

M1 DUNDALK WESTERN BYPASS

SITE 127: CARN MORE 5
CHAINAGE: CH. 24.810 – 25.100
NGR: 304912 / 310860

FINAL REPORT

ON BEHALF OF
LOUTH COUNTY COUNCIL AND THE
NATIONAL ROADS AUTHORITY

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LICENCE NUMBER: 03E0873

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NON TECHNICAL SUMMARY

Irish Archaeological Consultancy Ltd. (IAC Ltd.), funded by Louth County Council and the National Roads Authority, undertook a licensed excavation in the townland of Carn More, c. 1km north of Dundalk in advance of the construction of the Dundalk Western Bypass (DWB). The excavation was undertaken to ensure all subsoil archaeological remains were preserved by record in advance of groundwork.

The previously unknown site was discovered at route chainage 25.000–25.050 during a test trenching programme undertaken in by IAC in March 2002 (Licence 02E0658). Resolution excavation was completed between chainage 24.810–25.100 (NGR 304912/310860) between September and December 2003 with an average of 15 staff and was directed by David Bayley (Licence 03E0873). The total area excavated measured 11,355sqm.

The site was a Bronze Age cemetery measuring approximately 60m x 60m, located on a very slight gravel ridge (10m OD) on the floodplain (9.5m OD) of a stream located approximately 130m to the north-east.

The site appears to represent funerary activity from the middle Neolithic to the middle Bronze Age periods, as testified by the ceramic evidence. The earlier Neolithic and Beaker pottery all came from disturbed contexts. The Bronze Age pottery has been dated to the early and early middle Bronze Age period.

Barrow

The primary area of activity was a barrow mound (originally) up to 26m across including an external turf bank (no ditch) and internal mound. The barrow contained a (disturbed) central, stone lined burial chamber. Finds consisted of scattered cremated bone, a few fragments of cordoned urn, and some copper alloy fragments.

Cist – Cairn and boulder burials

The second area was a cist- cairn type monument. This monument centred on a burial pit and two low, kerb walls up to 5m long. Adjacent to the central pit was a stake built structure and a pit. There was also a large possible quarry pit focused on the main burial, two concentric circles of 13 associated burials/graves plus two 'boulder burials'. The inner cist 'circle' was approximately 16m–20m in diameter, with at least 10 stone lined cist depositions, plus one boulder burial. The outer circle consisted of placed pottery vessels in unlined pits. Three placements were recovered, each one 'paired' with an 'inner ring' cist on an alignment originating from the central burial. A 'boulder burial' was placed on/near the outer ring. The outer ring defining the cist-cairn monument had a diameter of c. 42m. Finds consisted of: loose cremated bone, early Bronze Age pottery; a 'cup' marked stone; a hone stone; a copper alloy shield boss; a copper alloy pin with a twisted faience coating and struck flint.

The two boulder burials are 19m apart and aligned exactly east to west (the larger to the east). The eastern (outer ring) 'boulder burial' had a granite packing stone with a flat axe motif carved into it.

Ringditches

The third area consisted of two small ringditches (5–6m in diameter externally: 3.5m and 4m internally).

An inhumation cist with pottery vessel was found and excavated by Avril Hayes of Aegis Archaeology Ltd, Licence E3976 whilst monitoring drainage for the

construction of the M1 within the vicinity (to the north) of the archaeological site reported on in this report. Further cists and burials might well exist outside the current motorway northern fenceline located immediately below thin topsoil. Aerial photographs of the area to the southeast of Carn More 5 on the opposite side of the railway embankment indicate extensive archaeological remains there in the form of ringditches and barrows (OSI 1995, figure 41). This may indicate that the Carn More 5 site was on the northwest periphery of a much larger ceremonial landscape and that the main focus of this landscape may have been removed by the construction of the railway.

ACKNOWLEDGEMENTS

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1 INTRODUCTION

This stratigraphic report refers to an excavation carried out at Site 127, Carn More 5, in the townland of Carn More, c.1km to the north of Dundalk, Co. Louth. It was carried out as part of an archaeological mitigation program associated with the Dundalk Western Bypass (DWB). Archaeological fieldwork was directed by David Bayley of Irish Archaeological Consultancy Ltd. (IAC Ltd.) and was funded by Louth County Council and the National Roads Authority

1.1 Site location

Site 127, Carn More 5 is located in Carn More townland, to the north of the main Dublin to Belfast railway line, c. 1km north of Dundalk (Louth OS sheet 004). The details are:

- Site 127, Carn More 5, Excavation Licence 03E0873, route chainage (Ch) 24.810–25.100, NGR 304912 / 310860.

The field in which the site lies was previously identified as containing possible cultivation ridges (EIS, Louth County Council 2000), Site 18 (8).

The site was identified as a result of a test trenching exercise undertaken by IAC Ltd. in March 2002 (Test Excavation License 02E0658, Shane Delaney). It comprised a low-lying plateau that overlooks a stream c.130m to the north. The plateau would have continued to the south, but was interrupted by the construction of a railway embankment. The site was located to the east of another site, Site 126, Carn More 4 (excavated by Brian Halpin, 03E0872). The area eventually stripped for Site 127, Carn More 5 was to both the east and west of Site 126.

1.2 The scope of the project

1.2.1 General

Louth County Council proposes to construct a motorway called the 'M1 Dundalk Western Bypass – Northern Link'. The scheme will also include ancillary roads and other structures.

As currently understood, the Dundalk Western Bypass – Northern Link will connect the existing Dunleer-Dundalk Motorway, presently terminating 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 is presently 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 represents a distance of 8.49km (Ch17.100–25.950). The route corridor varies between 60m and 200m (not including side roads) and is on average 100m wide. The archaeological site area is thus approximately 85 hectares.

1.2.2 Specific

The stripped area of Site 127, Carn More 5 is Ch24.810–25.100. The main site focus was at 25.020–25.080. At this point of the proposed bypass the lands made available are 100m wide.

The original excavation covered an area approximately 80m x 50m (4,000sqm) and this was later extended to the north and west following agreement with the Project Archaeologist and the Department of Environment, Heritage and Local Government, to give a total site area of 11,355sqm.

The additional areas stripped comprised the proposed Doylesfort Road re-alignment (150m x 20m) and an area 20m x 20m on the centre line at Ch24.820. The area to the south of the centre line and Site 126, Carn More 4, was 50% trial trenched 24.900–24.960.

The site had not been previously identified and was not a Recorded Monument. The EIS (LCC 2000) suggested there may be the remains of cultivation ridges in this field. The field had been mechanically ploughed and no significant remains of cultivation ridges had survived.

1.3 Circumstances and dates of fieldwork

The excavations were undertaken to offset any 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 Wednesday 3 September 2003 and fieldwork in the areas below was completed on 1 December 2003. The order and date of the excavation is as follows:

- Site 127, Carn More 5 Ch 24.810–25.040, machine stripping of original area finished Tuesday 16 September 2003.
- Site 127, Carn More 5, Ch 24.810–25.040, resolution commenced on 11th September 2003 with a team of field director, one Supervisor, eleven assistant archaeologists and one graduate archaeologist. Cleaning back and planning was followed by hand recording and resolution of site.
- Site 127, Carn More 5 Ch 24.810–25.040, additional stripping of the Doylesfort road re-alignment began on 2 October 2003 and was completed by 8th October 2003.
- Site 127, Carn More 5 Ch 24810–25.040, additional stripping around the original site area began on 9 October and was completed on 16 October.
- Site 127, Carn More 5 Ch 24810–25.040, test trenching to the south-west of the site area was carried out on 20 October and completed in one day.

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/Department of

Environment, Heritage and Local Government (DoEHLG). 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. Typically, dating would involve pottery analysis through typological study and radiocarbon analysis.

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The following archaeological and historical background refers to the wider prehistoric landscape through which the Dundalk Western Bypass traverses.

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

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

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

2.1 Prehistoric Period (7000 BC–AD 500)

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 (3000–2500 BC).

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

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

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

discriminate between Early and Late Neolithic habitation rather than an indication of the true chronology (Mitchell & Ryan 1997). A debate continues over whether the culture evident in Ireland during the Neolithic was a product of a migrating people into Ireland or an indigenous development from Mesolithic populations. The introduction of certain flora and fauna species, landscape management techniques, cultural traits in architectural construction and domestic crafts bearing a striking resemblance to contemporary evidence in Britain has led some authors to suggest colonisation from outside Ireland (Mitchell & Ryan 1997). Recent studies (Cooney 2000, 13) have suggested that a combination of small scale movement across the Irish sea by migrating communities and developments within the existing Mesolithic populations within Ireland in the innovative beginnings of this era.

Arguments for the Neolithic culture as a native evolution include the observation that the Irish Mesolithic was a period of isolation rather than contact, and that if the Megalithic tombs were constructed by a migrating population a prolonged period of consolidation would be required in advance of their construction (Mitchell & Ryan 1997). Thus, it is possible that the Mesolithic peoples gradually adopted new customs and practices through contacts with Britain and the continent leading to the incremental growth of a distinctive economy before a consolidated Neolithic culture emerged.

The vast majority of the archaeological evidence for this period is to be found at the 4-5m (25ft) contour, which reflects the coastline during the maximum post-glacial marine transgression, and it has been suggested that this settlement location would have facilitated the exploitation of the higher ground for farming and the lower ground for summer grazing (Gosling 1993, 242). There is a concentration of Megalithic tombs in the Flurry Valley to the north-east of the site at Newtownbalregan 5 (with the nearest example located at Faughart Lower (LH004-062), c. 4.5km to the north east) and scattered throughout the Cooley peninsula. Archaeological discoveries elsewhere on the DWB scheme revealed late Neolithic/early Bronze Age habitation activity including the truncated remains of a late Neolithic/early Bronze Age house identified at Site 101, Littlemill 1 (Ó Donnachadha, B. (d)). A number of Neolithic huts with associated pits were excavated at Site 124, Carn More 1 (Delaney, S. (b)), located c. 0.5km west of the site. Several pits containing early Neolithic pottery were identified at Site 132, Faughart Lower 5 (Delaney, S. (c)), located c.1km northeast of the site. A middle Neolithic to late Neolithic/early Bronze Age Beaker habitation site was identified at Site 108, Donaghmore 1 (Ó Donnachadha, B. (e)) which was located on a low ridge only c. 5km southwest. A very significant late Neolithic to middle Bronze Age site ceremonial henge site was identified and excavated approximately 3km to the west at Balregan (Ó Donnachadha, B and Grogan 2010).

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

A number of Bronze Age ringditches, a cist and a cairn were excavated at Site 127, Carn More 5 was located c.3.4km northeast of Site 113 (Newtownbalregan 5) a Bronze Age settlement site. A total of three Bronze Age burnt mounds/*fulachta fiadh* were excavated along the route of the Dundalk Western Bypass which included the sites at Site 113, Site 111, Newtownbalregan 1.1 and at Site 128, Faughart 1, 2 & 3. A burnt mound excavated at Site 102, Littlemill 2 produced a date from the medieval period (AD 890–1250).

The vast majority of the archaeological evidence for the late Neolithic and early Bronze Age 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 area transacted by the new motorway.

Major technological change and significant changes in pottery and burial fashion occurred towards the end of the third millennium BC and these and other developments marked the beginning of what has traditionally been called 'The Bronze Age'. The burial evidence is varied and complex, some of this diversity in grave form or content reflects changing fashions over a period of time, some variations are regional and others may denote differences in social status. Pottery vessels of different types are the commonest artefacts that survive.

During the Bronze Age period single burials became the common form of burial though the communal tradition of multiple burial continued with the interment of more than one individual in graves and by the clustering of their graves into small cemeteries. Burials were placed either in pits or in cists constructed in the ground and often grouped in flat cemeteries, in cairns or mounds specially built for the purpose.

2.3.1 Barrows

Barrows have been constructed in Ireland since the middle Neolithic period and their form was still in use until the early centuries A.D. Characteristically identified through a mound and encircling ditch they may cover or contain megalithic (Linkardstown type) cists of the Neolithic, all of the burial types of the Bronze Age or cremations or inhumations of the Iron Age. The Bronze Age period lasted in Ireland from about 2500–500 BC and the burials of the period show a wide degree of variety with both pits and stone cists used. The pits could be simple earthcut pits or alternatively may have been stone lined, ranging from circular to oval in plan. More substantial stone built rectangular and polygonal cist graves, like the excavated one at Keenoge, Co. Meath, were also used.

During this period there was some variety in how the human remains were interred. Some were placed fully extended into long pits or cists or in contracted and flexed positions in smaller pits and cists. On occasion the remains may have been exposed until the flesh had decayed enough for the bones to be separated or disarticulated before being interred. Alternatively the remains may have been cremated on a funeral pyre. The burnt bone was then collected and possibly after further crushing or cleaning, placed into the grave, often in a ceramic pot. The remains were often accompanied grave goods in the form of decorated pottery vessels, referred to as food vessels or cinerary urns and less often with objects of stone and bronze.

Bowl Barrows, often referred to as Tumuli or Moats, have a central dome-shaped mound, 2m or higher, usually enclosed by a ditch and one or more external banks. Where an enclosing ditch is not noted on the ground it is often found during excavation. Saucer barrows have low mounds, usually less than 1m, and range from 5-20m in diameter with one or more enclosing ditches and banks. Bell Barrows resemble bowls but have a berm between the mound and the fosse. Ring Barrows resemble Saucer Barrows but have a flat interior rather than a mound. Another type of barrow has a bank and a hollow interior, these are Pond Barrows. Barrows are often found in groups or cemeteries where a number of types can be found together and sometimes they are found juxtaposed to megalithic cemeteries as at Carrowmore, Co. Sligo or associated with ceremonial enclosures.

There appears to have been some differentiation in the status of those buried with the construction of larger cists, the choice of grave goods accompanying the burial and perhaps its position within the cemetery indicating the grave of a person of

higher status (Mitchell and Ryan 1997, 215).

2.3.2 Bronze Age Burial Traditions

Bronze Age burial can be divided into 5 main phases: (Grogan 2004, 62)

1. Crouched inhumation or cremation in short cists accompanied by bowls.
2. Cremation or occasional inhumation with vases or bowls. Non-ceramic grave goods are frequently included during these two stages; these predominantly consist of flint flakes, blades, scrapers or arrowheads.
3. Gradually vase urns ('enlarged food vessels' and encrusted urns) and later collared urns, all generally inverted, replaced vases and bowls as ceramic accessories. These urn burials were sometimes placed in short rectangular or occasionally compartmented cists but increasingly pits or stone edged pits became the most frequent grave type. Towards the end of this stage cordoned urns also appeared in burials.
4. In the early stages of the middle Bronze Age cordoned urns became the dominant ceramic type. These burials often occurred in cemeteries containing earlier graves and in new cemeteries. While there was an increase in the number of grave goods, these largely consisted of three items – faience beads, bone pins and bronze razor knives. The custom of including other vessels as accessories also continued. There were also a large number of burials without pottery.
5. Burials contained in coarse flat-bottomed domestic vessels continued. However, the burial tradition of the middle Bronze Age is characterised by simple pits containing token cremations occasionally accompanied by sherds of coarse domestic pottery. There was a general absence of grave goods. The burials occurred in a wide variety of contexts including barrows, ringditches and unenclosed pit cemeteries. This tradition continued to the end of the Bronze Age period.

The pottery of the Bowl Tradition, the so-called 'bowl food vessels', consisted mainly of several forms of highly decorated, handmade bowls usually 8cm to 15cm in height. The exterior was nearly always covered with impressed or incised designs and bases and rims were sometimes decorated too. Bowls have mainly been found in the north and east of the country. The majority are known from funerary contexts with the majority being found in cists or pits and graves such as these. The burial rite was quite varied with about 43% of these bowls being found with unburnt burials and about 57% with cremations. Cremation appears to have been more common in the north, with unburnt burial practised occasionally. The pottery vessels were usually placed beside the pile of burnt bone but occasionally some bone was contained inside. Also occasionally the vessel was placed mouth downwards with cremated burials. Now and then the remains of more than one burial were consigned to one grave (Waddell 1998, 143). It is possible that the bowls contained a funerary offering of food or drink but evidence is lacking. (ibid. 144)

Grave types differed also with c.78% being stone built cists and 22% simple pit graves. Cists were usually short, rectangular slab-built boxes at most large enough to contain an adult corpse in a crouched position: usually with a capstone, they sometimes had paved floors. Some were placed in the earth below ground level while others were above ground level and covered by a mound of earth or stones. As previously noted some graves may have been isolated single burials while others

may have been concentrated in cemeteries. A mixture of burial rites and pottery types is a fairly common feature of these cemeteries (ibid. 143). Artefacts of stone or bronze are now and then found with bowls, though bronze artefacts are quite rare. Flint artefacts have been found in graves on a number of occasions such as flint leaf-shaped arrowheads and small polished stone axes.

The development of this Bowl tradition appears to have been stimulated by Beaker practises: the use of comb-impressed ornament and the custom of placing a pot near the head of a crouched unburnt corpse were possibly inspired by the fashions in northern Britain. However the preference for the use of bowl forms, the choice of a limited range of Beaker decorative motifs, as well as a predilection for cremation reflects a strong non-Beaker element. The Bowl tradition was a parallel development in Ireland to the Beaker phenomenon presumably with a similar funerary purpose and social significance (ibid. 144).

The manufacturers of the Vase tradition manufactured a range of pottery sizes for they had occasion to place both small pottery vessels, so-called 'vase food vessels', and large vessels or 'cinerary urns' in graves. In contrast to the Bowl tradition where the one pot type was placed with either an unburnt or a cremated burial, in this tradition a small vase or a larger vase urn or encrusted urn are all usually found with cremated burials. Vases are small handmade, well-decorated pottery vessels usually 11cm to 16cm in height. The majority of all vases bear incised decoration on most of the exterior; impressed decoration occurs occasionally (ibid. 144).

Vases have been frequently found in the north and east of the country. Most finds came from funerary contexts with most of these found in cists or pits. While a small number accompanied unburnt burials, the majority were placed in the grave with cremated remains. A majority of vases were placed mouth upwards beside a deposit of cremated bone, while in some graves the vases contained some cremated bone or were placed mouth downwards beside the bone. Objects of stone or metal were occasionally placed along with vases as grave offerings in burials, the most common item was another pottery vessel, either a second vase or a larger vase urn or an encrusted urn. Like the Bowl tradition there was a varied burial ritual embracing both unburnt burial and cremation, so too did the Vase tradition which not only practised cremation and some unburnt burial but also favoured the use of urns. These larger bucket-sized vessels, of sufficient size to hold a deposit of burnt bone, were intended to be either containers for or perhaps when inverted protective coverings for cremated burials. In this the contrast with many vases is apparent as – vases more often than not were placed beside the human remains. A series of radiocarbon dates for vases suggest a broad contemporaneity with bowls. (ibid. 145) The Vase tradition can justly be described as the major pottery tradition of the later third and earlier second millennia in Ireland and, like the Bowl tradition; it is essentially an indigenous development (ibid. 148).

Vase urns were large vessels averaging just under 30cm in height and display a clear typological relationship with vases, though the former are of a thicker and coarser fabric. Their distribution broadly coincides with vases and most came from funerary contexts: both from simple pit graves and from cists. In most cases the vessel was inverted. Grave goods including flint blades, plano-convex knives and artefacts of bone and bronze have been recovered with vase urns.

Encrusted urns are so called because they bear distinctive encrusted or applied ornament. They tend to be taller and broader than vase urns, though bear a typological relationship with vases and vase urns. The majority have been found inverted in pit and cist graves with cremated bone though a small number have been

found as secondary burials in or near megalithic tombs.

Cordoned urns are so named because they usually had one or more horizontal cordons or raised ribs encircling their exteriors, with a simple or a slightly bipartite profile and a single horizontal zone of ornament on the uppermost part of the exterior. The cordons were usually applied or pinched up. The great majority came from burials and the simple pit grave is the commonest type, few have been found in cists. They usually accompanied a cremation and most were inverted though examples are known with the mouth upwards. (ibid. 149) The Cordoned urn is an Irish-Scottish type and there is a distinct concentration in the northeast of Ireland. Their associated finds is intriguing as the rarity of bronze artefacts in burials generally is rescinded in their case with a number of examples being accompanied by bronze knives or razors. They and a limited range of other artefacts were probably tokens of particular importance. (ibid. 151)

The majority of Collared Urns have been found in the north and northeast of the country, a distribution that displays influence from Britain on the east half of the country. In Ireland they have been found only in funerary contexts, sometimes singly, occasionally in cemeteries. The majority were from pit graves and contained cremated bones. Their distinguishing feature was a collared rim above a concave neck giving the urn a distinctive, angular, tripartite profile. Associated finds are relatively few.

In general middle and late Bronze Age burials were contained in pits or in small polygonal or square cists. The latter most commonly consisted of stone-lined pits and were often associated with inverted urns. The majority of burials were, however, contained in pits, occasionally covered by small capstones.

Two principal phases have been identified for middle Bronze Age burial tradition:

The first (1500–1300 BC) was dominated by cordoned urns although graves without ceramics were also present. Another feature was the presence of a large number of comparatively wealthy burials containing accessory vessels, bronze razors or faience beads as well as other more occasional grave goods of amber, gold, bone and bronze. Similarities in grave construction and vessel deposition rite as well as the occurrence of these burials in earlier cemeteries underlie the strength of continuity with early Bronze Age traditions.

The second phase (1300–1000 BC) is characterised by the introduction of coarse domestic vessels acting as containers, forming a move away from specially produced funerary pottery, and a general absence of grave goods, though flint flakes and animal bone are deposited in some graves. Increasingly burials contain sherds of broken vessels generally representing only a small portion of the pot. Single token cremations of adults in pits appear to predominate. There are also unaccompanied and frequently unprotected cremations of this period.

Cremation continued to be the dominant rite, though unburnt apparently disarticulated bone did occur. Many burials contained only a portion of the skeleton. It is not clear if this represented selective extraction from the pyre or the cremation of selected remains following a period of decay and disarticulation. Many other deposits consisted of only token remains and these burials contained bone that has been reduced by pounding or rolling into tiny fragments.

The disappearance of burials that distinguish their occupants through grave goods is also a feature. The minimalism of this tradition is therefore reflected through the small

quantities of both human remains and pottery sherds contained in many graves and especially in the dominance of unaccompanied token cremation (Grogan 2004, 69). The simplicity of the graves and the minimalisation of the burial rite contrasts with the comparative opulence of earlier funerary customs and the dramatic increase in the material wealth of contemporary societies (ibid, 69) This custom increased further in the late Bronze Age period.

There also appeared to be an increase in the construction of funerary monuments, including barrows, ring ditches, boulder burials and cairns, sometimes occurring in large clusters. The archaeological survey of Co. Louth has revealed a rich variety of types of barrow; some have surrounding ditches, some have large tumuli and others are small. Siting of barrows varies greatly with some occurring in lowlands and others having prominent upland locations. At Collon, Co. Louth three different types of barrows form an alignment on a hilltop. The variation of type suggests that the site had been used for burial over a substantial period (Mitchell and Ryan 1997, 217).

2.3.3 Boulder Burials

These are predominantly of a Cork/Kerry association and are believed to have some connection to the stone circles of the area as some boulder burials have been found within stone circles. They consist of large boulders resting on three or more low stones which, in most cases, do not constitute formal chambers. They stand above ground and are not covered by cairns or mounds. They occur singly or in small groups. Burial evidence is rare from them, though examples are known such as Bohonagh townland, Co. Cork where a few fragments of cremated bone were recovered from a shallow pit beneath the boulder. Radiocarbon dates obtained from boulder burials such as one at Cooradarrigan townland, Co. Cork which consisted of two such monuments, indicate a late Bronze Age date (O'Brien 1989).

2.4 The Iron Age (c. 500 BC–AD 500)

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

3 THE EXCAVATION

3.1 Introduction

The excavation at Site 127, Carn More 5 was undertaken as part of the archaeological mitigation for the DWB in the townland of Carn More.

3.2 Methodology

Topsoil stripping of the archaeological area commenced on Wednesday 3 September 2003 with resolution excavation commencing on 11 September 2003 with a team of field director, one Supervisor, eleven assistant archaeologists and one graduate archaeologist. Fieldwork was completed on 1 December 2003. The site was comprised of a barrow with central burial chamber, a cist-cairn monument containing 14 graves, two boulder burials and two ringditches.

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

The following is a brief summary of the archaeological material and sequence as identified through the excavations. Background information on geographical and topographical factors is followed by a chronological discussion.

3.3 Legends and Brackets

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

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

CONTEXT KEY;

- prof = profile
- NSEW = Compass points, Eg; 'N-S' = North-South oriented feature
- All dimensions are given in metres
- d/l/w = depth/length/width
- 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 RESULTS OF EXCAVATION

4.1 GROUP 1: Natural Drift Geology and Topography

4.1.1 Subgroup {1000}: The Natural Drift Geology

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
2					Yellowish brown, gravelly, silty clay.	Subsoil

Finds: None

Interpretation

Natural drift geology (2) was uniform in colour and compaction and generally consisted of a yellowish brown, gravelly, silty clay.

The site was situated in an area 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 was well drained. Bedrock consists of Silurian siltstones, mudstones and sandstones, and locally Dinian limestone.

The main focus of the site was situated in a well drained area at the base of a small hillock made up of sorted, glacially mixed gravels, located at approximately 10 – 11m OD. Topsoil over the site generally varied from 0.20m-0.50m.

4.1.2 Group 1 Discussion

Natural Drift Geology

Group	Subgroup	Subgroup type	Period by finds/ stratigraphy	Period by Interpretation	Group Interpretation
1	1000	Natural subsoil			

Summary

Site 127, Carn More 5 occupies a very low-lying gravel ridge at c.10m OD on the floodplain of a stream located approximately 130m to the north-east. The ground rises gently to the north and west, but the flat lands continue to the east and the south, interrupted by the 13m high Dublin – Belfast railway embankment. The stream is, at present, approximately 1-2m wide and at 6.9m OD closest to the site (plates 1 and 2).

The stream forms a confluence with a second (northern) stream 250m to the east of Site 127, on the far side of the railway embankment (Ch25.380 outside the Lands Made Available, with water level at 4.7m OD).

Upstream from the confluence, both these streams lie at the edges of a wide, flaring valley floor at the foot of the range of hills to the north (Faughart Hill, Slievenabolea and Draikilmore). Downstream from the confluence a burnt mound Site 128, Faughart Lower 1 (Ch25.430) was excavated. The stream flows on for another 2.5km before reaching Dundalk Harbour. Of this 2.5km most was in a modern drainage channel and the last 1.25km presently tidal.

4.2 GROUP 2: The Barrow construction and its central burial chamber

4.2.1 Subgroup {1001}: The Barrow and burial chamber

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
3		17.50	11		Red brown silt- redder at top + browner moving toward base, E-W in orientation,	Iron pan
4	393				Med brown, friable silty clay, occ ch fl, freq burnt bone, some fused to bze, occ s stones	disturbed barrow material
47		2.30	1.50		Spread of med-lge sub-ang stones, in area, oriented NE-SW	Barrow chamber
80		1.50	0.60		Brown soil, mod burnt bone, occ sm stones + pebbles, covering an area oriented E-W,	disturbed barrow
87		1.50	0.60		Dark soil, occ bones-some burnt, rare s stones + pebbles	Spread
393		3.50	3.30	0.15	Irreg in plan, E-W in orientation, sides shallow + gently sloped, base flat	Burial mound foundation

Finds

Context	Find Number	Material	Period	Description
3	1-2	Ceramic	Early Bronze Age	Cordoned urn fragment
3	3-9	Ceramic		Pottery crumbs
4	1-2	Flint		Flakes
4	3	Copper alloy		Cylindrical object
4	4	CU and bone		Copper alloy and bone
4	5	Flint		
4	6-29	Ceramic	Early Bronze Age	Cordoned urn fragment
87	1	Copper alloy		Shank of pin
87	2	Copper alloy		Copper alloy and bone

Interpretation

The burial chamber was located at the south end of the site within a barrow monument [3]. Barrow monument [3] consisted of a circular area of iron pan approximately 20m in diameter (Figure 6, plates 2 and 3). This area had been completely truncated to the south of the central point by the Belfast – Dublin Railway. The ‘iron pan’ [3] was most likely caused by minerals leeching down through a presumed earthen mound that was constructed over the central burial chamber [47].

In the centre of the barrow mound were the badly disturbed remains of a stone lined, central burial chamber [47] (Figure 7), measuring 2.3m x 1.5m x (surviving) 0.15m deep, which was set into a shallow foundation cut ([393], measuring 3.5m x 3.3m x 0.15m deep). The burial chamber appears to have been an upstanding structure around which the mound was built. No capstones of the burial chamber had survived.

Towards the centre of this stone-lined chamber was a row of stones 1.3m long, which could indicate that the chamber was originally partitioned. Due to this possible partition and the size of the structure, the chamber was probably used for multiple interments. The various sherds of pottery are probably the remains of broken vessels that accompanied burials, as the sherds were located between and under the disturbed stone lining [47].

Most of the pottery was found on the southern side of the burial chamber along with tiny fragments of burnt bone. Also found among the backfills [80] and [87] were two possible copper alloy pin, a cylindrical copper alloy fragment (03E0873:4:3) that may

have been a button and another fragment of copper alloy with bone attached (03E0873:4:3, 03E0873:87:2 – Figure 34) (Scully, Appendix 2.8). The fragment of copper alloy fused with bone may represent materials that were fused in a pyre.

There were not enough pottery fragments to form complete vessels, but this was probably due to the level of disturbance of the chamber through modern agricultural practices. The pottery was identified as fragments of early Bronze Age cordoned urn (see Grogan and Roche Appendix 2.7).

4.2.2 Subgroup {1002}: Barrow ditch

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
150		15	3.50	0.40	Curvilinear in plan, sides slope smoothly to a U-shaped base	Ditch
188	194				Black, ch-rich silt, rare sm stones	Burnt post
194			0.25	0.10	Circular in plan, U-shaped profile, T,D	Posthole
195	199				Light yellow, silty fill	Deliberate backfill
199		0.40	0.30	0.10	Rect in plan, N-S in orientation, sides vertical, except S which was smoothly sloped, base flat	Shallow pit

Finds: None

Interpretation

The barrow {1001} was partly surrounded by a shallow 'ditch' or foundation cut [150] (Figures 6–8, plates 3 and 4). This ditch had a definite terminus at both ends and did not completely surround the barrow. It may simply have been dug as a partially enclosing ditch around barrow (visible for an arc of 21m x c.2m wide x max 0.40m deep) or it may have been a curvilinear quarry pit, possibly dug to provide upcast material for the barrow mound.

A small, burnt post [194] and fill (188) was located on the base of the southern side of ditch. A shallow 'pit' [199] was also located in the base of the ditch. Following this activity the ditch [150] appears to have been consolidated with stones [151] {1004}.

4.2.3 Subgroup {1004}: Consolidation material

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
108	150				Brown, loose fill, rare pebbles + sm stones in E half of ditch[150]	Fill
149	150				Light yellow brown silt	Fill (same as 195)
151	150	14	2	0.30	Stones of all sizes within trench[150]	Stone foundation

Finds

Context	Find Number	Material	Period	Description
108	1	Flint		Bipolar complete flake

Interpretation

The barrow ditch and associated features, {1002}, were consolidated with a deposit of stones [151]. In general the stones were fairly small and formed a single layer, placed into the base of ditch [150] {1002}.

The silt and sand fills [108], [100] and [149] sealed the stone deposit [151].

4.2.4 Subgroup {1005}: Group of stakeholes, postholes and pit

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
232					Dark brown, loose ch-rich silt, occ pebbles	Burnt spread
245	246				Med yellow brown, loose sandy silt, mod large ang-sub-round stones	Land clearance debris
246		0.71	0.54	0.28	Sub-circular in plan, E-w in orientation. Sides concave in NE, otherwise vertical, base flat	Pit
247	248				Med dark brown mod loose silt, freq ch fl, occ pebbles	<i>In situ</i> burnt post
248		0.56	0.45	0.45	sub-circular in plan, NW-SE in orientation, sides vert in E+W, undercut in N, base sloping at N+S	Posthole
251	252				Mid brown orange, silt, freq pebbles, occ sub-ang stones	Fill
252		0.57	0.36	0.25	Oval in plan, N-S in orientation, edges slightly sloping, base uneven	Posthole
256	261				Med brown mod compact silt, ch fl, occ pebbles	Fill of furrow
261	NA		0.35	0.15	NW-SE in orientation, W side(only one intact) gently sloped, base uneven	Fill of furrow
262	261				Med brown yellow mod compact sand, freq small stones	Fill of furrow
263	248				Mid brown grey orange, loose sandy silt, freq pebbles	Fill of posthole
264	248				Med brown orange, mod compact sandy silt, freq pebbles+ occ sm sub-ang stones	Posthole fill
275	NA		0.05	0.10	Circular in plan, U-shaped in profile	Stakehole
276	275				Med brown orange, loose gritty sand, ch fl, occ pebbles	<i>In situ</i> burnt stake
277	NA	0.22	0.20	0.14	Sub-circular in plan, E-W in orientation, sides slightly sloped, base flat	Posthole
283					Med grey brown, med silt, freq pebbles	Furrow fill
284					Med brown orange, firm sandy silt freq pebbles	Furrow fill
285					Med brown , loose silt	Stakehole fill
286					Med orange brown, firm sandy silt, freq pebbles	Fill of posthole
297	NA		0.12	0.18	Circular in plan, U-shaped in profile	Stakehole
298	297				Med orange red brown, mod compact clayey silt, occ ch fl, mod pebbles	<i>in situ</i> burnt stake
299	NA		0.10	0.12	Circular in plan, U-shaped profile	Stakehole
300	299				Mid brown grey, mod loose silt, ch fl, mod pebbles	Nat silting
301	NA	0.08	0.07	0.05	Shallow, sub circular in plan, N-S in orientation, cuts through [299]	Stakehole
302	NA		0.24	0.25	Circular in plan, U-shaped in profile	Stakehole
304	302				Med brown red grey, loose sandy silt, ch fl	Fill
305	302				Med brown orange, mod compact clayey silt, freq pebbles	Fill
307	327				Med brown, loose sandy clay, very freq ch fl + frags, occ sm to med ang + sub-ang stones	<i>in situ</i> burning
308	310				Med brown, mod loose sandy clay, occ ch fl, occ sm ang + sub-ang stones	Post fill
310		1.50	0.20	0.05	Shallow, linear in plan, E-W in	Post socket

					orientation, sides uneven+stoney at E end, base undulating	
313	314				Light yellow brown, mod loose silty sand, rare ch fl, occ sm ang stones	Redeposited natural
314	NA		0.20	0.40	Circular in plan, sides smooth, axis of inclination towards the W, base blunt	Posthole
317			0.24	0.10	Circular in plan, sides steep+slightly irreg, base concave	Cut of stakehole
318					Dark grey brown, mod compact ch-rich sand, rare stones	Fill
326	327				Light yellow brown, compact sandy silt, rare ch fl, occ sm ang stones	Redeposited natural
327	NA	0.37	0.32	0.16	Oval in plan, sides even, base blunt tapered point	Truncated posthole

Finds: None

Interpretation

All of these features were located 8m west of the barrow [150]. Four stakeholes lay under the charcoal spread (232). They were stakeholes [301], [277], [299] and [302] and form a north to south oriented line. A fifth stakehole [275] was situated to the west of stakehole [301], while another stakehole [297] was located north of stakehole [277] and contained a charcoal flecked fill. The posthole [327] was situated south of [310]. The upper fill [307] was composed of 50% charcoal and there were no finds. The posthole [314] was just north of posthole [327]. Another possible posthole [248] was located to the north of [310], but it was badly disturbed by animal burrows. Analysis of charcoal from C263 has identified it as *Quercus* sp (oak) (O Carroll, Appendix 2.2). Two other possible postholes, [252] and [317] were also located to the northeast of [297].

No distinct pattern could be determined in the above concentration of features {1005}, and they may indicate an area of repeated activity, possibly related to activity at the barrow {1001}

The stone filled pit [246] was located further south of the spread of material [232]. Analysis of charcoal from C232 has identified it as *Quercus* sp (oak) (O Carroll, Appendix 2.2). It may be unconnected to the rest of this group as it could have resulted from much more recent land clearance.

This concentration of posts/stakes and the evidence for a spread of material with burning was similar to {1008} Group 3.

4.2.5 Group 2 Discussion

The Barrow and Burial Chamber

Group	Subgroup	Subgroup type	Period by finds/ stratigraphy	Period by Interpretation	Group Interpretation
2	1001	The burial chamber			
2	1002	Barrow ditch			
2	1004	Consolidation material			
2	1005	Associated stakeholes and postholes			

Summary

Group 2 represented a barrow with associated ditch and possible central mound, central burial chamber and probable associated features.

Discussion

The barrow {1001} was partly surrounded by a shallow 'ditch' or foundation cut [150] {1003}. This ditch had a definite terminus at both ends and did not completely surround the barrow, but was visible for an arc of 21m x c.2m wide x max 0.40m deep. It may simply have been dug as a partially enclosing ditch around barrow or it may have been a curvilinear quarry pit, possibly dug to provide upcast material for the barrow mound.

The barrow mound [3] consisted of a circular area of iron pan approximately 20m in diameter. The area of the barrow to the south of the central point had been completely truncated by the Belfast – Dublin Railway construction in the 19 century. The 'iron pan' was most likely caused by minerals leeching down through a long disappeared earthen mound that had been constructed over the central burial chamber.

At the centre of the barrow mound were the badly disturbed remains of a stone lined, central burial chamber [47] {1002}, measuring 2.3m x 1.5m x (surviving) 0.15m deep, which was set into a shallow foundation cut ([393]{1002}, measuring 3.5m x 3.3m x 0.15m deep). The burial chamber appears to have been an upstanding structure around which the mound was built. No capstones of the burial chamber had survived.

Towards the centre of this stone-lined chamber was a row of stones 1.3m long, which may indicate that the chamber was originally partitioned. Due to the size of the structure, the chamber may have been intended for multiple interments. The prehistoric pottery and cordoned urn sherds recovered were probably the remains of broken vessels that accompanied burials, as the sherds were located between and under the disturbed stone lining [47] {1002}.

Most of the pottery was found on the southern side of the burial chamber along with tiny fragments of burnt bone. Also found among the backfill were a possible copper alloy pin, a possible button/rope and heat affected fragments of copper alloy.

The barrow ditch [150] and fills were sealed by a layer of stones [151]. In general the stones were fairly small and formed a single layer, placed into the base of ditch. Silt and sand fills sealed this stone deposit

Situated 8m from the south-western edge of the barrow was a concentration of six stakeholes, six postholes (most appeared to have been burnt) and a spread of burnt material. This cluster of features may indicate that this was an area of repeated activity and that the features represent the remains of a ritual associated with activity at the barrow.

4.3 Group 3: Early activity to west of barrow {1001}, Group 2

4.3.1 Subgroup {1008}: Group of stakeholes and postholes SW of [222]

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
43			0.10	0.23	Circular in plan, -shaped in profile	Cut
231					Dark grey brown silty clay, freq ch fl, very freq pebbles+sm ang stones	Spread
270					Dense charcoal fill	Spread
271	346				Brown silt w/ patches of ch+burnt clay, occ pebbles+small stones	Fill
280	289				Med grey brown loose clayey silt, mottled w/ fl of yellow (decayed stone), occ s sub-ang pebbles+sm-med ang stones, concentrated around edges	Post pipe fill
288	289				Med yellow brown, mod loose clayey silt, occ ch fl + frags, mod to freq pebbles + sm stones, sm-med stones around edges of posthole	Post packing
289	NA	0.42	0.34	0.20	Subsquare in plan, NW-SE in orientation, corners rounded, sides mod steeply sloped + slightly convex in NW +SE, straight + more gradual in W, Base flat	Posthole
290	291				Charcoal rich fill	Fill
291	NA	0.28	0.28	0.25	Sub-circular in plan, sides concave, base flat+ slopes to the E	Pit, fire pit
292	293				Dark grey brown clayey silt, freq ch frags, freq med sub-round + sub-ang stones, mod pebbles	Deliberate fill
293	NA	0.36	0.29	0.27	Oval in plan, N-S in orientation, sides+ base concave	Posthole
345	43				Bright orange burnt clay	Burnt natural
346	NA	0.80	0.60	0.37	Oval in plan, E-W in orientation, sides vert	Posthole
347	348				Reddish brown silt, no inclusions	Fill
348	NA		0.10	0.30	Circular in plan, U-shaped in profile	Posthole
349	350				Brown silt, occ ch-mostly at top, occ sm stones	Natural silting
350	NA	0.35	0.25	0.20	Oval in plan, E-W in orientation,	Posthole
352	359				Dark brown, ch	Fill
353	362				Brown, silt, freq ch, rare sm stones	Fill
357	43				Brown black, friable fill, surrounded by bright orange burnt clay, mod ch	<i>In situ</i> burnt stake
359	NA		0.22	0.13	Circular in plan, U-shaped in profile	Post/stakehole
360	NA	0.20	0.13	0.20	Oval in plan, E-W in orientation, remaining sides smooth+straight, base concave	Posthole
361	360				Brown black, friable silty sand, occ ch	<i>In situ</i> burnt, decayed post
362	353		0.17	0.18	Circular in plan, U-shaped in profile	Post/stakehole

Finds: None

Interpretation

This group of stakeholes and postholes were similar to that of {1005}, Group 2. As with {1005}, no discernable structure can be identified. The stakeholes and postholes were sealed by spread (231) and spread (270), which appears to be a dump of burnt material which was in turn covered by spread (193) (see {1006} below), which was later cut by the later burial pit [222] {1007}. Analysis of charcoal

from C270, 271, 280, 288 and 290 have identified *Quercus* sp (oak) as the wood of choice for these stake and postholes (O Carroll, Appendix 2.2). As this activity is known to be earlier than burial pit [222] {1007}, it is possible that {1008} may be part of some preparation ritual for the monument.

4.3.2 Subgroup {1013}: Large pit

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
228	363				Large granite boulder+3 large ang stones+various other ang stones of mixed sizes	Stones
237	363				Light-med yellowish brown, slightly sandy clayey silt, occ ch fl+v occ burnt clay, mod sm ang pebbles+sm platy+sub-ang stones	Natural silting
238	363				Purple brown grey, mod loose humic claymod ch fl+frags, v occ gritty sand-decayed granite	Decayed vegetation
363	NA	1.75	1.30	0.80	Sub-oval in plan, N-S in orientation, N end widest, sides steeply sloped, base convex	Pit
364	363				Light -med yellow brown, loose slightly stoney clay,v occ ch fl, freq sm rounded pebbles	Redeposited natural/slippage
365	363				Light-med pink yellow slightly stoney clayey silt, sm sub-ang pebbles+gravel	Redeposited natural/slippage
366	363				Light-med grey yellow brown, mod loose silty clay, v occ ch fl, occ sm gravelly pebbles+ sm ang+sub-ang stones	Basal fill

Finds: None

Interpretation

The pit [363] was located to the south of the large burial pit [222]. It contained large stones in the top fills (237) and (238). The basal fills did not contain stones but had some occasional charcoal flecking. The sandy nature of the subsoil through which it was cut meant that the sandy basal fills could have accumulated quite quickly, while the upper fills of stones are probably consolidation layers. Pit [363] was cut by the linear pit [337] {1014}. No function could be determined for the pit.

4.3.3 Subgroup {1010}: Large Pit

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
143	157				Pink brown silt, freq ch, occ pebbles	Fill
157	NA	5	3	0.75	Large curvilinear pit,	Cut
214					Mod. Loose brownish yellow silty clay with grey and bluish grey marl inclusions	Spread
369	157				Yellow, mod compact sand	Fill
370	157				Brown, loose gravelly fill	Fill
371	157				Brown silt, occ ch, sm stones + pebbles	Slippage
372	157				Yellow, loose sandy silt	Natural silting
373	157				Med yellow brown mod loose silty clay, occ lines of ch, freq sm ang stones + occ sub-ang pebbles	Stone [375] packing
374	157				Layer of stones in SE end of the base of [157]	Stones
375	157				Layer of stones within [373], at the NW end of the base of [157]	Stones

Finds: None

Interpretation

The large curvilinear pit [157] (5m x 3m x 0.75m deep) was filled with numerous deposits (Figure 10 and 11). The pit may have been a quarry pit. If it were a quarry pit, the irregular nature of the base may indicate that it was worked at various times over a period of time (plate 11).

Both ends of the pit were deeper than the middle and there was a layer of stones (374) and (375) in each of these hollows (Figure 10). These stones may have been to aid access to the pit and to assist with drainage, as it was later filled with a water lain deposit {1011} indicating that it once contained standing water.

The basal and lateral fills of pit [157] were a combination of dumped and slipped material (the sandy subsoil being prone to erosion). The pit did not appear to have been left open for long. The stakeholes of {1008} lay immediately to the west of pit [157], between the 'horns'.

Nothing to date the pit was recovered from the fills.

If the pit [157] was solely a quarry pit there is a question as to what use the extracted material was put to. There was a thin layer of trample material (214) within the pit which was similar to the sandy spreads {1006} and {1015} which may be material from the excavation of the pit [157].

4.3.4 Subgroup {1006}: Spreads over postholes {1008}

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
165					Very dark brown silty clay, Very freq ch, mod pebbles + occ med sub-ang stone	Charcoal spread
193	NA				Med-dark, slightly gritty silty clay, freq ch fl + sm frags, freq tiny gravel + mod sm pebbles	Spread
239					Med brown grey, mod loose silty clay, freq ch fl + sm frags, mod sm ang+ sub-ang stones	Spread
241					Med brown grey, mod loose silty clay, freq ch fl + sm frags, mod sm ang+ sub-ang stones. V. similar to (239)	Spread
272					Mid to dark yellow/brown silty clay with occ. charcoal flecking	Spread

Finds

Context	Find Number	Material	Period	Description
272	1	Flint		Bipolar complete flake

Interpretation

These five charcoal rich spreads may be part of the early foundation and possibly ritual preparation of the site. The spread (193) sealed the stakeholes {1008} and may be a combination of residual charcoal rich material from activity at {1008}, mixed with intrusive material from the excavation of pit [157] {1010}. The spread (272) was similar to (214), which was widespread over this part of the site and may represent an area of prehistoric trample and disturbance. No finds were retrieved from these spreads.

4.3.5 Subgroup {1014}: Linear pit

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
320	337				Dark red brown, mod loose organic/humic clay, mod ch fl + occ frags, occ-mod tiny white flecks-decayed stone, occ pebbles Similar to [342] , but unburnt	Decayed plant material
324	337				Med yellow brown, mod loose slightly stoney silt, occ ch fl+frags, freq sm ang + sub-ang stones, evidence for in situ burning, similar to [344] in composition	Redeposited natural
337	NA	2.50	0.72	0.58	Linear in plan, E-W in orientation, curves slightly to NW at W end, sides steeply sloped, base flat	Cut assoc with fire
342	337				Med -dark red brown mod loose silty clay, freq ch fl+frags, ash fl, occ sm ang stones concentrated around stake remains, Same as [320] except	Lens of in situ burning
343	337				Bright red orange, loose fine silt, surrounds burnt stake	Ash from in situ burning
344	337				Mid-dark red brown, mod compact clayey silt, freq ch fl, freq sm stones, same as [324] except this c has been affected by heat from stake burning	Lens of in situ burning
355	337				Mod loose slightly gritty clay, mod sm pebbles+stones,	nat silting disturbed by burrowing
356	337				Med pink brown, mod silty clay, v occ ch fl, occ sm pebbles+sm ang+subang stones	Natural silting

Finds

Context	Find Number	Material	Period	Description
320	1-2	Flint		Angular shatter
342	1	Flint		Angular shatter
342	2	Sandstone		Unworked

Interpretation

The linear cut [337] was located to the east of pit [363] {1013}. The remains of a burnt *in situ* stake were found cutting through fill (320), (324), (342), (343), and (344). No function could be identified for the pit.

4.3.6 Subgroup {1015}: Spreads to the west of {1014}

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
240					Med grey brown, mod loose clay, v freq ch fl, mod sm ang + sub-ang pebbles	Sealing layer
306					Med pink yellow, mod compact gritty silt, occ ch fl+sm frags+ burnt clay+ash, occ sm-med ang+sub-ang stones, mod platy+sub-ang pebbles	Spread
319					Med grey brown, mod loose silty clay freq ch fl+ mod frags, occ burnt clay fl, mod sm sub-ang pebbles	Charcoal rich spread

Finds: None

Interpretation

The charcoal flecked spreads (240), (306) and (319) were all situated at the west end of linear gully [337]. The spread (240) was beside the edge of the large pit [157]

{1010}. Analysis of charcoal from C240 has identified it as *Quercus* sp (oak) a timber that burns at high temperature which would have been suitable for pyre material (O Carroll, Appendix 2.2). It was sealed by (153), which was the upper backfill of [157] {1010}. Therefore, the spreads were laid down before the silty layer had time to build up in pit [157]. Nothing to indicate a date was recovered from the spreads.

4.3.7 Subgroup {1011}: Silting of pit {1010}

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
153	157				Lt-med grey yellow brown mod loose silty clay, mod ch fl, mottled in places w/ blue grey+red brown marl clay	Spread

Finds: None

Interpretation

Fill (153) was a fine silt layer that built up in pit [157] before the stone layer (114) {1012} was laid down. The pit must have been open at this level for a while as water collected, allowing the silt to build up.

Silt (153) {1011} also overflowed from the pit and sealed the spread (240) {1015}. This fact, along with the lack of any significant charcoal from layer {1011}, suggests that fill {1011} may represent a period of inactivity. No finds were recovered from this deposit.

4.3.8 Subgroup {1012}: Upper fills of pit {1010}

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
5	157				Topsoil lying between the stones of [114]	Topsoil
114	157	5	3.60		Spread of quite tightly packed stone, covering an area 5.00l x 3.60w, part of a cairn	Stone spread
154	157				Light brown yellow, loosely compacted silty clay, lying between + under the stones of [114]	Natural silting
156	157				Med grey brown, mod loose clayey silt, occ ch fl, freq decaying granite,	Secondary cairn deposit

Finds

Context	Find Number	Material	Period	Description
5	1-2	Ceramic	Final Neolithic/early Bronze Age	Tripartite bowl
5	3-4	Ceramic		Pottery crumbs

Interpretation

The stone deposit (114) represented the final consolidation and backfill of pit {1010}. It is possible that the water logging of pit {1010} described above in {1011} was the reason for this consolidation. It is also possible that the stone backfilling was to prepare the area for Burial Monument 2.

The deposit (5), a loose mixture of topsoil amongst the stones [114], appears to have been disturbed (possibly quite recently) and the security of the context for the pottery sherds cannot be trusted.

The upper fills {1012} of pit {1010} were later cut by cist [C7] {1018}.

4.3.9 Group 3 Discussion

Early activity to the west of Barrow Group 2

Group	Subgroup	Subgroup type	Period by finds/ stratigraphy	Period by Interpretation	Group Interpretation
3	1008	Post and stake structure	EBA	EBA	Early ritual activity to west of Barrow Group 2
3	1013	The stone filled pit	EBA	EBA	Early ritual activity to west of Barrow Group 2
3	1010	Pit [157] + basal fills	EBA	EBA	Early ritual activity to west of Barrow Group 2
3	1006	Charcoal spreads	EBA	EBA	Early ritual activity to west of Barrow Group 2
3	1014	The linear gully feature	EBA	EBA	Early ritual activity to west of Barrow Group 2
3	1015	The spreads that lay over pit [363]	EBA	EBA	Early ritual activity to west of Barrow Group 2
3	1011	Silt layer in pit {1010}	EBA	EBA	Early ritual activity to west of Barrow Group 2
3	1012	Upper fills of Pit {1010}	EBA	EBA	Early ritual activity to west of Barrow Group 2

Summary

This group of features indicated some form of activity to the west of Barrow Group 2. This area was subsequently sealed by Burial Monument Group 4 but much of it seems to mirror a cluster of activity seen to the south-west of Barrow Group 1. It cannot be determined, whether the activity seen in Group 3 was activity associated with Barrow Group 2 or was related to Burial Monument Group 4.

Given the similarity between {1005} Group 2 and {1008} Group 3, which may represent some form of ceremonial activity, it is possible that Group 3 has more in common with Barrow Group 2 than Monument Group 4.

Discussion

The group of stakeholes and postholes {1008} did not form any discernable structure. The concentration of posts/stakes and occurrence of burning was very similar {1005} Group 2. The spreads of burnt and charcoal rich material {1006} sealed postholes/stakeholes {1008}.

It has not been determined whether this activity was related to Barrow Group 2, or represents ceremonial activity prior to the building of Burial Monument Group 4.

The large pit {1013} was located 0.50m to the north of stakeholes {1008}. No function could be determined for this pit. Pit {1013} had sandy basal fills and had been sealed with stones (in a similar manner to Pit {1010} being sealed with stones {1012}).

Situated directly to the east of postholes/stakeholes was an irregular, roughly 'crescent' shaped pit [157] {1010} (5m x 3m x 0.75m deep), with the 'horns' of the crescent partly encircling {1008}. It is possible that pit [157] was simply a quarry pit. Both ends ('horns') of the pit were deeper than the middle and in each of these ends were a layer of stones. These stones may have been to aid access or drainage of the pit, as it was later filled with a water lain deposit {1011}. The lower levels of the pit appeared to have filled relatively quickly with slipped material. A linear shaped pit {1014} contained the remains of a vertical burnt stake and some decayed organic material. The function of pit {1014} was not determined. Adjacent and to the west of pit {1014} were five charcoal flecked spreads of material {1015}.

4.4 GROUP 4: Burial Monument 2: Central Area

4.4.1 Subgroup {1007}: Central Burial Pit

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
58	222				Light-med grey yellow, mod compact clayey silt, rare ch fl, freq ang+round pebbles, mod sm stones	Redeposited Natural
79	222				Med brown grey, mod loose silty clay w/occ yellow mottling, occ ch fl, occ sm pebbles+rare small stones	slumping of [58]
144	222				Dark grey brown, ch-rich silty sand, occ burnt bone, mod sub-ang stones	Collapsed pit wall
198	222				Dark brown, loose sandy clay, v occ ch fl, occ burnt bone fl, freq pebbles+sm sub-ang stones, mod freq l sub-ang stones+ mod decayed granite	Spread
200	222				Med brown, loose sandy silt, ch, sm stones	Deposit
201	NA				Dark brown sandy silt, semicircular concentration of burnt bone beside + under group of large stones	Burial
211	222	2.13	1.74	0.47	9 large stones + several smaller sub-ang ones forming a sub-rect feature oriented NE-SW, 5 large stones at E end, 4 at W end, in the NE are 5 flat standing stones running E-WSW	Stone structure
217	211				Dark grey brown, loose gravelly sandy silt, v freq small stone chippings, concentrated mostly in NE of [211]	Deposit
222	NA	2.45	2	0.90	Sub-oval in plan w/ lump projecting from base flat, quadrant, NE-SW in orientation, break of slope forming a ledge along all sides, tho most noticeable in N, sides mod steep	Burial pit
226	222				Dark brown/orange sandy silt	Fill
229	222				Med yellow brown mod loose silty clay, sm pockets of ch concentrated to the NW corner, mod sub-ang pebbles+ occ gravel	Slumping
230	222				Grey brown loose sandy silt, rare ch, sm stones/pebbles	Fill
233	222				Lt brown sandy silt, mod sub-ang pebbles+rare med stones	Packing around pot
234	222				Mottled brown sandy silt, occ ch, rare sm sub-ang stone	Slumped fill
235	222				Med-dk yellow brown, mod loose clayey silt, pockets of ch, mod gravel+freq sm ang pebbles, occ l stone slabs on floor	Redeposited natural

Finds

Context	Find Number	Material	Period	Description
144	1-7	Ceramic	Final Neolithic/early Bronze Age	Beaker fragments
211	1	Granite		Boulder
211	2	Sandstone		Slab
230		Flint		Flint shatter
233	1	Ceramic	Early Bronze Age	Intact decorated bowl

Interpretation

Burial pit [222] appears to be the focus for a group of surrounding cists and boulder burials, which together represent a very large and complicated, Bronze Age Burial Monument (Figure 12 and 13).

Burial pit [222] was sub-oval in plan (2.45m x 2m x 0.90m deep), aligned north-east to south-west. At the base of the pit, at the south-western corner, an intact, highly decorated vase food vessel (03E0873:233:1) was found (Figure 36, see Grogan and Roche, Appendix 2.7). This vessel had been carefully placed in a niche of stones (place 39).

The main fills of burial pit [222], (58, 79, 144, 198, 200, 211, 217, 226, 229, 230, 233, 234, 235) generally consisted of a mix of field stones and silty sands (plate 5). The frequency of stone implies that these fills were deliberately placed to ensure they did not later subside. Analysis of charcoal from C198 and 234 has identified it as *Quercus* sp (oak) a timber that burns at high temperature and was suitable for use in a pyre (O Carroll, Appendix 2.2).

A layer of stone [211] sealed these fills. This deposit consisted of nine large stones and several smaller ones forming a sub-rectangular group 3.13m x 1.74m x 0.47m high, oriented northeast-southwest. In detail there were five large stones at the eastern end and four at the western end.

Two large naturally weathered stones covered the upper surface of the burial cist (plate 6). One of these is a granite boulder that has been unusually shaped into a zoomorphic form via natural weathering, and features a possible artificial hollow (03E0873:211:1). There was no clearly definitive evidence that the stone has been artificially worked or shaped (see O'Connor, Appendix 2.4). The other is a sandstone slab featuring a series of natural solution hollows caused by water action, each of these was entirely natural in origin (03E0873:211:2). It is possible, given the structural importance of these two stones, that they were intentionally selected for their distinctive forms and textures.

4.4.2 Subgroup {1003}: Kerbing

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
187	NA				Alignment of slablike upstanding light grey sedimentary stones, separated into two groups 2.80 apart from each other, E group made up of 5 stones running 1.23m E-W with a slight bend to the SW. W group made up of 15 stones running E-W for 4.92m	Stone alignment

Finds: None

Interpretation

A stone alignment [187] or kerbing was identified associated with the central burial (plates 8 and 9). This alignment was oriented exactly northeast to southwest and was formed of small slab like light grey sedimentary stones (average dimensions 0.20m x 0.08m x 0.06m high) set end to end on their sides, and separated into two groups 2.80m apart. The north-eastern group was comprised of five stones running 1.23m with a slight bend to the southwest end (this group may have been truncated to the

north). The south-western group was made up of fifteen stones running for 4.92m. In total the alignment covered a distance of 9.3m, was made of 20 stones but was only 60mm high at the most.

It is suggested that this was a decorative kerbing for a low, raised turf or earthen mound over the central burial, possibly forming a court-type feature. The kerbing was subsequently sealed by a stone layer {1009}.

4.4.3 Group 4 Discussion

Burial Monument 2: Central Area

Group	Subgroup	Subgroup type	Period by finds/ stratigraphy	Period Interpretation	Group Interpretation
4	1007	Central burial and 'alter'	EBA	EBA	Central burial of a large Burial Monument
4	1003	kerbing	EBA	EBA	Decorative kerbing on one side of the central burial {1007}

Summary

A very large Burial Monument created 19m to the west of Barrow Group 2 and adjacent to (and possibly associated with) Group 3, in the Early Bronze Age. The central focus for this 'flat' monument was a large burial pit, sealed with stones. On the eastern side of the burial pit was a decorative stone kerb that ran northeast to southwest in two segments for over 8.9m (made of 20 stones). This kerbing may be the remnants of a court type feature around the burial pit.

Discussion

The burial pit [222] was sub-oval in plan 2.45m x 2m x 0.90m deep and aligned northeast to southwest. At the base of the pit, at the south-western corner, an intact, highly decorated vase food vessel (03E0873:233:1) was found. This vessel had been carefully placed in a niche of stones.

The main fills of the burial pit (58, 79, 144, 198, 200, 211, 217, 226, 229, 230, 233, 234 and 235) generally consisted of a mix of field stones and silty sands. The frequency of stone implies that these fills were deliberately placed to ensure they did not later subside.

A layer of stone [211] sealed these fills. This deposit consisted of nine large stones and several smaller ones forming a sub-rectangular group 3.13m x 1.74m x 0.47m high, oriented northeast-southwest. In detail there were five large stones at the eastern end and four at the western end.

Two large naturally weathered stones covered the upper surface of the burial cist. One of these is a granite boulder that has been unusually shaped into a zoomorphic form via natural weathering, and features a possible artificial hollow (03E0873:211:1). There was no clearly definitive evidence that the stone has been artificially worked or shaped (see O'Connor, Appendix 2.4). The other is a sandstone slab featuring a series of natural solution hollows caused by water action, each of these was entirely natural in origin (03E0873:211:2). It is possible, given the structural importance of these two stones, that they were intentionally selected for their distinctive forms and textures.

A stone alignment [187] or kerbing was identified associated with the central burial. This alignment was oriented exactly northeast to southwest and was formed of small

slab like light grey sedimentary stones (average dimensions 0.20m x 0.08m x 0.06m high) set end to end on their sides, and separated into two groups 2.80m apart. The north-eastern group was comprised of five stones running 1.23m with a slight bend to the southwest end (this group may have been truncated to the north). The south-western group was made up of fifteen stones running for 4.92m. In total the alignment covered a distance of 9.3m, was made of 20 stones but was only 60mm high at the most. It is suggested that this was a decorative kerbing for a low, raised turf or earthen mound over the central burial, possibly forming a court-type feature. The kerbing was subsequently sealed by a stone layer {1009}.

4.5 GROUP 5: Burial Monument 2: Inner Cist Burials and Outer Pot Placements

The cist burials are discussed in order of clockwise from north.

Summary Table

Cists (Subgroup)	Distance (m) from centre of central burial {1007}	Direction from central burial {1007}	Pottery Vessel Yes/No	Internal dimensions
1026	10.71m	NNE	N	0.88m x 0.55m x 0.45m deep; oriented NW-SE
1019	10.30m	NE	Y	0.37m x 0.29m X 0.25m deep oriented NE-SW
1018	8.50m	SSE	Y	1.20m x 0.70w x 0.72m deep: orientated NW-SE
1025	9.60m	S	N	1.17m x 0.86m x 0.45m deep: orientated NW-SE
1024	10.40m	SSW	N	1.40m x 0.95m x 0.60m deep: orientated NE-SW
1017	11m	SW	Y	0.60m x 0.39m x 0.35m deep: orientated NE - SW
1016	10.40m	W	Y	1.07m x 0.87m x 0.38m deep:, orientated E-W
Pot Placements				
1020	21.20m	NE	Y	Circular in plan, ca. 0.36 dia, x c.0.15m deep
1021	14.80m	SW	Y	Roughly circular in plan, 0.38d x 0.37l x 0.31
1022	20.50m	NW	Y	Circular in plan, 0.16d x 0.45dia

4.5.1 Subgroup {1026}: Cist

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
21	NA	1.00	0.82	0.44	Oval in plan, NW-SE in orientation, sides slope sharply, several breaks of slope at N end, base flat generally	Cist [28] cut
26	21				Med orange brown, mod loose sandy silt, freq sm ang stones + occ patches of decayed stone	Cist [28] wall packing
27	21,28				Med brown v loose silty clay, occ ch fl, occ sm pebbles	Ntural silting
28	21				5 large stone slabs ranging from 0.08 ^m x 0.27l x 0.15w to 0.10 ^m x 0.40l x 0.25w forming a sub-pentagonal box, 0.45d x 0.88l x 0.55w oriented N-S, atop this box are smaller stones, overlapping to create a pseudo-corbelling, which supports the capstone.	Burial cist
29	21, 28				Med yellow brown, mod loose silty clay, occ sm ang+ round + platey pebbles	Natural silting
34	21, 28				Med yellow brown, mod loose silty clay, freq sm platey sub-ang pebbles + occ med sub-ang + round stones, mostly concentrated at base of fill	Ntural silting

Finds: None

Interpretation

The cist [21] was oval in plan, 1.00m x 0.82m x 0.44m deep, northwest to southeast orientation (Figure 17 and 18, plate 21 and 22). It was situated approx. 10.70m east of the centre of burial pit [222] {1007} and approx 3.50m north of cist [22] (1019). The walls were comprised of five large stone slabs forming a sub-pentagonal box. Sealing this box were smaller stones, overlapping to create a form of corbelling, which supported the capstone, (0.62m x 0.46m x 0.15m). The floor was not stone lined.

No finds or burnt bone were recovered from this cist. It is possible that this well built and seemingly undisturbed cist originally contained a crouched or flexed inhumation and that the bones have completely dissolved due to the soil conditions.

4.5.2 Subgroup {1019}: Cist Burial

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
22	NA	0.95	0.92	0.40	Sub-oval in plan, NE-SW in orientation sides steep +slightly convex, base irreg	Cist[30] cut
23	22				Med-lt red brown, loose sandy clay, occ ch, mod med-lge sub-ang to round stones	Cist [30] wall packing
24	22				Med-lt brown, sandy silty clay, occ burnt bone, rare pebbles	Upper cist fill
25	22				Med-light yellow brown sandy silty clay, occ ch, freq burnt bone, rare stones	Cremation burial
30	22				4 large stone slabs forming a rect box, 0.37l x 0.29w (internal), a fifth stone acted as a capstone, there was some cobbling on the floor	Burial cist

Finds

Context	Find Number	Material	Period	Description
25	1	Flint		Flake
25	2	Ceramic	Early Bronze Age	Intact ribbed bowl

Interpretation

Burial cist [22] consisted of a rectangular box, 0.37m x 0.29m x 0.25m deep (internal), of four large stone slabs (Figure 19, plates 25 and 26). A fifth small, broken stone (0.18m x 0.15m x 0.05m) was the remains of the capstone and there was some cobbling on the floor. The cist was approx. 10.30m east of the burial pit [222] and 3.50m south of cist [21] {1026}.

An intact pot was found in the southwest corner of the base of the cist along with a flint flake (see Nelis, Appendix 2.3). The pot was a food vessel (Figure 39, see Grogan and Roche, Appendix 2.7). C25 produced 11.9g of cremated bone, almost a third of which was identifiable as human (30.3%). Identifiable elements comprised solely of cranial vault fragments (Coughlan, Appendix 2.5).

4.5.3 Subgroup {1018}: Cist Burial

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
6	50				Dark brown, loose sandy silt, freq sm flat ang stones at top of fill	Deliberate backfill
7	NA	1.70	1.47	0.63	Sub-oval in plan, N-S in orientation, sides gently concave, base flat generally	Cist cut
50	7				5 large stones ranging from 0.44-0.70l x 0.33-0.50h, +several smaller stones forming an elongated pentagonal box, 0.72h x 1.20l x 0.70w, oriented N-S, no flooring or capstone found	Burial cist
82	50, 7				Light brown yellow, loose silty sand, occ pebbles + sm stones	Natural silting
85	7, 50				4 pockets of dark brown, friable soil	
125	7				Med-light orange brown, friable sandy clay, mod pebbles+occ med sub-ang+ang stones	Cist[50] wall packing

Finds

Context	Find Number	Material	Period	Description
82	1	Ceramic	Early Bronze Age	Lugged tripartite bowl

Interpretation

Burial cist [7] consisted of five large stones ranging from 0.44-0.70m x 0.33-0.50m which, along with several smaller stones formed an elongated pentagonal box 1.20m x 0.70m x 0.72m deep, oriented northwest to southeast (Figure 20 and 21, plate 20). No flooring or capstone was identified. The centre of cist [7] was located approx. 8.50m south of the centre of burial pit [222] {1007} and approx. 2.80m east of the centre of cist [9]. The cist {1018} was cut through the upper backfills of pit {1012}.

The cist contained a slightly broken pottery lugged tripartite bowl at its base (see Grogan and Roche, Appendix 2.7) (Figure 38, plate 41). No burnt bone fragments or charcoal were found in the cist (plate 40).

4.5.4 Subgroup {1025}: Cist Burial

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
8	9				Dark grey brown silty clay, freq lge round+ ang stones + decayed granite	Silting
9	NA	1.17	0.86	0.45	Oval in plan, NNE-SSW in orientation, N side concave, S+W slightly concave, E side straight then stepped into convex, base rises to the N	Cist cut
48	9				Orange brown, friable silty clay, occ burnt bone, freq subang stone	Disturbance of cist[9]
49	9				4 main stones, running N-S lining floor of cist	Stone flooring of cist[9]
51	9				Dark orange brown, loose crumbly clay, occ burnt bone, mod med ang stones + freq pebbles	Cist[9] fill
52	9				Orange brown, soft sticky silty clay, occ burnt bone, mod sub-ang stone	Cist[9] fill
62					Med brown orange, mod compact silty clay, occ ch+burnt bone fl,	Cist [9] stone floor mortar
73					Upright stone, 0.63h x 0.36l x 0.14w, forming N wall of cist [9]. E wall formed by stone 0.42 x 0.75l x 0.15w. S wall formed by roughly square stone, 0.32h x 0.35l x 0.09w	Cist [9] wall stones
76					Dark grey brown, mod compact silty clay, Disturbed in w where stone is missing.	Cist[9] wall packing

Finds: None

Interpretation

The centre of burial cist [9] was located approx. 9.60m south of the centre of burial pit [222] {1007} and 2.20m east of cist [129] {1024} (Figure 22). The cist consisted of 3 main wall stones (the western wall stone was truncated/missing) each c.0.63m x 0.36m x 0.14m and a stone lined floor of four stones (plate 19). There was no capstone. The fills (48), (51) and (52) contained burnt bone. No pottery vessel was present in this cist.

4.5.5 Subgroup {1024}: Cist

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
18	129				Med yellow brown, v loose gravelly silty sand, v occ ch+burnt bone, mod small sub-round+sub-ang stone. This Context was mixed w/ [127] during excavation	Primary fill of cist[128]
72	129	0.73	0.70	0.35	large boulder, oriented NE-SW, with smaller stones laid around the edges	Capstone of cist[128]
127	NA				Med brown, mod compact silty clay, occ ch, freq sm sub-round pebbles+occ lge ang stones	Spread
128	129	1.40	0.95	0.60	7 large stone slabs+ 9 smaller stones forming a sub-oval box, NE-SW in orientation	Burial cist
129	NA	1.90	1.70		Sub-oval in plan, 0.50d x 1.90l x 1.70w, NE-SW in orientation, sides slope gradually in SE corner, otherwise vert, base irreg	Cist[128] cut
152	129				Patchy lt yellow grey/dark brown grey, tightly compacted silty clay, mod sm ang + sub-ang pebbles	Cist[128] wall packing

Finds: None

Interpretation

The centre of cist [128] was located 10.40m southwest of the centre of burial pit [222] {1007} and 3.6m east of cist [110] {1017} (plate 10). The cist was built of seven large stone slabs and nine smaller stones forming a sub-oval box 1.4m x 0.95m x 0.60m deep, orientated north-east to south-west (Figure 23 and 24, plate 44). The floor was not stone lined, but did contain a capstone that measured 0.73m x 0.70m x 0.35m (plate 45).

No pottery vessel or burnt bone was found in this cist although it was large and well constructed. It is possible that this cist originally contained a crouched or flexed inhumation and that the bones had completely dissolved due to the soil conditions.

4.5.6 Subgroup {1017}: Cist Burial

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
109	110	0.80	0.68	0.14	Large boulder, oriented E-W	Capstone of cist[133]
110	NA	0.80	0.68	0.40	Oval in plan, U shaped in profile	Cist[133] cut
112					Light brown, mod loose clayey silt, 2 ch frags, bones throughout, more concentrated toward the base, occ pebbles + sm stones only fill of cist[133]	Natural silting
133	110	0.60	0.39	0.35	4 large stones+ several smaller stones, forming a rect box, oriented NE-SW and 2 flat floor stones	Burial Cist
134	110				2 flat stones laid side-by-side on floor of cist, with smaller stones filling the gaps between main stones + walls	Floor stones of cist [110]
140					Brown, loose clayey silt	Cist[133] wall packing

Finds

Context	Find Number	Material	Period	Description
112	1	Ceramic	Early Bronze Age	Intact bipartite bowl

Interpretation

Cist burial [133] was located 11m southwest of burial pit [222] {1007}. The cist was small and rectangular with four large stones and several smaller stones forming a box 0.60m x 0.39m x 0.35m deep, oriented northeast-southwest (Figure 25, plates 31, 32 and 34). The floor was laid with two flat stones. The cist was filled with (112) which contained burnt bone throughout. Context 112 contained a burnt bone total weight of 692.4g (Lofqvist, Appendix 2:5) and 46.4g (Coughlan, Appendix 2.6). Skeletal elements identified were skull, teeth, vertebrae, humerus, ulna, mc, carpal, coxae, tibia, fibula and ph fragments. As there were no apparent duplicate bone elements and the fragments were fused, it can only be determined that there was one single individual present who was older than 19 years of age (see Lofqvist, Appendix 2.5). On the stone floor of the cist a small intact highly decorated bipartite bowl was recovered (see Grogan and Roche, Appendix 2.7) (Figure 37, plate 33).

4.5.7 Subgroup {1016}: Cist Burial and nearby pit

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
65	78	0.80	0.40	0.40	6 stones, orig forming a rect stone box, NW-SE in orientation, floor was flagged with 5 stones	Burial cist
66	78				Med dark brown, mod loose silty clay, occ burnt bone, occ sm stones+ pebbles concentrated toward base of fill +med stones concentrated around cist wallstones	Cist [78] wall packing
67	78				Mid yellow brown, loose silty clay, freq burnt remains + occ ch fl, freq sm to med stones concentrated towards top of fill	Primary fill of cist [78]
77	78				Topsoil containing burnt bone which slipped into cist [78] when stone 1 was disturbed	Soil slippage
78	NA	1.07	0.87	0.38	Subsquare in plan, NW-SE in orientation, sides irreg but steep, base slightly concave	Cist cut
81	78				1 large+4 med flat, smooth stone slabs ranging from 0.02h x 0.16l x 0.10w to 0.03h x 0.35l x 0.20w placed closely together in floor of cist [78]	Cist [78] floor stones
83	65				Med brown yellow, loose clayey silt, rare ch, freq pebbles+ small + med stones	Cist [65] stone floor
282	294				Dark brown sandy silt, rich in charcoal	Fill
294	NA	0.50	0.18	0.06	Shallow pit	Cut

Finds

Context	Find Number	Material	Period	Description
67	1-24	Ceramic	Early Bronze Age	Fragments of tripartite bowl
67	25-68	Ceramic		Pottery crumbs

Interpretation

Cist [78] was located 10.40m west of the burial pit [222] {1007}. The cist consisted of six stones, originally forming a rectangular stone box 0.80m x 0.40m x 0.40m deep, east to west in orientation (Figure 26, plate 42). Stones 1 and 6 had been disturbed as one of the side stones was pulled out of place (probably through ploughing) and there was no capstone present. The floor was flagged using four medium stones and one large stone. The fill (67) contained burnt bone, a substantially intact tripartite bowl and many pottery fragments (see Grogan and Roche, Appendix 2.7) (Figure 39,

plate 43). This burial produced a total of 17.6g (Coughlan; Appendix 2.6) and 507.7g (Lofqvist; Appendix 2.5) of cremated bone. The identifiable elements comprised of a single cranial vault fragment and a single fragment of the distal femoral epiphysis (Coughlan, Appendix 2.6).

Located 1m to the west of the cist [78] was a shallow pit [294] which had a charcoal rich fill (282). Perhaps this feature was contemporary with the cist and a ritual fire was placed in this pit.

4.5.8 Subgroup {1020}: Pot Placement / Pit Burial

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
11	12				Med yellow brown, hard plastic silt, freq small pebbles	Redeposited Natural
12	NA		0.36		Circular in plan, ca. 0.36 dia, base flat	Burial pit

Finds

Context	Find Number	Material	Period	Description
11	1	Ceramic	Early Bronze Age	Base of cordoned urn

Interpretation

The pot placement / burial pit [12] was located approx. 21.20m northeast of the burial pit [222] {1007}. It was a small pit 0.33m - 0.36m in diameter and it contained the intact base of a cordoned urn (see Grogan and Roche, Appendix 2.7). Pit burial [12] produced a total of 123.8g of bone of which 18.5g (14.9%) was identifiable as human. There was no duplication of skeletal elements suggesting that a minimum number of one individual was interred within this burial (Coughlan, Appendix 2.6).

4.5.9 Subgroup {1021}: Pot Placement / Pit Burial

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
389	NA	0.37	0.31	0.38	Roughly circular I in plan, sides near vert. base flat generally	Burial pit
390	0389				Brown fill of pit with burnt bone	Fill
391	389				Brown backfill from [389]	Packing around urn

Finds

Context	Find Number	Material	Period	Description
391	1	Ceramic	Early Bronze Age	Cordoned urn

Interpretation

The pot placement / burial pit [389] was located approximately 14.80m southwest of the burial pit [222] {1007}. The cut [389] measured c.0.37m in diameter and was c.0.31m deep. It contained a cordoned urn (Figure 40). The vessel contained a lot of burnt bone, some of which had spilled into the surrounding fill (390). A total of 364.0g of bone retrieved from this context and appears to represent an MNI of 1 individual (Coughlan, Appendix 2.5).

4.5.10 Subgroup {1022}: Pot placement / Pit Burial

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
257	NA		0.45	0.16	Circular in plan, sides slightly concave, base flat, pit was only just large enough for funerary pot placed in it	Burial pit
333	257				Med-Dk brown v soft sandy silt, rare sm sub-round+sub-ang stones, some lge stones at base of pot	Pot packing

Finds

Context	Find Number	Material	Period	Description
333	1-6	Ceramic	Early Bronze Age	Cordoned urn fragment

Interpretation

Pot placement / burial pit [257] was located approx. 20.50m north west of pit burial [222] {1007}. Circular cut [257] measured 0.45m in diameter and was 0.16m deep (plate 18). An inverted but very fragmented vessel with burnt bone was recovered from [257]. It was either an encrusted or cordoned urn (Figure 40, see Grogan and Roche, Appendix 2.7). The urn contained a total of 665.2g of cremated bone. Variations in the size and robusticity of the identifiable elements indicate that a minimum number of two individuals were interred within this deposit. While the majority of cranial elements, based on size and robusticity, appear to relate to an adolescent/adult individual, the single maxillary fragment was identifiable as originating from an infant or young child (Coughlan, appendix 2.6).

4.5.11 Subgroup {1023}: Features adjacent to pit burial {1022}

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
14	NA				Shallow circular cut	Stakehole cut
15	NA				Shallow circular cut	Stakehole cut
16	NA				Shallow circular cut	Stakehole cut
44	NA				Shallow circular cut	Stakehole cut
258	321				Patchy dark grey/med brown, tightly compacted silty clay, freq ch frags, mos small sub-ang pebbles	<i>In situ</i> burnt post
311	312				Mid brown sandy silt with frequent charcoal flecks	Fill
312	NA	0.58	0.50	0.12	Shallow pit	Cut
321	NA	1.40	0.78	0.43	sub-oval in plan, N-S in orientation N+S sides gradually sloped, E side undercut, W side vert, concave base	Posthole or pit
322	321				Med brown, loose sandy silt, freq ch, freq sm sub-ang stones	
323	324				Light brown, mod compact sandy silt, rare ch fl, freq small sub-ang pebbles	Natural silting
325	14				Mid -dark brown silty clay	Fill
330	15				Mid -dark brown silty clay	Fill
331	16				Mid -dark brown silty clay	Fill
334	44				Mid -dark brown silty clay	Fill
338	339				Very dark brown black, mod loose fill, very freq ch, freq decayed+ burnt stones	<i>in situ</i> burnt post
339	NA	0.36	0.35	0.17	Oval in plan, E-W in orientation, sides irreg, axis of orientation to the S	Posthole

351	NA	0.20	0.20	0.15	Sub-oval in plan, sides vert, base concave	Stakehole
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Finds

Context	Find Number	Material	Period	Description
258	1	Flint		Edge retouch

Interpretation

The pit [321] was located 4.5m to the south of burial pit {1022}. The pit [321] had been disturbed by animal burrowing and it was difficult to determine what its original shape was. Analysis of charcoal from C258 has identified it as *Quercus* sp (oak) (O Carroll, Appendix 2.2). A stakehole [351] was situated at the northwest end of [321]. [321] may have been a very large posthole.

Between pit [321] and pit burial [257] {1022} was a line of four small stakeholes [14], [15], [16] and [44], which ran north to south for a distance of 3m. No finds were recovered from these stakeholes. This group of features may be associated with the pit burial to the north as they lead up to it and may have acted as markers. The shallow pit [312] was located 12m west of the pit [321]. It contained a charcoal rich fill but no finds. The pit [339] was located to the north of pit [312]; its fill contained high ash content but no finds.

4.5.12 Discussion

Burial Monument 2: Inner cist burials and outer pot placements

Group	Subgroup	Subgroup type	Period by finds/ stratigraphy	Period by Interpretation	Group Interpretation
5	1026	Cist	EBA	EBA	Burial Monument
5	1019	Cist	UND	EBA	Burial Monument
5	1018	Cist	EBA	EBA	Burial Monument
5	1025	Cist	UND	EBA	Burial Monument
5	1024	Cist	UND	EBA	Burial Monument
5	1017	Cist	EBA	EBA	Burial Monument
5	1016	Cist	EBA	EBA	Burial Monument
5	1020	Pit burial	EBA	EBA	Burial Monument
5	1021	Pit Burial	EBA	EBA	Burial Monument
5	1022	Pit Burial	EBA	EBA	Burial Monument
5	1023	Five stakeholes and a pit	UND	EBA	Burial Monument

Summary Table

CISTS (Subgroup)	Distance (m) from centre of central burial {1007}	Direction from central burial {1007}	Pottery Vessel Yes/No	Internal dimensions
1026	10.71m	NNE	N	0.88m x 0.55m x 0.45m deep; oriented NW-SE
1019	10.30m	NE	Y	0.37m x 0.29m X 0.25m deep oriented NE-SW
1018	8.50m	SSE	Y	1.20m x 0.70w x 0.72m deep: orientated NW-SE
1025	9.60m	S	N	1.17m x 0.86m x 0.45m deep: orientated NW-SE
1024	10.40m	SSW	N	1.40m x 0.95m x 0.60m deep: orientated NE-SW
1017	11m	SW	Y	0.60m x 0.39m x 0.35m deep: orientated NE – SW
1016	10.40m	W	Y	1.07m x 0.87m x 0.38m deep:, orientated E-W
Pot Placements				
1020	21.20m	NE	Y	Circular in plan, ca. 0.36 dia, x c.0.15m deep
1021	14.80m	SW	Y	Roughly circular in plan, 0.38d x 0.37l x 0.31
1022	20.50m	NW	Y	Circular in plan, 0.16d x 0.45dia

Summary

Group 5 consists of seven cist burials {1026}, {1019}, {1018}, {1025}, {1024}, {1017} and {1016} that formed a rough circle c.20m in diameter focused on central burial {1007}. All the cists in this group except for {1018} stood alone and were not cutting or cut by any other features. Three pit burials/pot placements {1020}, {1021} and {1022} were located on an 'outer ring'.

Discussion

Cists

Cist {1026} was oval in plan, northwest-southeast in orientation and situated approximately 10.71m east of the centre of burial pit [222] {1007}. The walls consisted of five large stone slabs forming a sub-pentagonal box. Sealing this box were smaller stones, overlapping to create a form of corbelling, which supported the capstone. The floor was not stone lined. No finds or burnt bone were recovered from this cist. It is possible that this well built and seemingly undisturbed cist originally contained a crouched or flexed inhumation and that the bones have completely dissolved due to soil conditions. Cist {1026} was located 3.50m north of cist {1019} and 19m east of cist {1016}.

Cist {1019}:

Burial cist {1019} consisted of a rectangular box of four large stone slabs. A fifth small, broken stone was the remains of the capstone and there was some cobbling on the floor. The cist was approx. 10.30m east of the burial pit [222] {1007}.

An intact pot was found in the southwest corner of the base of the cist along with a flint flake (see Nelis, Appendix 2.3). The pot was a food vessel (see Grogan and Roche, Appendix 2.7). Large quantities of burnt bone were also recovered. Cist {1019} was located 3.50m south of cist {1026} and 14.80m northeast of cist {1018}.

Subgroup {1018}: Cist Burial

Burial cist {1018} comprised five large stones ranging from 0.44-0.70m x 0.33-0.50m which, along with several smaller stones formed an elongated pentagonal box 1.20m x 0.70m x 0.72m deep, oriented northwest to southeast. No flooring or capstone was found. The centre of cist [7] is located approx. 8.50m south of the centre of burial pit [222] {1007}.

The cist contained a slightly broken pottery lugged tripartite bowl at its base (see Grogan and Roche, Appendix 2.7). No burnt bone fragments or charcoal were found in the cist. Cist {1018} was cut through the upper backfills of pit {1012}. It was located 14.80m southwest of cist {1019} and 2.80m east of cist {1025}.

Subgroup {1025}: Cist Burial

The burial cist [9] was located approx. 9.60m south of burial pit [222] {1007} and 2.10m east of cist [129] {1024}. The cist consisted of 3 main wall stones (the western wall stone was truncated/missing) and a stone lined floor of four stones. There was no capstone. The fills (48), (51) and (52) contained burnt bone. No pottery vessel was present in this cist. Cist {1025} was located 2.80m west of cist {1018} and 2.10m east of cist {1024}.

Subgroup {1024}: Cist

The centre of cist [129] was located 10.40m south-west of burial pit [222] {1007} and 3.60m east of cist {1017}. The cist was built of seven large stone slabs and nine smaller stones forming a sub-oval box, orientated northeast to southwest, with a capstone. The floor was not stone lined. No pottery vessel or burnt bone was found in this cist although it was large and well constructed. It is possible that this cist originally contained a crouched or flexed inhumation and that the bones had completely dissolved due to soil conditions. Cist {1024} was located 2.10m west of cist {1025} and 3.60m east of cist {1017}.

Subgroup {1017}: Cist Burial

Cist burial [110] was located 11m southwest of burial pit [222] {1007}. The cist was small and rectangular with four large stones and several smaller stones forming a box, oriented northeast-southwest. The floor was laid with two flat stones. The cist was filled with (112) which contained burnt bone throughout. Identifiable elements included fragments of the cranial vault, a single partial molar root, a fragment of unidentified long bone epiphysis and a complete intermediate hand phalanx. All elements appear roughly comparable in terms of skeletal development suggesting that a minimum number of one individual was interred in this burial (Coughlan, Appendix 2.5). On the stone floor of the cist a small intact highly decorated bipartite bowl was recovered (see Grogan and Roche, Appendix 2.7). Cist {1017} was located 3.60m west of cist {1024} and 11.50m southeast of cist {1016}.

Subgroup {1016}: Cist Burial and nearby pit

Cist [78] was located 10.40m west of the burial pit [222] {1007}. The cist consisted of six stones, originally forming a rectangular stone, east to west in orientation. Stones 1 and 6 had been disturbed as one of the side stones was pulled out of place (probably through ploughing) and there was no capstone present. The floor was flagged using four medium stones and one large stone. The fill (67) contained burnt bone, a substantially intact tripartite bowl and many pottery fragments (see Grogan and Roche, Appendix 2.7). Located 1m to the west of the cist [78] was a shallow pit [294] which had a charcoal rich fill (282). Cist {1016} was located 11.50m northwest of cist {1017} and 19m east of cist {1026}.

Located 1m to the west of the cist [78] was a shallow pit [294] which had a charcoal rich fill. Perhaps this feature was contemporary with the cist and a ritual fire was placed in this pit.

Discussion of cists

It is possible that the burial population consisted of both cremated and inhumed burials, but that interred remains had degraded completely. However, cist [7] {1018} was the only burial that contained a pottery vessel that did not contain burnt bone.

All the pottery vessels that were recovered were contemporary types and the positioning of the burials in a ring around the central pit {1007} appears to be deliberate.

Pot Placement / Pit Burials

The pot placement / burial pit [12] {1020} was located approximately 21.20m northeast of the burial pit [222] {1007}. It was a small pit 0.33m - 0.36m in diameter and it contained the intact base of a cordoned urn (see Grogan and Roche, Appendix 2.7).

Subgroup {1021}: Pot placement / Pit Burial

The pot placement / burial pit [389] was located approximately 14.80m southwest of the burial pit [222] {1007}. The cut [389] measured c.0.37m in diameter and was

c.0.31m deep. It contained a cordoned urn. The vessel contained a lot of burnt bone, some of which had spilled into the surrounding fill (390).

Subgroup {1022}: Pot placement / Pit Burial

Pot Placement / Burial Pit [257] was located approx. 20.50m north west of pit burial [222] {1007}. Circular cut [257] measured 0.45m in diameter and was 0.16m deep. An inverted but very fragmented vessel with burnt bone was recovered from [257]. It was either an encrusted or cordoned urn (see Grogan and Roche, Appendix 2.7).

Subgroup {1023}: Features adjacent to pit burial {1022}

The pit [321] was located 4.5m to the south of burial pit {1022}. The pit [321] had been disturbed by animal burrowing and it was difficult to determine what its original shape was. A stakehole [351] was situated at the northwest end of [321]. [321] may have been a very large posthole.

Between pit [321] and pit burial [257] {1022} was a line of four small stakeholes [14], [15], [16] and [44], which ran north to south for a distance of 3m. No finds were recovered from these stakeholes. This group of features may be associated with the pit burial to the north as they lead up to it and may have acted as markers. The shallow pit [312] was located 12m west of the pit [321]. It contained a charcoal rich fill but no finds. The pit [339] was located to the north of pit [312]; its fill contained a high ash content but no finds.

Discussion of pot placements / pit burials

Three pit burials/pot placements {1020}, {1021} and {1022} were located on an outer ring. Two of these pit burials, {1020} and {1022} were located c. 21m from the central burial pit {1007}; the third was located 14.80m from the central pit. These three pit burials may represent the burials of individuals of lower standing in the community.

Pit [321] {1023} was positioned 4.40m from pot placement {1022}. Between [321] and {1022} was a line of stakeholes that ran north to south for 3m. These stakeholes may have been associated with the cist {1022} as they led up to it and may have acted as markers

4.6 GROUP 6: Stone Deposit

4.6.1 Subgroup {1009}: Stone deposit

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
31= 69	NA				Grey brown loose ch-rich silty sand, occ burnt bone, mod lge ang stones, some decorated	Charcoal spread
103	NA				Spread of stones, some decorated, ranging from 0.05-0.50 in size, covering an area of 4.85l x 3.20w, may have been part of a cairn	Stone spread

Finds

Context	Find Number	Material	Period	Description
31	1-17	Ceramic	Middle Neolithic	Mid neo broad rimmed bowl sherds
31	18-20	Ceramic		Pottery sherds
31	21	Flint		Modified, edge retouched
31	22	Ceramic	Middle Neolithic	Mid neo broad rimmed bowl sherd
31	23-24	Flint		Flakes
31	26-29	Flint		Flakes
69	1	Bronze		Bronze shield boss
69	2	Copper alloy		Copper alloy stick pin
103	1	Sandstone		Cup marked stone
103	2	Sandstone		Polishing stone

Interpretation

The burial pit [222] {1007} and parts of kerbing {1003} were covered by a thin deposit of stones (103) and a charcoal rich layer (31) = (69) (Figure 9). The stone deposit (103) measured 4.85m x 3.20m x max 0.30m thick (1-2 courses). Secondary token 'placements' or 'burials' may have been placed within (103) and deposit (31), within and around the large stones (211) {1007} and possibly in the upper fills of the pit [222,] as sherds of pottery, burnt bone and flint were mixed through them. The layer of stones may be remains of a cairn or small mound that covered the central burial [222] {1007}, as it was situated between the kerbing [187] that may have formed a court-like entrance to the burial.

Concerning the finds from layer {1009}:

A decorated stone (03E0873:103:1) (plate 7) of local sandstone (turbidite or greywacke) was recovered from the stone layer and features several motifs and artificial markings, all of which occur across one lozenge-shaped surface measuring 0.46 x 0.17 x 0.245m (O'Connor, Appendix 2.4). These include seven cups, three arranged singly and four in an adjoining cluster, two areas of dense pecking, and occasional dispersed peck marks. Four of the cup marks are entirely artificially formed through pecking, and these are exhibited as shallow circular hollows with an even semi-circular cross section. Three of the cup marks are quite different in form, and are likely to be artificially enhanced natural solution hollows. O'Connor has identified that the motifs appear to be weathered and that the decorated stone represents the reuse of Late Neolithic to Early Bronze Age outcrop rock art within a secondary Bronze Age burial context.

A hone stone (03E0873:103:2) (plate 7) was also recovered from cairn material [103] measured 0.44m x 0.33m x 0.08m. Hone stones were used during the 'secondary treatment' (Cooney and Mandal 1998, 13) of axe and other forms of roughouts in

order to shape and polish the tools into finished products, and to sharpen and re-shape them. The hone stone is probably contemporary with the cup marked stone and dates to the late Neolithic or early Bronze Age period.

The metal finds consisted of a copper alloy pin with twisted faience coating and one copper alloy boss (Figure 34, plate 14). The copper alloy, oval shield boss (03E0873:69:1) has circular perforations all around the basal edge of the boss and these would have been used to attach the boss to the main body of the shield. The shield itself was probably made from leather. There is a dark brown substance in the hollow of the boss which may be mineralised leather. Shields made from wood or leather with metal bosses and ribs were used as functional objects during the Late Bronze Age (see Scully, Appendix 2.8).

A copper alloy stick pin (03E0873:69:2) was also recovered (Figure 34). Two stick pins of this type were recovered from excavations in Waterford where they were dated to 13th century AD. There is a twist in the shank of the Carn More 5 stick pin which would have made it easier for the pin to grip the cloth (see Scully, Appendix 2.8).

4.6.2 Group 6 Discussion

Stone Layer

Group	Subgroup	Subgroup type	Period by finds/ stratigraphy	Period Interpretation by	Group Interpretation
6	1009	Stone layer	BA-IA	Mid Neolithic - IA	Ceremonial surface

Summary

Stone layer (103) {1009} would appear to be the base for a cairn or mound placed over the central burial [222] {1007}, with later secondary 'placements' or burials as evidenced by pottery sherds and burnt bone recovered from (31).

Discussion

Group 6 was a stone deposit and measured 4.85m by 3.20m with a maximum depth of 0.30m thick (which appeared to be at least two courses deep). This deposit has been interpreted as the base of a small cairn or mound that has since been truncated.

Secondary token 'placements' or 'burials' were inserted within layer Group 6 within the large stone settings (211) {1007} and possibly in the upper fills of the pit [222] as sherds of pottery, flint and burnt bone fragments were mixed through them. The stone deposit was later than the burial pit {1007} as it covered the central burial [222] {1007} and parts of kerbing {1003}. The metal finds consisted of a copper alloy pin with twisted faience coating and one copper alloy boss. The copper alloy, oval shield boss (03E0873:69:1) has circular perforations all around the basal edge of the boss and these would have been used to attach the boss to the main body of the shield. The shield itself was probably made from leather. There is a dark brown substance in the hollow of the boss which may be mineralised leather. Shields made from wood or leather with metal bosses and ribs were used as functional objects during the Late Bronze Age (see Scully, Appendix 2.8).

It is possible that Layer Group 6 is associated with Cist and Boulder Burials Group 7.

4.7 GROUP 7: Three Cist Burials and Two 'Boulder Burials'

4.7.1 Subgroup {1031}: Cist Burial

Contexts:

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
20	NA	1.50	1.00	0.32	Large Granite boulder, oriented NE-SW	Cist [92] capstone
92	121	1.00	0.95	0.68	Four large slabs+ smaller stones forming a sub-rect box-like structure with dimensions NW-SE in orientation	Burial cist lining within cut C121
93	92				Lt-Med yellow brown, v loose fine silty sand, varying concentrations of burnt bone, mod gravel	Primary cist [92] fill
99	121				Med-dark slightly yellow brown, silty coarse sand, freq burnt bone, v freq small ang platey + sub-ang pebbles	Later burial in cist [92]
121					Largest of the three cists	Cut for cist
122	121				11 med+4smaller slab stones forming floor of cist stones range from 0.06thick x 0.30l x 0.25w to 0.03thick x 0.05l x 0.04w in size, the floor itself is 0.62l x 0.40w, NE-SW in orientation	Floor flagging of cist [92]
123	121				Med yellow brown, mod loose sandy silt + large ang stones, occ burnt bone, cut by [46] IN N	Cist [92] wall packing
146	121				Med-dark grey brown, mod loose silty clay, beneath + between stones of cist floor, mod burnt bone,	Fill between floor stones
147	121				Densely packed burnt bone deposit heaped near the centre of the stone flagged floor of cist [92], the first cremation deposit in this cist	Cremated bone deposit
155	121				Mixture of [123]+[93] due to slumping of [123] into cist through gaps	Slumping of [123] into cist [92]

Finds

Context	Find Number	Material	Period	Description
93	1-2	Ceramic	Early Bronze Age	Food vessel fragments
93	3	Flint		Flint flake

Interpretation

Cist [121] was one of three cists which cut through the eastern end of large pit [157] {1010} and its fills {1012} (Figure 27 and 28, plates 27 and 28). Cist [121] was built of four large slabs [92] and smaller stones forming a sub-rectangular box-like structure, measuring 1.00m x 0.95m x 0.68m deep (plate 30). It was oriented northwest to southeast and had a large granite capstone (1.50m x 1.00m x 0.32m) placed on top.

Cist [121] had a stone flagged floor of fifteen stones. A bowl type food vessel (see Grogan and Roche, Appendix 2.7) was recovered from the southwest corner of [121] but was in a poor state of preservation (plates 35 and 36). The cist contained three dense concentrations of cremated bone that seemed to have been deposited in layers, in all up to 0.50m deep (plate 35). It was clear that cist [121] was used for multiple deposits. The total bone weight from C93 came to 2,351.7g (see Lofqvist, Appendix 2.5) and 3.6g (Coughlan, Appendix 2.6). The identifiable fragments included human skull, maxilla, mandible and teeth fragments along with vertebrae, costae, clavicle, scapula, humerus, radius, ulna, mc, carpal, femur, tibia, fibula, patella, tarsal and phalanges fragments. The minimum number of individuals (MNI) from C93 was six; four juveniles and two adults. The teeth fragments recovered indicate there were two children of c. 3 years of age, one child of c. 3-5 years and one child of c. 5-10 years of age.

789.5g of burnt bone was retrieved from C99 an upper deposit sealing C93. The identifiable fragments included skull, maxilla, mandible, teeth, vertebrae, costae, humerus, ulna, mc, femur, tibia, mt, and ph fragments. The cremated material from C99 can only substantiate the presence of two individuals; one child of c. 4-6 years of age and one adult (see Lofqvist, Appendix 2.4).

Cist [121] was situated south of cists {1032} and {1033}. It was truncated by cist [46] {1032} on its north side but was abutted by cist [96] {1033} to the east.

4.7.2 Subgroup {1027}: 'Boulder burial'

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
10	45	1.06	0.75	0.65	Massive boulder, oriented E-W	Boulder burial (stones)
45	NA	1.21	1.11	0.35	Sub-circular in plan, sides steep, slightly convex, base flat	Boulder burial
86	45				Dark brown, friable sandy clay, freq pebbles + occ ang stones	Fill between stones of boulder burial

Finds

Context	Find Number	Material	Period	Description
45	1	Granite		Burial capstone

Interpretation

The boulder burial [45] was located approx. 16m northeast of the granite capstoned cist {1031} (Figure 32). It comprised a shallow pit with a large granite boulder, measuring 1.06m x 0.75m x 0.65m, placed on it (plate 15). No burial was found below the boulder but a flat axe motif was carved into one of the packing stones. It consists of a small rounded granite boulder with a weathered and decaying surface. Its roughly oval surface features an unusual triangular motif measuring 15.5-17cm in length and 10cm wide, which was found facing upwards during the excavation (for discussion see O'Connor, Appendix 2.4). Examples of carved motifs on boulder 'burials' or boulder monuments are rare and O'Connor has concluded that the Carn More 5 boulder with its 'possible axe' motif, is a welcome addition to the unparalleled carved panels from BA burials.

4.7.3 Subgroup {1030}: A 'Boulder Burial' and two small Pits

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
164	206	1.06	0.75	0.56	Large boulder +numerous smaller stones apparently randomly dumped into pit [206]	Boulder burial
204	206				Light to med brown yellow, mod loose clayey silt, occ sm pebbles + sm ang stones	Natural silting
206	NA	1.42	1.24	0.55	Sub-rect in plan, NW-SE in orientation, sides steeply sloped, corners rounded, base flat generally	Large pit
215	NA				Orange brown silty sand, v rare stones	Spread
216	206				Med to light mottled pinkish brown, mod loose silty clay, occ ch fl + frags, occ sm-med ang stones + pebbles	Slumped in fill
220	221				Med orange brown, mod loose silt, occ ch fl, Freq gravelly pebbles, mod sm ang stones concentrated towards centre of the Context	Stoney fill of small pit

221	NA	0.68	0.53	0.17	Oval in plan, E-W in orientation, sides mod sloped, base slightly concave+ slopes slightly downwards towards N	Small pit
35	367				Ashy, silty clay	Ash fill
367	NA	0.40	0.30	0.10	Oval in plan, NW-SE in orientation, sides shallow +gradually sloped, base concave	Pit

Finds: None

Interpretation

The boulder burial [206] was located 13.7m north of the granite capstoned cist {1031} (Figure 31). It was comprised of a large pit (0.55m x 1.42m x 1.24m) in which was placed one large granite boulder measuring 1.06m x 0.75m x 0.56m high and many smaller packing stones (plate 17). No burial was found beneath the boulder.

Adjacent to the boulder burial was a shallow pit [221]. It contained a charcoal flecked fill (220) but no finds. To the southwest of the boulder burial was a second pit [367]. It had an ashy, silty fill, but no finds.

4.7.4 Subgroup {1032}: Cist Burial

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
17	96, 115				Dark brown orange, mod compact silty clay, w/ patches of dark brown grey clay, occ ch fl+ burnt bone frag, freq pebbles+ sm stones+ mod mos med subang stones	Cist [115] wall packing
95	116, 46				Dark brown, loose silty clay, burnt bone, freq pebbles+flat sub-round stones, large sherds of decorated pottery	Top cist [116] fill
96	N/A		1.15	0.38	Circular in plan, sides smooth+convex, base stepped	Cist [115]cut
111	96, 115				Orange brown silty clay, burnt bone, mod ang stones+v freq pebbles, freq pottery sherds	Spillage from broken urn
115	96	0.70	0.68	0.49	7 large stones, forming the walls of a roughly square structure	Burial cist
124	96				Dark brown gravelly clay, v freq burnt bone, occ sm round+mod sm ang stones, pottery sherds	Redeposited natural
145	96	0.35	0.34	0.08	Sub-circular stone occupying most of cist floor	Cist [96] floor stone
130	96, 115				Redeposited natural, occ burnt bone, mod pebbles	Redeposited natural
392	96, 115				Redeposited natural, occ burnt bone, occ sm pebbles	Redeposited natural

Finds

Context	Find Number	Material	Period	Description
95	1-12	Ceramic		Prehistoric pot sherd
95	13	Ceramic	Early Bronze Age	Cordoned urn fragment
95	14-16	Ceramic		Prehistoric pot sherd
95	17	Ceramic	Early Bronze Age	Cordoned urn fragment
95	18	Ceramic		Prehistoric pot sherd
95	19	Ceramic	Early Bronze Age	Food vessel sherd
95	20-25	Ceramic		Prehistoric pot sherd
95	26	Ceramic	Early Bronze Age	Cordoned urn fragment
95	27-29	Ceramic		Prehistoric pot sherd
95	30	Ceramic	Early Bronze Age	Cordoned urn fragment

95	31–37	Ceramic		Prehistoric pot sherd
95	38–44	Ceramic	Early Bronze Age	Cordoned urn fragment
95	45–49	Ceramic		Prehistoric pot sherd
95	50–64	Ceramic	Early Bronze Age	Cordoned urn fragment
95	65–90	Ceramic		Prehistoric pot sherd
111	1–81	Ceramic		Prehistoric pot sherd
111	82–95	Ceramic	Early Bronze Age	Food vessel fragment
111	96–111	Ceramic		Prehistoric pot sherd
124	1–2	Ceramic		Prehistoric pot sherd
124	3–7	Ceramic	Early Bronze Age	Cordoned urn fragment
124	8	Ceramic		Prehistoric pot sherd
124	9	Ceramic	Early Bronze Age	Cordoned urn fragment
124	10	Flint		Platform shatter proximal
124	11	Flint		Scraper
124	13–14	Ceramic	Early Bronze Age	Cordoned urn fragment
124	15–17	Ceramic		Prehistoric pot sherd
124	18	Ceramic	Early Bronze Age	Food vessel sherd
124	19–26	Ceramic	Early Bronze Age	Cordoned urn fragment
124	27–30	Ceramic		Prehistoric pot sherd
124	31–44	Ceramic	Early Bronze Age	Cordoned urn fragment
124	45–46	Ceramic		Prehistoric pot sherd
124	47–60	Ceramic	Early Bronze Age	Cordoned urn fragment

Interpretation

The cist [96] was one of three cists grouped together that cut the large pit {1010} (Figure 29, plate 29). Cist [96] was situated on the eastern side of this group and was cut by cist [46]. Cist [96] was built of seven large stones, forming the walls of a roughly square stone box which measured 0.68m x 0.70m x 0.49m deep, with no surviving capstone. The base of the cist was partially covered by one large sub-circular stone.

Many fragments of a cordoned urn were found along with fragments of a food vessel (Grogan and Roche, Appendix 2.7). It is possible that the cordoned urn was intact when placed in the cist, and if so, it may have been inverted over the food vessel (Figure 35, plate 24).

4.7.5 Subgroup {1033}: Cist Burial

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
46		1.48	1.00	0.59	Sub-oval in plan, E-W in orientation, sides rough+steep, base irreg + slopes down towards W	Cist [116] cut
94	116, 46				Med -dark brown, friable gritty sandy clay, occ burnt bone, occ ch, metal slag, occ sm pebbles+sub-ang stones	Top cist [46] fill
116	46	0.50	0.30	0.42	6 stones forming, the walls of a subrect structure, N-S in orientation	Burial cist
117	46				Med brown gritty sandy clay+smang+sub-ang stones, v rare burnt bone	Cist [116] wall packing
118	116, 46				Med light brown, friable gritty sandy clay, occ ch, mod pebbles+ small ang+sub-ang stones	Basal cist[116] fill
97	141				Dark brown, loose sandy clay, freq decayed granite+mod pebbles+ occ burnt slag	Deliberate backfill
141	NA	0.44	0.29	0.27	Sub-oval in plan, sides irreg+concave except in NW, which is straight	Shallow pit or posthole

Finds: None

Interpretation

Cist [46] was one of a group of three cists that cut the east end of the large pit {1010}. It was located on the north side of the group (Figure 30). Cist [46] was an arrangement of six stones (four main wall stones) forming a sub-rectangular structure measuring 0.50m by 0.30m and 0.42m deep. It was orientated northeast to southwest. The floor was not stone flagged and there was no surviving capstone (plate 23). No pottery was found in this cist but burnt bone fragments were found in fill (94).

Cist [46] was the latest cist of this group as it cut the other two cists that form this group. The small pit or posthole [141] cut the packing fill of both cist [46] and cist [96] {1032}. It is possible that this post was a marker for the cist.

4.7.6 Subgroup {1028}: Three postholes, a pit and a stakehole

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
53	57				Dark brown soil	Stakehole fill
54	64				Brown soil, rare pebbles	Stakehole fill
55	68				Brown soil, mod pebbles + sm stones	Pit fill
56	71				Brown soil, mod pebbles + sm stones	Stakehole
57	NA		0.22	0.10	Circular in plan, U-shaped in profile	Posthole
64			0.13	0.05	Circular in plan, U-shaped profile	Stakehole
68		0.45	0.35	0.20	Sub-circular in plan, E-W in orientation, U-shaped in profile	Pit
71		0.80	0.28	0.15	Oval in plan, N-S in orientation, U-shaped in profile	Posthole
113		0.45	0.20	0.10	Sub-circular in plan, N-S in orientation, sides steep base irreg U-shape	Posthole
119	113				Dark brown, loose ch-rich sandy clay, v freq sm sub-ang + sub-round stones	Burnt post
120	113				Light yellow brown, compact fill, rare ch, freq small sub-ang stone	Silting

Finds: None

Interpretation

Postholes [113], [57] and [71] were in a line stretching 5.5m in length. They were orientated northwest to southeast and were just to the east of the boulder burial [45] {1027}. A pit [68] and stakehole [64] were to the south of the boulder burial {1027}.

It is possible that this group of postholes and pit are associated with the boulder burial {1027} or pot placement {1020} (in a similar way to stakeholes and pit {1023} may be related to pot placement {1022}).

4.7.7 Subgroup {1029}: A Posthole and a Stakehole

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
33	38				Dark, ch-rich sandy silt, occ pebbles	Burnt posts
37	38				Brown fill, occ ch, mod s stones	post packing
38	NA	0.40	0.35	0.25	Irreg in plan, E-W in orientation, double U-shaped in profile	

39	40				Brown sand, freq ch	post packing
40	NA		0.07	0.10	Circular in plan, U-shaped in profile	Stakehole

Finds: None

Interpretation

These two features were located c.3m east of pot placement {1020} and 23m east of cist [96] {1032}. Nothing to date these features was recovered from the fills. It is possible that this posthole and stakehole are associated with pot placement {1020} (in a similar way to stakeholes and pit {1023} may be related to pot placement {1022}).

4.7.8 Group 7 Discussion

Three Cist Burials and Two 'Boulder Burials'

Group	Subgroup	Subgroup type	Period by finds/ stratigraphy	Period by Interpretation	Group Interpretation
7	1031	Cist with granite capstone	EBA	EBA	Burial Monument 3
7	1032	Cist with cordoned urn	EBA	EBA	Burial Monument 3
7	1033	Cist	EBA	EBA	Burial Monument 3
7	1027	Boulder Burial	UND	EBA	Burial Monument 3
7	1030	A Boulder Burial and a pit	UND	EBA	Burial Monument 3
7	1028	Three Postholes, a pit and a stakehole	UND	EBA	Burial Monument 3
7	1029	A Posthole and a Stakehole	UND	EBA	Burial Monument 3

Summary

Group 7 consists of three cists {1031}, {1032} and {1033} as well as two boulder burials/placements {1027} and {1030} and their (possibly) associated features {1028} and {1029}.

Discussion

Cist {1031} was built of four large slabs forming a sub-rectangular box-like structure and was orientated northwest to southeast with a large granite capstone placed on top. The cist had a stone flagged floor of fifteen stones. A bowl type food vessel (see Grogan and Roche, Appendix 2.7) was recovered from the southwest corner of [121] but was in a poor state of preservation. The cist contained three dense concentrations of cremated bone that seemed to have been deposited in layers, in all up to 0.50m deep. As such it was clear that cist [121] was used for multiple deposits.

Subgroup {1027}: 'Boulder burial'

The boulder burial {1027} comprised a shallow pit with a large granite boulder placed in it. No burial was found below the boulder but a flat axe motif was carved into one of the packing stones. It consists of a small rounded granite boulder with a weathered and decaying surface. Its roughly oval surface features an unusual triangular motif measuring 15.5-17cm in length and 10cm wide, which was found facing upwards during the excavation (for discussion see O'Connor, Appendix 2.4). Examples of carved motifs on boulder 'burials' or boulder monuments are rare and O'Connor has concluded that the Carn More 5 boulder with its 'possible axe' motif, is a welcome addition to the unparalleled carved panels from BA burials.

Subgroup {1030}: A 'Boulder Burial' and small Pit

The boulder burial [206] {1030} was located 13.7m north of the granite capstoned cist {1031}. It was comprised of a large pit in which was placed one large granite boulder

and many smaller packing stones. No burial was found beneath the boulder. Adjacent to the boulder burial was a shallow pit [221]. It contained a charcoal flecked fill (220) but no finds. To the southwest of the boulder burial was a second pit [367]. It had an ashy, silty fill, but no finds.

Subgroup {1032}: Cist Burial

Cist [96] was built of seven large stones, forming the walls of a roughly square stone box which measured 0.68m x 0.70m x 0.49m deep, with no surviving capstone. The base of the cist was partially covered by one large sub-circular stone.

Many fragments of a cordoned urn were found along with fragments of a food vessel (Grogan and Roche, Appendix 2.7). It is possible that the cordoned urn was intact when placed in the cist, and if so, it may have been inverted over the food vessel.

Cist {1032} was associated with Cist {1031}, but there was no direct stratigraphic relationship between the two. It is possible that repeated deposition in this cist could have caused the cordoned urn to break.

Subgroup {1033}: Cist Burial

Cist [46] was one of a group of three cists that cut the east end of the large pit {1010}. It was located on the north side of the group. Cist [46] was an arrangement of six stones (four main wall stones) forming a sub-rectangular structure measuring 0.50m by 0.30m and 0.42m deep. It was orientated northeast to southwest. The floor was not stone flagged and there was no surviving capstone. No pottery was found in this cist but burnt bone fragments were found in fill (94).

Cist [46] was the latest cist of this group as it cut the other two cists that form this group. The small pit or posthole [141] cut the packing fill of both cist [46] and cist [96] {1032}. It is possible that this post was a marker for the cist. Cist [46] {1033} was associated with both Cist {1031} and Cist {1032}. Cist {1033} was later than both of these cists as it cuts both of them.

Subgroup {1028}: Three Postholes, a pit and a stakehole

Postholes [113], [57] and [71] were in a line stretching 5.5m in length. They were orientated northwest to southeast and were just to the east of the boulder burial [45] {1027}. A pit [68] and stakehole [64] were to the south of the boulder burial {1027}.

It is possible that this group of postholes and pit are associated with the boulder burial {1027} or pot placement {1020} (in a similar way to stakeholes and pit {1023} may be related to pot placement {1022}).

Subgroup {1029}: A Posthole and a Stakehole

These two features were located c.3m east of pot placement {1020} and 23m east of cist [96] {1032}. Nothing to date these features was recovered from the fills. It is possible that this posthole and stakehole are associated with pot placement {1020} (in a similar way to stakeholes and pit {1023} may be related to pot placement {1022}).

4.8 GROUP 8: The features in the area between the barrow and the central burial pit

4.8.1 Subgroup {1040}: A funeral pyre or cremation pit and nearby pit.

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
84			1.26	0.56	Circular in plan, sides steep + undercut at base, base flat	Cremation pit
88	91				Light grey, hard plastic silt, occ ch fl, freq sm pebbles	Mix of [102]+[88]
89	84				Large charcoal frags + unburnt wood, thick layer of burnt bone	<i>In situ</i> burning
91	NA	0.60	0.50	0.31	Sub-circular in plan, E-W in orientation, sides steep, base flat	Recut
101	88				Decayed granite	Decayed granite stone
102	84				Yellow brown sandy silt, occ sm sub-round stone	Redeposited Natural
132					Pit with burnt bone	Small shallow pit
137	132				Yellow brown silt v freq burnt bone	Redeposited natural

Finds

Context	Find Number	Material	Period	Description
88	1	Iron		Iron nail

Interpretation

Cremation pit [84] was 1.26m long by 1.20m wide and 0.56m deep (Figure 33). The basal layer of [84] was a thick layer of charcoal (89) with burnt bone at the top (plate 16). The charcoal has been identified as *Quercus* sp (oak) which would have been a suitable slow burning timber for pyre material (O Carroll, Appendix 2.2). Above fill (89) was a sterile backfill (102), which showed evidence for a recut [91]. The recut was filled with a thin, decayed, granite layer (101) and a charcoal flecked backfill (88). In the upper fill (88), an intrusive find of an iron nail was recovered (Scully, Appendix 2.8). This pit appears to have been used for burning, possibly as a collection pit at the base of a pyre and must have been used repeatedly for the thick layer of charcoal (89) to build up. One radiocarbon date was returned from this feature which returned a middle Bronze Age date age date of 1420–1190BC (Wk 18559; Appendix 2.1). This date was derived from the charcoal of oak (*Quercus* sp).

Beside the cremation pit [84] on its north side was a small pit [132]. The pit was very shallow but did contain a burnt bone fill (137).

The cremation pit [84] was located 15.3m southeast of the central burial {1007} Group 4, 9.3m south of granite capstone cist {1031} Group 7 and 6m south of the cist {1018} Group 5. As such it could be associated with either burial Monument Groups 2-3, burial monument Groups 4-5, burial monument Group 7 or ringditch monuments Group 9.

4.8.2 Subgroup {1044}: Isolated burial pit

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
207	NA		0.57		Circular in plan, 0.57dia, sides shallow + gradually sloped	Small burial pit
208	207				Med dark grey brown sandy silt, rare ch fl, freq burnt bone frags, freq sm pebbles toward centre	Burial deposit

Finds: None

Interpretation

The size and shape of burial pit [207] (0.57m diameter and quite shallow), resembles the burial pits in the centre of the two ringditches Group 9 rather than pot placements {1020}-{1021} Group 7. The fill (208) contained frequent burnt bone inclusions and some charcoal and appears to be a simple burial pit.

The burial pit [207] was located 9.3m from cremating pit {1040}; 18.25m from central burial {1007} Group 7; 13m from Ringditch 1 {1034} Group 9 and 24.3m from the centre of barrow {1002} Group 2.

4.8.3 Subgroup {1041}: Two postholes and three pits

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
98		0.69	0.55	0.18	Sub-circular in plan, E-W in orientation, sides slope gradually, base concave	Pit
106	98				Yellow brown sandy silt, occ sm sub-round stone	Redeposited Natural
107	98				Dark brown sandy clay, lens of ch running through +occ ch fl, rare sm-m sub-ang+sub-round stone	
126		0.61	0.48	0.21	Sub-circular in plan, sides steep base irreg + concave	Posthole
135	126				Dark brown, loose sandy clay, mod ch, freq sm sub-ang + sub-round stones	Burnt post
136	126				Med orange brown friable sandy clay, occ ch, freq sm sub-round stone	Burnt soil
161	162				Med grey brown, mod loose clay silt, mod ch fl + occ frags, occ sm ang stones concentrated toward the centre, mod pebbles throughout	Deliberate fill
162	NA	0.43	0.39	0.13	Sub-oval in plan, oriented NE-SW, Sides slope steeply except in NE/E quadrant which was shallower, base flat	Pit
166		1.05	0.73	0.55	Sub oval in plan, N-S in orientation, sides irreg, base concave	Pit
176	166				Med brown, v loose fill, freq ch fl, several lge sub-ang stones	Fill
212	213				Dark brown, loose clay, ch, rare sm stones	Fill
213	NA	0.62	0.54	0.08	Sub-circular, almost triangular in plan, N-S in orientation, Slope gentle in W, more steep in E, base flat generally	Posthole

Finds

Context	Find Number	Material	Period	Description
161	1	Ceramic	Early Bronze Age	Cordoned urn fragment

Interpretation

The posthole [126] was located 4m southwest of cremation pit {1040}. The posthole was filled with charcoal rich fills (135) and (136) and appeared to have burnt *in situ*.

A stone filled pit [166] was situated 5m west of cremation pit {1040}. It was 1.05m long by 0.73m wide and 0.55m deep and filled with (176), which contained large stones throughout. The pit may have been a large posthole. Nothing to indicate a date was recovered from this pit.

The small pit [213] was located 1m southwest of pit/posthole [166]. No finds were recovered from this feature. The fill material may have been intrusive material from the cremation/pyres close by.

Pit [98] was located 15m southeast of posthole [126]. Nothing to indicate a date was recovered from this pit. A small pit [162] was located 7.70m northeast of pit [98]. Nothing to indicate a date was recovered from this pit.

4.8.4 Group 8 Discussion

The Features in the area between the ringditch and the central burial pit

Group	Subgroup	Subgroup type	Period by finds/ stratigraphy	Period Interpretation	by Group Interpretation
8	1040	Cremating pit		EBA	
8	1044	Possible isolated burial		EBA	
8	1041	Two postholes and three pits	UND	EBA	

Summary

Various undated features were located between the large Barrow Group 2 and Burial Monument Groups 4-5-7. A large cremation pit {1040} filled with charcoal and burnt bone, and a possible isolated burial {1044} are the most significant of these features.

It is probable that more than one period of site activity was represented here.

Discussion

Cremation pit [84] was 1.26m long by 1.20m wide and 0.56m deep. The basal layer of [84] was a thick layer of charcoal (89) with burnt bone at the top. Above fill (89) was a sterile backfill (102), which showed evidence for a recut [91]. The recut was filled with a thin, decayed, granite layer (101) and a charcoal flecked backfill (88). In the upper fill (88), an intrusive find of an iron nail was recovered (Scully, Appendix 2.8). This pit appears to have been used for burning, possibly as a collection pit at the base of a pyre and must have been used repeatedly for the thick layer of charcoal (89) to build up. Beside the cremation pit [84] on its north side was a small pit [132]. The pit was very shallow but did contain a burnt bone fill (137).

The cremation pit [84] was located 15.3m southeast of the central burial {1007} Group 4, 9.3m south of granite capstone cist {1031} Group 7 and 6m south of the cist {1018} Group 5. As such it could be associated with either burial Monument Groups 2-3, burial monument Groups 4-5, burial monument Group 7 or ringditch monuments Group 9.

The size and shape of burial pit [207] (0.57m diameter and quite shallow), resembles the burial pits in the centre of the two ringditches Group 9 rather than pot placements {1020}-{1021} Group 7. The fill (208) contained frequent burnt bone inclusions and some charcoal and appears to be a simple burial pit.

The posthole [126] was located 4m southwest of cremation pit {1040}. The posthole was filled with charcoal rich fills (135) and (136) and appeared to have burnt *in situ*.

A stone filled pit [166] was situated 5m west of cremation pit {1040}. It was 1.05m long by 0.73m wide and 0.55m deep and filled with (176), which contained large

stones throughout. The pit may have been a large posthole. Nothing to indicate a date was recovered from this pit.

The small pit [213] was located 1m southwest of pit/posthole [166]. No finds were recovered from this feature. The fill material may have been intrusive material from the cremation/pyres close by.

Pit [98] was located 15m southeast of posthole [126]. Nothing to indicate a date was recovered from this pit. A small pit [162] was located 7.70m northeast of pit [98]. Nothing to indicate a date was recovered from this pit.

4.9 GROUP 9: Two ringditches

4.9.1 Subgroup {1034}: Ringditch

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
158	NA		5.95	0.45	Circular in plan, sides slope gradually, base U-shaped, ring shaped ditch w/stone-filled raised area in centre	Small circular ringditch
174	NA		0.24	0.08	Circular in plan, sides taper to rounded point	Posthole
175	174				Med-dark brown, loose silty clay, occ sm sub-ang + sub-round pebbles	Fill same as 171 and 173
196	158				Med-light brown, compact sandy silt, occ med sub-round+sub-ang stones	Slippage from centre
223	158				Med-dark brown mod loose gritty clay, v freq sub-round stones + pebbles	Slumped topsoil
224	158				Med-lt brown v compact sandy gritty clay, freq sm sub-ang + sub-rnd stones + pebbles	Redeposited natural

Finds: None

Interpretation

The circular ditch [158] (Figure 14 and 15, plate 12), measured 1m wide and 0.45m deep and formed a circle 5.3m in external diameter (3.2m internal diameter). The ditch [158] contained three fills (196), (223) and (224). These clean fills were formed by slippage from the sides and natural silting. Nothing to indicate a date was recovered from the fills.

A small pit or posthole [174] appeared to cut through fill (196). The centre of the ringditch {1034} was located 29m west of the centre of the large barrow {1002}, 30m southwest of the central burial {1007} and 12m east of the centre of ringditch {1037}

4.9.2 Subgroup {1036}: Features in the centre of ringditch {1034}

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
159	169				Dark, loose friable ch-rich soil, also rich in burnt bone	Cremation burial
169		0.89	0.34	0.22	Sub-oval in plan, E-W in orientation, sides steeply sloping, base irreg + concave	Burial pit
170	NA	0.70	0.40	0.18	Oval in plan, N-S in orientation, sides near vert, except N, which was stepped, base concave	Posthole
171	170				Med-dark brown, loose silty clay, occ ch fl, sub-round pebbles	Fill same as 173+175
172	NA		0.10	0.08	Circular in plan, sides smooth+ taper to concave base, quite shallow, t'd	Posthole
173	172				Med-dark brown, loose silty clay, v occ ch fl, occ sub-round pebbles	Fill same as 171+175

Finds

Context	Find Number	Material	Period	Description
159	1-5	Ceramic	Early Bronze Age	Cordoned urn fragment

Interpretation

Located in the centre of ringditch [158] {1034} was a cremation pit [169] (which measured 0.89m by 0.34m and 0.22m deep). It was orientated east to west. The pit contained charcoal, burnt bone and fragments of cordoned urn (Figure 35, Grogan and Roche, Appendix 2.7).

Two other features [170] and [172] on the interior were probably postholes, suggesting that some form of structure was probably erected before any mound was raised.

4.9.3 Subgroup {1035}: Recut of ditch [158] {1034}

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
160	158				Dark brown grey, v loose clay, occ ch fl, many lge rounded + ang stones, also smaller stones + pebbles	Fill
163	158				Stone ring-shaped structure on top fill of ditch of [158], 0.20h x 5.95dia x ca.0.6 across, stones mostly ang	Drystone wall
192	394				Med-light brown mod compact sandy silt, v occ ch fl, mod sm-med sub-round + sub-ang stones + pebbles	Natural silting
197	394				Light-med brown, very compact sandy silt, occ sub-ang + sub-round stones	Natural silting
210	158	0.40	0.25	0.02	Lens between [192]+[197], Med brown, mod compact silty clay, occ ch fl, occ sm pebbles	Lens
394	NA				Ring-shaped in plan, to roughly follow the original feature, sides + base are irreg	Recut of [158]

Finds: None

Interpretation

The ditch [158] had filled up at least partly when a possible recut [394] was cut to re-establish the ditch. This recut ditch [394] measured 0.90m wide and 0.34m deep and was U-shaped in profile. The recut filled with four contexts, and these in turn were sealed by a stone spread (163). It is most likely that the stones in the recut {1038} were slipped kerbing or cairn material from the mound.

4.9.4 Subgroup {1037}: Ringditch

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
376	NA	3.80	1.40	0.77	Ring-shaped in diameter, outer dia 6.00, inner dia, sides convex+ mod steep, base flat, generally	Barrow
382	376				Med dark brown grey, loose clayey silt, occ sm ang / platey pebbles	Bank slumping
383	376				Med yellow brown, loose clayey silt, mod sm ang pebbles + fine gravel	Bank slumping
384	376				Lt grey yellow, mod loose silt v rare stones	Slumped bank material
385	376				Med yellow brown, mod loose silty clay, occ sm round pebbles + stones, mod gravel	Bank slumping
387	376				Med-dark yellow grey brown, mod loose silty clay, occ sm ang stones	Bank slumping

Finds: None

Interpretation

The circular ditch [376] was 0.80m – 1.4m wide, and formed a circle 6.4m in external (3.8m internal) diameter (Figures 14–16, plate 13). Ditch [376] was filled with five fills which were all very sterile in nature. They all appeared to represent slumped bank material. Nothing to indicate a date was recovered.

The centre of ringditch {1037} was located 41.7m west of the centre of ringditch {1002} 37.5m southwest from central burial {1007} and 12m west of the centre of ringditch {1034}

4.9.5 Subgroup {1039}: Pit in centre of ringditch {1037}

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
379	NA	0.60	0.30	0.50	379	NA
					Brown, loose silt, rare bones, occ sm stones	cremation

Finds: None

Interpretation

Pit [379], measuring 0.6m x 0.5m x 0.3m deep was located in the centre of ring ditch {1037}. This may be the remains of a pit burial as burnt bone was found in fill (380).

4.9.6 Subgroup {1038}: Re-cut of ringditch [376] {1037}

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
242	388				Stone spread in upper fills of ditch	Stone slippage
377	388				Lt-med grey yellow, loose clayey silt, rare sm pebbles + gravel	Natural silting
378	388				Med grey brown, mod loose clayey silt, occ sm ang + sub-ang pebbles	Natural silting
386	388				Med dark grey brown, sandy clay, mod sm pebbles + occ gravel,	Natural silting
388	NA				Ring-shaped in plan, sides mod sloping + concave, base very concave, small drystone structure w/in	Re-cut of [376]

Finds: None

Interpretation

The ditch of the ringditch filled with slumped material from the bank/mound. It appears that the ditch was then re-cut [388]. This filled with fills (377), (378) and (386), none of which contained anything to indicate a date. The upper fill was a layer of stones. Stones [242] are most likely slipped kerbing or cairn material from the mound.

4.9.7 Group 9 Discussion

Two ringditches

Group	Subgroup	Subgroup type	Period by finds/ stratigraphy	Period by Interpretation	Group Interpretation
9	1034	Ringditch ditch and fills	BA	BA	Two ringditches
9	1036	Pit and two postholes in centre of barrow	BA	BA	Two ringditches
9	1035	Re-cut of ringditch ditch	BA	BA	Two ringditches
9	1037	Ringditch ditch	BA	BA	Two ringditches
9	1039	Pit in centre of barrow	BA	BA	Two ringditches
9	1038	Re-cut of ringditch ditch	BA	BA	Two ringditches

Summary

Group 9 consists of two small ringditches {1034} and {1037} (Figure 16). Both were c. 6m in diameter. They were located southwest of the large barrow {1002}. Ringditch {1034} was 5.3m external diameter / 3.2m internal diameter and contained a centrally placed possible cremation in a small pit. Ringditch {1037} was 6.4m external diameter / 3.8m internal diameter and contained a centrally placed cremation in a small pit {1039}. The two ringditches were 5.5m apart and were located to the southwest of the cist-cairn monument.

Both ringditches had very deep ditches (1m – 1.25m wide and between 0.50m – 1.25m deep) with almost vertical sides. The volume of material from each ditch would have been sufficient to raise a low mound on the interior area. The ditches of both monuments showed very similar fill sequences. The main (lower) fills were sterile sandy silt, which presumably represented weathering, but the top fill of each ditch comprised stones mixed with bleached silts.

It is therefore probable that the ringditches {1034} and {1037}, both roughly contemporary, started off with low earthen mounds surrounded by ditches. However, it appears that the sandy nature of the subsoil of this site caused the mounds to slip and collapse into the ditch. It appears that both ditches were then cleaned out and a stone like cairn or possibly drystone kerb wall was placed around each barrow. This kerb wall ensured the barrows did not collapse.

Only a small amount of cremated bone and five sherds of cordoned urn were recovered from the pits on the interior of the ringditches, dating them to the early Bronze Age period.

Discussion

The circular ditch [158], measured 1m wide and 0.45m deep and formed a circle 5.3m in external diameter (3.2m internal diameter). The ditch [158] contained three fills (196), (223) and (224). These clean fills were formed by slippage from the sides and natural silting. Nothing to indicate a date was recovered from the fills.

A small pit or posthole [174] appeared to cut through fill (196). The centre of the ringditch {1034} was located 29m west of the centre of the large barrow {1002}, 30m southwest of the central burial {1007} and 12m east of the centre of ringditch {1037}

Located in the centre of ringditch [158] {1034} was a cremation pit [169] (which measured 0.89m by 0.34m and 0.22m deep). It was orientated east to west. The pit contained charcoal, burnt bone and fragments of cordoned urn (Grogan and Roche, Appendix 2.7).

Two other features [170] and [172] on the interior were probably postholes, suggesting that some form of structure was probably erected before any mound was raised.

The ditch [158] had filled up at least partly when a possible recut [394] was cut to re-establish the ditch. This recut ditch [394] measured 0.90m wide and 0.34m deep and was U-shaped in profile. The recut filled with four contexts, and these in turn were sealed by a stone spread (163). It is most likely that the stones in the recut {1038} were slipped kerbing or cairn material from the mound.

The circular ditch [376] was 0.80m – 1.4m wide, and formed a circle 6.4m in external (3.8m internal) diameter. Ditch [376] was filled with five fills which were all very sterile in nature. They all appeared to represent slumped bank material. Nothing to indicate a date was recovered.

The centre of ringditch {1037} was located 41.7m west of the centre of ringditch {1002} 37.5m southwest from central burial {1007} and 12m west of the centre of ringditch {1034}

The ditch of the ringditch filled with slumped material from the bank/mound. It appears that the ditch was then recut [388]. This filled with fills (377), (378) and (386), none of which contained anything to indicate a date. The upper fill was a layer of stones. Stones [242] are most likely slipped kerbing or cairn material from the mound.

4.10 GROUP 10: Two postholes and four pits in northern area

4.10.1 Subgroup {1042}: One posthole and three pits

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
177	179				Dark brown, soft loose ch-rich silty sand	Burnt post
178	180				Light-med yellow brown, hard plastic silty sand, occ ch frags, intrusions from upper fill [189], freq sm pebbles	Packing fill
179	NA		0.90	0.78	Sub-circular in plan, sides steep + slightly concave, base concave	Posthole
180	NA		1.00	0.52	Circular in plan, sides steep, base concave	Stone-filled pit
183	NA		0.38	0.12	Sub-circular in plan, sides slope gradually, base concave	Small pit
184	NA	0.72	0.56	0.34	Sub-circular in plan, E-W in orientation, sides mod sloping, base concave	Pit-part of a structure
185	183				Grey sandy silt, freq ch fl, occ sm pebbles	Pit fill
186	184				Dark brown, mod compact silty sand, mod ch, freq stones	Pit fill
189	180				Light-med grey, hard sandy silt, sandy silt, freq ch fl + frags, freq sm pebbles	Ash dump
205	179				Med brown, soft loose ch-rich sand	Burnt post
209	179				Med red brown, loose sandy silt, mod ch	Posthole fill

Finds: None

Interpretation

These four cuts were located at the far north of the site. Cut [179] was 0.93m long by 0.87m wide and 0.79m deep. It is suggested that [179] was a deep vertical sided posthole. Nothing datable was recovered from the fills of [179].

Cut [180] was circular and steep sided. It was located 0.60m west of [179]. A large amount of stone was found in the fill (178). The cuts size and shape indicated a large posthole rather than a pit.

Posthole [183] was located 0.20m south of [179]; it had a diameter of 0.38m and was 0.12m deep. Its fill (185) was charcoal flecked, but contained no finds.

Posthole [184] was situated 1.50m north of [180]; it was 0.72m long by 0.56m wide and 0.34m deep. No finds were recovered from the fill.

4.10.2 Subgroup {1043}: A posthole and a pit

Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
253	254				Dark brown, hard plastic silty sand, freq ch frags, freq small pebbles	Fill
254	NA		0.86	0.50	Circular in plan, 0.50d x ca0.86dia, U-shaped in profile	posthole
255	254				Mid brown, hard plastic silty sand, freq ch frags, freq small pebbles	Fill
259	260				Med light yellow brown silt, occ ch fl+smears, freq large pebbles	redeposited natural
260	NA		0.63	0.40	Circular in plan, sides near vert, base flat generally	Pit

Finds: None

Interpretation

A circular pit/posthole [254] was located 2.75m southwest of [180] {1042}. It was 0.89m long by 0.83m wide and 0.50m deep, and was steep sided with a concave base. Nothing datable was recovered from the fill of [254] however charcoal identified from the fill was *Quercus* sp (oak) (O Carroll, Appendix 2.2).

Another circular pit or posthole [260] was located 3.20m north of [184] {1042}. It was 0.63m wide x 0.40m deep with steep sloping sides and a flat base. Nothing to indicate a date was recovered from [260].

4.10.3 Group 10 Discussion

Activity at Northern End of Site

Group	Subgroup	Subgroup type	Period by finds/ stratigraphy	Period by Interpretation	Group Interpretation
11	1042	A posthole and three pits			
11	1043	A posthole and a pit			

Summary

Group 10 consists of a cluster of postholes {1042} and a posthole and a pit/posthole {1043}, all situated at the far west of the site. These features were over 50m away from the main activity on site and may be totally unconnected.

Although some fairly large postholes (0.50m–0.60m diameter x 0.40m–0.60m deep) were represented there, they did not form any coherent structure. As such, it is possible that they were not all contemporary and may instead represent the repeated planting of one or more large, single posts.

4.11 GROUP 11: Modern agricultural activity

4.11.1 Subgroup {1045}: Topsoil

Finds

Context	Find Number	Material	Period	Description
1	1	Flint		Abraded lump
1	2	Ceramic	17 century	North Devon gravel free ware
1	3 and 5	Flint		Abraded lumps
1	6	Iron		Iron nail

Interpretation

The topsoil across the site was generally between 0.30–0.50m in depth. It was of uniform compaction and colour across the site. A number of modern agricultural furrows were noted across the site, mainly in the southwest of the site.

5 SYNTHESIS

5.1 Group 1, Natural Geology and Topography

Natural drift geology {1000} was uniform in colour and compaction and generally consisted of a yellowish brown, gravely, silty clay. The main focus of the site was situated in a well drained area at the base of a small hillock made up of sorted, glacially mixed sands and gravels, located at approximately 10–11m OD. The topsoil over the site varied from 0.20–0.50m.

Site 127, Carn More 5 occupied a very low-lying gravel ridge at c.10m OD on the floodplain of a stream located approximately 130m to the north. The ground rose gently to the north and west, but the flat lands continue to the east and the south, interrupted by the 13m high Dublin – Belfast railway embankment. The stream was at the time of the excavation, approximately 1–2m wide and at 6.9m OD closest to the site. The stream formed a confluence with a second (northern) stream 250m to the east of Site 127, on the far side of the railway embankment (Ch25.380 outside the Lands Made Available, with water level at 4.7m OD).

Upstream from the confluence, both these streams lay at the edge of a wide, flaring valley floor at the foot of the range of hills to the north (Faughart Hill, Slievenabolea and Draikilmore). Downstream from the confluence a burnt mound Site 128, Faughart Lower 1 (Ch25.430) was excavated. The stream flows on for another 2.5km before reaching Dundalk Harbour. Of this 2.5km most is in a modern drainage channel and the last 1.25km is presently tidal.

5.2 Early Bronze Age Barrow Construction

5.2.1 Burial Monument 1

Barrow mound

Burial Monument 1, Barrow Group 2, consisted of a circular area of iron pan {1002} approximately 20m in diameter. This barrow had been completely truncated to the south of the central point by the Belfast – Dublin Railway. The 'iron pan' was most likely caused by minerals leeching down through a presumed earthen mound that was constructed over the central burial chamber

Barrow ditch

The barrow {1001} was partly surrounded by a shallow ditch {1003}, visible for an arc of 21m x c.2m wide x max 0.40m deep and located on the north-western side of the barrow, with a definite terminus at both ends.

Structure 1: Central burial chamber to the barrow

In the centre of the barrow mound were the badly disturbed remains of a stone lined, central burial chamber {1002}, Structure 1, measuring 2.3m x 1.5m x (surviving) 0.15m deep. The burial chamber appears to have been an upstanding structure around which the presumed mound was built. No capstones had survived.

Along the base of this stone-lined chamber was a row of stones 1.3m long, which probably indicates the chamber was originally partitioned. Due to this partition and the size of the structure, it is likely that the chamber was used for multiple interments over time. The various sherds of pottery found in the disturbed chamber are probably the remains of vessels, fragments of which have been identified as cordoned urn (Grogan and Roche, Appendix 2.7), which originally accompanied burials. Burials were identified by scatters of burnt bone.

Also found among the backfills were two possible copper alloy pin, a cylindrical copper alloy fragment that may have been a button and another fragment of copper alloy with bone attached (see Scully, Appendix 2.8). The fragment of copper alloy fused with bone may represent materials that were fused in a pyre.

The barrow ditch and fills was sealed by a layer of stones [151]. In general the stones were fairly small and formed a single layer, placed into the base of ditch. Silt and sand fills sealed this stone deposit

5.2.2 Activities External to Burial Monument 1

Southwest of Burial Monument 1

Group 2, Postholes, stakeholes and burnt spread

Situated 8m from the south-western edge of the barrow was a concentration of six stakeholes, six postholes (most appeared to have been burnt) and a spread of burnt material. This cluster of features may indicate that this was an area of repeated activity and that the features represent the remains of a ritual associated with activity at the barrow.

West of Burial Monument 1

The features below all form a tight cluster c.14.5m to the west of Burial Monument 1. It is not known if the features below represent a set of activities associated with Burial Monument 1 or a 'foundation ritual' for subsequent Burial Monument 2, or a combination of the two.

This group of features indicated some form of activity to the west of Barrow Group 2. This area was subsequently sealed by Burial Monument Group 4 but much of it seems to mirror a cluster of activity seen to the south-west of Barrow Group 1. It cannot be determined, whether the activity seen in Group 3 was activity associated with Barrow Group 2 or was related to Burial Monument Group 4.

Given the similarity between {1005} Group 2 and {1008} Group 3, which may represent some form of ceremonial activity, it is possible that Group 3 has more in common with Barrow Group 2 than Monument Group 4.

The group of stakeholes and postholes {1008} did not form any discernable structure. The concentration of posts/stakes and occurrence of burning was very similar {1005} Group 2. The spreads of burnt and charcoal rich material {1006} sealed postholes/stakeholes {1008}.

It has not been determined whether this activity was related to Barrow Group 2, or represents ceremonial activity prior to the building of Burial Monument Group 4.

The large pit {1013} was located 0.50m to the north of stakeholes {1008}. No function could be determined for this pit. Pit {1013} had sandy basal fills and had been sealed with stones (in a similar manner to Pit {1010} being sealed with stones {1012}).

Situated directly to the east of postholes/stakeholes was an irregular, roughly 'crescent' shaped pit [157] {1010} (5m x 3m x 0.75m deep), with the 'horns' of the crescent partly encircling {1008}. It is possible that pit [157] was simply a quarry pit. Both ends ('horns') of the pit were deeper than the middle and in each of these ends were a layer of stones. These stones may have been to aid access or drainage of the pit, as it was later filled with a water lain deposit {1011}. The lower levels of the pit appeared to have filled relatively quickly with slipped material. A linear shaped pit {1014} contained the remains of a vertical burnt stake and some decayed organic

material. The function of pit {1014} was not determined. Adjacent and to the west of pit {1014} were five charcoal flecked spreads of material {1015}.

5.2.3 Burial Monument 2: central area

A very large Burial Monument was constructed 19m to the west of Barrow Group 2 and adjacent to (and possibly associated with) Activity Group 3, in the Early Bronze Age. The central focus for this 'flat' monument was a large burial pit, sealed with stones. On the eastern side of the burial pit was a decorative stone kerb that ran northeast to southwest in two segments for over 8.9m (made of 20 stones). This kerbing may be the remnants of a court type feature around the burial pit.

The burial pit [222] was sub-oval in plan and aligned northeast to southwest. At the base of the pit, at the south-western corner, an intact, highly decorated vase food vessel (03E0873:233:1) was found. This vessel had been carefully placed in a niche of stones (plates 37, 38 and 39).

The main fills of the burial pit (58, 79, 144, 198, 200, 211, 217, 226, 229, 230, 233, 234 and 235) generally consisted of a mix of field stones and silty sands. The frequency of stone implies that these fills were deliberately placed to ensure they did not later subside.

A layer of stone [211] sealed these fills. This deposit consisted of nine large stones and several smaller ones forming a sub-rectangular group 3.13m x 1.74m x 0.47m high, oriented northeast-southwest. In detail there were five large stones at the eastern end and four at the western end.

Two large naturally weathered stones covered the upper surface of the burial cist. One of these is a granite boulder that has been unusually shaped into a zoomorphic form via natural weathering, and features a possible artificial hollow (03E0873:211:1). There was no clearly definitive evidence that the stone has been artificially worked or shaped (see O'Connor, Appendix 2.4). The other is a sandstone slab featuring a series of natural solution hollows caused by water action, each of these was entirely natural in origin (03E0873:211:2). It is possible, given the structural importance of these two stones, that they were intentionally selected for their distinctive forms and textures.

A stone alignment [187] or kerbing was identified associated with the central burial. This alignment was oriented exactly northeast to southwest and was formed of small slab like light grey sedimentary stones (average dimensions 0.20m x 0.08m x 0.06m high) set end to end on their sides, and separated into two groups 2.80m apart. The north eastern group was comprised of five stones running 1.23m with a slight bend to the southwest end (this group may have been truncated to the north). The south-western group was made up of fifteen stones running for 4.92m. In total the alignment covered a distance of 9.3m, was made of 20 stones but was only 60mm high at the most. It is suggested that this was a decorative kerbing for a low, raised turf or earthen mound over the central burial, possibly forming a court-type feature. The kerbing was subsequently sealed by a stone layer.

5.2.4 Burial Monument 2: Ring of Cists surrounding the Central Burial

Group 5 consists of seven cist burials {1026}, {1019}, {1018}, {1025}, {1024}, {1017} and {1016} that formed a rough circle c.20m in diameter focused on central burial {1007}. All the cists in this group except for {1018} stood alone and were not cutting or cut by any other features. Three pit burials/pot placements {1020}, {1021} and {1022} were located on an 'outer ring'.

It is possible that the burial population consisted of both cremated and inhumed burials, but that interred remains had degraded completely. However, cist [7] {1018} was the only burial that contained a pottery vessel that did not contain burnt bone.

All the pottery vessels that were recovered were contemporary types and the positioning of the burials in a ring around the central pit {1007} appears to be deliberate.

Cists

Cist {1026} was oval in plan, northwest-southeast in orientation and situated approximately 10.71m east of the centre of burial pit [222] {1007}. The walls consisted of five large stone slabs forming a sub-pentagonal box. Sealing this box were smaller stones, overlapping to create a form of corbelling, which supported the capstone. The floor was not stone lined. No finds or burnt bone were recovered from this cist. It is possible that this well built and seemingly undisturbed cist originally contained a crouched or flexed inhumation and that the bones have completely dissolved due to soil conditions. Cist {1026} was located 3.50m north of cist {1019} and 19m east of cist {1016}.

Cist {1019}:

Burial cist {1019} consisted of a rectangular box of four large stone slabs. A fifth small, broken stone was the remains of the capstone and there was some cobbling on the floor. The cist was approx. 10.30m east of the burial pit [222] {1007}.

An intact pot was found in the southwest corner of the base of the cist along with a flint flake (see Nelis, Appendix 2.3). The pot was a food vessel (see Grogan and Roche, Appendix 2.7). Large quantities of burnt bone were also recovered. Cist {1019} was located 3.50m south of cist {1026} and 14.80m northeast of cist {1018}.

Subgroup {1018}: Cist Burial

Burial cist {1018} comprised five large stones ranging from 0.44-0.70m x 0.33-0.50m which, along with several smaller stones formed an elongated pentagonal box 1.20m x 0.70m x 0.72m deep, oriented NW-SE. No flooring or capstone was found. The centre of cist [7] is located approx. 8.50m south of the centre of burial pit [222] {1007}.

The cist contained a slightly broken pottery lugged tripartite bowl at its base (see Grogan and Roche, Appendix 2.7). No burnt bone fragments or charcoal were found in the cist. Cist {1018} was cut through the upper backfills of pit {1012}. It was located 14.80m southwest of cist {1019} and 2.80m east of cist {1025}.

Subgroup {1025}: Cist Burial

The burial cist [9] was located approx. 9.60m south of burial pit [222] {1007} and 2.10m east of cist [129] {1024}. The cist consisted of 3 main wall stones (the western wall stone was truncated/missing) and a stone lined floor of four stones. There was no capstone. The fills (48), (51) and (52) contained burnt bone. No pottery vessel was present in this cist. Cist {1025} was located 2.80m west of cist {1018} and 2.10m east of cist {1024}.

Subgroup {1024}: Cist

The centre of cist [129] was located 10.40m south-west of burial pit [222] {1007} and 3.60m east of cist {1017}. The cist was built of seven large stone slabs and nine smaller stones forming a sub-oval box, orientated northeast to southwest, with a capstone. The floor was not stone lined. No pottery vessel or burnt bone was found in this cist although it was large and well constructed. It is possible that this cist

originally contained a crouched or flexed inhumation and that the bones had completely dissolved due to soil conditions. Cist {1024} was located 2.10m west of cist {1025} and 3.60m east of cist {1017}.

Subgroup {1017}: Cist Burial

Cist burial [110] was located 11m southwest of burial pit [222] {1007}. The cist was small and rectangular with four large stones and several smaller stones forming a box, oriented northeast-southwest. The floor was laid with two flat stones. The cist was filled with (112) which contained burnt bone throughout. On the stone floor of the cist a small intact highly decorated bipartite bowl was recovered (see Grogan and Roche, Appendix 2.7). Cist {1017} was located 3.60m west of cist {1024} and 11.50m southeast of cist {1016}.

Subgroup {1016}: Cist Burial and nearby pit

Cist [78] was located 10.40m west of the burial pit [222] {1007}. The cist consisted of six stones, originally forming a rectangular stone, east to west in orientation. Stones 1 and 6 had been disturbed as one of the side stones was pulled out of place (probably through ploughing) and there was no capstone present. The floor was flagged using four medium stones and one large stone. The fill (67) contained burnt bone, a substantially intact tripartite bowl and many pottery fragments (see Grogan and Roche, Appendix 2.7). Located 1m to the west of the cist [78] was a shallow pit [294] which had a charcoal rich fill (282). Cist {1016} was located 11.50m northwest of cist {1017} and 19m east of cist {1026}.

Located 1m to the west of the cist [78] was a shallow pit [294] which had a charcoal rich fill. Perhaps this feature was contemporary with the cist and a ritual fire was placed in this pit.

Burial Monument 2: Outer Pot Placements/Pit Burials

Three pit burials/pot placements {1020}, {1021} and {1022} were located on an outer ring. Two of these pit burials, {1020} and {1022} were located c. 21m from the central burial pit {1007}; the third was located 14.80m from the central pit. These three pit burials may represent the burials of individuals of lower standing in the community.

Pit [321] {1023} was positioned 4.40m from pot placement {1022}. Between [321] and {1022} was a line of stakeholes that ran north to south for 3m. These stakeholes may have been associated with the cist {1022} as they led up to it and may have acted as markers

The pot placement / burial pit [12] {1020} was located approximately 21.20m northeast of the burial pit [222] {1007}. It was a small pit 0.33m - 0.36m in diameter and it contained the intact base of a cordoned urn (see Grogan and Roche, Appendix 2.7).

Subgroup {1021}: Pot placement / Pit Burial

The pot placement / burial pit [389] was located approximately 14.80m southwest of the burial pit [222] {1007}. The cut [389] measured c.0.37m in diameter and was c.0.31m deep. It contained a cordoned urn. The vessel contained a lot of burnt bone, some of which had spilled into the surrounding fill (390).

Subgroup {1022}: Pot placement / Pit Burial

Pot Placement / Burial Pit [257] was located approx. 20.50m north west of pit burial [222] {1007}. Circular cut [257] measured 0.45m in diameter and was 0.16m deep. An inverted but very fragmented vessel with burnt bone was recovered from [257]. It was either an encrusted or cordoned urn (see Grogan and Roche, Appendix 2.7).

Subgroup {1023}: Features adjacent to pit burial {1022}

The pit [321] was located 4.5m to the south of burial pit {1022}. The pit [321] had been disturbed by animal burrowing and it was difficult to determine what its original shape was. A stakehole [351] was situated at the northwest end of [321]. [321] may have been a very large posthole.

Between pit [321] and pit burial [257] {1022} was a line of four small stakeholes [14], [15], [16] and [44], which ran north to south for a distance of 3m. No finds were recovered from these stakeholes. This group of features may be associated with the pit burial to the north as they lead up to it and may have acted as markers. The shallow pit [312] was located 12m west of the pit [321]. It contained a charcoal rich fill but no finds. The pit [339] was located to the north of pit [312]; its fill contained high ash content but no finds.

5.2.5 General Discussion of Burial Monument 2

Burial Monument 2, Structures 3–9: Summary Table

Graves/cists (Subgroup)	Distance (m) from centre of central burial {1007}	Direction from central burial {1007}	Pottery Vessel Yes/No	Internal dimensions
1007 central burial	0	0	Y	Pit 2.45m x 2m x 0.90m deep, 3.13m x 1.74m x 0.47m high
1026 (Structure 3)	10.71	NNE	N	0.88m x 0.55m x 0.45m deep; orientated NW-SE
1019 (Structure 4)	10.30	NE	Y	0.37m x 0.29m X 0.25m deep orientated NE-SW
1018 (Structure 5)	8.50	SSE	Y	1.20m x 0.70w x 0.72m deep: orientated NW-SE
1025 (Structure 6)	9.60	S	N	1.17m x 0.86m x 0.45m deep: orientated NW-SE
1024 (Structure 7)	10.40	SSW	N	1.40m x 0.95m x 0.60m deep: orientated NE-SW
1017 (Structure 8)	11	SW	Y	0.60m x 0.39m x 0.35m deep: orientated NE - SW
1016 (Structure 9)	10.40	W	Y	1.07m x 0.87m x 0.38m deep:, orientated E-W
Pot Placements				
1020	21.20	NE	Y	Circular in plan, ca. 0.36 dia, x c.0.15m deep
1021	14.80	SW	Y	Roughly circular in plan, 0.38d x 0.37l x 0.31
1022	20.50	NW	Y	Circular in plan, 0.16d x 0.45dia

Discussion of Cist Structures 3-9

Group 5 consists of seven cist burials {1026}, {1019}, {1018}, {1025}, {1024}, {1017} and {1016} that form a rough circle c.20m in diameter focussed on central burial {1007}. All the cists in this group except for {1018} stand alone and do not relate to any other features.

It is possible that the burial population consisted of both cremated and inhumed burials, but that interred remains had dissolved completely. Cist {1018} was the only burial that contained a pottery vessel that did not contain burnt bone.

Five pottery vessels were recovered from Burial Monument 2: central burial and inner ring cists. All of these were cordoned urns and food vessels and the positioning of the burials in a ring around the central pit {1007} was clearly deliberate. The above

would seem to indicate that most or all of the burials are pretty much contemporary and this was a Burial Monument created with a single purpose, rather than something that was built up over a long period.

Discussion of Pot Placements/Pit Burials

Three pit burials/pot placements {1020}, 1021} and {1022} were located in an 'outer zone' for Burial Monument 2. Two of these pit burials, {1020} and {1022} were located 21m from the central burial pit {1007} and the third was located 14.8m from the central pit.

Overall conclusions of Burial Monument 2

Burial Monument 2 was dated to the early Bronze Age. It comprised a central burial, overlain by a thin layer of stones. At a radius of 8m – 11m from this centre was a 'ring' of stone-lined cists.

Forming an outer ring around the central burial were three pot placements / pit burials. Two of these were 21m away from the central burial, while the third was c. 15m from the central burial. The evidence for a primary phase of burial activity consisting of the central burial in the stone-lined pit and some of the cists arranged circumferentially around the cairn is supported by the association with these burials of five bowls – a simple bowl, a ribbed bowl, a bipartite bowl and two tripartite bowls (for a full discussion see Grogan and Roche, Appendix 2.7). Sherds of a disturbed bowl also came from a cist in the apparently secondary ring of burials.

The second burial phase represented by pits and cists set further out from the cairn produced an encrusted urn and cordoned urns from pits and. This discrete placement of the urns tends to confirm the generally later dates for both ceramic types as does the disturbance of the bowl in the cist later used for the encrusted urn and cordoned urn (Grogan and Roche, Appendix 2.7).

The entire structure resembles a cist-cairn type of monument, except that there does not seem to have been much of a cairn here. As such this monument can be placed in the 'flat' cemetery class. However, it is possible that positive structures could well have been associated with the cists and pot placements / pit burials e.g. turf mounds or loose boulders.

Due to the close proximity of the CPO fence line to Burial Monument 2 on the north-western side it is quite probable that further activity could be uncovered connected with either Burial Monument 2, 3 or other Burial Monuments. During drainage works associated with the road construction a cist was identified to the north outside the CPO. This was a slab lined cist with accompanying crouched burial and pot (Hayes 2005).

5.2.6 Burial Monument 2-3; Group 6 stone deposit

Group 6 was a stone deposit and measured 4.85m by 3.20m with a maximum depth of 0.30m thick (which appeared to be at least two courses deep). This deposit has been interpreted as the base of a small cairn or mound that has since been truncated.

Secondary token 'placements' or 'burials' were inserted within layer Group 6 within the large stone settings (211) {1007} and possibly in the upper fills of the pit [222] as sherds of pottery, flint and burnt bone fragments were mixed through them. The stone deposit was later than the burial pit {1007} as it covered the central burial [222] {1007} and parts of kerbing {1003}. The metal finds consisted of a copper alloy pin with twisted faience coating and one copper alloy boss. The copper alloy, oval shield

boss (03E0873:69:1) has circular perforations all around the basal edge of the boss and these would have been used to attach the boss to the main body of the shield. The shield itself was probably made from leather. There is a dark brown substance in the hollow of the boss which may be mineralised leather. Shields made from wood or leather with metal bosses and ribs were used as functional objects during the Late Bronze Age (see Scully, Appendix 2.8).

It is possible that Layer Group 6 is associated with Cist and Boulder Burials Group 7.

Burial Monument 3; Cist Burials and Boulder Burials

Cist {1031} was built of four large slabs forming a sub-rectangular box-like structure and was orientated northwest to southeast with a large granite capstone placed on top. The cist had a stone flagged floor of fifteen stones. A bowl type food vessel (see Grogan and Roche, Appendix 2.7) was recovered from the southwest corner of [121] but was in a poor state of preservation. The cist contained three dense concentrations of cremated bone that seemed to have been deposited in layers, in all up to 0.50m deep. As such it was clear that cist [121] was used for multiple deposits.

Subgroup {1027}: 'Boulder burial'

The boulder burial {1027} comprised a shallow pit with a large granite boulder placed in it. No burial was found below the boulder but a flat axe motif was carved into one of the packing stones. It consists of a small rounded granite boulder with a weathered and decaying surface. Its roughly oval surface features an unusual triangular motif measuring 15.5-17cm in length and 10cm wide, which was found facing upwards during the excavation (for discussion see O'Connor, Appendix 2.4). Examples of carved motifs on boulder 'burials' or boulder monuments are rare and O'Connor has concluded that the Carn More 5 boulder with its 'possible axe' motif, is a welcome addition to the unparalleled carved panels from BA burials.

Subgroup {1030}: A 'Boulder Burial' and small Pit

The boulder burial [206] {1030} was located 13.7m north of the granite capstoned cist {1031}. It was comprised of a large pit in which was placed one large granite boulder and many smaller packing stones. No burial was found beneath the boulder. Adjacent to the boulder burial was a shallow pit [221]. It contained a charcoal flecked fill (220) but no finds. To the southwest of the boulder burial was a second pit [367]. It had an ashy, silty fill, but no finds.

Subgroup {1032}: Cist Burial

Cist [96] was built of seven large stones, forming the walls of a roughly square stone box which measured 0.68m x 0.70m x 0.49m deep, with no surviving capstone. The base of the cist was partially covered by one large sub-circular stone.

Many fragments of a cordoned urn were found along with fragments of a food vessel (Grogan and Roche, Appendix 2.7). It is possible that the cordoned urn was intact when placed in the cist, and if so, it may have been inverted over the food vessel.

Cist {1032} was associated with Cist {1031}, but there was no direct stratigraphic relationship between the two. It is possible that repeated deposition in this cist could have caused the cordoned urn to break.

Subgroup {1033}: Cist Burial

Cist [46] was one of a group of three cists that cut the east end of the large pit {1010}. It was located on the north side of the group. Cist [46] was an arrangement of six stones (four main wall stones) forming a sub-rectangular structure measuring 0.50m by 0.30m and 0.42m deep. It was orientated northeast to southwest. The floor

was not stone flagged and there was no surviving capstone. No pottery was found in this cist but burnt bone fragments were found in fill (94).

Cist [46] was the latest cist of this group as it cut the other two cists that form this group. The small pit or posthole [141] cut the packing fill of both cist [46] and cist [96] {1032}. It is possible that this post was a marker for the cist. Cist [46] {1033} was associated with both Cist {1031} and Cist {1032}. Cist {1033} was later than both of these cists as it cuts both of them.

Subgroup {1028}: Three Postholes, a pit and a stakehole

Postholes [113], [57] and [71] were in a line stretching 5.5m in length. They were orientated northwest to southeast and were just to the east of the boulder burial [45] {1027}. A pit [68] and stakehole [64] were to the south of the boulder burial {1027}.

It is possible that this group of postholes and pit are associated with the boulder burial {1027} or pot placement {1020} (in a similar way to stakeholes and pit {1023} may be related to pot placement {1022}).

Subgroup {1029}: A Posthole and a Stakehole

These two features were located c.3m east of pot placement {1020} and 23m east of cist [96] {1032}. Nothing to date these features was recovered from the fills. It is possible that this posthole and stakehole are associated with pot placement {1020} (in a similar way to stakeholes and pit {1023} may be related to pot placement {1022}).

Open Area 3: Activities between Burial Monument 1 and Burial Monuments 2-3

Cremation pit [84] was 1.26m long by 1.20m wide and 0.56m deep. The basal layer of [84] was a thick layer of charcoal (89) with burnt bone at the top. Above fill (89) was a sterile backfill (102), which showed evidence for a recut [91]. The recut was filled with a thin, decayed, granite layer (101) and a charcoal flecked backfill (88). In the upper fill (88), an intrusive find of an iron nail was recovered (Scully, Appendix 2.8). This pit appears to have been used for burning, possibly as a collection pit at the base of a pyre and must have been used repeatedly for the thick layer of charcoal (89) to build up. Beside the cremation pit [84] on its north side was a small pit [132]. The pit was very shallow but did contain a burnt bone fill (137).

The cremation pit [84] was located 15.3m southeast of the central burial {1007} Group 4, 9.3m south of granite capstone cist {1031} Group 7 and 6m south of the cist {1018} Group 5. As such it could be associated with either burial Monument Groups 2-3, burial monument Groups 4-5, burial monument Group 7 or ringditch monuments Group 9.

The size and shape of burial pit [207] (0.57m diameter and quite shallow), resembles the burial pits in the centre of the two ringditches Group 9 rather than pot placements {1020}-{1021} Group 7. The fill (208) contained frequent burnt bone inclusions and some charcoal and appears to be a simple burial pit.

The posthole [126] was located 4m southwest of cremation pit {1040}. The posthole was filled with charcoal rich fills (135) and (136) and appeared to have burnt *in situ*.

A stone filled pit [166] was situated 5m west of cremation pit {1040}. It was 1.05m long by 0.73m wide and 0.55m deep and filled with (176), which contained large stones throughout. The pit may have been a large posthole. Nothing to indicate a date was recovered from this pit.

The small pit [213] was located 1m southwest of pit/posthole [166]. No finds were recovered from this feature. The fill material may have been intrusive material from the cremation/pyres close by.

Pit [98] was located 15m southeast of posthole [126]. Nothing to indicate a date was recovered from this pit. A small pit [162] was located 7.70m northeast of pit [98]. Nothing to indicate a date was recovered from this pit.

5.2.7 Ringditches, Burial Monuments 4 and 5

Group 9 consists of two small ringditches {1034} and {1037}. Both were c. 6m in diameter. They were located southwest of the large barrow {1002}. Ringditch {1034} was 5.3m external diameter / 3.2m internal diameter and contained a centrally placed possible cremation in a small pit. Ringditch {1037} was 6.4m external diameter / 3.8m internal diameter and contained a centrally placed cremation in a small pit {1039}. The two ringditches were 5.5m apart and were located to the southwest of the cist-cairn monument.

Both ringditches had very deep ditches (1m – 1.25m wide and between 0.50m – 1.25m deep) with almost vertical sides. The volume of material from each ditch would have been sufficient to raise a low mound on the interior area. The ditches of both monuments showed very similar fill sequences. The main (lower) fills were sterile sandy silt, which presumably represented weathering, but the top fill of each ditch comprised stones mixed with bleached silts.

It is therefore probable that the ringditches {1034} and {1037}, both roughly contemporary, started off with low earthen mounds surrounded by ditches. However, it appears that the sandy nature of the subsoil of this site caused the mounds to slip and collapse into the ditch. It appears that both ditches were then cleaned out and a stone like cairn or possibly drystone kerb wall was placed around each barrow. This kerb wall ensured the barrows did not collapse.

Only a small amount of cremated bone and five sherds of cordoned urn were recovered from the pits on the interior of the ringditches, tentatively dating them to the early middle Bronze Age period.

Discussion

The circular ditch [158], measured 1m wide and 0.45m deep and formed a circle 5.3m in external diameter (3.2m internal diameter). The ditch [158] contained three fills (196), (223) and (224). These clean fills were formed by slippage from the sides and natural silting. Nothing to indicate a date was recovered from the fills.

A small pit or posthole [174] appeared to cut through fill (196). The centre of the ringditch {1034} was located 29m west of the centre of the large barrow {1002}, 30m southwest of the central burial {1007} and 12m east of the centre of ringditch {1037}

Located in the centre of ringditch [158] {1034} was a cremation pit [169] (which measured 0.89m by 0.34m and 0.22m deep). It was orientated east to west. The pit contained charcoal, burnt bone and fragments of cordoned urn (Grogan and Roche, Appendix 2.7).

Two other features [170] and [172] on the interior were probably postholes, suggesting that some form of structure was probably erected before any mound was raised.

The ditch [158] had filled up at least partly when a possible recut [394] was cut to re-establish the ditch. This recut ditch [394] measured 0.90m wide and 0.34m deep and was U-shaped in profile. The recut filled with four contexts, and these in turn were sealed by a stone spread (163). It is most likely that the stones in the recut {1038} were slipped kerbing or cairn material from the mound.

The circular ditch [376] was 0.80m – 1.4m wide, and formed a circle 6.4m in external (3.8m internal) diameter. Ditch [376] was filled with five fills which were all very sterile in nature. They all appeared to represent slumped bank material. Nothing to indicate a date was recovered.

The centre of ringditch {1037} was located 41.7m west of the centre of ringditch {1002} 37.5m southwest from central burial {1007} and 12m west of the centre of ringditch {1034}

The ditch of the ringditch filled with slumped material from the bank/mound. It appears that the ditch was then recut [388]. This filled with fills (377), (378) and (386), none of which contained anything to indicate a date. The upper fill was a layer of stones. Stones [242] are most likely slipped kerbing or cairn material from the mound.

The placing of the two ringditches is interesting. They form a pair on the southern side of the cemetery and are most likely related. It was natural for such monuments to be placed in visible locations. The question is where were these two 'Positive' monuments visible from? If Barrow, Burial Monument 1 was still a mound this would mask the sight lines from the east. If there were a mound over Stone Layer Group 6 or mounds of turf/rocks over each of the cist burials this would interrupt the sight lines to the north. It is possible the ringditches (and thus perhaps the other Burial Monuments) were designed to be seen from the South. In this area there was the Stream confluence zone which bears a remarkable resemblance to the Balregan Castletown Rover-Kilcurry River confluence zone. The Balregan zone contained a remarkable assemblage of stone circles, alignments, cairns and a henge monument.

Aerial photographs of the area to the southeast of Carn More 5 on the opposite side of the railway embankment indicate extensive archaeological remains there in the form of ringditches and barrows (OSI 1995, figure 41). This may indicate that the Carn More 5 site was on the northwest periphery of a much larger ceremonial landscape and that the main focus of this landscape may have been removed by the construction of the railway.

Western Postholes

Group 10 consists of a cluster of postholes {1042} and a posthole and a pit/posthole {1043}, all situated at the far west of the site. These features were over 50m away from the main activity on site and may be totally unconnected.

Although some fairly large postholes (0.50m – 0.60m diameter x 0.40m – 0.60m deep) were represented there, they did not form any coherent structure. As such, it is possible that they were not all contemporary and may instead represent the repeated planting of one or more large, single posts.

Topsoil

The topsoil across the site was generally between 0.30m and 0.50m in depth. It was of uniform compaction and colour across the site. A number of modern agricultural furrows were noted across the site, mainly in the southwest of the site.

6 DISCUSSION

6.1 Realisation of the original research aims

This section examines the extent to which assessment of the results of the excavations reveals 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 each of the excavations in the Carn More townland and Responses (**R**) based on preliminary assessment of the site data.

ORQ 1: *Are there burials on the site? If so, what are the numbers, burial rites, dates, locations and survival? With what type of monument/grave are burials associated?*

R: The site was comprised of all or part of a Bronze Age cemetery consisting primarily of a Barrow with central chamber, a cist-cairn monument with two 'boulder burials' and two ringditches.

A minimum number of seventeen potential cremation burials, dating to the Bronze Age, were recorded on Site 127, Carn More 5. At least one from the Barrow (although as the barrow had a central, stone lined chamber it is possible that there were multiple interments), at least 14 from the cist-cairn monument (one cist clearly contained multiple burials) and one each from the ringditches.

The two 'boulder burials' may have been cenotaphic monuments associated with the cist with multiple interments.

Of the graves of the cist-cairn monument the layout is:

- Central burial pit: 1
- Inner Ring of cists (3 phases): minimum of 10
- Outer Ring of pot placements: 3

There is the potential that more burials and pot placements, associated with the cist-cairn monument lie outside the CPO line. An inhumation cist with pottery vessel was found and excavated by Avril Hayes of Aegis Archaeology Ltd, Licence E3976 whilst monitoring drainage for the construction of the M1 within the vicinity (to the north) of the archaeological site reported on in this report (Hayes 2005). Further cists and burials might well exist outside the current motorway northern fenceline located immediately below thin topsoil.

The remains of at least twenty pots, some of which were intact or largely intact, were recovered from the site.

A small copper alloy decorative object from the barrow appeared to have fused to a piece of cremated bone. This could show that some bodies were cremated with ornaments on them.

ORQ 2: *Are there burials which appear to be associated or relate to monuments/other features?*

R: See response 1

ORQ 3: *What are the different methods of burial? Are there accompanying grave goods? If so, what are they?*

R: Evidence suggests that cremation was the more dominant burial rite. Four of the ten cists and the central burial under the cairn material contained no obvious cremated remains. This could suggest they contained crouched inhumation burials but the soil conditions caused the bones to degrade.

The remains of at least twenty pots, some of which were intact or largely intact, were recovered from the site. Four small copper alloy objects were recovered, scattered in the disturbed central burial chamber of the barrow and a copper alloy pin with a twisted faience coating was found in association with a decorative 'shield boss' (containing mineralised leather and surrounded by stitching holes) in the stone 'cairn material' [103] of the cist-cairn.

Three pieces of worked stone were recovered:

- Cairn material over burial pit: A hone stone and a stone with deep 'cup' marks etched into it
- A packing stone in the southeast boulder burial had an 'axe' shape motif etched onto it.

ORQ 4: *What does the burial population consist of?*

R: The burial population consisted of at least fourteen individual burials. Given the scale of the monuments erected for them, it is fair to say that the burials under the cairn material and at the centre of the large barrow were probably the highest status burials on the site. The lack of grave goods from the barrow can be attributed to the level of disturbance of the burial chamber. Six of the ten cist burials contained cremated remains. It is believed that the other four cists may have contained inhumation burials, but the location of the pot in the very centre of cist [C7] would suggest that any bones interred would have to have been disarticulated. A small amount of cremated bone was recovered from the ringditches, and the three pots recovered from unlined pits may also have contained cremated remains.

ORQ 5: *Is there any evidence for buildings or other structures? Are there areas used for different functions at different periods?*

R: The only evidence for structures on site 127 relate to the burial monuments. It is most likely that a mound existed over the central cairn burial and the stone was used as facing to dress the mound. Likewise, it is safe to assume the presence of a mound over the barrow to the south of the site and the ringditches to the west of the site, but agricultural activity has removed all above ground traces of any of these mounds and any possible enclosing banks. Although all four monuments could be described as being broadly contemporary, it is more likely that they mark three distinctly different phases of activity on the site.

Aerial photographs of the area to the southeast of Carn More 5 on the opposite side of the railway embankment indicate extensive archaeological remains there in the form of ringditches and barrows (OSI 1995, figure 41). This may indicate that the Carn More 5 site was on the northwest periphery of a much larger ceremonial landscape and that the main focus of this landscape may have been removed by the construction of the railway.

ORQ 6: *What is the nature of the finds and environmental evidence? Are there finds associated with burials? Are there waterlogged deposits and is there wood or other organic survival? Is there any indication of organic material in metal corrosion products?*

R: Most of the finds recovered from site are associated with burials. The pottery recovered came from burial cists and pits. The metal artefacts were generally

associated with burials if not recovered directly from them. No waterlogged deposits were encountered on site, and no organic material was recovered.

6.2 Significance of the Data

The excavation revealed an important archaeological monument dating from the Bronze Age period. The results from this excavation add to the existing body of data concerning Bronze Age cemeteries locally and nationally. Bronze Age sites including *fulacht fiadh*, round houses and cist burials are quite common sites within the landscape. The identification of Carn More 5 allows us to fit the site into the larger landscape locally which is already well defined by sites from the same period. Taken with total and near total excavations of similar sites through other road schemes and developments over the last decade, Site 127, Carn More 5 is the clearly of regional and national significance.

Bronze Age barrow and cairn cemeteries are relatively common in Ireland. The County Louth Archaeological Survey lists 41 Barrow and Cairn Sites (as well as 34 possibles). The Survey also lists 28 'Burials – Cist and Pit' (as well as eight probables). Cist-cairns of a similar type seen at Site 127, Carn More 5 have been noted at Aghnaskeagh (Site A, LH004:041) 3km to the north-east of the site and at Fieldstown (LH021:035) to the south of the county, overlooking the Boyne valley. It is unusual for cairns and barrows to be found situated in lowland areas such as at Site 127, Carn More 5, which may imply the site is connected with a larger Archaeological Site situated nearby.

However, a site with a very clear spatial layout and large number of intact cist burials and pottery vessels such as Site 127, Carn More 5 appears to be very rare indeed.

Four separate burial traditions in three main areas were observed on Site 127, Carn More 5. The primary area of activity was centred on a barrow mound (originally) up to 26m across including a turf bank and internal mound. The barrow contained a central stone lined burial chamber.

The second area was a cist- cairn monument. The cist-cairn monument focussed on a central burial pit and two kerb walls. Around this were two concentric circles of 13 associated burials/graves and two 'boulder burials', possibly up to three phases. The inner cist 'circle' was approximately 16m - 20m in diameter, with at least 11 depositions. The outer circle may have had five burials with a diameter of c.42m.

The third area consisted of two small ringditches (5-6m in diameter externally. 3.5m and 4m internally).

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APPENDIX 1.1: CONTEXT INDEX

Context	Fill of	L(m)	W(m)	D(m)	Interpretation	Description
1	NA				Topsoil	Mid brown friable, silty clay.
2	NA				Natural subsoil	Yellowish brown, gravelly, silty clay
3	NA	17.50	11		Iron pan	Red brown silt- redder at top + browner moving toward base, E-W in orientation, CUT BY [32]
4					Disturbed barrow material	Med brown, friable silty clay, occ ch fl, freq burnt bone, some fused to bze, occ s stones
5	157				Topsoil	Topsoil lying between the stones of [114]
6	50				Deliberate backfill	Dark brown, loose sandy silt, freq sm flat ang stones at top of fill
7	NA	1.70	1.47	0.63	Cist cut	Sub-oval in plan, N-S in orientation, sides gently concave, base flat generally
8	9				Silting	Dark grey brown silty clay, freq lge round+ ang stones + decayed granite
9	NA	1.17	0.86	0.45	Cist cut	Oval in plan, NNE-SSW in orientation, N side concave, S+W slightly concave, E side straight then stepped into convex, base rises to the N
10	45	1.06	0.75	0.65	Boulder burial (stones)	Massive boulder, oriented E-W
11	12				Redeposited Natural	Med yellow brown, hard plastic silt, freq small pebbles
12	NA		0.36		Burial pit	Circular in plan, ca. 0.36 dia, base flat
13						Non Archaeological
14	NA				Stakehole cut	Shallow circular cut
15	NA				Stakehole cut	Shallow circular cut
16	NA				Stakehole cut	Shallow circular cut
17	96, 115				Cist [115] wall packing	Dark brown orange, mod compact silty clay, w/ patches of dark brown grey clay, occ ch fl+ burnt bone frag, freq pebbles+ sm stones+ mod mos med subang stones
18	129				Primary fill of cist[128]	Med yellow brown, v loose gravelly silty sand, v occ ch+burnt bone, mod small sub-round+sub-ang stone. This Context was mixed w/ [127]during excavation
19						Non Archaeological
20	NA	1.50	1.00	0.32	Cist [92] capstone	Large Granite boulder, oriented NE-SW
21	NA	1.00	0.82	0.44	Cist [28] cut	Oval in plan, NW-SE in orientation, sides slope sharply, several breaks of slope at N end, base flat generally
22	NA	0.95	0.92	0.40	Cist[30] cut	Sub-oval in plan, NE-SW in orientation sides steep +slightly convex, base irreg
23	22				Cist [30] wall packing	Med-lt red brown, loose sandy clay, occ ch, mod med-lge sub-ang to round stones
24	22				Upper cist fill	Med-lt brown, sandy silty clay, occ burnt bone, rare pebbles

25	22				Cremation burial	Med-light yellow brown sandy silty clay, occ ch, freq burnt bone, rare stones
26	21				Cist [28] wall packing	Med orange brown, mod loose sandy silt, freq sm ang stones + occ patches of decayed stone
27	21,28				Natural silting	Med brown v loose silty clay, occ ch fl, occ sm pebbles
28	21				Burial cist	5 large stone slabs ranging from 0.08 th x 0.27l x 0.15w to 0.10 th x 0.40l x 0.25w forming a sub-pentagonal box, 0.45d x 0.88l x 0.55w oriented N-S, atop this box are smaller stones, overlapping to create a pseudo-corbelling, which supports the capstone.
29	21, 28				Natural silting	Med yellow brown, mod loose silty clay, occ sm ang+ round + platey pebbles
30	22				Burial cist	4 large stone slabs forming a rect box, 0.37l x 0.29w (internal), a fifth stone acted as a capstone, there was some cobbling on the floor,
31= 69	NA				Charcoal spread	Grey brown loose ch-rich silty sand, occ burnt bone, mod lge ang stones, some decorated
32						Non Archaeological
33	38				In situ burnt posts	Dark, ch-rich sandy silt, occ pebbles
34	21, 28				Natural silting	Med yellow brown, mod loose silty clay, freq sm platey sub-ang pebbles + occ med sub-ang + round stones, mostly concentrated at base of fill
35	367				Ash fill	Ashy, silty clay
36						Non Archaeological
37	38				Post packing	Brown fill, occ ch, mod s stones
38	NA	0.40	0.35	0.25		Irreg in plan, E-W in orientation, double U-shaped in profile
39	40				Post packing	Brown sand, freq ch
40	NA		0.07	0.10	Stakehole	Circular in plan, 0.1d x 0.07dia, U-shaped in profile
41						Non Archaeological
42						Non Archaeological
43	NA				Cut	Circular in plan, ca.0.23d x 0.10dia, U-shaped in profile
44	NA				Stakehole cut	Shallow circular cut
45	NA	1.21	1.11	0.35	Boulder burial	Sub-circular in plan, sides steep + slightly convex, base flat
46	NA	1.48	1.00	0.59	Cist [116] cut	Sub-oval in plan, E-W in orientation, sides rough+steep, base irreg + slopes down towards W Cut [121] in S+ [96] in SE, + is cut by 141 at SE
47	NA	2.30	1.50		Barrow chamber	Spread of med-lge sub-ang stones, in area, oriented NE-SW
48	9				Disturbance of cist[9]	Orange brown, friable silty clay, occ burnt bone, freq subang stone
49	9				Stone flooring of cist[9]	4 main stones, running N-S lining floor of cist
50	7				Burial cist	5 large stones ranging from 0.44-0.70l x 0.33-0.50h, +several smaller stones forming an elongated pentagonal box, 0.72h x 1.20l x 0.70w, oriented N-S, no flooring or capstone found
51	9				Cist[9] fill	Dark orange brown, loose crumbly clay, occ burnt bone, mod med ang

						stones + freq pebbles
52	9				Cist[9] fill	Orange brown, soft sticky silty clay, occ burnt bone, mod sub-ang stone
53	57				Stakehole fill	Dark brown soil
54	64				Stakehole fill	Brown soil, rare pebbles
55	68				Pit fill	Brown soil, mod pebbles + sm stones
56	71					Brown soil, mod pebbles + sm stones
57	NA		0.22	0.10	Posthole	Circular in plan, U-shaped in profile, T'D
58	222				Redeposited Natural	Light-med grey yellow, mod compact clayey silt, rare ch fl, freq ang+round pebbles, mod sm stones
59						Non Archaeological
60						Non Archaeological
61						Non Archaeological
62	9				Cist [9] stone floor mortar	Med brown orange, mod compact silty clay, occ ch+burnt bone fl,
63						Non Archaeological
64	NA		0.13	0.05	Stakehole	Circular in plan, U-shaped profile, truncated.
65	78	0.80	0.40	0.40	Burial cist	6 stones, orig forming a rect stone box, NW-SE in orientation,(stones 1+6 disturbed), floor was flagged with 5 stones
66	78				Cist [78] wall packing	Med dark brown, mod loose silty clay, occ burnt bone, occ sm stones+ pebbles concentrated toward base of fill +med stones concentrated around cist wallstones
67	78				Primary fill of cist [78]	Mid yellow brown, loose silty clay, freq burnt remains + occ ch fl, freq sm to med stones concentrated towards top of fill
68	NA	0.45	0.35	0.20	Pit	Sub-circular in plan, E-W in orientation, U-shaped in profile, T'D
69=31						Same as C31
70						Non Archaeological
71	NA	0.80	0.28	0.15	Posthole	Oval in plan, N-S in orientation, U-shaped in profile
72	129	0.73	0.70	0.35	Capstone of cist[128]	large boulder, 0.35th x 0.73l x 0.70w, oriented NE-SW, with smaller stones laid around the edges
73	9				Cist [9] wall stones	Upright stone, 0.63h x 0.36l x 0.14w, forming N wall of cist [9]. E wall formed by stone 0.42 x 0.75l x 0.15w. S wall formed by roughly square stone, 0.32h x 0.35l x 0.09w
74						Same as 73
75						Same as 73
76	9				Cist[9] wall packing,	Dark grey brown, mod compact silty clay, Disturbed in w where stone is missing.
77	78				Soil slippage	Topsoil containing burnt bone which slipped into cist [78] when stone 1 was disturbed
78	NA	1.07	0.87	0.38	Cist cut	Subsquare in plan, NW-SE in orientation, sides irreg but steep, base

						slightly concave, NW corner disturbed by burrow
79	222				Slumping of [58]	Med brown grey, mod loose silty clay w/occ yellow mottling, occ ch fl, occ sm pebbles+rare small stones
80		1.50	0.60		Disturbed barrow	Brown soil, mod burnt bone, occ sm stones + pebbles, covering an area oriented E-W,
81	78				Cist [78] floor stones	1 large+4 med flat, smooth stone slabs ranging from 0.02h x 0.16l x 0.10w to 0.03h x 0.35l x 0.20w placed closely together in floor of cist [78]
82	50, 7				Natural silting	Light brown yellow, loose silty sand, occ pebbles + sm stones
83	65				Cist [65] stone floor mortar	Med brown yellow, loose clayey silt, rare ch, freq pebbles+ small + med stones
84			1.26	0.56	Cremation pit	Circular in plan, sides steep + undercut at base, base flat
85	7, 50					4 pockets of dark brown, lumpy friable soil due to disturbance of cist
86	45				Fill between stones of boulder burial	Dark brown, friable sandy clay, freq pebbles + occ ang stones
87	NA	1.50	0.60		Spread	Dark soil, occ bones-some burnt, rare s stones + pebbles
88	91				Mix of [102]+[88]	Light grey, hard plastic silt, occ ch fl, freq sm pebbles
89	84				In situ burning	Large charcoal frags + unburnt wood, thick layer of burnt bone
90						Non Archaeological
91	NA	0.60	0.50	0.31	Recut	Sub-circular in plan, E-W in orientation, sides steep, base flat
92	121	1.00	0.95	0.68	Burial cist	Four large slabs+ smaller stones forming a sub-rect box-like structure with dimensions NW-SE in orientation
93	92				Primary cist [92] fill	Lt-Med yellow brown, v loose fine silty sand, varying concentrations of burnt bone, mod gravel
94	116, 46				Top cist [116] fill	Med -dark brown, friable gritty sandy clay, occ burnt bone, occ ch, metal slag, occ sm pebbles+sub-ang stones
95	96, 115				Spillage from broken urn	Dark brown, loose silty clay, burnt bone, freq pebbles+flat sub-round stones, large sherds of decorated pottery
96	NA		1.15	0.38	Cist [115]cut	Circular in plan, sides smooth+convex, base stepped cut by [46] in NE
97	141				Deliberate backfill	Dark brown, loose sandy clay, freq decayed granite+mod pebbles+ occ burnt slag
98	NA	0.69	0.55	0.18	Pit	Sub-circular in plan, E-W in orientation, sides slope gradually, base concave
99	121				Later burial in cist [92]	Med-dark slightly yellow brown, silty coarse sand, freq burnt bone, v freq small ang platey + sub-ang pebbles
100	NA				Spread	Med brown, soft silty sand, v rare sm stones
101	88				Decayed granite stone	Decayed granite
102	84				Redeposited Natural	Yellow brown sandy silt, occ sm sub-round stone
103	NA				Stone spread	Spread of stones, some decorated, ranging from 0.05-0.50 in size, covering an area of 4.85l x 3.20w, may have been part of a cairn
104						Same as 103

105						Same as 103
106	98				Redeposited Natural	Yellow brown sandy silt, occ sm sub-round stone
107	98					Dark brown sandy clay, lens of ch running through +occ ch fl, rare sm-m sub-ang+sub-round stone
108	150				Fill	Brown, loose fill, rare pebbles + sm stones in E half of ditch[150]
109	110	0.80	0.68	0.14	Capstone of cist[133]	Large boulder, oriented E-W
110	NA	0.80	0.68	0.40	Cist[133] cut	Oval in plan, U shaped in profile
111	96, 115				Spillage from broken urn	Orange brown silty clay, burnt bone, mod ang stones+v freq pebbles, freq pottery sherds
112	133				Natural silting	Light brown, mod loose clayey silt, 2 ch frags, bones throughout, more concentrated toward the base, occ pebbles + sm stones only fill of cist[133]
113	NA	0.45	0.20	0.10	Posthole	Sub-circular in plan, N-S in orientation, sides steep base irreg U-shape
114	157	5	3.60		Stone spread	Spread of quite tightly packed stone, covering an area 5.00l x 3.60w, part of a cairn cut in E by [46]+[121]
115	96	0.70	0.68	0.49	Burial cist	7 large stones, forming the walls of a roughly square structure
116	46	0.50	0.30	0.42	Burial cist	6 stones forming, the walls of a subrect structure, N-S in orientation
117	46				Cist [116] wall packing	Med brown gritty sandy clay+smang+sub-ang stones, v rare burnt bone
118	116, 46				Basal cist[116] fill	Med light brown, friable gritty sandy clay, occ ch, mod pebbles+ small ang+sub-ang stones
119	113				Burnt post	Dark brown, loose ch-rich sandy clay, v freq sm sub-ang + sub-round stones
120	113				Silting	Light yellow brown, compact fill, rare ch, freq small sub-ang stone
121					Cut for cist	Largest of the three cists
122	121				Floor flagging of cist [92]	11 med+4smaller slab stones forming floor of cist stones range from 0.06thick x 0.30l x 0.25w to 0.03thick x 0.05l x 0.04w in size, the floor itself is 0.62l x 0.40w, NE-SW in orientation
123	121				Cist [92] wall packing	Med yellow brown, mod loose sandy silt + large ang stones, occ burnt bone CUT BY [46] IN N
124	96				Redeposited natural	Dark brown gravelly clay, v freq burnt bone, occ sm round+mod sm ang stones, pottery sherds
125	7				Cist[50] wall packing	Med-light orange brown, friable sandy clay, mod pebbles+occ med sub-ang+ang stones
126	NA	0.61	0.48	0.21	Posthole	Sub-circular in plan, sides steep base irreg + concave
127	NA				Spread	Med brown, mod compact silty clay, occ ch, freq sm sub-round pebbles+occ lge ang stones
128	129	1.40	0.95	0.60	Burial cist	7 large stone slabs+ 9 smaller stones forming a sub-oval box, NE-SW in orientation
129	NA	1.90	1.70		Cist[128] cut	Sub-oval in plan, 0.50d x 1.90l x 1.70w, NE-SW in orientation, sides slope gradually in SE corner, otherwise vert, base irreg

130	96, 115				Redeposited natural	redeposited natural, occ burnt bone, mod pebbles
131						Non Archaeological
132	NA				Small shallow pit	Pit with burnt bone
133	110	0.60	0.39	0.35	Burial Cist	4 large stones+ several smaller stones, forming a rect box, oriented NE-SW and 2 flat floor stones
134	110				Floor stones of cist [110]	2 flat stones laid side-by-side on floor of cist, with smaller stones filling the gaps between main stones + walls
135	126				Burnt post	Dark brown, loose sandy clay, mod ch, freq sm sub-ang + sub-round stones
136	126				Burnt soil	Med orange brown friable sandy clay, occ ch, freq sm sub-round stone
137	132				Redeposited natural	Yellow brown silt v freq burnt bone
138						Non Archaeological
139						Non Archaeological
140	110				Cist[133] wall packing	Brown, loose clayey silt
141	NA	0.44	0.29	0.27	Shallow pit or posthole	Sub-oval in plan, sides irreg+concave except in NW, which is straight, base irreg
142						Non Archaeological
143	157					Pink brown silt, freq ch, occ pebbles
144	222				Collapsed pit wall	Dark grey brown, ch-rich silty sand, occ burnt bone, mod sub-ang stones
145	96	0.35	0.34	0.08	Cist [96] floor stone	Sub-circular stone occupying most of cist floor
146	121				Fill between floor stones	Med-dark grey brown, mod loose silty clay, beneath + between stones of cist floor, mod burnt bone,
147	121				Cremated bone deposit	Densely packed burnt bone deposit heaped near the centre of the stone flagged floor of cist [92], the first cremation deposit in this cist
148						Non Archaeological
149	150				Fill (same as 195)	Light yellow brown silt
150	NA	15	3.50	0.40	Shallow ditch	Curvilinear in plan, sides slope smoothly to a U-shaped base
151	150				Keystone foundation	Stones of all sizes within trench[150], 0.30max h x 14.00l x 1.50-2.00w
152	129				Cist[128] wall packing	Patchy lt yellow grey/dark brown grey, tightly compacted silty clay, mod sm ang + sub-ang pebbles
153	157				Spread	Lt-med grey yellow brown mod loose silty clay, mod ch fl, mottled in places w/ blue grey+red brown marl clay
154	157				Natural silting	Light brown yellow, loosely compacted silty clay, lying between + under the stones of [114]
155	121				Slumping of [123] into cist [92]	Mixture of [123]+[93] due to slumping of [123] into cist through gaps between wall stones during excavation
156	157				Secondary cairn deposit	Med grey brown, mod loose clayey silt, occ ch fl, freq decaying granite freq sm-med ang + platey stones

157	NA	5	3	0.75	Cut	Large curvilinear pit,
158	NA		5.95	0.45	Circular barrow	Circular in plan, sides slope gradually, base U-shaped, ring shaped ditch w/stone-filled raised area in centre
159	169				Cremation burial	Dark, loose friable ch-rich soil, also rich in burnt bone
160	158					Dark grown grey, v loose clay, occ ch fl, many lge rounded + ang stones, also smaller stones +pebbles
161	162				Deliberate fill	Med grey brown, mod loose clay silt, mod ch fl + occ frags, occ sm ang stones concentrated toward the centre, mod pebbles throughout
162	NA	0.43	0.39	0.13	Pit	Sub-oval in plan, oriented NE-SW, Sides slope steeply except in NE/E quadrant which is shallower, base flat
163	158				Drystone wall	Stone ring-shaped structure on top fill of ditch of [158], 0.20h x 5.95dia x ca.0.6 across, stones mostly ang
164	206	1.06	0.75	0.56	Boulder burial	Large boulder +numerous smaller stones apparently randomly dumped into pit [206]
165	NA				Charcoal spread	Very dark brown silty clay, Very freq ch, mod pebbles + occ med sub-ang stone
166	NA	1.05	0.73	0.55	Pit	Sub oval in plan, N-S in orientation, sides irreg, base concave
167						Non Archaeological
168						Non Archaeological
169	NA	0.89	0.34	0.22	Burial pit	Sub-oval in plan, E-W in orientation, sides steeply sloping, base irreg + concave
170	NA	0.70	0.40	0.18	Posthole	Oval in plan, N-S in orientation, sides near vert, except N, which is stepped, base concave
171	170				Fill same as 173+175	Med-dark brown, loose silty clay, occ ch fl, sub-round pebbles
172	NA		0.10	0.08	Posthole	Circular in plan, sides smooth+ taper to concave base, quite shallow, t'd
173	172				Fill same as 171+175	Med-dark brown, loose silty clay, v occ ch fl, occ sub-round pebbles
174	NA		0.24	0.08	Posthole	Circular in plan, sides taper to rounded point
175	174				Fill same as 171 + 173	Med-dark brown, loose silty clay, occ sm sub-ang + sub-round pebbles
176	166				Fill	Med brown, v loose fill, freq ch fl, several lge sub-ang stones
177	179				Burnt post	Dark brown, soft loose ch-rich silty sand
178	180				Packing fill	Light-med yellow brown, hard plastic silty sand, occ ch frags, intrusions from upper fill [189], freq sm pebbles
179	NA		0.90	0.78	Posthole	Sub-circular in plan, sides steep + slightly concave, base concave
180	NA		1.00	0.52	Stone-filled pit	Circular in plan, sides steep, base concave
181						Non Archaeological
182						Non Archaeological
183	NA		0.38	0.12	Small pit	Sub-circular in plan, sides slope gradually, base concave
184	NA	0.72	0.56	0.34	Pit- part of a structure	Sub-circular in plan, E-W in orientation, sides mod sloping, base concave

185	183				Pit fill	Grey sandy silt, freq ch fl, occ sm pebbles
186	184				Pit fill	Dark brown, mod compact silty sand, mod ch, freq stones
187	NA				Stone alignment	Alignment of slablike upstanding light grey sedimentary stones, separated into two groups 2.80 apart from each other, E group made up of 5 stones running 1.23m E-W with a slight bend to the SW. W group made up of 15 stones running E-W for 4.92m
188	194				Burnt post	Black, ch-rich silt, rare sm stones
189	180				Ash dump	Light-med grey, hard sandy silt, sandy silt, freq ch fl + frags, freq sm pebbles
190						Non Archaeological
191						Non Archaeological
192	394				Natural silting	Med-light brown mod compact sandy silt, v occ ch fl, mod sm-med sub-round + sub-ang stones + pebbles
193	NA				Spread	DISTURBED BY BURROWING Med-dark, slightly gritty silty clay, freq ch fl + sm frags, freq tiny gravel + mod sm pebbles
194	NA		0.25	0.20	Posthole	Circular in plan, 0.20d x 0.25 dia, U-shaped profile, truncated
195	199				Deliberate backfill same as 149	Light yellow, silty fill
196	158				Slippage from centre	Med-light brown, compact sandy silt, occ med sub-round+sub-ang stones
197	394				Natural silting	Light-med brown, very compact sandy silt, occ sub-ang + sub-round stones
198	222				Spread	Dark brown, loose sandy clay, v occ ch fl, occ burnt bone fl, freq pebbles+sm sub-ang stones, mod freq l sub-ang stones+ mod decayed granite
199	NA	0.40	0.30	0.10	Shallow pit	Rect in plan, N-S in orientation, sides vertical, except S which is smoothly sloped, base flat
200	222				Deposit	Med brown, loose sandy silt, ch, sm stones
201	NA				Burial	Dark brown sandy silt, semicircular concentration of burnt bone beside + under group of large stones
202						Non Archaeological
203						Non Archaeological
204	206				Natural silting	Light to med brown yellow, mod loose clayey silt, occ sm pebbles + sm ang stones
205	179				Burnt post	Med brown, soft loose ch-rich sand
206	NA	1.42	1.24	0.55	Large pit	Sub-rect in plan, NW-SE in orientation, sides steeply sloped, corners rounded, base flat generally
207	NA		0.57		Small burial pit	Circular in plan, 0.57dia, sides shallow + gradually sloped
208	207				Burial	Med dark grey brown sandy silt, rare ch fl, freq burnt bone frags, freq sm pebbles toward centre
209	179				Posthole fill	Med red brown, loose sandy silt, mod ch

210	158	0.40	0.25	0.02	Lens	Lens between [192]+[197], Med brown, mod compact silty clay, occ ch fl, occ sm pebbles
211	222	2.13	1.74	0.47	Stone structure	9 large stones + several smaller sub-ang ones forming a sub-rect feature oriented NE-SW, 5 large stones at E end, 4 at W end, in the NE are 5 flat standing stones running E-WSW
212	213				Fill	Dark brown, loose clay, ch, rare sm stones
213	NA	0.62	0.54	0.08	Posthole	Sub-circular, almost triangular in plan, N-S in orientation, Slope gentle in W, more steep in E, base flat generally
214	NA				Spread	Mod. Loose brownish yellow silty clay with grey and bluish grey marl inclusions
215	NA				Spread	Orange brown silty sand, v rare stones
216	206				Slumped in fill	Med to light mottled pinkish brown, mod loose silty clay, occ ch fl + frags, occ sm-med ang stones + pebbles
217	211				Deposit	Dark grey brown, loose gravelly sandy silt, v freq small stone chippings, concentrated mostly in NE of [211]
218						Non Archaeological
219						Non Archaeological
220	221				Stoney fill of small pit	Med orange brown, mod loose silt, occ ch fl, Freq gravelly pebbles, mod sm ang stones concentrated towards centre of the Context
221	NA	0.68	0.53	0.17	Small pit	Oval in plan, E-W in orientation, sides mod sloped, base slightly concave+ slopes slightly downwards towards N
222	NA	2.45	2	0.90	Burial pit	Sub-oval in plan w/ lump projecting from base flat, quadrant, NE-SW in orientation, break of slope forming a ledge along all sides, though most noticeable in N, sides mod steep
223	158				Slumped topsoil	Med-dark brown mod loose gritty clay, v freq sub-round stones + pebbles
224	158				Redeposited natural	Med-lt brown v compact sandy gritty clay, freq sm sub-ang + sub-rnd stones + pebbles
225	Same as 373					Same as 373
226	222				Fill	Dark brown/orange sandy silt
227						Non Archaeological
228	363				Stones	Large granite boulder+3 large ang stones+various other ang stones of mixed sizes
229	222				Slumping	Med yellow brown mod loose silty clay, sm pockets of ch concentrated to the NW corner, mod sub-ang pebbles+ occ gravel
230	222				Fill	Grey brown loose sandy silt, rare ch, sm stones/pebbles
231	NA				Spread	Dark grey brown silty clay, freq ch fl, very freq pebbles+sm ang stones
232	NA				Burnt spread	Dark brown, loose ch-rich silt, occ pebbles
233	222				Packing around pot	Lt brown sandy silt, mod sub-ang pebbles+rare med stones
234	222				Slumped fill	Mottled brown sandy silt, occ ch, rare sm sub-ang stone

235	222				Redeposited natural	Med-dk yellow brown, mod loose clayey silt, pockets of ch, mod gravel+freq sm ang pebbles, occ l stone slabs on floor
236	Same as 229					Same as 229
237	363				Natural silting	Light-med yellowish brown, slightly sandy clayey silt, occ ch fl+v occ burnt clay, mod sm ang pebbles+sm platy+sub-ang stones
238	363				Decayed vegetation	Purple brown grey, mod loose humic clay mod ch fl+frags, v occ gritty sand- decayed granite
239					Spread	Med brown grey, mod loose silty clay, freq ch fl + sm frags, mod sm ang+ sub-ang stones
240	NA				Sealing layer	Med grey brown, mod loose clay, v freq ch fl, mod sm ang + sub-ang pebbles
241	NA				Spread	Med brown grey, mod loose silty clay, freq ch fl + sm frags, mod sm ang+ sub-ang stones. V. similar to (239)
242	388				Stone slippage	Stone spread in upper fills of ditch
243						Non Archaeological
244						Non Archaeological
245	246				Land clearance debris	Med yellow brown, loose sandy silt, mod large ang-sub-round stones
246	NA	0.71	0.54	0.28	Pit	Sub-circular in plan, E-w in orientation. Sides concave in NE, otherwise vertical, base flat
247	248				<i>In situ</i> burnt post	Med dark brown mod loose silt, freq ch fl, occ pebbles
248	NA	0.56	0.45	0.45	Posthole	Cut by 261+ animal burrows, of what's left, sub-circular in plan, NW-SE in orientation, sides vert in E+W, undercut in N, base sloping at N+S
249						Non Archaeological
250						Non Archaeological
251	252				Fill	Mid brown orange, silt, freq pebbles, occ sub-ang stones
252	NA	0.57	0.36	0.25	Posthole	Oval in plan, N-S in orientation, edges slightly sloping, base uneven
253	254				Fill	Dark brown, hard plastic silty sand, freq ch frags, freq small pebbles
254	NA		0.86	0.50	Posthole	Circular in plan, U-shaped in profile
255	254				Fill	Mid brown, hard plastic silty sand, freq ch frags, freq small pebbles
256	261				Fill of furrow	Med brown mod compact silt, ch fl, occ pebbles
257	NA		0.45	0.16	Burial pit	Circular in plan, sides slightly concave, base flat, pit was only just large enough for funerary pot placed in it
258	321				<i>In situ</i> burnt post	Patchy dark grey/med brown, tightly compacted silty clay, freq ch frags, mos small sub-ang pebbles. Disturbed by burrowing.
259	260				Redeposited natural	Med light yellow brown silt, occ ch fl+smears, freq large pebbles
260	NA		0.63	0.40	Pit	Circular in plan, sides near vert, base flat generally
261	NA		0.35	0.15	Furrow	Disturbed by burrowing +truncated by 248, NW-SE in orientation, W side(only one intact) gently sloped, base uneven

262	261				Fill of furrow	Med brown yellow mod compact sand, freq small stones
263	248				Fill of posthole	Disturbed by burrowing. Mid brown grey orange, loose sandy silt, freq pebbles
264	248				Posthole fill	Med brown orange, mod compact sandy silt, freq pebbles+ occ sm sub-ang stones
265						Non Archaeological
266	Not used					Number not used
267						Non Archaeological
268						Non Archaeological
269						Non Archaeological
270	NA				Spread	Dense charcoal fill
271	346				Fill	Brown silt w/ patches of ch+burnt clay, occ pebbles+small stones
272	NA				Spread	Mid to dark yellow/brown silty clay with occ. charcoal flecking
273						Non Archaeological
274						Non Archaeological
275	NA		0.05	0.10	Stakehole	Circular in plan, U-shaped in profile
276	275				In situ burnt stake	Med brown orange, loose gritty sand, ch fl, occ pebbles
277	NA	0.22	0.20	0.14	Posthole	S edge disturbed by root action. Sub-circular in plan, E-W in orientation, sides slightly sloped, base flat
278						Non Archaeological
279						Non Archaeological
280	289				Post pipe fill	Med grey brown loose clayey silt, mottled w/ fl of yellow (decayed stone), red (burnt clay) + black (ch) freq ch fl +mod frags, occ s sub-ang pebbles+sm-med ang stones, concentrated around edges
281						Same as 282
282	294				Fill	Dark brown sandy silt, rich in charcoal
283					Furrow fill	Med grey brown, med silt, freq pebbles
284					Furrow fill	Med brown orange, firm sandy silt freq pebbles
285	301				Stakehole fill	Med brown , loose silt
286	277					Med orange brown, firm sandy silt, freq pebbles
287						Non Archaeological
288	289				Post packing	Med yellow brown, mod loose clayey silt, occ ch fl + frags, mod to freq pebbles + sm stones, sm-med stones around edges of posthole
289	NA	0.42	0.34	0.20	Posthole	Subsquare in plan, NW-SE in orientation, corners rounded, sides mod steeply sloped + slightly convex in NW +SE, straight + more gradual in W, Base flat
290	291				Fill	Charcoal rich fill

291	NA	0.28	0.28	0.25	Pit, fire pit	Disturbed at W side, Sub-circular in plan, sides concave, base flat+ slopes to the E
292	293				Deliberate fill	Dark grey brown clayey silt, freq ch frags, freq med sub-round + sub-ang stones, mod pebbles
293	NA	0.36	0.29	0.27	Posthole	Disturbed at N+SW Oval in plan, N-S in orientation, sides+ base concave
294	NA	0.50	0.18	0.06	Cut	Shallow pit
295						Non Archaeological
296						Non Archaeological
297	NA		0.12	0.18	Stakehole	Circular in plan, U-shaped in profile
298	297				<i>in situ</i> burnt stake	Med orange red brown, mod compact clayey silt, occ ch fl, mod pebbles
299	NA		0.10	0.12	Stakehole	Circular in plan, U-shaped profile
300	299				Natural silting	Mid brown grey, mod loose silt, ch fl, mod pebbles
301	NA	0.08	0.07	0.05	Stakehole	Shallow, subcircular in plan, N-S in orientation, cuts through [299]
302	NA		0.24	0.25	Stakehole	Circular in plan, U-shaped in profile
303						Non Archaeological
304	302				Fill	Med brown red grey, loose sandy silt, ch fl
305	302				Fill	Med brown orange, mod compact clayey silt, freq pebbles
306	NA				Spread	Med pink yellow, mod compact gritty silt, occ ch fl+sm frags+ burnt clay+ash, occ sm-med ang+sub-ang stones, mod platy+sub-ang pebbles
307	327				<i>In situ</i> burning	Med brown, loose sandy clay, very freq ch fl + frags, occ sm to med ang + sub-ang stones
308	310				Posthole	Med brown, mod loose sandy clay, occ ch fl, occ sm ang + sub-ang stones
309						Non Archaeological
310	NA	1.50	0.20	0.05	Collapsed post socket	Shallow, linear in plan, E-W in orientation, sides uneven+stone at E end, base undulating
311	312				Fill	Mid brown sandy silt with frequent charcoal flecks
312	NA	0.58	0.50	0.12	Cut	Shallow pit
313	314				Redeposited natural	Light yellow brown, mod loose silty sand, rare ch fl, occ sm ang stones
314	NA		0.20	0.40	Posthole	Circular in plan, sides smooth, axis of inclination towards the W, base blunt
315						Non Archaeological
316						Non Archaeological
317	NA		0.24	0.10	Cut of stakehole	Circular in plan, sides steep+slightly irreg, base concave
318	317				Fill	Dark grey brown, mod compact ch-rich sand, rare stones
319	NA				Charcoal-rich spread	Med grey brown, mod loose silty clay freq ch fl+ mod frags, occ burnt clay fl, mod sm sub-ang pebbles
320	337				Decayed plant material	Dark red brown, mod loose organic/humic clay, mod ch fl + occ frags, occ-

						mod tiny white flecks- decayed stone, occ pebbles Similar to [342] , but unburnt
321	NA	1.40	0.78	0.43	Posthole or pit	Disturbed by burrowing, sub-oval in plan, N-S in orientation N+S sides gradually sloped, E side undercut, W side vert, concave base
322	321					Med brown, loose sandy silt, freq ch, freq sm sub-ang stones
323	324				Natural silting	Light brown, mod compact sandy silt, rare ch fl, freq small sub-ang pebbles
324	337				Redeposited natural	Med yellow brown, mod loose slightly stoney silt, occ ch fl+frags, freq sm ang + sub-ang stones, evidence of in situ burning, similar to [344] in composition
325	14				Fill	Mid –dark brown silty clay
326	327				Redeposited natural	Light yellow brown, compact sandy silt, rare ch fl, occ sm ang stones
327	NA	0.37	0.32	0.16	Truncated posthole	Oval in plan, sides even, base blunt tapered point
328						Non Archaeological
329						Non Archaeological
330	15				Fill	Mid –dark brown silty clay
331	16				Fill	Mid –dark brown silty clay
332						Non Archaeological
333	257				Funeral pot packing	Med-Dk brown v soft sandy silt, rare sm sub-round+sub-ang stones, some lge stones at base of pot
334	44				Fill	Mid –dark brown silty clay
335						Non Archaeological
336						Non-Archaeological
337	NA	2.50	0.72	0.58	Cut assoc with fire	Linear in plan, E-W in orientation, curves slightly to NW at W end, sides steeply sloped, base flat, disturbed by burrowing
338	339				<i>in situ</i> burnt post	Very dark brown black, mod loose fill, very freq ch, freq decayed+ burnt stones
339	NA	0.36	0.35	0.17	Posthole	Oval in plan, E-W in orientation, sides irreg, axis of orientation to the S, base pointed
340						Non Archaeological
341						Non Archaeological
342	337				Lens of in situ burning	Med -dark red brown mod loose silty clay, freq ch fl+frags, ash fl, occ sm ang stones concentrated around stake remains, Same as [320] except this c has been intensely burnt
343	337				Ash from in situ burning	Bright red orange, loose fine silt, surrounds burnt stake
344	337				Lens of in situ burning	Mid-dark red brown, mod compact clayey silt, freq ch fl, freq sm stones, same as [324] except this c has been affected by heat from stake burning
345	43				Burnt natural	Bright orange burnt clay
346	NA	0.80	0.60	0.37	Posthole	Disturbed by burrowing. Oval in plan, E-W in orientation, sides vert

347	348				Fill	Reddish brown silt, no inclusions
348	NA		0.10	0.30	Posthole	Circular in plan, U-shaped in profile
349	350				Natural silting	Brown silt, occ ch-mostly at top, occ sm stones
350	NA	0.35	0.25	0.20	Posthole	Disturbed by burrowing. Oval in plan, E-W in orientation,
351	NA	0.20	0.20	0.15	Stakehole	Sub-oval in plan, sides vert, base concave
352	359				Fill	Disturbed by burrowing. Dark brown, ch
353	362					Disturbed by burrowing. Brown, silt, freq ch, rare sm stones
354						Non Archaeological
355	337				Natural silting disturbed by burrowing	Mod loose slightly gritty clay, mod sm pebbles+stones, Disturbed by burrowing
356	337				Natural silting	Med pink brown, mod silty clay, v occ ch fl, occ sm pebbles+sm ang+subang stones
357	43				<i>In situ</i> burnt stake	Brown black, friable fill, surrounded by bright orange burnt clay, mod ch,
358	Same as 43					Same as 43
359	NA		0.22	0.13	Post/stakehole	Circular in plan, U-shaped in profile
360	NA	0.20	0.13	0.20	Posthole	Oval in plan, E-W in orientation, remaining sides smooth+straight, base concave
361	360				<i>In situ</i> burnt, decayed post	Brown black, friable silty sand, occ ch
362	353		0.17	0.18	post/stakehole	Circular in plan, U-shaped in profile
363	NA	1.75	1.30	0.80	Pit	CUT BY 337 IN S Sub-oval in plan, N-S in orientation, N end widest, sides steeply sloped, base convex
364	363				Redeposited natural/ slippage	Light-med yellow brown, loose slightly stoney clay,v occ ch fl, freq sm rounded pebbles
365	363				Redeposited natural/ slippage	Light-med pink yellow slightly stoney clayey silt, sm sub-ang pebbles+gravel. Disturbed by burrowing
366	363				Basal fill	Light-med grey yellow brown, mod loose silty clay, v occ ch fl, occ sm gravelly pebbles+ sm ang+sub-ang stones
367	NA	0.40	0.30	0.10	Pit	Oval in plan, NW-SE in orientation, sides shallow +gradually sloped, base concave
368	No. not used					Number not used
369	157				Fill	Yellow, mod compact sand
370	157				Fill	Brown, loose gravelly fill
371	157				Slippage	Brown silt, occ ch, sm stones + occ pebbles
372	157				Natural silting	Yellow, loose sandy silt
373	157				Stone [375] packing	Med yellow brown mod loose silty clay, occ lines of ch, freq sm ang stones + occ sub-ang pebbles
374	157				Stones	Layer of stones in SE end of the base of [157]

375	157				Stones	Layer of stones within [373], at the NW end of the base of [157]
376	NA	3.80	1.40	0.77	Barrow	Ring-shaped in diameter, outer dia 6.00, inner dia, sides convex+ mod steep, base flat, generally
377	388				Natural silting	Lt-med grey yellow, loose clayey silt, rare sm pebbles + gravel
378	388				Natural silting	Med grey brown, mod loose clayey silt, occ sm ang + sub-ang pebbles
379	NA	0.60	0.30	0.50	Cremation pit	Oval in plan, E-W in orientation, U-shaped in profile
380	379				Cremation	Brown, loose silt, rare bones, occ sm stones
381						Non Archaeological
382	376				Bank slump	Med dark brown grey, loose clayey silt, occ sm ang / platey pebbles
383	376				Bank slump	Med yellow brown, loose clayey silt, mod sm ang pebbles + fine gravel
384	376				Slumped bank material	Lt grey yellow, mod loose silt v rare stones
385	376				bank slumping	Med yellow brown, mod loose silty clay, occ sm round pebbles + stones, mod gravel
386	388				Natural silting	Med dark grey brown, sandy clay, mod sm pebbles + occ gravel,
387	376				Bank slump	Med-dark yellow grey brown, mod loose silty clay, occ sm ang stones
388	NA					Ring-shaped in plan, sides mod sloping + concave, base very concave, small drystone structure w/in
389	NA	0.37	0.31	0.38	Burial pit	Roughly circular l in plan, sides near vert. base flat generally
390	0389				Fill	Brown fill of pit with burnt bone
391	389				Packing around urn	Brown backfill from [389]
392	115, 96				Redeposited natural	Redeposited natural, occ burnt bone, occ sm pebbles
393	NA	3.50	3.30	0.15	Burial mound foundation	Irreg in plan, E-W in orientation, sides shallow + gently sloped, base flat
394	NA				Re-cut of [158]	Ring-shaped in plan, to roughly follow the original feature, sides + base are irreg

APPENDIX 1.2: FINDS REGISTER

Registration Number	Context	Item No.	Simple Name	Full Name	Material	No. of Parts	Description
03E0873:1:1	1	1		Abraded lump	Flint		Abraded lump
03E0873:1:2	1	2		Post medieval pottery	Ceramic		North Devon gravel free ware
03E0873:1:3	1	3			Flint		
03E0873:1:4	1	4		Not used			
03E0873:1:5	1	5		Abraded lump	Flint		Abraded lump
03E0873:1:6	1	6	Nail	Large nail	Iron		
03E0873:3:1	3	1		Cordoned urn fragment	Ceramic		
03E0873:3:2	3	2		Cordoned urn fragment	Ceramic		
03E0873:3:3	3	3		Pottery crumbs	Ceramic		
03E0873:3:4	3	4		Pottery crumbs	Ceramic		
03E0873:3:5	3	5		Pottery crumbs	Ceramic		
03E0873:3:6	3	6		Pottery crumbs	Ceramic		
03E0873:3:7	3	7		Pottery crumbs	Ceramic		
03E0873:3:8	3	8		Pottery crumbs	Ceramic		
03E0873:3:9	3	9		Pottery crumbs	Ceramic		
03E0873:4:1	4	1	Flake	Platform complete	Flint		
03E0873:4:2	4	2	Flake	Bipolar complete	Flint		
03E0873:4:3	4	3	Rove	Cylindrical object	Copper alloy		
03E0873:4:4	4	4	Bone and CU	Fragment of CU and bone	Bone and CU		
03E0873:4:5	4	5			Flint		
03E0873:4:6	4	6		Cordoned urn fragment	Ceramic		
03E0873:4:7	4	7		Cordoned urn fragment	Ceramic		
03E0873:4:8	4	8		Cordoned urn fragment	Ceramic		
03E0873:4:9	4	9		Cordoned urn fragment	Ceramic		
03E0873:4:10	4	10		Cordoned urn fragment	Ceramic		
03E0873:4:11	4	11		Cordoned urn fragment	Ceramic		
03E0873:4:12	4	12		Cordoned urn fragment	Ceramic		
03E0873:4:13	4	13		Cordoned urn fragment	Ceramic		
03E0873:4:14	4	14		Cordoned urn fragment	Ceramic		
03E0873:4:15	4	15		Cordoned urn fragment	Ceramic		
03E0873:4:16	4	16		Cordoned urn fragment	Ceramic		
03E0873:4:17	4	17		Cordoned urn fragment	Ceramic		

03E0873:4:18	4	18		Cordoned urn fragment	Ceramic		
03E0873:4:19	4	19		Cordoned urn fragment	Ceramic		
03E0873:4:20	4	20		Cordoned urn fragment	Ceramic		
03E0873:4:21	4	21		Cordoned urn fragment	Ceramic		
03E0873:4:22	4	22		Cordoned urn fragment	Ceramic		
03E0873:4:23	4	23		Cordoned urn fragment	Ceramic		
03E0873:4:24	4	24		Cordoned urn fragment	Ceramic		
03E0873:4:25	4	25		Cordoned urn fragment	Ceramic		
03E0873:4:26	4	26		Cordoned urn fragment	Ceramic		
03E0873:4:27	4	27		Cordoned urn fragment	Ceramic		
03E0873:4:28	4	28		Cordoned urn fragment	Ceramic		
03E0873:4:29	4	29		Cordoned urn fragment	Ceramic		
03E0873:5:1	5	1		Tripartite bowl	Ceramic		
03E0873:5:2	5	2		Tripartite bowl	Ceramic		
03E0873:5:3	5	3		Pottery crumbs	Ceramic		
03E0873:5:4	5	4		Pottery crumbs	Ceramic		
03E0873:10:1	10	1		Same as 03E0873:45:1			
03E0873:11:1	11	1		Base of cordoned urn	Ceramic		
03E0873:25:1	25	1	Flake		Flint		Platform complete
03E0873:25:2	25	2		Intact ribbed bowl	Ceramic		
03E0873:31:1	31	1		Mid neo broad rimmed bowl	Ceramic		
03E0873:31:2	31	2		Mid neo broad rimmed bowl	Ceramic		
03E0873:31:3	31	3		Mid neo broad rimmed bowl	Ceramic		
03E0873:31:4	31	4		Mid neo broad rimmed bowl	Ceramic		
03E0873:31:5	31	5		Mid neo broad rimmed bowl	Ceramic		
03E0873:31:6	31	6		Mid neo broad rimmed bowl	Ceramic		
03E0873:31:7	31	7		Mid neo broad rimmed bowl	Ceramic		
03E0873:31:8	31	8		Mid neo broad rimmed bowl	Ceramic		
03E0873:31:9	31	9		Mid neo broad rimmed bowl	Ceramic		
03E0873:31:10	31	10		Mid neo broad rimmed bowl	Ceramic		
03E0873:31:11	31	11		Mid neo broad rimmed bowl	Ceramic		
03E0873:31:12	31	12		Mid neo broad rimmed bowl	Ceramic		
03E0873:31:13	31	13		Mid neo broad rimmed bowl	Ceramic		
03E0873:31:14	31	14		Mid neo broad rimmed bowl	Ceramic		
03E0873:31:15	31	15		Mid neo broad rimmed bowl	Ceramic		
03E0873:31:16	31	16		Mid neo broad rimmed bowl	Ceramic		

03E0873:31:17	31	17		Mid neo broad rimmed bowl	Ceramic	3	
03E0873:31:18	31	18		Pottery fragment	Ceramic		
03E0873:31:19	31	19		Pottery fragment	Ceramic		
03E0873:31:20	31	20		Pottery fragment	Ceramic		
03E0873:31:21	31	21	Modified		Flint		Edge retouched
03E0873:31:22	31	22		Mid neo broad rimmed bowl			
03E0873:31:23	31	23	Flake	Flint flake	Flint		Bipolar shatter proximal
03E0873:31:24	31	24	Flake	Flint flake	Flint		Bipolar complete
03E0873:31:25	31	25		Not used			
03E0873:31:26	31	26	Flake	Flint flake	Flint		Platform complete blade
03E0873:31:27	31	27	Flake	Flint flake	Flint		Platform complete
03E0873:31:28	31	28	Flake	Flint flake	Flint		Bipolar complete
03E0873:31:29	31	29	Flake	Flint flake	Flint		Platform complete
03E0873:45:1	45	1	Capstone	Burial capstone	Granite		Burial capstone with axe shaped motif
03E0873:67:1	67	1		Fragment of tripartite bowl	Ceramic		
03E0873:67:2	67	2		Fragment of tripartite bowl	Ceramic		
03E0873:67:3	67	3		Fragment of tripartite bowl	Ceramic		
03E0873:67:4	67	4		Fragment of tripartite bowl	Ceramic		
03E0873:67:5	67	5		Fragment of tripartite bowl	Ceramic		
03E0873:67:6	67	6		Fragment of tripartite bowl	Ceramic		
03E0873:67:7	67	7		Fragment of tripartite bowl	Ceramic		
03E0873:67:8	67	8		Fragment of tripartite bowl	Ceramic		
03E0873:67:9	67	9		Fragment of tripartite bowl	Ceramic		
03E0873:67:10	67	10		Fragment of tripartite bowl	Ceramic		
03E0873:67:11	67	11		Fragment of tripartite bowl	Ceramic		
03E0873:67:12	67	12		Fragment of tripartite bowl	Ceramic		
03E0873:67:13	67	13		Fragment of tripartite bowl	Ceramic		
03E0873:67:14	67	14		Fragment of tripartite bowl	Ceramic		
03E0873:67:15	67	15		Fragment of tripartite bowl	Ceramic		
03E0873:67:16	67	16		Fragment of tripartite bowl	Ceramic		
03E0873:67:17	67	17		Fragment of tripartite bowl	Ceramic		
03E0873:67:18	67	18		Fragment of tripartite bowl	Ceramic		
03E0873:67:19	67	19		Fragment of tripartite bowl	Ceramic		
03E0873:67:20	67	20		Fragment of tripartite bowl	Ceramic		
03E0873:67:21	67	21		Fragment of tripartite bowl	Ceramic		
03E0873:67:22	67	22		Fragment of tripartite bowl	Ceramic		

03E0873:67:23	67	23		Fragment of tripartite bowl	Ceramic		
03E0873:67:24	67	24		Fragment of tripartite bowl	Ceramic		
03E0873:67:25	67	25		Pottery crumbs	Ceramic		
03E0873:67:26	67	26		Pottery crumbs	Ceramic		
03E0873:67:27	67	27		Pottery crumbs	Ceramic		
03E0873:67:28	67	28		Pottery crumbs	Ceramic		
03E0873:67:29	67	29		Pottery crumbs	Ceramic		
03E0873:67:30	67	30		Pottery crumbs	Ceramic		
03E0873:67:31	67	31		Pottery crumbs	Ceramic		
03E0873:67:32	67	32		Pottery crumbs	Ceramic		
03E0873:67:33	67	33		Pottery crumbs	Ceramic		
03E0873:67:34	67	34		Pottery crumbs	Ceramic		
03E0873:67:35	67	35		Pottery crumbs	Ceramic		
03E0873:67:36	67	36		Pottery crumbs	Ceramic		
03E0873:67:37	67	37		Pottery crumbs	Ceramic		
03E0873:67:38	67	38		Pottery crumbs	Ceramic		
03E0873:67:39	67	39		Pottery crumbs	Ceramic		
03E0873:67:40	67	40		Pottery crumbs	Ceramic		
03E0873:67:41	67	41		Pottery crumbs	Ceramic		
03E0873:67:42	67	42		Pottery crumbs	Ceramic		
03E0873:67:43	67	43		Pottery crumbs	Ceramic		
03E0873:67:44	67	44		Pottery crumbs	Ceramic		
03E0873:67:45	67	45		Pottery crumbs	Ceramic		
03E0873:67:46	67	46		Pottery crumbs	Ceramic		
03E0873:67:47	67	47		Pottery crumbs	Ceramic		
03E0873:67:48	67	48		Pottery crumbs	Ceramic		
03E0873:67:49	67	49		Pottery crumbs	Ceramic		
03E0873:67:50	67	50		Pottery crumbs	Ceramic		
03E0873:67:51	67	51		Pottery crumbs	Ceramic		
03E0873:67:52	67	52		Pottery crumbs	Ceramic		
03E0873:67:53	67	53		Pottery crumbs	Ceramic		
03E0873:67:54	67	54		Pottery crumbs	Ceramic		
03E0873:67:55	67	55		Pottery crumbs	Ceramic		
03E0873:67:56	67	56		Pottery crumbs	Ceramic		
03E0873:67:57	67	57		Pottery crumbs	Ceramic		
03E0873:67:58	67	58		Pottery crumbs	Ceramic		

03E0873:67:59	67	59		Pottery crumbs	Ceramic		
03E0873:67:60	67	60		Pottery crumbs	Ceramic		
03E0873:67:61	67	61		Pottery crumbs	Ceramic		
03E0873:67:62	67	62		Pottery crumbs	Ceramic		
03E0873:67:63	67	63		Pottery crumbs	Ceramic		
03E0873:67:64	67	64		Pottery crumbs	Ceramic		
03E0873:67:65	67	65		Pottery crumbs	Ceramic		
03E0873:67:66	67	66		Pottery crumbs	Ceramic		
03E0873:67:67	67	67		Pottery crumbs	Ceramic		
03E0873:67:68	67	68		Pottery crumbs	Ceramic		
03E0873:69:1	69	1	Shield boss	Bronze shield boss	Bronze		
03E0873:69:2	69	2	Stick pin	Copper alloy stick pin	Copper alloy		Copper alloy
03E0873:82:1	82	1		Lugged bipartite bowl	Ceramic		
03E0873:87:1	87	1	Shank of pin	Shank of pin	Copper alloy		
03E0873:87:2	87	2	CU and bone	Copper alloy and bone	Copper alloy		
03E0873:88:1	88	1	Nail	Iron nail	Iron		
03E0873:93:1	93	1		Food vessel	Ceramic		
03E0873:93:2	93	2		Food vessel	Ceramic		
03E0873:93:3	93	3	Flake	Flint flake	Flint		Platform shatter
03E0873:95:1	95	1		Prehistoric pot sherd	Ceramic		
03E0873:95:2	95	2		Prehistoric pot sherd	Ceramic		
03E0873:95:3	95	3		Prehistoric pot sherd	Ceramic		
03E0873:95:4	95	4		Prehistoric pot sherd	Ceramic		
03E0873:95:5	95	5		Prehistoric pot sherd	Ceramic		
03E0873:95:6	95	6		Prehistoric pot sherd	Ceramic		
03E0873:95:7	95	7		Prehistoric pot sherd	Ceramic		
03E0873:95:8	95	8		Prehistoric pot sherd	Ceramic		
03E0873:95:9	95	9		Prehistoric pot sherd	Ceramic		
03E0873:95:10	95	10		Prehistoric pot sherd	Ceramic		
03E0873:95:11	95	11		Prehistoric pot sherd	Ceramic		
03E0873:95:12	95	12		Prehistoric pot sherd	Ceramic		
03E0873:95:13	95	13		Cordoned urn fragment	Ceramic		
03E0873:95:14	95	14		Prehistoric pot sherd	Ceramic		
03E0873:95:15	95	15		Prehistoric pot sherd	Ceramic		
03E0873:95:16	95	16		Prehistoric pot sherd	Ceramic		
03E0873:95:17	95	17		Cordoned urn fragment	Ceramic		

03E0873:95:18	95	18		Prehistoric pot sherd	Ceramic		
03E0873:95:19	95	19		Food vessel sherd	Ceramic		
03E0873:95:20	95	20		Prehistoric pot sherd	Ceramic		
03E0873:95:21	95	21		Prehistoric pot sherd	Ceramic		
03E0873:95:22	95	22		Prehistoric pot sherd	Ceramic		
03E0873:95:23	95	23		Prehistoric pot sherd	Ceramic		
03E0873:95:24	95	24		Prehistoric pot sherd	Ceramic		
03E0873:95:25	95	25		Prehistoric pot sherd	Ceramic		
03E0873:95:26	95	26		Cordoned urn fragment	Ceramic		
03E0873:95:27	95	27		Prehistoric pot sherd	Ceramic		
03E0873:95:28	95	28		Prehistoric pot sherd	Ceramic		
03E0873:95:29	95	29		Prehistoric pot sherd	Ceramic		
03E0873:95:30	95	30		Cordoned urn fragment	Ceramic		
03E0873:95:31	95	31		Prehistoric pot sherd	Ceramic		
03E0873:95:32	95	32		Prehistoric pot sherd	Ceramic		
03E0873:95:33	95	33		Prehistoric pot sherd	Ceramic		
03E0873:95:34	95	34		Prehistoric pot sherd	Ceramic		
03E0873:95:35	95	35		Prehistoric pot sherd	Ceramic		
03E0873:95:36	95	36		Prehistoric pot sherd	Ceramic		
03E0873:95:37	95	37		Prehistoric pot sherd	Ceramic		
03E0873:95:38	95	38		Cordoned urn fragment	Ceramic		
03E0873:95:39	95	39		Cordoned urn fragment	Ceramic		
03E0873:95:40	95	40		Cordoned urn fragment	Ceramic		
03E0873:95:41	95	41		Cordoned urn fragment	Ceramic		
03E0873:95:42	95	42		Cordoned urn fragment	Ceramic		
03E0873:95:43	95	43		Cordoned urn fragment	Ceramic		
03E0873:95:44	95	44		Cordoned urn fragment	Ceramic		
03E0873:95:45	95	45		Prehistoric pot sherd	Ceramic		
03E0873:95:46	95	46		Prehistoric pot sherd	Ceramic		
03E0873:95:47	95	47		Prehistoric pot sherd	Ceramic		
03E0873:95:48	95	48		Prehistoric pot sherd	Ceramic		
03E0873:95:49	95	49		Prehistoric pot sherd	Ceramic		
03E0873:95:50	95	50		Cordoned urn fragment	Ceramic		
03E0873:95:51	95	51		Cordoned urn fragment	Ceramic		
03E0873:95:52	95	52		Cordoned urn fragment	Ceramic		
03E0873:95:53	95	53		Cordoned urn fragment	Ceramic		

03E0873:95:54	95	54		Cordoned urn fragment	Ceramic		
03E0873:95:55	95	55		Cordoned urn fragment	Ceramic		
03E0873:95:56	95	56		Cordoned urn fragment	Ceramic		
03E0873:95:57	95	57		Cordoned urn fragment	Ceramic		
03E0873:95:58	95	58		Cordoned urn fragment	Ceramic		
03E0873:95:59	95	59		Cordoned urn fragment	Ceramic		
03E0873:95:60	95	60		Cordoned urn fragment	Ceramic		
03E0873:95:61	95	61		Cordoned urn fragment	Ceramic		
03E0873:95:62	95	62		Cordoned urn fragment	Ceramic		
03E0873:95:63	95	63		Cordoned urn fragment	Ceramic		
03E0873:95:64	95	64		Cordoned urn fragment	Ceramic		
03E0873:95:65	95	65		Prehistoric pot sherd	Ceramic		
03E0873:95:66	95	66		Prehistoric pot sherd	Ceramic		
03E0873:95:67	95	67		Prehistoric pot sherd	Ceramic		
03E0873:95:68	95	68		Prehistoric pot sherd	Ceramic		
03E0873:95:69	95	69		Prehistoric pot sherd	Ceramic		
03E0873:95:70	95	70		Prehistoric pot sherd	Ceramic		
03E0873:95:71	95	71		Prehistoric pot sherd	Ceramic		
03E0873:95:72	95	72		Prehistoric pot sherd	Ceramic		
03E0873:95:73	95	73		Prehistoric pot sherd	Ceramic		
03E0873:95:74	95	74		Prehistoric pot sherd	Ceramic		
03E0873:95:75	95	75		Prehistoric pot sherd	Ceramic		
03E0873:95:76	95	76		Prehistoric pot sherd	Ceramic		
03E0873:95:77	95	77		Prehistoric pot sherd	Ceramic		
03E0873:95:78	95	78		Prehistoric pot sherd	Ceramic		
03E0873:95:79	95	79		Prehistoric pot sherd	Ceramic		
03E0873:95:80	95	80		Prehistoric pot sherd	Ceramic		
03E0873:95:81	95	81		Prehistoric pot sherd	Ceramic		
03E0873:95:82	95	82		Prehistoric pot sherd	Ceramic		
03E0873:95:83	95	83		Prehistoric pot sherd	Ceramic		
03E0873:95:84	95	84		Prehistoric pot sherd	Ceramic		
03E0873:95:85	95	85		Prehistoric pot sherd	Ceramic		
03E0873:95:86	95	86		Prehistoric pot sherd	Ceramic		
03E0873:95:87	95	87		Prehistoric pot sherd	Ceramic		
03E0873:95:88	95	88		Prehistoric pot sherd	Ceramic		
03E0873:95:89	95	89		Prehistoric pot sherd	Ceramic		

03E0873:95:90	95	90		Prehistoric pot sherd	Ceramic		
03E0873:103:1	103	1		Cup marked stone	Sandstone		Cup marked stone
03E0873:103:2	103	2		Polishing stone	Sandstone		
03E0873:108:1	108	1	Flake	Flint flake	Flint		Bipolar complete flake
03E0873:111:1	111	1		Pottery fragment	Ceramic		
03E0873:111:2	111	2		Pottery fragment	Ceramic		
03E0873:111:3	111	3		Pottery fragment	Ceramic		
03E0873:111:4	111	4		Pottery fragment	Ceramic		
03E0873:111:5	111	5		Pottery fragment	Ceramic		
03E0873:111:6	111	6		Pottery fragment	Ceramic		
03E0873:111:7	111	7		Pottery fragment	Ceramic		
03E0873:111:8	111	8		Pottery fragment	Ceramic		
03E0873:111:9	111	9		Pottery fragment	Ceramic		
03E0873:111:10	111	10		Pottery fragment	Ceramic		
03E0873:111:11	111	11		Pottery fragment	Ceramic		
03E0873:111:12	111	12		Pottery fragment	Ceramic		
03E0873:111:13	111	13		Pottery fragment	Ceramic		
03E0873:111:14	111	14		Pottery fragment	Ceramic		
03E0873:111:15	111	15		Pottery fragment	Ceramic		
03E0873:111:16	111	16		Pottery fragment	Ceramic		
03E0873:111:17	111	17		Pottery fragment	Ceramic		
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03E0873:124:11	124	11	Modified		Flint		Scraper
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03E0873:211:1	211	1	Boulder	Natural boulder with hollow	Granite		
03E0873:211:2	211	2	Slab		Sandstone		
03E0873:230:1	230	1	Flake		Flint		Platform shatter distal
03E0873:230:2	230	2	Angular shatter		Flint		Burnt shatter
03E0873:233:1	233	1		Intact decorated bowl	Ceramic		
03E0873:258:1	258	1	Modified		Flint		Edge retouch
03E0873:272:1	272	1	Flake		Flint		Bipolar complete
03E0873:320:1	320	1	Unworked		Flint		Abraded lump
03E0873:320:2	320	2	Angular shatter		Flint		Burnt shatter
03E0873:333:1	333	1		Cordoned urn fragment	Ceramic		
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03E0873:333:6	333	6		Cordoned urn fragment	Ceramic		
03E0873:342:1	342	1	Angular shatter		Flint		Burnt shatter
03E0873:342:2	342	2		Unworked	Sandstone		
03E0873:391:1	391	1		Cordoned urn	Ceramic		

APPENDIX 2 SPECIALIST REPORTS

Appendix 2.1	Radiocarbon dating report – University of Waikato
Appendix 2.2	Species charcoal identification report – Ellen O Carroll
Appendix 2.3	Lithics report – Eimear Nelis
Appendix 2.4	Carved stone report – Blaze O Connor
Appendix 2.5	Burnt bone report – Camilla Lofqvist
Appendix 2.6	Burnt bone report – Jennie Coughlan
Appendix 2.7	Prehistoric pottery report – Eoin Grogan and Helen Roche
Appendix 2.8	Small finds report – Siobhan Scully
Appendix 2.9	Medieval and post medieval pottery – Clare McCutcheon

Appendix 2.1 Radiocarbon dating report – University of Waikato

The University of Waikato Radiocarbon Dating Laboratory



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Ph +64 7 838 4278
email c14@waikato.ac.nz
Head: Dr Alan Hogg

Report on Radiocarbon Age Determination for Wk- 18559

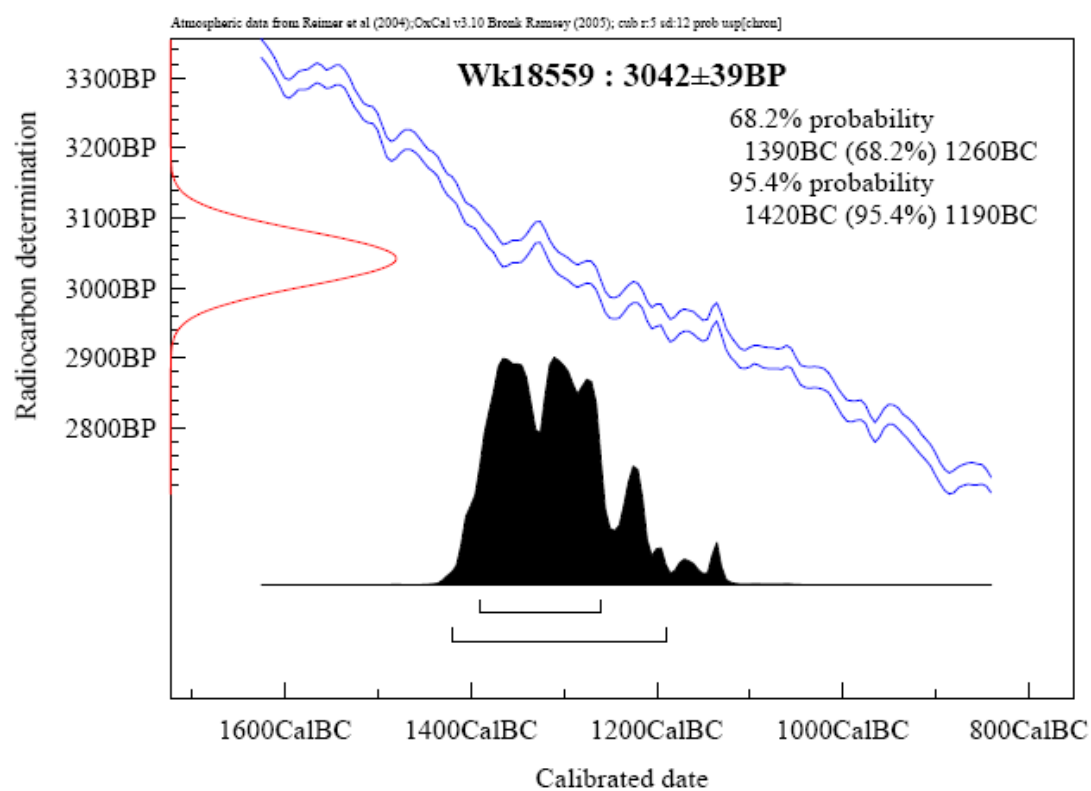
Submitter	Ii Johnston
Submitter's Code	Carnmore 5/89/89
Site & Location	Dundalk Western Bypass, Ireland
Sample Material	Quercus
Physical Pretreatment	Possible contaminants were removed. Washed in ultrasonic bath.
Chemical Pretreatment	Sample washed in hot 10% HCl, rinsed and treated with hot 0.5% NaOH. The NaOH insoluble fraction was treated with hot 10% HCl, filtered, rinsed and dried.

$\delta^{14}\text{C}$	-314.3 ± 3.3	‰
$\delta^{13}\text{C}$	-24.3 ± 0.2	‰
D^{14}C	-315.3 ± 3.3	‰
% Modern	68.5 ± 0.3	%
Result	3042 ± 39 BP	

Comments

3/5/06

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



Appendix 2.2 Species charcoal identification report – Ellen O Carroll

Species charcoal identification report from Carn More 5, Co Louth

Ellen O Carroll

1 Introduction

Fourteen charcoal samples were submitted for analysis from Carn More 5, Dundalk by-pass located 2 km north west of Dundalk town. The main focus of the site was situated in a well drained area at the base of a small hillock made up of sorted, glacially mixed gravels, located at approximately 10 – 11m OD. Excavations produces a myriad of monuments associated with the funerary of the dead and included a barrow with a central pit, postholes, spreads, pits, cists, pot burials and a cemetery external to the burial mound 1.

The samples received for analyses were excavated from the basal fill (89) of a cremation pit [84] 0.56m deep x 1.26m L x 1.20m W, the fill of the central burial associated with the barrow (198, 234, 144), the fill of stakeholes and postholes (288, 280, 271, 258, 255, 263), charcoal spreads possibly associated with a preparation area for the cremated remains (240, 270) and a burnt spread (232). The features all appear to be related to the Barrow site rather than the external cemetery, cists and pot burials.

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

2 Methods

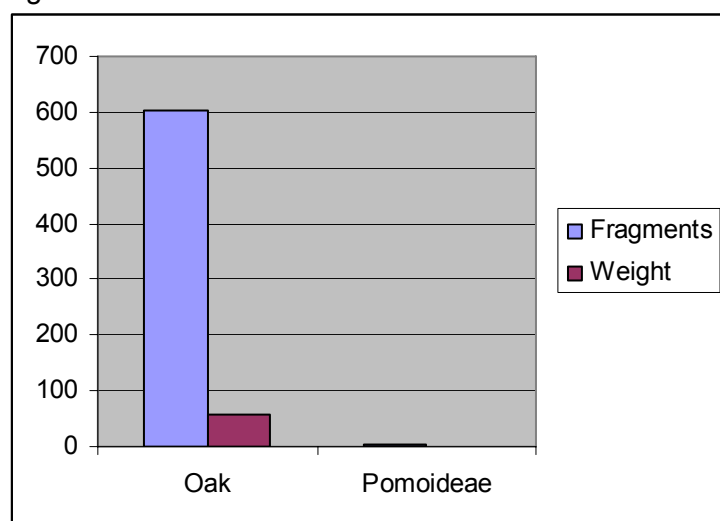
The process for identifying wood, whether it is charred, dried or waterlogged is carried out by comparing the anatomical structure of wood samples with known comparative material or keys (Schweingruber 1990). The identification of charcoal material involves breaking the charcoal piece so that a clean section of the wood can be obtained. This charcoal is then identified to species under an Olympus SZ3060 zoom stereomicroscope and 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. A total of 602 fragments were identified from fourteen samples. All fragments were identified from each sample.

3 Quantification/Results

Table 1: Results from charcoal identifications

Site no.	Context No and type	Sample No	Identification	Weight and comment
Carn More 5, 03E0873 Date:1420-1190BC	C89, Basal fill of cremation pit	89	Oak (Quercus sp)	50 fragments, 5 g
Carn More 5, 03E0873	C198, central burial Pit	241	Oak (Quercus sp)	60 fragments, 1.4g
Carn More 5, 03E0873	C234, central burial Pit	275	Unidentifiable, tiny fragments /specks attached to clay	
Carn More 5, 03E0873	C144, central burial Pit	262	Oak (Quercus sp)	50 fragments, 3.5g
Carn More 5, 03E0873	C240, spread, preparation area for burials	310	Oak (Quercus sp)	100 fragments, 14.3g
Carn More 5, 03E0873	C270, spread, preparation area for burials	285	Oak (Quercus sp)	30 fragments, 4.8g
Carn More 5, 03E0873	C288, posthole fill	307	Oak (Quercus sp)	10 fragments, 3.2g
Carn More 5, 03E0873	C280, posthole fill	301	Oak (Quercus sp)	150 fragments, 19.9g
Carn More 5, 03E0873	C258, in situ post	349	Oak (Quercus sp)	35 fragments, 4g
Carn More 5, 03E0873	C255, Fill of posthole	284	Oak (Quercus sp) Pomoideae- apple type	Oak (35 fragments, 3.7g) Pomoideae 1 fragment, 0.1g
Carn More 5, 03E0873	C263, fill of posthole	246	Oak (Quercus sp)	12 fragments, 1.1g
Carn More 5, 03E0873	C290, fill of stakehole	310	Oak (Quercus sp)	50 fragments, 7g
Carn More 5, 03E0873	C271, posthole fill	322	Oak (Quercus sp) Pomoideae Organics	Oak -5 fragments, 0.8g Pomoideae 1 fragment, 0.1g
Carn More 5, 03E0873	C232, burnt spread	314	Oak (Quercus sp)	15 fragments, 1.6g

Figure 1: Charcoal identified from all features



4 Provenance & Discussion

Fourteen charcoal samples from a central burial pit associated with a barrow, postholes, stakeholes, possible burial preparation areas and spreads were identified from the assemblage.

Archaeological excavations have revealed that the Carn More area is part of a prehistoric and early historic landscape with material being recovered from excavations in the same townland (Carn More 1) dating from the Neolithic (hut sites) and continuing into the Early Medieval period (Ringfort).

A total of 57.3 grammes of oak were identified from the charred wood which may represent the remains of the wood used in the cremation pyres associated with the burials as well as posthole and stakeholes associated with a possible cremation preparation area. Oak charcoal was also identified from the burnt spreads also associated with funerary rituals at Carn More 5.

Oak makes good firewood when dried and will reach very high temperatures which would be required for cremating human remains. Oak 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. Oak charcoal has been identified from the majority of cremation pits identified by the author throughout the country. The use of oak and its association with these cremation pyres may be two-fold. The bodies may have lain on oak planks and subsequently been burnt together or the fuel used at these ceremonial pyres was oak as it an excellent fuel as well as charcoal.

The oak identified suggests that there was a supply of oak in the surrounding environment at Carn More 5. This is contrast to the charcoal remains identified from Carn More 1 where no oak charcoal was identified from the Bronze Age hut sites. Does this suggest that the ritual of burial took place in an oak woodland area and the habitation sites were located within a more open environment where ash and hazel dominated as seen at Carn More 1.

The oak was also most likely to be used for structural features such as posts, planks and firewood. Oak has excellent properties of great durability and strength and was frequently used throughout all periods for the production of large timbers, such as planks for *fulacht fiadh*, plank trackways that ran across the peatbogs, revetment timbers (Halpin A, 2000 67), mill timbers as seen at Clonlea and Kilbegly, Co Galway (unpublished specialist reports for VJ Keeley). Oak was also used for squared posts at Ormond Quay 03E0964, Dublin as well as some oak posts associated with a post medieval post row located beside the River Boyne (06E0837) in Co. Louth.

Oak was the most prevalent tree 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).

Sessile oak (*Quercus petraea*) and pedunculate oak (*Quercus robur*) are both native and common in Ireland. The wood of these species cannot be differentiated based on its microstructure. Pendunculate oak is found on heavy clays and loams particularly where the soil is of alkaline pH. Sessile oak is found on acid soils often in pure stands and although it thrives on well-drained soils it is also tolerant of flooding (Beckett 1979, 40-41). Both species of oak grow to be very large trees (30-40m) and can live to an age of about 400 years. The oak could have been selected from mixed woodlands nearby.

Two fragments of Pomoideae were also identified from the assemblage. These were identified from C271 a spread and C255 a posthole. Pomoideae includes apple, pear, hawthorn and mountain ash. It is impossible to distinguish these wood species anatomically but as wild pear is not native and crab apple is a rare native species in Ireland it is likely that the species identified from the site along Carn More 5 are hawthorn or mountain ash (rowan) (Nelson 194-200, 1993). Hawthorn (*Crataegus monogyna*) is a native species, and is found in many hedgerows throughout Ireland. Mountain ash (*Sorbus aucuparia*) is also a common tree in Ireland growing particularly well in rocky and hilly mountainous places.

5 Conservation

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

6 Comparative Material

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

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

It is interesting to note that charcoal identifications from a Neolithic /Bronze age structure nearby (Carn More 1) produced a range of species and oak was only present in the Neolithic assemblages. This is in sharp contrast to the Bronze Age assemblage identified here where over 57 grammes and 600 fragments of oak charcoal was identified.

Oak was probably a valued timber in the Bronze Age and appears to have been used for structural requirements or as fuel in the cremation pyres as seen here at Carn More 5. In early Irish law the oak was classified as one of the seven *Airig fedo* or Nobles of the wood. Its association with folk beliefs and customs abounds and one such example can be seen in its specified use for kindling the bonfires of Maytime and Midsummer in Wales and Scotland (Mac Coitir 2003, 58). 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.

The charcoal identifications from the excavations at Carn More 5 mirrors the results compiled by the author at similar excavated sites. Charcoal analyses at other cremation sites (Bettystown 98E072, Ballybrowney Lower 1 03E1058 and Hermitage 01E0319) has revealed that oak is the most dominant species identified from within these features. Oak makes good firewood when dried and would have been deliberately selected for use within this cremation pyre. Pomoideae is also frequently identified, albeit in smaller quantities to oak, from cremation sites (O'Donnell, unpublished N8 report for NRA).

7 Summary and Conclusions

Oak was probably consciously selected for use as pyre fuel at this cremation site. Similar analyses undertaken from excavated Bronze Age cremation pits throughout Ireland by this author produced similar results, which indicated that oak was the main species prevalent at these sites.

The oak identified indicates that a supply of such material was available in the area and it was selected for deliberate functions. Oak coppice woodland may have been accessible to the inhabitants of Carn More 5 to supply the huge demand for oak wood which would have been required for the funerary rituals.

It is interesting to note that oak was present in large quantities from this funerary site at Carn More 5 and there was no oak identified from the Bronze Age habitation site at Carn More 1. This may reflect the sighting of the funerary monuments at Carn More 5 close to or within an oak forest and the habitation site at Carn More 1 may have been sited in a more open landscape where ash and hazel was more dominant and easily collected from close to the site.

Oak was also selected for use as structural wood within the posthole structures excavated at this funerary site at Carn More 5. The use of oak for structural wood is well attested to in the archaeological record during all periods of history and pre-history.

Two fragments of pomoideae were also identified from the assemblage. The pomoideae may have been hawthorn/mountain ash or apple. The pomoideae would be more indicative of a scrub like taxa as compared to the oak trees. The oak would have grown in drier conditions preferring free-draining and nutrient rich soils, although it can grow on wetter areas during dry periods.

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Appendix 2.3 Lithics report – Eimear Nelis

Lithics analysis report from Carn More 5, Co Louth

Eimear Nelis

Carn More 5 (03E0873)

Chipped flint and non-flint assemblage

Introduction

A small assemblage of 23 flint artefacts was recovered during excavations at Site 127, Carn More 5 (03E0873) (Bayley 2004). The basic composition of the assemblage is given below (Table 2.1).

Unique No	Context	Basic Character	Classification	Condition	Cortex	Fragment size (mm)	Length (mm)	Breadth (mm)	Thickness (mm)	Mass (g)
03E0873:1:1	1	Unworked	Abraded lump	Abraded	Secondary	0	25	20	7	6.12
03E0873:1:5	1	Unworked	Abraded lump	Patinated	Secondary	0	55	35	19	28.24
03E0873:4:1	4	Flake	Platform complete	Fresh	Tertiary	0	25	28	5	4.25
03E0873:4:2	4	Flake	Bipolar complete	Fresh	Secondary	0	30	22	5	3.13
03E0873:25:1	25	Flake	Platform complete	Fresh	Tertiary	0	21	16	5	1.46
03E0873:31:21	31	Modified	Edge retouched	Fresh	Tertiary	0	28	16	5	2.28
03E0873:31:23	31	Flake	Bipolar shatter proximal	Fresh	Secondary	16	0	15	4	1.25
03E0873:31:24	31	Flake	Bipolar complete	Fresh	Secondary	0	25	17	8	3.07
03E0873:31:26	31	Flake	Platform complete blade	Fresh	Tertiary	0	35	11	8	6.22
03E0873:31:27	31	Flake	Platform complete	Fresh	Tertiary	0	31	30	5	4.67
03E0873:31:28	31	Flake	Bipolar complete	Fresh	Secondary	0	28	20	3	2.36
03E0873:31:29	31	Flake	Platform complete	Burnt	Tertiary	0	35	25	8	5.66
03E0873:93:3	93	Flake	Platform shatter medial	Burnt	Tertiary	30	0	10	6	1.20
03E0873:108:1	108	Flake	Bipolar complete blade	Fresh	Secondary	0	31	15	8	5.89
03E0873:124:10	124	Flake	Platform shatter proximal	Burnt	Tertiary	22	0	15	6	2.13
03E0873:124:11	124	Modified	Scraper	Burnt	Tertiary	5	0	20	3	.48
03E0873:230:1	230	Flake	Platform shatter distal	Burnt	Tertiary	9	0	20	2	.49
03E0873:230:2	230	Angular shatter	Burnt shatter	Burnt	Tertiary	8	0	5	2	.09
03E0873:258:1	258	Modified	Edge retouched	Burnt	Tertiary	0	48	38	15	13.47
03E0873:272:1	272	Flake	Bipolar complete	Fresh	Secondary	0	35	21	9	4.99
03E0873:320:1	320	Unworked	Abraded lump	Water rolled	Secondary	0	45	35	19	51.95
03E0873:320:2	320	Angular shatter	Burnt shatter	Burnt	Tertiary	0	17	11	5	.68
03E0873:342:1	342	Angular shatter	Burnt shatter	Burnt	Tertiary	0	23	17	8	1.95

Table 2.1: Dundalk Western Bypass: Carn More 5 (03E0873): showing basic composition of the flint assemblage.

The assemblage includes a small number of unworked pieces (3/23 pieces), but is mainly comprised of flake debitage (14/23 pieces); in addition to these, a small quantity of angular shatter was found (3/23 pieces), which was damaged beyond further classification as a result of intense burning. The remainder of the assemblage are modified tools (3/23 pieces), and no cores were recovered.

General provenance of assemblage

The assemblage was recovered from a range of archaeological Contexts, relating to Groups 2-7 (C4, C108, C272, C320, C342, C230, C25, C258, C31, C93, C124), as well as topsoil (C1) (Table 2.2: Bayley 2004a). For the most part, where flint was recovered from a deposit, it numbered only one or two pieces; the exception being C31, a charcoal spread, which yielded 7 artefacts.

Context No	Description	Unworked	Core	Flake Debitage	Angular shatter	Modified	TOTAL
4	Group 2: Subgroup 1001: Barrow: Fill of burial mound	-	-	2	-	-	2
108	Group 2: Subgroup 1002: Barrow ditch: Fill of shallow ditch C150	-	-	1	-	-	1
272	Group 3: Subgroup 1006: Spread over postholes	-	-	1	-	-	1
320	Group 3: Subgroup 1014: Humic fill of fire pit C337	1	-	-	1	-	2
342	Group 3: Subgroup 1014: Lens of burning in C337	-	-	-	1	-	1
230	Group 4: Subgroup 1007: Burial monument: fill of central pit C222	-	-	1	1	-	2
25	Group 5: Subgroup 1019: Cist burial: Cremation	-	-	1	-	-	1
258	Group 5: Subgroup 1023: Assoc pit burial: burnt post	-	-	-	-	1	1
31	Group 6: Subgroup 1009: Stone layer: Charcoal spread	-	-	6	-	1	7
93	Group 7: Subgroup 1031: Cist burial: primary fill of Cist C92	-	-	1	-	-	1
124	Group 7: Subgroup 1032: Fill of Cist C96: redeposited natural	-	-	1	-	1	2
1	Group 11: Topsoil	2	-	-	-	-	2
	TOTAL	3	-	14	3	3	23

Table 2.2: Dundalk Western Bypass: Carn More 5 (03E0873): showing distribution and basic composition of the flint assemblage.

A small number of artefacts were recovered from deposits associated with the barrow (Group 2: C4: 2 pieces; C108: 1 piece), all of which were flakedebitage. These included complete bipolar flakes (03E0873:4:2; 03E0873:108:1; the latter deriving from a beach pebble), and a possible bifacial thinning flake (03E0873:4:1).

Group 3 remains related to early activity to the west of the barrow, and produced unworked material, as well as flakedebitage and angular shatter (C272: 1 piece; C320: 1 piece; C342: 1 piece); flakedebitage and angular shatter was also found in relation to the Group 4 burial monument (C230: 2 pieces). From the Group 5 burial monument, flakedebitage and a modified tool were found (C25: 1 piece; C258: 1 piece); again, flakedebitage (6 pieces) and a modified tool were found in the Group 6 Stone layer (C31: 7 pieces). The remaining modified tool was found in association with the Group 7 cist burials, from which flakedebitage was also recovered (C93: 1 piece; C124: 2 pieces). Two unworked pieces were found in topsoil (C1: Group 7) (Table 2.2).

For the most part, it was not possible to determine the source of the raw material, but a small number were recognizably derived from beach pebbles (3/23 pieces); these include a bipolar flake from C31 (03E0873:31:28), a bipolar flake from C108 (03E0873:108:1), and an unworked water-rolled pebble from C320 (03E0873:320:1). The condition of the assemblage was of interest: most artefacts were either in a fresh

(11/23 pieces) or burnt (9/23 pieces) condition; the remainder were abraded (1 pieces), water-rolled (1 piece) or patinated (1 piece). The component of burnt material is much greater than is common for a flint assemblage, but perhaps unsurprising given that much of this material was recovered from Contexts associated with cremation and cist burials (C93, C124, C230, C258) and other burnt features (C31, C320 and C342). Most of the burnt artefacts are flake (4 pieces) and angular (3 pieces) debitage, and also include two of the three modified tools (edge retouched: 03E0873:258:1; scraper: 03E0873:124:11). As a consequence of the burning, most of the artefacts in this condition are fragmentary, including three of the four flake debitage and the scraper; the angular shatter is classified as such because of its fragmentary condition, and may have been more diagnostic prior to burning.

Assemblage summary: Carn More 5 (03E0873)

The assemblage includes a small number of unworked artefacts (3 pieces), which include two abraded, thermally damaged lumps from topsoil (C1), and a water-rolled pebble from C320. The bulk of the assemblage, however, is flake debitage (14 pieces); no cores were recovered, and a small quantity of burnt angular shatter were found (3 pieces) which may be the damaged remains of other more recognizable artefacts (such as core or flake debitage). A small number of modified tools were also recovered. No refit groups were discernable within the flake debitage assemblage, nor were they recognizable across the flake debitage and modified tools. Together with the widespread distribution of the artefacts, it is therefore unsurprising that the assemblage represents the partial remains of numerous individual knapping events, which have probably been subject to curation, at the very least on a local scale. The assemblage recovered from Carn More 5 points to a range of small-scale artefacts (Fig 2.1), with most worked material having a maximum length of less than 35mm. This may in part have been dictated by the limited availability of useable flint, with none of the unworked material having a maximum length of more than 55mm. While the application of bipolar methods can be linked to the small-scale of raw material, at Carn More 5 this does not appear to have been a consideration, since there was no correlation between artefact size and reduction technique (Fig 2.1).

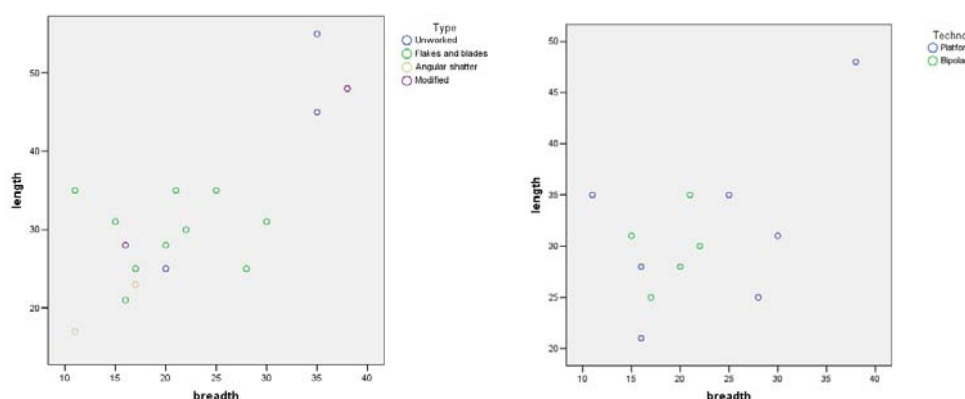


Fig 2.1: Dundalk Western Bypass: Carn More 5 (03E0873): Length by breadth (mm) of complete artefacts (left); Length by breadth (mm) of complete flake debitage and modified tool assemblage, showing reduction technique (right).

Despite the lack of cores, some observations of knapping techniques may be made through analysis of the flake debitage and modified tools. The method of reduction could be determined for all flake debitage and modified tools (17 pieces), including fragmentary pieces. These artefacts showed that platform (8 flake debitage, 3 modified tools) and bipolar (6 flake debitage) reduction techniques were found across the site, with the latter being in the minority. The small quantity of material recovered

from each Context prevented a meaningful analysis of detailed reduction trends, but on the few occasions where more than one artefact was recovered, both methods of reduction tended to be represented (e.g. C4, C31; C124 producing two bipolar pieces).

Unique No	Basic Character	Classification	Platform	Termination
03E0873:4:1	Flake	Platform complete: bifacial thinning	Pressure facettted	Hinged
03E0873:4:2	Flake	Bipolar complete	Bipolar splintered	Plunging
03E0873:25:1	Flake	Platform complete core trimming	Dihedral	Feathered
03E0873:31:21	Modified	Edge retouched	Planar: <5mm	Feathered
03E0873:31:23	Flake	Bipolar shatter proximal	Bipolar splintered	Broken
03E0873:31:24	Flake	Bipolar complete	Bipolar splintered	Plunging
03E0873:31:26	Flake	Platform complete blade	Planar: <5mm with edge prep	Plunging
03E0873:31:27	Flake	Platform: double ventral bifacial thinning	Punctiform	Plunging
03E0873:31:28	Flake	Bipolar complete	Bipolar splintered	Plunging
03E0873:31:29	Flake	Platform complete core trimming	Planar: 5mm+	Feathered
03E0873:93:3	Flake	Platform shatter medial	Broken	Broken
03E0873:108:1	Flake	Bipolar complete blade	Bipolar splintered	Bipolar
03E0873:124:10	Flake	Platform shatter proximal	Punctiform	Broken
03E0873:124:11	Modified	Scraper	Broken	Retouched
03E0873:230:1	Flake	Platform shatter distal	Broken	Feathered
03E0873:258:1	Modified	Edge retouched	Planar: 5mm+ with edge prep	Feathered
03E0873:272:1	Flake	Bipolar complete	Bipolar	Feathered

Table 2.3: Dundalk Western Bypass: Carn More 5 (03E0873): showing technical composition of flake debitage and modified tool assemblage.

Despite the small number of flake debitage recovered, some comment may be made on the platform debitage assemblage (Table 2.3): a diverse range of platform types was found, ranging from simple planar platforms, to planar platforms with some edge preparation, to more complex percussion flaked facettted platforms, to finely pressure flaked platforms; such diversity points to a range of approaches to raw material reduction, and a wide-ranging skill base.

The range of flake types was also of interest: core trimming flakes were found on two occasions (03E0873:25:1; 03E0873:31:29) but, more unusually, two examples of bifacial thinning flakes were recovered (03E0873:4:1; 03E0873:31:27), the latter having a double ventral face. Bifacial thinning flakes are produced during the manufacture of bifacial tools, such as flaked axes, javelins or even arrowheads; they tend to be thin, plunging flakes and can be produced through percussion or pressure flaking; double ventral flakes occur when a flake is removed from the *ventral* face of a flake, resulting in a piece which has two ventral faces, rather than the dorsal and ventral surfaces found in regular flakes (Nelis 2003, Nelis 2004). The examples from Carn More 5 are probably derived from the production of a larger tool than an arrowhead.

Since the inclusion of such finely produced flakes may be in stark contrast with the relative simplicity of bipolar debitage, one may wonder about the processes which bring such assemblages together. However, it seems that bifacial thinning flakes do occur as occasional finds in assemblages where there is no associated bifacial debitage or bifacial tools, and generally no comparable level of skill, and where they

therefore stand apart from the remainder of the assemblage. This seems to be because bifacial thinning flakes are a valuable commodity in themselves, being finely and skilfully produced on flint of a high quality, and suitable as blanks for modification into a number of tool types; consequently, they are subject to complex curation through trade and exchange. While little work has been done to date on this phenomenon in a Bronze Age Context in Ireland, this practice certainly occurred during the course of the Irish Neolithic (see Nelis 2004), during which time it is clear that at least a proportion of bifacial tools functioned primarily as curated cores, which offered a portable source of good quality flakes which could be used as blanks for further tools.

A small number of modified tools were found (3 pieces), all of which were formed on platform flakes. These included a small flake with minimal retouch along the left lateral edge, which seems to have been used as a simple cutting tool (03E0873:31:21) recovered from a charcoal spread (C31) associated with the Group 6 Stone layer. An unusual tanged flake which also seems to have served as a cutting tool (03E0873:258:1) was found with the remains of a burnt post (C258), possibly associated with the Group 5 pit burials; this piece had a proximal tang (presumably to aid hafting) with bilateral retouch, resulting in a convex cutting edge on the left lateral, and an angular cutting edge on the right lateral (Plate 2.1). The remaining tool is small distal fragment, which may be the burnt remains of a scraper (03E0873:124:11), and was found in the Cist C96 (Group 7). None of the modified tools found at Carn More 5 are clearly chronologically diagnostic: the simplicity of tools such as the cutting tool 03E0873:31:21, and the fragmentary nature of the scraper 03E0873:124:11, preclude any meaningful comment on the likely period of their use, and the unusual nature of the tanged cutting tool 03E0873:258:1 means that it could be placed within any period from the Late Mesolithic through to the Bronze Age (Plate 2.1).

Discussion: Carn More 5 (03E0873)

The assemblage from Carn More 5 is mainly populated by flake debitage, with small numbers of unworked pieces, angular shatter and modified tools. Bipolar and platform reduction techniques are evident within the flake debitage assemblage, and despite the small numbers present, show considerable diversity in technical approach and ability; consequently, it is not surprising that the assemblage derives from a prolific range of features, since it is likely that numerous individual knapping events are represented. In particular, the presence of bifacial thinning flakes within such a small assemblage of debitage may hint at complex curation contributing to the diversity of the assemblage, since such pieces, when found in isolation, can indicate trade and exchange of suitable blanks. The modified tool assemblage includes a small number of chronologically undiagnostic tools, either as a result of their simplicity (03E0873:31:21), irregularity (03E0873:258:1) or fragmentary condition (03E0873:124:11). However, none of the modified tools were formed on bipolar flakes, and so there seems to have been a subtle preference for the use of platform flakes, where possible.

With such a limited number of artefacts recovered, little can be said with regard to the chronological Context of the assemblage: all artefacts are compatible with Neolithic and Bronze Age dates, in an Irish Context. The bifacial thinning flakes (from C4 and C31) are not necessarily incompatible with Bronze Age or post-Bronze Age activity, but our current understanding of the technology of these periods in Ireland is limited. Therefore it is unclear whether they simply represent the isolated debitage of bifacial tool production, or if they represent the possible curation of blanks (as they may be if viewed in the Context of the Irish Neolithic).

Carn More 5 (03E0873)
Worked Stone assemblage**Assemblage summary**

A single unworked beach pebble was recovered from Carn More 5. This was found in C342, a lens of burning in the possible firepit (C337: Group 3 Subgroup 014), which also yielded a piece of flint angular shatter.

03E0873:342:2

Beach pebble: unworked

Coarse sandstone: 74mm (L); 65mm (B); 48mm (T); Mass 241.5g

Light brown with quartz and iron. Appears unworked, with naturally occurring polish in places



Plate 2.1: Carnmore 5 (03E0873): Tanged edge retouched tool (03E0873:258:1).

Appendix 2.4 Carved stone report – Blaze O'Connor

The carved stone report from Carn More 5, Co Louth

Blaze O'Connor

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Figures and Plates

Figure 1 Location of the prehistoric carved stones in Counties Louth and Monaghan.

[All photographs are by Blaze O'Connor © unless otherwise stated]

Plate 1	Plate 1 Decorated face of cup-marked stone 03E0873:103:1, with cups numbered below (scale: 10cm).
Plate 2	The quarried base of the cup-marked stone (scale: 10cm).
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Abstract

This report describes five stones recovered from a Bronze Age burial complex in the townland of Carn More, north of Dundalk, County Louth. A cup-marked stone and hone stone were recovered in close proximity to one another within cairn material overlying a central burial cist, itself surrounded by a series of cist burials and pits. The cup-marked stone represents a reused piece of quarried outcrop rock art. Two large naturally weathered stones covered the upper surface of the burial cist. One of these is a granite boulder that has been unusually shaped into a zoomorphic form via natural weathering, and features a possible artificial hollow. The other is a sandstone slab featuring a series of natural solution hollows caused by water action. It is possible, given the structural importance of these two stones, that they were intentionally selected for their distinctive forms and textures. Lastly, a granite boulder forming the upper capping stone of a boulder monument immediately adjacent to the cairn and cist burials features an unusual triangular motif, possibly depicting an axe, a notch-like feature, and areas of surface dressing. The cup-marked stone and boulder with triangular motif add to a significant distribution of prehistoric carved stones across Counties Louth and Monaghan. As a piece of reused rock art from a burial cairn and a boulder monument with a unique motif, they represent significant finds for the Irish corpus of carved stones. The naturally weathered stones and hone stone indicate the possible intentionality with which stones with specific characteristics and histories were selected for use in prehistoric burial monuments.

1 Introduction

1.1 General Description, Provenance and Period

This report documents five stones that were recovered during the excavation of a Bronze Age burial complex at Carn More 5, County Louth (Site 127, Chainage 24.810-25.100, NGR 304912/310860). These included a hone stone or polishing stone, and two carved stones, one with a possible 'axe' motif, the other featuring cup marks. Two additional stones were examined; one featuring natural solution hollows, and the other exhibiting an unusual naturally weathered form and a possible carved hollow.

The site was discovered during M1 Dundalk Western Bypass test trenching in March 2002 (Test Excavation Licence 02E0658, Shane Delaney), and excavated in advance of the construction of the 8.5km M1 Dundalk Western Bypass (main chainage 17.100 –25.600) under the direction of David Bayley (Licence No. 03E0873). Resolution excavations were completed between chainage 24.810 – 25.100, from September to December 2003 (Licence 03E0873) with an average of 15 staff. The stones were identified during the deconstruction of the burial monuments and deposited at the Dundalk Museum.

The stones were recovered from two monuments within the Carn More cemetery, which covers an area of approximately 60 x 60m. The stone featuring a possible axe motif formed the capstone in a boulder monument or so called 'boulder burial' [C45]. There was no actual evidence for a burial or cist beneath the monument, suggesting that the structure may have acted as a cenotaph (Bayley 2005). The remaining stones came from a cairn and cist (aligned N-S) that lay at the centre of two rings of burial features. The cup-marked stone and hone stone came from the cairn material [C103], in close proximity to one another, and the two naturally weathered stones had been placed at the top of the associated central burial cist [C222]. The cairn itself was surrounded by an inner semi-circle of cist burials (16-20m diameter), an outer semi-circle of pottery vessels in unlined pits (42m diameter), a large barrow with an external bank, a cremation pit, and two ringditches (Bayley 2005). Other finds from the cairn included cremated bone, nine pottery vessels (probably Food Vessels), 1 encrusted urn, a copper alloy artefact, a copper alloy pin, and 12 pieces of struck or worked flint (Bayley 2005).

The cup-marked stone represents a quarried piece of outcrop rock art, a tradition currently thought to span the later Neolithic to Early Bronze Age, though dating remains problematic (Bradley 1997; Burgess 1990). It is not clear whether this stone, and the hone stone accompanying it, were incorporated into the cairn material during the construction of the monument, which probably dates to the Early Bronze Age, or as later insertions (Bayley 2005). The boulder monument can be broadly dated to the Middle to Late Bronze Age, and the carving on its capping stone may well date to this period. There is no evidence to suggest it is a reused stone, though this remains possible.

The site is situated c.1km north of Dundalk, on the plateau of a very slight gravel ridge (10m OD) on the floodplain (9.5m OD) of a stream located approximately 130m to the north-east. The plateau would have continued to the south, but was interrupted by the construction of a railway embankment. The site lies within an important complex of prehistoric 'ritual' monuments across the lowlands and foothills surrounding Dundalk. These include Balregan Henge (LH007:001) and the former decorated megalithic monument at Killin (LH 006-01502) to the west, and a series of megalithic tombs to the north and east (Buckley and Sweetman 1991). Bronze Age monuments such as barrows, cairns, cists and fulachta fiadh, are distributed widely

across County Louth, largely above the 4-5m (25ft) contour, which reflects the position of the coastline during this period (Buckley and Sweetman 1991).

The stones form part of a wider cluster of prehistoric carved panels distributed across Counties Louth and Monaghan as shown in Figure 1. These include numerous outcrop rock art panels, decorated cist slabs (Crumlin: see Lynch 2002), a possible carved standing stone (Edenakill: LH 003-11), carved stones from a cairn and a boulder burial (Carn More: O'Connor 2005), a series of panels featuring megalithic art at Killin (Evans 1939), Carrickrobin (Tempest 1931), Newtownbalregan (O'Connor 2005) and Tateetra (Avril Hayes, AEGIS pers.comm.), the latter two reused in souterrains, and a rock art panel from a souterrain at Ballybarrack (LH 007-203).

1.2 Geology

Several of the stones were noted to be of the same geology as other decorated stones in the Louth / Monaghan area. Geological Survey of Ireland map data identifies this rock as Inniskeen Formation (IN) turbidite, commonly referred to as greywacke, a sandstone characterised by fine-to-coarse graded bedding (see also Whittow 1984). The remaining stones are granite. Geological Survey of Ireland map data indicates a range of granitic formations within the nearby Cooley Peninsula / Slieve Gullion / Mourne Mountains area, including Granophyre (Gr), a medium grained granite with granophyroc texture, Newry Granite (Ng), a coarse-grained granodiorite, and small areas of Porphyritic Granophyre, also a medium grained granite (see Whittow 1984). Meighan et al (2002) have also noted that water rolled granite cobbles are available on the Cooley coastline.

Bayley (2005) notes a probable quarry pit [C157] adjacent to the burial complex, though it is not clear whether this could have been a source of the quarried sandstone used at Carn More. Reconstruction of past outcrop distribution using Geological Survey of Ireland historical mapping dating to the 1870s, prior to much modern land improvement, also indicates that large sandstone outcrops were located just c.130m south of Carn More 5 (O'Connor).

1.3 Contribution to Research Questions

The cup-marked stone, hone stone and the granite boulder featuring a possible axe motif are of significant research value, as detailed below, while the two naturally weathered stones are of moderate research value.

1.4 Report Structure

Because each of the stones from Carn More is so different, they are discussed individually in this report in terms of their provenance, comparative material and significance. A summary of the significance of the assemblage as a whole is offered in section 8 below.

2 Methodology

2.1 Recording Methods

The motifs and compositions were recorded using a tracing technique (Twohig 1988; Loendorf 2001) whereby the motifs and any natural or modern damage, weathering or other markings are gently outlined onto clear cellophane sheets using fine permanent markers. This is a low-contact method that avoids placing pressure on the stone surface, and avoids materials that may leave residues that might alter the chemical composition of the stone surface or negate the use of future scientific dating methods. The stones were photographed using a portable halogen light source to provide oblique or 'grazing' lighting that would enhance the visibility of the motifs.

2.2 Reference Sources

The stones were documented using specially designed recording forms based on recording guidelines from European and American handbooks (e.g. Seglie 2001, Whitley 2001). The possible axe motif was discussed with geologist Dr Steve Mandal (CRDS). Geological Survey of Ireland map data was consulted in comparing the geology of the stones with possible sources in the surrounding area.

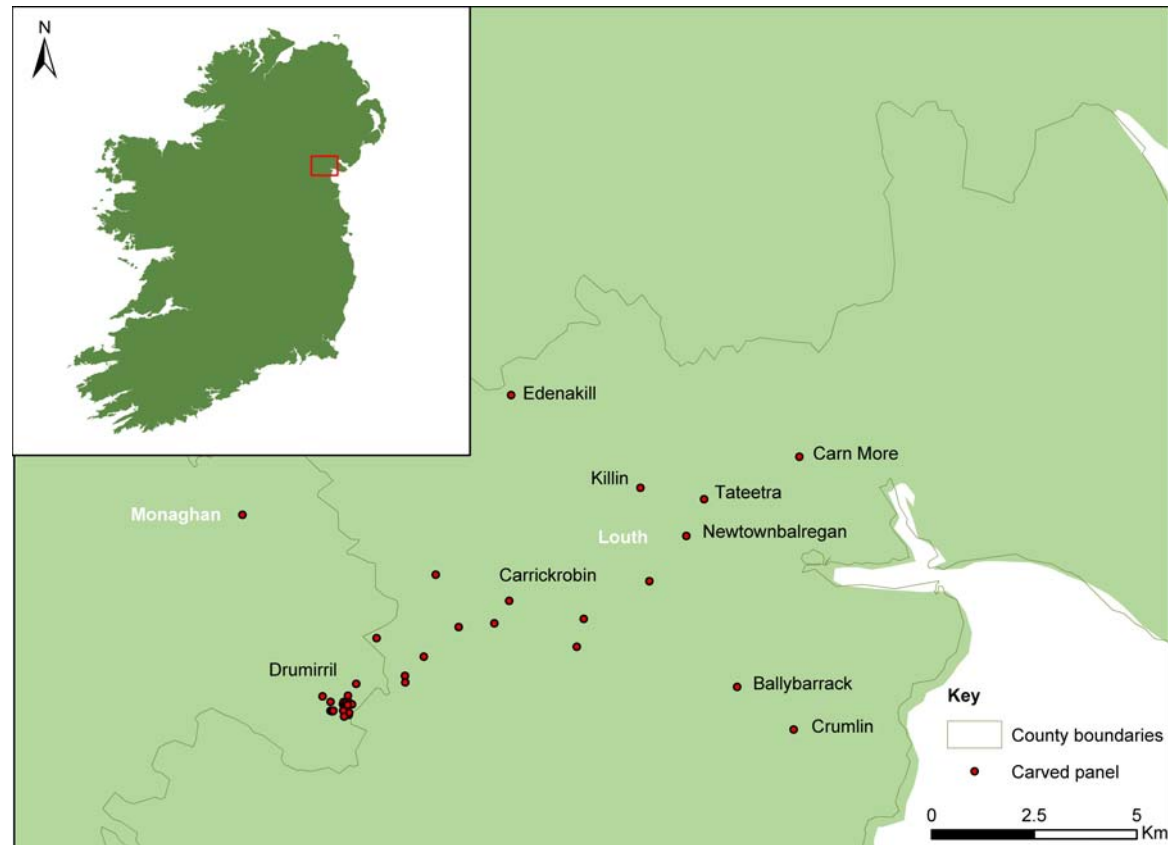


Figure 1 Location of the prehistoric carved stones in Counties Louth and Monaghan.

3 Stone 03E0873:103:1 Cup-marked stone – reused outcrop rock art panel

Length, width, depth of decorated face	0.46 x 0.17 x 0.245 m (L/W/D)
Geology	Sandstone (Turbidite / Greywacke)
Panel Type	Mobiliary panel – quarried outcrop rock art
Context	Cairn material (C103)

Cup dimensions (length / width / depth in mm) and type (see Plate 1)

1	55 x 32 x 35	Enhanced natural hollow
2	47 x 40 x 7	Artificial cup mark
3	63 x 40 x 27	Enhanced natural hollow
4	35 x 35 x 7	Artificial cup mark
5	46 x 48 x 14	Artificial cup mark
6	61 x 58 x 12	Artificial cup mark
7	62 x 50 x 35	Enhanced natural hollow

This piece of local sandstone (turbidite or greywacke) features several motifs and artificial markings, all of which occur across one lozenge-shaped surface measuring 0.46 x 0.17 x 0.245m (see Plate 1). These include seven cups, three arranged singly and four in an adjoining cluster, two areas of dense pecking, and occasional dispersed peck marks. Four of the cup marks are entirely artificially formed through pecking, and these are exhibited as shallow circular hollows with an even semi-circular cross section. Three of the cup marks are quite different in form, and are likely to be artificially enhanced natural solution hollows. These cups are almond-shaped with sharp corners, are much deeper, and exhibit soft V-shaped cross sections. Such natural hollows are common in the sandstone outcrops of the Louth / Monaghan area, and are frequently the subject of artificial enhancement or embellishment in the *in situ* rock art of this region (O'Connor; Van Hoek 1997).

The stone was recovered in close proximity to a hone stone, as detailed below, within cairn material [C103]. This material was one to two 'courses' thick (4.85m x 3.20m x 0.30m) and overlaid a central burial cist [C222]. It is not known whether these finds are contemporary with the cairn construction, or were inserted later into a turf mound (Bayley 2005).

The geological and weathering evidence clearly indicates that the decorated surface once formed part of the exposed upper surface of an area of outcropping bedrock (see Plates 2-3). This surface is weathered, flat and even, with softly rounded edges. Its form corresponds to others in the local area, where long narrow exposures are common in the east-west oriented outcrops of the region. The base and one of the sides of the stone appear to have been cleaved away from a larger outcrop. These faces feature freshly exposed and stepped surfaces caused during quarrying. The quarried side face runs along the grain of the stone, and those procuring the stone probably took advantage of a naturally occurring fissure in order to remove the slab. There are no obvious signs of quarry tool marks, though it is possible that some of the gouges along the face opposite the quarried side represent associated breakage. An entirely natural hollow occurs on the larger of the short side faces of the stone (see Plate 4).

The carvings are in good condition with peck marks clearly visible. The cups exhibit the same mid-brown patina as the rest of the carved face, and this contrasts with the mid-grey of the freshly quarried base. This indicates that the carvings themselves underwent moderate weathering prior to their incorporation within the burial cairn. In addition, the fact that the motifs all occur on the weathered surface, and that some of the cups are within a few millimetres of the broken edge of the stone also indicates that this stone represents the reuse of Late Neolithic to Early Bronze Age outcrop rock art within a secondary Bronze Age burial Context.

An example of a decorated cist capstone from nearby Crumlin, Co. Louth, demonstrates that cups were sometimes carved onto quarried surfaces, thus indicating that the practice continued into the Bronze Age (Lynch 2002; O'Connor). The fact that the Carn More motifs appear well preserved may be due to the protection of the stone surface from lichen, algae and other micro-vegetation within its secondary buried Context, and does not alone prove that the cups were carved specially for use in the burial (O'Connor).

The reuse of rock art panels thought to date to the later Neolithic to Early Bronze Age in Bronze Age cists and cairn burials is well documented in Britain (e.g. Simpson and Thawley 1972). There are few examples from Ireland where the case for reuse can be convincingly argued, with some exceptions. Cup and ring motifs with radials are known from a rectangular slab recovered from the body of a cairn with a cist grave at Teeromoyle, County Kerry (Macalister 1939: 23). The motifs appear to have been broken, as both feature short radials that appear truncated by the edges of the stone. Thus the Carn More stone is significant in the Context of Irish rock art. Debate continues as to the extent to which the motifs were intentionally or accidentally incorporated in later burials (Bradley 1997; Burgess 1990). In this case it seems unlikely that those constructing the burial were unaware of the presence of these clearly visible motifs. The fact that the other stones discussed here appear to have been collected from beach or riverine locations, rather than quarried, may indicate some intentionality in the specific selection of this panel.

The locally quarried turbidite sandstone employed in the construction of the cairn appears to have been a preferred material for prehistoric monuments. As McCabe and Nevin (in Eogan 1986: 113-4) have demonstrated, the large structural stones of turbidite or greywacke used in the building of the Brugh na Bóinne passage tombs are likely to have come from the Longford / Down Lower Palaeozoic Silurian zone, which extends down through Louth to within a few kilometres north and east of the Boyne Valley complex. The classic outcrop rock art of the Louth / Monaghan area also takes advantage of the excellent carving qualities of this material. It is likely that the quarried sandstone used at Carn More was obtained from a source within the local area.

The recovery of a former piece of outcrop rock art from this location is significant as it extends the distribution of these panels eastward and northward from the previously known extent (Clarke 1982; Van Hoek 1997; O'Connor). There are currently 64 known rock art panels in the Louth / Monaghan group, with the majority located in the townland of Drumirril (Clarke 1982; Van Hoek 1997; O'Connor 2003). The nearest is situated at Tankards Rock (LH 007-102), just over 4kms to the southwest of Carn More. This extension of the known distribution means that the rock art of Louth now overlaps with the distribution of megalithic art within the county. In the past, the apparent absence of such a spatial association (with the exception of Loughcrew), has been used to argue that rock art and megalithic art represent separate traditions in cultural and chronological terms (Shee Twohig 1981). The rock art and megalithic

art from Counties Louth and Monaghan perhaps point towards a closer relationship than previously imagined (O'Connor).



Plate 1 Decorated face of cup-marked stone 03E0873:103:1, with cups numbered below (scale: 10cm).

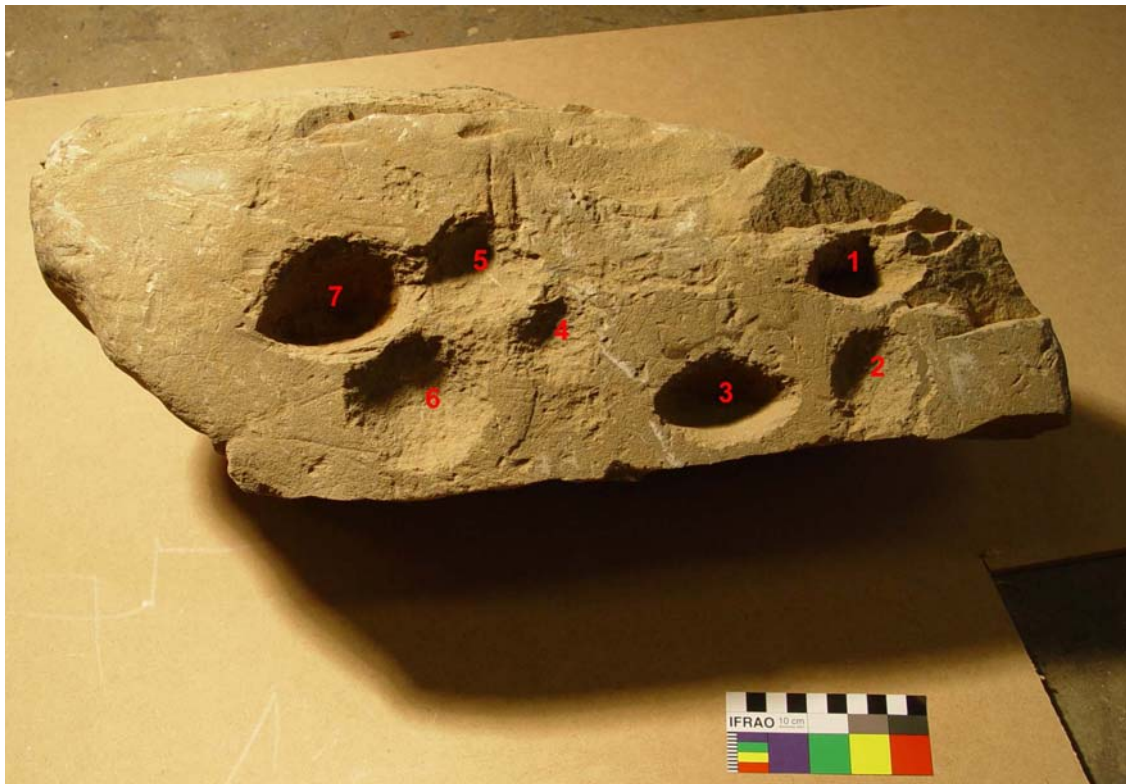




Plate 2 the quarried base of the cup-marked stone (scale: 10cm).



Plate 3 one of the weathered side faces of the cup-marked stone (scale: 10cm).



Plate 4 one of the weathered side faces of the cup-marked stone, note natural depression (scale: 10cm).

4 Stone 03E0873:10:1 Boulder monument capstone with possible axe motif

Length, width, depth of decorated face	0.55 x 0.38 x 0.30 m (L/W/D)
Geology	Granite (pinkish grey)
Panel Type	Small boulder
Motif depth	c. <23mm
Context	C10 (from boulder monument C45)

Stone 03E0873:10:1 comes from a boulder monument (aligned NE-SW) located along the north eastern section of the outer ring of burial features surrounding the central burial cairn at Carn More and its associated inner ring of cist burials. It consists of a small rounded granite boulder with a weathered and decaying surface. Its roughly oval surface features an unusual triangular motif measuring 15.5-17cm in length and 10cm wide, which was found facing upwards during the excavation (Bayley pers.comm.) (see Plates 5-7). Adjacent to this feature, and running down onto the side face, are what appear to be three areas of surface dressing, used to create a flat even surface. Raised ridges of harder granite run through the dressed area. A small natural depression is also visible on the main face. Adjacent to the narrow point of the triangular form is a notch-like feature, with a smooth surface. This almost suggests that the feature may have been designed to control water flow across the boulder. However the feature bears no resemblance to the known drip lines from prehistoric monuments, which tend to take the form of shallow linear

grooves (e.g., Stone RS3 in O'Kelly 1982: Pl. 52 and Fig 54). Alternatively, this notch may represent breakage or carving that postdates the triangular form, as it is fresher in appearance and patina colouration. There are no clear tool marks visible on the boulder, but this is probably due to both the weathered nature of the surface and the rough texture of the granite. The boulder appears to be water-rolled, and may have been procured from a beach or riverine location.

The rather rough finish evident along what would be the 'working edge' of the axe, and the slightly undercut nature of the two 'sides' of the motif raised the possibility that the feature could be of natural origin. Due to the unusual nature of this motif advice was sought from geologist Dr Stephen Mandal (CRDS) regarding the likelihood of it being naturally formed (pers. comm. 28/09/05). He confirmed that it would be very unusual for natural erosion to result in such a shape, and that granite does not typically feature inclusions that would be vulnerable to preferential erosion. Granite can feature quartz veins and highly metamorphosed country rock that relate to the formation of the rock at the molten stage, but both types tend not to weather out due to their hard consistency in comparison to the surrounding granite matrix (ibid). This suggests that the form is indeed artificial. Dr Mandal also emphasised that surface tool markings on granite could easily be eroded given the right conditions.

Examples of carved motifs on boulder 'burials' or boulder monuments are rare. One exception is the site at Bohonagh, Co. Cork, where the underside of the large capping boulder featured seven cup marks (Waddell 2000: 172; Fahy 1961). At Magheramore Hill, County Donegal, a boulder monument sits atop outcropping rock that features six cup marks in a line running parallel to the edge of the cover stone, seemingly respecting (and therefore postdating or contemporaneous with) the monument (Boyle Somerville 1929). Whether the use of carved stones is intentional or indicates the incidental reuse of carved stones as building material is debatable (cf Burgess 1990; Bradley 1997). At Bohonagh the cup marks faced down towards a pit containing cremated bone. Though this may appear significant, some authors (e.g. Burgess 1990) have argued that carved faces will tend to face certain directions within a built monument for structural reasons, due to their usually flat surfaces. Certainly in the case of the Carn More boulder the dressed surface surrounding the axe might have provided a particularly useful flat base. However, as noted above, the axe motif faced upwards in this monument (Bayley pers.comm.). That the aesthetic properties of the stone were favoured over its potential structural properties may indicate that the motif was intentionally incorporated into the monument.

As a large rough textured granite boulder the stone does not seem to represent an axe mould. Flat axe moulds usually take the form of small, readily portable stones of a smooth texture, such as those from Lyre, County Cork (Waddell 2000: 122).

Whether the motif represents an axe is uncertain owing to the significant formal differences it exhibits when compared to known British examples. Axe motifs are known from a small number of sites in England and Scotland (Simpson and Thawley 1972), and they are more frequent in the Atlantic rock art of Spain and Portugal (Bradley 1997) and the megalithic art of France (Shee Twohig 1981; Patton 1993; Tilly 2004: 40). Axe motifs are known from megalithic Contexts in the French regions of Brittany, Morbihan, the Paris Basin and Charente (Shee Twohig 1981: 59, 85, 175-6, Fig 201), though these are mostly Bronze Axes with splayed sides and expanding crescentic cutting edges, or hafted with loops; ie. readily identifiable as axes. Only six triangular (blade only) examples are known from Breton art (ibid: 58).

In Britain axe motifs are known from Bronze Age burial Contexts, notably cist slabs associated with cairns or barrows. These axes are generally interpreted as unhafted

and thin-butted copper or bronze flat axes. Around 27 motifs have been identified at Stonehenge both via visual inspection and laser scanning (Goskar et al 2003; Chippindale 2004: 202-3), distributed across the outer surfaces of Stones 3 and 4 in the stone circle, and on Stone 53, one of the Trilithon sarsens. (Haddingham 1974: 88-9; Goskar et al 2003). The axes, generally depicted blade upwards, are associated with cups, a lattice pattern, ribbed motifs, a rectangle, and other hollows (Goskar et al 2003). Though the carvings postdate the monument Goskar et al (2003) focus on their possible funerary association, and suggest that Stonehenge may have served as a sepulchral monument, surrounded as it is by burial mounds. Also from Southern England is the site of Badbury Barrow (Simpson and Thawley 1972: 95-6). A kerbstone from this monument features three axe-like triangles, two more obvious daggers, and five cups.

The remaining sites are from the Kilmartin region of Argyll, Southern Scotland. Eight bronze axes, depicted with a flat pecking technique characteristic of the British motifs, lie with their blades to the right, across the flat interior surface of the west end-slab of the cist covered by Ri Cruin Cairn (Haddingham 1974: 86; Simpson and Thawley 1972; RCAHMS 1999: 34-6; Stevenson 1997: 114). At Nether Largie North the capstone and end stone both feature axe carvings on their interior surfaces. The motifs include numerous haphazardly arranged simple broad butted Type A form axes and cups, and two axes respectively (Haddingham 1974: 85; Stevenson 1997: 113). The capstone motifs appear to postdate a series of cup marks, based on their sequence of superimposition. Haddingham has noted that the motifs can be identified as Irish axe types (Haddingham 1974: 86). At Nether Largie mid-cairn there is a cup mark and a pecked bronze axe head again on the internal surface of an end-slab within the cist (Haddingham 1974: 85; RCAHMS 1999: 31-2). Lastly, a possible site is that at Kilbride, Mid Argyll, where a side slab from a cist features three pecked grooves that possibly form the outlines of axes (Stevenson 1997: 115; RCAHMS 1999: 38).

Some authors have made formal connections between the depiction of axes and representations of feet or foot prints (Simpson and Thawley 1972: 95-9; Goskar et al 2003: 10). Carved panel E(i) at the Calderstones monument, Liverpool, features a triangular motif with a flattened narrow end. This is morphologically similar to some of the axe motifs, but in this case it is also almost identical to two 'footprint' motifs on the stone, minus the 'toes' (Shee Twohig 1981: Fig 265).

The axes represented in the British carvings are generally identifiable as Early Bronze Age types based on their morphology, and so the motifs are thought to post-date Neolithic-EBA rock art in Britain. It is notable that while actual flat axes are characteristic of the EBA, they occur relatively infrequently in graves. It is perhaps also significant that the axes found in votive hoards are usually unhafted, similar to their manner of depiction in the carvings. O'Sullivan and Downey (2003: 31) have indicated a Middle to Late Bronze Age date for boulder burials based on excavations and radiocarbon dates to date (1500-800BC), a later date than that proposed for the known British axe motifs. It is not possible to determine whether the Carn More motif might be an earlier carving that has been reused in the boulder monument.

The literature to date references only a single possible example from Ireland, and so a second example would be highly significant. However critical examination of the Drombeg motif suggests that the proposal that the motif depicts an axe is somewhat optimistic. The motif consists of a pecked ring motif that surrounds a natural solution hollow in the surface of what now forms the recumbent stone in the stone circle at Drombeg, County Cork (Waddell 2000: 169; Ó'Nualláin 1995: Pl.8). The ring is quite elongated and narrower at one end than the other, hence the axe connotation. Burl

(2000: 67) has referred to this motif as evidence for an 'axe cult'. The surface also features highly weathered grooves, cups and enhanced natural solution hollows, all typical of classic 'open air' rock art. The weathering evidence clearly indicates that the surface was formerly the exposed face of an earthfast boulder or section of outcropping bedrock. It is highly probable therefore, that the motifs pre-date the use of the stone within the stone circle.

The motif in question is admittedly an unusual shape. Ring motifs are normally circular, very slightly oval, or characterised by slight irregular variations. However, examination of the classic rock art corpus reveals numerous examples where rings are elongated, such as those at Drumirril. Typically, such elongated treatment of ring motifs can be shown to be in direct response to the elongated solution hollows, fissures or multiple cups that lie at their centres. None of these examples are considered to represent axes. The Drombeg example is less specifically axe-like than even the most generalised examples from the British corpus, and lacks clear morphological indicators such as concave splaying edges. The rarity of clear axe motifs in Ireland weakens the possibility that the Carn More motif depicts an axe.

The Carn More motif is similar in size to British examples, such as those at Stonehenge and Kilmartin (Goskar et al 2003; RCHAMS 1999), and the flat 'cutting edge' is also in keeping with a small number of the British forms. However, the form of the Carn More motif also differs considerably from standard representations of bronze axes, where the edges of the blade splay out perpendicular to the main axis lending them slightly or highly concave sides, and where the 'cutting edges' are usually slightly convex. If the Carn More motif is a Bronze Age axe, it is a highly stylised, minimalist depiction. In the Carn More case what would be the working face of the axe is fairly flat with rounded corners instead of protrusions. There is a flake scar to one side of the wider end of the motif that appears to be the result of unintentional damage, possibly during the creation of the motif. This lends the 'working edge' a concave appearance that does not appear to have been intended by the carver. What would be the hafted end is quite pointed and the sides are very slightly convex. In this way, the form of the motif actually bears more resemblance to a stone axe, than a bronze axe. The form slightly resembles stone axe category FS03 as defined by Cooney and Mandal (1998: 17), which features a narrow pointed hafting end, straight splayed sides and a slightly convex working edge. However, clear examples of such carvings are not from the British material, let alone from a Middle to Late Bronze Age burial Context, and the resemblance may not have been intended by the carver.

In terms of its simplicity, the closest British parallels for the Carn More motif include the 'toe-less foot' at the Calderstones, the triangular motifs on the Kilbride Cist (with the exception of the outline technique used to depict them), and possibly some (though not all) of the motifs on the Badbury Barrow stone (as depicted in the drawing by Simpson and Thawley 1972: 96).

The axe motifs most commonly known in Britain are also executed using somewhat different techniques to those seen either at Drombeg or Carn More. The motifs are commonly characterised by a flat block of shallow even surface pecking, depicting the flat face of an axe. Outlined weapon forms are known in Galicia (e.g. Bradley 1997: Plate 39) but are not securely known in Britain. One possible example is the slab from Kilbride Cist, Kilmartin (RCHAMS 1999: 38) featuring two triangular motifs defined by shallow pecked outlines, though whether these actually depict axes is debatable. Again, the technique is one that involves shallow even pecked grooves. In contrast, the Carn More example is deeply carved (c. <23mm), and the Drombeg motif is semicircular in cross section, the latter being typical of classic rock art of the

later Neolithic-EBA. The depth of the Carn More motif could be explained as being a function of the geology. Overall though, this distinction casts further doubt over the likelihood that either the Drombeg or Carn More candidates represent axes. It is also unusual to find axe motifs on rounded boulders as opposed to flat slabs. Overall, therefore, the Carn More motif must remain a 'possible' axe motif.

The symbolic dimensions of axes are widely acknowledged, and the essential form of Neolithic axes has been proposed to have influenced menhir shape, the selection of standing stones that sometimes feature axe-shaped inclusions, and the form of long barrows (Cooney 2000: 188-9; Thomas and Tilly 1993, Tilly 2004: 39-49). Ethnographic studies have shown that they are attributed anthropomorphic qualities and act as powerful icons or metaphors in traditional societies (Tilly 1996). The fact that the Carn More stone comes from the same site as a definite piece of rock art, and a hone stone potentially used to grind stone axes, makes the potentially symbolic nature of the carving all the more compelling. The widespread association between axes, maleness (Cooney 2000: 179), and the human body (Battaglia 1990) makes it all the more intriguing that this stone comes from a burial, or at least a cenotaphic, Context.

It is not unusual for carved stones without known parallels to be uncovered in Bronze Age burial monuments. As a whole the range of motifs from these Contexts is wide, eclectic in style and the total number of known panels is relatively few. As a result there is little sense of a unified style or motif repertoire in comparison to the earlier classic rock art and megalithic or passage tomb art traditions. Thus, it is not surprising to add the Carn More stone, with its 'possible axe' motif, to the list of unparalleled carved panels from BA burials.



Plate 5 Stone 03E0873:10:1 with possible axe motif (scale: 10cm).



Plate 6 Detail of possible axe motif and associated notch, the latter visible in profile (scale: 10cm).



Plate 7 Detail of possible axe motif, note flake damage bottom left (scale: 10cm).

5 STONE 03E0873:103:2 HONE STONE

Length, width, depth of decorated face	0.44 x 0.338 x 0.103 m (L/W/D)
Geology	Sandstone (Turbidite / Greywacke)
Context	Cairn material (C103)

This stone consists of an irregular pentagonal-shaped slab of fine sandstone (see Plates 8-10). The burial Context was at least a secondary Context for the stone, which was previously used as a polishing stone or hone stone (also referred to as *polissoirs*). The stone is moderately weathered with the exception of two faces that feature fresh breakage marks, possibly indicating quarried faces where the stone was removed from either an outcrop or a larger stone. The deliberately portable nature of the stone indicates that those who originally used the stone wished to conduct the honing activities in chosen locations, rather than at the site of an in situ boulder or outcrop, as seen elsewhere. Both main faces feature evidence of artificial markings as a result of functional activity. The polished zones are slightly undulating, and the use of artificial lighting reveals subtle worn linear grooves at a variety of angles across the smoother face. The first is very smooth all over with several sharp through to smooth linear striations and what appear to be artificially produced dispersed peck marks. The second features two polished zones and associated linear striations. The polished zones are slightly undulating, and the use of artificial lighting reveals subtle worn linear grooves at a variety of angles across the smoother face. The variety of sometimes superimposed subtle grooves and sharper striations indicate prolonged use. These wear marks were produced as a result of repeated grinding and polishing of stone implements.

Hone stones were used during the 'secondary treatment' (Cooney and Mandal 1998: 13) of axe and other forms of roughouts in order to shape and polish the tools into finished products, and to sharpen and re-shape them. Chisels, scrapers and knives were also polished (Edmonds 1995: 96, 101-2). The polishing activities sometimes leave deep grooves indicating prolonged use specifically for shaping axes, possibly over several centuries or more (e.g. Cope 1988: 199). Smooth slabs of coarse-grained hard stone such as quartz sandstone were generally preferred, and quartz sand, water and possibly ash, were used as abrasives and lubricants during the grinding and polishing process (Cooney and Mandal 1998: 13; Clough and Cummins 1979: 99).

The abrasive quality of sandstone makes this a useful rock for honing purposes. One of the side faces of the Carn More stone features breakage that postdates initial polishing activity but the stone also features further post-breakage polishing and weathering. This again indicates the long duration over which the stone was in use for honing. The breakage appears to be relatively superficial, and may have occurred during transportation of the stone. The smoother face would appear to have been used more intensively, and it was possibly only after this surface became highly smoothed that the opposite face, rougher and more irregular in nature, started to be used. That this stone was used so intensively over a prolonged period indicates its specific value for honing purposes, and that such stones were carefully selected.

There is little specialist literature specifically discussing hone stones and their find Contexts (see Gallagher 1994 for an unpublished example). Hone stones are known from a variety of prehistoric and later Contexts and were frequently reused as building material. A number of portable sandstone slabs are known, such as that from Culbane, County Antrim / Derry (Sheridan et al 1992: pl.20b). Grinding stones

were recovered at the axe production site on Lambay Island (Cooney 1993, 1995). Examples of hone stones recovered from cairn Contexts in Ireland include single cases at Ballywiheen burial site, County Kerry (McCarthy 1999), and Prospect Hill Cist, Killaculla, County Limerick (Doody 1989).

The extent to which those building the cairns deliberately incorporated hone stones for symbolic reasons or simply as convenient building material is unclear. Bradley has noted the potential significance of the occurrence of polissoir stones in megalithic monuments in Britain and Ireland (Bradley 2005:105). One of the decorated corbel stones in Newgrange had been used to polish axes (O'Kelly 1982: 183). Other examples are the sarsen stone reused as a standing stone in Avebury henge (Stone 4; Gillings and Pollard 1999: 83) with its areas of surface polish, and the orthostat at the entrance to West Kennet long barrow (Bradley and Edmonds 1993: 173), which features long straight axe polishing grooves. A polishing stone was also deposited along with a cremation at the entrance to a henge at Llandegai, North Wales (ibid: 172; Clough and Cummins 1979: 19), and they are known from British causewayed enclosures at Etton, Abingdon and The Trundle (Edmonds 1995: 73). Bradley and Edmonds (ibid) have emphasised the link between axe production and ritual monuments, even going as far as suggesting the possibility that the final stages of axe polishing "were undertaken in the Context of ritual activity".

The occurrence of the hone stone as cairn material is clearly a little different to the megalithic examples. However, the use of a series of unusual stones in the burial monuments at Carn More perhaps provides support for the idea that they were intentionally selected. The hone stone certainly indicates that spheres of life that contemporary western society tends to keep very separate (tool production and burial) were deemed appropriate to combine in this way during prehistory (see Brück 1999).



Plates 8 & 9 Stone 03E0873:103:2 Hone stone shown with different lighting – note pitting, linear grooves, sharper striations, and polished finish in both photos, and the breakage on the right of the lower photograph (scale: 10cm).





Plate 10 Hone stone (scale: 10cm).

6 Stone 03E0873:211:1 Naturally weathered granite boulder with possible artificial hollow

Length, width, depth of decorated face	1.35 x 0.47 x 0.25 m (L/W/D)
Geology	Granite
Panel Type	Irregular boulder
Context	C211 from burial cist C222

Stone 03E0873:211:1 consists of an irregular granite boulder with a weathered and decaying surface (see Plates 11-12). This stone was found immediately overlying the central burial cist [C222] beneath cairn material [C103], and was paired with a weathered sandstone slab [03E0873:211:2], which is detailed below. These two stones appear to have played a structural role in the monument, and were probably carefully selected for the purpose. The stone exhibits an unusual zoomorphic form, but this seems likely to be the product of fortuitous natural weathering. Bayley (2005) notes that the stone was lying on its side, 'facing' south, but that this may not have been its original position, as it may have been placed flat and slumped into the pit. There is no clear evidence for tool marks or intentional breakage, though the condition of the surface indicates that this could have been eroded away. The hollow feature on one side of the stone (see detail in Plate *) and the defined groove at the 'neck' of the stone are the best candidates for possible artificial working. However, the propensity for natural geological features to appear to be artificial must be borne in mind. Overall, there is no clearly definitive evidence that the stone has been artificially worked or shaped.

Owing to the unusual nature of the stone, an opinion was also sought from geologist Dr Stephen Mandal. He agreed that the general form of this rock is likely to be due to

natural weathering (pers.comm.). He also pointed out that hollows can potentially be formed naturally, for instance by the repeated action of dripping water. Again though, the form of the hollow feature is not in keeping with natural solution hollows. The 'lip' is raised and clearly defined, and the sides of the hollow drop away more sharply than in most natural solution hollows on such durable rock. In addition there are clear linear depressions running out either side of the hollow, and the one on the right of the photo joins the groove or fissure that runs down the side of the stone. The hollow is quite different from Neolithic and Bronze Age pecked cup motifs, being much deeper (c. 60mm). This almost lends it a functional appearance, as if it were designed for an object to be inserted into it.

It is not until the Iron Age that we start to see sophisticated three-dimensional compositions in stone appearing in Ireland, such as the Turoe Stone from County Galway and the Corleck head from County Cavan (Waddell 2000: 361-365). Prior to this there are few examples of three-dimensional sculptural forms, with the exception of smaller items of material culture such as carved stone beads and stone balls. Thus, this stone would be quite exceptional if it were indeed a carved animal form. The lack of known parallels renders the possibility that this stone is a sculpted form rather less likely.

Weathered granite boulders have been favoured in the construction of prehistoric monuments since the Neolithic. Eogan (1986: 111) has described the granite boulders used at Knowth as having undergone weathering from groundwater, which probably removed their original polished surface, and "prolonged abrasion in a beach environment". He suggested that the examples from Knowth were probably collected from the beaches north of the Boyne estuary, noting that similar examples can be observed along the coast of the Cooley Peninsula (ibid). The granite boulders from Carn More exhibit similar characteristics and their weathered appearance suggests that they may have been procured from beach or riverine locations.

It is widely accepted that the builders of Neolithic and Bronze Age monuments possessed a sophisticated awareness of the aesthetic qualities (colour, texture, shape) of their materials (e.g. Lynch 1998; Cummings 2002; Tilly 2004). There is every possibility that the unusual natural form of the stone made it attractive for use in the burial monument, and potentially as the recipient of the carved hollow, though this must of course remain speculative. As noted above, the stone was paired with a naturally weathered sandstone slab at the top of the stone lined burial pit. Both stones exhibit distinctive natural weathering and water erosion, and it is possible that they were specifically selected because of these characteristics.



Plate 11 Stone 03E0873:211:1 naturally weathered granite boulder (50cm scale).



Plate 12 Detail of the hollow and associated groove (scale 10cm).

7 Stone 03E0873:211:2 Naturally weathered sandstone slab

Length, width, depth	1.17 x 0.41 x 0.195m (L/W/D)
Geology	Sandstone (Turbidite / Greywacke)
Context	C211 from burial cist C222

The sandstone slab [3E0873:211:2] from the top of the central burial cist [C222] underlying cairn material [C103] also appears to have been weathered by water action. This suggests that it too was procured from a beach or riverine Context (see Plate 13). The proximity of the Castletown and Kilcurry Rivers to the site may indicate that the latter is more likely. This has lent the surface of this turbidite (or greywacke) boulder a smooth finish and has enhanced the appearance of the graded layering of the rock. It has also left a series of smooth oval solution hollows along the sides of the boulder. Each of these is entirely natural in origin. They show no signs of peck marks and are morphologically different to the cup marks found in the outcrop rock art and decorated cist slabs of the region which tend to be deeper, more circular in form, and 'U'-shaped in cross section. Artificial cups also tend to occur across the horizontal or sloped upper surfaces of rock art outcrops and boulders, as opposed to the side faces, as seen on this stone. Turbidite consists of layers of graded sediment, and so it is in keeping with this that the hollows occur in a band, where weaker areas in the stone that were more vulnerable to preferential erosion occurred.

In numerous cases across the rock art of Louth and Monaghan, similar hollows have been enhanced or embellished with concentric rings (Van Hoek 1997; O'Connor). As noted above, it is widely accepted that the builders of Neolithic and Bronze Age monuments carefully selected specific stones based on their colour, texture, and shape. It is possible that the hollows made the stone attractive for use in the cist. The stone was of some significance in structural terms, being paired with the naturally weathered granite boulder [03E0873:211:1] at the top of the stone lined burial pit. Both stones exhibit distinctive natural features or morphology, both due to weathering and erosion by flowing water. Thus it is possible that the stones were carefully selected for these aesthetic qualities and features, rather than simply used opportunistically for building material.



Plate 13 Stone 03E0873:211:2 with natural solution hollows due to water action along its sides (scale: 1m).

8 Discussion and Significance of the Assemblage

Overall, the boulder with a possible axe motif and cup marked stone are of greatest significance within the Carn More assemblage. The possible axe motif is unique in the Irish Context, whether it represents an axe or not. The stone adds to the small but growing corpus of carved stones from Bronze Age burial Contexts in Ireland. It is also one of the few boulder burials known to exhibit carved motifs.

The cup-marked panel is significant as a relatively clear example of the reuse of later Neolithic-Early Bronze Age panels in Bronze Age burial Contexts. Such cases are very rare within the Irish corpus of decorated stones from burial Contexts. The stone also extends the distribution of known outcrop rock art in Counties Louth and Monaghan, and demonstrates that this tradition overlaps spatially with the megalithic art of the region, including sites at Killin (LH 006-01502: Evans 1939), Newtownbalregan (O'Connor 2005), Carrickrobin (LH 006-03302: Tempest 1931), and Tateetra (Avril Hayes, AEGIS: pers.comm.).

The hone stone is of interest in the Context of current literature that suggests these stones may have been intentionally incorporated into 'ritual' monuments, and in terms of tracing the patterns of stone tool manufacture across the prehistoric landscape.

It cannot be clearly demonstrated that the zoomorphic shaped stone is artificially formed, though the hollow and groove features are the best candidates for possible artificial origin. The large weathered sandstone slab is entirely natural and features solution hollows resulting from water action. It seems likely that the unusual natural features of these two stones made them attractive to the cist builders, and that they were selected intentionally rather than simply opportunistically. The assemblage of carved and worked stones from Carn More as a whole lends further support to the idea that these naturally weathered stones were each incorporated into these burial Contexts intentionally, rather than incidentally. The quarried cup-marked stone contrasts with the three stones that appear to have been procured from beach or riverine locations, suggesting possible intentionality in terms of the inclusion of this decorated surface in the monument, though it is not clear whether the remainder of the cairn material from C103 was quarried or simply collected.

As a group the stones contribute to the significant corpus of prehistoric carved stones from Counties Louth and Monaghan. They serve to highlight the local area as a focus for prehistoric ritual activity, including stone carving, adding to the local distribution of megalithic art from around the Castletown and Kilcurry River confluence. Should further examples of possible axe motifs comparable to the Carn More stone be identified, reinforcing the proposal that this indeed represents an axe, then this stone would be of national significance. As it currently stands, there are numerous formal and technical differences between this motif and known British examples, which unfortunately place a question mark over its identification as a true axe motif.

It is recommended that the cup marked stone, hone stone, and in particular the boulder with possible axe motif, be considered for professional illustration.

9 Conservation and Recommendations

The cup-marked stone and hone stone are in good condition and appear to have suffered only negligible weathering and surface damage. No conservation work was undertaken and the condition of the stones appears to be stable, but should be monitored.

The boulder with possible axe motif features a degraded and slightly friable surface, and is therefore more vulnerable to future damage. This stone should be more frequently monitored and should its condition deteriorate, professional conservation advice should be sought.

The stones should ideally be stored or displayed in such a way as to ensure that the decorated surfaces are visible or accessible. This will aid in avoiding damage to the stones during any future recording or research. All forms of contact with the decorated surfaces, including the use of rubbing or chalking recording techniques, hands-on contact by viewers, and direct contact with materials during transport, storage or display, should be avoided.

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Appendix A Finds Index

Context	Find number	Material	Artefact type	Period	Dimensions (max)	Motifs / Markings	Comments
C103	03E0873:103:1	Sandstone (turbidite / greywacke)	Cup-marked stone	Late Neolithic-Early Bronze Age [3100-1500BC]	Decorated face: 0.46 x 0.17 x 0.245m (L/W/D).	Cup marks, enhanced natural hollows, dispersed pecking, dense pecking.	Stone is a quarried piece of outcrop rock art
C45	03E0873:45:1	Granite	Boulder burial capstone with possible axe motif, notch and dressed surface	Middle-Late Bronze Age? [1500-800BC]	Decorated face: 0.55 x 0.38 x 0.30m	Triangular motif (possible axe?), surface dressing, notch.	Triangular motif was face up.
C103	03E0873:103:2	Sandstone (turbidite / greywacke)	Hone Stone / Polishing Stone	unclear - Later Neolithic-Bronze Age?	0.44 x 0.33.8 x 0.103m (L/W/D)	Areas of polish, striations and grooves from shaping stone tools on both main faces.	-
C211	03E0873:211:1	Granite	Naturally weathered granite boulder with possible artificial hollow	- [from BA cairn]	1.35 x 0.47 x 0.25m (L/W/D).	Possible artificial hollow and groove but may be natural.	Naturally weathered to zoomorphic shape due to water action.
C211	03E0873:211:2	Sandstone (turbidite / greywacke)	Naturally weathered sandstone slab	- [from BA cairn]	1.17 x 0.41 x 0.195m (L/W/D)	N/A	Natural solution hollows due to water action.

Appendix 2.5 Burnt bone report – Camilla Lofqvist

Burnt bone report from Carn More 5, Co Louth

Camilla Lofqvist

Please note that a supplemental report on the burnt bone from the micro excavation of the pots follows by Jennie Coughlan as Appendix 2.6

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This report describes the results of the osteoarchaeological analysis of bones retrieved during archaeological excavation (03E0873) carried out at Carn More 5, 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 deals with animal and human bone while the third section deals with the unidentified bone.

A total of 5,486.4g of cremated bone was recovered from Carn More 5. Approximately 35% of this was human but due to the high fragmentation degree the majority of the bone material remained unidentified.

The cremated bone identified as human was retrieved from nine Contexts; C31, C67, C93, C95, C99, C112, C124, C146 and C155. However, the majority of the human bone came from the two Contexts; C93, and C99. It is most likely these Contexts represent a number of human cremations. The weight of the bone from these two Contexts was 1,831.2g while the total weight of all the human bone came to 1,897.9g.

Only one fragment was identified as a possible animal bone. The bone was in a poor condition and had a total weight of 1.5g. The animal species identified in the material was bird (unspecified).

1. INTRODUCTION

The Osteoarchaeological Services Section of Moore Group was commissioned to undertake an osteoarchaeological analysis of disarticulated burnt bones retrieved during an excavation at Carn More 5, Co. Louth. The excavation was carried out by Irish Archaeological Consultancy Ltd (here in IAC Ltd) under license no. 03E0873 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.

2. METHODOLOGY

Analysis of the material involved the 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 splitting, cracking, exfoliating, discoloured 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.

Sieving

As mentioned above the cremated bone is very brittle, resulting in a highly fragmented bone sample. For this reason the quantification methods of NISP and MNE are of limited relevance to the cremated bone and instead the emphasis is placed on the weight and degree of fragmentation of the bone. To assess the fragmentation, the cremated bone was passed through a series of sieves and the was then divided up into three groups;

- Bone <2mm
- Bone measuring between 2-5mm
- Bone larger than 5mm

3. RESULT

3.1. General result

The following sections present the results of the analysis of the human bone, the animal bone and the unidentified bone retrieved from the site at Carn More 5, Co. Louth. The first section refers to the human remains, all of which were cremated on this site. The second section deals with the animal bone while all the unidentified bone is dealt with in the third section.

A total of 5,486.4g of cremated bone was retrieved from Carn More 5 whereof 1,897.9g or c. 35% was identified as human. Only one fragment was identified as animal, likely from a bird and had a total weight of only 1.5g. The majority of the bone, 3,587g or c. 65% could not be identified (Table 1).

The total weight of the bone identified as human and animal along with the unidentified fragments. (in gram)		
Group	Weight in g	Weight in %
Cremated Human Bone	1897.9	34.6%
Cremated Animal Bone	1.5	0.0%
Cremated Unidentified Fragments	3587.0	65.4%
Total	5486.4	100%

Table 1. Total weight of the analysed cremated bone.

Due to the cremation process the bone sample from Carn More 5 was very fragmented. Even though there were occasional fragments which were larger than 10cm, a substantial quantity (42%) of the fragments were smaller than 5mm (Table 2).

Fragmentation degree of the cremated bone (in gram) and in percentage of total weight of analysed bone.							
	<2mm	In %	2mm sieve	In %	5mm sieve	In %	Total
Human	395	7.2%	144.4	2.6%	1358.5	24.8%	1897.9
Animal	0	0.0%	0	0.0%	1.5	0.0%	1.5
Unidentified	824.9	15.0%	941.1	17.2%	1821	33.2%	3587.0
Total	1219.9	22.2%	1085.5	19.8%	3181	58.0%	5486.4

Table 2. Fragmentation degree of the cremated bone.

3.2. Cremated human bone

The total weight of the human bone from Carn More 5 was 1,897.9g. All the human bone recovered consisted of cremated fragments and it was retrieved from nine Contexts; C31, C67, C93, C95, C99, C112, C124, C146 and C155 (Table 3). However, the majority of the human bone came from two Contexts; C93, and C99 and had total weight of 1,831.2g, which is 96.5% of the bone identified as human.

It is likely the assemblage of cremated bone recovered from Context C93 represents a number of human cremations. The human bone fragments from this Context were in general larger than from any of the other Contexts containing human remains. The bone from Context C93 was distributed between 11 sample bags which all contained bone identified as human. When the identified bone is added to the unidentified bone, the total weight from C93 comes to 2,351.7g, which is 42.9% of the total amount of analysed bone (Table 3). The identifiable fragments included skull, maxilla, mandible and teeth fragments along with vertebrae, costae, clavicle, scapula, humerus, radius, ulna, mc, carpal, femur, tibia, fibula, patella, tarsal and phalanges fragments. The minimum number of individuals (MNI) in C93 is 6; four juveniles and two adults. The teeth fragments recovered indicates there were two children of c. 3 years of age, one child of c. 3-5 years and one child of c. 5-10 years of age. Further, two dens from two separate cervical vertebrae (axis) from the same sample bag supports the presence of two children of c. 3 years of age (Plate 1).



Plate 1. Two dens axis from two juveniles of c. 3-4 years of age.

One of the adults was probably an older individual as an ectocranial suture displayed a significant closure (Plate 2). Further, two vertebrae fragments displayed lipping possibly indicating an increased age but this pathology can also be caused by heavy physical activity. A maxilla fragment, which might have been from this older

individual, displayed alveolar resorption, indicates periodontal disease. Retrieved skull and orbital fragments suggest the presence of a young adult female. It is likely there were more adult individuals present in the material but through the lack of duplications of bone elements this cannot be substantiated.



Plate 2. A sample of skull fragments with arrows highlighting significant closure of sutures.

A few fragments, especially from the skull, displayed black and charred interiors but white/brown exteriors indicating that these fragments were exposed to a less degree of burning. Further, a few fragments of both identified human bone (skull) and unidentified bone exhibited blue/green staining on the interior of the bone. This might suggest that the cremated bone was gathered up after the cremation and deposited together with copper alloy objects (possibly grave goods) which then stained the bone (Plate 3).

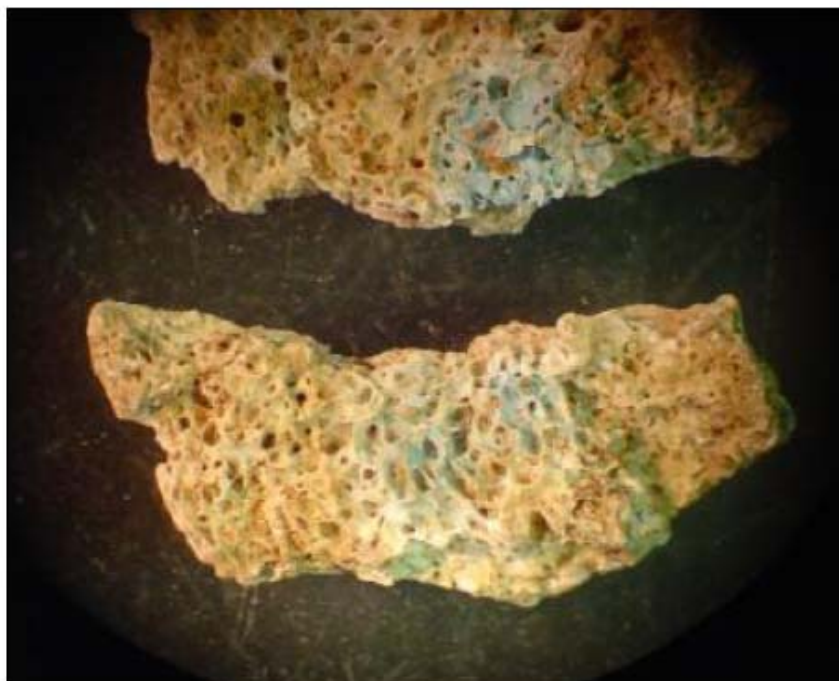


Plate 3. Micrograph of the blue/green staining on the interior of the bone. (Scale x 10)

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 4). 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 burning process and/or through disturbances of the deposited cremated skeletal remains. Malinowski and Porawski (1969) reported that in 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 total weight of the cremated human bone from C99 was 558.5g but when adding the unidentified bone from C99 this would come to 789.5g or c. 14.4% of the analysed bone (Table 3). The cremated bone from C99 was divided between three sample bags which all contained human remains. The identifiable fragments included skull, maxilla, mandible, teeth, vertebrae, costae, humerus, ulna, mc, femur, tibia, mt, and ph fragments. The cremated material from C99 can only substantiate the presence of two individuals; one child of c. 4-6 years of age and one adult.

Context C112 only contained a total of 45.4g of cremated bone identified as human. However, this bone sample was very fragmented and adding the unidentified bone, the total weight comes to 692.4g or 12.6% of the total amount of bone (Table 3). This percentage is not far off that of C99, even though there was a larger amount of bones from C99 which was positively identified as human. The cremated bone from C112 was divided between seven sample bags where of six contained human remains.

Skeletal elements identified were skull, teeth, vertebrae, humerus, ulna, mc, carpal, coxae, tibia, fibula and ph fragments. As there were no apparent duplicate bone elements and the fragments were fused, it can only be determined that there was one single individual present who was older than 19 years of age. C112 contained a right coxae fragment which displayed a non-metric trait. This trait is displayed as a triangular shaped defect located in the acetabulum area and is a common finding (Mann & Hunt, 2005:127).

The weight of the human bone from the remaining six Contexts; C31, C67, C95, C124, C146 and C155 came to only 21.3g or c. 4% of the total number of analysed bone. This figure becomes significantly larger when the unidentified fragments from the above six Context are added, 1082.6g or c. 20% of the total number of analysed bone. The skeletal fragments represented were; skull, mandible, dens, vertebrae and ph fragments.

Cremated human and unidentified bone per context, in gram and percentage						
Context	Human in gram	Human in %	Unid in gram	Unid in %	Total per context (g)	Total in %
C93	1272.7	23.20%	1080.5	19.69%	2353.2	42.9%
C99	558.5	10.18%	231	4.21%	789.5	14.4%
C112	45.4	0.83%	647	11.79%	692.4	12.6%
C31	7	0.13%	304	5.54%	311	5.7%
C67	8.5	0.15%	499.1	9.10%	507.6	9.3%
C95	1.5	0.03%	114	2.08%	115.5	2.1%
C124	2.5	0.05%	85.5	1.56%	88	1.6%
C146	1.6	0.03%	48.2	0.88%	49.8	0.9%
C155	0.2	0.00%	10.5	0.19%	10.7	0.2%
Total	1897.9	34.6%	3019.8	55.0%	4917.7	89.6%
Remaining contexts	0	0.00%	568.7	10.37%	568.7	10.4%
Grand total	1897.9	34.6%	3588.5	65.4%	5486.4	100.0%

The animal bone is included in C93 Unid

Table 3. The cremated bone divided by context.

It is likely the retrieved bone from Carn More 5 does not represent the complete skeletal remains from the cremations. The weight of the cremations is less than the average weight mentioned by Malinowski and Porawski (above) and in Table 4 (below). For example, the average weight of an adult varies between 952-3,605g depending on the sex, while the cremated bone of a child of between 3-13 years of age would give an average of 661g of bone. However, this could be due to several factors, for example the bone might have disintegrated, have been disturbed by ploughing/other activities or that bones were lost during the collection of remains from the burial pyre in antiquity. Alternatively, the cremated bone from Carn More 5 represents what is left from the funeral pyre and that all larger bone have been gathered up to be deposited at a different, permanent burial location.

Table 4. 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)

3.3. Animal Bone

3.3.1. Bird; Aves

The bone assemblage from Carn More 5 only contained one fragment which was identified as animal. The species identified was bird (Aves) but due to the high degree of fragmentation the species order and family could not be determined. The fragment in question was part of a sternum. The total weight of the bird bone was 1.5g.

3.4. Unidentified cremated bone

The majority of the cremated bone assemblage from Carn More 5 could not be identified to species or anatomical unit. The total weight of these came to 3,587g or 65.4% of the total number of analysed bone.

To assess the fragmentation, the unidentified cremated bone was passed through two sieves; one 5mm and one 2mm mesh. Of these fragments 23% were small enough to pass through the 2mm sieve, a total of 26.2% passed through the 5mm sieve while c. 50.8% were too large to pass through the 5mm sieve (Table 5). A sample of the unidentified cremated bone material retrieved from the 2mm and 5 mm sieve is displayed below (Plate 4 & 5).

Fragmentation size and weight of the unidentified cremated bones				
Context No	No of fragments	Fragmentation size	Weight in grams	Weight in %
All Contexts	-	<2mm	824.9	23.0%
All Contexts	-	2-5mm	941.1	26.2%
All Contexts	-	>5mm	1821	50.8%
Total			3587	100.0%

Table 5. Fragment size and weight of the unidentified cremated bone.



Plate 4. A sample of unidentified cremated bone from 2mm sieve.



Plate 5. A sample of unidentified cremated bone from the 5mm sieve.

The large majority of the cremated bone from Carn More 5 had a creamy to chalky white colour and fragmented appearance. This indicates a high heat of the funeral pyre with temperatures reaching at least 6450C or higher, 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.

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Bag	Sample No	Conte xt	Species	Element	Part of element	NISP	MN	E	Side	Pr epi	P 1/3	M 1/3	D 1/3	DI epi	J	M/F	C	G	P	Unb ur nt	Bur nt	Descr C/P/G	Comment	Weght	Sieve	
1	102	99	Human	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Cremation	112	<2mm	
1	102	99	Human	Dens	Mol cusp frag from 2mm sieve	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Cremation	0.5	2mm sieve	
1	102	99	Human	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Cremation	45	2mm sieve	
1	102	99	Human	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Cremation	256	5mm sieve	
1	102	99	Human	Skull	Vault frag,front,occip,pari,temp	30	1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	30	Very twisted fr burning	One suture fused/cl. Cremation	64	5mm sieve
1	102	99	Human	Maxilla	Alv, dens roots	7	1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	Cremation	6	5mm sieve
1	102	99	Human	Mandible	Alv, ramus	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Cremation	3.5	5mm sieve
1	102	99	Human	Skull-zygo	Orbita frag	1	1	Sn	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Cremation	3.5	5mm sieve
1	102	99	Human	Dens	Mand, P4	1	1	Dx	-	-	-	-	-	-	J	-	-	-	-	-	-	1	-	Erupting= c. 5yrs ±1.5yrs	0.5	5mm sieve
1	102	99	Human	Dens	Max, M1 - roots	1	1	Sn	-	-	-	-	-	-	A	-	-	-	-	-	-	1	-	Adult	1.5	5mm sieve
1	102	99	Human	Dens	Mand, dm1, root frag	2	1	Sn	-	-	-	-	-	-	J	-	-	-	-	-	-	2	-	Juv. Worm c. 4-9yrs	3	5mm sieve
1	102	99	Human	Dens	Root frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	0.5	5mm sieve
1	102	99	Human	Vert cerv	Axis, atlas, cerv frag	8	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	5.5	5mm sieve
1	102	99	Human	Vert thor	Na, corpus frag	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	Juv? One corpus unif = c. 6yrs	5	5mm sieve
1	102	99	Human	Costae	Collum, corpus frag	2	2	Sn	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	Cremation	3.5	5mm sieve
1	102	99	Human	Humerus	Dist dia frag, dist epi frag	3	1	Dx	-	-	-	-	1	2	-	-	-	-	-	-	-	3	-	Porous=juv?	5	5mm sieve
1	102	99	Human	Humerus	Prox+dist epi frag	2	1	-	-	1	-	-	-	1	-	-	-	-	-	-	-	2	-	-	2	5mm sieve
1	102	99	Human	Ulna	Diaph frag	1	1	Sn	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	3	5mm sieve
1	102	99	Human	Femur	Dist dia frag+condyle	2	1	Sn	-	-	-	-	1	1	-	-	-	-	-	-	-	2	-	-	7	5mm sieve
1	102	99	Human	Tibia	Prox epi frag+prox diaph frag	2	1	Dx	1	1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	5	5mm sieve
1	102	99	Human	Mc4	Prox dia frag	1	1	Dx	-	-	-	1	1	-	-	-	-	-	-	-	-	1	-	-	1	5mm sieve
1	102	99	Human	Mc3	Prox epi frag	1	1	Sn	F	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	0.5	5mm sieve
1	102	99	Human	Mp	Dist epi frag	1	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	0.5	5mm sieve
2	111	93	Human	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Cremation	74	<2mm	
2	111	93	Human	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Cremation	28	2mm sieve
2	111	93	Human	Skull-parie	In frag	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	Cremation	15	5mm sieve
2	111	93	Human	Femur	Diaph frag	1	1	Sn	-	-	-	1	1	-	-	-	-	-	-	-	-	1	-	Cremation	11	5mm sieve
2	111	93	Human	Humerus	Diaph frag	1	1	Sn	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	Cremation	10	5mm sieve
2	111	93	Human	Ulna	Prox dia frag	1	1	Sn	-	-	1	1	-	-	-	-	-	-	-	-	-	1	-	Cremation	7.5	5mm sieve
2	111	93	Human	Unid	5mm sieve burnt bone	9	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	One frag 7.5m	8	5mm sieve
2	111	93	Human	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	-	145	5mm sieve
2	111	93	Human	Skull	Mixed frag, temp,parie,front	25	1	-	-	-	-	-	-	-	A	-	-	-	-	-	-	25	-	Suture fused=old individual	33	5mm sieve
2	111	93	Human	Skull-temp	Meatus	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2.5	5mm sieve
2	111	93	Human	Skull-front	Orbita frag	2	1	Dx	-	-	-	-	-	-	-	F?	-	-	-	-	-	2	-	Pos female	5	5mm sieve
2	111	93	Human	Skull-max	Max, alv, I1 still in jaw	3	1	Dx	-	-	-	-	-	-	J	-	-	-	-	-	-	3	-	I1 in jaw. C. 4±1yr	2	5mm sieve
2	111	93	Human	Mandible	Mand, alv, C still in jaw	1	1	Dx	-	-	-	-	-	-	J	-	-	-	-	-	-	1	-	C in jaw= c. 3-5yrs	2	5mm sieve
2	111	93	Human	Mandible	Mand, alv, mental protub	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Pos adult	1	5mm sieve
2	111	93	Human	Skull	Pos skull frag	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	Less burnt on inside=black	8	5mm sieve
2	111	93	Human	Unid	Unid frag w blue staining	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	Blue/green staining on interior bone/pos copper alloy(?)	5	5mm sieve
2	111	93	Human	Costae	Collum, corpus frag	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	1	5mm sieve
2	111	93	Human	Vertebra	Arch frag	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	1	5mm sieve
2	111	93	Human	Mp	Diaph frag	2	2	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2	-	-	1.5	5mm sieve
2	111	93	Human	Ph	Dist dia+epi frag	1	1	-	-	-	-	1	1	F	-	-	-	-	-	-	-	1	-	-	0.5	5mm sieve
2	111	93	Human	Humerus	Prox epi, diaph frag	3	1	Dx	2	1	-	-	-	-	-	-	-	-	-	-	-	3	-	-	5	5mm sieve
2	111	93	Human	Tibia	Prox epi frag+prox dia frag	4	1	Dx	2	1	1	-	-	-	-	-	-	-	-	-	-	4	-	-	10	5mm sieve
3	140	93	Human	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Cremation	126	<2mm
3	140	93	Human	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Cremation	29	2mm sieve
3	140	93	Human	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Cremation	139	5mm sieve
3	140	93	Human	Skull	Mixed frag, temp,parie	9	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	Cremation	26	5mm sieve
3	140	93	Human	Dens	Prob Pm	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	In bad cond	0.5	5mm sieve
3	140	93	Human	Costae	Collum, corpus frag	7	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	8	5mm sieve
3	140	93	Human	Vert cerv	Atlas frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	0.5	5mm sieve

Bag	Sample No	Conte xt	Species	Element	Part of element	NISP	MN	Side	Pr epi	P 1/3	M 1/3	D 1/3	Di epi	J	M/F	C	G	P	Unb urnt	Bur nt	Descr C/P/G	Comment	Weigh t	Sieve
3	140	93	Human	Vert cerv	Axis, corpus+dens	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1.5	5mm sieve
3	140	93	Human	Vert cerv	4 Corpus frag	4	4	-	-	-	-	-	-	-	-	-	-	-	2	-	4	Procorpus mild lippine	5	5mm sieve
3	140	93	Human	Vert lumb	Corpus+arch frag	2	2	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	1.5	5mm sieve
3	140	93	Human	Scapula	Glen cav frag	2	1	Sn	-	-	-	-	-	-	-	-	-	-	-	2	-	-	3.5	5mm sieve
3	140	93	Human	Humerus	Prox epi frag	2	1	-	2	-	-	-	-	-	-	-	-	-	-	2	-	-	4.5	5mm sieve
3	140	93	Human	Femur	Prox dia frag	1	1	Dx	-	1	-	-	-	-	-	-	-	-	-	1	-	-	8	5mm sieve
3	140	93	Human	Tibia	Prox epi frag	4	1	-	1	-	-	-	-	-	-	-	-	-	-	4	-	-	1	5mm sieve
3	140	93	Human	Humerus	Diaph frag	2	1	Dx	-	-	2	-	-	-	-	-	-	-	-	2	-	-	5	5mm sieve
3	140	93	Human	Ulna	Prox dia frag+dist dia frag	4	1	Dx	1	2	1	1	-	-	-	-	-	-	-	4	-	Very twisted from burning	13	5mm sieve
3	140	93	Human	Ulna	Dist dia frag	1	1	Sn	-	-	1	1	-	-	-	-	-	-	-	1	-	Very twisted from burning	4.5	5mm sieve
3	140	93	Human	Radius	Dist dia frag	1	1	Dx	-	-	1	1	-	-	-	-	-	-	-	1	-	Very twisted from burning	9	5mm sieve
3	140	93	Human	Radius	Dist dia frag	1	1	Sn	-	-	1	1	-	-	-	-	-	-	-	1	-	Very twisted from burning	8	5mm sieve
3	140	93	Human	Ph	Distal foot ph, Dist dia+epi frag	1	1	-	-	1	1	1	F	-	-	-	-	-	-	1	-	-	1	5mm sieve
3	140	93	Human	Ph	Intermediate foot ph4 or 5	1	1	-	F	1	1	1	F	-	-	-	-	-	-	1	-	-	0.5	5mm sieve
4	109	93	Human	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Cremation	60	<2mm
4	109	93	Human	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Cremation	20	2mm sieve
4	109	93	Human	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Cremation	141	5mm sieve
4	109	93	Human	Skull	Mixed frag, temp, occip	16	1	-	-	-	-	-	-	-	-	-	-	-	-	16	-	One w blue/green staining on interior=from	19	5mm sieve
4	109	93	Human	Skull-temp	Meatus frag	3	3	-	-	-	-	-	-	-	-	-	-	-	-	3	-	Cremation	0	5mm sieve
4	109	93	Human	Skull-temp	Zygo proc	1	1	Sn	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1.5	5mm sieve
4	109	93	Human	Mandible	Ramus+ahv	1	1	Dx	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	5mm sieve
4	109	93	Human	Costae	Corpus frag	2	2	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	2	5mm sieve
4	109	93	Human	Vert lumb	Corpus+arch frag	4	3	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	3.5	5mm sieve
4	109	93	Human	Carpal	Scaphoid frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	0.5	5mm sieve
4	109	93	Human	Mc	Diaph frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1.5	5mm sieve
4	109	93	Human	Ph	Hand ph, Dist dia frag	1	1	-	-	-	1	1	F	-	-	-	-	-	-	1	-	-	1	5mm sieve
4	109	93	Human	Clavicle	Diaph frag	1	1	-	-	1	1	1	-	J	-	-	-	-	-	1	-	Prob 5-10yr	1	5mm sieve
4	109	93	Human	Humerus	Dist dia frag	1	1	Sn	-	-	-	1	-	-	-	-	-	-	-	1	-	-	1.5	5mm sieve
4	109	93	Human	Ulna	Diaph frag	2	1	Sn	-	1	1	1	-	-	-	-	-	-	-	2	-	-	7	5mm sieve
4	109	93	Human	Tibia	Dist dia frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	3.5	5mm sieve
5	110	93	Human	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	-	23	<2mm
5	110	93	Human	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	-	19	2mm sieve
5	110	93	Human	Dens	Mol cusp frag from 2mm sieve	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	0.2	2mm sieve
5	110	93	Human	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	-	66	5mm sieve
5	110	93	Human	Skull	Mixed frag	9	1	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	18	5mm sieve
5	110	93	Human	Vert cerv	Proc frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	5mm sieve
5	110	93	Human	Vert lumb	Corpus frag	2	1	-	F	1	1	1	F	-	-	-	-	-	-	2	-	-	1.5	5mm sieve
5	110	93	Human	Femur	Diaph frag	1	1	-	-	-	1	-	-	-	-	-	-	-	-	1	-	Twisted from burning	12	5mm sieve
5	110	93	Human	Ph	Distal hand ph, dist dia frag	1	1	-	-	-	-	1	F	-	-	-	-	-	-	1	-	-	0.2	5mm sieve
5	110	93	Human	Ph	Intermediate foot ph, Prox dia	2	2	-	F	1	1	-	-	-	-	-	-	-	-	2	-	-	0.5	5mm sieve
6	42	31	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	-	9	<2mm
6	42	31	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	-	6	2mm sieve
6	42	31	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	-	10	5mm sieve
7	243	201	Unid	Unid	<2mm burnt bone	12	12	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	0.5	<2mm
7	243	201	Unid	Unid	2mm sieve burnt bone	3	3	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	0.5	2mm sieve
7	243	201	Unid	Unid	5mm sieve burnt bone	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	5mm sieve
8	6	31	Unid	Unid	<5mm burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Pos cremation	20	<5mm
8	6	31	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Pos cremation	35	5mm sieve
8	6	31	Human	Skull	Mixed, parie, temp-proc	6	1	-	-	-	-	-	-	-	-	-	-	-	-	6	-	Pos cremation	5	5mm sieve
9	220	198	Unid	Unid	5mm sieve burnt bone	9	9	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	2	5mm sieve
9	220	198	Unid	Unid	<5mm burnt bone+soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	-	13	<5mm
10	251	198	Unid	Unid	5mm sieve burnt bone	9	9	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	-	3	5mm sieve

Bag	Sample No	Conte xt	Species	Element	Part of element	NISP	MN	Side	Pr epi	P 1/3	M 1/3	D 1/3	Di epi	J	M/F	C	G	P	Unb urnt	Bur nt	Descr C/P/G	Comment	Weigh t	Sieve
10	251	198	Unid	Unid	<5mm burnt bone+soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	-	12	<5mm
11	162	112	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Pos human skull frag	73	5mm sieve
11	162	112	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	4	2mm sieve
11	162	112	Unid	Unid	Burnt bone + dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	9	<2mm
12	33	52	Unid	Unid	5mm sieve burnt bone	3	3	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	1	5mm sieve
12	33	52	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	1.5	2mm sieve
12	33	52	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	12	<2mm
13	152	112	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	9	<2mm
13	152	112	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	3	2mm sieve
13	152	112	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	37	5mm sieve
13	152	112	Human	Skull	Mixed skull vault frag	2	1	-	-	-	-	-	-	-	-	-	-	-	-	2	-	White	1	5mm sieve
13	152	112	Human	Tibia	Diaph frag	1	1	-	-	-	1	-	-	-	-	-	-	-	-	1	-	White	4	5mm sieve
13	152	112	Human	Fibula	Diaph frag	1	1	-	-	-	1	1	-	-	-	-	-	-	-	1	-	White	1.5	5mm sieve
13	152	112	Human	Mc	Diaph+dist epi frag	2	1	-	-	1	1	1	F	-	-	-	-	-	-	2	-	White	1	5mm sieve
13	152	112	Human	Ph	One fairly complete, 3 dia frag	4	4	-	F	1	1	1	F	-	-	-	-	-	-	4	-	White	3.5	5mm sieve
13	152	112	Human	Carpal	Trapezium frag	1	1	Dx	-	-	-	-	-	-	-	-	-	-	-	1	-	White	0.5	5mm sieve
14	101	99	Human	Dens	Root+mol cusp frag	2	1	-	-	-	-	-	-	-	-	-	-	-	-	2	-	White	0.5	2mm sieve
14	101	99	Human	Mandible	Alv frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	White	0.1	2mm sieve
14	101	99	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5	2mm sieve
14	101	99	Human	Ph	Distal dia+epi frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	0.1	2mm sieve
14	101	99	Unid	Unid	Burnt bone + dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	8	<2mm
14	101	99	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Prob cremation	32	5mm sieve
14	101	99	Human	Skull	Mixed frag from vault	3	1	-	-	-	-	-	-	-	-	-	-	-	-	3	-	Prob cremation	3.5	5mm sieve
14	101	99	Human	Maxilla	Alv frag	3	1	-	-	-	-	-	-	-	-	-	-	-	-	3	-	Prob cremation	2.5	5mm sieve
14	101	99	Human	Sternum	Corpus sterni	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Prob cremation	1.5	5mm sieve
14	101	99	Human	Vert cerv	One atlas frag+na from Ve cerv	2	2	-	-	-	-	-	-	-	-	-	-	-	-	2	-	Prob cremation	1.5	5mm sieve
15	28	98	Unid	Unid	5mm sieve burnt bone	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	White	0.2	5mm sieve
15	28	98	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5	2mm sieve
15	28	98	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	3	<2mm
16	80	67	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	35	<2mm
16	80	67	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	15	2mm sieve
16	80	67	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	125	5mm sieve
16	80	67	Human	Mandible	Alv, mental spines	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Prob cremation	4	5mm sieve
16	80	67	Human	Skull	Vault frag	2	1	-	-	-	-	-	-	-	-	-	-	-	-	2	-	Prob cremation	4.5	5mm sieve
17	223	201	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	10	5mm sieve
17	223	201	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	35	2mm sieve
17	223	201	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	102	<2mm
19	162	112	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	12	<2mm
19	162	112	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	7.5	2mm sieve
19	162	112	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	69	5mm sieve
19	162	112	Human	Skull	Vault frag	2	1	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Pos cremation	4	5mm sieve
19	162	112	Human	Ulna	Diaph frag	1	1	-	-	-	1	-	-	-	-	-	-	-	-	Y	-	Pos cremation	2	5mm sieve
20	12	31	Discarded	Discarded	Not bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	229	198	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	3	5mm sieve
18	229	198	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5	<2mm
18	229	198	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5	2mm sieve
21	245	198	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	20	<2mm
21	245	198	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	12	2mm sieve
21	245	198	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	6	5mm sieve
22	175	146	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	2	<2mm
22	175	146	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	2	2mm sieve
22	175	146	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5	5mm sieve

Bag	Sample No.	Context	Species	Element	Part of element	NISP	MN	Side	Pr	P	M	D	Di	J	M/F	C	G	P	Unb	Bur	Descr C/P/G	Comment	Weight	Sieve
22	175	146	Human	Vert cerv	Atlas frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Pos cremation	1.5	5mm sieve
23	205	31	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	83	<2mm
23	205	31	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	35	2mm sieve
23	205	31	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Pos human skull frag. White	35	5mm sieve
24	119	112	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Prob cremation	8	<2mm
24	119	112	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Prob cremation	2.5	2mm sieve
24	119	112	Human	Humerus	Prox epi frag	2	1	-	2	-	-	-	-	-	-	-	-	-	-	2	-	Prob cremation	4	5mm sieve
24	119	112	Human	Ulna	Prox dia+epi frag	1	1	Sin	F	1	-	-	-	A	-	-	-	-	-	1	-	Prob cremation	5	5mm sieve
24	119	112	Human	Mp	Diaph frag	1	1	-	-	1	1	-	-	-	-	-	-	-	-	1	-	Prob cremation	2	5mm sieve
24	119	112	Human	Ph	Prox hand ph, prox dia+epi frag	1	1	-	F	1	-	-	-	-	-	-	-	-	-	1	-	Prob cremation	1	5mm sieve
24	119	112	Human	Ph	Dist foot ph1, fairly complete	1	1	Dx	F	1	1	1	F	-	-	-	-	-	-	1	-	Prob cremation	1	5mm sieve
24	119	112	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Prob cremation	28	5mm sieve
25	191	94	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	1	<2mm
25	191	94	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	1	2mm sieve
25	191	94	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	0.5	5mm sieve
26	135	111	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5	<2mm
26	135	111	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	9	2mm sieve
26	135	111	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	19	5mm sieve
27	163	112	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	3.5	<2mm
27	163	112	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	2.5	2mm sieve
27	163	112	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	10	5mm sieve
28	231	201	Unid	Unid	Burnt bone + dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	21	<2mm
28	231	201	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	12	2mm sieve
28	231	201	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	6	5mm sieve
29	60	67	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5	2mm sieve
29	60	67	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5	5mm sieve
30	240	208	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	14	<2mm
30	240	208	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	18	2mm sieve
30	240	208	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	33	5mm sieve
31	87	67	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5	<2mm
31	87	67	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5.5	2mm sieve
31	87	67	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	10	5mm sieve
32	31	51	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	15	<2mm
32	31	51	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	11	2mm sieve
32	31	51	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	4	5mm sieve
33	31	51	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	7	<2mm
33	31	51	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5.5	2mm sieve
33	31	51	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	0.5	5mm sieve
34	83	67	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	3.5	<2mm
34	83	67	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	4	2mm sieve
34	83	67	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	14	5mm sieve
35	130	95	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5	<2mm
35	130	95	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5	2mm sieve
35	130	95	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	10	5mm sieve
36	119	112	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	7	<2mm
36	119	112	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	3	2mm sieve
36	119	112	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	25	5mm sieve
36	119	112	Human	Vert cerv	Atlas frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Prob cremation	2	5mm sieve
36	119	112	Human	Coxae	Acet frag	2	1	Dx	-	-	-	-	-	-	-	-	-	-	1	-	2	Acet notch-natural	6	5mm sieve
37	134	95	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	22.5	<2mm
37	134	95	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	17	2mm sieve
37	134	95	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	36.5	5mm sieve

Bag	Sample No	Conte xt	Species	Element	Part of element	NISP	MN	E	Side	Pr epi	P	1/3	1/3	1/3	Di epi	J	M/F	C	G	P	Unb urnt	Bur nt	Descr C/P/G	Comment	Weigh t	Sieve
37	134	95	Human	Skull	Vault frag+sutur	2	1															2		Prob cremation	1.5	5mm sieve
38	86	67	Unid	Unid	Burnt bone+dust <2mm																	Y		White	5	<2mm
38	86	67	Unid	Unid	2mm sieve burnt bone																	Y		White	2	2mm sieve
38	86	67	Unid	Unid	5mm sieve burnt bone																	Y		White	11.5	5mm sieve
39	84	67	Unid	Unid	2mm sieve burnt bone																	Y		White	3	2mm sieve
39	84	67	Unid	Unid	5mm sieve burnt bone																	Y		White	5	5mm sieve
40	59	67	Unid	Unid	Burnt bone+dust <2mm																	Y		White	5	<2mm
40	59	67	Unid	Unid	2mm sieve burnt bone																	Y		White	12	2mm sieve
40	59	67	Unid	Unid	5mm sieve burnt bone																	Y		White	10	5mm sieve
41	58	67	Unid	Unid	Burnt bone+dust <2mm																	Y		White	2	<2mm
41	58	67	Unid	Unid	2mm sieve burnt bone																	Y		White	4.5	2mm sieve
41	58	67	Unid	Unid	5mm sieve burnt bone																	Y		White	4	5mm sieve
41	58	67	Unid	Unid	Burnt bone+dust <2mm																	Y		White	1.5	<2mm
41	58	67	Unid	Unid	2mm sieve burnt bone																	Y		White	5	2mm sieve
41	58	67	Unid	Unid	5mm sieve burnt bone																	Y		White	0.1	5mm sieve
42	46	67	Unid	Unid	Burnt bone+dust <2mm																	Y		White	0.5	<2mm
42	46	67	Unid	Unid	2mm sieve burnt bone																	Y		White	3	2mm sieve
42	46	67	Unid	Unid	5mm sieve burnt bone																	Y		White	2.5	5mm sieve
43	180	123	Unid	Unid	Burnt bone+dust <2mm																	Y		White	0.1	<2mm
43	180	123	Unid	Unid	2mm sieve burnt bone																	Y		White	4	2mm sieve
43	180	123	Unid	Unid	5mm sieve burnt bone																	Y		White	2.5	5mm sieve
44	73	67	Unid	Unid	Burnt bone+dust <2mm																	Y		White	3.5	<2mm
44	73	67	Unid	Unid	2mm sieve burnt bone																	Y		White	7	2mm sieve
44	73	67	Unid	Unid	5mm sieve burnt bone																	Y		White	5	5mm sieve
45	103	99	Unid	Unid	Burnt bone+dust <2mm																	Y		White	18	<2mm
45	103	99	Unid	Unid	2mm sieve burnt bone																	Y		White	17	2mm sieve
45	103	99	Unid	Unid	5mm sieve burnt bone																	Y		White	50	5mm sieve
45	103	99	Unid	Unid	Burnt bone+dust <2mm																	Y		White	24	<2mm
45	103	99	Unid	Unid	2mm sieve burnt bone																	Y		White	23	2mm sieve
45	103	99	Unid	Unid	5mm sieve burnt bone																	Y		White	54	5mm sieve
45	103	99	Human	Skull	Vault frag+sutur	3	1															3		Prob cremation	5	5mm sieve
45	103	99	Human	Skull-temp	Zygo proc	1	1		Ox													1		Prob cremation	2	5mm sieve
45	103	99	Human	Dens	Root - prob of premol	1	1															1		Prob cremation	0.2	5mm sieve
45	103	99	Human	Mt	Dist dia+epi frag	1	1							1	F							1		Prob cremation	0.5	5mm sieve
45	103	99	Human	Ph	Prox foot ph, dist dia+epi	1	1							1	F							1		Prob cremation	0.5	5mm sieve
45	103	99	Human	Ph	Prox hand ph, dia frag	1	1							1								1		Prob cremation	0.1	5mm sieve
45	103	99	Human	Vert cerv	Na frag	3	3															3		Prob cremation	4	5mm sieve
45	103	99	Human	Ph	Ph frag	4	4															4		Prob cremation	2.5	5mm sieve
46	57	66	Unid	Unid	Burnt bone+dust <2mm																	Y		White	3.5	<2mm
46	57	66	Unid	Unid	2mm sieve burnt bone																	Y		White	4.5	2mm sieve
46	57	66	Unid	Unid	5mm sieve burnt bone																	Y		White	6	5mm sieve
47	21	8	Unid	Unid	Burnt bone+dust <2mm																	Y		White	1.5	<2mm
47	21	8	Unid	Unid	2mm sieve burnt bone																	Y		White	3	2mm sieve
48	184	118	Unid	Unid	2mm sieve burnt bone																	Y		White	1	2mm sieve
48	184	118	Unid	Unid	5mm sieve burnt bone																	Y		White	1.5	5mm sieve
49	32	52	Unid	Unid	Burnt bone+dust <2mm																	Y		White	1	<2mm
49	32	52	Unid	Unid	2mm sieve burnt bone																	Y		White	1.5	2mm sieve
50	27	48	Unid	Unid	Burnt bone+dust <2mm																	Y		White	0.2	<2mm
50	27	48	Unid	Unid	2mm sieve burnt bone																	Y		White	0.5	2mm sieve
51	131	111	Unid	Unid	Burnt bone+dust <2mm																	Y		White	0.5	<2mm
51	131	111	Unid	Unid	2mm sieve burnt bone																	Y		White	4	2mm sieve
51	131	111	Unid	Unid	5mm sieve burnt bone																	Y		White	2.5	5mm sieve

Bag	Sample No.	Context	Species	Element	Part of element	NISP	MN	Side	Pr	P	M	D	Di	J	M/F	C	G	P	Unb	Bur	Descr C/P/G	Comment	Weight	Sieve
52	165	111	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	0.5	<2mm
52	165	111	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	3	2mm sieve
52	165	111	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	3.5	5mm sieve
53	166	130	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	0.3	<2mm
53	166	130	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	2.5	2mm sieve
53	166	130	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	0.4	5mm sieve
54	174	146	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	1	<2mm
54	174	146	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	2	2mm sieve
54	174	146	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	1.5	5mm sieve
54	174	146	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	3.5	<2mm
54	174	146	Human	Dens	Pos Max, Pm frag	4	1	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	Prob human tooth, in bad cond	0.1	2mm sieve
54	174	146	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	6	2mm sieve
54	174	146	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5	5mm sieve
54	174	146	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	3.5	<2mm
54	174	146	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5	2mm sieve
54	174	146	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	8	5mm sieve
54	174	146	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	0.2	<2mm
54	174	146	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	1	2mm sieve
54	174	146	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	2.5	5mm sieve
55	178	130	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	0.2	<2mm
55	178	130	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	4	2mm sieve
55	178	130	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	1	5mm sieve
56	30	51	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	1	<2mm
56	30	51	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	2.5	2mm sieve
57	35	51	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	0.5	<2mm
57	35	51	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	1	2mm sieve
58	156	112	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5	<2mm
58	156	112	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	10	2mm sieve
58	156	112	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5	5mm sieve
58	156	112	Human	Dens	Root, pos pm frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Prob human tooth, in bad cond	0.5	2mm sieve
58	156	112	Human	Ph	Dipah frag	2	1	-	-	1	1	1	-	-	-	-	-	-	-	2	-	Pos cremation	1.5	5mm sieve
58	156	112	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	4.5	<2mm
58	156	112	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	6.5	2mm sieve
58	156	112	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	9.5	5mm sieve
59	157	112	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	9.5	<2mm
59	157	112	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	35	2mm sieve
59	157	112	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	52	5mm sieve
59	157	112	Human	Dens	Root+cust frag, mol frag	2	1	-	-	-	-	-	-	-	-	-	-	-	-	2	-	Prob human tooth, in bad cond	0.3	5mm sieve
59	157	112	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	17	<2mm
59	157	112	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	55	2mm sieve
59	157	112	Human	Ph	Prox dia frag	1	1	-	F	1	1	-	-	-	-	-	-	-	-	1	-	Pos interm ph	0.1	2mm sieve
59	157	112	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	108	5mm sieve
59	157	112	Human	Skull	Vault frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Prob human skull frag	1	5mm sieve
59	157	112	Human	Ph	Intermed ph frag	2	1	-	F	1	1	1	F	-	-	-	-	-	-	2	-	Prob human but in bad cond	1.5	5mm sieve
60	108	93	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	24	<2mm
60	108	93	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	27	2mm sieve
60	108	93	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	80	5mm sieve
60	108	93	Human	Skull	Vault frag	3	1	-	-	-	-	-	-	-	-	-	-	-	-	3	-	Prob cremation	2.5	5mm sieve
60	108	93	Human	Maxilla	Alv, max frag	2	1	-	-	-	-	-	-	-	-	-	-	-	-	2	-	Prob cremation	1.5	5mm sieve
60	108	93	Human	Dens	Canine, pos C, max	1	1	Si	-	-	-	-	-	-	-	-	-	-	-	1	-	Prob cremation	1.5	5mm sieve
60	108	93	Human	Vert cerv	Arch frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Prob cremation	1.5	5mm sieve
60	108	93	Human	Vertebra	Corpus frag	2	2	-	-	-	-	-	-	-	-	-	-	-	-	2	-	Pos Ve th. Prob cremation	1	5mm sieve

Bag	Sample No	Conte xt	Species	Element	Part of element	NISP	MN	E	Side	Pr epi	P	1/3	M	D	Di epi	J	M/F	C	G	P	Unb urnt	Bur nt	Descr C/P/G	Comment	Weigh t	Sieve
60	108	93	Human	Ph	Distal foot ph, Diaph frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Prob cremation	0.5	5mm sieve
60	108	93	Human	Ph	Prox or interm hand ph, diaph	2	2	-	-	-	-	1	1	-	F	-	-	-	-	-	-	2	-	Prob cremation	2	5mm sieve
61	96	93	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	10	<2mm
61	96	93	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	17	2mm sieve
61	96	93	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	46	5mm sieve
61	96	93	Human	Skull	Mixed frag from vault	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	2 frag black inter. Prob cremation	4.5	5mm sieve
61	96	93	Human	Maxilla	Pos Max, alv frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Prob cremation	0.2	5mm sieve
61	96	93	Human	Humerus	Prox epi frag	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Prob cremation	1.5	5mm sieve
61	96	93	Human	Ph	Intermed hand ph frag	1	1	-	F	1	1	1	1	-	F	-	-	-	-	-	-	1	-	Prob cremation	0.5	5mm sieve
61	96	93	Human	Ph	Diaph frag	2	2	-	-	-	-	1	1	-	F	-	-	-	-	-	-	2	-	Prob cremation	0.3	5mm sieve
62	142	93	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	24	<2mm
62	142	93	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	21	2mm sieve
62	142	93	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	85	5mm sieve
62	142	93	Human	Skull	Occip+vault frag	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	Prob cremation	6	5mm sieve
62	142	93	Human	Maxilla	Prob maxilla, alv	1	1	-	Dx	-	-	-	-	-	-	-	-	-	-	-	1	-	P:peridon dis, alv resorb	0.5	5mm sieve	
62	142	93	Human	Dentes	Root+cust frag,pm+ mol frag	5	3	-	-	-	-	-	-	-	-	J	-	-	-	-	-	5	-	Cusp root developing,Prob cremated	2.5	5mm sieve
62	142	93	Human	Humerus	Dist dia frag	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	Prob cremation	1.5	5mm sieve
62	142	93	Human	Costae	Corpus frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Prob cremation	1.5	5mm sieve
62	142	93	Human	Carpal	Scaphoid frag	1	1	-	Dx	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Prob cremation	1	5mm sieve
62	142	93	Human	Mp	Diaph frag	1	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	Prob cremation	2.5	5mm sieve
63	97	93	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	15	<2mm
63	97	93	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	30	2mm sieve
63	97	93	Human	Dens	Root frag, prob mol	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Prob cremation	0.1	2mm sieve
63	97	93	Human	Ph	Distal hand ph, dist dia frag	2	1	-	1	-	-	1	1	-	F	-	-	-	-	-	-	2	-	Prob cremation	1	2mm sieve
63	97	93	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	44	5mm sieve
63	97	93	Human	Skull	Vault frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Prob cremation	1	5mm sieve
63	97	93	Human	Maxilla	Alv, max frag	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	Prob cremation	0.5	5mm sieve
63	97	93	Human	Dentes	Root frag, prob mol	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	Prob cremation	1	5mm sieve
63	97	93	Human	Ph	Foot ph, dist dia+epi	1	1	-	-	-	-	1	1	-	F	-	-	-	-	-	-	1	-	Prob cremation	0.2	5mm sieve
63	97	93	Human?	Sesamoid?	Round bone noodle	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Human sesamoid??	0.5	5mm sieve
63	97	93	Aves?	Sternum	Frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Pos bird, just slightly burnt	1.5	5mm sieve
64	139	93	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	104	<2mm
64	139	93	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	105	2mm sieve
64	139	93	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	293	5mm sieve
64	139	93	Human	Skull	Mixed frag fr vault,occip,temp	18	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	-	Cremation	21	5mm sieve
64	139	93	Human	Mandible	Alv, ramus frag	1	1	-	Sn	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Cremation	2	5mm sieve
64	139	93	Human	Dentes	Max, Pm3+4,M2	3	3	-	Dx	-	-	-	-	-	-	J	-	-	-	-	-	3	-	Crown complete=c.5-6yrs	1.5	5mm sieve
64	139	93	Human	Dens	Max, M2-cusp	1	1	-	Sn	-	-	-	-	-	-	J	-	-	-	-	-	1	-	Crown complete=c.5-6yrs	1	5mm sieve
64	139	93	Human	Dens	Mand, M2 cusp	1	1	-	Dx	-	-	-	-	-	-	J	-	-	-	-	-	1	-	Crown complete=c.5-6yrs	1	5mm sieve
64	139	93	Human	Dentes	Several root frag	17	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	-	Cremation	4.5	5mm sieve
64	139	93	Human	Vert cerv	Corpus+arch frag	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	Cremation	1	5mm sieve
64	139	93	Human	Vertebra	Corpus+arch frag	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	Cremation	2	5mm sieve
64	139	93	Human	Mp	Diaph+prox epi frag	3	3	-	F	1	-	-	-	-	-	-	-	-	-	-	-	3	-	Cremation	1	5mm sieve
64	139	93	Human	Ph	Diaph+dist epi frag	5	5	-	-	-	-	1	1	-	F	-	-	-	-	-	-	4	-	Cremation	2	5mm sieve
64	139	93	Human	Ph	Distal ph frag	5	5	-	-	-	-	1	1	-	F	-	-	-	-	-	-	5	-	Cremation	2.5	5mm sieve
65	29	8	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	0.5	<2mm
65	29	8	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	0.1	2mm sieve
66	100	93	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	1.5	<2mm
66	100	93	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	3.5	2mm sieve
66	100	93	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	12	5mm sieve
66	100	93	Human	Dens	Root, prob a C	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Prob human, but fragmented	1	5mm sieve
67	72	67	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	14	<2mm

Bag	Sample No.	Context	Species	Element	Part of element	NISP	MN	E	Side	Pr	P	M	D	DI	J	M/F	C	G	P	Unb	Bur	Descr C/P/G	Comment	Weight	Sieve
67	72	67	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	38	2mm sieve
67	72	67	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	56	5mm sieve
68	15	25	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	10	<2mm
68	15	25	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	29	2mm sieve
68	15	25	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	6	5mm sieve
69	41	31	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	3	<2mm
69	41	31	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	8	2mm sieve
69	41	31	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	10	5mm sieve
69	41	31	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	4	<2mm
69	41	31	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	9	2mm sieve
69	41	31	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	7	5mm sieve
70	25	31	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	4	<2mm
70	25	31	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	3	2mm sieve
70	25	31	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	3.5	5mm sieve
71	203	31	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	3	<2mm
71	203	31	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	9	2mm sieve
71	203	31	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	7.5	5mm sieve
71	203	31	Human?	Skull	Vault frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Pos human skull frag	2	5mm sieve
72	164	124	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	2	<2mm
72	164	124	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	4	2mm sieve
72	164	124	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	2	5mm sieve
72	164	124	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	1	<2mm
72	164	124	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	3.5	2mm sieve
72	164	124	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	2.5	5mm sieve
72	164	124	Human	Ph	Interm hand ph. Diaph frag	1	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	Pos cremation	0.5	5mm sieve
73	172	124	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	7	<2mm
73	172	124	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	30	2mm sieve
73	172	124	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	33.5	5mm sieve
73	172	124	Human	Skull	Vault frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Pos human skull frag	1.5	5mm sieve
73	172	124	Human	Ph	Interm hand ph. Diaph frag	1	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	Pos cremation	0.5	5mm sieve
74	43	62	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	1	2mm sieve
75	136	95	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	2	<2mm
75	136	95	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	3.5	2mm sieve
75	136	95	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	1.5	5mm sieve
76	45	66	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	1	<2mm
76	45	66	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	3	2mm sieve
76	45	66	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	4	5mm sieve
76	45	66	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	0.5	<2mm
76	45	66	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	3.5	2mm sieve
76	45	66	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	4	5mm sieve
77	138	95	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	2	<2mm
77	138	95	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	3	2mm sieve
77	138	95	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	0.5	5mm sieve
78	95	95	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	1.5	<2mm
78	95	95	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	3	2mm sieve
78	95	95	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	1	5mm sieve
79	106	94	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	0.5	5mm sieve
80	196	155	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	2	<2mm
80	196	155	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	4	2mm sieve
80	196	155	Human?	Dens	Root, pos mol frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Pos human tooth frag	0.2	2mm sieve
80	196	155	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	4.5	5mm sieve
81	154	112	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	3.5	<2mm

Bag	Sample No.	Context	Species	Element	Part of element	NISP	MN	Side	Pr	P	M	D	Di	J	M/F	C	G	P	Unburnt	Burnt	Descr C/P/G	Comment	Weight	Sieve
81	154	112	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	5	2mm sieve
81	154	112	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5	5mm sieve
81	154	112	Human	Skull	Vault+sutur frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Pos cremation	1	5mm sieve
81	154	112	Human	Ph	Distal hand ph, dist dia frag	2	2	-	-	-	1	1	F	-	-	-	-	-	-	2	-	Pos cremation	1	5mm sieve
81	154	112	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	0.2	<2mm
81	154	112	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	3	2mm sieve
81	154	112	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	0.3	5mm sieve
82	250	198	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	0.2	<2mm
82	250	198	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	0.5	2mm sieve
82	250	198	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	2	5mm sieve
83	241	198	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	1	<2mm
83	241	198	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	1.5	2mm sieve
84	75	77	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	2	<2mm
84	75	77	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	2	2mm sieve
84	75	77	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	2	5mm sieve
85	126	94	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	1	2mm sieve
86	74	67	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5	<2mm
86	74	67	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	13	2mm sieve
86	74	67	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	24	5mm sieve
86	74	67	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	5	<2mm
86	74	67	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	11	2mm sieve
86	74	67	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	14	5mm sieve
87	106	93	Unid	Unid	Burnt bone+dust <2mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	32	<2mm
87	106	93	Unid	Unid	2mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White, very fragmented	35	2mm sieve
87	106	93	Unid	Unid	5mm sieve burnt bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	White	70	5mm sieve
87	106	93	Human	Skull	Vault+sutur frag	9	1	-	-	-	-	-	-	-	-	-	-	-	-	9	-	Prob cremation	8	5mm sieve
87	106	93	Human	Skull+temp	Temporal frag	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Cremation	3	5mm sieve
87	106	93	Human	Dens	Max, M2 cusp	1	1	Dx	-	-	-	-	-	J	-	-	-	-	-	1	-	Cremation, juv: root dev at 5-6yrs	1	5mm sieve
87	106	93	Human	Dentes	Root frag	5	5	-	-	-	-	-	-	-	-	-	-	-	-	5	-	Cremation	2	5mm sieve
87	106	93	Human	Costae	Corpus+collum frag	2	1	-	-	-	-	-	-	-	-	-	-	-	-	2	-	Cremation	1	5mm sieve
87	106	93	Human	Carpal	Pisiform frag	1	1	Sh	-	-	-	-	-	-	-	-	-	-	-	1	-	Cremation	0.5	5mm sieve
87	106	93	Human	Vert cerv	Axis frag, apex	2	2	-	-	-	-	-	-	J	-	-	-	-	-	2	-	Two juv, c 3yrs	2	5mm sieve
87	106	93	Human	Vertebra	Arch frag	2	2	-	-	-	-	-	-	-	-	-	-	-	-	2	-	Cremation	1	5mm sieve

Appendix 2.6 Osteological report – Jennie Coughlan

The osteological remains from Carn More 5, Co Louth

Jennie Coughlan

Please note that this bone assemblage is supplemental to the previous report by Camilla Lofqvist and represents bone that was retrieved from pots excavated in the laboratory during pot conservation.

1 Introduction

This report details the results of the analysis the cremated bone recovered during archaeological investigations at Carn More 5 [03E0873]. Excavations, directed by David Bayley for Irish Archaeological Consultancy Ltd., were undertaken as part of a series of archaeological investigations along the proposed route of the M1Dundalk Western Bypass.

1.2 Background

The previously unidentified site at Carn More 5, situated on a low-lying plateau overlooking a small stream, was revealed during preliminary archaeological test trenching along the route of the M1 Dundalk Western Bypass in 2002. A full excavation program, carried out over a three-month period from September to December 2003, exposed a series of prehistoric funerary features dating to the Bronze Age. The primary features identified during archaeological works included the truncated remains of a barrow monument with a central burial chamber (group 2), a probable cairn monument centred on a pit burial (group 4) which, in turn, formed the focus for a series of seven cist burials and three pot placements/pit burials (group 5) and a further three cist burials and two 'boulder burials' (group 7), and two small ringditches (group 9). Additional associated ancillary features, most commonly pits and postholes, were also identified during the archaeological resolution.

Context	Group	Subgroup	Weight of bone (g)	Maximum fragment length	Description of Context	Associated vessel
11	5	{1020}	123.8	50.6mm	pit burial 0.33m x 0.36m	intact food vessel
25	5	{1019}	11.9	24.4mm	rectangular cist 0.37m x 0.29m	intact food vessel
67	5	{1016}	17.6	36.6mm	rectangular cist 0.80m x 0.40m	semi-intact vessel and frags
93	7	{1031}	3.6	32.8mm	sub-rectangular cist 1.0m x 0.95m	poorly preserved food vessel
111	7	{1032}	0.3	9.3mm	square cist 0.68m x 0.70m	fragments of encrusted urn and second pot
112	5	{1017}	46.4	50.5mm	rectangular cist 0.60m x 0.39m	intact food vessel
333	5	{1022}	665.2	29.8mm	pit burial 0.45m diameter	vessel containing cremated bone
391	5	{1021}	364.0	54.2mm	pit burial 0.37m diameter	large vessel containing cremated bone

Table 1. Total weight of burnt bone by Context

Cremated bone was identified in Contexts from groups 2, 4, 5, 7 and 9 although, in some instances, only small fragments were visible in the burial fills. In total, cremated bone deposits from eight burials relating to groups 5 and 7 were presented for analysis (Table 1). All samples had been processed and washed as part of post-excavation procedures prior to analysis.

2 Materials and process

The bone from each Context was examined in accordance with standards recommended by BABAO and the IFA (Guidelines to the Standards for Recording Human Remains, Brickley and McKinley 2004). Each sample was sieved through laboratory-grade stack sieves of 2mm, 5mm and 10mm diameter mesh and the material from each sieve was weighed to the nearest 0.1gram. All material was examined macroscopically. Once the bone from each sample was sieved, each sieved portion of bone was weighed as a whole and examined for identifiable bone. All identifiable bone was described in detail and weighed separately.

3 Reasons for analysis

Osteological analysis is undertaken to determine, where possible, the demographic and pathological profile of an individual or population group. This is true of the analysis of both cremations and inhumations. Identification of demographic details is more difficult, however, in instances of cremated human remains where a variety of aspects, including partial selection of bone for inclusion in the burial and bone fragmentation, can limit the amount of information retrieved during analysis. In addition to individual details, the analysis of cremated remains can also reveal aspects of cremation ritual, including pyre technology and depositional processes.

Analysis of the burnt bone deposits from Carn More 5 sought to identify species represented, skeletal elements present, minimum number of individuals within individual deposits, age and sex profiles, pathological changes to the bone and the cremation technology employed.

4 Identification and quantification of skeletal material

At the outset of the osteological analysis each deposit of cremated bone was weighed and sorted into identifiable and non-identifiable fragments. Once identified, the recognisable human skeletal elements were divided into five main categories before being weighed separately and described in detail:

1] skull; 2] axial; 3] upper limb; 4] lower limb; 5] unidentified long bone

A sixth category ('other') was also used where elements were identified as human but could not be assigned to a specific skeletal area. All but two of the eight burnt bone assemblages presented for analysis contained skeletal elements that were identifiable as human. Both assemblages containing undiagnostic cremated bone fragments were from cist burials in group 7 and both contained very small quantities of cremated bone only.

The majority of bone fragments (64.2%) fell between 5mm and 10mm in diameter (Table 2). A total of 23.6% of fragments were greater than 10mm in diameter with a further 12.2% between 2mm and 5mm in size. The maximum surviving fragment length was 54.2mm [Context 391].

Context		10mm	%	5mm	%	2mm	%	<2mm	%		Total
11		37.1	30.0	70.0	56.5	16.7	13.5	<0.1	-		123.8
25		1.8	15.1	7.6	63.9	2.5	21.0	<0.1	-		11.9
67		4.8	27.3	9.7	55.1	3.1	17.6	-	-		17.6
93		0.9	25.0	1.8	50.0	0.9	25.0	-	-		3.6
111		-	-	-	-	0.3	100.0	-	-		0.3
112		11.9	25.6	26.0	56.0	8.5	18.3	<0.1	-		46.4
333		47.2	7.1	518.7	78.0	99.3	14.9	<0.1	-		665.2
391		187.7	51.6	158.0	43.4	18.3	5.0	<0.1	-		364.0
Totals		291.4	23.6	791.8	64.2	149.6	12.2	<0.1	-		1232.8

Table 2. Summary of cremated bone fragment size

The quantity of bone retrieved from the burials varied considerably, ranging from a minimum weight of 0.3g to a maximum weight of 665.2g. Data from modern crematoria indicates that the weight of bone produced during the cremation process normally ranges from approximately 1000.5g to 2422.5g for an adult individual (McKinley 1993). It is commonly found, however, that cremated bone deposits from archaeological Contexts can contain considerably less amounts of burnt bone. This discrepancy in expected cremated bone weight versus recovered bone weight can be contributed to a variety of factors including partial and/or preferential collection of specific skeletal elements for deposition and/or post-depositional disturbance. While post-depositional disturbance can be identified and recorded during the excavation process it is only through the identification of specific skeletal elements in individual deposits that aspects of partial or preferential collection and deposition can be recognised.

5 Osteological analysis

It was possible to identify skeletal elements from six of the eight burnt bone assemblages presented for analysis with a total of 168.2g (13.6%) of the total weight of bone identifiable (Table 3). The majority of identifiable bone elements were cranial vault fragments (6.9%). This weighting towards the recognition of cranial fragments occurs commonly during the analysis of cremated remains as the distinctive morphology of the skull makes fragment identification relatively straightforward. In this group of burials identifiable cranial fragments most commonly consisted of vault elements although both the zygomatic bone and maxilla were also identified [Context 333]. In all five of the six deposits containing identifiable skeletal elements contained cranial fragments. Non-specific long bones formed the second largest group of identifiable bone elements with a total of 3.1% of all elements from this category.

Context			Skull	Axial	Upper Limb	Lower Limb	Unidentified Long Bone	Other	Total Identifiable		Total Weight
11	g		-	0.7	-	4.0	13.3	0.5	18.5		123.8
	%		-	(0.6)	-	(3.2)	(10.7)	(0.4)	(14.9)		
25	g		3.6	-	-	-	-	-	3.6		11.9
	%		(30.3)	-	-	-	-	-	(30.3)		
67	g		2.1	-	-	0.4	-	-	2.5		17.6
	%		(11.9)	-	-	(2.3)	-	-	(14.2)		
93	g		-	-	-	-	-	-	-		3.6
	%		-	-	-	-	-	-	-		
111	g		-	-	-	-	-	-	-		0.3
	%		-	-	-	-	-	-	-		
112	g		2.7	-	0.5	-	-	0.5	3.7		46.4
	%		95.8)	-	(1.1)	-	-	(1.1)	(7.9)		
333	g		35.5	3.4	2.9	<0.1	-	0.7	42.5		665.2
	%		(5.3)	(0.5)	(0.4)	-	-	(0.1)	(6.4)		
391	g		40.5	10.1	4.5	17.8	24.5	-	97.4		364.0
	%		(11.1)	(2.8)	(1.2)	(4.9)	(6.7)		(26.8)		
	Total		84.4	14.2	7.9	22.2	37.8	1.7	168.2		1232.8
		%	6.9	1.2	0.6	1.8	3.1	0.1	13.6		

Table 3. Summary of identifiable skeletal elements

5.1 Body part representation and minimum number of individuals

GROUP 5

Context 11: Pit burial [12] produced a total of 123.8g of bone of which 18.5g (14.9%) was identifiable as human. All identifiable elements were greater than 10mm in diameter and included a single fragment of the posterior femoral shaft, a single vertebral articular facet (lumbar), a fragment of probable distal femoral epiphysis and a small number of non-specific long bone fragments. There was no duplication of skeletal elements suggesting that a minimum number of one individual was interred within this burial although the small amount of identifiable bone precludes an accurate assessment of minimum number of individuals.

Context 25: Burial cist [22] produced only 11.9g of cremated bone, almost a third of which was identifiable as human (30.3%). Identifiable elements comprised solely of cranial vault fragments. Due to both poor body part representation and the small quantities of bone recovered from this cist it was not possible to accurately determine minimum number of individuals.

Context 67: There were some indications that cist [78] had been partially disturbed, as one of the edge stones had been pulled out of place. This burial produced a total of 17.6g of cremated bone of which 2.5g (14.2%) could be identified as human. The identifiable elements comprised of a single cranial vault fragment and a single fragment of the distal femoral epiphysis. Although, once again, the lack of

duplication of identifiable skeletal elements suggests that a minimum number of one individual was interred, the very small amount of bone recovered makes an accurate assessment of minimum numbers difficult.

Context 112: A total of 3.7g (7.9%) of the 46.4g associated with cist [110] could be identified as human. Identifiable elements included fragments of the cranial vault, a single partial molar root, a fragment of unidentified long bone epiphysis and a complete intermediate hand phalanx. All elements appear roughly comparable in terms of skeletal development suggesting that a minimum number of one individual was interred in this burial.

Context 333: Pit burial [257] contained a large ceramic vessel, which, in turn, contained a total of 665.2g of cremated bone. Although this represented the largest quantity of bone retrieved from a single burial at Carn More 5 only 42.5g (6.4%) was identifiable as human. The majority of identifiable elements comprised of cranial vault fragments, including identifiable parietal and occipital elements, with the partial remains of a zygomatic bone and maxilla also identified. A total of ten partial tooth roots were also present in this assemblage. The majority of these appear to be from the anterior dentition although one appeared to represent the partial remains of a molar root.

The upper limb was represented by a small number of skeletal elements including two partial hand phalanges (sub adult), one partial hand phalanx (adult), a partial left lunate (adult) and an unsided portion of a distal ulna (adult). The lower limb was poorly represented with only a single intermediate foot phalanx (adult) identified. A complete sesamoid bone and a fragment of metacarpal/metatarsal head were also present in the assemblage but could not be specifically assigned to either the hand or foot. An additional fragment of unidentified long bone (sub adult) was also present. The axial skeleton comprised of a small number of vertebral fragments, including three probable thoracic articular facets and two partial C1 facets (adult), two partial rib shafts (sub adult) and a small fragment of the auricular surface from the pelvis (sub adult).

Variations in the size and robusticity of the identifiable elements indicate that a minimum number of two individuals were interred within this deposit. While the majority of cranial elements, based on size and robusticity, appear to relate to an adolescent/adult individual, the single maxillary fragment was identifiable as originating from an infant or young child. Identifiable fragments from the post-cranial skeleton also varied in development indicating that both an adolescent/adult individual and an infant/ young child were interred within the same grave.

Context 391: Pit burial [389] also contained an urned burial with a total of 364.0g of bone retrieved from this Context. Although less bone was recovered from this burial than pit burial [257], discussed above, a total of 97.4g (26.8%) of the bone were identified as human. As was common throughout the majority of assemblages cranial vault fragments comprised the highest percentage of identifiable elements. Cranial fragments from this burial consisted of vault elements and fragments of the sphenoid.

In this deposit the upper limb was poorly represented with only a single fragment of radial/ulnar shaft and three partial hand phalanges identified. The lower limb was more significantly represented with a fragment of femoral head, two fragments of femoral shaft, two small fragments of the anterior tibial crest and one fragment of fibular shaft all identifiable. Fragments of the acetabulum and right pubic bone were identified from the pelvis with the vertebrae represented by the right aspect of the first

cervical vertebra, a small fragment of vertebral body and a probable lumbar articular facet. Two rib fragments, one of which was identifiable as the sternal quarter of a lower rib, were also present in this assemblage.

As there was no duplication of skeletal elements in this assemblage the minimum number of individuals identified was one.

GROUP 7

Context 93: Only 3.6g of bone was recovered from cist [121]. None of the bone was identifiable.

Context 111: Only 0.3g of bone were recovered from cist [96]. None of the bone was identifiable.

5.2 Determination of age and sex

5.2.1 Age: Methods used to assess age at death rely on characteristics of skeletal development through childhood, adolescence and early adulthood and, thereafter, on processes of degeneration. As none of the criteria normally used for age determination were represented in any of the burials from Carn More 5, age determination was based on less reliable indicators, including bone size and robusticity. As such, the cremated bone remains could only be assigned broad age categories.

The size, robusticity and cortical thickness of the identifiable bone fragments from Context [391], Context [112], Context [67], Context [25] and Context [11] suggest that the individuals interred in these burials were greater than approximately 16 years at time of death. As age determination based on aspects of robusticity and cortical thickness can only be considered in broad terms, these individuals may have been considerably older than 16 years.

Examination of the cremated bone remains from Context [333] revealed that a minimum number of two individuals were interred in this burial. Age determination, based on the size and robusticity of the bones in addition to development of the dental roots, suggests that one of these individuals was an adolescent/adult of at least 16 years at time of death, with the second individual identifiable as an infant/young child of approximately 1-4 years.

5.2.2. Sex: In general, the pelvis is considered to exhibit the highest degree of sexual dimorphism in skeletal material, as it is adapted in females to allow for childbirth. Essentially a broad pelvic structure in the female skeleton contrasts with a narrow and high pelvis found in the male skeleton. The skull can also be used as a primary indicator of sexual differentiation in skeletal material and it is often found that males display more robust or prominent features than their female counterparts.

At Carn More 5 only one of the cremated bone assemblages [Context 391] contained skeletal elements that could be used in the assessment of sex. A portion of the pubic bone, including the inferior portion of the pubic symphysis, was identified in this deposit. This portion of the pelvic bone is commonly found to be more gracile in female individuals than males. In this instance some warping of the bone had occurred but the pubic ramus appeared relatively broad suggesting a possible male sex for this individual.

5.3 Pathology

There are, relatively speaking, only a small number of diseases that visibly affect bone. Most conditions that do affect the skeleton result from periods of longstanding disease and/or nutritional deficiency. In general, acute episodes of nutritional or pathological stress either resolve themselves, or result in death, before the bony elements become involved. At Carn More 5 no pathological lesions were observed.

Context	Group	Total weight of bone	MNI	Age at death	Sex	Pathology
11	5	123.8	1	adolescent/adult	-	-
25	5	11.9	1	adolescent/adult	-	-
67	5	17.6	1	adolescent/adult	-	-
93	7	3.6	-	-	-	-
111	7	0.3	-	-	-	-
112	5	46.4	1	adolescent/adult	-	-
333	5	665.2	2	adolescent/adult and infant/child	-	-
391	5	364.0	1	adolescent/adult	?male	-

Table 4. Summary of demographic and pathological profiles

6 Cremation technology

6.1 Bone colour

To achieve effective cremation a combination of high temperatures and continued maintenance of the pyre over a sustained period of time is required. Differences in colour, visible on cremated bone elements, can be used to indicate variations in pyre performance. Complete burning of an individual, resulting in the total loss of the organic portion of the bone, requires pyre temperatures of greater than 600°C maintained over a number of hours. Lesser temperatures produce variations in bone colour with a blue-grey colour produced when bone is subject to temperatures of approximately 600°C and blackened (charred) elements occurring at approximately 300°C.

At Carn More 5 the bone was well burnt and all but a small percentage of fragments from Context [11] and Context [391] were white in colour. Although a small number of the cremated bone fragments from Contexts [11] and [391] had a slight blue-grey colour, the number of fragments affected by this variation in bone colour was so small that the overall evidence indicates that pyre technology was developed enough to produce an even and effective process of burning over a sustained period of time.

6.2 Fragmentation

Fragmentation of cremated bone can result from a number of different processes. The act of cremation itself causes the bones to warp and crack, leaving bone elements vulnerable to breakage along these weakened lines. In the immediate aftermath of the cremation raking of the remains can further damage the skeletal elements while post-depositional disturbance and erosion can further reduce the size of bone fragments. Commonly the fragment size of cremated bone deposits placed in the protective environment of a pottery vessel and/or cist is greater than that of bone that has been placed unprotected in a pit.

At Carn More 5, five of the assemblages presented for analysis came from a cist environment with a further two recovered from an urned environment. Only one burial was placed within an unprotected pit environment. Fragmentation analysis of the remains from Carn More 5 shows that the urned pit burials [Context 333 and

Context 391] contain both the lowest [Context 333] and highest [Context 391] percentage of bone fragments greater than 10mm in diameter, suggesting that burial environment alone did not influence fragment size. Notably surface and marginal erosion were slight to moderate throughout all the assemblages suggesting that the burial environment provided protection against outside weathering agents.

Context	Group		10mm	%	5mm	%	2mm	%	<2mm	Total
11	5	pit	37.1	30.0	70.0	56.5	16.7	13.5	<0.1	123.8
25	5	cist	1.8	15.1	7.6	63.9	2.5	21.0	<0.1	11.9
67	5	cist	4.8	27.3	9.7	55.1	3.1	17.6	-	17.6
93	5	cist	0.9	25.0	1.8	50.0	0.9	25.0	-	3.6
111	7	cist	-	-	-	-	0.3	100.0	-	0.3
112	7	cist	11.9	25.6	26.0	56.0	8.5	18.3	<0.1	46.4
333	5	urned	47.2	7.1	518.7	78.0	99.3	14.9	<0.1	665.2
391	5	urned	187.7	51.6	158.0	43.4	18.3	5.0	<0.1	364.0
Totals			291.4	23.6	791.8	64.2	149.6	12.2	<0.1	1232.8

Table 5. Comparison of burial environment and fragment size

7 Conclusion

Archaeological investigations at Carn More 5 identified the remains of a Bronze Age cemetery group comprised of a barrow monument containing a central burial chamber, a cist-cairn monument associated with thirteen cist burials, three pit burials and two boulder burials, and two ringditches. Cremated bone from five of the cist burials and three of the pit burials was presented for analysis. Osteological analysis of the cremated bone was undertaken in order to assess the nature of the deposits and, where possible, the demographic and pathological profile of the remains. Additional consideration was given to an assessment of the technological and ritual practices associated with the cremation process.

Although the weight of bone recovered from the burial Contexts was markedly lower than the expected weight produced from a complete adult individual, the identification of a variety of skeletal elements from the skull, torso and limbs, most notably from the two urned burials [Contexts 333 and 391], indicates that there was no preferential collection of elements from specific areas of the body for deposition. Although the quantity of cremated bone recovered from the different burial features at Carn More 5 varied considerably, the presence of cremated bone in individual burial features indicates that these represent a deliberate process of deposition. The very small quantities of cremated bone retrieved from a number of the burial features may represent the deliberate deposition of token amounts of bone.

Although the fragmented and incomplete nature of the deposits made a detailed demographic assessment difficult, the cortical thickness of the long bone and cranial fragments suggested that the majority of individuals interred were adolescent or adult at time of death. This was true of all but one burial deposit [Context 333] where analysis of the cremated remains indicates that a minimum number of two individuals were interred within the same urned Context. Identification of skeletal elements suggests that one of the individuals was an adolescent/adult at time of death and one was an infant/young child.

All but a very small percentage of the bone fragments from Carn More 5 were well burnt and had a consistent white colour. This indicates that the pyre technology employed in the cremation process was developed enough to completely oxidise skeletal elements from all parts of the body.

8 References

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McKinley, J.I. 1993 Bone fragment size and weights of bone from modern British cremations and the implications for the Interpretation of archaeological cremations in *International Journal of Osteoarchaeology* 3: 283-287.

Appendix 2.7 Prehistoric Pottery Report – Eoin Grogan & Helen Roche

The prehistoric pottery from Carn More 5, Co Louth

Eoin Grogan and Helen Roche

The prehistoric pottery from Carn More 5, Co. Louth (03E0873)

Eoin Grogan and Helen Roche

Summary

The prehistoric complex at Carn More 5 produced evidence for episodic activity beginning in the middle Neolithic and continuing into the middle Bronze Age. At least twenty vessels are represented. The two earliest phases, represented by two middle Neolithic Broad Rimmed Bowls dating to c. 3400 BC and a Beaker vessel of the final Neolithic/early Bronze Age c. 2500-2300 BC, are disturbed. There appears to be at least two phases of early Bronze Age activity. The first is represented by a cairn with a primary stone-lined pit and outlying cist burials: five of these, including the primary grave, produced bowls of the food vessel tradition. Further burials contained in both pits and cists indicate a phase of burial in the developed Bronze Age and produced two bowls, an encrusted urn and four cordoned urns. A ringditch that formed part of the complex produced at least three cordoned urns. Sherds of another bowl and cordoned urn also came from the site and subsequently an outlying cist produced a bowl associated with a crouched inhumation (Roche 2005). Some of the vessels were intact while others were broken or very fragmentary.

The Neolithic

Middle Neolithic Broad Rimmed bowls

The site produced the remains of two vessels (No's 1-2) from apparently disturbed Contexts within the cairn. These are generally deep hemispherical bowls with a broad flat, or gently curved rim and a short, frequently constricted (cavetto), neck (Case 1961: 'Dundrum bowls'; Herity 1982: 'Broad-Rimmed Vessels'); the rim top often has a pronounced outward slope that projects over the wall. Decoration is common on the rim top but less so on the remainder of the pot. Current evidence indicates that this material was in use c. 3500-3300 cal. BC.

While this type of pottery, or closely related material, has come from widely distributed sites, there is a major concentration in the area of north Leinster-southeast Ulster. Although rarely present in large quantities there are important assemblages, all showing close parallels for the Carn More material, from the habitation site pre-dating the large mound in the Knowth passage tomb cemetery (Eogan and Roche 1997, 75-7, figs 16.V 11, 17. V 17), the pre-tomb occupation at Townleyhall 2, Co. Louth (Eogan 1963, 51-2, pot 3, fig. 6), domestic activity at Dalkey Island (Liversage 1968, 67-8, pl. 2.p26, p27; Herity 1982, fig. 66.2), funerary activity at Lambay Island, Co. Dublin, and possibly ritual/ ceremonial activity at Balregan, Co. Louth (Macalister 1929; Ó'Donnchadha 2003; Grogan and Roche 2005). Outside the region a number of comparisons can be made, for example, with the vessel from the eponymous megalithic tomb at Linkardstown, Co. Carlow (Raftery 1944).

At a wider level there is a significant Irish Sea Context with similar material occurring in western Scotland from the Hebrides and Skye down to the Clyde region, to the Isle of Man and further south into Wales. The importance of this Context is the widespread emergence of an Impressed Ware tradition in Ireland and Britain within which were a number of important regional variations (Gibson 2002; Grogan and Roche 2005).

Close parallels for the Carn More vessels occur on several sites in the region, particularly within the narrow coastal zone between Lambay Island and the Ballyalton/Murlough Bay area of Co. Down. These include Murlough ('Dundrum

Sandhills'¹, see Herity 1982, fig. 62.1-3; Case 1961, fig. 16.1) and Ballyalton, Co. Down (Evans and Davies 1934, see Herity 1982, fig. 43.2), Dalkey Island Site 5, Co. Dublin (Liversage 1968, 67-8, pl. 2.p26, p27; Herity 1982, fig. 66.2), Knowth, Co. Meath (Eogan and Roche 1997, 75-7, figs 16.v. 11, 17.v. 17), and Townleyhall 2, Co. Louth (Eogan 1963, 51-2, pot 3, fig. 6). Rim decoration consists of various motifs including circumferential, radial and oblique line (incised or of cord), often in combination, as well as small circular dots and bird bone impressions. That from Murlough (Herity 1982, 363.3, fig. 62.2) also has a similar row of stab marks within the neck.

Final Neolithic/early Bronze Age Beaker

A few fragments came, apparently from the make-up of the cairn, and represent residual activity. Little of interest can be suggested from the poorly preserved remains of Vessel 3.

Early Bronze Age

Sherds from an unusual bowl also came apparently from the cairn material. Vessel 4 is of very fine fabric, more consistent with Beaker than food vessel pottery although the form of the vessel and, to a lesser extent, the decorative treatment, can be broadly paralleled amongst tripartite pots. The evidence for a primary phase of burial activity consisting of the central burial in the stone-lined pit [222] and four of the cists arranged circumferentially around the cairn ([7], [22], [78], [110]) is supported by the association with these burials of five bowls – a simple bowl (No. 5), a ribbed bowl (No. 6), a bipartite bowl (No. 7) and two tripartite bowls (Nos 8-9). Sherds of a disturbed bowl (Vessel 14) also came from a cist [96] in the apparently secondary ring of burials.

The second burial phase represented by pits and cists set further out from the cairn produced an encrusted urn (Vessel 13 from cist [96]) and cordoned urns from pits [389](No. 10), [12](No. 11), [257](No. 12) and [96](No.15). This discrete placement of the urns tends to confirm the generally later dates for both ceramic types as does the disturbance of the bowl (No. 14) in the cist later used for the encrusted urn and cordoned urn (No's 13 and 15).

Chronology and typology

The dating of food vessel bowls is generally well established and they were current between c. 2460 BC and 1980 BC (Mount 1997, 38). Despite the elaborate typological classification of bowls there is no indication that the various forms are anything but contemporary, a feature apparently confirmed by the Carn More assemblage that contains simple, ribbed, bipartite and tripartite vessels. However, if the identification of the central pit [222] and Vessel 5, with its wide central bar chevron band, as the primary burial is correct then the probability is that the cemetery came into use after c. 2100 BC (Brindley 1995, 7). All of the vessels are well-made and of good quality with some fine examples, in terms of manufacture and decoration, such as No's 5, 8 and 9. Shared features in the use of the same range of inclusions – dolerite, shale and quartzite - and the firing quality suggest the bowls are from the same local pottery tradition. Vessels 7 and 8 share very similar ornamental motifs and decorative composition, as well as the use of elongated vertical lugs: it is possible that the same denticulated implement was used on both. The quality and proportions of No's 8 and 9 may further indicate the cohesiveness of local manufacturing and decorative traditions.

¹ The townlands of Murlough Upper and Lower, in the Newcastle area of county Down, along Dundrum Bay, have generally been referred to as 'Dundrum Sandhills'; these can easily be confused with 'Murlough Bay' (probably Bighouse townland) on the north Antrim coast.

The encrusted urn (No. 13) in the outer ring may indicate the commencement of the second phase of burial. Mount was able to quote just two dates for this urn type, from Ballintubbrid, Co. Wexford, and Ballyveelish, Co. Tipperary, but the four dates from Tara, Co. Meath, and others from Strawhill, Co. Carlow, and Ballyconnell, Co. Wicklow, confirm a use range within the period 2131-1700 BC (Mount and Hartnett 1993, 60; O'Sullivan 2004, table 15). The cordoned urns from Carn More may belong to this early phase although the dates from Altanagh, Co. Tyrone, Kilcroagh, Co. Antrim, and Carrig, Co. Wicklow, suggest these vessels were in use from c. 1941-1226 BC with a probability that most date to the period between c. 1750 and 1400 BC (Williams 1986; Williams *et al.* 1991-92; Grogan 1990). This would suggest that if the encrusted urn is part of a continuous phase of activity it must belong earlier in the sequence in association with the bowls, or towards the end of the use range for this ceramic type in the period after c. 1750 BC.

A different style is indicated by the final group of burials accompanied by cordoned urns. While some of these, such as No's 11, 15, 17 and 19, are finely made and finished vessels there is no evidence for the classic ornament, in particular cord impressed lines in a lattice or chevron pattern on the neck, that distinguishes the fine funerary pots described by Kavanagh (1976). Where the cordons are identifiable they are generally poorly defined and on Nos 15 and 18 they are effectively 'false' cordons created by closely spaced channels rather than being applied or pinched out. Vessels 10 and 18, at least, are domestic variants of the general cordoned urn type: while there is no direct evidence, in the form of sooting or burnt accretions for the actual use of the other vessels for cooking, for example, the other vessels are probably more correctly referred to as domestic pots. The perforation immediately beneath the rim of Vessel 18, although difficult to parallel on cordoned urns, is also indicative of a domestic function. Domestic vessels are, of course, occasionally used for burial, while there are examples of finer 'funerary' vessels with evidence for domestic use.

Although the dating evidence is not yet sufficiently advanced to demonstrate this it appears that the use of domestic vessels for burial dates towards the end of the use period for cordoned urns (Grogan 2004). A general date range of c. 1600-1300 BC is indicated for these vessels as is suggested by a date of 1700-1430 cal. BC from Ballinaspig More, Co. Cork (Danaher 2004; Grogan and Roche 2004).

The ringditch [3]

This produced sherds from at least three cordoned urns (No's 17-9). As noted above at least Vessel 18 was a domestic pot while the quality of the fabric and finish of No's 17 and 19 may indicate that they are finer 'funerary' examples. The dating of these deposits should be similar to those from the cairn cemetery.

Conclusions

The cemetery at Carn More 5 is a significant addition to the corpus of early Bronze Age funerary sites particularly as it forms part of an extensive ritual complex. In terms of size, use history and the quality of the pottery associations it ranks alongside major assemblages such as Edmondstown, Co. Dublin, Keenoge and Tara, Co. Meath, and Knockast, Co. Westmeath (Mount and Hartnett 1993; Mount 1997; O'Sullivan 2005; Hencken and Movius 1934). The sequence of burials spans a period of at least three, and possibly as much as eight, hundred years and follows episodic Neolithic activity on the site that may have already established its sacred character. Although this type of duration has also been suggested for the cemeteries at, for example, Edmondstown and Carrig, Co. Wicklow (Mount and Hartnett 1993, 60-1; Grogan 1990) Carn More is the first site to provide a clear archaeological picture of episodic funerary activity. The presence of unaccompanied burials within

the cemetery is another important feature of the site: this contemporary range of burial types is a widespread feature of early Bronze Age funerary traditions (Grogan 2004, tables 1, 3, 5) and has recently been confirmed by the extensive radiocarbon programme at Tara (O'Sullivan 2005, tables 14-5).

Catalogue

The excavation number 03E0873 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.: **25.2**. Numbers in square brackets (e.g. **124**.[4, 9, 13-4, 19]) 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.

Central cairn

Residual activity is represented by sherds from Vessels 1-4 that were incorporated into the cairn. Vessel 5 is from the primary central stone lined pit burial [222].

Middle Neolithic

Vessel 1. This Middle Neolithic Broad Rimmed bowl is represented by a rimsherd (**31.1**) and 14 fragments from the rim and neck (**31.2-15**). This is a large fine vessel with a wide (30mm) flat, outward sloping top and a short cavetto neck. It has well-smoothed dark grey to grey-brown surfaces with a red-brown core; the external surface is burnished. There is a medium content of crushed shale and dolerite inclusions ($\leq 3.5 \times 3\text{mm}$).

Decoration There are three (of four original) evenly spaced lines of fine twisted cord set circumferentially on the rim top. There are slight traces of vertical stab marks in the curve of the neck. Neck thickness: c. 11.5mm

Vessel 2. This Middle Neolithic Broad Rimmed bowl is represented by 3 sherds (2 rimsherds: **31.16**, **22**; 1 necksherd: **31.17**; 3 neck-/ rimsherd fragments). It has a gently rounded and outward sloping rim with a deep cavetto neck. It has well-smoothed dark grey to grey-brown surfaces with a red-brown core; both surfaces are burnished. There is a medium content of crushed dolerite and shale inclusions ($\leq 3.5 \times 3\text{mm}$, up to 7.5mm) with smaller quantities of uncrushed quartzite. This is a smaller vessel than No. 1.

Decoration There are two (of three or four original) evenly spaced lines of heavy twisted cord set circumferentially on the rim top. A band of short vertical stab marks (probably bird bone) occur in the curve of the neck. The junction between the neck and body is defined by a low horizontal ridge: this is crossed by a further band of vertical stab-and-drag impressions. Neck thickness: c. 9.2mm

Final Neolithic/early Bronze Age

Vessel 3. This is represented by seven fragmentary neck and belly sherds (**144.1-7**; only the outer surface survives) from a fine Beaker with a curved neck and a sharply rounded junction with the body. Where well-preserved this has a very fine smooth buff to red-buff external surface and a cream-buff to grey core. There is a medium content of finely crushed dolerite, shale and quartzite inclusions ($\leq 2 \times 2\text{mm}$, up to 4 x 3mm).

Decoration The neck has closely spaced oblique scores with opposed scores extending over the belly.

Vessel 4. This is represented by two sherds (rim-/necksherds: 5.[1-2]) from a vessel with an outward expansion and a slightly curved internal bevel; the short, sharply curved neck is inverted with a pronounced rib separating it from the body. The fine, very smooth buff to red-buff fabric may have been burnished; it has a grey core. There is a medium content of crushed shale inclusions (3.5 x 3mm, occasionally up to 7 x 5mm) with smaller quantities of crushed dolerite and quartzite.

Decoration Opposing rows of triangular impressions occur on the rim bevel. The neck has a widely spaced pair of zigzag lines formed by short oblique scores with, beneath, a band of closely spaced vertical incised scores. Below this, on the upper edge of the rib, is a line of spaced triangular impressions.

Comment In the absence of more extensive remains this vessel is difficult to classify. It is probable that it is a tripartite bowl with a profile similar to examples from Audleystown or Loughinisland, Co. Down (Ó Riordáin and Waddell 1993, nos 144, 146). The decoration on the Audleystown neck is also similar as is that on the pot from Aghnaskeagh, Co. Louth (Ó Riordáin and Waddell 1993, no 165). The fabric of the Carn More vessel is, however, much finer than most food vessels and has its closest comparisons in fine Beaker pottery, such as Vessel 3. The openwork zigzags, for example, occur on Beakers from Knowth, Co. Meath (Eogan 1984, concentration B, fig. 95.1635, concentration C, fig. 104.2174). The triangular impressions, a chip-carving motif possibly copied from woodworking, is a common feature of food vessel decoration frequently combined, as it may have been intended on the Carn More vessel, in opposed rows to create a false relief pattern of a raised zigzag line between the rows. It is only rarely present on Irish Beakers (but see Knowth concentration C, Eogan 1984, fig. 104.2177) but does occasionally occur on late Beakers in Britain (Clarke 1970, 192): this may be a more precise version of the finger- and especially thumbnail impression that are a frequent component of Beaker ornament.

Maximum external rim diameter: c 14.4cm Neck thickness: 9mm

The early Bronze Age

An intact bowl (Vessel 5) came from the primary stone-lined pit [222] in the cairn. A further four bowls (Nos 6-9) came from cists ranged around the cairn and the central burial. Further, and probably later, burials in cists and pits were set circumferentially around the cairn at a further distance. These were accompanied by an encrusted urn (No. 13) and at least four cordoned urns (Nos 10-12, 15). The cist [96] containing the encrusted urn also produced sherds from a disturbed bowl (No. 14) and the substantial portion of one of the cordoned urns (No. 15).

Vessel 5. 233.1 This is an intact simple bowl. The rim has a slight external lip and a very steep internal bevel. It has a short neck, a deeply rounded belly and a slightly footed base. The well-fired fabric is buff to light buff-brown with a dark grey core. Both surfaces are smooth with occasional inclusions visible on the exterior and more frequently on the inner face. There is a medium quantity of crushed and uncrushed dolerite inclusions (≤ 5 mm, up to 10 x 6mm) with occasional uncrushed quartzite.

Decoration The vessel has finely executed all-over-ornament. The rim bevel has a closely spaced oblique comb. The neck has opposed curved triangular impressions forming a raised, false relief, sinuous chevron. Beneath are three slight ribs each flanked by scored lines: the face of the central example has a band of oblique comb impressions. The main body of the vessel has false relief emphasised by two bar chevron bands consisting of rows of sharply defined irregular lozenge to

quadrangular shapes filled with off-vertical comb: these are surrounded by a plain area defined top and bottom by zigzag lines. In the areas above and beneath this design, flanked by low ribs, is an infill of oblique comb. There are two low ribs flanked by deeply scored lines at the bottom of the body with, between these and the base, a narrow panel of opposed curved triangular impressions forming a raised, false relief, sinuous chevron. The base has a quatrefoil motif formed by four slightly asymmetric curved wedges with a plain area between.

Comment The overall form of the vessel is similar to examples from Mullynure, Co. Antrim, and Oldbridge, Co. Meath (Ó Ríordáin and Waddell 1993, fig. p. 159.4, 161.12). The main decorative panel has broad parallels on other Irish bowls, such as those from Greenhills, Co. Dublin, Grange, Co. Roscommon, and bipartite bowls from Connor, Co. Antrim, and 'No Locality No. 54' (Ó Ríordáin and Waddell 1993, fig. p. 175.86, 162.17, 165.33, 172.66). Cruciform and quatrefoil decoration is a common feature on the bases of bowls and the Carn More motif is very similar to that on the ribbed bowl from cist II at Edmondstown, Co. Dublin (Mount and Hartnett 1993, 32-5, fig. 4, 1951:30).

Dimensions

Maximum external diameter at the rim: 14.9cm	Maximum internal diameter at the rim: 13cm
Maximum diameter of base: 8.5cm	Maximum height: 10.8cm
Average body thickness: 8mm	
Weight: 1020g	

Vessel 6. 25.2 This is a small intact ribbed bowl. It has an upright neck, rounded belly and narrows sharply to a footed base (10mm high). The rim has a plain internal bevel. The well-fired fabric is red-buff throughout with a smooth exterior and a slightly rougher internal surface. There is a medium quantity of crushed shale inclusions ($\leq 6\text{mm}$) with some quartzite and occasional flecks of mica. Deep cracks in the vessel wall may be post-depositional but have developed along firing flaws. The vessel appears to have lain on its side as indicated by external staining on the lower ribs and a calcite deposit on the inner face.

Decoration The vessel has all-over-ornament of closely spaced but somewhat irregularly applied decoration. There are four low but distinct, evenly spaced, horizontal, pinched-up ribs on the neck and upper body. On the neck and the shallow troughs between the ribs are bands of closely spaced oblique impressions forming bands of herringbone ornament. These were applied with an indented implement with irregular teeth. On the lower body is a band of larger, slightly off-vertical, toothed impressions with, beneath, two irregular horizontal lines formed by linked toothed impressions, with a band zone between. The lowermost part of the vessel, extending onto the foot, is covered by a loose band of herringbone.

Comment The herringbone motif is one of the most widespread decorative devices on Irish food vessel (Sheridan 1993, fig. 18) and a good parallel for the Carn More vessel is provided by a tripartite bowl from Ballydullaghan, Co. Derry (Ó Ríordáin and Waddell 1993, fig. p. 183.127).

Dimensions

Maximum external diameter at the rim: 12.3cm	Maximum internal diameter at the rim: 10.3cm
Maximum external diameter: 13cm	Maximum diameter of base: 7.2cm
Maximum height: 11cm	Average body thickness: 8.6mm
Weight: 770g	

Vessel 7. 112.1 This is a small intact bipartite bowl. The rim has a slight external lip and a steep internal bevel. It has a short, sharply curved, neck, rounded belly and narrows to a slightly footed base (5mm high). The well-fired fabric is generally buff with some patches of dark grey to buff-grey. A small portion of the exposed core is dark grey-buff in colour. There is a low to medium quantity of crushed coarse grained shale inclusions ($\leq 3 \times 2\text{mm}$, up to $10 \times 6\text{mm}$) and a small amount of quartzite and occasional flecks of mica.

Decoration The vessel has all-over-ornament of closely spaced and finely applied decoration consisting principally of comb ornament. This was executed with a denticulated implement c. 12.2mm long and 1.5mm wide with closely spaced even, square, teeth: this may be the same implement as the shortest example used to ornament Vessel 8. The rim bevel has a continuous band of chevron formed by sharply opposed comb impressed lines. The outer lip has an oblique band of short impressions with, beneath, a band of closely spaced very sharply oblique lines. Within the curve of the neck the ornament consists of very closely spaced horizontal line of comb divided, irregularly, into panels by 13 sets of opposed-finger pinch impressions. Beneath this are two loosely arranged lines of opposed triangular impressions that are too widely set to achieve a zigzag line of false relief. The two horizontal ribs are emphasised by scored lines above and below and the outer faces have a closely spaced band of oblique comb impressions. Between these is a running chevron band divided into 7 panels by 7 vertical lugs: six of these are extant. The imperforate lugs are evenly spaced and were applied before the execution of the herringbone ornament. The outer face of the lugs has impressed horizontal lines of comb. The lower body has three reasonably evenly applied chevron bands forming a zigzag pattern. Around the circumference the base are six rounded triangular motifs formed by nested pairs of comb lines and set symmetrically.

Comment This is a finely made and neatly decorated vessel that utilises three of the most prominent and widely distributed motifs: herringbone, the fringed vertical line (Sheridan 1993, 51-2, figs 18-9) and the false relief zigzag line.

Dimensions

Maximum external diameter at the rim: 11.9cm Maximum internal diameter at the rim: 9.9cm

Maximum external diameter: 13.2cm Maximum diameter of base: 5.7cm

Maximum height: 8.6cm Average body thickness: 0mm

Weight: 520g

Vessel 8. 82.1 This is a large, substantially intact, lugged tripartite bowl. The vessel is severely distorted, the result of having been pressed down to one side, and a large portion of the rim and uppermost part of the body is missing. It had been substantially conserved prior to examination. The rim has an external lip and an internal bevel. It has a short, slightly inverted, neck, and an upright belly that narrows sharply to a slightly footed base. The belly is demarcated by two sharply defined, pinched-up, horizontal ribs. The well-fired smooth fabric is red-buff to cream-buff with a dark grey core.

Decoration The rim bevel has a central zigzag line of false relief formed by opposed lines of triangular impressions: this is flanked, on the inner and outer edges, by a fringe of short oblique lines. On the neck there is a central band of vertical, and closely spaced, comb impressed lines: this is bordered at the top and bottom by a line of triangular impressions and a fringe of short vertical impressions. Between the two ribs the belly has a central band of closely set, oblique, comb impressed lines

that is bordered at the top and bottom by two zigzag lines of false relief formed by opposed lines of triangular impressions. Four of the original seven (or possibly eight) applied narrow, elongated, vertical lugs survive on the belly and the location of a fifth is clearly identifiable. These merge neatly with the ribs and divide the ornament on the belly into seven (or eight) panels or approximately equal size: it is apparent that this decoration was executed after the application of the lugs. The outer lug faces have short oblique comb impressed lines at the top and bottom and horizontal lines set along the central narrow face.

The lower body is divided into three ornamental bands. The uppermost consists of opposed, comb impressed, oblique lines forming a herringbone motif. Beneath is a central of slightly off-vertical comb impressed lines flanked top and bottom by zigzag line of false relief formed by opposed lines of triangular impressions. A second panel of herringbone, similar to that immediately beneath the belly, covers the lowermost part of the vessel. At least three separate denticulated implements were used in applying the decoration: these were 27.6mm, 17.2mm and 12.2mm in respective length and 1.5mm in average width.

The base is decorated with an outer fringe of short oblique lines within which are nine evenly spaced lunate motifs each formed by short, possibly thumbnail applied, scores. A similar arrangement occurs on a tripartite bowl of unknown provenance (Ó Ríordáin and Waddell 1993, fig. p. 210.258).

Comment This is a finely made and neatly decorated vessel that utilises three of the most prominent and widely distributed motifs: herringbone, the fringed vertical line (Sheridan 1993, 51-2, figs 18-9) and the false relief zigzag line.

Dimensions

Maximum external diameter at the rim: 16.8cm

Maximum diameter of base: 7.5cm

Original height: c. 13.5cm

Average body thickness: 8.8-11mm

Weight: 1020g

Vessel 9. 67.1-24 A substantial part of this tripartite bowl survives in a fragmented state and had been substantially conserved prior to examination. The rim has a slight external lip and a steep internal bevel. It has an inverted, slightly curved, neck, an upright belly demarcated by two low horizontal ribs and narrows sharply to an unfooted, slightly concave, base. The well-fired fabric is smooth and buff to red-buff in colour with a dark grey core; there are occasional inclusions visible on the surface, generally exposed by the decoration. There is a low to medium quantity of crushed and uncrushed dolerite, shale and quartzite inclusions ($\leq 5 \times 4$ mm).

Decoration Two slightly irregular circumferential lines occur on the rim bevel: these were formed by linked comb impressions. A frill of short oblique comb impressed lines occurs immediately beneath the rim. The neck has continuous, slightly off-vertical, panels flanked by double lines of comb impressions and filled with short, slightly oblique, comb impressed lines. Beneath is a band of closely spaced sharply oblique comb impressed lines. The belly has symmetrically arranged ornament flanked top and bottom by slight ribs with two horizontal lines of discontinuous comb impressions and an inner band of oblique lines. The central part of the belly has a continuous band of loosely formed horizontal lozenges filled with slightly oblique cord. The lower body is flanked top and bottom by bands of oblique lines. Between there is a replication of the neck decoration but set at a slightly more oblique angle.

Comment This is a finely made and neatly decorated vessel. The vertical, or near vertical, comb-impressed panels on the neck and lower body are a variation of one of

the fringed vertical line motif, one of the most widely distributed motifs on Irish food vessels (Sheridan 1993, 51-2, fig. 19) and occurring at Carn More on Vessels 8-9. A similar arrangement of filled panels occurs at Bolinready, Co. Wicklow, and Carrowkeel, Co. Sligo (Ó Ríordáin and Waddell 1993, figs p.203.219, 223.326). The central panel of running, filled, lozenges (bar chevron band) is also a variant of a common motif and is found, for example, a bowl from Greenhills, Co. Dublin (Ó Ríordáin and Waddell 1993, fig. p.175.86); another variation, of spaced quadrangular elements, occurs at Carn More on Vessel 5.

Dimensions

Maximum external diameter at the rim: c. 16.5cm Maximum diameter of base: 8-8.15cm

Average body thickness: 9-13.1mm

Weight: 1000g

Vessel 10. Burial pit [389] produced the rim, and 29 poorly preserved sherds from the lower body of a domestic cordoned urn (all 391.1: c. 2/3 of rim, 7 basesherds, 2 large and 20 smaller bodysherds, 3 fragments). The pottery had been conserved before examination. The rim is rounded and unexpanded; the body expands outwards and appears to have a barrel-shaped profile. The outer buff to cream-buff surface appears to have been smooth but irregular with some protruding inclusions and possibly finished with a fine 'slurry'; the core and inner surface are grey to grey-buff. There is a low to medium quantity of crushed and uncrushed dolerite, shale and quartzite inclusions ($\leq 3\text{mm}$, up to 7 x 5mm).

Maximum external diameter at the rim: c. 15.6cm Maximum external diameter: c. 16.2cm

Body thickness: 11.2-11.6mm.

Total weight of sherds: 785g.

Vessel 11. Burial pit [12] produced the intact base of a cordoned urn [11]. The body narrows very gradually to the flat unfooted base. The vessel is of compact and well-fired buff fabric with grey to dark grey firing patches. The exterior is smooth while the interior is slightly rougher with frequent protruding inclusions. There is a low to medium content of crushed and uncrushed inclusions of shale, quartzite and schist (?) ($\leq 3 \times 2\text{mm}$, up to 9 x 6mm). Although not stated in the excavation report (Bayley 2005) the well-preserved nature of the pottery suggests that the pot may have been deposited upright while the fabric quality and the rough interior indicate a funerary rather than a domestic vessel.

Body thickness: 11.6-14.5mm. Total weight of sherds: 500g.

Vessel 12. Burial pit [257] produced a substantial part of the base of a cinerary urn, probably an encrusted or cordoned urn [333], in a poor state of preservation. This large vessel had been inverted over a cremation and was conserved prior to examination. The flat base was made on a separate disc (none of which survives). It has a tall (25mm high) pedestal foot with a slight constriction at the top from which the deep rounded body expands sharply. The cream- to red-buff fabric is extremely friable but, originally, had smooth surfaces. There is a high quantity of coarsely crushed shale ($\leq 5 \times 4\text{mm}$, up to 22 x 9 x 7mm) with some finer particles of dolerite.

Decoration There are slight traces of what appear to have been either oblique incised lines or a loose lattice pattern on the lower body above the foot.

Comment Although clearly a 'cinerary' urn insufficient survives to be certain of the specific type. Oblique lines, or loose lattice patterns, are a feature of a number of encrusted urns, such as Keenoge, Co. Meath, and Ballyconnell, Co. Wicklow

(Kavanagh 1973, nos 64, 84); these vessels also more frequently have pedestal bases, such as Greenhills, Co. Down, Collon, Co. Louth, and Fourknocks 2, Co. Meath (Kavanagh 1973, nos 36, 55, 63). In the absence of any evidence for encrusted ornament, however, it is possible that this vessel is a cordoned urn.

Dimensions

Diameter of base: 16.2cm. Maximum (extant) diameter of body: 19cm.

Body thickness: 7.4mm (upper body) - 14.5mm (lower).

Total weight of sherds: 1090g.

Vessels from cist [96]

Vessel 13. 95, 111, 124 A large fragmented encrusted urn that appears to be fully present. This is a well-made and well-fired vessel with a smooth buff to red-buff exterior, a light brown-buff interior and a dark grey core. The surfaces had been smoothed over with a fine 'slurry' prior to decoration and firing and there are smoothing striations, some of them from an implement similar to that used to form the oblique scores lower on the body. There is a low to medium content of crushed dolerite and shale inclusions ($\leq 3 \times 2\text{mm}$).

The rounded rim is sharply everted with two deep concave internal bevels. The uppermost of these is decorated with closely spaced rows of opposed stab marks while the lower has a frill of oblique stabs. The neck and upper portion of the body are upright while the lower body narrows more sharply to the unfooted base. The top and outer face of the rim is decorated with a herringbone motif formed by short opposed whipped cord impressions. The encrusted ornament is confined to the neck and consists of an applied and pinched-up strip forming a regular and sharply defined running chevron: within this are regularly spaced circular bosses emphasised by a central circular score. There are stab marks along the sides and edges of this strip, some of them applied with whipped cord: these also served to strengthen the bond between the strip and the pot wall. Within some of the triangular panels framed by the strip there are further stabs marks again some of them of whipped cord. Other triangles have no stab marks but shallow scores form a triangular pattern.

The upper body is divided into five strips framed by well-defined pinched-up strip or cordons. There are decorated with opposed rows of oblique scores applied with a twig with a roughly broken edge leaving distinctive fibre trails. The lower body has elongated narrow vertical chevrons applied with the same tool. The lowermost portion has a more irregular arrangement of vertical and slightly oblique scores.

Comment This is a large vessel even by encrusted urn standards. It is finely made and the decoration, although not lavish, is carefully and symmetrically applied. The various decorative components can be paralleled amongst several Irish vessels although, as is typical of this ceramic class, the composition is unique to this pot. The upper chevron with bosses is similar to that on vessels from Livery, Co. Antrim, Killycarney, Co. Cavan, and burial 29, Castleboy, Tara, Co. Meath (Kavanagh 1973, nos 8, 16, 57, figs 4, 7, 25d; O'Sullivan 2005, 175-7, fig. 138.470), while the opposed oblique panels on the upper body are like those on a pot from Gortnacor, Co. Antrim (Kavanagh 1973, no. 7, fig. 3). The tall chevrons on the lower body occur on pots from Drumfane, Co. Antrim, and Greenhills, Co. Dublin (Kavanagh 1973, nos 6, 37, figs 3, 16).

Dimensions

Maximum external diameter at the rim: c. 44cm + Maximum diameter of base: 13cm

Average body thickness: 11.2-13.8mm Weight: 3,490g

Vessel 14. There are two sherds from a food vessel bowl (rimsherd **124.18**; base-angle sherd **95.19**). Fine compact buff fabric with a medium content of crushed shale inclusions (up to 8 x 7mm) and smooth surfaces. The rim is upright and rounded and appears to have an outwards expansion or rib. There is a sharply rounded junction between the body and base, and a low, narrow, pedestal possibly formed by a low cordon. A further 14 fragments and crumbs (**111.82-95**) are probably from this vessel. **111.82** is from the upper part of the vessel and has a low horizontal rib defined by shallow grooves. Body thickness: 9mm.

Decoration There is a low rib defined by shallow channels near the junction with the slight pedestal base. Above this is a motif of opposed triangular impressions forming a zigzag line of false relief.

Vessel 15. This cordoned urn is represented by 37 sherds (5 base-/bodysherds: **124.4**, 9, 13-4, 19]; 1 base angle sherd: **124.14**; 31 bodysherds: **124.3**, 5-7, 20-26, 47-60, **95.38-41**, 43-4; 17 fragments: **95.26**, 30, 50-64; 13 crumbs: **124.32-44**) that represent a substantial portion of the base and lower body of a cordoned urn. The flat unfooted base splays out gently into the rounded body. The buff to cream-buff fabric is compact and smoothly finished with a slightly brittle texture. There is a low to medium content generally finely crushed shale and dolerite inclusions ($\leq 5 \times 4\text{mm}$) with some smaller particles of uncrushed quartzite.

Decoration Sherds **95.42a-c**, probably from the neck, have very slight false cordons defined by broad shallow horizontal channels. Above these on **95.42a** is an incised oblique score that may represent a panel of these or a lattice pattern.

Dimensions

Diameter of base: 9.6cm.

Maximum (extant) diameter of

body: 13cm.

Body thickness: 8.4-11mm.

Total weight of sherds: 750g.

Vessel 16. This consists of the poorly preserved sherds of a food vessel [**93**] from cist [**121**]; this is probably a bi- or tripartite bowl. The fabric is buff throughout with very smooth surfaces finished with fine slurry. The rim has a pronounced outward expansion and a gently sloping internal bevel. There appears to be a short upright neck and the belly is defined by two horizontal ribs. There is a medium content of mainly uncrushed and finely crushed quartzite inclusions ($\leq 2\text{mm}$) with occasional larger pieces of crushed dolerite (up to 4 x 4mm).

Decoration Wide shallow channels in the neck accentuate the upper rib. Beneath this is a single horizontal panel consisting of opposed triangular impression creating a false relief zigzag line. Below a more prominent rib separates the belly from the body: this may have oblique scores on the outer, flattened, face.

Neck thickness: 12.4mm. Total weight of sherds: 110g.

Vessel 17. There are 24 sherds (**4.6**, 8], 7, 9-29) from the lower body of a cordoned urn. There is a smooth buff to cream-buff exterior, finished with a fine 'slurry', and a grey to grey-buff core and inner surface. There are at least two widely spaced, pinched-up, horizontal cordons.

Body thickness: 11.2-11.6mm. Total weight of sherds: 225g.

Vessel 18. There are 6 sherds (1 rimsherd: **159.5**; 5 bodysherds: **159.1a-b**, 2, [3-4]) from a medium sized domestic cordoned urn. The slightly inverted rim is flat-topped with an inward projecting lip. There is a cylindrical perforation (diameter: 4.9mm)

immediately beneath the rim on **159.1b**: this was pushed through from the exterior prior to firing leaving a distinctive inner lip. The fabric has a smooth buff to brown-buff external surface with a grey core and a smooth dark grey-brown interior. There is a medium content of crushed shale and dolerite inclusions ($\leq 5 \times 4\text{mm}$, up to $12 \times 10\text{mm}$) with sandgrade quartzite and occasional sandstone particles. Body thickness: 9.8-10.5mm.

Decoration There are at least two low horizontal cordons on the neck: these are emphasised by wide shallow channels.

Vessel 19. This is represented by a two bodysherds (**3.[1-2]**) from the rounded lower body of a cordoned urn. Very compact buff to red buff fabric with a medium content of crushed shale inclusions (≤ 3.5 , up to $11 \times 9\text{mm}$) and a smaller quantity of dolerite and crushed and uncrushed quartzite. Body thickness: 11.6mm.

Vessel 20. This is represented by a single bodysherd (**161.1**) from pit **[162]**; this may be from a domestic cordoned urn. The sherd is from the junction between the belly and body of a medium sized vessel: a low cordon occurs along this junction. This is of fine, compact, fabric with a worn cream-brown external surface and a grey-brown core and inner face. It has a low content of finely crushed shale, dolerite and quartzite inclusions ($\leq 1.5 \times 1\text{mm}$). Body thickness: 8.3mm.

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Recommended sherds for illustration

Vessel	Context	Sherds to draw	Sherds to section only	Photograph	Decorated
1	31	R: 31.1		✓	✓
2	31	R: 31.22			✓
3	144	N: 144.1-3			✓
4	5	R/N: 5.[1-2]		✓	✓
5	233	Complete simple bowl		✓	✓
6	25	Complete ribbed bowl		✓	✓
7	112	Complete bipartite bowl		✓	✓
8	82	Substantially intact tripartite bowl		✓	✓
9	67	Substantially intact tripartite bowl		✓	✓
10	391	Cordoned urn (Not worth illustration)			-
11	67	Base of cordoned urn	✓	✓	-
12	333	Base of cordoned (?) urn	Draw section of one of the larger pieces ✓	✓	-
13	67	Encrusted urn (no need for reconstruction-artist should be able to do this from substantial re-fitting portions)		✓	✓
14	96	Portion of bowl (95.19, 111.82) (draw 95.19)			✓
15	124	Mainly lower portion of cordoned urn (draw 95.42a)	124.[4, 9, 13-4, 19]		✓
17	391	Cordoned urn (not worth illustration)			-
18	159	Cordoned urn (draw 159.1b)	R.159.5		-
19		Sherds of cordoned urn (not worth illustration)			-
20	161	Sherd of domestic cordoned urn	B.161.1		

Vessel/ 5. 233.1 This is an intact simple bowl. From the central stone lined pit [222]
 3 7 sherds [144] from cairn burial [222] BEAKER
 4 4 sherds [5] from cairn [103] BEAKER/ FOOD VESSEL
 1, 2 21 sherds [31] from cairn 2 X MNBB

Inner ring

- 6 Vessel 1. 25.2** This is a small intact ribbed bowl. From cist [22]
7 Vessel 2. 112.1 This is a small intact bipartite bowl. From cist [110]
8 Vessel 3. 82.1 This is a large, substantially intact, tripartite bowl. Cist [7]
9 Vessel 4. 67.1-24 A substantially part of this fragmented tripartite bowl. Cist [78]

10 Vessel 8. Burial pit [389]. Cordoned urn [391]
11 Vessel 9. Base of cordoned urn (?). Burial pit [12]. Intact pot [11]
12 Vessel 10. Burial pit [257]. Intact cordoned urn [333].

13 Vessel 6. 95, 111, 124 A large fragmented encrusted urn from cist [96]
14 Sherds of bowl from cist [96]
15 Sherds of cordoned urn from cist [96]
16 Sherds of bowl [93] from cist [121]

17 Vessel 7. There are 24 sherds (4.[6, 8], 7, 9-29) from the lower body of a cordoned urn. From ringditch [3]
19 1 sherd [3] of cordoned from ringditch [3]
18 sherds [159] from ringditch [169] domestic cordoned urn

20 [161] from pit [162] fine walled domestic cordoned urn ?

1 sherd [1] from topsoil
Bowls: 5, 6, 7, 8. 9. 14, 16
Encrusted urn: 13
Cordoned urns: 10. 11. 12. 15. 17. 18, 19, 20

Appendix 2.8 Small Finds Report – Siobhán Scully

Small finds report

Siobhán Scully MA MA

Introduction

This report details eight metal artefacts recovered from the excavations at Carn More 5 (03E0873) as part of the M1 Dundalk Western Bypass scheme. Most of the finds were associated with the barrow and its central burial chamber. A pin fragment (03E0873:87:1) and a fragment of copper alloy and bone (03E0873:87:2) were recovered from a dark spread of soil with burnt bone (C87) which was the backfill of the burial chamber. The shield boss (03E0873:69:1) and the stick pin (03E0873:69:2) were found in the charcoal spread (C69) which covered the burial pit C222 and part of the kerbing, although the stick pin is intrusive in this Context. The possible rove (03E0873:4:3) and a fragment of copper alloy with bone (030873:4:4) were found in possible disturbed barrow material and one nail (03E0873:88:1) was found in possible re-deposited natural (C88) associated with the cremation pit C84. The large partial iron nail (03E0873:1:6) was found in the topsoil.

Shield Boss

A copper alloy, oval shield boss (03E0873:69:1) was found in C69 at Carn More 5. It has circular perforations all around the basal edge of the boss and these would have been used to attach the boss to the main body of the shield. The shield itself was probably made from leather. There is a dark brown substance in the hollow of the boss. While this has been suggested to be an 'iron-like substance' (Bayley 2004, 341), it has no magnetic reaction. Neither does it have the structure of wood (L. O'Donnell pers. comm.). It is more likely to be mineralised leather. Shields made from wood or leather with metal bosses and ribs were used as functional objects during the Late Bronze Age, while those made from sheet metal were used as parade shields for display only (Raftery 1997, 23-4). A leather shield with a central oval boss was found in a bog at Clonbrin, Co. Longford. This leather shield was manufactured by beating the wet leather over a mould and then attaching the separate central boss (ibid. Pl. 7). The shield boss from Carn More 5 was probably from a similar leather shield with the separate bronze boss stitched onto the leather.

Stick Pin(s)

A copper alloy stick pin (03E0873:69:2) of ring-headed type was recovered from C69. This type of ring-headed pin bears no relation to the earlier ringed pins (Scully 1997, 439). Two stick pins of this type were recovered from excavations in Waterford where they were dated to 13th century (ibid. Table 15:1; E520:94:70 fig. 15:1:11; E526:542:39). There is a twist in the shank of the Carn More 5 stick pin which would have made it easier for the pin to grip the cloth. There is one small shank fragment (023E0873:87:1) from Carn More 5 which was possibly the shank of a stick pin but it is square in section.

Possible Rove

A cylindrical metal alloy object (03E0873:4:3) was recovered from Carn More 5. It has circular, slightly raised heads at each end. This appears to have been a functional object but as it is made from copper alloy it probably was probably intended to be seen and was probably decorative as well as functional. It possibly was a rove which was looped through another object, which could have been of metal, leather or textile.

Copper alloy & bone

Two fragments of copper alloy (02E0873:4:4, 02E0873:87:2) from Carn More 5 have fragments of bone fused to them. The bone fragments appear to be from a skull (03E0873:4:4) and the tip of a digit either from a finger or toe bone (03E0873:87:2), both probably human. Both bone fragments appear to be have been cremated, especially given the white colour of the bone (J. Geber pers. comm.). Neither of the copper alloy fragments is identifiable as being a particular object. This is probably

due to them having been subjected to high temperature processes, probably a cremation pyre and this is how the bone has become fused to the metal.

Nails

There are two ferrous nails from Carn More 5. One is the shank of a large nail (03E0873:1:6) which is rectangular in section and one is a small nail or tack (03E0873:88:1) with a flat, triangular head and a rectangular, tapering shank. The large nail would have been used for heavy structural timber while the small nail/tack would have been used in small wooden items such as chests.

Catalogue

Find Number	Category	Description	Dimensions
03E0873:1:6	Large Nail	Iron. Partial shank. Rectangular in section and tapering to a point. Corroded.	L 150mm Wth 6mm T 3mm
03E0873:4:3	Rove?	Copper alloy. Cylindrical object which expands at both ends.	L 23mm Diam. 8-10.5mm
03E0873:4:4	Copper alloy & bone	Fragment of cremated bone from a skull (possibly human) with distorted fragment of copper alloy attached. There are a number of loose copper alloy fragments. The original form of the copper alloy is unknown.	
03E0873:69:1	Shield Boss	Bronze shield boss oval in shape. Boss is undecorated and has circular perforations all around the edge where it would have been attached to a shield (probably made of leather). Interior of boss contains brown substance, possibly mineralised leather.	L 65mm Wth 44.5mm T 0.2mm H 30.5mm
03E0873:69:2	Stick Pin	Copper alloy. Ring-headed stick pin. Shank circular in section, tapers to a point. There appears to be a twist in the shank. Shank broken in three pieces. Only a small section of the ring head remains. 13th Century.	L 108.5mm Diam. of shank 3.5mm.
03E0873:87:1	Shank of pin?	Copper alloy. Possible partial shank of pin, square in section.	L (28.5mm) Wth 1.3mm T 1.3mm
03E0873:87:2	Copper alloy & bone	Small fragment of copper alloy with tip of bone digit attached.	25mm x 22mm x 2mm
03E0873:88:1	Nail	Small iron nail or tack. Flat triangular-shaped head. Rectangular, tapering shank.	L 23mm Head: L 9mm Wth 1-4mm Shank: 4.5mm x 4mm

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Appendix 2.9 Post-medieval Pottery – Clare McCutcheon

A note on the medieval and post-medieval pottery from the Dundalk Western Bypass at Carn More 5 (03E0873)

Clare McCutcheon MA MIAI

Carn More 5 (03E0873): A single sherd of North Devon gravel free ware was recovered dating to the 17th century.