways through the bead. It is similar to beads from the late Iron Age (Scully Appendix 2.10). The sherds of pottery recovered have been identified as souterrain ware and represent a minimum of at least two vessels (Zajac Appendix 2.9).

## 4.7 Group 7: Early Medieval Activity within the Enclosure

### 4.7.1 Subgroup {9}: Slot Trench

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
9		3.80	1.20	0.47	Linear u shape profile steep sides flat base	Slot trench
10	9				Loose Dk grey brown silty sandy clay freq s,m,l mixed	Natural silting
11	9				Mid yellow-brown sandy clay freq s,m,l mixed, occ ch.	Natural silting
13	9				Mid red-brown clay silt occ ch, freq s,m,l mixed	Deliberate backfilling

#### Finds:

None

#### Interpretation:

Subgroup [C9] was a linear cut filled with three layers of natural silt (Figure 9; Plate 16). Because of its position in relation to both the souterrain {18} and the entrance of the enclosure {5} it is suggested that it may represent the position of a structure associated with one or both of these features. The first fill (C11), comprised slumped material from the sides of the cut. This was then sealed by (C13) which may be packing fill for a possible fence or palisade. This is indicated by a section across the fills of [C9], the face of which revealed a 'slot', naturally filled with (C10).

### 4.7.2 Subgroup {28}: Ditch and Posthole

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
28		7.35	0.90	0.46	Curvilinear u shape profile concave base, nnw-sse	Linear cut
32	28				Soft grey brown silt mod s ang-sub-ang.	Natural silting
45	28				Loose mid brown sandy silt freq mixed s mixed.	Natural silting
48	28				Firm dk brown sandy silt mod s mixed.	Natural silting
49	68				Loose dk brown sandy silt occ s ang	Natural silting
50	53				Dk brown ch rich sandy silt mod s,m,l mixed	Deliberate backfill
52	53				Brown clay silt freq s sub-ang	Natural silting
53		0.38	0.25	0.13	Gradual sides flat base nw-se.	Sub rectangular pit
68		0.49	0.32	0.06	Grad sides flat base, N-S.	Oval posthole

#### Finds:

None

#### Interpretation:

{28} comprised a linear ditch, filled with three layers of natural silt. The latest of these (32) was cut by the small pit {53} containing traces of domestic refuse. Although {28} continued outside the southern limit of excavation, it is possible that it may represent a boundary, defining an area within the confines of {5}.

The possible posthole [68] had naturally silted up with (49) and was cut by [28]. The posthole was located in the base of [28], suggesting a possible relationship. However, nothing was found in the respective fills to provide either confirmation of this association or a date for the features.

A small pit [53] cut [28]. It naturally silted with (52), and was then deliberately filled with (50). The layer of sediment in the base of this cut indicates that it was left open for a time after digging. It was then used to dispose of a small amount of domestic

refuse. No dates were recovered from this feature, although it is stratigraphically later than {28}, which is associated with {5}.

#### 4.7.3 Subgroup: {64} Truncated Postholes

##### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
63	64				Lt brown sand, freq ch, mod s mixed	Natural silting
64		0.22	0.22	0.10	Sharp sides flat base, ne-sw	Circular Posthole
65	66				Lt brown sand mod char, freq s mixed	Natural silting
66		0.29	0.26	0.18	Steep sides flat base, e-w.	Sub circular posthole

##### Finds:

None

##### Interpretation:

These two features were identified on the interior of the enclosure between the souterrain and the possible boundary gully [28]. Both postholes [64] and [66] silted naturally. Nothing was recovered from the fill to suggest a possible date for these features.

#### 4.7.4 Subgroup {42}: Slot Trench

##### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
39	42				Mid grey brown silty clay occ m mixed	Natural silting
42		4.90	1	0.50	Steep sides flat base e-w.	Curvilinear cut
43	42				Loose brown grey silty clay occ s mixed	Natural silting
56	42				Loose grey green silty clay occ s mixed	Natural silting
74	42				Loose dk brown grey sandy silt, freq ch, occ s mixed	Natural silting

##### Finds:

Context	Find Number	Material	Period	Description
39	1	Ceramic	Early medieval	Souterrain ware
39	2-3	Lithic		Unworked
43	1-23	Ceramic	Early medieval	Souterrain ware fragments
56	1-15	Ceramic	Early medieval	Souterrain ware fragments

##### Interpretation

The curvilinear feature [C42] was filled with four episodes of natural silting, with souterrain ware throughout. The earliest of these, (C56), formed when material slipped from the edges of the cut into the base. This layer contained 15 sherds of early medieval pottery. Sealing (C56) was (C74), a sedimentary deposit containing washed-in fragments of charcoal and burnt bone. Above this was (C43), which yielded 23 sherds of early medieval pottery. Similar pottery was found in the latest fill (C39), along with two pieces of undiagnostic flint. The dates recovered from this feature place it in the same period as the enclosure ditch {5}, and the souterrain {18}, and it is possible that {42} is associated with the latter, and perhaps with {9}. Although no definite function can be ascribed to {42}, it could have formed part of the same possible structure suggested by {9}, or it may represent the foundations of a temporary revetment built to prevent slippage of the ditch bank during the construction of {18}.

Although there are tiny fragments of souterrain ware from the three fills only one definite pot is identified from (43) (Zajac; Appendix 2.9).

#### 4.7.5 Subgroup: {54} Postholes

##### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
33	38				Lt brown sandy fill occ ch.	Natural silting
34	40				Grey brown silty sand freq ch, s sub-ang.	Natural silting
36	55				Ch rich silty sand.	Natural silting
38		0.13	0.13	0.20	Circular gradual sides concave base.	Posthole
40		0.40	0.20	0.15	Oval grad sides concave base	Posthole
51	54,61,62				Grey brown sand freq ch, occ s mixed	Natural silting
54		0.38	0.28	0.23	Grad sides, vertical N side concave base.	Oval posthole
55		0.22	0.22	0.12	Steep sides concave base	Circular Posthole
61		0.23	0.19	0.27	Steep sides concave base e-w.	Sub rectangular posthole
62		0.31	0.20	0.15	Steep sides concave base e-w.	Sub rectangular posthole

**Finds:**

Context	Find Number	Material	Period	Description
34	1	Lithic		Flint

**Interpretation:**

The subgroup {54} consisted of six postholes situated in the central to the enclosure, east of the souterrain. The largest of the postholes was [C54], with [C61] and [C62] adjacent and to the south of it. [C54] has been interpreted as the main post with [C61] and [C62] housing possible bracers. The cuts were all naturally filled by [C51] after the removal of the probable posts. No finds were recovered to suggest a possible date.

The posthole [C55] had naturally silted up with (C36). It is possible that this was associated with the postholes above, perhaps forming some form of a screen. However nothing was found in {55} to indicate either a date or a function for the feature.

The heavily truncated postholes [38] and [40] were situated just south of the above cluster and may be related. Although a piece of flint was recovered from a fill, it was not diagnostic.

**4.7.6 Subgroup {91}: Postholes****Contexts:**

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
90	91, 123, 124				Loose lt grey brown silty sand occ ch freq s,m,l mixed.	Natural silting
91		0.47	0.42	0.27	Grad sides concave base, nw-se.	Oval posthole
123		0.34	0.27	0.13	Grad sides concave base, ne-sw	Sub circular posthole
124		0.75	0.30	0.19	Vertical sides flat base, v. truncated.	Truncated circular posthole

**Finds:**

Context	Find Number	Material	Period	Description
90	1 – 4	Ceramic	Early medieval	Souterrain ware fragments

**Interpretation:**

The Subgroup {91} consisted of three intercutting postholes, naturally silted with (C90). The largest cut was [C91], with [C123] and [C124] containing two possible bracer posts. This feature displayed a very similar morphology to {54} and may have served a similar purpose. Early medieval pottery was recovered from the fill (90).



## 4.8 Group 8: Undated Activity – Western end of Site

### 4.8.1 Subgroup: {94} Truncated Posthole

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
94		0.54	0.50	0.13	Grad sides concave base.	Sub circular posthole
200	94				Grey brown sandy silt occ Ch mod s mixed	Natural silting

#### Finds:

None

#### Interpretation:

The stakehole [C94] had naturally silted up. Nothing was recovered from the fill (200) to indicate a date or function.

### 4.8.2 Subgroup {100}: Truncated Posthole

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
100		0.50	0.45	0.16	Grad sides concave base.	Circular posthole
212	100				Mid yellow brown sandy clay, occ ch, s mixed.	Natural silting

#### Finds:

None

#### Interpretation:

The possible posthole [100] had naturally silted up. Nothing was recovered from the fill to indicate a date or function.

### 4.8.3 Subgroup {107}: Truncated Posthole

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
107		1.45	1.07	0.38	Grad sides concave base e-w.	Sub oval pit
242	107				Dk grey brown silt, occ ch, mod s, m mixed.	Natural silting
243	107				Yellow brown silt.	Lens of fill in C242

#### Finds:

None

#### Interpretation:

The possible posthole [C107] had naturally silted up. Nothing was recovered from the fill to indicate a date or function.

### 4.8.4 Subgroup: {151} Pit

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
151		0.75	0.50	0.35	Steep sides uneven base NE-SW.	Sub oval pit
266	151				Dk grey brown layer, freq ch, mod m mixed.	Natural silting
267	151				Lt-mid brown layer, occ ch.	Natural silting

#### Finds:

None

#### Interpretation:

Heavily truncated pit [151] had naturally silted. No finds were recovered to indicate either a date or function.

## 4.9 Group 9: Undated Activity – Eastern end of Site

### 4.9.1 Subgroup: {30} Pit

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
29	30				Mid brown sandy silt mod s ang-sub ang occ ch.	Natural silting
30		1.70	1.60	0.32	Circular gradual sides concave base	Pit
35	30				Dk brown sandy silt freq char occ mixed sub-ang.	Deliberate backfill

#### Finds:

None

#### Interpretation:

Pit [30], filled with the remains of a fire (35), and natural silting (29). There was no evidence for *in-situ* burning around the edges of the cut. The pit was cut by a post medieval gully [24]. No datable artefacts were recovered from the fills of this feature.

### 4.9.2 Subgroup: {60} Hearth

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
58	60				Mid orange brown sandy silt, occ ch, s mixed	Natural silting
59	60				Dk grey brown ch rich sandy silt, bone fragments.	Debris from fire
60		1.45	0.96	0.35	Grad sides flat base, e-w	Possible hearth
67	60				Mid grey brown sandy silt mod ch, s mixed	Natural silting

#### Finds:

None

#### Interpretation:

Pit [60] was filled with fire debris (59), and then naturally silted with (67) and (58) (Figure 9; Plate 15). The edges of the cut showed signs of *in-situ* burning, indicating that (59) was burnt within this probable hearth. No finds were recovered to suggest a date for this feature or function for this feature.

### 4.9.3 Subgroup: {76} Truncated Posthole

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
75	76				Mid brown sandy silt, mod char, mod s mixed, occ l mixed.	Natural silting
76		0.72	0.72	0.30	Grad sides flat base.	Circular Pit

#### Finds:

None

#### Interpretation:

Pit [76], naturally silted. Nothing was recovered from (75) to indicate either a function or a date. The charcoal present in the fill is likely to have washed or blown in from activity elsewhere.

### 4.9.4 Subgroup: {77} Truncated Posthole

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
77		0.30	0.15	0.39	Steep sides concave base, e-w	Oval posthole

78	77				Dk red brown gritty sandy silt mod sub ang.	Natural silting
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**Finds:**

None

**Interpretation:**

Posthole [77] silted naturally. Nothing was recovered from (78) to indicate a date.

**4.9.5 Subgroup: {231} Spread****Contexts:**

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
231					Natural silting	Spread of silt

**Finds:**

Context	Find Number	Material	Period	Description
231	1	Lithic	Prehistoric	Platform flake

**Interpretation:**

This context was a small spread of material washed off the slope to the south, the struck flint was also deposited in this way, and is therefore of limited diagnostic value

**4.9.6 Subgroup: {297} Pit****Contexts:**

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
297		0.60	0.60	0.15	Steep sides, concave split base.	Circular pit
298	297				Grey brown silty sand freq ch, freq s,m, ang	Natural silting

**Finds:**

None

**Interpretation:**

Pit [297], naturally silted with (298). Nothing was recovered from the fill to indicate either a date or a function.

## 4.10 Group 10: Post Medieval Activity

### 4.10.1 Subgroup: {27} Post Medieval filling of the Ditch

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
6	5				Firm Mid-dk brown sandy silt, freq s,m, mixed, occ ch	Natural silting
27	5				Firm Mid-dk brown sandy silt freq s,m, mixed, occ ch	Natural silting
21	5				Dk grey sandy silt organic fill, freq ch, occ s,m ang & sub-ang	Natural silting
22	5				M sub-ang & ang in mid-dk brown sandy silt.	Deliberate backfill

#### Finds:

Context	Find Number	Material	Period	Description
6	1	Ceramic	Early medieval	Souterrain Ware
6	2	Clinker		Clinker
6	3	Ceramic	Early medieval	Souterrain Ware
6	4	Lithic		Unworked flint lump
6	5	Iron		Iron fragment
6	6	Lithic		Unworked thermal flint lump
27	1	Lithic		Flint platform shatter
27	2	Ceramic	Modern	Black glazed ware

#### Interpretation:

The post-medieval layer (27) sealed the earlier layer (19). This fill was a natural silt which was identical to (6) but cannot be stratigraphically linked to it due to modern disturbance. Sealing (22) was (21), another small lens of water-lain sediment, in turn sealed by (6). It is likely that (6) and (27) represented the truncation of [5] and its associated bank by post-medieval and modern farming practices.

### 4.10.2 Subgroup: {14} Machine Cut Furrows

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
14					U shape profile with steep sides and a flat base e-w.	Furrows
15	14				Dk grey-brown sandy silt, mod s,m mixed.	Natural silting

#### Finds:

Context	Find Number	Material	Period	Description
15	1	Lithic		Flint scraper
15	2	Lithic		Unworked lump
15	3	Ceramic	Modern	Pearlware
15	4	Glass	Modern	Glass
15	5	Ceramic	Modern	Cremware
15	6	Ceramic	Modern	Pearlware

#### Interpretation:

Subgroup {14} comprises a number of furrows running roughly north-south, their dimensions suggest that they were machine-cut (Plate 14), and the naturally silted fill (15) contained a number of modern finds.

### 4.10.3 Subgroup: {24} Post Medieval Drainage Ditch

#### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
24		26	1.10	0.30	U shape profile steep sides, concave base nw-se.	Linear cut
25	24				Mid brown loose sandy silt occ ch, l-m mixed freq s mixed.	Natural silting

**Finds:**

None

**Interpretation:**

Subgroup {24} was a linear ditch, naturally silted with (25). This represented efforts to drain the field in the post-medieval period. No finds were recovered from the fill to suggest a date, however {24} is one of the stratigraphically later features on site.

**4.10.4 Subgroup: {41} Stone Socket****Contexts:**

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
37	41				Firm-mid brown grey silty clay freq mixed	Natural silting
41		0.99	0.49	0.38	Sub rect steep sides flat base.	Stone socket

**Finds:**

Context	Find Number	Material	Period	Description
37	1	Ceramic	Modern	Brick fragment
37	2	Ceramic	Modern	Glazed red earthenware (3 discarded)

**Interpretation:**

Stone socket [41] naturally silted. Ploughing dislodged the stone which was once in [41]. All finds recovered from this feature were post-medieval at the earliest.

**4.10.5 Subgroup: {79} Modern Pit****Contexts:**

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
69	79				Dk brown sandy silt fill some s mixed.	Natural silting
79		0.80	0.70	0.30	Steep sides concave base, n-s.	Circular Pit

**Finds:**

Context	Find Number	Material	Period	Description
69	1	Ceramic	Modern	Pearlware

**Interpretation:**

Possible field clearance pit [79] naturally silted with (69). Modern pottery was recovered from this fill.

**4.10.6 Subgroup: {93} Posthole****Contexts:**

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
93		0.78	0.58	0.32	Steep sides concave base, n-s	Sub oval posthole
201	93				Mid yellow brown sandy clay occ ch freq s,m,l ang.	Natural silting

**Finds:**

Context	Find Number	Material	Period	Description
201	1	Ceramic	Prehistoric	Pottery
201	2 – 3	Ceramic	Modern	Pearlware
201	4 – 8	Ceramic	Modern	Modern pottery

**Interpretation:**

Possible posthole [93] naturally silted with (201). Prehistoric and post medieval pottery was recovered from the fill of this feature.

**4.10.7 Subgroup: {96} Posthole****Contexts:**

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
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96		0.42	0.37	0.12	Grad sides concave base	Sub circular posthole
203	96				Orange dk brown silt occ ch mod s mixed.	Natural silting

**Finds:**

Context	Find Number	Material	Period	Description
203	1	Ceramic	Modern	Black glazed ware

**Interpretation:**

Truncated posthole [96] naturally silted. Post-medieval pottery was recovered from the fill.

**4.10.8 Subgroup: {97} Pit****Contexts:**

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
97		1.05	0.80	0.32	Grad sides concave base	Sub circular pit
221	97				Orange brown sandy silt, occ s mixed.	Natural silting
224	97				Dk brown silt, occ ch freq, s,m mixed	Deliberate backfill

**Finds:**

Context	Find Number	Material	Period	Description
224	1	Ceramic	Modern	Modern pottery

**Interpretation:**

Pit [97], naturally silted with (221), and then deliberately filled with (224). The presence of a thin layer of silt in the base of the cut indicates [97] was left open for a time after digging. It was filled with a mixed material containing post medieval pottery. The finds indicate a post-medieval date for this latter event.

**4.10.9 Subgroup: {116} Posthole****Contexts:**

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
116		0.20	0.20	0.20	Grad sides concave base	Circular posthole
225	116				Charcoal-rich, mod silty sand, black.	Remains of burnt post

**Finds:**

None

**Interpretation:**

The possible posthole [116] was filled with charcoal-rich deposit (225). This fill may represent the burnt remains of a post. The feature had been very heavily truncated from above by later farming practices.

**4.10.10 Subgroup: {118} Furrow****Contexts:**

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
118		7.50	0.80	0.25	Gentle sides concave base, e-w	Plough furrow
241	118				Fill of plough furrow.	Deliberate backfill

**Finds:**

None

**Interpretation:**

Furrow [118], naturally silted. The shape and dimensions suggest it was spade-cut.

**4.10.11 Subgroup: {121} Field Boundary****Contexts:**

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
121		6.0	3.50	1.40	Vertical sides concave base, ne-sw.	Field Boundary
122	121				Loose mid-dk brown sandy clay, freq mixed	Deliberate backfill

**Finds:**  
None

#### Interpretation:

The post medieval field boundary [121] was located to the west in Area 2. Although no finds were recovered from the fill, the size suggests a post-medieval date for the feature. A field boundary is indicated at this location on the 1908-9 OS survey. This boundary formed a linear ditch [121] 3.5m wide x 1.40m deep running approximately north to south. It was deliberately backfilled presumably to enable expansion of the field.

#### 4.10.12 Subgroup: {142} Modern Pits

##### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
142		2.25	1.55	0.88	Steep sides flat base, n-s	Sub oval pit
143		1.80	0.55	0.45	Grad sides concave base, n-s.	Oval pit
254	142				Lt brown sandy clay, occ ang mixed.	Deliberate backfill
255	143				Dk brown, heavy clay occ ch, s,m mixed	Deliberate backfill

##### Finds:

Context	Find Number	Material	Period	Description
254	1	Glass	Modern	Utility bottle
254	2	Ceramic	Modern	Black glazed ware
254	3	Glass	Modern	Unglazed red earthenware
254	4	Ceramic	Modern	Transfer printed ware
255	1 – 2	Ceramic	Modern	Pearlware
255	3	Glass	Modern	Utility bottle
255	4	Ceramic	Modern	Modern pottery
255	5 – 6	Ceramic	Modern	Cream ware
255	7	Ceramic	Modern	Black glazed ware
255	9	Ceramic	Modern	Transfer printed ware

#### Interpretation:

{142} consisted of a large field-clearance pit probably formed by boulder removal, which was filled with (254). A pit [143] was cut into the top of (254) and silted with (255). Modern finds were retrieved from both features.

#### 4.10.13 Subgroup: {161} Furrow

##### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
161		2.20	0.54	0.16	Grad sides flat base, se-nw.	Plough furrow
227	161				Lt yellow brown sandy clay, mod s-m mixed.	Natural silting

##### Finds:

Context	Find Number	Material	Period	Description
161	1	Lithic	Prehistoric	Platform shatter

#### Interpretation:

Furrow [161], naturally silted. The shape and dimensions suggest this was spade-cut.

#### 4.10.14 Subgroup: {172} Modern Pit

##### Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
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172		0.98	0.9	0.56	Grad sides concave base.	Circular pit
195	172				Mid brown sandy clay occ ch, s ang	Deliberate backfill
196	172				Mid yellow brown sandy clay, occ ch, freq s,m,l ang	Deliberate backfill

**Finds:**

Context	Find Number	Material	Period	Description
196	1	Ceramic	Modern	Pearlware

**Interpretation:**

Field-clearance pit [172], deliberately backfilled in order to level the ground surface. Modern pottery was recovered from the fills.

**4.10.15 Subgroup: {177} Furrows****Contexts:**

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
177					Grad sides concave base NE-SW.	Plough furrow
178					Grad sides concave base NE-SW.	Plough furrow
234	177-8, 291-3				Mod firm mid-lt brown silt, occ s ang.	Fill of plough furrows
291						Plough furrow
292					/	Plough furrow
293					/	Plough furrow

**Finds:**

Context	Find Number	Material	Period	Description
234	1 – 2	Lithic		Bipolar flake

**Interpretation:**

Five furrows naturally silted. Their shape and dimensions indicate that they were spade-cut.

**4.10.16 Subgroup: {193} Furrow****Contexts:**

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
193		1.50	0.29	0.08	Grad sides concave base, sw-se.	Linear cut
295	193				Yellow brown sandy silt.	Natural silting

**Finds:**

None

**Interpretation:**

Furrow [193], naturally silted. The shape and dimensions indicate that it was spade-cut.

**4.11 Group 11: {1} Topsoil****Contexts:**

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
1					Firm dk grey brown sandy clay, freq mixed	Topsoil

**Finds:**

Context	Find Number	Material	Period	Description
1	1	Glass	Modern	Wine bottle
1	2	Glass	Modern	Soda bottle
1	3	Ceramic	Modern	Porcelain
	4	Ceramic	Modern	Stone ware
1	5	Ceramic	Modern	Unglazed red earthenware
1	6	Ceramic	Modern	Transfer printed ware
1	7	Glass	Modern	Utility bottle
1	8	Glass	Modern	Soda bottle
1	9	Ceramic	Modern	Cream ware

1	10 – 11	Lithic		Unworked flint lump
1	12	Ceramic	Modern	Stone ware
1	13 – 14	Lithic		Unworked and struck flint
1	15	Ceramic	Modern	Stone ware
1	16	Ceramic	Modern	Black glazed ware
1	17	Ceramic	Modern	Unglazed red earthenware
1	18 – 19	Ceramic	Modern	Black glazed ware
1	20	Glass	Modern	Modern glass
1	21	Glass	Modern	Utility bottle
1	22	Glass	Modern	Poison bottle
1	23	Ceramic	Modern	Pearlware
1	24	Ceramic	Modern	Transfer printed ware
1	25	Ceramic	Modern	Stone ware
1	26	Ceramic	Modern	Pearlware
1	27 – 47	Lithic		
1	48	Ceramic	Modern	Cream ware
1	49 – 50	Ceramic	Modern	Transfer printed ware
1	51	Ceramic	Modern	Pearlware
1	52 – 53	Ceramic	Modern	Unglazed red earthenware
1	54 – 55	Ceramic	Modern	Black glazed ware
1	56 – 58	Iron	Modern	Iron fragments
1	59	Ceramic	Modern	Souterrain ware sherd
1	60	Lithic		Unworked thermal lump
1	61	Ceramic	Modern	Modern pottery
1	62 – 63	Glass	Modern	Wine bottle
1	64	Ceramic	Modern	Transfer printed ware
1	65	Lithic		Unworked flint
1	66 – 69	Ceramic	Modern	Brick fragments
1	70	Lithic		Flint
1	71	Ceramic	Modern	Unglazed red earthenware
1	72	Glass	Modern	Soda bottle
1	73	Ceramic	Medieval	Medieval local glazed ware
1	74	Iron	Modern	Iron fragments
1	75	Lithic		Unworked flint
1	76	Ceramic	Modern	Pearlware
1	77 – 81	Lithic		Unworked flint
1	82	Ceramic	Modern	Modern pottery
1	83	Ceramic	Modern	Glazed red earthen ware
1	84	Lithic		Bipolar flint shatter
1	85 – 86	Ceramic	Modern	Transfer printed ware
1	87	Glass	Modern	Wine bottle
1	88	Lithic		Flint flakes
1	89	Ceramic	Modern	Black glazed ware
1	90 – 94	Lithic		Struck flint
1	95	Ceramic	Modern	Transfer printed ware
1	96	Ceramic	Modern	Glazed red earthen ware
1	97 – 100	Lithic		Flint, unworked and debitage
1	101	Lithic		Unworked thermal flake

### Interpretation:

The topsoil was fairly uniform in colour and compaction; however it did vary in depth across the site. The deepest area was in a natural depression north-west of the high ground at the eastern end of site. Here deposits were up to 0.50m deep. This was due to a combination of ploughing and erosion from the high ground to the south. The shallowest area of topsoil was located on the high ground where the enclosure and souterrain were located with depths of no more than 0.25m.

## 5 SYNTHESIS AND DISCUSSION

### 5.1 The Natural Geology (Group 1)

The natural subsoil was uniform in compaction and consistency across the extent of the site. There were also occasional areas of protruding bedrock. The main focus of the site (Area 1, ringfort and souterrain) is situated on well drained ground made up of glacially mixed gravels and is located approximately 28m OD. The western Area 2 was in a sheltered 'hollow' at 24m OD.

### 5.2 Dated and Associated Prehistoric Activity (Group 2)

Two probable hut sites and a third possible one were excavated to the west of the site in Area 2 (Group 2). These represented the earliest activity recognised on site and appear to represent a temporary prehistoric settlement site. The remains were of ephemeral structures and were comprised of shallow hollows up to 3m in diameter associated with post/stake holes. It is possible that they represent the seasonal dwellings either of hunters or perhaps animal herders. The huts themselves were located on a sheltered 'saddle' of land between two areas of high ground with a drained pond close by to the southwest and an area of former wetland to the northeast. The site has been dated through the recovery of pottery, artefacts and one radiocarbon date as middle to late Bronze Age.

This area also contained a number of pits, postholes and a cremation burial. All this activity is likely to have been contemporary with the settlement. Although no diagnostic finds were recovered from the features of Group 3, it is possible that they represent activity associated with the prehistoric features in Group 2. They are located approximately 20m to the north of the main focus of prehistoric activity there. The high charcoal content of the fills suggests that they represent the remnants of a burning event; perhaps cooking pits or associated with charcoal preparation (charcoal clamps). The lack of *in-situ* burning evidence may suggest an alternative use where they were simply used as refuse pits (burying waste away from the temporary camp site identified at Group 2) to keep predators/smell/infestation away. A bipolar struck flint flake from pit [110] is characteristic of the expedient flint reduction of the later Bronze Age.

A cremation pit was also identified to the west of the settlement site. Analysis has identified it as the remains of an adult female. Unfortunately the skeletal remains provide little in the way of demographic or pathological data. No evidence for a pyre was identified but this may lie outside the land take for the road, as the cremation was found close to the fence line.

Modern crematoria operate at temperatures between 500 – 1000°C, to ensure the full burning of the body and coffin furniture. This is achieved with gas ovens which fire for around 90 minutes. It is accepted that females burn quicker than males due to their greater fat deposits, whereas the old or immature are more difficult to cremate due to their lack of fat deposits. Gas jets and air flows are used to ensure full combustion of the body, which receives heat from both below and above. This process leaves an average of 2500 – 3000 g of cremated material, with little difference between the average male and female weights (Lofqvist; Appendix 2.7).

Ethnographic evidence indicates that pyre construction usually consisted of a criss-cross timber frame, with the body laid on top. The frame allowed for greater airflow and therefore greater temperatures, and the more efficient burning of the remains. Once the frame had burned away, the body would have fallen into the main body of

the fire allowing the body fats to ignite, further raising the temperature and extending the period of cremation. Cremations took up to 7 – 10 hours to allow the cooling and collection of the material from a pyre. Very few archaeological cremations represent the full body weight, with an average of around 800g. It is likely that only some bones were collected during the raking-up process, possibly due to size of particles and the fact that a number would have just burnt away.

At Carn More 1, the cremated material is white in colour, which suggests full oxidation of the material. A minimum of 400°C is required to burn body tissues, with oxidation occurring at around 600°C. A small amount of bone was blue in colour, which suggests that part of the pyre did not reach the required 600°C for full oxidation. It is unlikely that the 991g of bone recovered from the Carn More 1 cremation represents the entire individual.

As the majority of bone (c. 98%) has been fully oxidised, material which burnt less well may not have been collected for burial. The cranium was well-represented from the identifiable fragments. Identifiable bone in cremations often show a trend towards the cranium as it is much easier to identify to region than long bones or those from the axial skeleton.

The high percentage of fragments over 10mm in size suggest that the remains did not undergo any post-cremation processing, such as crushing, prior to their deposition.

Carn More 5 (Bayley, D., forthcoming (g), Site, Carn More 5), a Bronze Age flat cemetery was located approximately 500m to the east from Carn More 1 and was a more formal burial site.

### **5.3 Probable Prehistoric Activity (Group 3)**

Although no diagnostic finds were recovered from these features, it is possible that they represent activity associated with the features in Group 2. They were located approximately 20m to the north of the main area of prehistoric activity. The high charcoal content of the fills suggests that they represent the remnants of a burning event, perhaps cooking pits or associated with charcoal preparation (charcoal clamps). The lack of *in-situ* burning evidence may suggest an alternative use where they were simply used as refuse pits to keep predators/smell/infestation away.

### **5.4 Undated Field Clearance (Group 4)**

Although undated, the features in Group 4 appear to represent a phase of early field clearance and use, that predates the construction of enclosure ditch and the souterrain cut.

### **5.5 Early Medieval Period (Group 5)**

Area 1 contained half of a 30m (internal to the ditch) diameter early medieval ringfort with an internal souterrain. The ringfort was severely truncated with most features (if they ever existed) scarped out. Little can be inferred about the general evolution of the site from the archaeological evidence unearthed in the ditch. The only obvious dating evidence was sherds of souterrain ware, which is normally dated c.8<sup>th</sup> to 10<sup>th</sup> century AD. The ditch appeared to have silted naturally, originally filling with refuse debris (as indicated from the presence of potsherds and limited animal bone in the ditch fill). There was no evidence for bank material.

The ringfort consisted of a single, circular ditch that had a causewayed entrance to the west. The ditch had been truncated by modern farming practices and had been scarped to a shallow gully along the western and eastern sides, however the

northern edge appeared relatively undisturbed in comparison. There was a slight narrowing along its western edge that resulted from the presence of a large unquarried protrusion of bedrock, which forced the ditch-diggers to alter the course of the ditch to avoid it. This may indicate that time was a factor in the construction of the ditch.

A number of features (Group 4) were identified to have been cut by the early medieval enclosure ditch. Although undated they appear to represent a phase of early field clearance and use that predates the construction of enclosure ditch and the souterrain cut.

### **5.6 Early Medieval Souterrain (Group 6)**

The souterrain as an entity was not stratigraphically linked to the enclosure ditch; however it is reasonable to assume they were contemporary. It is also likely that they were contemporary with the stratigraphically isolated features within the interior (Group 7).

The main internal feature was a 'W' shaped souterrain c.19m in length [C16]. The souterrain was laid on an east to west long axis with the entrance on the eastern side. The western end of the souterrain was adjacent to the ditch, immediately north of the enclosure entrance. This end of the souterrain must have been located under (and perhaps rising within) the ringfort bank. The souterrain may have had an exit either up in the ringfort bank or out into the ringfort ditch. The eastern entrance ramped downwards for the length of the eastern length of the souterrain. This may indicate that the eastern entrance possibly emerged inside a structure to keep it hidden. The gullies or slot trenches adjacent (in Group 7) may represent structural elements from this building.

The souterrain gallery was c.1m wide and survived up to 1.30m high. The souterrain was of unremarkable construction and was built using random field stones, occasionally split. There were no quarried structural stones; however the flat capstones would have been deliberately split. The capstones had been deliberately removed and the souterrain was backfilled possibly with material from the bank. It is not known when the souterrain was dismantled but the lack of anything other than early medieval finds tend to indicate it was dismantled before the post-medieval period. Some fragments of human skull were recovered from the souterrain backfill while six sherds of souterrain ware were recovered from the upper backfills. The skull fragment possibly came from a part of the site that was disturbed at the same time as the souterrain backfilling. It is therefore possible that there is a small cemetery nearby, located outside and to the south of, the road take.

The human skull recovered from the disturbance deposit in the souterrain appears to be from a female aged between 25-35 (Kidner; Appendix 2.6). A partial glass bead (03E0867:125:2) was recovered from the deliberate backfill of the souterrain. It is made from clear glass with opaque yellow stripes running lengthways through the bead. It is similar to beads from the late Iron Age (Scully Appendix 2.10). The sherds of pottery recovered have been identified as souterrain ware and represent a minimum of at least two vessels (Zajac Appendix 2.9).

### **5.7 Early Medieval Activity within the Enclosure (Group 7)**

A number of gullies and post/stakeholes were identified from the interior of the enclosure.

C42 was a curvilinear gully that ran around the inside arc of the enclosure ditch where bank material would be expected to be dumped. This may represent a

structure built up against the bank (possibly revetting it) and over the souterrain. C9 also appeared to be a structural element possibly the remnant of a slot trench and may also be associated with a structure over the souterrain. A ditch was recorded running from the area to the south of the souterrain and exiting south under the baulk into the unexcavated half of the ringfort and may represent an internal boundary. No discernible pattern could be identified from the various post/stake holes identified throughout the area but these were probably supports for screens and racks associated with domestic activities. Any other evidence from the interior of the enclosure had been scaped out as a result of modern ploughing activity. Very little could be discerned from the animal bone assemblage from the site apart that cattle and sheep/goat were represented from the bones retrieved from the early medieval contexts (Lofqvist; Appendix 2.7).

### **5.8 Undated Activity – Western end of Site (Group 8)**

Group 8 was comprised of a number of contexts spread across the western side of the site. Although no diagnostic finds were recovered from these features, it is possible that their location close to the prehistoric activity of Groups 2 and 3 implies a broad contemporaneity.

### **5.9 Undated Activity – Eastern end of Site (Group 9)**

Group 9 was comprised of a number of contexts spread across the eastern side of the site. Although no diagnostic finds were recovered from these features, it is possible that their location close to the early medieval activity of Group 5, 6 and 7 implies a broad contemporaneity. All the features from this group are located outside the area bounded by the enclosure ditch.

### **5.10 Post-Medieval Activity (Group 10)**

Post medieval activity across the site was recorded through the final silting of the enclosure ditch, agricultural activity and the creation of field boundaries. Numerous shallow linear gullies were recorded across the site represent both spade cultivation and modern ploughing. A number of pits/postholes were also uncovered which produced post-medieval finds.

The 1908-9 OS survey (revised 1939-40) shows several field divisions in this area that have since been removed. One such field boundary was recorded in Area 2. This boundary formed a linear ditch [121] 3.5m wide x 1.40m deep.

In Area 1 the site was crossed by numerous field drainage ditches and deep furrows. The drains were generally aligned south-east to north-west, with the deep furrows orientated south-west to north-east. All parts of the site had been affected by severe, horizontal, agricultural truncation.

This group relates to post medieval activity across the site. It relates to the final silting of the enclosure ditch and truncation across the site by probable spade cultivation and modern ploughing. A number of pits/postholes were also uncovered which produced post medieval finds. A large field boundary was also created during this period cutting through the area of prehistoric activity to the west of the site and is probably a field boundary.

The 1908-9 OS survey (revised 1939-40) shows several field divisions in this area that have since been removed. One such field boundary was recorded in Area 2. This boundary formed a linear ditch [121] 3.5m wide x 1.40m deep.

In Area 1 the site was crossed by numerous field drainage ditches and deep furrows. The drains were generally aligned south-east to north-west, with the deep furrows orientated south-west to north-east.

All parts of the site had been affected by severe, horizontal, agricultural truncation.

#### **5.11 Topsoil (Group 11)**

The topsoil was fairly uniform in colour and compaction; however it did vary in depth across the site. The deepest area was in a natural depression north-west of the high ground at the eastern end of site. Here deposits were up to 0.50m deep. This was due to a combination of ploughing and erosion from the high ground to the south. The shallowest area of topsoil was located on the high ground where the enclosure and souterrain were located with depths of no more than 0.25m. Finds from the topsoil across the site included prehistoric, early medieval, medieval and post medieval finds and indicates the area has been heavily disturbed to subsoil level by agricultural practices including deep ploughing.

## 6 DISCUSSION

### 6.1 Realisation of the Original Research Aims

This section examines the extent to which preliminary assessment of the results of the excavation reveal how the original research aims have been answered.

Original Research Questions (**ORQ**) were prepared after the results of the test-trenching exercise were known and before the rescue excavations began. The following are the Original Research Questions relating to the excavation at site 124 Carn More 1 and Responses (**R**) based on assessment of the site data.

Site 124, Carn More 1

1. **ORQ:** Is this the site seen in the aerial photograph? If so how much of the site lies within the road take? Is this site two enclosed settlements and field system as implied from the RMP and Louth Archaeological Survey? Was the site defended, and if so how?

**R:** The site is the one indicated from the aerial photography. The site investigated was almost exactly half (bisected east to west, with the northern half inside the land take) of a single, circular, single ditched ringfort approximately 30m in diameter with an internally positioned souterrain.

The aerial photograph indicated that there may be an associated external field system. Excavation did not reveal any evidence for this and it seems the post-medieval field drains were misinterpreted from the aerial photograph. The aerial photograph identified an associated, possible external 'annex' enclosure (Louth Archaeological Survey, 730). No evidence for this was found. The aerial photograph shows that this 'annex' was located on the eastern side. If this is the correct orientation it is possible that modern agricultural activity has truncated this enclosure. It is also possible it would be on the southern side of the ringfort.

The ringfort had been severely truncated through agricultural activity resulting in a generally sterile internal area. The only indication that it may have been defended was the presence of an enclosing ditch, which would have once (presumably) been flanked by a bank (no trace of this remained).

2. **ORQ:** When was the site first occupied and what form did this occupation take? What activities were carried out?

**R:** The area stripped produced two distinctly different sites.

Area 2: To the west on lower ground evidence was uncovered for two hut sites/temporary dwellings (and a possible third one). These were shallow scoops c. 3m across each, which had been surrounded by post/stake holes. It is suggested that boughs may have been arched over one of the structures, probably forming a dome, as there were irregular postholes surrounding the hollow. There is also the suggestion of a porch feature facing east (judging from the post/stake hole arrangement).

Structure 2 was centred over a hollow and appeared to have a central posthole. There were few surrounding post/stake holes. Both structures were c. 3m in



diameter and were sealed with homogenous fills (floor surfaces), which produced prehistoric pottery, a fragment of a lignite hoop and a polished stone adze head.

To the north and west of the hut sites a number of pits were identified and excavated. The pits may be contemporary although no evidence for this has been identified. It is suggested that these may be refuse/cooking pits associated with the site. A human cremation pit was located to the west. The artefactual and dating evidence for this area indicates a middle to late Bronze Age date.

It is probable that more of this site is located beyond the road fence line to the south.

Area 1: The early medieval ringfort was severely truncated with most features (if they existed) scaped out. Little can be inferred about the general evolution of the site from the archaeological evidence unearthed. The only obvious dating evidence from the site was souterrain ware, which is normally dated between 6 – 11 century AD. The ditch appeared to have silted naturally, originally filling with refuse debris (as indicated from the presence of potsherds in the ditch fill). There was no evidence for bank material. The souterrain as an entity was not stratigraphically linked to the enclosure ditch. Following its disuse it appears to have probably silted at the eastern end (entrance). Later it was uncapped and deliberately backfilled, possibly with material from the bank.

3. **ORQ:** How did the occupation change through time? Are there breaks in the occupations and changes in site use?

**R:** The site located to the west in Area 2 was a Bronze Age site. The eastern site, Area 1 was an early medieval ringfort.

Each of these occupations appears to have been single phases of activity.

As the ringfort seems to have been demolished and the souterrain backfilled during the post-medieval period (evidence from pottery), the ringfort would have remained as a visible monument in the medieval landscape.

4. **ORQ:** Are there any houses present and what form do these take? Are there specific storage facilities and individual house plots?

**R:** There are two (possibly three) hut sites in Area 2 the Bronze Age settlement activity.

There are no obvious houses identifiable on the interior of the ringfort in Area 1. However, a curving gully feature was recorded to the north of the souterrain and this may represent the northern foundation trench of a structure possibly associated (and over) the souterrain.

5. **ORQ:** Are there areas where specific activities were undertaken? If so what were these activities?

**R:** Area 2: The prehistoric huts seem to form a cluster. To the north and west of the prehistoric huts were a number of pits. These pits contained charcoal and may be the remains of cooking pits due to their small size and shape (however there is no strong evidence for *in-situ* burning) or refuse pits. A single human cremation was located to the west of the huts. It is probable that more of this site is located beyond the road fence line to the south.

There is nothing to indicate any specific industry at the early medieval ringfort site. However, an entrance to the ringfort (on the western side) is implied by a causeway across the enclosing ditch. In addition the souterrain on the northern side of the ringfort entrance would have had a specific function (storage/refuge). It is possible this souterrain had an exit up through the ringfort internal bank (no chamber was constructed).

6. **ORQ:** When did the site go out of use and why?  
**R:** The prehistoric site in Area 2 was possibly a temporary camp and may represent limited use over a short period of time

The Area 1 early medieval ringfort appears to have gone out of use before or during the medieval period. It is not known why the site went out of use. The site was demolished in the post-medieval period.

7. **ORQ:** What is the nature of the finds and environmental evidence? Are there any specific assemblages that indicate certain activities or functions?
8. **R:** Area 2: the finds indicate prehistoric settlement activity. The nature of the site indicates an area of domestic huts, an area of possible cooking activity, and an isolated human cremation. The environmental evidence indicates that they were gathering a variety of wood locally for burning in fires. The pottery has been identified as mid to late Bronze Age domestic ware.

Area 1: The finds from the ringfort indicate settlement activity.

9. **ORQ:** What is the extent of modern agricultural truncation?

**R:** Area 1: The entire site has been truncated by modern agricultural activity. This has effectively scarped the area of the ringfort reducing the ditch on the east and west sides of the ridge to a shallow gully. Truncation has also effectively cleared the interior of the ringfort of features (presuming they were there in the first place). Evidence for plough scratches were recovered from across the site.

Area 2: The location of the western site in a saddle between two low ridges will have helped preservation, as the topsoil was deeper due to hill wash. Deeper and wider furrows were identified in this area close to the prehistoric activity and are probably the remains of spade cut cultivation furrows.

### 6.3 Significance of the Data

The results from this excavation add to the existing body of data concerning early medieval period settlement sites locally and nationally. Early medieval period sites including ringforts and ecclesiastical sites are probably the most numerous obvious archaeological sites within the landscape. The excavation of the northern half of Carn More 1 will allow us to fit the site into the larger landscape locally. This landscape is already well defined by enclosures from the same period in the immediate vicinity.

*Period;*

Area 2: Bronze Age

Area 1: Early Medieval (6<sup>th</sup> – 11<sup>th</sup> century AD by pottery)

*Rarity;*

Area 2: Scattered, temporary prehistoric activity sites are relatively common in the area (see M1 Dundalk Western Bypass Site 101, Littlemill 1; Site 103, Littlemill 4/5; Site 108, Donaghmore 1, Site 113, Newtownbalregan 5, Site 131 Faughart Lower 5). However, until recently they have often been overlooked archaeologically.

Area 1: Circular ringforts are the most visibly preserved field monuments in Ireland, with estimates of over 40,000 countrywide. Ringforts, cashels and raths and early ecclesiastical sites all fall into this loose category. The site was previously known and it falls into this site type.

*Documentation;*

Area 2: No known documentation

Area 1: The ringfort is a known R.M.P (LH004: 067), Louth Archaeological Survey 729, 730 and 880. Aerial Photograph CUCAP, BDH 3 + 4)

*Survival/Condition;*

Area 2: The main area of prehistoric settlement activity was located adjacent to the southern fence line. This area was 100% hand excavated but it is probable that more of this site exists to the south of the Lands Made Available (especially associated with a possible (ancient) pool 30m to the south).

Area 1: 50% of the 30m diameter ringfort was 100% hand excavated. The southern 50% of this site survives below topsoil to the south of the Lands Made Available.

*Fragility/Vulnerability;*

Subject to the M1 Dundalk Western Bypass. Both Areas, which continue to the south of the Lands Made Available continue to be subject to modern agricultural activities and should be given statutory protection.

*Diversity;*

Area 1: The early medieval ringfort showed a simple ditched enclosure. The finds and environmental assemblage indicate a domestic function but failed to indicate anything of the range of activity that may have taken place at the site. Of significance was the pottery recovered from the ditch which would lend itself to domestic activity. The souterrain within the ringfort was, characteristically of that monument type, devoid of artefacts or environmental information that could determine a specific function.

Area 2: This area contained part of a prehistoric (possibly temporary) campsite area, cooking area and burial area.

*Potential;* The potential of the excavation results for further study is limited as the sites in both Areas 1 and 2 straddled the proposed road fence line. Concerning Area 2: there is potential for comparative analysis of this small site with other sites of this type. In particular, there is potential for the study of the hut types.

Area1: The ringfort and souterrain can be compared to the many other souterrains in the area.

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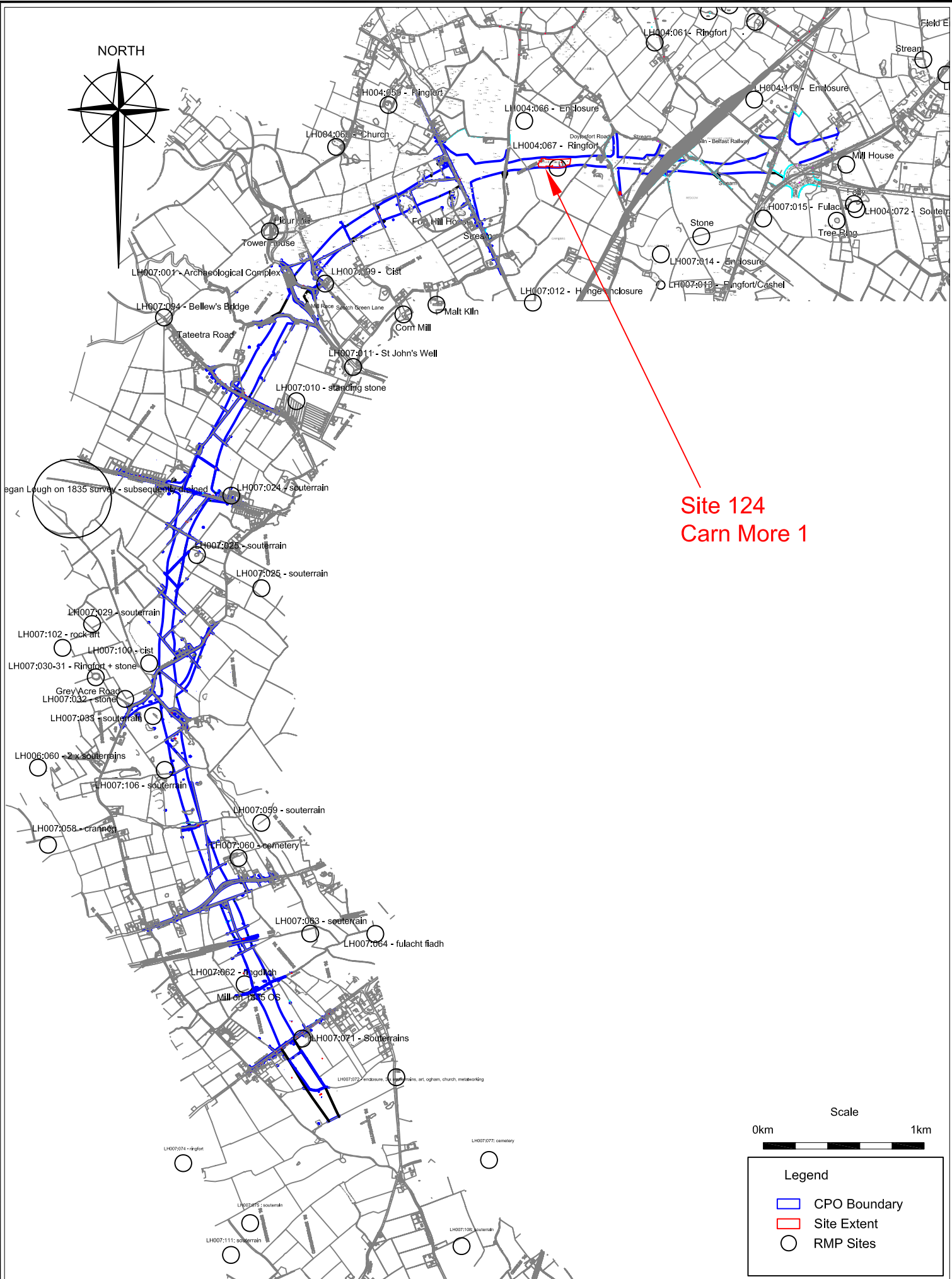
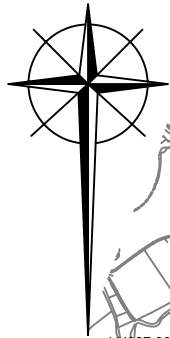
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NORTH



Site 124  
Carn More 1

Scale  
0km 1km

Legend

- CPO Boundary
- Site Extent
- RMP Sites

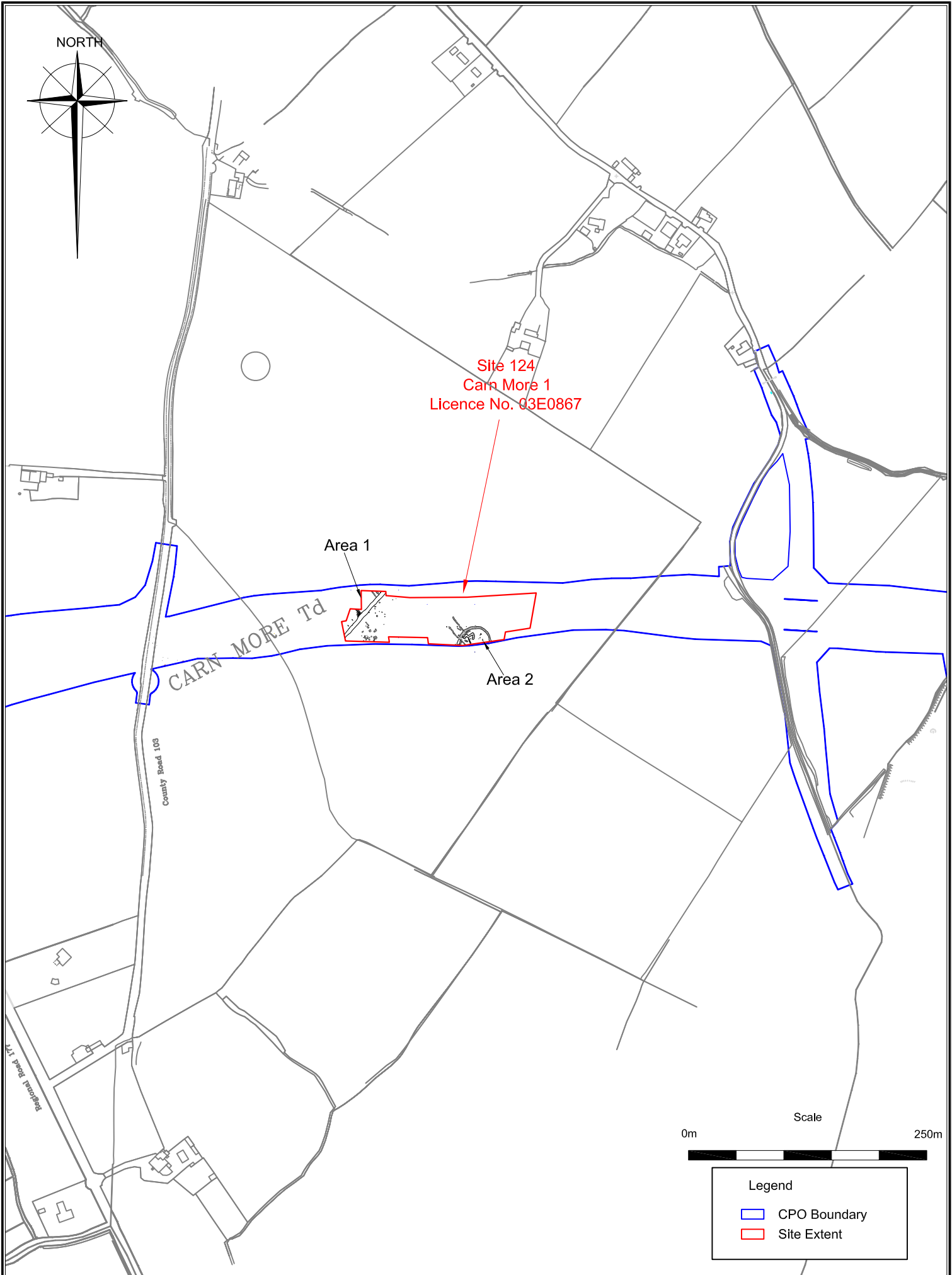


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Title: Carn More 1, Site 124 - Site Location with RMP sites shown  
Project: M1 Dundalk Western Bypass  
Client: Louth County Council

Scale: 1:30000 @A4  
Date: 22/07/09  
Produced by: G Kearney  
Job No: J2041  
Figure No: 2

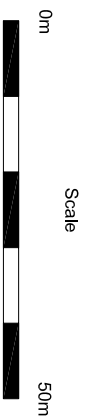
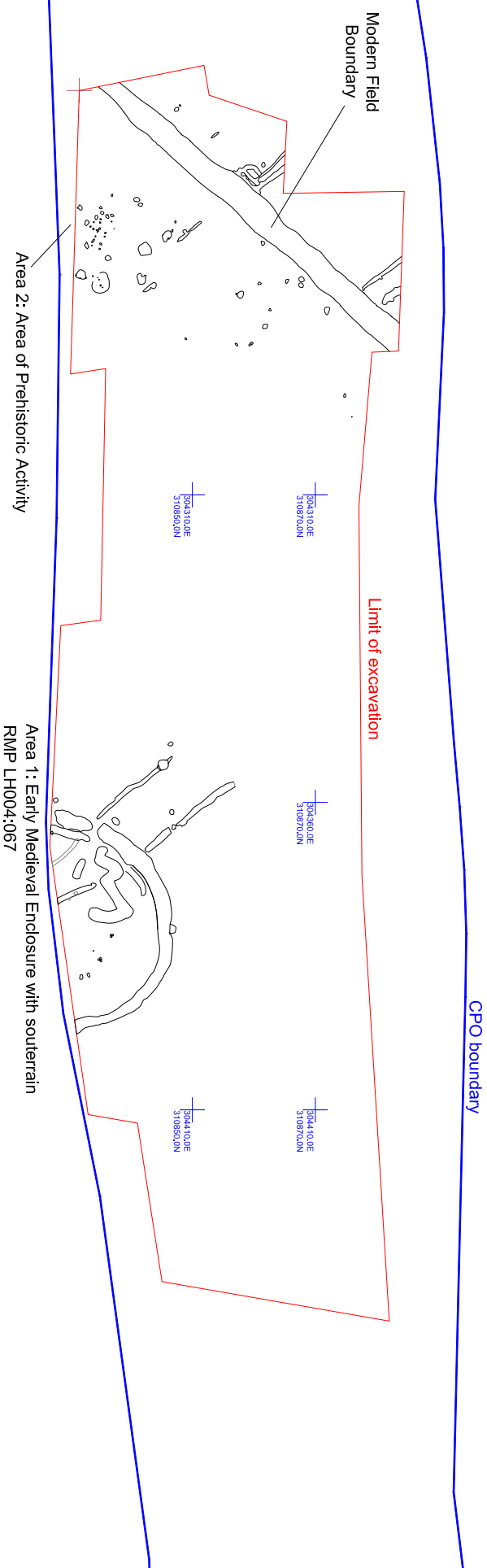
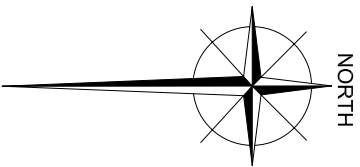




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Archaeological  
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Title:	Carn More 1, Site 124 - Location of site within Dundalk Western Bypass road scheme
Project:	M1 Dundalk Western Bypass
Client:	Louth County Council

Scale:	1:5000 @ A4
Date:	23/07/09
Produced by:	G Kearney
Job No:	J2041
Figure No:	3



Legend

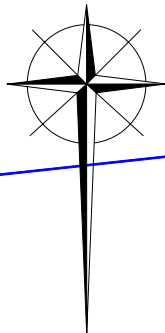
- CPO Boundary
- Site Extent



**Irish  
Archaeological  
Consultancy Ltd.**

Title:	Carr More 1, Site 124 - Detail of archaeology	Scale:	1:1000 @ A4
Project:	M1 Dundalk Western Bypass	Date:	23/07/09
Client:	Louth County Council	Produced by:	G Kearney
		Job No:	J2041
		Figure No:	4

NORTH



# Legend

- Break of slope
- Sections
- Limit of Excavation
- C## Cut numbers
- Undated activity
- Post medieval activity
- 0.00 Levels

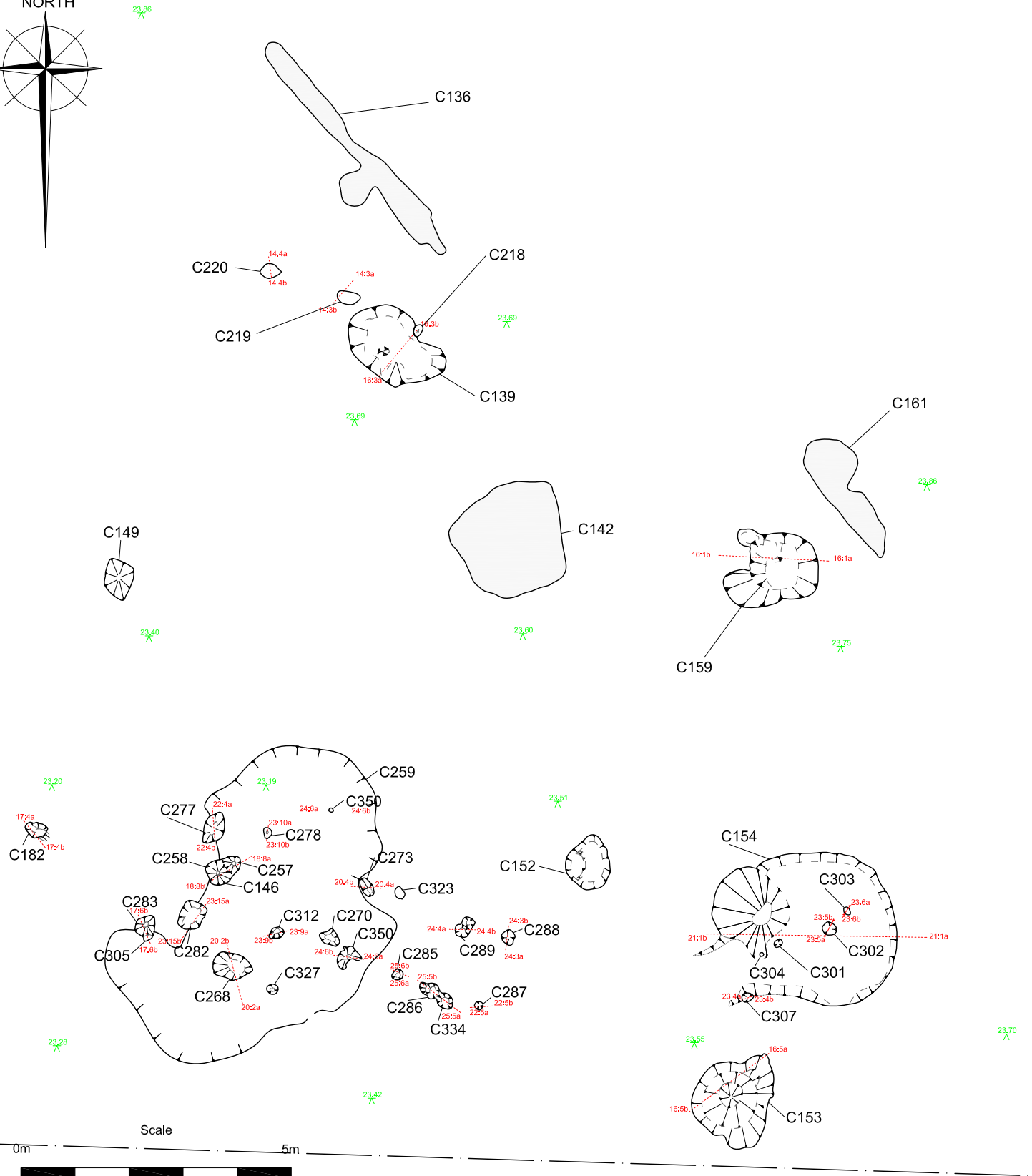
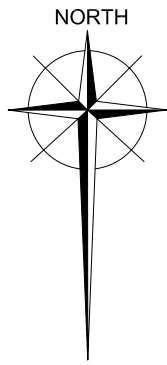
Scale  
0m 10m



**Irish  
Archaeological  
Consultancy Ltd.**

Title: Carn More 1, Site 124 - Area 2 prehistoric activity  
Project: M1 Dundalk Western Bypass  
Client: Louth County Council

Scale: 1:300 @ A4  
Date: 23/07/09  
Produced by: G Kearney  
Job No: J2041  
Figure No: 5



Legend

- Break of slope
- Sections
- Limit of Excavation
- C## Cut numbers
- Undated activity
- Post medieval activity
- 0.00 Levels



**Irish  
Archaeological  
Consultancy Ltd.**

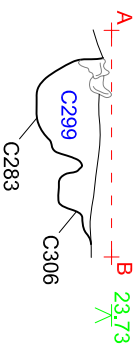
Title: Carn More 1, Site 124 - Detail of prehistoric activity  
Project: M1 Dundalk Western Bypass  
Client: Louth County Council

Scale: 1:100 @A4  
Date: 23/07/09  
Produced by: G Kearney  
Job No: J2041  
Figure No: 6

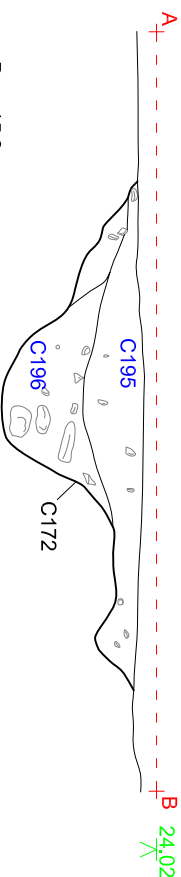
Dwg 15:1  
South facing section of C113



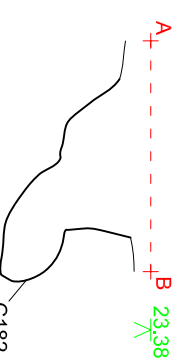
Dwg 17:6  
Southwest facing section of C283



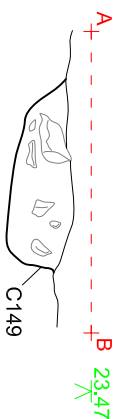
Dwg 12:3  
West facing section of C172



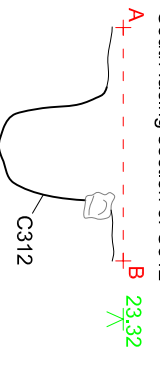
Dwg 17:4  
Northeast facing section of C182



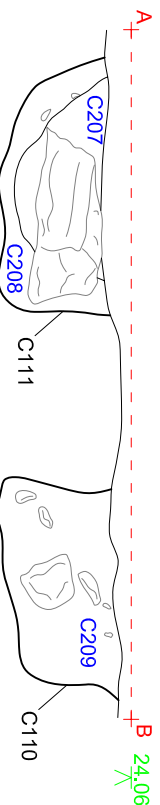
Dwg 18:6  
Northwest facing section of C149



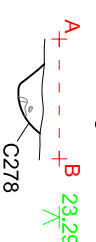
Dwg 23:9  
South facing section of C312



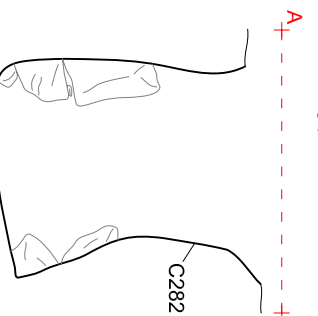
Dwg 15:3  
South facing section of C111 and C110



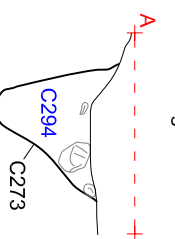
Dwg 23:10  
West facing section of C278



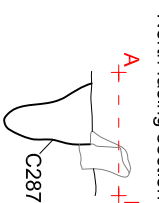
Dwg 23:15  
West facing profile of C282



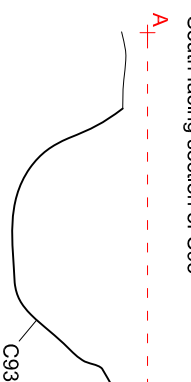
Dwg 20:4  
North facing section of C273



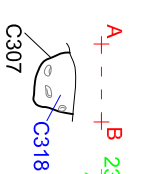
Dwg 22:5  
North facing section of C287



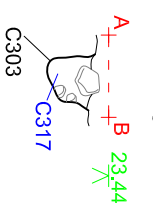
Dwg 14:2  
South facing section of C93



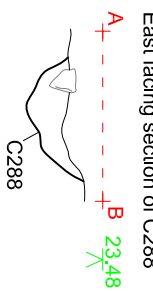
Dwg 23:4  
North facing section of C307



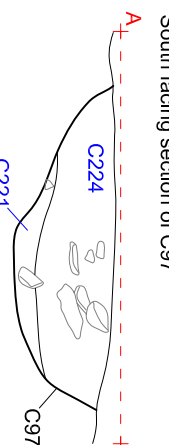
Dwg 23:6  
West facing section of C303



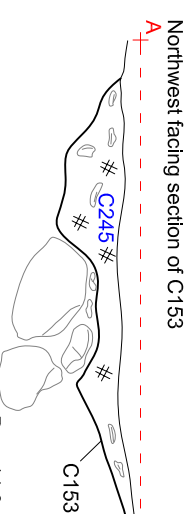
Dwg 24:3  
East facing section of C288



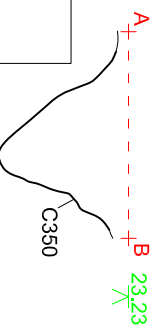
Dwg 15:5  
South facing section of C97



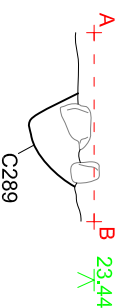
Dwg 16:5  
Northwest facing section of C153



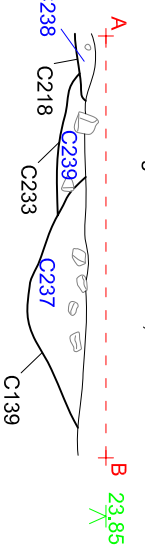
Dwg 24:6  
Profile of section of C350



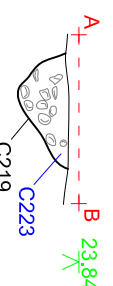
Dwg 24:4  
Southwest facing section of C289



Dwg 16:3  
Northwest facing section of C139, C218 and C233



Dwg 14:3  
West facing Section of C219



Legend

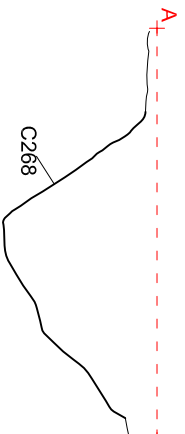
- C## Cut numbers
- C## Fill Numbers
- # Stone
- Charcoal
- Reduced Levels



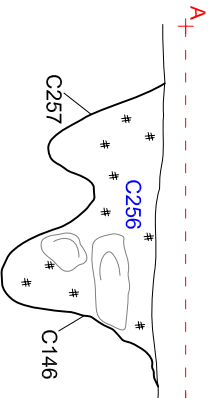
Irish  
Archaeological  
Consultancy Ltd.

Title:	Carn More, Site 124 - Sections	Scale:	1:20 @ A4
Project:	M1 Dundalk Western Bypass	Date:	23/07/09
Client:	Louth County Council	Produced by:	G Kearney
		Job No:	J2041
		Figure No:	7

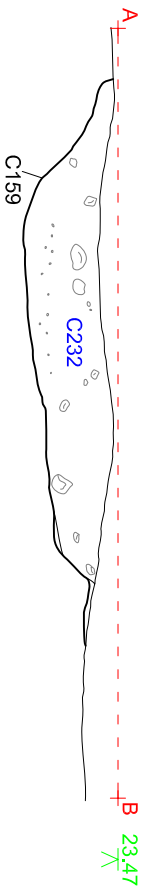
Dwg 20:2  
East facing section of C268



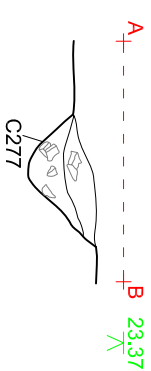
Dwg 18:8  
Northwest facing section of C257 and C146



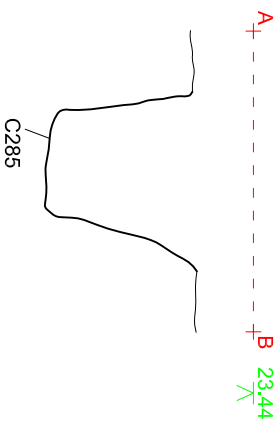
Dwg 16:1  
North facing section of C159



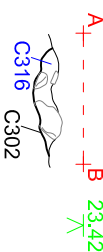
Dwg 22:4  
West facing section of C277



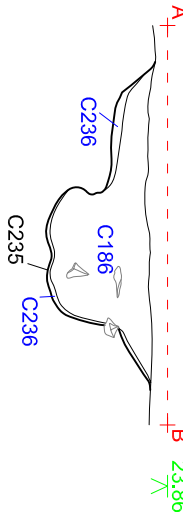
Dwg 25:6  
Northeast facing profile of C285



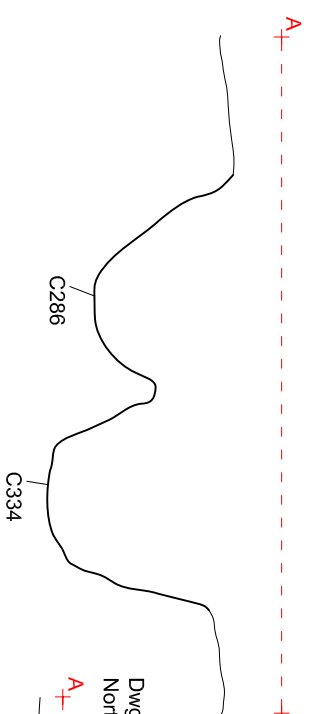
Dwg 23:5  
East facing section of C302



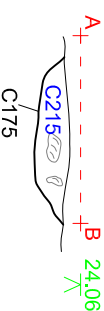
Dwg 17:2  
Southwest facing section of C186 and C236



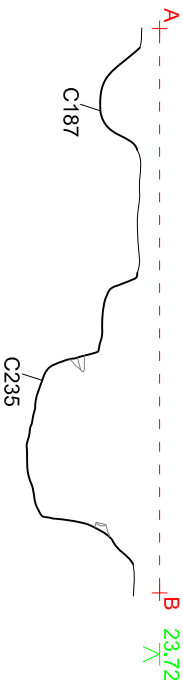
Dwg 25:5  
South facing profile of C286 and C334



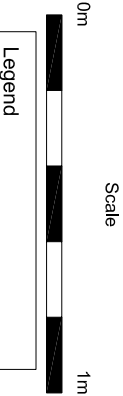
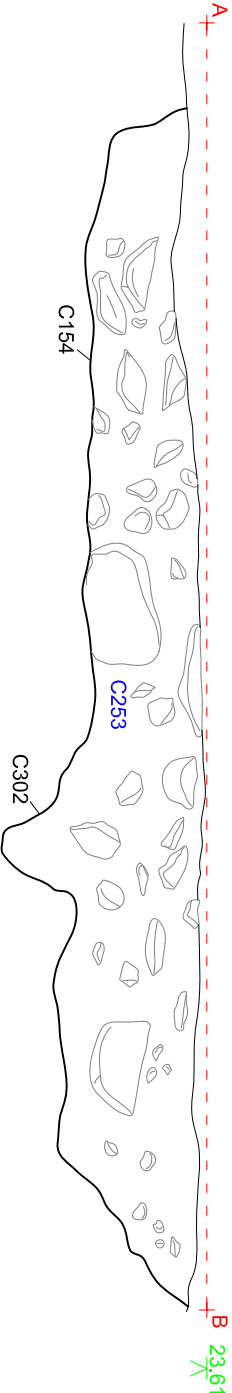
Dwg 15:4  
Northwest facing section of C175



Dwg 17:3  
Southwest facing profile across C187 and C235



Dwg 21:1  
North facing section of C154



- Legend
- C## Cut numbers
  - C## Fill Numbers
  - # Stone
  - ## Charcoal
  - ### Reduced Levels



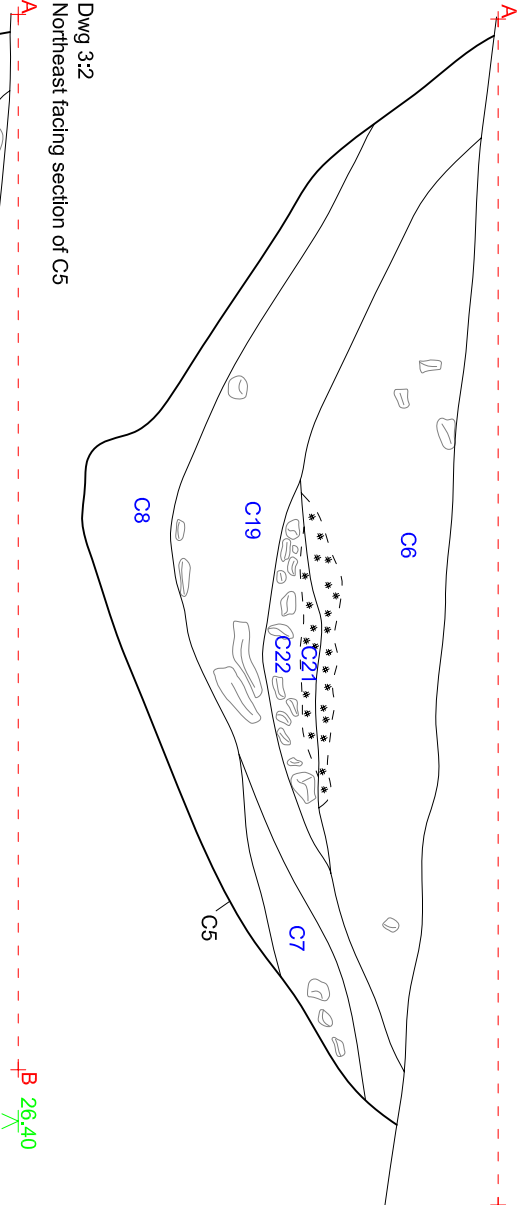
Irish  
Archaeological  
Consultancy Ltd.

Title: Carn More 1, Site 124 - Sections  
Project: M1 Dundalk Western Bypass  
Client: Louth County Council

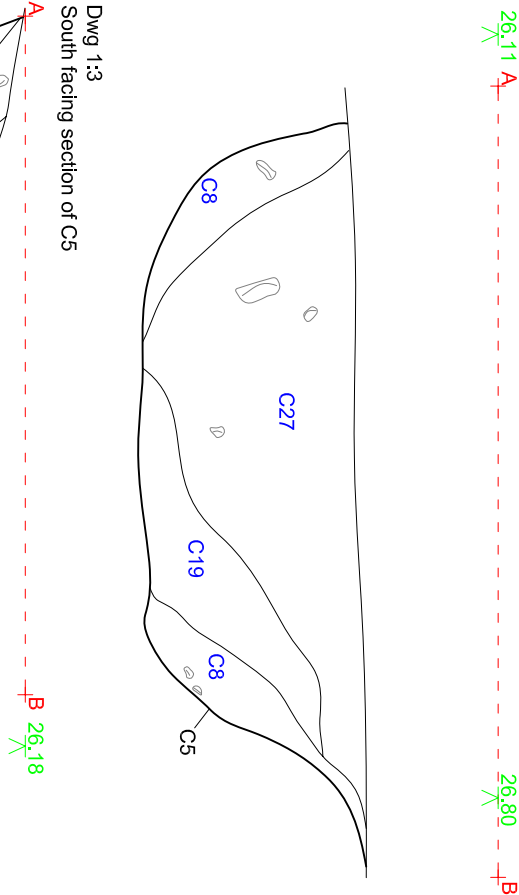
Scale: 1:20 @ A4  
Date: 23/07/09  
Produced by: G Kearney  
Job No: J2041  
Figure No: 8



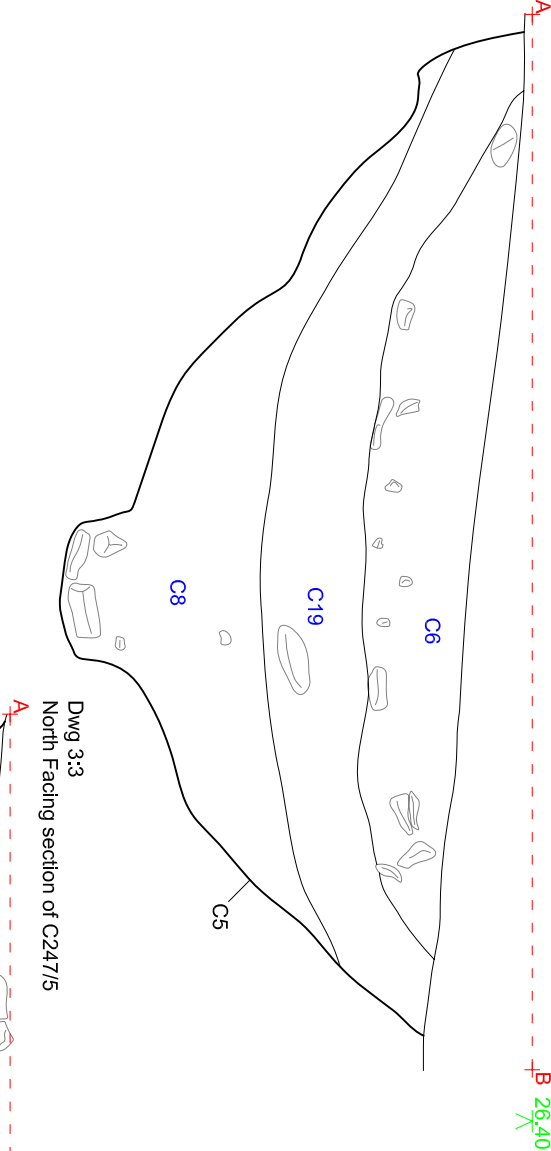
Dwg 4:2  
Southwest facing section of C5



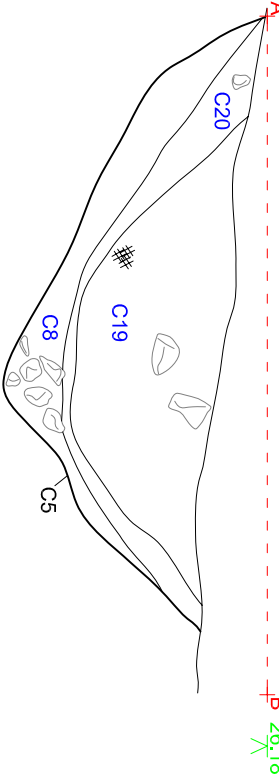
Dwg 9:2  
North facing section of C5



Dwg 3:2  
Northeast facing section of C5



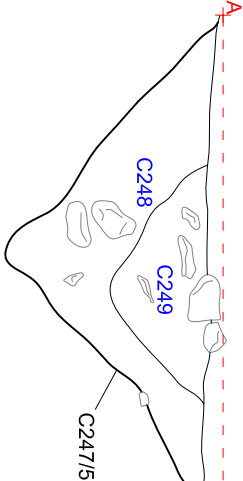
Dwg 1:3  
South facing section of C5



Dwg 2:2  
East facing section of C55



Dwg 3:3  
North Facing section of C247/5



Legend

- C## Cut numbers
- C## Fill Numbers
- # Stone
- ### Charcoal
- ### Reduced Levels

0m



Scale

1m



Irish  
Archaeological  
Consultancy Ltd.

Title: Carn More 1, Site 124 - Sections

Project: M1 Dundalk Western Bypass

Client: Louth County Council

Scale: 1:20 @ A4

Date: 23/07/09

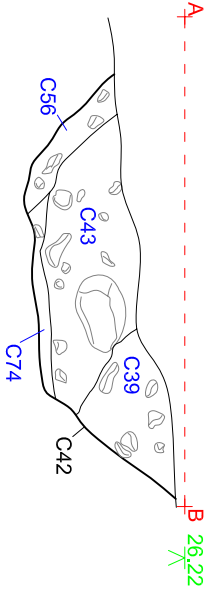
Produced by: G Kearney

Job No: J2041

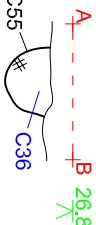
Figure No: 10



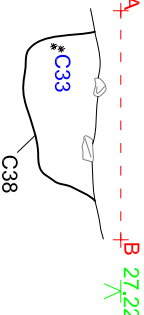
Dwg 12:1  
West facing section of C42



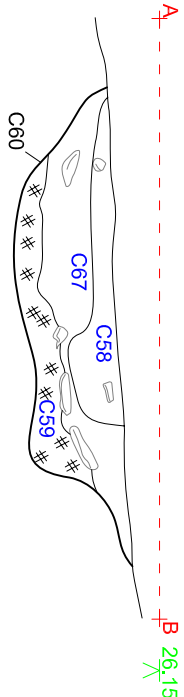
Dwg 11:6  
East facing section of C55



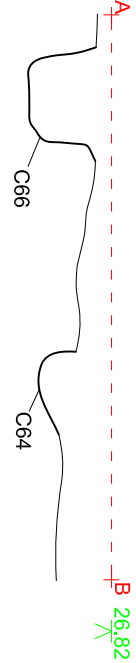
Dwg 7:4  
North facing section of C38



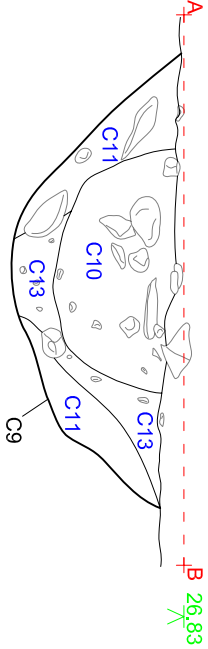
Dwg 12:2  
West facing section of C60



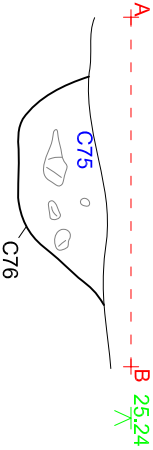
Dwg 13:1  
East facing profile across C66 and C64



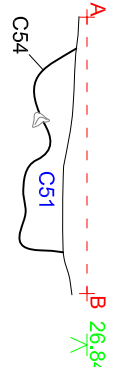
Dwg 11:5  
East facing section of C9



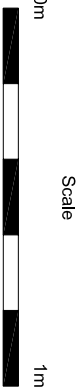
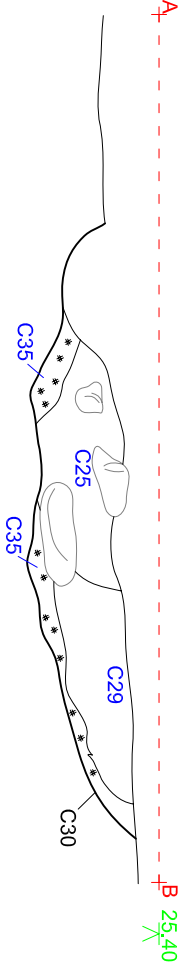
Dwg 13:3  
North facing section of C76



Dwg 7:7  
Section of C54



Dwg 7:3  
Northwest facing section of C30



Legend

- C## Cut numbers
- C## Fill Numbers
- # Stone
- ### Charcoal
- ### Reduced Levels



Irish  
Archaeological  
Consultancy Ltd.

Title:	Carr More 1, Site 124 - Sections	Scale:	1:20 @ A4
Project:	M1 Dundalk Western Bypass	Date:	23/07/09
Client:	Louth County Council	Produced by:	G Kearney
		Job No:	J2041
		Figure No:	11

§



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Scale

2.5m

**Irish  
Archaeological  
Consultancy Ltd.**

Dwg 25:1  
Profile of souterrain; South facing



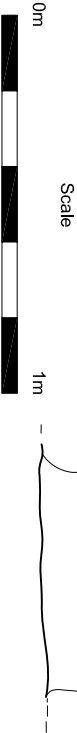
Dwg 25:2  
Profile of souterrain; Northwest facing



Dwg 25:3  
Profile of souterrain; Southwest facing



Dwg 25:4  
Profile of souterrain; Southwest facing



Legend

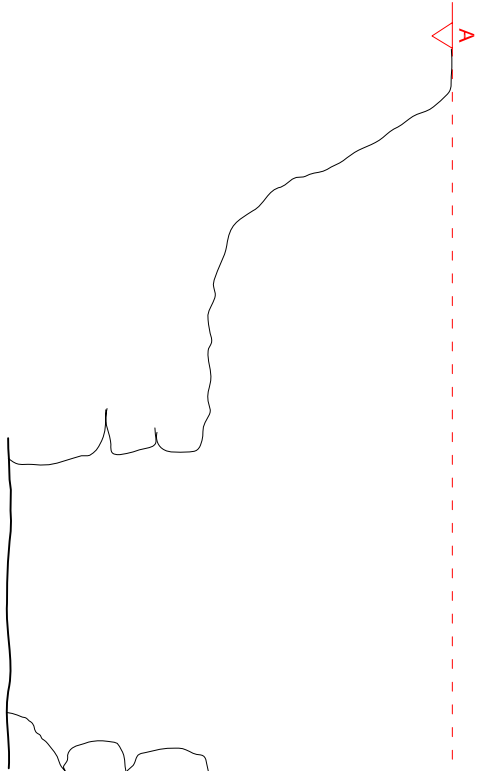
- C## Cut numbers
- C## Fill Numbers
- # Stone
- ### Charcoal
- ### Reduced Levels



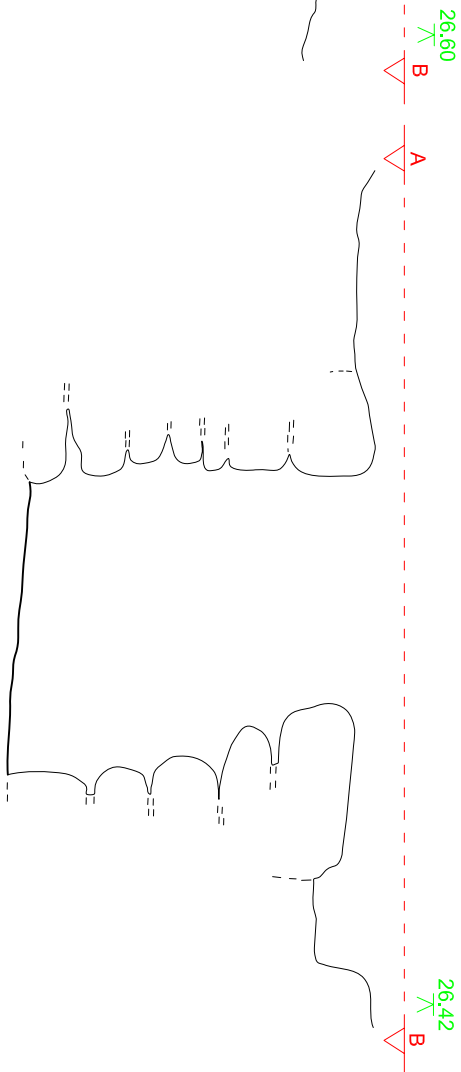
Irish  
Archaeological  
Consultancy Ltd.

Title:	Carr More 1, Site 124 - Souterrain profiles	Scale:	1:20 @ A4
Project:	M1 Dundalk Western Bypass	Date:	23/07/09
Client:	Louth County Council	Produced by:	G Kearney
		Job No:	J2041
		Figure No:	13

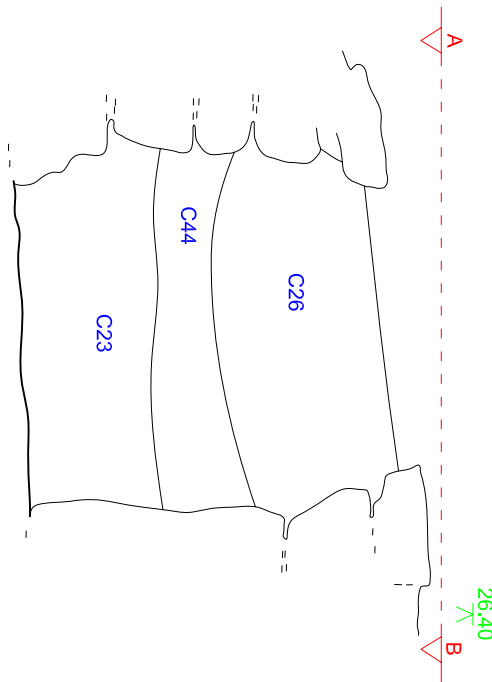
Dwg 26:1  
Profile of souterrain: West facing



Dwg 21:5  
Profile of souterrain: Southeast facing



Dwg 21:3  
Profile of souterrain: Northeast facing



Dwg 21:2  
Profile of souterrain: Northeast facing



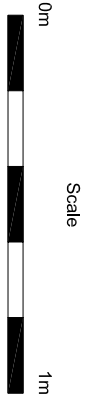
Legend

- C## Cut numbers
- C## Fill Numbers
- # Stone
- ### Charcoal
- ### Reduced Levels

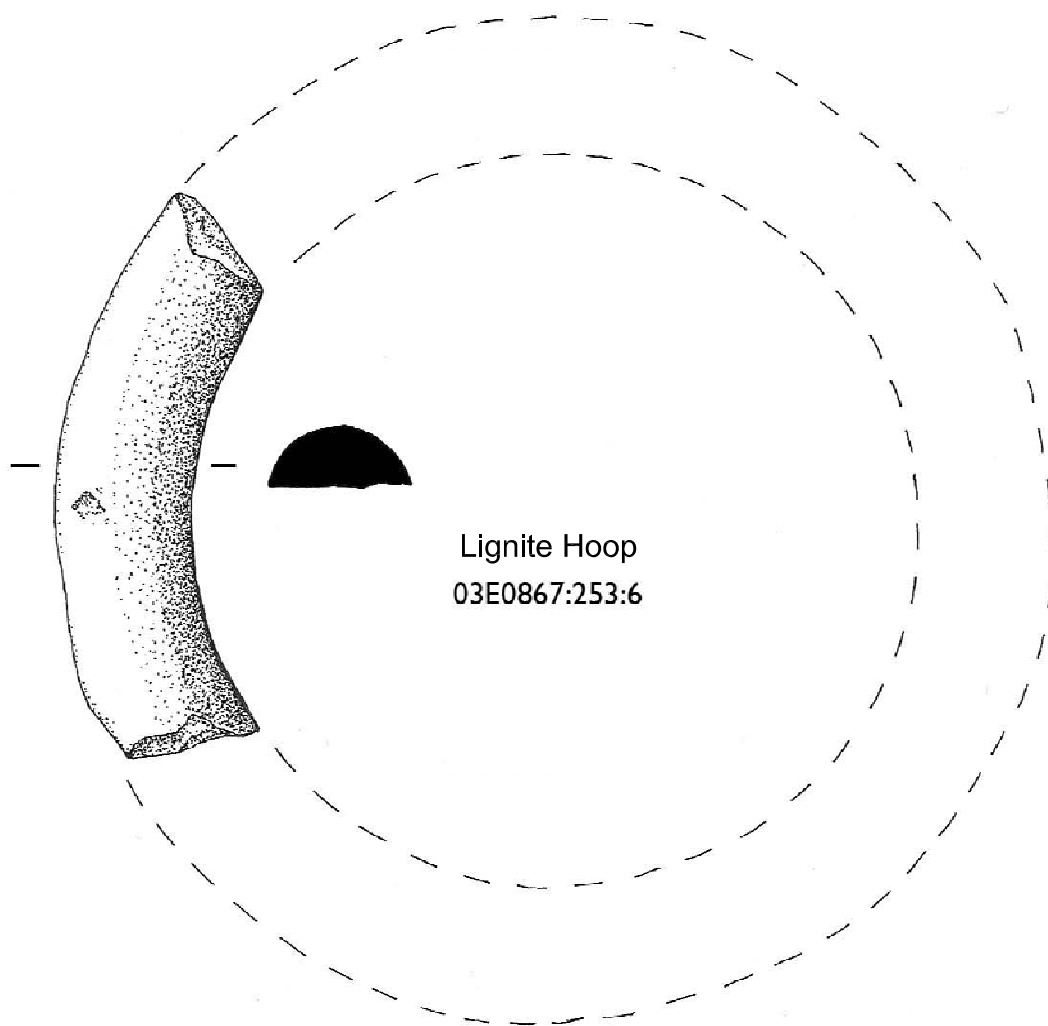


Irish  
Archaeological  
Consultancy Ltd.

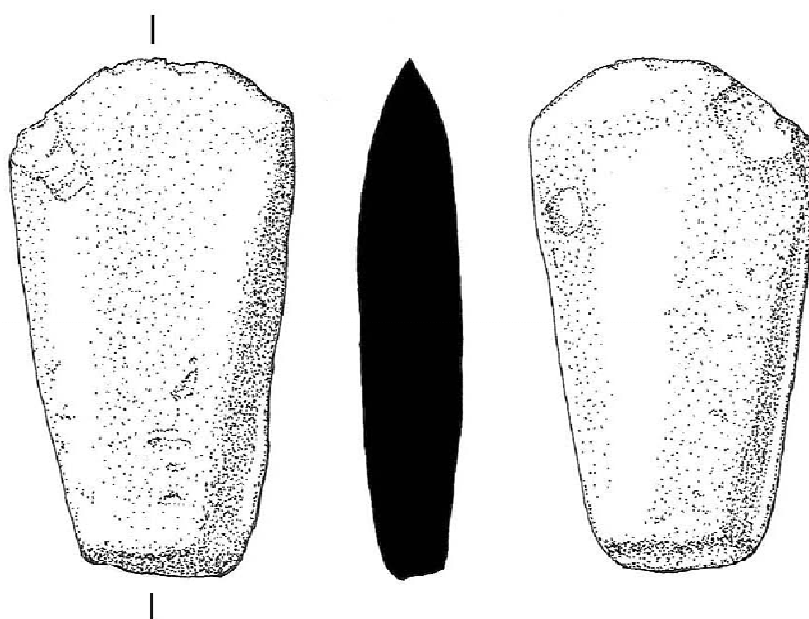
Title:	Carn More 1, Site 124 - Souterrain profiles	Scale:	1:20 @ A4
Project:	M1 Dundalk Western Bypass	Date:	23/07/09
Client:	Louth County Council	Produced by:	G Kearney
		Job No:	J2041
		Figure No:	14



# CARN MORE I



Polished Stone Adze  
03E0867:259:4



Bead  
03E0867:125:2



Irish  
Archaeological  
Consultancy Ltd.

Title: Carn More 1, Site 124 - Illustrations of Lignite hoop, Polished  
stone adze and bead  
Project: M1 Dundalk Western Bypass  
Client: Louth County Council

Scale: 1:1 @ A4  
Date: 29/07/09  
Produced by: G Kearney  
Job No: J2041  
Figure No: 15





Plate 1      Carn More 1, Site 124: Mid-excavation view of hut C154, facing south

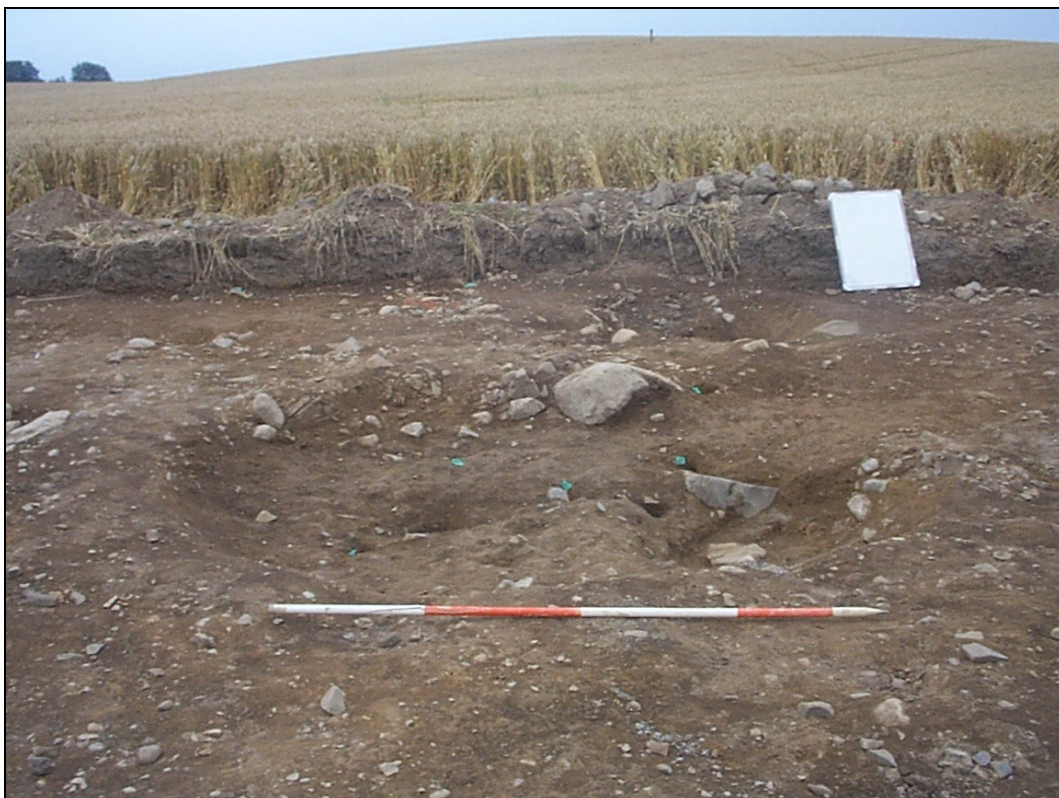


Plate 2      Carn More 1, Site 124: Post-excavation view of hut C154 facing south





Plate 3      Carn More 1, Site 124: Hut C154 and pit C152 facing southeast



Plate 4      Carn More 1, Site 124: Pre-excavation view of hut C259 facing north





Plate 5      Carn More 1, Site 124: Mid-excavation view of C139 facing north



Plate 6      Carn More 1, Site 124: Post-excavation of C159 facing south





Plate 7 Carn More 1, Site 124: Mid-excavation view of pits C110 and C111 facing north



Plate 8 Carn More 1, Site 124: Pre-excavation view of pit burial C235/ C186, facing south





Plate 9      Carn More 1, Site 124: Post-excavation view of pit burial C235/ C186, facing north



Plate 10      Carn More 1, Site 124: General view of the enclosure ditch and souterrain, facing southeast (StudioLab)



Plate 11 Carn More 1, Site 124: General view of souterrain and the interior of the enclosure (StudioLab)



Plate 12 Carn More 1, Site 124: Souterrain and ditch, facing north (StudioLab)





Plate 13      Carn More 1, Site 124: Eastern end of souterrain during excavation (StudioLab)



Plate 14      Carn More 1, Site 124: General view of modern furrows crossing site, facing





Plate 15 Carn More 1, Site 124: Hearth feature C60, facing northeast



Plate 16 Carn More 1, Site 124: Mid-excavation view of gully C9 with slot fill C10 removed





Plate 17 Carn More 1, Site 124: Souterrain backfill



Plate 18 Carn More 1, Site 124: Northeast facing section 3:2





Plate 19      Carn More 1, Site 124: North facing section 3:3



Plate 20      Carn More 1, Site 124: East facing section 4:2



Plate 21      Carn More 1, Site 124: West facing section 2:2



## APPENDIX 1 CATALOGUE OF PRIMARY DATA

### Appendix 1.1 Context Register

Context	Fill of	L(m)	W(m)	D(m)	Interpretation	Description
1					Topsoil	Firm dk grey brown sandy clay, freq mixed
2					Natural subsoil	Firm yellow-grey sandy clay freq mixed
3					3 = 201	
4					4 = 93	
5		51	3.10	1.25	Ringfort ditch	U shape profile, steep sides, flat to concave base
6	5				Natural silting	Firm Mid-dk brown sandy silt, freq s,m,l mixed, occ ch
7	5				Natural silting	Firm Mid-dk brown sandy silt, freq s,m,l mixed, occ ch
8	5				Natural silting	Firm lt yellow-brown silty sand, freq s,m,l mixed, occ ch
9		3.80	1.20	0.47	Slot trench	Linear u shape profile steep sides flat base
10	9				Natural silting	Loose Dk grey brown silty sandy clay freq s,m,l mixed
11	9				Natural silting	Mid yellow-brown sandy clay freq s,m,l mixed, occ ch.
12	16				Deliberate backfill	Dk brown organic sandy clay freq ch.
13	9				Deliberate backfilling	Mid red-brown clay silt occ ch, freq s,m,l mixed
14					Furrows	U shape profile with steep sides and a flat base e-w.
15	14				Natural silting	Dk grey-brown sandy silt, mod s,m mixed.
16		20	1.90	1.30	Construction cut	Zigzag rectilinear shape, vertical sides under cut in places, flat base sloping se-nw
17	16				Deliberate backfill	Firm mid yellow-brown sandy clay freq s mixed
18	16				Corbelled walls	Random coursed with stressed corners, generally fair-face subrect ,some sub rounded.
19	5				Natural silting	Mid yellow-brown sandy clay, mod ang & sub-ang, occ ch
20	5				Natural silting	Dk brown firm sandy silt, mod s ang & sub-ang, occ ch
21	5				Natural silting	Dk grey sandy silt organic fill, freq ch, occ s,m ang & sub-ang
22	5				Deliberate backfill	M sub-ang & ang in mid-dk brown sandy silt.
23	16				Deliberate backfill	Firm mid grey-brown sandy clay freq m,l mixed, occ ch and ab
24		26	1.10	0.30	Linear cut	U shape profile steep sides, concave base nw-se.
25	24				Natural silting	Mid brown loose sandy silt occ ch, l-m mixed freq s mixed.
26	16				Deliberate backfill	Firm lt-mid brown grey sandy clay freq s,m,l mixed occ ch
27	5				Natural silting	Firm Mid-dk brown sandy silt freq s,m,l mixed, occ ch
28		7.35	0.90	0.46	Linear cut	Curvilinear u shape profile concave base, nnw-sse
29	30				Natural silting	Mid brown sandy silt mod s ang-sub ang occ ch.
30		1.70	1.60	0.32	Pit	Circular gradual sides concave base
31	5				Natural silting	Loose dk brown peaty clay occ mixed, freq ch.
32	28				Natural silting	Soft grey brown silt mod s ang-sub-ang.

33	38				Natural silting	Lt brown sandy fill occ ch.
34	40				Natural silting	Grey brown silty sand freq ch, s sub-ang
35	30				Deliberate backfill	Dk brown sandy silt freq char occ mixed sub-ang.
36	55				Natural silting	Ch rich silty sand.
37	41				Natural silting	Firm-mid brown grey silty clay freq l mixed
38		0.13	0.13	0.20	Posthole	Circular gradual sides concave base.
39	42				Natural silting	Mid grey brown silty clay occ m mixed
40		0.40	0.20	0.15	Posthole	Oval grad sides concave base
41		0.99	0.49	0.38	Stone socket	Sub rect steep sides flat base.
42		4.90	1	0.50	Curvilinear cut	Steep sides flat base e-w.
43	42				Natural silting	Loose brown grey silty clay occ s mixed
44	16				Natural silting	Loose yellow brown gritty sandy clay.
45	28				Natural silting	Loose mid brown sandy silt freq mixed s mixed.
46		0.60	0.40	0.10	Stone socket	Stone socket at top of souterrain
47	46				Modern backfill	Modern material backfilled into stone socket
48	28				Natural silting	Firm dk brown sandy silt mod s mixed.
49	68				Natural silting	Loose dk brown sandy silt occ s ang
50	53				Deliberate backfill	Dk brown ch rich sandy silt mod s,m,l mixed
51	54,61,62				Natural silting	Grey brown sand freq ch, occ s mixed
52	53				Natural silting	Brown clay silt freq s sub-ang
53		0.38	0.25	0.13	Sub rectangular pit	Gradual sides flat base nw-se.
54		0.38	0.28	0.23	Oval posthole	Grad sides, vertical N side concave base.
55		0.22	0.22	0.12	Circular Posthole	Steep sides concave base
56	42				Natural silting	Loose grey green silty clay occ s mixed
57					57 = 49	
58	60				Natural silting	Mid orange brown sandy silt, occ ch, s mixed
59	60				Debris from fire	Dk grey brown ch rich sandy silt, bone fragments.
60		1.45	0.96	0.35	Possible hearth	Grad sides flat base, e-w
61		0.23	0.19	0.27	Sub rectangular posthole	Steep sides concave base e-w.
62		0.31	0.20	0.15	Sub rectangular posthole	Steep sides concave base e-w.
63	64				Natural silting	Lt brown sand, freq ch, mod s mixed
64		0.22	0.22	0.10	Circular Posthole	Sharp sides flat base, ne-sw
65	66				Natural silting	Lt brown sand mod char, freq s mixed
66		0.29	0.26	0.18	Sub circular posthole	Steep sides flat base, e-w.
67	60				Natural silting	Mid grey brown sandy silt mod ch, s mixed
68		0.49	0.32	0.06	Oval posthole	Grad sides flat base, N-S.
69	79				Natural silting	Dk brown sandy silt fill some s mixed.
70					70 = 90	
71-73					Not used	
74	42				Natural silting	Loose dk brown grey sandy silt, freq ch, occ s mixed
75	76				Natural silting	Mid brown sandy silt, mod char, mod s mixed, occ l mixed.
76		0.72	0.72	0.30	Circular Pit	Grad sides flat base.
77		0.30	0.15	0.39	Oval posthole	Steep sides concave base, e-w
78	77				Natural silting	Dk red brown gritty sandy silt mod sub ang.
79		0.80	0.70	0.30	Circular Pit	Steep sides concave base, n-s.
80		1.65	1.50	0.90	Truncated pit	Vertical sides flat base e-w.

81	81				Deliberate deposition	Mid brown silty clay freq l ang
82		1.26	1.22	0.38	Truncated circular pit	Grad sides concave base
83	82				Deliberate backfill	Dk brown yellow gravelly silty sand, freq m, l mixed
84-89					Not used	
90	91, 123, 124				Natural silting	Loose lt grey brown silty sand occ ch freq s, m, l mixed.
91		0.47	0.42	0.27	Oval posthole	Grad sides concave base, nw-se.
92					Not used	
93		0.78	0.58	0.32	Sub oval posthole	Steep sides concave base, n-s
94		0.54	0.50	0.13	Sub circular posthole	Grad sides concave base .54lx.5wx.13d
95					Not used	
96		0.42	0.37	0.12	Sub circular posthole	Grad sides concave base
97		1.05	0.80	0.32	Sub circular pit	Grad sides concave base
98-99					Not used	
100		0.50	0.45	0.16	Circular posthole	Grad sides concave base.
101-106					Not used	
107		1.45	1.07	0.38	Sub oval pit	Grad sides concave base e-w.
108-109					Not used	
110		0.55	0.55	0.31	Pit	Vertical sides flat base
111		0.68	0.68	0.28	Pit	Vertical sides flat base
112					Not used	
113		0.42	0.42	0.22	Pit	Vertical sides flat base .42lx.42wx.22d.
114-115					Not used	
116		0.20	0.20	0.20	Circular posthole	Grad sides concave base
117					117=1	
118		7.50	0.80	0.25	Plough furrow	Gentle sides concave base, e-w
119-120					Not used	
121		60	3.50	1.40	Field Boundary	Vertical sides concave base, ne-sw.
122	121				Deliberate backfill	Loose mid-dk brown sandy clay, freq l mixed
123		0.34	0.27	0.13	Sub circular posthole	Grad sides concave base, ne-sw
124		0.75	0.30	0.19	Truncated circular posthole	Vertical sides flat base, v. truncated.
125	16				Natural silting	Firm gritty dk grey brown sandy clay freq s mixed, occ l mixed (collapse)
126-138					Not used	
136					Linear cut	Modern furrow
137-138					Not used	
139		1.13	0.68	0.11	Sub oval pit	Grad sides concave base, east to west orientated
140-141					Not used	
142		2.25	1.55	0.88	Sub oval pit	Steep sides flat base, n-s
143		1.80	0.55	0.45	Oval pit	Grad sides concave base, n-s.
144-145					Not used	
146		0.51	0.29	0.43	Sub oval pit	Grad sides concave base
147-148					Not used	
149		0.85	0.52	0.20	Sub oval pit	Steep sides uneven base e-w.
150					Not used	
151		0.75	0.50	0.35	Sub oval pit	Steep sides uneven base NE-SW.
152		1.07	0.82	0.30	Sub oval pit	Grad sides irreg base, n-s.
153		1.42	0.80	0.54	Sub oval pit	Sloped sides, irregular base, bowl shaped

154		3.60	3.15	0.52	Sunken floored hut base	Oval, grad sides uneven base
155–158					Not used	
159		2.20	1.70	0.25	Sub circular pit	Grad sides uneven base
160					Not used	
161		2.20	0.54	0.16	Plough furrow	Grad sides flat base, se-nw.
162–171					Not used	
172		0.98	0.9	0.56	Circular pit	Grad sides concave base.
173–174					Not used	
175		0.42	0.42	0.12	Circular posthole	Steep sides concave base
176					Not used	
177					Plough furrow	Grad sides concave base NE-SW.
178					Plough furrow	Grad sides concave base NE-SW.
179–181					Not used	
182		0.44	0.34	0.38	Sub oval pit	Steep sides concave base nw-se.
183–185					Not used	
186	235				Burial deposit	Loose v.dk brown ch rich silt v.freq cremated bone.
187		0.30	0.30	0.30	Circular cremation	Steep sides concave base
188–192					Not used	
193		1.50	0.29	0.08	Linear cut	Grad sides concave base, sw-se.
194					Not used	
195	172				Deliberate backfill	Mid brown sandy clay occ ch, s ang
196	172				Deliberate backfill	Mid yellow brown sandy clay, occ ch, freq s,m,l ang
197					Not used	
198	113				Natural silting	Grey brown sandy silt, mod ch.
199					Not used	
200	94				Natural silting	Grey brown sandy silt occ Ch mod s mixed
201	93				Natural silting	Mid yellow brown sandy clay occ ch freq s,m,l ang.
202					Not used	
203	96				Natural silting	Orange dk brown silt occ ch mod s mixed.
204		25	1.10	0.55	Linear cut	Vertical sides flat-concave base s-n.
205	204				Natural silting	Firm, mid brown sandy clay, freq s,m ang
206	204				Natural silting	Firm, yellow brown sandy clay, freq s ang
207	111				Deliberate backfill	Black-brown sandy silt freq ch, s sub ang mixed.
208	111				Natural silting	Lt grey-brown sandy silt occ ch, mod s,m,l sub-ang & flat
209	110				Natural silting	Dk black-brown sandy silt, freq s,m,l mixed, occ ch.
210–211					Not used	
212	100				Natural silting	Mid yellow brown sandy clay, occ ch, s mixed.
213–214					Not used	
215	175				Natural silting	Mid-dk brown loose burnt clay, freq ch, occ s mixed.
216–217					Not used	
218		0.36	0.28	0.11	Posthole	Grad sides concave base, north to south orientated
219		0.47	0.31	0.16	Posthole	Grad sides concave base, e-w
220		0.41	0.34	0.16	Posthole	Grad sides pointed base, e-w.
221	97	1.05	0.80	0.32	Natural silting	Orange brown sandy silt, occ s mixed.
222					Not used	
223	219				Packing fill & silting	Lt brown silty clay, mod s,m mixed.

224	97				Deliberate backfill	Dk brown silt, occ ch freq, s,m mixed
225	116				Remains of burnt post	Charcoal-rich, mod silty sand, black.
226	220				Natural silting	Lt brown silty clay, s,m mixed, occ ch.
227	161				Natural silting	Lt yellow brown sandy clay, mod s-m mixed.
228-230					Not used	
231					Natural silting	Spread of silt
232	159				Natural silting	Mid yellow brown sandy clay, occ ch, mod s,m mixed
233		1.83	1.30	0.16	Oval pit	Grad sides concave base, east to west orientated
234	177-8, 291-3				Fill of plough furrows	Mod firm mid-lt brown silt, occ s ang.
235		0.82	0.61	0.31	Deliberate backfill	Steep-grad sides flat base. Nw-Se.
236	235				Bioturbational mixing.	Mix of (2) and (186)
237	139				Natural silting	Mid brown silty clay mod s,m mixed.
238	218				Natural silting	Lt grey brown clay silt mod s sub-rou
239	233				Natural silting	Yellow brown clay silt occ s mixed.
240	187				Deliberate backfill	Firm dk grey brown silty clay, mod ch occ bb, s mixed.
241	118				Fill of plough furrow.	Fill of plough furrow.
242	107				Natural silting	Dk grey brown silt, occ ch, mod s,m mixed.
243	107				Lens of fill in C242	Yellow brown silt.
244	233				Natural silting	Dk brown silty clay, occ s rou
245	153				Deliberate backfill	Ch and burnt black pottery in top of fill
246					Not used	
247					247 = 5	
248					248 = 8	
249					248 = 19	
250-251					Not used	
252	149				Natural silting	Lt-mid brown silty clay, mod l mixed.
253	154				Deliberate backfill	Loose dk brown grey silty clay freq ch, l mixed.
254	142				Deliberate backfill	Lt brown sandy clay, occ ang mixed.
255	143				Deliberate backfill	Dk brown, heavy clay occ ch, s,m mixed
256	146				Post burnt <i>in-situ</i>	Dk brown clay silt, mod ch, bb
257		0.33	0.22	0.27	Circular posthole	Vertical sides flat-concave base
258		0.10	0.08	0.08	Stakehole	Straight sided concave base
259		5.50	2.40	0.10	Floor of possible hut	Firm mid yellow brown silty sand, occ bb & ch, s mixed
260	182				Natural silting	Firm brown soil mod s,m ang.
261-262					Not used	
263	152				Natural silting	Mid red-brown silty sand occ ch, occ s mixed.
264	152				Lens of fill in 263	Mid red-brown fine sand occ ch, occ s mixed.
265					Not used	
266	151				Natural silting	Dk grey brown layer, freq ch, mod m mixed.
267	151				Natural silting	Lt-mid brown layer, occ ch.
268		0.80	0.70	0.41	Sub circ posthole	Steep sides pointed base
269	C268				Deliberate backfill	Mid brown sandy clay occ ch, s ang
270		0.60	0.55	0.37	Sub circ posthole	Steep sides pointed base
271	C270				Deliberate backfill	Mid brown sandy clay, occ ch, s ang
272					Not used	
273		0.48	0.38	0.42	Sub circular posthole	Steep sides pointed base

274–276					Not used	
277		0.43	0.38	0.31	Sub circular posthole	
278		0.22	0.22	0.09	Sub circular posthole	
279–281					Not used	
282		0.49	0.41	0.68	Sub rectangular pit	Vertical sides flat base, n-s.
283		0.34	0.23	0.16	Sub oval posthole	Vertical sides concave base ne-sw.
284					Not used	
285		0.23	0.23	0.19	Circular posthole	Vertical sides north side undercut flat base
286		0.30	0.20	0.17	Oval posthole	Vertical sides concave base n-s.
287		0.20	0.19	0.23	Circular posthole	Vertical sides concave base
288		0.32	0.21	0.14	Oval posthole	Slightly concave sides and base. N-S.
289		0.40	0.24	0.14	Sub oval posthole	Slightly concave sides +base . Sw-Ne.
290		0.70	0.60	0.20	Sub circular pit	Vertical sides flat base, ne-sw
291					Plough furrow	Plough furrow
292					Plough furrow	Plough furrow
293					Plough furrow	Plough furrow
294	273				Deliberate backfill	Mid yellow brown sandy silty clay, occ ch ,mod s,m,l mixed.
295	193				Natural silting	Yellow brown sandy silt.
296	290				Natural silting	Mid-lt brown sandy clay, freq s sub ang
297		0.60	0.60	0.15	Circular pit	Steep sides, concave split base.
298	297				Natural silting	Grey brown silty sand freq ch, freq s,m,l ang
299	283				Natural silting	Mid brown silty sand, occ ch, mod s,m sub-ang
300					Not used	
301		0.34	0.33	0.10	Sub circular posthole	Gentle sides tapered blunt base
302		0.34	0.30	0.26	Sub circular posthole	Vertical sides tapered blunt base.
303		0.22	0.16	0.20	Sub circular posthole	Steep sides concave base
304		0.15	0.14	0.12	Sub circular stakehole	Grad sides tapered round point
305		0.10	0.10	0.32	Sub circular stakehole	Gradual sides tapered point
306		0.18	0.11	0.14	Sub rectangular pit	Vertical sides flat base .
307		0.22	0.16	0.12	Sub circular posthole	Vertical sides flat base
308					308 = 297	
					Not used	
310	305				Deliberate backfill	Lt yellow brown silty sand, mod s sub-rou
311	282				Natural silting	Lt grey brown silty sand freq s,m,l mixed mod ch. Occ bb.
312		0.32	0.27	0.33	Sub circular posthole	Steep sides flat base
313	312				Deliberate backfill	Lt yellow brown silty sand, mod s,m ang & sub-ang, occ bb.
314					Not used	
315	301				Deliberate backfill	Loose mid brown grey silty sand, occ s
316	302				Deliberate backfill	Loose brown grey silty clay, occ s, mod ch.
317	303				Deliberate backfill	Loose brown grey silty clay, occ s, occ ch.
318	307				Deliberate backfill	Loose lt brown grey silty clay, occ s ang, freq ch.
319	304				Deliberate backfill	Loose lt brown grey silty clay, occ s ang, occ ch.
320		0.78	0.51	0.09	Sub oval pit	Slightly concave sides & base E-W.
321	320				Natural silting	Yellow brown clay sand mod small ang stone.
322	277				Packing fill	Mid brown silty clay, mod s ang
323		0.32	0.22	0.20	Oval posthole	Steep sides concave base, sw-ne.

324	323				Deliberate backfill	Lt yellow brown silty sand, occ ch, occ s,m ang & sub-ang.
325	282				Natural silting	Lt red brown sand, mod s mixed, occ ch.
326	278				Natural silting	Lt brown clay silt, occ ch, occ s mixed.
327		0.28	0.27	0.17	Circular posthole	Vertical sides concave base
328-333					Not used	
334		0.29	0.24	0.23	Oval posthole	Steep-vertical sides flat base, sw-ne
335	285				Natural silting	Mid-dk yellow brown sandy silt, mod ch, occ m ang & sub-ang.
336	286				Natural silting	Mid yellow brown sandy silt, occ ch, mod s,m ang
337-338					Not used	
339	287				Deliberate backfill	Lt brown silty clay, occ s ang
340	288				Packing fill	Lt brown clay silt, occ s ang, one l flat
341	289				Packing fill	Mid brown silty clay occ s ang mixed, two l flat
342	334				Natural silting	Mid yellow brown firm sandy silt mod ch, l sub ang
343					Not used	
344	327				Deliberate backfill	Mid brown silty sand, occ s,m ang & sub-ang, mod ch.
345-346					Not used	
347	348				Natural accumulation	Loose lt yellow brown silty clay occ s stones, ch.
348		0.33	0.28	0.22	Sub oval posthole	Gentle sides concave base, e-w.
349					Not used	
350		0.43	0.32	0.38	Sub circ posthole	Steep sides concave base
351	350				Deliberate backfill	Loose dk grey brown silty clay occ ch, s mixed

## Appendix 1.2 Finds Register

Registration Number	Context	Item No.	Simple Name	Full Name	Material	No. of Parts	Description
03E0867:1:1	1	1	PM	Glass	Glass		
03E0867:1:2	1	2	PM	Glass	Glass		
03E0867:1:3	1	3	PM	Porcelain	Ceramic		
03E0867:1:4	1	4	PM	Stone Ware	Ceramic		
03E0867:1:5	1	5	PM	Earthen ware	Ceramic		
03E0867:1:6	1	6	PM	China ware	Ceramic		
03E0867:1:7	1	7	PM	Glass	Glass		
03E0867:1:8	1	8	PM	Glass	Glass		
03E0867:1:9	1	9	PM	China ware	Ceramic		
03E0867:1:10	1	10		Flint	Flint		
03E0867:1:11	1	11		Flint	Flint		
03E0867:1:12	1	12	PM	Stone ware	Ceramic		
03E0867:1:13	1	13		Flint	Flint		
03E0867:1:14	1	14		Stone	Stone		
03E0867:1:15	1	15	PM	Stone ware	Ceramic		
03E0867:1:16	1	16	PM	Black ware	Ceramic		
03E0867:1:17	1	17	PM	Earthen ware	Ceramic		
03E0867:1:18	1	18	PM	Black ware	Ceramic		
03E0867:1:19	1	19	PM	Black ware	Ceramic		
03E0867:1:20	1	20	PM	Glass	Glass		
03E0867:1:21	1	21	PM	Glass	Glass		
03E0867:1:22	1	22	PM	Glass	Glass		
03E0867:1:23	1	23	PM	China ware	Ceramic		
03E0867:1:24	1	24	PM	China ware	Ceramic		
03E0867:1:25	1	25	PM	Stone ware	Ceramic		
03E0867:1:26	1	26	PM	China ware	Ceramic		
03E0867:1:27	1	27		Flint	Flint		
03E0867:1:28	1	28		Flint	Flint		
03E0867:1:29	1	29		Flint	Flint		
03E0867:1:30	1	30		Flint	Flint		
03E0867:1:31	1	31		Flint	Flint		
03E0867:1:32	1	32		Flint	Flint		
03E0867:1:33	1	33		Flint	Flint		
03E0867:1:34	1	34		Flint	Flint		
03E0867:1:35	1	35		Flint	Flint		
03E0867:1:36	1	36		Flint	Flint		
03E0867:1:37	1	37		Flint	Flint		
03E0867:1:38	1	38		Flint	Flint		
03E0867:1:39	1	39		Flint	Flint		



03E0867:1:40	1	40		Flint	Flint		
03E0867:1:41	1	41		Flint	Flint		
03E0867:1:42	1	42		Flint	Flint		
03E0867:1:43	1	43		Flint	Flint		
03E0867:1:44	1	44		Flint	Flint		
03E0867:1:45	1	45		Flint	Flint		
03E0867:1:46	1	46		Flint	Flint		
03E0867:1:47	1	47		Flint	Flint		
03E0867:1:48	1	48	PM	China ware	Ceramic		
03E0867:1:49	1	49	PM	China ware	Ceramic		
03E0867:1:50	1	50	PM	China ware	Ceramic		
03E0867:1:51	1	51	PM	China ware	Ceramic		
03E0867:1:52	1	52	PM	Earthen ware	Ceramic		
03E0867:1:53	1	53	PM	Earthen ware	Ceramic		
03E0867:1:54	1	54	PM	Black ware	Ceramic		
03E0867:1:55	1	55	PM	Black ware	Ceramic		
03E0867:1:56	1	56	PM	Metal object	Metal		
03E0867:1:57	1	57	PM	Metal object	Metal		
03E0867:1:58	1	58	PM	Metal object	Metal		
03E0867:1:59	1	59	EM	Pottery	Ceramic		Very small body sherd
03E0867:1:60	1	60		Piece of flint	Flint		
03E0867:1:61	1	61	PM	Pottery sherd	Ceramic		
03E0867:1:62	1	62	PM	Glass fragment	Glass		
03E0867:1:63	1	63	PM	Glass fragment	Glass		
03E0867:1:64	1	64	PM	Post medieval pottery	Ceramic		
03E0867:1:65	1	65		Flint	Flint		
03E0867:1:66	1	66	PM	Brick fragment	Brick		
03E0867:1:67	1	67	PM	Brick fragment	Brick		
03E0867:1:68	1	68	PM	Brick fragment	Brick		
03E0867:1:69	1	69	PM	Brick fragment	Brick		
03E0867:1:70	1	70		Flint	Flint		
03E0867:1:71	1	71	PM	Pottery fragment	Ceramic		
03E0867:1:72	1	72	PM	Glass fragment	Glass		
03E0867:1:73	1	73	PM	Pottery fragment	Ceramic		
03E0867:1:74	1	74	PM	Metal slag	Metal		
03E0867:1:75	1	75		Flint	Flint		
03E0867:1:76	1	76	PM	Flint (struck) + post med pottery	Flint		
03E0867:1:77	1	77	PM	Flint (struck) + post med pottery	Flint		
03E0867:1:78	1	78		Flint	Flint		
03E0867:1:79	1	79		Flint	Flint		
03E0867:1:80	1	80		Flint	Flint		
03E0867:1:81	1	81		Flint	Flint		
03E0867:1:82	1	82	PM	Pottery	Ceramic		
03E0867:1:83	1	83	PM	Pottery	Ceramic		

03E0867:1:84	1	84		Struck flint	Flint		
03E0867:1:85	1	85	PM	Post medieval pottery	Ceramic		
03E0867:1:86	1	86	PM	Post medieval pottery	Ceramic		
03E0867:1:87	1	87	PM	Glass sherd	Glass		
03E0867:1:88	1	88		Struck flint	Flint		
03E0867:1:89	1	89	PM	Post medieval pottery	Ceramic		
03E0867:1:90	1	90		Struck flint	Flint		
03E0867:1:91	1	91		Struck flint	Flint		
03E0867:1:92	1	92		Struck flint	Flint		
03E0867:1:93	1	93		Struck flint	Flint		
03E0867:1:94	1	94		Struck flint	Flint		
03E0867:1:95	1	95	PM	Post medieval pottery	Ceramic		
03E0867:1:96	1	96	PM	Post medieval pottery	Ceramic		
03E0867:1:97	1	97		Struck flint	Flint		
03E0867:1:98	1	98		Struck flint	Flint		
03E0867:1:99	1	99		Struck flint	Flint		
03E0867:1:100	1	100		Struck flint	Flint		
03E0867:1:101	1	101	PH	Scraper	Flint		
03E0867:6:1	6	1	EM	Souterrain Ware	Ceramic		Very small body sherd
03E0867:6:2	6	2		Clinker	Clinker		
03E0867:6:3	6	3	EM	Souterrain Ware	Ceramic		Fragment, may be part of base angle
03E0867:6:4	6	4		Flint	Flint		
03E0867:6:5	6	5	PM	Iron fragment	Iron		
03E0867:6:6	6	6		Small piece of flint	Flint		
03E0867:7:1	7	1	EM	Souterrain Ware	Ceramic		
03E0867:7:2	7	2	EM	Souterrain Ware	Ceramic		
03E0867:7:3	7	3	EM	Souterrain Ware	Ceramic		
03E0867:8:1	8	1	EM	Souterrain Ware	Ceramic		Sherds from C8 are probably from same pot
03E0867:8:2	8	2	EM	Souterrain Ware	Ceramic		Sooty residue externally
03E0867:8:3	8	3	EM	Souterrain Ware	Ceramic		Sherds 8:3-7 have been bagged
03E0867:8:4	8	4	EM	Souterrain Ware	Ceramic		together. Sherd 8:7 may be the start
03E0867:8:5	8	5	EM	Souterrain Ware	Ceramic		of a base angle. All the sherds are
03E0867:8:6	8	6	EM	Souterrain Ware	Ceramic		in a fragmentary and abraded
03E0867:8:7	8	7	EM	Souterrain Ware	Ceramic		condition
03E0867:8:8	8	8	EM	Souterrain Ware	Ceramic		Sherds 8:8 -12 have been
03E0867:8:9	8	9	EM	Souterrain Ware	Ceramic		bagged together. They are in a
03E0867:8:10	8	10	EM	Souterrain Ware	Ceramic		fragmentary condition and reflect
03E0867:8:11	8	11	EM	Souterrain Ware	Ceramic		the overall condition of the vessel
03E0867:8:12	8	12	EM	Souterrain Ware	Ceramic		from this context
03E0867:8:13	8	13	EM	Souterrain Ware	Ceramic		Abraded fragment
03E0867:8:14	8	14	EM	Souterrain Ware	Ceramic		Abraded fragment
03E0867:8:15	8	15	EM	Souterrain Ware	Ceramic		Abraded fragment
03E0867:8:16	8	16	EM	Souterrain Ware	Ceramic		Abraded fragment
03E0867:8:17	8	17	EM	Souterrain Ware	Ceramic		Abraded fragment
03E0867:8:18	8	18	EM	Souterrain Ware	Ceramic		Abraded fragment
03E0867:8:19	8	19	EM	Souterrain Ware	Ceramic		All sherds have sooty residue ext'

03E0867:8:20	8	20	EM	Souterrain Ware	Ceramic	and the fabric suggests they are
03E0867:8:21	8	21	EM	Souterrain Ware	Ceramic	from the same vessel. 8:19 has a
03E0867:8:22	8	22	EM	Souterrain Ware	Ceramic	large void on int' surface. All the
03E0867:8:23	8	23	EM	Souterrain Ware	Ceramic	sherds have been bagged together
03E0867:8:24	8	24	EM	Souterrain Ware	Ceramic	Sherds from context 8 are covered
03E0867:8:25	8	25	EM	Souterrain Ware	Ceramic	by a pale coarse grained sand that
03E0867:8:26	8	26	EM	Souterrain Ware	Ceramic	can obscure the generally oxidised
03E0867:8:27	8	27	EM	Souterrain Ware	Ceramic	orange fabric. The pot from this
03E0867:8:28	8	28	EM	Souterrain Ware	Ceramic	context is in very poor condition.
03E0867:8:29	8	29	EM	Souterrain Ware	Ceramic	There are no rim or base sherds to
03E0867:8:30	8	30	EM	Souterrain Ware	Ceramic	give an indication of the pots size
03E0867:8:31	8	31	EM	Souterrain Ware	Ceramic	Sherds 8:31-33 have not been
03E0867:8:32	8	32	EM	Souterrain Ware	Ceramic	labelled with finds numbers.
03E0867:8:33	8	33	EM	Souterrain Ware	Ceramic	Sherds 8:24-33 are bagged together
03E0867:8: 34-43	8	34-43	EM	Souterrain Ware	Ceramic	Fabric suggests all frag' part of same pot
03E0867:8: 44-53	8	44-53	EM	Souterrain Ware	Ceramic	Some frag' may be from base or rim
03E0867:8:54	8	54	EM	Souterrain Ware	Ceramic	Encrusted sooty residue externally
03E0867:8: 55-158	8	55-158	EM	Souterrain Ware	Ceramic	A bag of tiny fragments and grains
03E0867:8: 159-160	8	159-160	EM	Souterrain Ware	Ceramic	2 fragments that fit together
03E0867:8: 161-170	8	161-170	EM	Fired clay	Ceramic	Lumps and fragments of fired clay
03E0867:8:171	8	171		Small piece of flint	Flint	
03E0867:12:1-5	12	1-5	EM	Souterrain Ware	Ceramic	Soot residue ext, small body sherds and frags'
03E0867:15:1	15	1	PM	Worked flint	Flint	
03E0867:15:2	15	2	PM	Flint debitage	Flint	
03E0867:15:3	15	3	PM	Modern pottery	Ceramic	
03E0867:15:4	15	4	PM	Glass	Glass	
03E0867:15:5	15	5	PM	Modern pottery	Ceramic	
03E0867:15:6	15	6	PM	Modern pottery	Ceramic	
03E0867:19:1-4	19	1-4		Flint flakes	Lithic	
03E0867:19:5	19	5	EM	Souterrain Ware	Ceramic	Abraded fragment
03E0867:19:6	19	6	EM	Souterrain Ware	Ceramic	V. abraded, poss' base angle, sooty residue int'
03E0867:19:7-8	19	7-8	EM	Souterrain Ware	Ceramic	Tiny grains of pot
03E0867:23:3	23	3		Worked flint	Flint	
03E0867:23:4	23	4		Worked flint	Flint	
03E0867:23:5	23	5		Worked flint	Flint	
03E0867:27:1	27	1		Struck flint	Flint	
03E0867:27:2	27	2	PM	Post-medieval pottery	Ceramic	
03E0867:34:1	34	1		Small piece of flint	Flint	
03E0867:37:1	37	1	PM	Brick fragment	Brick	
03E0867:37:2	37	2	PM	Post medieval pottery fragment	Ceramic	
03E0867:37:3	37	3	PM	Post medieval pottery fragment	Ceramic	
03E0867:39:1	39	1	EM	Souterrain Ware	Ceramic	3 fragments and tiny grains
03E0867:39:2	39	2		Small struck flint	Flint	

03E0867:39:3	39	3		Struck flint	Flint		
03E0867:43:1	43	1	EM	Souterrain Ware	Ceramic		Similar fabric to sherds in C8. Some
03E0867:43:2	43	2	EM	Souterrain Ware	Ceramic		have covering of pale sandy clay.
03E0867:43:3-4	43	3-4	EM	Souterrain Ware	Ceramic		White grits visible in fabric. Identified
03E0867:43:5	43	5	EM	Souterrain Ware	Ceramic		as Souterrain Ware, very fragmented
03E0867:43:6	43	6	EM	Souterrain Ware	Ceramic		Fabric suggests the sherds from
03E0867:43:7-10	43	7-10	EM	Souterrain Ware	Ceramic		C43 are from the same vessel.
03E0867:43:11	43	11	EM	Souterrain Ware	Ceramic		They are in an abraded and
03E0867:43:12	43	12	EM	Souterrain Ware	Ceramic		fragmentary condition and have
03E0867:43:13	43	13	EM	Souterrain Ware	Ceramic		encrusted sooty residue externally
03E0867:43:14-23	43	14-23	EM	Souterrain Ware	Ceramic		They are identified as Souterrain Ware
03E0867:44:1	44	1		Flint	Flint		
03E0867:44:2	44	2		Struck flint	Flint		
03E0867:44:3	44	3		Struck flint	Flint		
03E0867:56:1-4	56	1-4	EM	Souterrain Ware	Ceramic		Fragments from C56 all have a similar fabric
03E0867:56:5-8	56	5-8	EM	Souterrain Ware	Ceramic		but are too small to identify
03E0867:56:9-15	56	9-15	EM	Souterrain Ware	Ceramic		
03E0867:69:1	69	1	PM	Modern pottery sherd	Ceramic		
03E0867:90:1-4	90	1-4	EM	Souterrain Ware	Ceramic		
03E0867:125:1	125	1	EM	Souterrain Ware	Ceramic		Encrusted sooty residue externally
03E0867:125:2	125	2	EM	Bead fragment	Glass		
03E0867:196:1	196	1	PM	Porcelain sherd	Ceramic		
03E0867:198:1	198	1	PM	Post medieval pottery sherd	Ceramic		
03E0867:201:1	201	1	PM	Post medieval pottery	Ceramic		
03E0867:201:2	201	2	PM	Post medieval pottery	Ceramic		
03E0867:201:3	201	3	PM	Post medieval pottery	Ceramic		
03E0867:201:4	201	4	PM	Post medieval pottery	Ceramic		
03E0867:201:5	201	5	PM	Post medieval pottery	Ceramic		
03E0867:201:6	201	6	PM	Post medieval pottery	Ceramic		
03E0867:201:7	201	7	PM	Post medieval pottery	Ceramic		
03E0867:201:8	201	8	PM	Post medieval pottery	Ceramic		
03E0867:203:1	203	1	PM	Post medieval pottery	Ceramic		
03E0867:206:1	206	1		Struck flint	Flint		
03E0867:207:1	207	1		Flint	Flint		
03E0867:209:1	209	1		Flint	Flint		
03E0867:224:1	224	1	PM	Post medieval pottery	Ceramic		
03E0867:231:1	231	1		Struck flint	Flint		
03E0867:234:1	234	1		Struck flint	Flint		
03E0867:234:2	234	2		Struck flint	Flint		
03E0867:245:1	245	1	BA	Pottery (prehistoric)	Ceramic		
03E0867:245:2	245	2	BA	Pottery (prehistoric)	Ceramic		
03E0867:245:3	245	3	BA	Pottery (prehistoric)	Ceramic		
03E0867:245:4	245	4	BA	Pottery (prehistoric)	Ceramic		
03E0867:245:5	245	5	BA	Pottery (prehistoric)	Ceramic		
03E0867:253:1	253	1		Struck flint	Flint		
03E0867:253:2	253	2		Struck flint	Flint		

03E0867:253:3	253	3	BA	Prehistoric pottery	Ceramic		
03E0867:253:4	253	4	BA	Prehistoric pottery	Ceramic		
03E0867:253:5	253	5	BA	Prehistoric pottery	Ceramic		
03E0867:253:6	253	6	BA	Lignite bracelet	Lignite		
03E0867:253:7	253	7	BA	Possible prehistoric pottery	Ceramic		
03E0867:253:8	253	8	BA	Possible prehistoric pottery	Ceramic		
03E0867:253:9	253	9	BA	Possible prehistoric pottery	Ceramic		
03E0867:253:10	253	10	BA	Possible prehistoric pottery	Ceramic		
03E0867:253:11	253	11	BA	Possible prehistoric pottery	Ceramic		
03E0867:253:12	253	12	BA	Possible prehistoric pottery	Ceramic		
03E0867:253:13	253	13	BA	Possible prehistoric pottery	Ceramic		
03E0867:253:14	253	14		Flint	Flint		
03E0867:253:15	253	15		Flint	Flint		
03E0867:253:16	253	16	PH	Possible quern stone	Stone		
03E0867:253:17	253	17		Flint blade	Blade		
03E0867:254:1	254	1	PM	Modern glass	Glass		
03E0867:254:2	254	2	PM	Modern pottery	Ceramic		
03E0867:254:3	254	3	PM	Modern pottery	Ceramic		
03E0867:254:4	254	4	PM	Modern pottery	Ceramic		
03E0867:255:1	255	1	PM	Modern pottery + glass	Ceramic		
03E0867:255:2	255	2	PM	Modern pottery + glass	Ceramic		
03E0867:255:3	255	3	PM	Modern pottery + glass	Ceramic		
03E0867:255:4	255	4	PM	Modern pottery + glass	Ceramic		
03E0867:255:5	255	5	PM	Modern pottery + glass	Ceramic		
03E0867:255:6	255	6	PM	Modern pottery + glass	Ceramic		
03E0867:255:7	255	7	PM	Modern pottery + glass	Ceramic		
03E0867:255:8	255	8	PM	Modern pottery + glass	Ceramic		
03E0867:255:9	255	9	PM	Modern pottery + glass	Ceramic		
03E0867:259:1	259	1	BA	Pottery sherd	Ceramic		
03E0867:259:2	259	2	BA	Pottery sherd	Ceramic		
03E0867:259:3	259	3	BA	Struck Flint	Flint		
03E0867:259:4	259	4	Neolithic	Polished stone Axe	Porcellanite		
03E0867:259:5	259	5		Water rolled stone	Stone		
03E0867:259:6	259	6	BA	Struck flint	Flint		
03E0867:259:7	259	7	BA	Pottery sherd	Ceramic		
03E0867:259:8	259	8	BA	Pottery sherd	Ceramic		
03E0867:259:9	259	9	BA	Pottery sherd	Ceramic		
03E0867:259:10	259	10	BA	Flint scraper	Flint		
03E0867:259:11	259	11		Flint nodule	Flint		
03E0867:296:1	296	1	PM	Modern Pottery	Ceramic		
03E0867:296:2-3	296	2-3	EM	Souterrain Ware	Ceramic		Abraded frag' possible base angle
03E0867:313:1	313	1		Flint debitage	Flint		
03E0867:313:2	313	2		Flint fragment	Flint		
03E0867:313:3	313	3		Flint fragment	Flint		
03E0867:313:4	313	4		Flint fragment	Flint		
03E0867:316:1	316	1	BA	Pottery sherd	Ceramic		

03E0867:335:1	335	1	BA	Pottery sherd	Ceramic		
03E0867:336:1	336	1	BA	Pottery sherd	Ceramic		

## **APPENDIX 2 SPECIALIST REPORTS**

Appendix 2.1	Radiocarbon dating report
Appendix 2.2	Species charcoal identification report, Part I – Ellen O’Carroll
Appendix 2.3	Species charcoal identification report, Part II – Ellen O’Carroll
Appendix 2.4	Lithics report – Eimear Nelis
Appendix 2.5	Stone axe report – Barbara Leon
Appendix 2.6	Human bone report – Susan Kidner
Appendix 2.7	Human and animal bone – Camilla Lofqvist
Appendix 2.8	Prehistoric pottery report – Eoin Grogan and Helen Roche
Appendix 2.9	Early medieval pottery – Sue Zajac
Appendix 2.10	Small finds report – Siobhan Scully
Appendix 2.11	Medieval and post medieval pottery – Clare McCutcheon

## **Appendix 2.1      Radiocarbon Dating Report – University of Waikato**

Radiocarbon dating report

University of Waikato

2006



*The University of Waikato*  
*Radiocarbon Dating Laboratory*



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 Head: Dr Alan Hogg

*Report on Radiocarbon Age Determination for Wk-*

**18566**

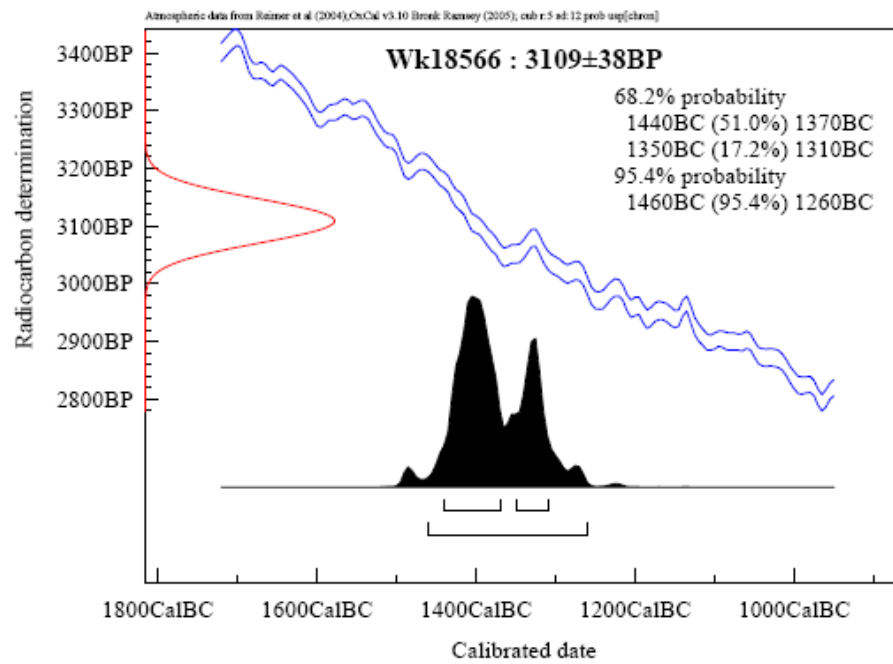
<b>Submitter</b>	Ii Johnston
<b>Submitter's Code</b>	Cammore 1/253/1146
<b>Site &amp; Location</b>	Dundalk Western Bypass, Ireland
<b>Sample Material</b>	Corylus avellana and Fraxinus excelsior
<b>Physical Pretreatment</b>	Possible contaminants were removed. Washed in ultrasonic bath.
<b>Chemical Pretreatment</b>	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.

$\delta^{14}\text{C}$	$-322.3 \pm 3.2$	‰
$\delta^{13}\text{C}$	$-26.0 \pm 0.2$	‰
$\text{D}^{14}\text{C}$	$-321.0 \pm 3.2$	‰
% Modern	$67.9 \pm 0.3$	‰
<b>Result</b>	<b>3109 ± 38 BP</b>	

**Comments**

3/5/06

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



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

***18567***

<b>Submitter</b>	Li Johnston
<b>Submitter's Code</b>	Cammore 1/259/165
<b>Site &amp; Location</b>	Dundalk Western Bypass, Ireland
<b>Sample Material</b>	Fraxinus excelsior
<b>Physical Pretreatment</b>	Possible contaminants were removed. Washed in ultrasonic bath.
<b>Chemical Pretreatment</b>	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.

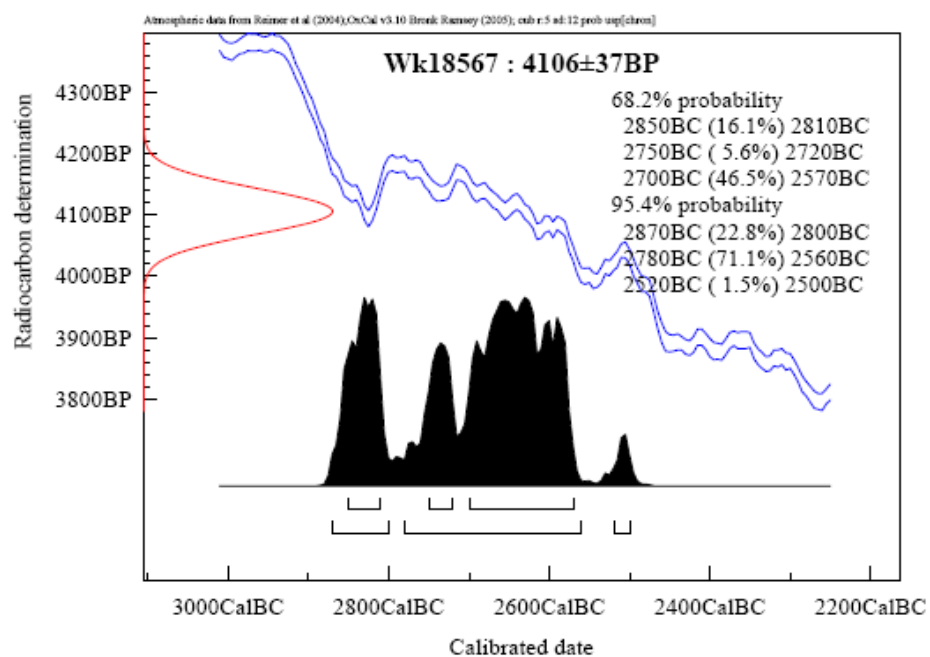
$\delta^{14}\text{C}$	$-401.5 \pm 2.8$	‰
$\delta^{13}\text{C}$	$-26.1 \pm 0.2$	‰
$\text{D}^{14}\text{C}$	$-400.2 \pm 2.8$	‰
% Modern	$60.0 \pm 0.3$	‰
<b>Result</b>	<b><math>4106 \pm 38</math> BP</b>	

**Comments**

*Alan Hogg*

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 2.2      Charcoal Identification Report: Part I – Ellen O’Carroll**

Species identification of charcoal samples from Carn More 1 (03E0867), Co. Louth

Ellen O’Carroll

March 2006

## Introduction

Two charcoal samples were submitted for analysis from Carn More 1, Dundalk bypass. Carn More 1 is located 2 km north-west of Dundalk town and the excavations were concentrated in two distinct areas. The charcoal samples identified were from Area 2, which comprised mainly of pre-historic activity.

The western area, Area 2, was in a sheltered location, centred at Chainage 24.420. It comprised of the remains of three temporary prehistoric huts/structures, a probable human cremation and a number of probable cooking pits. The huts consisted of shallow scoops (c. 3m in diameter), which were roughly surrounded with posts/stakes. One hut appears to have had a porch arrangement of stakes. All the hollows were filled with a homogenous stone layer, possibly a surface or the collapsed low surrounding walls. Finds from the site include sherds of prehistoric pottery, a polished stone axe/adze head and a fragment from a circular lignite object. The prehistoric activity area, Area 2, is located in a low, sheltered saddle, near to a possible ancient pool (c. 30m to the south of the lands made available). The area of settlement activity has good views to the north-east.

The eastern area, Area 1, was centred on Chainage 24.500 and comprised one half of a c. 30m diameter ringfort (the site was bisected by the road take fence line). The site was dated by an assemblage of over 200 small sherds of souterrain ware pottery. As a consequence there were no charcoal samples submitted for identification prior to dating from this area.

The samples received for analysis from the above excavations were retrieved from area 2 Subgroup {154} and {270}, two huts. The first sample was retrieved from (253) which was the deliberate fill of an oval depression (154). Cut into the base of this depression and sealed by 253 were four stakeholes which were each filled with similar material to (253), indicating that the backfilling of all five cuts was simultaneous, and may signify an 'end-of-season' abandonment. Finds recovered from the fills of this feature are prehistoric and mostly associated with domestic/settlement activity. {154} has been interpreted as a hut or temporary dwelling, with a possible entrance on the south-western side and a possible hearth on the deeper western side of the cut.

The second sample was excavated from Subgroup {270} which consisted of a compact spread (259), sealing seven postholes, [268], [270], [273], [305], [312], [323], [327], and bordered by several more. This was the remains of a temporary shelter, perhaps tent like, and is associated with the truncated remains of similar structures {139} and {154}.

The charcoal was sent for species identification prior to <sup>14</sup>C 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.

## Methodology

The process for identifying wood, whether it is charred, dried or waterlogged is carried out by comparing the anatomical structure of wood samples with known comparative material or keys (Schweingruber 1990). The identification of charcoal material involves breaking the charcoal piece so that a clean section of the wood can be obtained. This charcoal is then identified to species under an Olympus SZ3060

zoom stereomicroscope. By close examination of the microanatomical features of the samples the species are determined. The diagnostic features used for the identification of charcoal are micro-structural characteristics such as the vessels and their arrangement, the size and arrangement of rays, vessel pit arrangement and also the type of perforation plates.

### Quantification/Results

Site no.	Context No and type	Sample No	Identification	Weight and comment
Carn More 1, 03E0867	C253, Fill of hut	148	Ash ( <i>Fraxinus excelsior</i> ), blackthorn ( <i>Prunus spinosa</i> ) & hazel ( <i>Corylus avellana</i> )	43.9g
Carn More 1, 03E0867	C259, Fill of hut	1146	Ash ( <i>Fraxinus excelsior</i> ),	75.9g

Table 1: Results from charcoal identifications

### Provenance

The samples received for analysis from the excavations at Carn More 1 were retrieved from Area 2 Subgroup {154} and {270}, two prehistoric huts. The charcoal was excavated from a sealing layer in {154} and from a compact spread also sealing 7 postholes in {270}.

Ash, hazel and blackthorn charcoal were identified from the assemblage. It is difficult to attribute a function to the charcoal remains but they may represent the debris from material used as kindling in and around the area of the huts.

Ash is a native species preferring lime-rich freely draining soils. It is not a very durable timber in waterlogged conditions but has a strong elastic nature. It is easily worked and lends itself well to a range of different requirements like the turning of wooden bowls.

The hazel tree was very common up to the end of the 17th century and would have been used for the manufacture of many wooden structures such as wattle walls, posts, trackways and baskets. 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 deciduous woods dominated by oak. It also occurs as pure copses on shallow soils over limestone as 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.

Blackthorn is a very durable wood and is as strong as oak. Blackthorn 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. The collection of blackthorn was probably the selection of scrub from near to the site in hedgerows and open clearings.

### Conservation

The samples presented for analysis are suitable for conventional  $^{14}\text{C}$  dating. The desired amount of charcoal for a conventional  $^{14}\text{C}$  date is 5 grammes.

### 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 material identified above probably represents kindling/firewood collected for use during the last phase of occupation at the site. It is clear from the analysis above that a number of species were being used at this site particularly at the hut {154}.

A preliminary date of Neolithic has been attributed to Carn More 1. The author has carried out a large number of charcoal identifications from excavated Neolithic houses. The wood most frequently used for structural requirements at these Neolithic houses is oak (*Quercus* sp). The range of species identified from Carn More 1 may indicate that the material analysed within this framework was not from any structural wood associated with the structure but was kindling used during the last phase of occupation. They were probably collecting firewood from nearby to the site on a random basis.

## Discussion

The range of species identified from the Carn More 1 excavations includes large (ash), smaller (hazel) trees and some scrub (blackthorn). The charcoal material identified above probably represents kindle/firewood collected for use during the last phase of occupation at the site. It is clear from the analysis above that a number of species were being used at this site particularly at the hut {154}. One species was identified from the hut {270}.

The species identified above are indicative of a dryland terrain with some scrub possibly growing on the periphery of the area. The charcoal identified from the ash and hazel trees will grow in free-draining dry soils while blackthorn is associated with a scrub-like environment.



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## **Appendix 2.3      Charcoal Identification Report: Part II – Ellen O’Carroll**

Species identification of charcoal samples from Carn More 1 (03E0867), Co. Louth

Ellen O’Carroll

April 2008

## Introduction

Six charcoal samples were submitted for analysis from Carn More 1, Dundalk bypass. Carn More 1 is located 2 km north-west of Dundalk town and the excavations were concentrated in two distinct areas. The charcoal samples identified were from Area 2, which comprised mainly of prehistoric activity.

The western area, Area 2, was in a sheltered location, centred at Chainage 24.420. It comprised of the remains of three temporary huts/structures, a probable human cremation and a number of probable cooking pits. The huts consisted of shallow scoops (c. 3m in diameter), which were roughly surrounded with posts/stakes. One hut appears to have had a porch arrangement of stakes. All the hollows were filled with a homogenous stone layer, possibly a surface or the collapsed low surrounding walls. Finds from the site include sherds of suspected Neolithic pottery, a polished stone axe/adze head and a fragment from a circular lignite object. The prehistoric activity, Area 2, is located in a low, sheltered saddle, near to a possible ancient pool (c. 30m to the south of the lands made available). The area of settlement activity has good views to the north-east.

The eastern area, Area 1, was centred on Chainage 24.500 and comprised one half of a c. 30m diameter ringfort (the site was bisected by the road take fence line). The site was dated by an assemblage of over 200 small sherds of souterrain ware pottery. As a consequence there were no charcoal samples submitted for identification prior to dating from this area.

The samples received for analysis from the above excavations were retrieved from area 2 subgroups {154} and {270}, two huts. The first sample was retrieved from (253) which was the deliberate fill of an oval depression (154). Cut into the base of this depression and sealed by 253 were four stakeholes which were each filled with similar material to (253), indicating that the backfilling of all five cuts was simultaneous, and may signify an 'end-of-season' abandonment. Finds recovered from the fills of this feature were prehistoric and mostly associated with domestic/settlement activity. {154} has been interpreted as a hut or temporary dwelling, with a possible entrance on the south-western side and a possible hearth on the deeper western side of the cut.

The remaining five samples were excavated from subgroup {270} which consisted of a compact spread (259), sealing seven postholes, [268], [270], [273], [305], [312], [323], [327], and bordered by several more. This was the remains of a temporary hut, perhaps tent like, and is associated with the truncated remains of similar structures {139} and {154}.

Dates retrieved from the two hut areas were Neolithic 2700 – 2570BC (C259) {270} and Middle Bronze Age 1460-1260BC (C253) {154}.

The charcoal was sent for species identification prior to <sup>14</sup>C 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 prehistoric 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.

## Methods

The process for identifying wood, whether it is charred, dried or waterlogged is carried out by comparing the anatomical structure of wood samples with known comparative material or keys (Schweingruber 1990). The identification of charcoal

material involves breaking the charcoal piece so that a clean section of the wood can be obtained. This charcoal is then identified to species under an Olympus SZ3060 zoom stereomicroscope & an SP400 metallurgical microscope x 10 to x 40. 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.

One hundred and forty six fragments from 6 samples were identified. Some of the charcoal samples had very few fragments present therefore all of the charcoal from these samples were identified. On average fifty charcoal fragments were identified from the larger samples.

## Quantification

Table 1: Results from charcoal identifications

Site no.	Context No and type	Sample No's	Identification	Weight and comment
Carn More 1, 03E0867	C253, spread Date :1460-1260BC	146 & 148	Ash ( <i>Fraxinus excelsior</i> ), <i>Prunus</i> spp, & hazel ( <i>Corylus avellana</i> ), Birch ( <i>Betula</i> sp), <i>Pinus sylvestris</i> (Pine)	Ash (10 fragments, 0.3g) Prunus (2 fagments, 0.2g) Hazel 12 fragments, 0.4g) Birch (3 fragments, 0.2g) Pine (2 fragments, 0.05g)
Carn More 1, 03E0867	C259, posthole fill Date: 2700-2750BC	165	Oak ( <i>Quercus</i> spp), Hazel Alder ( <i>Alnus glutinosa</i> ) Ash Pine ( <i>Pinus sylvestris</i> )	Oak (2 fragments, 0.2g) Hazel ( 2 fragments, 0.2g) Alder (0.3g, 1 fragment Ash (6 fragments, 0.7g) Pine (41 frgments, 3.6g)
Carn More 1, 03E0867	C311, posthole fill	151	Pine Hazel Alder Birch	Pine (35 fragments, 4.5g) Hazel (3 fragments, 0.2g) Alder (5 fragments, 0.7g) Birch (0.1g, 1 fagment)
Carn More 1, 03E0867	C271, posthole fill	144	Hazel Alder Oak	Hazel (2 fragments, 0.01g) Alder (1 fragment, 0.01g) Oak (3 fragments, 0.05g)
Carn More 1, 03E0867	C294, posthole fill	143	Alder <i>Prunus</i> spp Birch Hazel	Alder (8 fragments, 0.4g) <i>Prunus</i> spp (1 fragment, 0.1g) Birch (0.2g, 3 fragments) Hazel ( 1 fragment, 0.1g)
Carn More 1, 03E0867	C344, posthole fill	175	Oak <i>Prunus</i> spp Ash	Oak ( 2 fragments, 0.05g) Prunus (5 fagments, 0.1g) Ash (3 fragments, 0.1g)

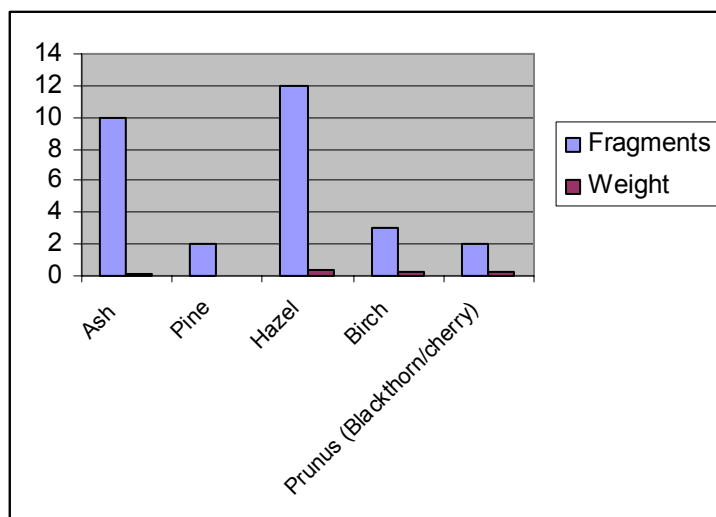


Figure 1: Charcoal identified from the spread **C253**, Date: 1460-1260BC

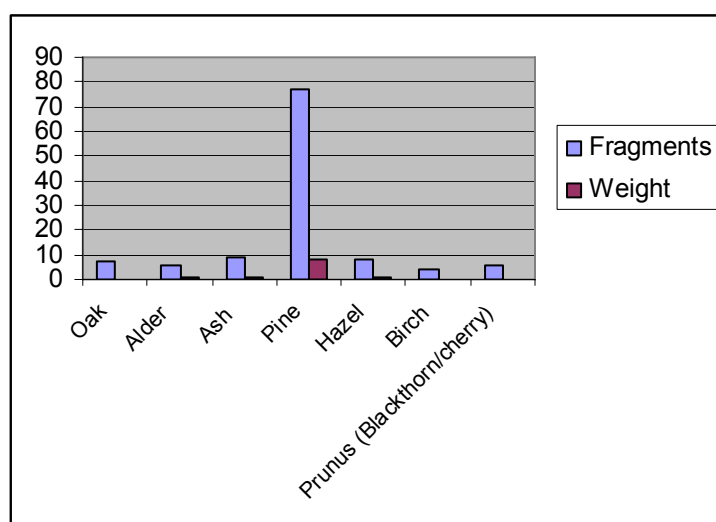


Figure 2: Charcoal identified from the postholes C259, C311, C271, C294, C344, Date: 2700-2750BC

### Provenance & Discussion

The samples received for analysis from the excavations at Carn More 1 were retrieved from Area 2 subgroup {154} and {270}, two Pre-historic huts. One charcoal sample was excavated from a sealing layer in {154} and five samples were taken from 7 postholes in {270}. Dates retrieved from the two hut areas were Neolithic 2700 – 2570BC (C259) {270} and Middle Bronze Age 1460-1260BC (C253) {154}.

Seven taxa were identified from the assemblage. These included oak (*Quercus* spp), ash (*Fraxinus excelsior*), hazel (*Corylus avellana*), pine (*Pinus sylvestris*), *Prunus* sp (cherry/blackthorn), alder (*Alnus glutinosa*) and birch (*Betula* sp). It is difficult to attribute a function to the charcoal remains but they may represent the debris from material used as kindling in and around the area of the huts. The fact that there were several taxa identified from the post hole fills suggests that the charcoal uncovered within these postholes was extraneous material which fell into the posthole after it went out of use and is not related to the actual post that stood in the post hole.

Ash was identified from the Neolithic postholes and the Bronze Age spread and is a native species preferring lime-rich freely draining soils. It is not a very durable timber in waterlogged conditions but has a strong elastic nature. It is easily worked and lends itself well to a range of different requirements like the turning of wooden bowls.

Hazel was also identified from the spread and the postholes. The hazel tree was very common up to the end of the 17th century and would have been used for the manufacture of many wooden structures such as wattle walls, posts, trackways and baskets. 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 deciduous woods dominated by oak. It also occurs as pure copses on shallow soils over limestone as 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.

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. Blackthorn 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. 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. In a woodland situation it is more likely to occur in clearings and at the woodland edges. The collection of blackthorn was probably the selection of scrub from near to the site in hedgerows and open clearings.

Small fragments of alder were identified from the Neolithic posthole fills. Alder is a widespread native tree and occupies wet habitats along stream and river banks. It is an easily worked and split timber and therefore quite commonly manufactured into planks.

Birch charcoal was present in the Neolithic postholes/hut and the Bronze Age spread. 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.

One of the surprising and most interesting results from this analysis was the large amount of pine identified from the assemblage. Pine was identified from the Neolithic postholes and the Bronze Age spread. It was generally thought that although Scots pine became common throughout Ireland after the last glaciation, it had declined and was absent by the medieval period and not reintroduced until the late 17th century. Contrary to this pollen evidence of former tree growth on Clonsast bog, Co. Offaly indicates that the Scots pine tree survived in Ireland as a true native. Dr Murray found a continuous record of pine pollen from the early post-glacial period right up to the modern era (Nelson 1994, 148).

Small quantities of oak charcoal were identified from fill of the postholes (Figure 2). Sessile oak (*Quercus petraea*) and pedunculate oak (*Quercus robur*) are both native

and common in Ireland and the wood of these species can not be differentiated on the basis of their anatomic characteristics. Pedunculate oak is found growing in areas of heavy clays and loams, particularly where the soil is alkaline. Sessile oak is found on acid soils and often in pure stands. Unlike pedunculate oak, it thrives on well-drained soils but is tolerant of flooding (Beckett 1979, 40-41). Both species of oak grow to be very large trees (30-40m high). Oak was one of the most prevalent trees growing in Ireland throughout the medieval period. The anglicised form of the Irish name for oak (derry) is included in many townland names today. Out of 62,000 townlands in Ireland about 1,600 contain the word "derry" in one form or another, either as a prefix or suffix (Mc Cracken 1971, 23). Oak is a dense wood and is very suitable for charcoal production. It also makes good firewood when dried and will grow in wetland areas when conditions are dry. Charcoal was important in pre-historic and Medieval Ireland as it burned hotter and cleaner than wood and was considered superior to wood in that respect.

All samples except the extracted oak from sample no's 165, 144 and 175 are suitable for conventional 14C dating and/or AMS dating. The desired amount of charcoal for a conventional 14C date is 5 grammes while AMS is 0.005g.

### **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 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 material identified above probably represents kindling/firewood collected for use during the last phase of occupation at the site. It is clear from the analysis above that a number of species were being used at this site particularly at the hut {154}.

The author has carried out a large number of charcoal identifications from excavated Neolithic houses and structures. The wood most frequently used for structural requirements at these Neolithic houses is oak (*Quercus* sp). The range of species identified from Carn More 1 may indicate that the material analysed within this framework was not from any structural wood associated with the structure but was

kindling used during the last phase of occupation. The firewood was probably collected from nearby to the site.

Similar to the Neolithic dated features the charcoal from the Middle Bronze Age spread is likely to be firewood used at the site rather than structural wood. A wide range of taxa is generally identified from Bronze Age sites. The fact that birch fragments were low and there was no alder identified suggests a more dryland environment rather than a wetland terrain. Wetland taxa are generally more prevalent at Bronze Age dated *fulacht* sites rather than at dryland habitation sites.

A nearby funerary site at Carn More 5 and also dated to the Bronze Age produced large fragment of oak charcoal. Oak charcoal was used in great quantities within the funerary pyres, postholes and burnt spreads associated with ritual of the dead. This is in sharp contrast to the Bronze Age habitation sites here where no oak charcoal was identified and ash and hazel wood dominated. As fuel is shown to be collected from close by to a site we can hypothesise that the Bronze Age landscapes of Carn More 1 and Carn More 5 differed. The ash and hazel charcoal from Carn More 1 is more closely associated with an open light dominated landscape while the oak is more tolerant of shade and woodland areas.

### Summary & Conclusions

One hundred and forty six fragments from 6 samples were identified. The range of species identified from the Carn More 1 excavations includes large (ash, oak, pine), smaller (alder, birch) trees and some scrub (blackthorn, cherry and hazel). The charcoal material identified above probably represents kindle/firewood collected for use during the last phase of occupation at the site.

Identifications from the Middle Bronze Age spread include substantial quantities of hazel and ash and smaller amounts of birch, pine and *Prunus*. These are all light preferential taxa and may indicate the surrounding landscape may not have been heavily wooded during the Bronze Age period in the area. This assumption is based on the premises that firewood is collected from close by to the site.

Taxa identified from the Neolithic hut produced substantial amounts of pine as well as smaller fragment counts of oak, alder, ash, birch, hazel and *Prunus* spp (blackthorn/cherry).

The surprising and most interesting result from the analysis at Carn More 1 is the amount of pine identified from the Neolithic posthole features. Pine is not generally identified in such large quantities, if at all, from pre-historic sites. The fact that pine was present in both the Neolithic and Bronze Age assemblages suggests that the woodland vegetation surrounding Carn More 1 may have been somewhat similar from the Neolithic into the Bronze Age.

Oak and alder were present, albeit in smaller quantities in the Neolithic Age but were not identified in the Bronze Age periods. The presence of large quantities of ash and hazel and the absence of oak in the Bronze Age spread suggests that the environment may have opened up slightly as ash in particular can occur in areas of open land with access to light. The hazel may also be indicative of a more scrub-like environment in the Middle Bronze Age.

In general the species identified above are indicative of a dryland terrain. The ash, oak and hazel trees will grow in free-draining dry soils while blackthorn/cherry is associated with a scrub-like environment. Scots pine generally prefers acidic soils



and pine/birch forests are common in the Scottish highlands. Wetland taxa include birch and alder.

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## **Appendix 2.4      Lithics report – Eimear Nelis**

Lithics report for Carn More 1 (03E0867), Co. Louth

Eimear Nelis

August 2006

## Carn More 1 (02E0867) Chipped flint and non-flint assemblage

### Introduction

A small assemblage of 86 flint artefacts was recovered during excavations at Site 124, Carn More 1 (03E0867) (Delaney 2005a). The basic composition of the assemblage is given below (Table 1.1).

Unique No	Context	Basic Character	Classification	Condition	Cortex	Fragment size (mm)	Length (mm)	Breadth (mm)	Thickness (mm)	Mass (g)
03E0867:1:10	1	Unworked	Abraded lump	Abraded	Secondary	-	35	25	14	8.89
03E0867:1:11	1	Unworked	Abraded lump	Abraded	Secondary	-	28	25	15	12.50
03E0867:1:13	1	Unworked	thermal flake	Abraded	Tertiary	-	35	31	11	15.33
03E0867:1:14	1	Unworked	Abraded lump	Abraded	Secondary	-	35	31	22	28.81
03E0867:1:27	1	Unworked	Abraded lump	Abraded	Secondary	-	25	22	19	11.69
03E0867:1:28	1	Angular shatter	Knapping debitage	Abraded	Secondary	-	14	13	11	3.39
03E0867:1:29	1	Unworked	Abraded lump	Abraded	Secondary	-	17	16	10	3.79
03E0867:1:30	1	Unworked	Thermal flake	Abraded	Secondary	-	19	14	8	2.48
03E0867:1:31	1	Unworked	Abraded lump	Abraded	Secondary	-	25	25	12	9.90
03E0867:1:32	1	Unworked	Pebble	Water rolled	Secondary	-	25	14	10	4.09
03E0867:1:33	1	Unworked	Abraded lump	Abraded	Secondary	-	20	16	11	3.94
03E0867:1:34	1	Unworked	Abraded lump	Abraded	Secondary	-	16	15	6	2.07
03E0867:1:35	1	Unworked	Abraded lump	Abraded	Secondary	-	18	8	7	1.93
03E0867:1:36	1	Unworked	Abraded lump	Abraded	Secondary	-	18	11	5	1.96
03E0867:1:37	1	Unworked	Abraded lump	Abraded	Tertiary	-	18	13	11	3.01
03E0867:1:38	1	Unworked	Abraded lump	Abraded	Tertiary	-	12	11	10	2.33
03E0867:1:39	1	Unworked	Abraded lump	Abraded	Secondary	-	16	14	9	2.12
03E0867:1:40	1	Unworked	Abraded lump	Abraded	Tertiary	-	16	8	5	.53
03E0867:1:41	1	Unworked	Abraded lump	Abraded	Secondary	-	15	10	6	1.69
03E0867:1:42	1	Unworked	thermal flake	Abraded	Tertiary	-	15	8	6	1.70
03E0867:1:43	1	Angular shatter	Knapping debitage	Patinated	Secondary	-	15	14	8	1.86
03E0867:1:44	1	Unworked	Thermal lump	Abraded	Secondary	-	25	17	12	5.47
03E0867:1:45	1	Angular shatter	Knapping debitage	Abraded	Secondary	-	12	11	11	2.18
03E0867:1:60	1	Unworked	Thermal lump	Abraded	Secondary	-	25	18	12	5.50
03E0867:1:65	1	Unworked	Abraded lump	Abraded	Secondary	-	45	35	27	51.28
03E0867:1:70	1	Unworked	Abraded lump	Abraded	Secondary	-	25	17	14	10.45
03E0867:1:75	1	Unworked	Abraded lump	Abraded	Secondary	-	18	11	9	2.42
03E0867:1:78	1	Unworked	Pebble	Water rolled	Secondary	-	45	35	25	69.71
03E0867:1:79	1	Unworked	Abraded lump	Abraded	Secondary	-	22	16	13	5.58
03E0867:1:80	1	Unworked	Thermally split pebble	Abraded	Secondary	-	28	22	7	7.29
03E0867:1:81	1	Unworked	Thermally split pebble	Abraded	Secondary	-	28	23	10	7.81
03E0867:1:84	1	Flakes	Bipolar shatter distal	Fresh	Secondary	40	-	17	7	3.97
03E0867:1:88	1	Flakes	Platform shatter medial	Fresh	Tertiary	25	-	25	6	4.28
03E0867:1:90	1	Flakes	Platform complete	Patinated	Tertiary	-	15	14	4	1.01
03E0867:1:91	1	Flakes	Indeterminate shatter	Patinated	Tertiary	20	-	15	6	1.80
03E0867:1:92	1	Angular shatter	Angular shatter	Patinated	Tertiary	-	15	10	5	.99
03E0867:1:93	1	Unworked	Abraded lump	Water rolled	Tertiary	-	13	10	4	.88
03E0867:1:94	1	Unworked	Thermal flake	Patinated	Tertiary	-	10	8	6	.78
03E0867:1:97	1	Unworked	Thermal lump	Abraded	Secondary	-	15	16	12	6.51
03E0867:1:98	1	Unworked	Thermal flake	Abraded	Secondary	-	15	15	8	1.90
03E0867:1:99	1	Angular shatter	Knapping debitage	Fresh	Tertiary	-	15	14	4	1.25
03E0867:1:100	1	Flake	Platform complete	Patinated	Tertiary	-	10	13	2	.29
03E0867:1:101	1	Unworked	Thermal flake	Abraded	Tertiary	-	45	32	12	24.75
03E0867:6:4	6	Unworked	Abraded lump	Abraded	Secondary	-	25	14	11	4.75
03E0867:6:6	6	Unworked	Thermal lump	Abraded	Tertiary	-	28	16	10	5.24
03E0867:8:156	8	Core	Flaked chunk	Patinated	Secondary	-	75	83	82	428.91
03E0867:8:157	8	Unworked	Abraded lump	Abraded	Secondary	-	35	20	16	11.57
03E0867:8:158	8	Unworked	Thermal flake	Abraded	Secondary	-	45	45	22	50.51
03E0867:8:171	8	Unworked	Thermal lump	Abraded	Tertiary	-	12	8	6	1.41
03E0867:15:1	15	Modified	Scraper	Abraded	Secondary	25	25	28	12	8.35
03E0867:15:2	15	Unworked	Abraded lump	Abraded	Secondary	-	27	25	15	12.62
03E0867:19:1	19	Angular shatter	Angular shatter	Abraded	Tertiary	-	45	25	22	22.97
03E0867:19:2	19	Unworked	Abraded lump	Abraded	Tertiary	-	19	17	6	3.31
03E0867:19:3	19	Unworked	Abraded lump	Abraded	Secondary	-	31	30	16	18.60
03E0867:19:4	19	Flakes	Bipolar complete	Abraded	Tertiary	-	30	22	5	3.15

03E0867:23:3	23	Unworked	Abraded lump	Abraded	Secondary	-	35	25	13	14.36
03E0867:23:5	23	Unworked	Abraded lump	Abraded	Secondary	-	35	25	22	14.95
03E0867:23:4	23	Unworked	Abraded lump	Abraded	Secondary	-	26	24	17	17.97
03E0867:27:1	27	Flakes	Platform shatter medial	Burnt	Tertiary	23	-	22	11	4.98
03E0867:34:1	34	Unworked	Abraded lump	Abraded	Tertiary	-	19	18	9	1.48
03E0867:39:2	39	Unworked	Abraded lump	Abraded	Tertiary	-	18	6	7	1.32
03E0867:39:2	39	Unworked	Thermal flake	Abraded	Secondary	-	45	42	22	43.07
03E0867:44:1	44	Flakes	Indeterminate shatter	Burnt	Tertiary	-	20	16	7	2.89
03E0867:44:2	44	Flakes	Percussion flake retouch	Patinated	Secondary	-	13	15	7	1.37
03E0867:44:3	44	Flakes	Bipolar complete	Abraded	Secondary	-	26	18	10	6.08
03E0867:161:1	161	Flakes	Platform shatter proximal	Burnt	Tertiary	31	-	17	8	5.08
03E0867:207:1	207	Unworked	Thermal flake	Abraded	Secondary	-	15	10	8	1.83
03E0867:208:1	208	Flake	Bipolar complete	Abraded	Secondary	-	20	20	5	1.72
03E0867:209:1	209	Flake	Bipolar complete	Abraded	Secondary	-	22	20	11	4.22
03E0867:231:1	231	Flake	Platform complete	Abraded	Secondary	-	15	25	2	1.03
03E0867:234:1	234	Flake	Bipolar complete	Abraded	Secondary	-	28	20	11	8.92
03E0867:234:2	234	Flake	Bipolar complete	Abraded	Tertiary	-	18	13	5	1.17
03E0867:253:1	253	Modified	Edge retouched	Abraded	Tertiary	-	32	22	7	6.87
03E0867:253:14	253	Core	Platform partially flaked	Abraded	Secondary	-	18	30	22	14.43
03E0867:253:15	253	Unworked	Abraded lump	Abraded	Secondary	-	28	22	14	12.84
03E0867:253:17	253	Modified	Utilised	Abraded	Tertiary	-	57	28	7	11.01
03E0867:253:2	253	Flake	Bipolar complete	Abraded	Secondary	-	18	15	8	1.95
03E0867:259:3	259	Flake	Bipolar complete	Abraded	Secondary	-	42	26	6	7.84
03E0867:259:5	259	Unworked	Pebble	Abraded	Primary	-	48	35	40	76.13
03E0867:259:6	259	Angular shatter	Angular shatter	Abraded	Tertiary	-	35	21	11	10.81
03E0867:259:10	259	Flake	Bipolar complete	Abraded	Primary	-	38	42	10	16.23
03E0867:259:11	259	Unworked	Abraded lump	Water rolled	Primary	-	38	33	16	26.03
03E0867:313:1	313	Flake	Bipolar complete	Fresh	Secondary	-	17	18	6	2.68
03E0867:313:2	313	Flake	Bipolar complete	Fresh	Tertiary	-	15	22	5	1.77
03E0867:313:3	313	Angular shatter	Angular shatter	Abraded	Tertiary	-	10	8	3	.49
03E0867:313:4	313	Angular shatter	Angular shatter	Abraded	Tertiary	-	8	8	2	.28

Table 1.1: Dundalk Western Bypass: Carn More 1 (03E0867): showing basic composition of the flint assemblage.

The assemblage is dominated by unworked material (51/86 pieces), with most of the remainder being flake debitage (21/86 pieces); of those remaining, most were angular shatter (9/86 pieces), and small numbers of cores (2/86 pieces; Plate 1.1) and modified tools (3/86 pieces; Plates 1.2-1.3) were found (Table 1.1-1.2).

### General provenance of assemblage

The assemblage was recovered from a range of contexts (Table 1.2), dating from the prehistoric period (Group 2) to the post-medieval period (Group 10) (Table 1.2). Group 2 and 3 remains related to prehistoric activity, while Groups 5 to 8 relate to Early Medieval activity. No dating evidence was found for C40 (Group 9), and the remainder of deposits relate to post-Medieval activity (Group 10).

Context No	Interpretation	Unworked	Core	Flake Debitage	Angular shatter	Modified	TOTAL
253	Group 2: Subgroup 154: Fill of C154 Hut base	1	1	1	-	2	5
259	Group 2: Subgroup 270: Floor of possible hut	2	-	2	1	-	5
313	Group 2: Subgroup 270: Fill of C312	-	-	2	2	-	4
207	Group 3: Subgroup 111: Fill of pit C111	1	-	-	-	-	1
208	Group 3: Subgroup 111: Fill of pit C111	-	-	1	-	-	1
209	Group 3: Subgroup 110: Fill of pit C110	-	-	1	-	-	1

8	Group 5: Subgroup 5: Fill of Early Medieval enclosure ditch C5	3	1	-	-	-	4
19	Group 5: Subgroup 5: Fill of Early Medieval enclosure ditch C5	2	-	1	1	-	4
23	Group 6: Subgroup 18: Backfill of Early Medieval souterrain C18	3	-	-	-	-	3
44	Group 6: Subgroup 18: Silt-up of Early Medieval souterrain C18	-	-	3	-	-	3
39	Group 7: Subgroup 42: Fill of slot trench C42	2	-	-	-	-	2
34	Group 9: Subgroup 40: Fill of posthole C40	1	-	-	-	-	1
231	Group 9: Subgroup 231: Spread	-	-	1	-	-	1
1	Group 11: Subgroup 1: Topsoil C1	33	-	5	5	-	43
6	Group 10: Subgroup 27: Post-medieval fill of ditch C5	2	-	-	-	-	2
15	Group 10: Subgroup 14: Fill of machine cut furrows C14	1	-	-	-	1	2
27	Group 10: Subgroup 27: Post-medieval fill of ditch C5	-	-	1	-	-	1
161	Group 10: Subgroup 161: Furrows	-	-	1	-	-	1
234	Group 10: Subgroup 177: Fill of furrows	-	-	2	-	-	2
TOTAL		51	2	21	9	3	86

Table 1.2: Dundalk Western Bypass: Carn More 1 (03E0867): showing distribution and basic composition of the flint assemblage.

Group 2 remains are thought to be the ephemeral remains of prehistoric huts, from which a small quantity of flint artefacts was found; these derived from C253 (5 pieces), C259 (5 pieces) and C313 (4 pieces). C253 yielded a single unworked piece, as well as a core, flake debitage and modified tools. From C259, unworked material (2 pieces), flake debitage and unworked pieces were found. The artefacts found in C313 were comprised of bipolar flake shatter (2 pieces) and angular shatter (2 pieces).

Group 3 remains included a small number of refuse pits, which were thought to be prehistoric, possibly Neolithic; single artefacts were recovered from the fills (C207, C208) of the pit C111, and also from the fill (C209) of the pit C110. These were unworked material (C207) and flake debitage (C208, C209).

The remainder of the assemblage (69 pieces) were recovered from later contexts (Groups 4-10); while many of these were unworked, and may have occurred naturally within the soils, the composition of the worked material suggests that the artefacts were produced during the prehistoric period, and subject to residual redeposition during the historic period. An early medieval enclosure ditch yielded a small number of artefacts (C8: 4 pieces; C19: 4 pieces). A small number of artefacts were found in C8, a fill of the early medieval enclosure ditch (C5); these included unworked material (3 pieces) and a core (1 piece), and the later post-medieval fill of the same feature also yielded small quantities of flint artefacts (C6: 2 pieces; C27: 1 piece). A small number of artefacts were recovered from an early medieval souterrain (Group 6), both from the construction backfill (C23: 3 pieces), and the post-abandonment silting (C44: 3 pieces). Small quantities of artefacts were also found in a slot trench (Group 7: C42: 2 pieces), as well as from undated features (Group 9: C34: 1 pieces; C231: 1 piece). The remaining majority of the assemblage was found in post-medieval deposits (Group 10). The bulk of these were recovered from topsoil (C1: 43 pieces), and these included unworked material, flake debitage and angular shatter. A small number of artefacts were recovered from the fills of furrows (C6: 2 pieces; C161: 1 piece; C234: 2 pieces) and, as mentioned above, some were found in the post-medieval fills of the early medieval ditch (C6: 2 pieces; C27: 2 pieces).

The majority of the assemblage was in an abraded condition (46 pieces), with most of the remainder surviving in a fresh (18 pieces) or patinated (12 piece) condition; only a small number had been water-rolled (5 pieces) or subject to burning (5

pieces). Most of the burnt material was found in early medieval (ie C19: bipolar flake; C44: flake shatter) or post-medieval contexts (ie C27: flake shatter; C161: blade shatter), but one piece of burnt angular shatter was found in C313, the fill of C312 (Group 2 activity). The source of the flint could not be determined for most of the assemblage, but a small number were clearly derived from beach pebbles (7 pieces); most of these were unworked pebbles (5 pieces), but water-rolled cortex was also visible on two pieces of flake debitage. Some of the beach pebble flint was found in Group 2 deposits C253 (2 unworked) and C259 (1 bipolar flake), with the remainder being found in early medieval/post-medieval contexts (C1: 2 unworked, C6: 1 unworked, C44: 1 platform flake).

### Assemblage summary: Carn More 1 (02E0867)

The assemblage was mainly comprised of unworked material (51 pieces), which were mainly retrieved from features dating to the early medieval/post-medieval periods. The unworked material ranged in maximum length between 10-48mm (Fig 1.1). These were largely comprised of small, abraded irregular lumps (32 pieces), but included 3 beach pebbles, as well as thermally fractured lumps (6 pieces) and flakes (8 pieces), as well as thermally split pebbles (2 pieces).

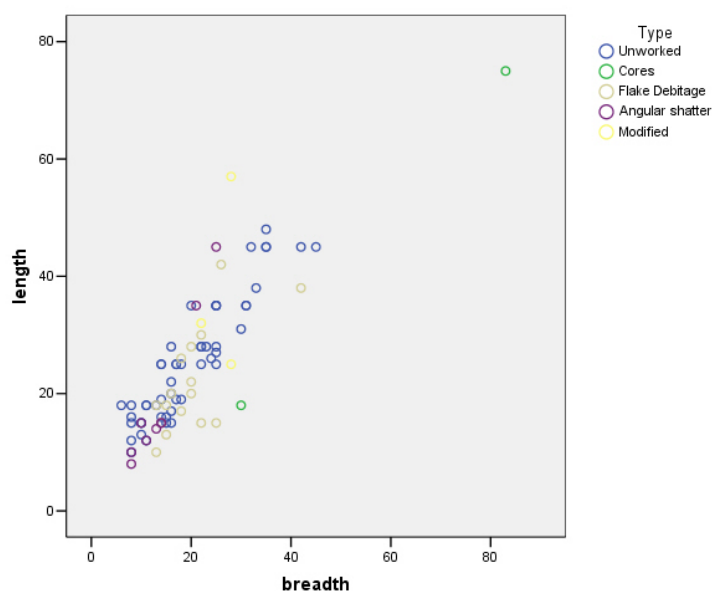


Fig 1.1: Dundalk Western Bypass: Carn More 1 (03E0867): Length by breadth (mm) of complete artefacts.

Just two cores were found, both of which were minimally reduced, and offered little information on reduction strategies at the site; these were found in the prehistoric hut base C253, and C8, the fill of the Early Medieval enclosure ditch (C5). The former was a diminutive single platform, partially reduced piece using an abraded lump (02E0867:253:14) with fewer than three flake removals, and with a maximum flake length of just 18mm (Plate 1.1); the latter was better described as a flaked chunk than as a formally prepared and reduced core, and was a large piece (maximum flaking length 75mm) with fewer than three flake scars (Fig 1.1).

Context No	Platform complete	Platform shatter	Bipolar complete	Bipolar shatter	Total
1	2	2	-	1	5
19	-	-	1	-	1
27	-	1	-	-	1
44	1	1	1	-	3
161	-	1	-	-	1
231	1	-	-	-	1

234	-	-	2	-	2
208	-	-	1	-	1
209	-	-	1	-	1
253	-	-	1	-	1
259	-	-	2	-	2
313	-	-	2	-	2
<b>Total</b>	4	5	11	1	21

Table 1.3: Dundalk Western Bypass: Carn More 1 (03E0867): showing composition and distribution of flake debitage assemblage.

A small assemblage of flake debitage was found (21 pieces); mainly in early to post-medieval deposits (Tables 1.2-1.3). The flake assemblage was mainly comprised of complete bipolar debitage (11 pieces), as well as the distal fragment of a bipolar flake. Platform reduced flake debitage was marginally less common, with nine pieces being found. These included complete flakes (4 pieces), all of which were small, percussion flakes related to core edge preparation, and flake shatter (5 pieces), which comprised medial flake fragments (2 pieces) and a proximal blade fragment (1 piece), as well as a number which were heavily fragmented and could only be recognised as platform flake shatter, but could not be further located on the flake (2 indeterminate flake shatter). The flake debitage assemblage included a number of burnt artefacts (4 pieces), most of which were flake shatter (3 pieces: 1 medial flake fragment, 1 proximal blade fragment, 1 indeterminate flake shatter) as well as a complete bipolar flake (03E0867:19:4). The complete flake debitage assemblage ranged in length from 10-42mm, with three-quarters having a maximum length of 26mm or less (Fig 1.1).

The flake debitage assemblage was derived from a number of contexts (Table 1.3), most of which were related to early medieval or post-medieval activity (ie C1, C19, C27, C44, C231: 14 pieces) where they seem to have been residually deposited; all of the complete and shattered platform pieces, and some of the bipolar debitage, was found in Group 4-10 features.

A small number of flake debitage were found in Group 2 and Group 3 remains, directly relating to prehistoric activity (C253, C259, C313, C208, C209: 7 pieces). These *in-situ* remains are entirely comprised of complete bipolar flake debitage and are mostly derived from Group 2 features; they are comprised of bipolar flakes from C253 (1 piece), C259 (2 pieces) and C313 (2 pieces), with single examples of bipolar debitage being yielded by the Group 3 features C208 and C209. No refit groups were discernable within either the Group 2 or Group 3 debitage, nor indeed were any refit groups discernable within the full debitage assemblage, recovered from all deposits.

A small quantity of angular shatter was also recovered (9 pieces), which seemed to be knapping debitage, some of which had been further damaged by thermal action (3 pieces); one piece, found in C313, had been subject to intensive burning (03E0867:313:3). The angular shatter was mainly found in secondary contexts, with most being found in topsoil (5 pieces) as well as a fill (C19: 1 piece) of the early medieval ditch (C5: Group 5); the remainder were found in Group 2 deposits (C313: 2 pieces; C259: 1 piece).

Three modified tools were recovered: these included a scraper and a utilised blade from C253, the fill of the hutbase (C154: Group 2), and a scraper from C15, the fill of a modern furrow (C14: Group 10). The scraper found in C253 (03E0867:253:1) is steeply retouched on the left lateral ventral edge of a small bipolar flake, which may have been heat-treated prior to modification; the utilised piece (03E0867:253:17)



seems to have been a bilateral cutting tool, based on a platform blade which was put to use without modification. The scraper found in a modern furrow (03E0867:15:1) was produced by reusing a patinated and weathered distal flake fragment, and retouching the distal edge (Plates 1.2-1.3).

### **Discussion: Carn More 1 (02E0867)**

The assemblage of flint artefacts from Carn More 1 was retrieved from a variety of contexts relating to possible prehistoric activity, with a significant majority being residually deposited in early medieval/post-medieval features. Little further needs to be discussed with regard to those subject to residual redeposition, since their composition and distribution will not be relevant to the periods of redeposition and the activity involved.

From the contexts relating to possible prehistoric occupation activity (Group 2), a small quantity of unworked material, including a beach pebble, was found. A small platform core, and a body of flake debitage (populated by bipolar pieces) was found, none of which could be refitted. An irregular scraper and a simply utilised blade were also found. Contexts relating to other prehistoric activity (Group 3) yielded a small assemblage of unworked material and bipolar flake debitage. While all of the material found in these deposits are broadly compatible with Neolithic or Bronze Age activity, none of the artefacts (nor indeed the assemblage when viewed as a whole) point specifically to a particular chronological phase within these periods. The remainder of the assemblage is similarly comprised of unworked material, core and flake debitage, angular shatter and a single modified tool; this material was recovered from Group 4-10 early medieval/post-medieval activity, and as a whole appears to have been residually deposited in these later contexts. While this assemblage differs in its composition to the Group 2-3 material, in having a greater component of platform reduced material, it also appears to derive from prehistoric activity and is compatible with both Neolithic and Bronze Age production.

### **Carn More 1 (02E0867)**

#### **Worked Stone assemblage**

The possible hut remains at Carn More 1 yielded a fragment of a polished shale bracelet (03E0867:253:6; Plate 1.4). This piece, when complete, may have had an external diameter of approximately 130mm, with a diameter through the section of approximately 18mm; it survives, however, as an arc fragment, with an approximate length of 68mm, and has also been broken in section along the bedding of the raw material. A small axe was also recovered from the floor of the possible hut.

While the bracelet fragment has been fractured across its section as well as along its circumference, it may have been ovoid in section. Shale bracelets are found in Ireland from the late prehistoric (particularly Bronze Age) period into the early medieval period (eg Waddell 2000, 265-7). Unfortunately, the fragmentary condition of the Carn More example precludes a conclusion on its original morphology, and also its likely chronological context, but a Bronze Age origin for this piece is possible.

## **Appendix 2.5      Stone Axe Report – Barbara Leon**

Stone axe report

Barbara Leon

July 2004

<b>Seq No. :</b>	21538,	<b>Area :</b>	Carn More 1
<b>Museum Ref. :</b>	03E0867:259:4	<b>County :</b>	Louth
<b>Collection Title :</b>	None	<b>Map Reference :</b>	
<b>Current Loc. :</b>	Shane Delaney, IAC.	<b>Temp Map Ref. :</b>	
<b>Townland :</b>	CARN MORE	<b>NGR X Axis :</b>	304357
<b>Barony :</b>	Upper Dundalk	<b>NGR Y Axis :</b>	310846
<b>Parish :</b>	Dundalk	<b>Ordnance Datum :</b>	
<b>Discovery Circum. :</b>	Archaeological Excavation	<b>Object Type :</b>	Axe/adze
<b>Hoard :</b>		<b>Length :</b>	6.8cm
<b>Context :</b>	Archaeological Site	<b>Width :</b>	3.8cm
<b>From Year :</b>	2003	<b>Thickness :</b>	1.4cm
<b>To Year :</b>	2003	<b>Weight :</b>	58g
<b>Prime Treatment :</b>	Flaked	<b>Face Shape :</b>	Ovate symmetrical
	<input checked="" type="checkbox"/> Blade Ground	<b>Cross Section :</b>	Narrow oval
	<input checked="" type="checkbox"/> Sides Ground	<b>Edge Shape :</b>	Curved:asymmetrical
	<input checked="" type="checkbox"/> Faces Ground	<b>Profile :</b>	Asymmetrical: thin
<b>Secondary Treatment :</b>	<input checked="" type="checkbox"/> Butt Ground	<b>Blade Section :</b>	Asymmetrical: junction face 2
	<input checked="" type="checkbox"/> Blade Polished	<b>Butt Shape :</b>	Flat:flat
	<input checked="" type="checkbox"/> Sides Polished	<input type="checkbox"/> Facet 1 Right	<b>Hafting :</b>
	<input checked="" type="checkbox"/> Faces Polished	<input type="checkbox"/> Facet 1 Left	No evidence.
	<input type="checkbox"/> Butt Polished	<input type="checkbox"/> Facet 2 Right	
		<input type="checkbox"/> Facet 2 Left	
<b>Description :</b>			
<p>Axe/adze. Flaked, ground and polished. Both sides rounded. The junction of the left side and the edge is marked. The junction of the right side and the blade is present but irregular due to damage and subsequent regrinding of edge. The junction of the left side and the butt is present. The junction of the right side and the butt is more rounded than left on side but is also present. The edge is sharp. It is curved, asymmetrical in plan and C-shaped in section. Minor chipping present in central area. There is damage on the right portion of the edge; a flakescar is present on blade area of face 1. On blade area of face 2, a flakescar which has been partially obliterated by regrinding of the edge/blade area is visible. The damage/regrinding of this area has produced an irregularly shaped edge on the right side. The blade area of face 1 merges with the face. The blade area of face 2 is distinguished by a change of slope towards the edge in the area of regrinding. Face 1 is very evenly shaped and well ground and polished. There are faintly defined facets at the junctions between the sides and the face, produced by attempts to eliminate primary flakescars in these portions, some of which remain recognisable. Face 2 is well ground and polished. A primary flakescar has not fully been obliterated in the centre right portion of the axehead, forming a mild depression in this area. The face is more flattened generally. A smaller flakescar is present at the junction between Face 2 and the left side of the axehead. The butt is flattened in plan; very slightly oblique. It is flattened in profile. It is unpolished. The axehead's profile is asymmetrical and thin. The cross section is narrow oval, approaching plano-convex in the lower portion.</p>			
<b>Macro Id :</b>	Porcellanite		
<b>Micro Id :</b>			
<b>Petrology :</b>	Porcellanite		
<b>Comments :</b>	<p>Axe kindly loaned for recording and all strat info supplied by Mr. Shane Delaney, IAC Ltd. email: Shane_delaney@ireland.com. Strat info and relevant correspondence included in file. BL.</p>		
<b>Bibliographies :</b>	<p>Details supplied by The Irish Stone Axe Project</p>		
	Monday, July 26, 2004		

## **Appendix 2.6      Human Bone Report – Susan Kidner**

Human bone report

Susan Kidner

April 2005

## Introduction

### General

This report, prepared on behalf of Louth County Council and the National Roads Authority, has been undertaken to describe the results of osteological analysis carried out on the human remains recovered from excavations in the townland of Carn More, Co Louth. Site 124, Carn More 1 was located in Carn More townland, to the east of County Road 108 off the R177 Armagh Road, c. 2km north of Dundalk (Louth OS sheet 004).

The site was excavated as part of an archaeological mitigation program associated with the M1 Dundalk Western Bypass (DWB). Archaeological fieldwork was directed by Shane Delaney of Irish Archaeological Consultancy Ltd. (IAC Ltd.) and was funded by Louth County Council and the National Roads Authority.

Carn More 1 was listed on the Record of Monuments and Places (RMP) (LH004:067, circular enclosure with a possible attached field system), had been previously identified in the Environmental Impact Statement (Valerie J Keeley, 2000) and was specifically tested by IAC Ltd. in March 2002 (Test excavation Licence 02E0371, Fintan Walsh). The area (within the lands made available) comprised a low lying knoll which overlooked lower ground to the north and east. The site was located 700m to the east of previously unknown site, Site 121, Balriggeran 1 (excavated by Shane Delaney, 02E01325, Ch 23.600 – 23.870). Site 121 was a very large early medieval enclosed settlement at the base of a broad, shallow basin. Site 124, Carn More 1 occupies the outer 'lip' of this basin and as such may be an outlying ringfort connected with the focal site at Site 121, Balriggeran 1.

The unburnt human remains recovered from Carn More 1 comprised a single disarticulated and fragmented cranium from the backfill of an early medieval souterrain, and an isolated adult cremation (discussed in a separate report in this volume), associated with a prehistoric settlement site.

### **The Human Remains**

Carn More 1 produced very little human bone, a disarticulated cranium and a single cremation. These were not linked in any way. The cranium is thought to have been truncated during the backfilling of the early medieval souterrain. The cemetery from which the cranium fragments are thought to originate is thought to lie outside the land take boundary, as no evidence for a cemetery was found within the excavation area.

The cremation is associated with a group of temporary huts, dated through pottery and domestic finds to the prehistoric period. No possible pyre site was found, again, this may lie outside the land take boundary.

### **Methods**

Due to the poor completeness level of the skeletal remains, very little diagnostic work could be done. Methods focussed on creating an inventory of the dentition (Connell 2004), which was also used to assess age-at-death (Brothwell, 1981; Miles 1962). A limited assessment of sexually dimorphic aspects of the skull was carried out (Ascadi & Nemeskeri 1970). Condition of the bone was graded according to McKinley (2004a).

### **The Skeletal Remains (C23)**

*Completeness:* <10%

*Preservation Grade:* 1 (good)

*Age Range:* 25 - 35

*Age Category:* Middle Adult

*Sex:* Possible female (indicated by the nuchal crest of the occipital)

*Non-Metric Traits:* None observable

*Dentition:* Upper right molars and upper left 3<sup>rd</sup> molar present (loose).

*Dental Pathology:* None noted

*Skeletal Pathology:* None noted

## References

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## **Appendix 2.7      Human and Animal Bone Report – Camilla Lofqvist**

Human and animal bone report

Camilla Lofqvist

October 2007



## Non Technical Summary

This report describes the results of the osteoarchaeological analysis of bones retrieved during archaeological excavation (03E0867) carried out at Carn More 1, Co. Louth. Camilla Lofqvist of the Osteoarchaeological Section of Moore Archaeological & Environmental Services Ltd (Moore Group) undertook the bone analysis on behalf of the client, IAC Ltd. The bone analysis was commissioned in order to provide an osteoarchaeological aspect of the development site and to determine if the bone material could provide additional information on the interpretation of the site. The bone analysis and report has been divided into three sections. The first and second sections deal with animal bone while the third section deal with human bone.

The animal bone entailed a total of 128 small unburnt fragments from 45 anatomical units. The bones were in a very poor condition and had a total weight of 231g. Five animal species were identified in the material; cattle, sheep/goat, dog, rabbit and fish (unspecified). An assemblage of cremated human bone was recovered from Carn More 1. The cremated bone identified as human were retrieved from two contexts; C186 and C236, and it is most likely these represent one or two human cremations. The total weight of the bone from the cremation was 1,557.5g. Retrieved with the cremated and unburnt bone were two oyster shell fragments. The fragments were very deteriorated and only weighed 1g.

## **Introduction**

The Osteoarchaeological Services Section of Moore Group was commissioned to undertake an osteoarchaeological analysis of disarticulated burnt and unburnt bones retrieved during an excavation at Carn More 1, Co. Louth. The excavation was carried out by Irish Archaeological Consultancy Ltd (here in IAC Ltd) under license no. 03E0867 and was part of the archaeological work along the Dundalk Western Bypass.

The aim of the analysis was to provide an osteoarchaeological aspect of the development site and to determine if the bone material could provide additional information on the interpretation of the site. This report details the result of this analysis.

## **Methodology**

Analysis of the material involved counting and weighing of all recovered fragments. Quantification was based on two methods:

**NISP:** Number of Identified Specimens. This indicates the total number of fragments found. The NISP is decided by different factors like the age of the animal, the size of the animal and how well the preservation was at the place where the bones were deposited.

**MNE:** Minimum Numbers of Elements. This indicates the minimum number of anatomical units that are present and what side they are from. MNE is used to calculate MNI and is used in the Fusion data tables. To allow for a young individual to grow the bones from a juvenile at birth are made up of several different parts. When the individual gets older the different parts grow together and form one bone. The parts of the bone grow together at different age-stages and this makes it possible to estimate the age of an animal. This means that three bone fragments can be part of the same bone element. For example: Proximal and distal epiphyses fused with the diaphysis. To avoid getting a higher MNE all loose epiphyses have to be paired with all unfused diaphysis.

The bones were examined for traces of gnawing, cut marks and pathology. The gnaw marks give information about how exposed the bones were after being discarded. A high percentage of bones with traces of gnawing indicates that the bones were left exposed so animals like dogs, rats and other scavengers had access to the bones. Pathology is the study (logos) of suffering (pathos) or better defined as “the study of disease processes”.

## **Animal bone**

The cut marks can give valuable information about how animal carcasses were butchered. These marks can also give information as to whether the animals were kept for their milk, as a source of meat, or if they played an important part in industrial production of for example hide or bone objects.

## **Human bone**

Human skeletal remains can provide a wide range of information, e.g. demography, sex and age profile, stature and diseases. Furthermore the analysis can provide details of diet, occupation, general state of health and traumas caused to individuals. Paleopathology is the study of disease in ancient populations as revealed by skeletal remains. The skeletal remains of an individual can record events in this person's life, events like diseases, trauma, metabolic disorders, circulatory disturbances, tumours and mechanical stress and so on. Trauma is the second most common pathology and can be defined as any bodily injury or wound. An analysis of skeletal trauma in a population can reveal a lot of information about the society in which the individuals

have lived, such as lifestyle, economy, occupation, violence and healing of injuries indicating the level of medical ability, treatments and so on.

### Burnt bone

Bones change their structure and composition through heating. Moisture is driven off and the organic component (chiefly collagen) combusted, leaving only the mineral portion. The result is fragmented and distorted bone which is usually reduced in size. The temperature during the firing also affects the colour of the bone, where red/orange coloured bones indicate a low temperature while white coloured bone indicates a high temperature. Cremated bone tends to survive better and longer than unburnt bone. However, just after cremation the bone is very brittle and prone to breaking.

## Results

### Introduction to Results

The following sections present the different animal species and the human bone retrieved from the site at Carn More 1, Co. Louth. The first section refers to the domesticated meat-producing animals; cattle and sheep/goat along with other domesticated animals like dog. In the second section wild animals like fish and rabbit are discussed. The third section deals with the human remains, all of which were cremated on this site.

### Animal and Unidentified Bone

In total, 394 individual pieces of animal and unidentified bone (NISP) from 311 anatomical units (MNE) were analysed (Table 1). From these, a total of 266 fragments (67.5%) were not possible to identify to species as the bones were too fragmented. The remaining 128 fragments (32.5%) from 45 anatomical units (e.g. two fragments of the same femur were counted as a MNE of one) were identified and divided into species (Table 2). The total weight of the animal and unidentified bone was 307.1g. Two fragments of an oyster shell were also retrieved with the animal and unidentified bone. The fragments were very deteriorated and only weighed 1g.

The total number of individual pieces of bone (NISP), anatomical units (MNE) and the total weight identified to species.					
Group	No of fragments	Frag in %	MNE	Weight in g	Weight in %
Fragments	128	32.5%	45	231	75.2%
Unidentified fragments	266	67.5%	266	76.1	24.8%
Total	394	100%	311	307.1	100%

Table 1. Total NISP, MNE and weight identified to species.

### Human Remains

An assemblage of burnt bone was recovered from context C186 and C236 which seems to be the result of one or two human cremations. The total weight of the bone was 1,557.5g and only 12.9% (200.5g) could be identified.

### Mammals and fish

The total weight of the animal bone sample from Carn More 1 was 231g. There were a total of 128 fragments (NISP) from 45 bone elements (MNE) which were identified and divided into species (Table 2).

The animal bone assemblage only contained unburnt fragments which were in a much deteriorated and fragmented condition. Each fragment had an average weight of only 1.8g while the average weight of each anatomical unit was 5.1g. A majority of the fragments displayed a very worn and weathered appearance.

Bones from five animal species were identified in the material: *Bos taurus* (cattle), *Ovis aries/Capra hircus* (sheep/goat), *Canis familiaris* (dog) *Oryctolagus cuniculus* (rabbit) and *Pisces* (unspecified fish) (Table 2, Appendix 1).

Sheep (*Ovis*) and goat (*Capra*) are difficult to distinguish from each other. For this reason, and due to the fragmented condition of the bones, these two species have been analysed together as one group (*Caprinae*). However, it is indicated in old Irish law-texts that the goat was never common and that the animal never played an important role in the animal husbandry during early Irish farming (Kelly, 1998:78).

Showing the total number of fragments (NISP), total number of anatomical elements (MNE), total number of individuals (MNI) and total weight for all species present.								
Species	NISP	NISP in %	MNE	MNE in %	MNI*	MNI in %	Weight	Weight %
Cattle	108 84	38%	30	66.67%	2	33.33%	172	74.46%
Sheep/goat	10	7.81%	7	15.56%	1	16.67%		14.72%
Dog	5	3.91%	5	11.11%	1	16.67%		8.66%
Rabbit	3	2.34%	1	2.22%	1	16.67%		0.87%
Fish		1.56%	2	4.44%	1	16.67%		1.30%
Total	128	100%	45	100%	6	100%	231	100%

Table 2. NISP, MNE, MNI and weight for all species. (\*MNI=Minimum Number of Individuals)

### Domesticated animals

#### CATTLE; BOS

Cattle was the most common animal species in the Carn More 1 bone assemblage. In total, 108 fragments from 30 anatomical units were retrieved. The total weight of the cattle bone came to 172g and the MNI was 2; one adult and one juvenile (Table 2). The age at which the cattle were slaughtered was estimated on fusion data and on the basis of the tooth eruption and wear of the teeth in the mandible.

The anatomical units present from cattle were fragments of teeth, scapula, femur, tibia, carpal, tarsal and phalanges. All fragments apart from one were unburnt but very weathered, giving them a white or cream coloured appearance. One of these fragments, a diaphysis fragment of a tibia had been butchered while two fragments from a tarsal (Ct) exhibited tooth marks which were most likely caused by a dog. The single fragment which had been exposed to burning displayed an unusual pattern of charring. The fragment was unburnt and weathered on the exterior while it was black and charred on the interior. This reveals the bone was in fragmented state when it was exposed to burning and the black charring of the interior indicates a low heat during firing.

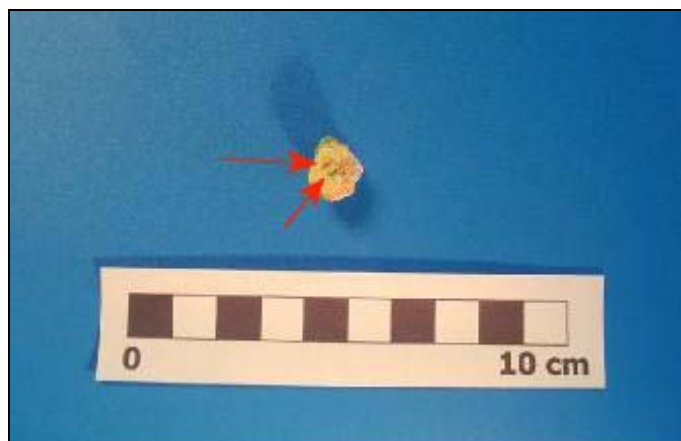


Plate 1. Tarsal fragment of cattle with arrows highlighting tooth marks.

#### *CAPRINAE (SHEEP/GOAT; OVIS/CAPRA)*

As previously stated, sheep and goat are difficult to distinguish from each other and are therefore grouped as caprinae.

The total number of bone fragments identified as sheep/goat was ten, from seven anatomical units. The MNI was 1; one adult of 3-6 years of age at time of death. The age at which the caprinae were slaughtered was estimated on the basis of the wear of the teeth in one mandible. The total weight of caprinae was 34g or 14.72% of the total weight of all bones identified to species (Table 2). The ten caprinae fragments were retrieved from two contexts; C33 and C125.

One tibia fragment displayed traces of butchering as the diaphysis had been chopped up. The mandible, on which the age of the individual was calculated, was missing the lower second premolar. As there was no trace of an alveolus it is likely this tooth was congenitally absent.

#### *DOG; CANIS*

Dog was represented by five disarticulated fragments from two anatomical units. These two units, coxae and femur, were from both the left and right side indicating these were from the one and same individual. However, as these fragments came from two contexts, C23 and C125, it is possible the fragments represent two individuals. A fused distal epiphysis from a femur reveals this fragment was from an adult individual while the general size of all the fragments indicates a small dog, possibly of a Jack Russell or small terrier size. The total weight of the dog bone came to 20g.

#### **Wild animals, fish and shell**

##### *RABBIT, ORYETOLAGUS*

Only three fragments from rabbit were retrieved from Carn More 1. These three fragments were all from the same bone, a proximal diaphysis and epiphysis of a tibia. The MNI came to 1; an adult. The proximal epiphysis of the tibia displayed traces of gnawing. The bone was very weathered and the total weight of the three fragments was 2g.

The rabbit was most likely introduced to Ireland during the late 12th century. They were kept in rabbit warrens, something which often is mentioned in Irish Medieval records, thereby providing a regular supply of meat (Kelly, 1998) (Plate 2). It is believed that medieval monks were, most likely, the first to carry out selective

breeding of captive rabbits. They kept them in walled and paved courtyards, with the purpose of getting the rabbits to breed above ground and thereby facilitate the retrieval of its young. The monks relished the rabbits as food, especially as it wasn't considered as meat and therefore could be eaten during fasts. Apart from the adult rabbits the monks also ate the unborn and newly born (leverets). Rabbit fur was never used for clothing as the hairs are shed fairly quickly from the skin (Clutton-Brock, 1999).

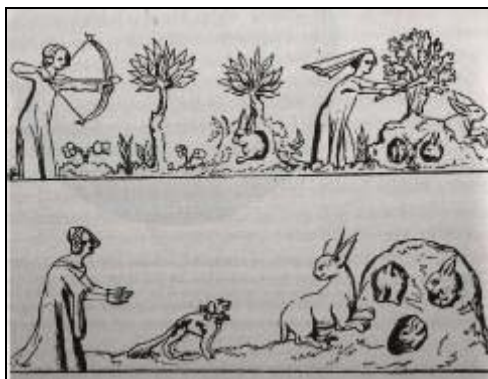


Plate 2. Rabbits being hunted by ladies in a medieval rabbit garden (Extract from Clutton-Brock, 1999:176).

### *FISH, PISCES*

The Carn More 1 material contained two fish bones. However, apart from some of the larger bones most of the fish bones in the archaeological material are never retrieved. They are difficult to detect in the soil and a very fine sieve would need to be used as they would otherwise fall through the mesh.

The two fish bones were identified as a possible pike (*Esox lucius*) or a fish of similar size. The pike belongs to the Esocidae family which are species of carnivorous fish of the genus *Esox* (the pikes). They are typical of brackish and freshwaters of the northern hemisphere. Pike are found in sluggish streams and shallow, weedy places in lakes, as well as in cold, clear, rocky waters. Pike grow to a relatively large size; lengths of 150cm and weights of 25kg are not unheard of.

The two fragments were from the suspensorium (head part) and were identified as two left dentary fragments indicating two individuals. The total weight of the bone was 3g.

### *SHELL*

Retrieved with the cremated and unburnt bone from Carn More 1 were two shell fragments. The fragments were much deteriorated but have been identified as the native oyster (*Ostrea edulis*). Both fragments were recovered in context C6 and had a total weight of only 1g.

### **Unidentified bone**

The majority of the bone assemblage, c. 67.5%, could not be identified to species or anatomical unit. The total weight of these 266 fragments came to 76.1g. The unidentified material held both burnt and unburnt bone. The 127 unburnt fragments had a total weight of 41.5g. Some of these were identified as highly fragmented teeth fragments but it could not be determined if these came from one or several anatomical units nor which animal these teeth fragment came from.

One-hundred-thirty-nine (139) fragments were burnt and had a total weight of 34.6g. None of the bone fragments retrieved was larger than 3.5 cm with the majority of the unidentified burnt bone fragments being between 2-15mm. The white colour and the high fragmentation of the Carn More 1 bones indicated a high heat during burning, with temperatures reaching at least 6450C or higher. Further, the high fragmentation of the bone sample from Carn More 1 suggests the bones might have been disturbed while still hot.

## Human Bone

### Identified cremated human bone

All the human bones recovered from the site consisted of cremated bone. Two assemblages of burnt bone were recovered from contexts C186 and C236 and it seems this was the result of one or two human cremation. The total weight of the bone was 1,557.5g and only 12.9% (200.5g) could be identified. The only identifiable fragments were all determined to be human and they included skull and teeth fragments along with vertebrae, costae, humerus, radius, ulna, tibia, fibula, patella, tarsal and phalanges fragments.

The average weight of the bone assemblage retrieved from a cremation are dependable on different factors such as if it is a male or female corpse, the height and general body built of the individual and if the individual is young or old (Table 3). It is rare to find all the bones of the body represented in an archaeological cremation as there is a loss of bone during the processing of the burnt material and/or through disturbances of the deposited cremated skeletal remains. Malinowski and Porawski (1969) reported that in a modern crematoria, the burning of a male would yield on average 2,004g of burnt bone while a female corpse would yield 1,540g.

The Carn More 1 cremations weighed 1,557.5g in total and held a high degree of soot and charcoal. Based on the weight calculation above by Malinowski and Porawski (1969) and assuming the bone is from one cremation, this individual might have been a female.

The total weight of the cremated bone from C186 was 631.5g while the bone from C236 had a total weight of 926g. As there were no indications of a juvenile in the material, it can be assumed that these bones were from an adult. The weight of the cremations is less than the average weight mentioned by Malinowski and Porawski (above) and in Table 3 (below) but it could be due to several factors. For example the burial might have been disturbed by ploughing or other activities or that bones were lost during the collection of remains from the burial pyre in antiquity. Alternatively, it is also possible that the two contexts C186 and C236 represent the funeral pyre and that all larger bone have been gathered up to be deposited at a different, permanent burial location.

**Table 3. Ash weight of the Human Skeleton**

Age group	Gender	Mean weight (in grams)
0-6 months		54g
6 months - 3 years		185g
3-13 years		661g
13-25 years		2,191g
Adult	Male	2,288g (range 1,534-3,605g)
Adult	Female	1,550g (range 952-2,278g)

(From Mays, 1998:220, tab. 11.2. Base on Trotter and Hixon, 1974, fig. 1)

The bone assemblage from C186 was most likely from one single individual as no duplicate bones were retrieved and as the weight of the cremation was so low. The

anatomical units retrieved were from the skull, teeth, vertebrae, ribs, humerus and phalanges. The skull fragments recovered suggest the possibility that this individual might have been a young adult female.

The weight of the bone assemblage retrieved from C236 had a total weight of 926g and the anatomical units identified were from the skull, teeth, vertebrae, ribs, humerus, radius, ulna, patella, tibia, fibula, tarsal and phalanges.

It was not possible to determine sex, age at death, pathologies or other osteological information from any of the other recovered bones in the assemblage. A sample of the cremated bones identified as human is displayed below (Plate 3).



Plate 3. Sample of fragments identified as human. (a) Dens fragment (right) from axis (left; skeletal reference) (b) Selection of phalange fragments (left) with skeletal reference to the right (c) Trochlea and diaphysis fragment (left) of a humerus with skeletal reference sample to the right (d) Sample of skull fragments.

#### Unidentified cremated bone

To assess the fragmentation of the unidentified cremated bone from C186 and C236 was passed through two sieves; one 5mm and one 2mm mesh (Table 4). Of these fragments c. 7% were small enough to pass through the 2mm sieve, a total of c. 40% passed through the 5mm sieve while c. 53% were too large to pass through the 5mm sieve (Plate 4). None of the fragments retrieved at Carn More 1 were bigger than 5cm.

Fragmentation size and weight of the cremated bones				
Context no	No of fragments	Fragmentation size	Weight in grams	Weight in %
186		<2mm	98	7.2%
186		2 – 5mm	200	14.7%
186		>5mm	297	21.9%
236		2 – 5mm	346	25.5%
236		>5mm	416	30.7%



Total		1357	100%
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Table 4. Fragment size and weight of the unidentified cremated bone.



Plate 4. Sample of cremated human bone from the 5mm sieve.

All the cremated bone had a chalky white and fragmented appearance. This indicates a high heat of the funeral pyre, that all the bones or a selection of bones were either disturbed or removed from the pyre while still warm and brittle, causing further breakage to the bone, before possibly being deposited in the ground. However, there was also a high degree of charcoal staining on the bone from C186 and C236. This might indicate that the entire human remains and charcoal from the funeral pyre was kept together, possibly being raked up and assembled before burial.

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Bag	Sample No	Context	Species	Element	Part of element	NISP	MNE	Side	Pr epi	P 1/3	M 1/3	1/3	Di epi	J	M/F	C	G	P	Unburnt	Burnt	Desc C/P/G	Comment	Weight	Sieve
1	34	23	Bos	Tarsal	Half unburnt Ct in frag	7	1	Dx	-	-	-	-	-	-	-	-	2	-	7	-	G:2 teeth marks=dog??	Weathered	11	
2	22	23	Oryctolagus	Tibia	Prox dia+epi, dia frag	3	1	Sin	F	1	1	-	-	-	-	-	1	-	3	-	G:1w pos gnaw on epi	Weathered	2	
3	181	23	Unid	Unid	Unburnt frag	15	15	-	-	-	-	-	-	-	-	-	-	-	15	-	-	Weathered	15	
4	123	186	Human	Unid	Burnt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Prob cremation, black	8	2mm
5	123	236	Human	Skull	Skull frag fr occip, temp, font, par	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Pos cremation	83	10mm
5	123	236	Human	Vertebrae	NA, proc art, corpus frag	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Prob cremation	12	10mm
5	123	236	Human	Vert cerv	Axis, dens frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Cremation	1	10mm
5	123	236	Human	Costae	Pos, costae-corpus frag	3	3	-	-	-	-	-	-	-	-	-	-	-	-	3	-	Cremation	2	10mm
5	123	236	Human	Dens	Roots from teeth, prob molar	2	2	-	-	-	-	-	-	-	-	-	-	-	-	2	-	Cremation	1	10mm
5	123	236	Human	Ph	Distal hand ph -frag-	1	1	-	F	1	1	1	F	-	-	-	-	-	-	1	-	Cremation	0.5	10mm
5	123	236	Human	Ph	Prox hand ph frag	2	2	-	-	1	1	1	F	-	-	-	-	-	-	2	-	Cremation	1.5	10mm
5	123	236	Human	Vert cerv	Corpus frag	1	1	-	F	1	1	1	F	-	-	-	-	-	-	1	-	Cremation	1.5	10mm
5	123	236	Human	Patella	Frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Cremation	1	10mm
5	123	236	Human	Tarsal	Navicular frag	1	1	Sin	-	-	-	-	-	-	-	-	-	-	-	1	-	Cremation	0.5	10mm
5	123	236	Human	Tarsal	Talus	1	1	Sin	-	-	-	-	-	-	-	-	-	-	-	1	-	Cremation	4	10mm

					frag-trochlea																		m
5	123	236	Human	Radius	Prox epi+dia frag	2	1	Sin	F	-	1	-	-	-	-	-	-	-	2		Cremation	5	10m
5	123	236	Human	Radius	Dist diaph frag	1	1	Dx	-	-	-	1	-	-	-	-	-	-	1		Cremation	4	10m
5	123	236	Human	Ulna	Diaph frag	1	1	Dx	-	-		1	-	-	-	-	-	-	1		Cremation	5	10m
5	123	236	Human	Humerus	Diaph frag	1	1	-	-	-	-	1	-	-	-	-	-	-	1		Cremation	4	10m
5	123	236	Human	Fibula	Diaph frag	3	1	Dx	-	-	1	2	-	-	-	-	-	-	3		Cremation	10	10m
5	123	236	Human	Tibia	Diaph frag	4	1	Dx	-	-	1	1	-	-	-	-	-	-	3		Cremation	14	10m
5	123	236	Human	Unid	Burnt unid	-	-	-	-	-	-	-	-	-	-	-	-	-	Y		Cremation	416	10m
6	123	236	Human	Dens	Root prob from PM or Mol	2	2	-	-	-	-	-	-	-	-	-	-	-	2		Cremation	0.5	5mm
6	123	236	Human	Ph	Hand-distal ph frags	2	2	-	F	1	1	1	F	-	-	-	-	-	2		Cremation	0.5	5mm
6	123	236	Human	Vertebrae	Corpus+na frags	4	4	-	-	-	-	-	-	-	-	-	-	-	4		Cremation	1.5	5mm
6	123	236	Human	Skull	Skull frags	6	1	-	-	-	-	-	-	-	-	-	-	-	6		Cremation	4	5mm
6	123	235	Human	Unid	Burnt	-	-	-	-	-	-	-	-	-	-	-	-	-	Y		Cremation	288	5mm
7	165	259	Unid	Unid	Frag	8	8	-	-	-	-	-	-	-	-	-	-	-	8		White	1	Betw 4-14m
8	121	240	Unid	Unid	Frag	5	5	-	-	-	-	-	-	-	-	-	-	-	5		White	0.5	Betw 2-14m
9	120	236	Human	Unid	Burnt frag	-	-	-	-	-	-	-	-	-	-	-	-	-	Y		Prob cremation, black	58	Betw 2-20m
9	120	236	Human	Skull	Mixed skull frag, suture	6	6	-	-	-	-	-	-	-	-	-	-	-	6		Prob cremation black	4	Betw 5-25m

9	120	236	Human	Dens	Root frag	3	3	-	-	-	-	-	-	-	-	-	-	-	3	-	Prob cremation black	1.5	Betw 4-6mm
9	120	236	Human	Fibula	Diaph frag	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-	Prob cremation black	2	C.18 mm
10	148	253	Unid	Unid	Frag	6	6	-	-	-	-	-	-	-	-	-	-	-	6	-	White	0.5	Betw 6-10mm
11	151	313	Unid	Unid	Frag	6	6	-	-	-	-	-	-	-	-	-	-	-	6	-	White	0.1	Betw 2-10mm
12	116	186	Human	Unid	Burnt frag	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Cremation	155	2mm
12	116	186	Human	Unid	Dust+sh+bone	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Cremation	80	<2mm
12	116	186	Human	Unid	Burnt frag	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Cremation	208	5mm
12	116	186	Human	Skull	Skull frag, front orbit, suture	14	1	-	-	-	-	-	-	-	F?	-	-	-	14	Possible female orbita thin	Cremation	10	5mm
12	116	186	Human	Vertebra	Corpus frag	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-	Cremation	3	5mm
12	116	186	Human	Dentes	Root frag	5	1	-	-	-	-	-	-	-	-	-	-	-	5	-	Cremation	1.5	5mm
12	116	186	Human	Ph	Hand-distal ph frags+interm phs	5	5	-	F	1	1	1	F	-	-	-	-	-	5	-	Cremation	1	5mm
12	116	186	Human	Humerus	Prox epi+troc hlea frag+dia frag	4	1	Sin	1	-	1	-	1	-	-	-	-	-	4	-	Cremation	4	5mm
13	116	186	Human	Unid	Burnt frag	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Cremation	89	5mm
13	116	186	Human	Unid	Burnt frag-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Cremation	37	2mm
13	116	186	Human	Unid	Dust+ash+bone	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Cremation	18	<2mm
13	116	186	Human	Costae	Corpus frag	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-	Cremation	0.5	5mm
13	116	186	Human	Ph	Distal ph, interm+	4	4	-	-	-	-	-	-	-	-	-	-	-	4	-	Cremation	3.5	5mm

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23	138	255	Unid	Unid	Burnt frag	1	1		-	-	-	-	-	-	-	-	-	-	1	-	White	0.5	<15 mm
24	136	263	Unid	Unid	Burnt frag	1	1		-	-	-	-	-	-	-	-	-	-	1	-	White	0.5	<10 mm
25	135	256	Unid	Unid	Burnt frag	5	5		-	-	-	-	-	-	-	-	-	-	5	-	White	2.5	Betw 5-20m m
26	35	25	Unid	Unid	Burnt frag	11	11		-	-	-	-	-	-	-	-	-	-	11	-	White	1.5	Betw 5-10m m
27	46	43	Unid	Unid	Burnt frag	12	12		-	-	-	-	-	-	-	-	-	-	12	-	White	3.5	Betw 5-15m m
28	17	6	Shell	Shell	Frag	2	1		-	-	-	-	-	-	-	-	-	-	-	-	-	1	
29	50	10	Bos	Femur	Dist diaph frag	1	1	Dx	-	-	-	-	-	-	-	-	-	1	-	-	Weathered	6.5	
29	50	10	Unid	Unid	Unburnt frag	10	10		-	-	-	-	-	-	-	-	-	10	-	-	Weathered	3.5	
30	3	10	Bos	Dens	Cuso frag Molar	14	1		-	-	-	-	-	-	-	-	-	14	-	-	Pos juv	4.5	
30	3	10	Bos	Carpal	C2+3 frag	1	1	Dx	-	-	-	1	-	-	-	-	-	1	-	-	Weathered	1.5	
30	3	10	Unid	Unid	Unburnt frag	13	13		-	-	-	-	-	-	-	-	-	13	-	-	Weathered	4.5	
31	56	59	Bos	Dentes	Cusp frag – Molar	34	3		-	-	-	-	-	J	-	-	-	34	-	-	Erupting	13	
32	1	1	Unid	Unid	Unburnt frag	14	14		-	-	-	-	-	-	-	-	-	14	-	-	Weathered	5	
32	1	1	Pisces	Suspens orium	Pos dentary	2	2	Sin	-	-	-	-	-	-	-	-	-	2	-	-	Pos pike size	3	
33	112	125	Bos	Tibia	Dist dia+epi frag	1	1	Sin	-	-	1	1	F	-	-	1	-	1	-	C:chopped up dia	V weathered	76	
33	112	125	O/C	Dens	Mol-cusp frag	2	1		-	-	-	-	-	-	-	-	-	2	-	-	Weathered	2	
33	112	125	O/C	Tibia	Diaph frag	1	1	Dx	-	-	1	1	-	-	-	1	-	1	-	C:chopped up dia	-	12	
33	112	125	Bos	Ph	Dist dia+epi frag	1	1	-	F	1	-	-	-	-	-	-	-	1	1	-	Burnt interior	2	
33	112	125	Canis	Tibia	Diaph	1	1	DX	-	-	-	-	-	-	-	-	-	1	-	-	Small dog j	3	

■

## **Appendix 2.8      Prehistoric Pottery Report – Eoin Grogan & Helen Roche**

The prehistoric pottery from Carn More 1, Co Louth

Eoin Grogan and Helen Roche

## **The prehistoric pottery from Carn More 1, Co. Louth (03E0867)**

### **Eoin Grogan and Helen Roche**

#### **Summary**

The site produced a small assemblage of nineteen sherds (and 6 fragments) of pottery representing at least three late Bronze Age domestic vessels. This appears to be from a domestic context.

#### **Discussion**

This small assemblage contains the fragmentary remains of at least three late Bronze Age domestic vessels. The fabric is of good, if coarse, fabric with a medium content of mainly crushed dolerite inclusions. Only the general profile of one vessel (No. 1) could be estimated but this was a large bucket-shape pot with an inturned upper profile giving it a closed profile. Vessels of this shape form a small part of the overall late Bronze Age ceramic assemblage and examples occur at Lough Eskragh, Co. Tyrone (Waddell 1998, fig. 124), and Lough Gur Circle P, Co. Limerick (Grogan and Eogan 1987, pl. 23). A blackened accretion occurs on the inner surface of most of the sherds indicating that they had been used for cooking. The edges and surfaces are worn or abraded with few re-fitting sherds indicating that this is debris from a much disturbed domestic context.

Late Bronze Age pottery has an extensive distribution in Ireland and comes from a variety of domestic and funerary contexts (Grogan 2004; 2005). However, little material has come from this north Leinster – south Ulster region. There is pottery associated with secondary burials in the portal tombs at Ballykeel, Co. Armagh (Collins 1965), and Kilfeaghan, Co. Down (Collins 1959), as well as at Aghnaskeagh B, Co. Louth (Evans 1938, fig. 5). There is also an important assemblage from *Emain Macha*, Co. Armagh (McCorry 1997, figs 32:5, 35:3). Further to the south several vessels came from the high status settlement at Moynagh Lough, Co. Meath, and recent excavations in the same county at Carranstown, and the enclosed occupation sites at Lagavooren and Kilsharvan, have produced small quantities of pottery (Bradley 2004; Grogan and Roche 2004; Clark and Murphy 2002; Russell and Corcoran 2002).

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## Catalogue

The excavation number 03E0867 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.: 316.1. Numbers in square brackets (e.g. 253.[3-5]) indicate that the sherds are conjoined. 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.

Vessel 1. This is represented by 9 sherds (1 rimsherd: 253.10; 1 sherd from close to the rim: 253.7; 7 bodysherds: 253.8, [3-5], 9, 11-2; 6 fragments: 253.18-21, 23a-b) from a large bucket-shaped domestic vessel. The upper portion of the pot is inturned giving the vessel a closed profile and the rim has a steep internal bevel. The outer cream-buff to dark grey surface is smooth but irregular and there is blackening on the upper portion; a blackened accretion occurs on the inner face. There is a high content of crushed dolerite ( $\leq 4$ , up to 7 x 5mm) and shale (up to 11.5 x 10 x 7mm) inclusions.

336.1 is from the lower body immediately above the junction with the base. The abraded buff fabric has a dark grey inner surface and a medium to high content of crushed dolerite inclusions ( $\leq 5$  x 4mm, up to 11.5 x 9mm). There is a blackened accretion on the inner face. Body thickness: 14mm.

316.1 is a bodysherd of smooth compact cream-buff fabric with a dark grey core and inner surface. There is a high content of crushed dolerite and shale inclusions ( $\leq 4$  mm, up to 7 x 5mm). There is a blackened accretion on the inner face. Body thickness: 13.5mm.

245.[1-3], 4-5 are 5 bodysherds of cream-buff crumbly fabric with a high content of crushed dolerite and shale inclusions ( $\leq 4$ mm). There is a blackened accretion on the inner face. Body thickness: 13mm.

259.[7-9] is a single worn bodysherd of crumbly buff fabric with a dark grey inner face. There is a medium content of crushed dolerite inclusions ( $\leq 4$ mm, up to 8.5 x 7mm). There is a blackened accretion on the inner face. Body thickness: 10.5mm.

335.1 is a worn bodysherd of cream-buff fabric with a high content of crushed dolerite and shale inclusions.

201.1 is a bodysherd of buff fabric with an abraded and scored outer surface and a smooth dark grey inner face. There is a medium to high content of crushed dolerite inclusions ( $\leq 5$  x 4mm, up to 11.5 x 9mm). There is a blackened accretion on the inner face. Body thickness: 15mm.

## **Appendix 2.9      Early Medieval Pottery – Sue Zajac**

Early medieval pottery report

Sue Zajac

## Introduction

The following commentary reflects my tabulated inventories and the Stratigraphic Report that accompanied the artefacts under study. The Stratigraphic Report contained references to the contexts relevant to the tabulated material.

A total of 41 sherds (excluding fragments) were examined from 12 contexts at Carn More. All were identified as Souterrain Ware.

Apart from 1 plain rim sherd (7:1) and 1 small fragment (19:6), identified as a possible base angle the remaining material consisted of body sherds only. Collectively they account for a minimum number of 6 vessels.

The ceramic material from the Carn More excavation came from 6 features or deposits on the site. These were the fill of the ringfort ditch, the fill of an internal slot trench and the fill of an internal pit and posthole. Pottery also came from the fill of the souterrain chamber and from the topsoil.

As well as potsherds the assemblage also contained 185 fragments. Ceramic material considered too small for accurate identification in regard to vessel form or classification was categorised as a fragment in the following report. Given the propensity for Souterrain Ware however it is likely that any fragments that were occurring may have also originated from this type of vessels.

The total numbers of ceramics put forward for analysis, including both sherds and fragments was 226.

## Methodology

Each piece of ceramic material within the assemblage was examined as hand specimens and the results of this are presented in tabular form by Table 1 below. Contained in Table 1 under the heading Excavation Details are the context number; find number and the total numbers of sherds relevant to each find number. Table 1 is compiled in descending order by context number. Starting at Context 1 and finishing with Context 296 it lists each sherd individually. The heading Vessel Interpretation is given based on form, thickness and diameter. The terms used to describe form are rim, base angle and body. In some cases the term fragment has been used to describe material too small or abraded to make an accurate identification regarding which part of the vessel it originated from. Fragment has also been used when in some case numerous grains or crumbs of pot have been bagged together, as with Context 8, Find Numbers 55-159. Except in the case of some fragments the thickness of all sherds were measured and where relevant a diameter of the rim or base was estimated. Where only a small piece of rim or base existed then the diameter of the vessel becomes less accurate and the symbol > is used in this instance.

Details regarding the colour of the core and inner and outer surfaces have been given using the Munsells Colour Chart. This has been included in order to give some information relating to the firing conditions of the vessel<sup>1</sup> and to help to determine whether sherds were made with similar or a variety of clays. Ultimately the results of the colour analysis from the Carn More assemblage were found to go beyond the scope of this report.

The presence of the heading Decoration in Table 1 refers to the rim of the vessel only.

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<sup>1</sup> Blake and Davey 1983, 10.



Lastly the heading Additional Comments has also been included in Table 1. This may include whether sherds were conjoining as well as general observations that may form the basis of further study of the assemblage. No detailed analysis of fabric was undertaken and inclusions were only mentioned in the comment section when visible with the naked eye. It was decided that no comment would be made on the degrees of hardness of each sherd. This was because all sherds were consistently soft.

Table 2 gives a brief Interpretation of the relevant contexts and includes the minimum number of vessels (MNV) from each context.

Vessel classification has also been included in Table 2. In all cases the classification of the material from the Carn More excavation has fallen into the categories of either Souterrain Ware or Unclassified. Unclassified has been used to describe fragments or grains of ceramic material only.

All details in Table 2 regarding the dating of contexts have been extracted from the Stratigraphic Report.

The basis of Table 3 is to give the overall sherd count from each context including the number of fragments present and the MNV in relation to the sherd count.

### **Quantification**

Quantification of the ceramic material from the Carn More excavation is represented in Tables 1 to 3 using the headings outlined in Section 2 above.

### **Provenance**

A minimum number of 6 Souterrain ware Vessels were recovered from the excavation. The largest numbers of vessels, totalling 3, came from 3 consecutive fills of the enclosure ditch including the basal fill and two fills immediately above this (Context 8, 7 and 19 respectively).

Two pots also came from the fill (Context 12) of the souterrain chamber (Context 12).

The remaining vessel was recovered from the fill (Context 43) of a slot trench (Context 42) within the interior of the enclosure that may have formed the side of a rectangular structure which could have been located over the souterrain<sup>2</sup>.

### **Unclassified**

The unclassified material from the excavation consisted of fragments of pottery only. The fragments may be Souterrain Ware, but were considered too small to be accurately identified.

Fragments were present in all contexts and though they sometimes occurred with larger body sherds 50% of the contexts contained fragments of ceramic material only. Unclassified fragments were found to occur in the topsoil (Context 1) and from the basal fill (Context 56) and the final fill (Context 39) of the curvilinear slot trench (Context 42). They were also recovered from the fill (Context 90) of a posthole (Context 91) within the interior of the site and from the fill (Context 296) of a pit (Context 290) which is regarded as post medieval activity across the site<sup>3</sup>.

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<sup>2</sup> Delaney, Stratigraphic Report, 35.

<sup>3</sup> *Ibid.*, 52-53.

## Summary

50% of the Souterrain Ware recovered from the excavation at Carn More 1 came from the lower fills of the enclosure ditch with the largest group of sherds and fragments originating from the basal fill. This suggests that vessels were being used and discarded as occupational debris early on in the site sequence.

A slot trench dating to the early medieval period and containing the remains of 1 Souterrain Ware vessel may be associated with a rectangular structure above the souterrain. Both sherds and fragments were recovered from 3 consecutive fills of this slot trench as well as the fragments from an internal posthole that may have also been associated with an internal structure.<sup>4</sup> The presence of Souterrain Ware in these contexts may point to a domestic context for the pottery.

Some of the ceramics from Carn More are in a secondary location associated with post medieval fills or features. This includes the fills of the souterrain chamber that have been dated in the Stratigraphic Report to the post medieval period. The presence of Souterrain Ware in the back-filled souterrain chamber, according to the report, reflects the disturbance of early medieval material at a later unknown date.<sup>5</sup> Further evidence of disturbed ceramic material includes a fragment found in an internal pit dated to the post medieval period and an unclassified fragment from the topsoil (Table 3).

## Conservation and further work

Standard conservation of the pottery will be required for storage purposes. Generally however the assemblage is fragmentary or composed of small body sherds only, as a result none of the ceramic material from Carn More warrants any specific photography or drawing.

The Stratigraphic Report<sup>6</sup> suggests that the assemblage could be studied in conjunction with Souterrain Ware from Site 121 of the Dundalk Western Bypass located approximately 700m to the west of Carn More in Balriggeran townland.<sup>7</sup> The comparative analysis of the two assemblages could reveal more regarding pottery distribution patterns in the local area.

Given the high percentage of fragments within the assemblage and the overall lack of rim or base sherds the Carn More material would yield greater results if studied in conjunction with other Souterrain Ware assemblages. This particularly applies to those recovered from excavations on the Dundalk Western Bypass and in County Louth as a whole.

## Comparative material

Archaeological sites within County Louth to produce Souterrain Ware include excavations on souterrains and early medieval settlement at Marshes Upper,<sup>8</sup> a rectangular fosse at Dowdallshill<sup>9</sup> and the excavation of a souterrain at Dromiskin, where Souterrain Ware was found in association with Leinster Cooking Ware and other glazed medieval pottery fragments.<sup>10</sup> Souterrain Ware was also recovered from souterrain sites in Ballybarrack,<sup>11</sup> Donaghmore<sup>12</sup> and Farranderg<sup>13</sup>

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<sup>4</sup> Delaney, *ibid.*, 35.

<sup>5</sup> *Ibid.* 29

<sup>6</sup> *Ibid.*, 60.

<sup>7</sup> 02E01325.

<sup>8</sup> Manning and Hurl 1989-90, pg. 76.

<sup>9</sup> Bennett 1994.

<sup>10</sup> Bennett 1998.

<sup>11</sup> Delaney 1987-8.

<sup>12</sup> Ryan 1969 (There is no information from the excavator as to the location or results of this excavation).

With the archaeological excavations along the Dundalk Western Bypass the numbers of sites producing Souterrain Ware in County Louth has almost doubled.

Together with the excavations at Carn More 1 evidence for Souterrain Ware specific to the Dundalk Western Bypass include a souterrain site at Tateetra<sup>14</sup> an enclosure and field systems at Balriggan<sup>15</sup> and an enclosure and souterrain at Newtownbalregan<sup>16</sup>.

Finds of Souterrain Ware are more prolific from County Louth than any other county in Ireland, outside the province of Ulster. The souterrain and enclosure site is still the most common location for finds of Souterrain Ware within the county.<sup>17</sup> The Carn More enclosure lies in a rich early medieval landscape<sup>18</sup> represented by numerous enclosure and souterrains<sup>19</sup> and one would expect further finds of Souterrain Ware to be recovered from the excavation of other such sites in County Louth.

It has been suggested that the larger, Balriggan enclosure, mentioned in Section 5 above, is a focal point in the landscape with Carn More acting as an associated, outlying.<sup>20</sup>

Comparative dating of the two enclosures will show whether they were contemporary and also give an indication as to whether they had shared technology in regard to their socio-economic activities. In both cases Souterrain Ware is the only coarse ware vessel being used on the site.

### Dating

According to Ivens<sup>21</sup> it is difficult to find any evidence of Souterrain Ware before the 8th century AD. Souterrain Ware appears during the currency of E Ware,<sup>22</sup> an imported pottery produce in the 6th and 7th centuries.<sup>23</sup> There are sites where E Ware is found alone in layers below Souterrain Ware and sites where the two are found together but none where Souterrain Ware has been found in layers below E Ware.<sup>24</sup> According to McCorry,<sup>25</sup> Souterrain Wares in Ulster have a long life span from the 8th century right up and possibly beyond the Anglo-Norman settlement.

Where possible at Carn More 1, radiocarbon dating should be used in conjunction with the pottery evidence to help narrow the broad date range that currently exists nationally in regard to the production and use of Souterrain Ware during the early medieval period and beyond.

### Discussion

The Stratigraphic Report suggests that since only 50% of the site was excavated the finds assemblage, in theory, could be doubled bringing the minimum number of Souterrain Ware vessels for the entire site to 12. This figure could be viewed against the 87 Souterrain Ware vessels from the Balriggan enclosure<sup>26</sup> and inferences

<sup>13</sup> Bennett 1998.

<sup>14</sup> Zajac 2006.

<sup>15</sup> Zajac 2006.

<sup>16</sup> Zajac 2006.

<sup>17</sup> S. Zajac 2002.

<sup>18</sup> Delaney, Stratigraphic Report, 4.

<sup>19</sup> *ibid.*

<sup>20</sup> Delaney, Stratigraphic Report, 1.

<sup>21</sup> 1984, 24 in S. Zajac, 2002.

<sup>22</sup> Mallory and McNeill 1991, 201.

<sup>23</sup> Conway 1999, 8.

<sup>24</sup> Mallory and GMC Neil *ibid.*

<sup>25</sup> 2001 101.

<sup>26</sup> S. Zajac 2006, 1.

regarding site size and vessel numbers could be made, particularly if the Balriggeran site is regarded as a high status site.<sup>27</sup>

Except for the souterrain, which may have acted for storage or refuge<sup>28</sup> no specific industry was identified from the excavation. A curving slot trench and posthole has been linked with a possible house foundation over, or associated with the souterrain.<sup>29</sup> Domestic activity may have occurred within these structures accounting for the finds of Souterrain Ware in the fill of all 3 features.

Evidence for burning was present on many of the pottery sherds. According to Rice<sup>30</sup> the presence and location of soot deposits are clear indications of use in cooking or other activities involving fire. The soot deposits were generally absent from the base of Souterrain Ware vessels and this suggests that the vessels were probably set in the fire.<sup>31</sup> Vessels placed in the fire in this way were probably used for boiling according to Rice.<sup>32</sup> Vessels intended for cooking were generally thought to have had rounded rather than angled contours<sup>33</sup> to avoid thermal damage and also because the rounded contours permitted greater exposure of the vessel base, walls and contents to the heat.<sup>34</sup>

The Souterrain Ware from the excavation may reflect domestic activity on site but to date it is difficult to say how this concurs with the culinary tastes of early medieval society.<sup>35</sup> This is particularly difficult from Carn More when so little evidence for on site activity still remains and when the ceramic evidence likewise is in a fragmentary condition.

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<sup>27</sup> *Ibid.*, 9

<sup>28</sup> Delaney, Stratigraphic Report, 59.

<sup>29</sup> *ibid.*, 58.

<sup>30</sup> 1987, 235.

<sup>31</sup> *ibid.*

<sup>32</sup> *ibid.*

<sup>33</sup> Woods in Rice, *ibid.* 237.

<sup>34</sup> *ibid.*

<sup>35</sup> S. Zajac, *ibid.*

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EXCAVATION			VESSEL DESCRIPTION			FIRING			DECORATION	COMMENTS
Context No.	Find No.	No. of Sherds	Form	Thickness	Diam	Ext Sur	Core	Int Sur	Decoration	Comments
1	59	1	Body	6mm	n/a	2.5YR5/6R	10YR2/1B	2.5YR5/6R	None	Very small body sherd
6	1	1	Body	7mm	n/a	2.5YR5/6R	10YR2/1B	2.5YR5/6R	None	Very small body sherd
6	3	1	Fragment	6mm	n/a	2.5YR5/6R	10YR2/1B	2.5YR5/6R	None	Fragment, may be part of base angle
7	1	1	Rim	6mm	>30mm	10YR2/1B	2.5YR5/6R	2.5YR5/6R	Plain	Sherds from C7 are probably from the same vessel they are all in an abraded and fragmentary condition, sooty residue externally
7	2	1	Body	5mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/6R	None	
7	3	1	Fragment	8mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/6R	None	Sherds from C8 are probably from same pot
8	1	1	Body	8mm	n/a	10YR2/1B	2.5YR5/3RB	2.5YR5/3RB	None	
8	2	1	Body	7mm	n/a	10YR2/1B	2.5YR5/3RB	2.5YR5/3RB	None	Sooty residue externally
8	3	1	Body	9mm	n/a	10YR2/1B	2.5YR5/3RB	2.5YR5/3RB	None	Sherds 8:3-7 have been bagged together. Sherd 8:7 may be the start of a base angle. All the sherds are in a fragmentary and abraded condition
8	4	1	Body	6mm	n/a	10YR2/1B	2.5YR5/3RB	2.5YR5/3RB	None	
8	5	1	Body	10mm	n/a	2.5YR5/3RB	2.5YR5/3RB	2.5YR5/3RB	None	
8	6	1	Body	8mm	n/a	10YR2/1B	2.5YR5/3RB	2.5YR5/3RB	None	
8	7	1	Body	6mm	n/a	10YR2/1B	2.5YR5/3RB	2.5YR5/3RB	None	
8	8	1	Body	6mm	n/a	2.5YR5/3RB	2.5YR5/3RB	2.5YR5/3RB	None	Sherds 8:8 -12 have been bagged together. They are in a fragmentary condition and reflect the overall condition of the vessel from this context
8	9	1	Body	9mm	n/a	10YR2/1B	2.5YR5/3RB	2.5YR5/3RB	None	
8	10	1	Body	8mm	n/a	10YR2/1B	2.5YR5/3RB	2.5YR5/3RB	None	
8	11	1	Body	8mm	n/a	10YR2/1B	2.5YR5/3RB	2.5YR5/3RB	None	
8	12	1	Body	9mm	n/a	10YR2/1B	2.5YR5/3RB	2.5YR5/3RB	None	
8	13-18	6	Fragments	6mm	n/a	10YR2/1B	2.5YR5/3RB	2.5YR5/3RB	None	Abraded fragments
8	19	1	Body	13mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	All sherds have sooty residue ext' and the fabric suggests they are from the same vessel. 8:19 has a large void on int' surface. All the sherds have been bagged together
8	20	1	Body	11mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	
8	21	1	Body	10mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	
8	22	1	Body	8mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	
8	23	1	Body	8mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	
8	24	1	Body	7mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	Sherds from context 8 are covered by a pale coarse grained sand that can obscure the generally oxidised orange fabric. The pot from this context is in very poor condition.
8	25	1	Body	8mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	
8	26	1	Body	14mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	
8	27	1	Body	9mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	
8	28	1	Body	9mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	
8	29	1	Body	7mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	There are no rim or base sherds to give an indication of the pots size
8	30	1	Body	7mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	
8	31	1	Body	7mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	Sherds 8:31-33 have not been labelled with finds numbers.
8	32	1	Body	7mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	
8	33	1	Body	7mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	Sherds 8:24-33 are bagged together
8	34-43	10	Fragments	8mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	Fabric suggests all frag' part of same pot
8	44-53	10	Fragments	7mm-14mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	Some frag' may be from base or rim
8	54	1	Body	11mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	Encrusted sooty residue externally
8	55-155	115	Fragments	n/a	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	A bag of tiny fragments and grains
8	159-160	2	Fragments	6mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	2 fragments that fit together
8	161-170	10	Fragments	5mm-21mm	n/a	2.5YR5/3RB	2.5YR5/3RB	2.5YR5/3RB	None	Lumps and fragments of fired clay
12	1-5	5	Fragments	2mm-8mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	Sooty residue ext, 2 small body sherds and frags'
19	5	1	Fragment	n/a	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	Abraded fragment

19	6	1	Base Angle	10mm	n/a	2.5YR5/6R	2.5YR5/6R	10YR2/1B	None	V. abraded, poss' base angle, sooty residue int'
19	7-8	2	Fragment	n/a	n/a	n/a	n/a	n/a	None	Tiny grains of pot
39	1	3	Fragments	8mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/6R	None	3 fragments and tiny grains
43	1	1	Body	9mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	Similar fabric to sherds in C8. Some have covering of pale sandy clay. White grits visible in fabric. Identified as Souterrain Ware, very fragmented
43	2	1	Body	8mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	
43	3-4	2	Fragments	6mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	
43	5	n/a	Fragments	n/a	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	
43	6	1	Body	10mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	Fabric suggests the sherds from C43 are from the same vessel. They are in an abraded and fragmentary condition and have encrusted sooty residue externally. They are identified as Souterrain Ware
43	7-10	4	Fragments	7mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	
43	11	1	Body	7mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	
43	12	1	Body	7mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	
43	13	1	Body	7mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	
43	14-23	n/a	Fragments	n/a	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	Fragments all have a similar fabric but are too small to identify see commentary Section 4.
56	1-4	4	Fragments	n/a	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	
56	5-8	4	Fragments	n/a	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	
56	9-15	7	Fragments	n/a	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/3RB	None	A tiny fragment and some grains of pot
90	1-4	1	Fragment	10mm	n/a	2.5YR5/6R	2.5YR5/6R	2.5YR5/6R	None	
125	1	1	Body	12mm	n/a	10YR2/1B	2.5YR5/6R	2.5YR5/6R	None	Encrusted sooty residue externally
296	2-3	1	Fragment	10mm	n/a	2.5YR5/6R	2.5YR5/6R	2.5YR5/6R	None	Abraded frag' possible base angle

Context	Type	Interpretation	Period	MNV
8	Fill of Enclosure Ditch 5	Natural Silting-Basal Fill	Early Medieval	1
7	Fill of Enclosure Ditch 5	Natural Silting-above 8	Early Medieval	1
19	Fill of Enclosure Ditch 5	Natural Silting-above 7	Early Medieval	1
56	Fill of Curvilinear Slot Trench 42	Basal Fill-Natural Silting	Early Medieval	N/A
43	Fill of Curvilinear Slot Trench 42	Natural Silting-above 56	Early Medieval	1
39	Fill of Curvilinear Slot Trench 42	Natural Silting-above 43	Early Medieval	N/A
90	Fill of Postholes 91	Natural Silting	Early Medieval	N/A
296	Fill of Pit 290	Natural Silting	Post Medieval	N/A
1	Topsoil	Deposit of Topsoil across the site	Post Medieval	N/A
125	Fill of Souterrain Chamber 18	Deliberate Upper Backfill	Post Medieval (?)	1
12	Fill of Souterrain Chamber 18	Deliberate Stony Upper Backfill	Post Medieval (?)	1
6	Fill of Enclosure Ditch 5	Post medieval filling of the ditch	Post Medieval	N/A

Context	Sherd Count	Classification	MNV
1	1	Unclassified Fragment	N/A
6	1 (1 fragment)	Unclassified Fragment	N/A
7	2 (1 fragment)	Souterrain Ware	1
8	29 (149 fragments)	Souterrain Ware	1
12	(5 fragments)	Souterrain Ware	1
19	1 (3 fragments)	Souterrain Ware	1
39	(3 fragments)	Unclassified Fragments	N/A



43	6 (6 fragments)	Souterrain Ware	1
56	(15 fragments)	Unclassified Fragments	N/A
90	(1 fragment)	Unclassified Fragment	N/A
125	1	Souterrain Ware	1
296	(1 fragment)	Unclassified Fragment	N/A
<b>Totals</b>	<b>Totals</b>		<b>Totals</b>
12	40 (185)		6



## **Appendix 2.10      Small Finds Report – Siobhán Scully**

Small finds report

Siobhán Scully MA MA

## Introduction

This report details twenty-three artefacts recovered from the excavations at Carn More 1 (03E0867) as part of the M1 Dundalk Western Bypass scheme. These finds include one glass bead, sixteen post-medieval glass artefacts and six fragments of brick. With the exception of the glass bead (03E0867:125:2) all the finds are post-medieval in date.

## Glass Bead

A partial glass bead (03E0867:125:2) was recovered from C125 at Carn More 1. It is made from clear glass with opaque yellow stripes running lengthways through the bead. Unfortunately the bead is so fragmented its original shape cannot be ascertained. However, this bead is possibly a 'Meare variant' bead, similar to Guido's Class 11 (1978, 81-4). These beads are a variant of the clear glass beads decorated with opaque yellow spirals that were found in great numbers at the Iron Age village of Meare in Somerset and they are thought to have originated in this area (ibid., 79). Of the 'Meare variant' beads, the Carn More 1, is probably most like the Type (i) beads (ibid., 82) which are thought to be related to Class 7 Type (c) whirl beads, a number of which are known from Ireland, and date between the last century BC and the early first century AD (ibid., 58-9). The Carn More 1 bead, however, is so fragmentary that its identification as a 'Meare variant' bead can only be provisional.

## Catalogue

Find Number	Description	Dimensions
03E0867:125:2	Partial yellow glass bead, opaque. Decorated with yellow stripes along the length of the bead. Barrel-shaped. Straight perforation.	Diam. 8.8mm (?) H 8.4mm DP 5.1mm

## Post-Medieval Glass

Sixteen glass artefacts were recovered from the excavations at Carn More 1 which date to the 19th and 20th centuries. These include fragments of wine bottles, soda bottles, a possible poison bottle, utility bottle and two small unidentified glass sherds. There are no complete vessels from Carn More 1. The majority of the glass artefacts were probably blown in a mould and there is no evidence of any of the glass artefacts having been free blown but they are all very fragmentary. The following table presents the number of glass fragments by type:

Wine Bottles	6
Soda Bottles	4
Poison Bottle	1
Utility Bottle	3
Unidentified Glass Artefacts	2

### Wine Bottles

Six sherds of wine bottles were found at Carn More 1. They are all made from 'black' glass and are from 19th century cylindrical bottles. One is a base sherd (03E0867:255:4), one is a small fragment of the kick (03E0867:117:1) from the base of a bottle and the rest are body sherds (03E0867:1:1, 62-3, 87).

### Soda Bottles

There are four possible soda bottle sherds. One is a base sherd (03E0867:1:20) of clear glass, probably from a cylindrical bottle. It is embossed on the base and on the side and was blown in a mould. It is late 19th century or early 20th century in date. There is also a small fragment (03E0867:1:8) of the kick from the base of a clear glass bottle, a neck sherd (03E0867:1:2) of emerald green glass and a body sherd (03E0867:1:72) of aqua green glass which are probably also from soda bottles and are 19th or 20th century in date.

### Poison Bottle

One small body sherd of cobalt blue glass (03E0867:1:22) was recovered from the topsoil. Bottles of this colour were often used as poison bottles in the 19th century (Fletcher 1975, 58).

### Utility Bottle

There are three small body sherds which have been classified as being from 'utility bottles' as they are too small to ascertain what type of bottle exactly they were from. Two are of dark olive green glass (03E0867:254:1, 03E0867:255:3) and one is of clear glass (03E0867:1:7). They all date to the 19th or 20th century.

### Unidentified Glass Artefacts

There are two glass artefacts which cannot be identified. One (03E0867:1:21) is a small fragment of thick, clear glass with a faceted edge, possibly a base, but its original form is uncertain. There is also a very small sherd of flat glass (03E0867:15:4) which could be from window glass but it is so small it could also have come from a bottle.

### Catalogue

Find Number	Category	Description	Date
03E0867:1:1	Wine Bottle	Body sherd. 'Black' glass.	19th Century
03E0867:1:2	Soda Bottle?	Neck sherd. Emerald green glass.	19th/20th Century
03E0867:1:7	Utility Bottle	Body sherd. Clear glass.	19th/20th Century
03E0867:1:8	Soda Bottle?	Possible sherd of kick of base. Clear glass.	L19th-E20th Century
03E0867:1:20	Soda Bottle?	Base sherd. Possibly from cylindrical bottle. Clear glass. Embossed on base 'W' and on side 'MAKER.../SIHELEN...'. Blown-in-Mould.	L19th-E20th Century
03E0867:1:21	Unidentified	Clear glass base. Flat thick glass with a faceted edge.	19th/20th Century
03E0867:1:22	Poison Bottle?	Body sherd. Cobalt blue glass.	19th Century
03E0867:1:62	Wine Bottle	Body sherd. 'Black' glass.	19th Century
03E0867:1:63	Wine Bottle	Body sherd. 'Black' glass.	19th Century
03E0867:1:72	Soda Bottle	Body sherd. Aqua green glass.	L19th-E20th Century
03E0867:1:87	Wine Bottle	Neck sherd. 'Black' glass.	19th Century
03E0867:15:4	Unidentified	Very small sherd of flat clear glass. T 1mm.	19th/20th Century
03E0867:117:1	Wine Bottle	Possible small fragment of kick from base of bottle. 'Black' glass.	19th Century
03E0867:254:1	Utility Bottle	Body sherd. Dark olive green glass.	19th/20th Century
03E0867:255:3	Utility Bottle	Body sherd. Dark olive green glass.	19th/20th Century
03E0867:255:4	Wine Bottle	Base sherd. Small sherd of basal edge. 'Black' glass.	19th Century

### Brick

A total of 301g of brick fragments were recovered from the excavations at Carn More 1. There are no complete brick fragments and only one has any remains of the original surface.

The fabric is very similar in all the brick fragments. The fabric was made from a clean clay with very few inclusions and was fired to a homogenous bright orange colour. On one fragment (03E0867:1:66) two original sanded faces survive. Bricks that were hand-moulded in rectangular frames had sanded outer edges but machine-made and wire-cut bricks could also be sandblasted (Pavía & Bolton 2000, 188-9).

The table below shows the weight of brick recovered by context. Only very small quantities were recovered from contexts other the C1.

Context	Weight
C1	287.5g
C37	0.5g
C346	13g

A description of the brick samples, along with the weights and dimensions are presented in the catalogue below.

### Catalogue

Find Number	Description	Weight	Dimensions
03E0867:1:66	Small fragment of brick. Orange in colour. Clay has very few inclusions. 2 sanded outer faces remaining.	219g	65mm x 57mm x 63
03E0867:1:67	Refits to 1:66	66g	49mm x 46mm x 50
03E0867:1:68	Very small fragment of brick. Orange in colour.	1.5g	13mm x 12.5mm x 11mm
03E0867:1:69	Very small fragment of brick. Orange in colour.	1g	12.5mm x 12mm x 8mm
03E0867:37:1	Very small fragment of brick. Bright orange/red in colour.	0.5g	10.5mm x 10.5mm x 4mm
03E0867:346:2	Small fragment of brick. Bright orange/red in colour.	13g	23mm x 23mm x 23mm

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## **Appendix 2.11 Medieval and Post Medieval Pottery – Clare McCutcheon**

A note on the medieval and post-medieval pottery from the Dundalk Western Bypass at Carn More 1 (03E0867)

Clare McCutcheon MA MIAI



### Medieval and post medieval pottery report from Carn More 1 (03E0867)

A total of 56 sherds of medieval and postmedieval pottery was recovered from the site. The detailed information is presented in Table 1 while the pottery identification by feature is listed in Table 2.

A single sherd of medieval pottery was recovered (C1:73). This was much worn but may have originally been glazed.

Fabric type	Sherds	MVR	Form	Date
Medieval local glazed fine ware?	1	1	Jug	13th-14th
Creamware	8	1	Plate	18th
Black glazed ware	10	1	Jar	18th-19th
Glazed red earthenware	3	1	Bowl	18th-19th
Glazed red earthenware: slip coated	1	1	Bowl	18th-19th
Unglazed red earthenware	6	1	Flowerpots	19th-20th
Porcelain	1	1	Plate	19th-20th
Pearlware	12	2	Cups, saucer	19th-E20th
Transfer printed ware	10	2	Plate, cup	L19th-20th
Stoneware	4	2	Preserve jar, whiskey jar	L19th-20th
<b>Total</b>	<b>56</b>	<b>13</b>		

Table 1: Pottery from Carn More 1 (03E0867).

Feature	Fabric	Finds number
1	Medieval local glazed fine ware	73
	Creamware	9®, 48
	Black glazed ware	16, 18, 19, 54, 55, 89(H)
	Glazed red earthenware	82(B), 83, 96(B)
	Unglazed red earthenware	5, 17®, 52, 53, 71
	Porcelain	3
	Pearlware	23®, 26, 51, 76®
	Transfer printed ware	6, 24, 49, 50, 64®, 85, 86, 95
	Stoneware	4(B), 12®, 15®, 25
15	Creamware	5
	Pearlware	3, 6
27	Black glazed ware	2
37	Glazed red earthenware: slip decorated	2
	Shell	3 (discarded)
46	Pearlware	1
69	Pearlware	1®
196	Pearlware	1
198	Creamware?	1
201	Pearlware	2+3®
203	Black glazed ware	1
204	Creamware	1
254	Unglazed red earthenware	3
	Black glazed ware	2
	Transfer printed ware	4
255	Creamware	5, 6
	Black glazed ware	7

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	Pearlware	1, 2
	Transfer printed ware	9(B)
	Cinder	8 (discarded)
296	Creamware	1(B)

Table 2: Pottery identification by feature, Carn More 1 (03E0867).