

Excavations at Bargrennan White Cairn, Dumfries and Galloway, 2005



Interim report

By Vicki Cummings and Chris Fowler

Contents

Notes and Acknowledgements	3
Plan of monument	4
Background to the project	5
Overall research programme	6
The location of the site	6
Description of the monument	8
History of research at Bargrennan White Cairn prior to the 2004 season	9
Aims and Objectives for 2005 season	11
Excavation methodology	12
Excavation results	12
Finds	19
Report on cremated bone from 2004 season	19
Report on cremated bone from 2005 season	24
Radiocarbon dating programme	26
Discussion and preliminary interpretation	26
Publication plans and future work	29
References	30

University of Central Lancashire: Studies in Archaeology
Specialist Report Number 3

Excavations at Bargrennan White Cairn chambered tomb, Dumfries and Galloway, 2005.

© The authors

All rights reserved. No part of this publication may be reproduced in any form or by any means without the permission of the authors.

ISBN: 0-9549671-2-7

Published by:

School of Natural Resources,
University of Central Lancashire,
Preston,
PR1 2HE

Tel: (01772) 893492

Fax: (01772) 892926

Notes and Acknowledgements

SMC was granted by Historic Scotland for all works. A data structure report has been prepared and submitted to Historic Scotland. This DSR is available on the ADS website.

Funding for the excavation was provided by the British Academy (via a Small Research Grant), the University of Newcastle-upon-Tyne and the University of Central Lancashire. We are grateful to these bodies for their support. We would also like to thank the following, who all participated in or supported this research in the field or in post-excavation: Diane Alldritt, Andrew Burke, Diana Coles, Martin Cooper, Liz Faulds, Laura Fenwick, Dominic Gudgeon, John Hall, Oliver Harris, Jane Henderson, Eileen Hoey, Dave Lamb, Laura McKenna, Chris and Mick Moore, Mick Miles, Jennifer Miller, Amanda Penfold, Bronwen Price, Phil Richardson, Keith Robinson, Alison Sheridan, Geoff Shaw, Kathryn Wilson and Mick Wysocki.

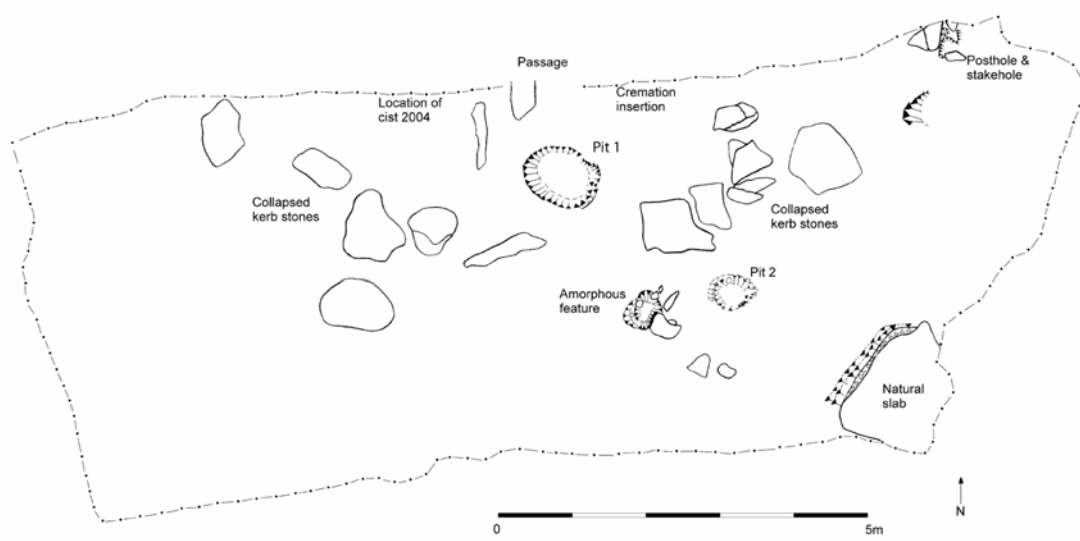


Figure i. Post-excavation Plan of Bargrennan White Cairn, southern trench.

Introduction

The background to the project

Two different types of Neolithic chambered tomb have been identified in western Dumfries and Galloway. The first group have been described as 'Clyde' monuments and are characterised by multiple chambers set within a long cairn with a stone-built façade (Henshall 1972). Four of the seven Clyde monuments in Dumfries and Galloway (Cairnholy I and II (Piggott and Powell 1949) and Mid Gleniron I and II (Corcoran 1969)) have been excavated and these sites seem to originate from the early Neolithic, though show evidence of repeated re-use including, at Mid Gleniron several discrete phases of construction or architectural alteration and later re-use (Corcoran 1969). The second group of monuments are the 'Bargrennan' sites, of which 14 have been identified (Henshall 1972; Murray 1992). These sites have a small chamber or chambers often with thin (often impassable) passages and are set within round cairns (Henshall 1972; Murray 1992). Until recently, the only recorded excavation of a Bargrennan monument was at the site under discussion here, Bargrennan White Cairn, in 1949 (Piggott and Powell 1949). However, the chamber had been robbed out and it was not possible to suggest a construction date for this site. Fragments of cremated bone and incised late Neolithic pottery were recovered from above the slabs lining the passageway, and charcoalised remains of oak and cremated bone were found in a pit at the entrance of the passage (Piggott and Powell 1949, 150-1). It was not possible to tell from these late Neolithic finds whether they date from the original, or later, use of the chamber and passage. Henshall produced surveys of the Bargrennan sites in 1972, and in 1992 Murray reconsidered these findings. Most recently Vicki Cummings examined the landscape settings of the chambered tombs of south-west Scotland as part of her doctoral research and demonstrated that the Bargrennan monuments not only appear to be structurally quite different to the Clyde sites but they are also located in radically different parts of the landscape (see Cummings 2001). The Clyde monuments are located in the lowlands and lower hills on what was probably fertile land, while the Bargrennan sites are located in the uplands of western Galloway (for further details see Cummings 2002). It is possible to interpret the differences between the Clyde and Bargrennan sites in two ways. First, (as suggested by Murray in 1992) the different distributions of these two monument types may be interpreted as indicating that the Bargrennan monuments were later in date than the Clyde monuments. This could suggest that people lived in the coastal regions in the early Neolithic and gradually moved inland over time. This model has implications for the origins of the Neolithic in this area and also for the economic use of the region throughout this period. Alternatively, the two monument types may be contemporary. There are several ways of interpreting this suggestion. While it is possible to imagine two different communities living in Dumfries and Galloway and constructing different kinds of monument, it might also suggest that different parts of the landscape were directly related to different forms of monument and practices. This may imply the uses of different locales in a seasonal round (people may have been moving inland over the summer months to follow game or to feed stock) or other connections between

practices and places. We know from previous excavations that the first phases of some Clyde monuments were built during the earlier part of the Neolithic, and the obvious solution in order to resolve this question was to try to date the construction of the Bargrennan sites. A thorough programme of excavation at Bargrennan sites could allow some comparisons between these and Clyde tombs and provide indications of patterns of land use. There is already robust evidence for use of the inland and upland areas by Mesolithic people (Cherry and Cherry 1997; Cole 1963; Cormack and Coles 1968; Edwards 1996), and we could also explore the Bronze Age uses of place and landscape in the region (cf. Yates 1984).

Over the past three years we have been trying to ascertain the date of construction of a Bargrennan monument at Cairnderry (see Cummings and Fowler 2002; 2003; 2004a). However, the site had been robbed out and we have not been able to suggest a date for its construction. However, we did find an early Neolithic assemblage underneath the monument, as well as a series of Early Bronze Age cremation deposits which provided a range of radiocarbon readings indicating the individuals buried there died c. 1900-1700 BC. We therefore know that the monument was reused at this time.

The overall research programme - Bargrennan chambered cairns

The dating of the Bargrennan monuments remains a crucial goal in developing our understanding of the origins and development of the Neolithic in this area. Therefore, the re-investigation of Bargrennan White Cairn was proposed with one of the aims being to obtain securely contextualised material for radiocarbon dating. The results of the work at Cairnderry produced substantial early Bronze Age reuse of the site. The insertion of early Bronze Age remains into Clyde cairns is also evident in the area (e.g. at Mid Gleniron I; Corcoran 1969). Therefore, the research programme now also includes the aim of attempting to understand the history of use and reuse of Bargrennan sites. This may allow comparison with the re-use of both types of site in both sets of locations, and provide an indication of cultural trends in the early Bronze Age re-use of chambered cairns in the region. Therefore, we also aimed to look for Bronze Age reuse at Bargrennan. It seemed likely that Piggott and Powell's pit at the entrance to Bargrennan may have been a similar later deposit to those found at Cairnderry. The overall research aims at Bargrennan, then, were to look for pre-cairn material, attempt to provide a date for the construction of the site by looking for datable material from a secure context at the base of the cairn, and to consider evidence for reuse of the monument. It is anticipated that the results of these excavations would themselves form a new set of questions for further investigations into both sets of monuments and other Neolithic sites in the region.

The location of the site

Bargrennan White Cairn is located only a few miles from Cairnderry, which is found 4km to the north-west. The site consists of a single chamber and passage, set within a round cairn. The site is

presently in land owned by Forestry Enterprise. It is surrounded by trees in all directions, although there is an area of clearance immediately around the monument itself. The site can be reached by a short path from a nearby forestry track. The site is located in between two streams, Lochspraig Burn to the north and Black Burn to the south. The cairn itself is carefully positioned on a natural rise in the local topography.

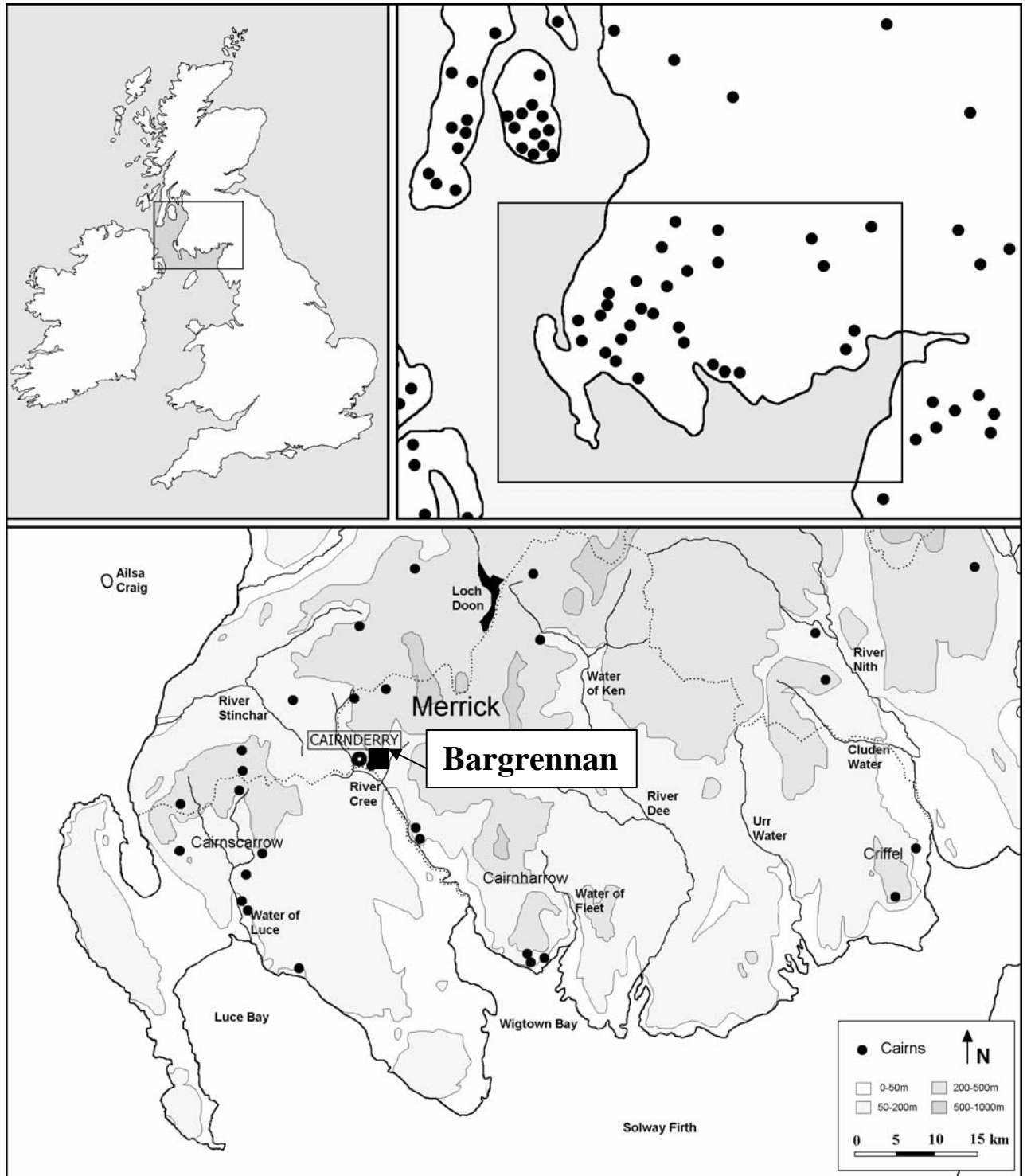


Figure 1. Location of Bargrennan chambered cairn in south-west Scotland (after Cummings 2002)

Although the site is surrounded by dense mature forestry in all directions, it is clear that this site would look up to Glencaird Hill (see Fig. 2). There could also be very impressive views of the Merrick Mountains to the SSE, which are presently clearly visible just a short distance from the site itself. The chamber and passage are orientated on a SSE axis, and it is likely that this afforded light directly into the chamber at sunrise, possibly most directly at solar solstices though this has not been observed to date at the site. It also seems likely that distant hills would also be visible to the west if the forestry were not present.



Figure 2. Photo taken by Piggott and Powell showing the landscape setting of the site

Description of the monument

Prior to our excavations, the site was a grass-covered mound with the chamber and passage clearly visible and accessible. Heaps of cairn material were piled either side of the chamber. The chamber and passage contained a quantity of gravel, which local people thought had been put there in the 1970s or 1980s. Prior to this, the paving slabs found by Piggott and Powell had been visible (see below). However, it is clear that the state of the monument in 2004 had been a result of the condition in which Piggott and Powell left the site after they had completed their excavations in 1949. They left the site open after their short excavation season (information from RCAHMS). Piggott and Powell found that the chamber and passage had already been exposed prior to their excavations, with two large capstones in place. They recorded the cairn as approximately 15m wide and no kerb was identified at the site. Piggott and Powell noted that the site had been 'much-robbed' and a large trench can also be seen on the top of the mound, which may be antiquarian activity. Henshall (1972, 445) reports that the cairn had been reduced sometime prior to a recorded visit in 1896, and the chamber and

passage already exposed. Following our excavations in 2004 the monument was restored to the state in which we found it, although we moved one fallen slab which was blocking access to the passage and left this embedded flat in the land surface.

History of research at Bargrennan White Cairn prior to the 2004 season

Summary of results from Piggott and Powell's season

Piggott and Powell examined a very small area of the site, incorporating the chamber and passage, and a small part of the cairn in front of the passage (see Fig. 3). They found that the chamber had been robbed out. However, fragments of cremated bone and incised later Neolithic pottery were recovered from above the slabs lining the passageway (Piggott and Powell 1949, 150-1). They did not investigate underneath the paving slabs. In a pit at the entrance to the passage a human cremation was found along with charcoals of oak and a flint tool. They also found what they described as hearths in the area in front of the passage. They noted what we would now describe as scratch art on some of the stones in the chamber (Piggott and Powell 1949, 148).

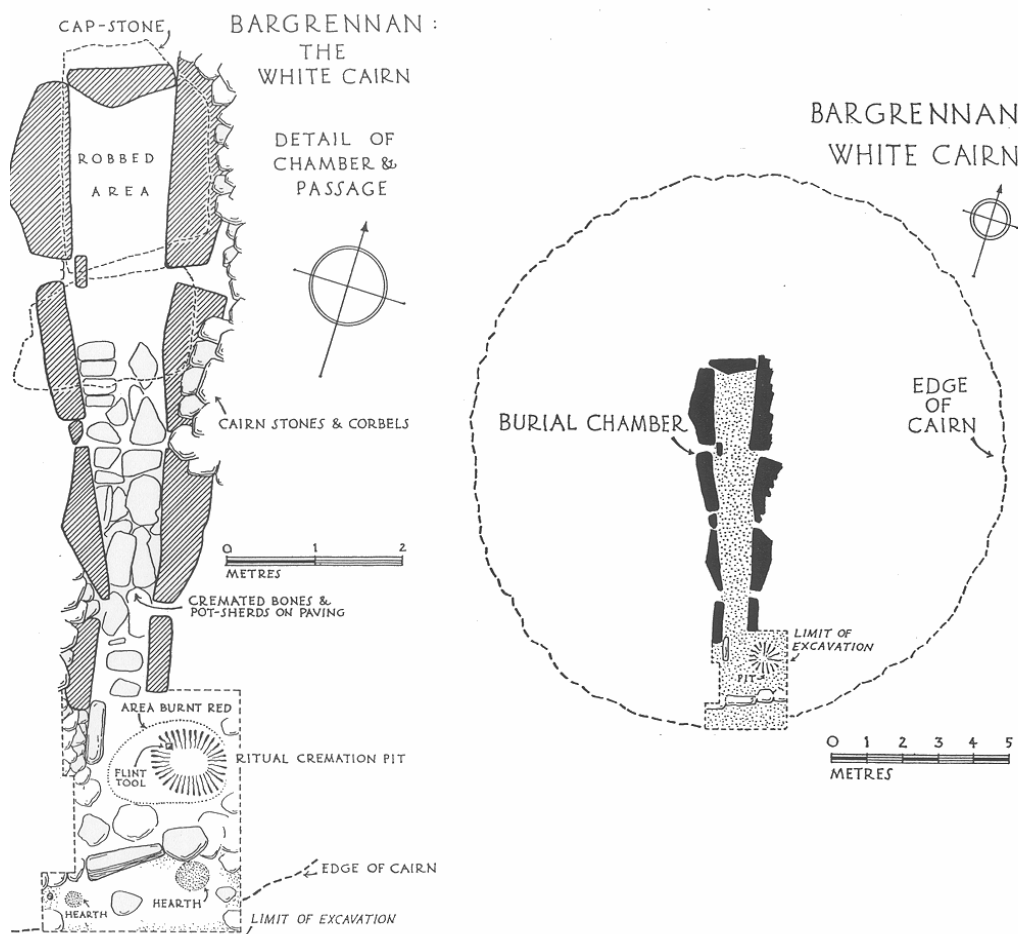


Figure 3. The plan of Bargrennan White Cairn by Piggott and Powell (1949)

Aims and objectives of the 2004 season

The aims of the 2004 season at White Cairn Bargrennan were to

1. Reopen Piggott and Powell's excavation trench in the passage area in order to look for evidence underneath the paving slabs, and to examine a larger portion of the cairn
2. Look for pre-cairn activity underneath the body of the cairn itself, and
3. Examine the outside perimeter of the cairn, in order to look for early Bronze Age activity similar to that found at Cairnderry.

When Piggott and Powell were digging in the 1940s, they were not as familiar as we are today with the idea of pre-cairn activity, or the possibility that there may have been a wooden precursor to the megalithic phase of construction. Therefore, one objective was to examine underneath the paving stones in order to look for pre-cairn activity, and we hoped, in order to obtain primary material for radiocarbon dating which could suggest a construction date for the site. We also considered that the examination of this monument would also provide a good comparison with Cairnderry, in particular with regards to construction techniques.

Methodology of the 2004 season

We opened a single trench at Bargrennan White Cairn which included the passage, and an area which incorporated the southern part of the cairn, the area beyond the passage and the area outside the southern part of the cairn.

Summary of results from the 2004 season

The results of the 2004 season are described in the interim report for that season (Cummings and Fowler 2004b). In brief, no finds or datable material were recovered from the chamber or passage (one find recorded as a piece of charcoal found at the base of an orthostat in 2004 was dismissed on closer inspection). However, a cist was located inserted into the western side of the cairn near to the passage. This cist contained a cremation deposit held within a cordoned urn. The cremated bone and radiocarbon reading from a bone fragment are reported on below. Towards the end of the season a pot was located buried in a pit in the eastern trench outside of what has now been identified as the original extent of the cairn. A quartz thumbnail scraper (Cummings and Fowler 2004b: fig 6) was located from near the northern edge of the eastern trench, in the body of the cairn. No distinct structural elements of the original cairn were discovered.

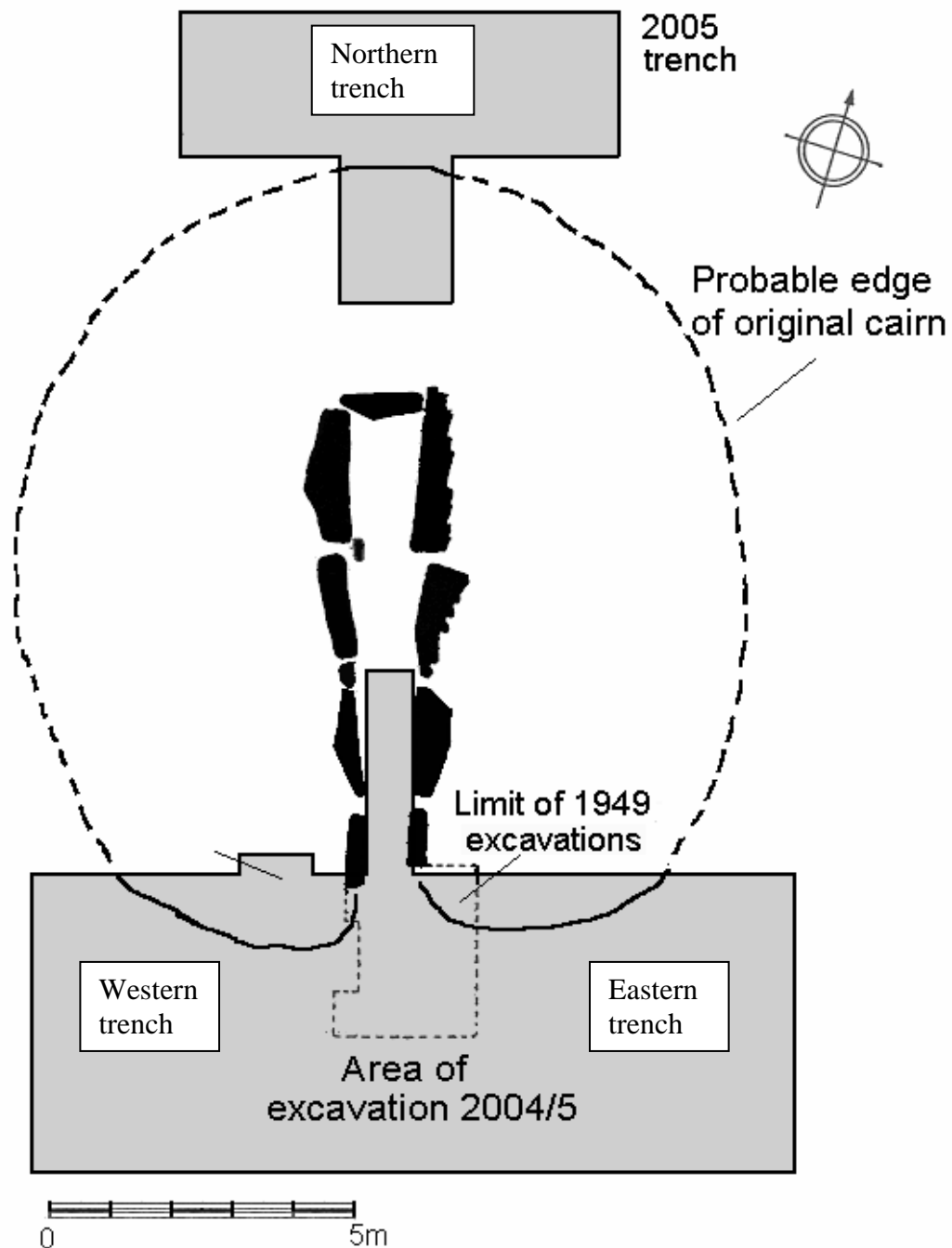


Figure 4. Plan of monument and areas of excavation, by Piggott and Powell in 1949 and Cummings and Fowler 2005

Aims and objectives for the 2005 season

The aims of this season sat within the aims of the overall project: to date the initial construction of the monument, to ascertain whether it was built in a single phase, to search for evidence of earlier activity underneath the cairn, and from 2004 onwards, to assess the

extent of any early Bronze Age reuse of the cairn. Specific objectives of the 2005 season were to:

- Assess whether Pit 2 (cut number 046 - located near the edge of the monument) was overlain by *in situ* cairn material. It was ascertained in 2004 that it was not cut through cairn material. If overlain by *in situ* cairn material, then obtaining a date from this feature would therefore allow for a *terminus post quem* for cairn construction
- Complete excavation of the cairn in the southern trench
- Assess the extent of any further activity under the cairn
- Assess the extent of any activity at the rear of the site, particularly any early Bronze Age re-use of this part of the site. This area was identified in particular for two reasons - firstly because we had located early Bronze Age pits at both Cairnderry and Bargrennan only in the south-east quadrant of the site and wanted to assess whether this was the only area targeted for pit deposition, and secondly, to see whether the alignment of the passage was significant at the rear of the site as well as the front. Furthermore, this also allowed us to examine the composition of the cairn in another part of the monument. This proved extremely useful (see below).

Excavation methodology

Two trenches were opened during the 2005 season (see Fig 4). The south trench had been opened in 2004. However, we did not have the chance to complete it, so it was covered with plastic sheeting and backfilled. In particular the pot in the eastern side of the southern trench required recovery, and we did not reach the bottom of the cairn on either side of the passage. The 2005 season saw the completion of this trench. In addition we opened a second trench to the north of the monument.

Excavation results

Southern trench

Within the southern trench we removed the cairn material we had replaced at the end of the 2004 season, and resumed excavation. The contexts excavated are described below working from the lowest strata up within each section.

Layers under and around the perimeter of the cairn. The earliest archaeological evidence came from the interface between the subsoil layers (004) and (012), and consisted of Mesolithic flints. (012) is the lowest subsoil excavated. The soils above (012) around the perimeter of the slipped cairn appear to have undergone a range of natural processes, including podsolization (forming (006)) and the formation of a black, spongy humic layer (019) often physically overlying (006). The comparatively looser, redder soil layer (004) covered all three of these layers physically, and in places contained a high proportion of slipped cairn

stones and we interpret this as part of an ongoing soil formation process over the long term since the construction and collapse of the monument. The grey podsolized layer (found all around the site) may be an indication that water has run through the cairn over the centuries, washing away any original topsoils that may ever have been sealed under the cairn.

The cairn. The sequence relating to the body of the cairn will be described here; the sequences for individual features such as pits excavated in 2005 will be described below. See Cummings and Fowler (2004b) for information on features excavated in the 2004 season.

The primary layer of the cairn (043) consists of large rounded rocks, sitting on and sunk into (012) and surrounded by fine orange silt soils which we interpret as having been formed since the construction of the cairn. This season we also identified dry stone walling (057) behind the orthostat in the eastern passage wall (026), and large, low, flat dry stone walling slabs (074) along the western passage wall where no orthostat has been found. It is probable that the long narrow naturally-cup-marked stone identified in 2004 in the forecourt area and other dry stone slabs (040) slipped from the face of this low wall, suggesting to us that it was a structural element from a continuation of the passage on this side.

During this season we identified a semi-circular ring of large stones, all resting on flat faces, around 6m from the centre of the monument. These were identified as kerb stones which had fallen forward (020). The cairn as a whole has collapsed and settled in the millennia since its construction, making it likely that most stones are not in the location they were originally placed. The clearest event of slipping relates to the kerb. All of the kerbstones (020) found in this trench had fallen forward away from the centre of the cairn to rest on their faces. Some rested on patches of small stones which are also interpreted as having slipped from the cairn (077). The area directly behind these fallen kerbstones was filled with a mixture of displaced large cairn stones and smaller stones (058, 068). These are interpreted as having spilled out from the cairn during collapse events, and some of these lie over the top of the fallen kerbstones (051, 052). Larger stones were also found spilled out from the probable original extent of the cairn (053, 054, 055). This collapse is interpreted as a gradual ongoing event including episodes of sudden shifting. One of the kerbstones discovered in the northern trench was still upright. Kerb stones were not located in areas where they might be expected and several were very heavily damaged. Three holes have been identified which could potentially have contained kerb stones (065, 066 and 067), however they have no distinctly shaped cut and may equally have been caused by the localised weight of slipped cairn stones pressing into (012), potentially including kerbstones resting on stones which had already collapsed from the cairn. We have not therefore interpreted them as 'sockets' for kerbstones. Both of the features clearly cut into the cairn - the cist and the cremation insertion (060/059a and 059b/037) could have occurred before or after the kerb collapsed. Pit 1 (cut 038) could

also have been cut into the monument before or after collapse, or potentially during acts that displaced some of the structural elements of the cairn. Upper layers of the existing cairn (021, 017, 043b) were loose and stones within them, often fragmented.



Figure 5. Collapsed kerb stones (largest under small scale) with pit 2 in the foreground

Cremation deposit inserted into the cairn. The quartz scraper (find number 155) found last season is now known to have come from the upper reaches of a feature cut into the cairn, the lower parts of which were identified once cremated bone was located in a discrete area. Examination of the stones in the north section wall of the trench confirmed that a 'pit' had been dug out of the cairn by removing cairn stones, and later refilled using broken cairn material. This deposit of cremated bones and the quartz scraper were located in a heavily disturbed area of the eastern side of the cairn, close to the last remaining passage orthostat (fills 059a and 037). The cut (059b) into the cairn possibly pre-dated the large pit excavated by Piggott and Powell in 1949 and completed by the present directors last year. One fill (037) - very loose fractured stones - had subsequently slipped into the Piggott and Powell pit (Pit 1: 038 - the cut for the pit - is not described here as it was excavated in 2004). It is not known when or if this slippage occurred, however, and it possibly took place during or after the 1949 excavation. It is equally possible that both features were filled by loose, fragmented cairn material and that these two contexts cannot be easily distinguished from one another. Within the secure area of the feature, some cremated bone had slipped through the fill (037) and was found beneath the cut (059b) to rest on the larger flatter stones of (043) beneath. Material which had slipped beneath the cut was assigned a different context number to indicate the process of its movement (060). While some bone remaining in (037) might also

have 'trickled' through part of the small stony fill (037) in a comparable way this cannot be demonstrated.

Contexts within the cairn - general comment. In general, it should be noted that cairn contexts have undergone a wide variety of taphonomic processes. While we recorded a series of layers that appeared distinct in the field, we stopped short of allocating context numbers to areas of broken or dislodged cairn except where this seemed to suggest a definitive transformation of the monument. For instance, we distinguished between kerbstones, base cairn stones, and small stones which had fallen between them when the kerbstones collapsed. However, we have not maintained distinctions between different upper layers of the cairn where it was not possible to tell their boundaries. Such differences may be seen as local variation in the ongoing process of cairn settling and collapse and as such are not seen as archaeologically significant.

Bronze Age urn deposit pit (Pit 2). Towards the end of the 2004 season a pot was discovered buried within the eastern trench. While the body of the pot was clearly visible the edge of the feature was extremely difficult to discern. As with much of the area within the trench, a dense layer of small stones lying in silty soil covered the feature in patches. In this area this was identified as layer (069), and covered the pot to the north of the east-west section line placed through the feature. The very top of the pot (which is more accurately the base since the vessel was inverted) was damaged, and there was no pit fill covering the top of the feature suggesting it was either incompletely backfilled, or that it was truncated before being covered by (069) and other stone and stone-bearing layers. (069) and stone layers above it are interpreted as cairn material spread out as the cairn collapsed. This season the edges of the pit were located, and the feature excavated. It was found to be a very narrow feature, no more than 20cms wider than the vessel it contained. Unlike pit 1 at Cairnderry, there was almost no cremated bone or charcoal in the fill around the outside of the pot, and the feature was filled in a single event or process with no evident stratigraphy. The top of the cut (046) as it survives is slightly wider than the base, 65cm x 50cm, and the whole feature was slightly crushed, leaning away from the cairn at an angle of 15 degrees. The base is 50cm x 50cm, and the pit was 35cm deep. It appeared to us as though the weight of the cairn had pushed the pot and the sides of the feature over, and presumably this could only have occurred in this way after fill (045) surrounded the vessel. We think it most likely that this was a deliberate backfill for this reason, because there was no evident stratigraphy, and because the soil matrix was indistinguishable from the soil into which it was cut, particularly higher up in the feature.



Figure 6. Pit 2 with pot, fully excavated and prior to the vessel being removed

It seems therefore that a small pit was cut into the subsoil outside the perimeter of where the collapsed kerb currently lies (cut 046). A pot was then placed inverted in the pit (078) and a single fill (045) packed around the pot. The top of this feature was eroded, and was later covered by a layer (069) of silt, which was then covered with small cairn rubble from a collapse event (051). This has been interpreted to suggest that the vessel was deposited before at least one period of significant cairn collapse. It is also notable that the pit was cut approximately 1.4m from the calculated edge of the kerb when it was *in situ*. At Cairnderry the pits containing cremated bone were located closer to the kerb than this, but Pit 1, containing a battleaxe, collared urn and accessory vessel, was located c.50cm-1.5m from the estimated location of the passage entrance.

The fill of the vessel (078) is currently being excavated at the conservation laboratory of the School of History and Archaeology, University of Cardiff and has already yielded interesting results (see below).

Amorphous feature in front of passage. Identified by Piggott and Powell as a 'hearth' this was a small feature (cut 049), which contained two fills, the lower one being very silty (050), and the upper fill containing some fragments of pottery (047). It is likely that the feature has been disturbed by animal burrowing as the edges were amorphous and included small tunnels away from the edges containing disturbed fill. It was partially excavated in 2004, and completed in 2005. The pottery is awaiting identification by Dr Alison Sheridan.

Posthole. Found next to the section in the eastern-most part of the trench, a posthole 16cm square in plan and 10 cm deep was found. Cut (042) contained two fills (039 and 041). It was

partly overlain by an area of medium-sized subangular flat stones. These may have originated in the cairn, but it is possible they are the remains of another feature - they extended into the north section wall of the trench.

Stakehole. 6cm to the north of the posthole, next to the section wall, was a small stakehole (cut 062b, fill 062a). It was partly overlain by an area of medium-sized subangular flat stones.

Circular hollow to west of cairn perimeter. This (probably natural) hollow (cut 067) to the west of the passage and just outside the projected perimeter of the kerb contained two distinct fills, a charcoal layer (070) and a dense fill of medium sized stones (063). It is included as a possible feature due to the presence of a quantity of charcoal and a single flint piece, and seems to have been created by the weight of a collapsed kerb stone pressing down onto fallen cairn stones pushing the charcoal into softer subsoil. We suggest two possible interpretations. Firstly, that this may have been an area of, for example, Mesolithic activity, exposed by truncation at the time the cairn collapsed and therefore protected by it from any further erosion as the charcoal was pressed down into the soil. Secondly, the burning of this wood may date to some time immediately before the collapse of this section of the cairn.

Discrete patch of localised burning. An ephemeral deposit sealed by a fallen kerbstone, to the east of the passage. The flat face of a kerbstone covered this patch of charcoal-rich silt (080), only 2cm deep, 30 by 36 cms wide and external to the probable location of the kerb. The kerbstone has pronounced fracture lines and was near to outlying pieces of stone which have clearly broken off of it. It is not known whether this burnt area relates to the fracturing of this kerbstone, however, or whether a natural process caused this. (080) seems to be covered by an event of kerb and cairn collapse.

Northern trench

The northern trench contained an *in situ* kerb stone (083) at the perimeter of the cairn as well as a collapsed kerbstone (020) adjacent (see Fig. 7). Material had slipped off the main body of the cairn (072) and was found covering each of these stones and an unidentified external feature running into the westerly section wall which may be a ditch terminal (081/ 082: see Fig. 8). Low down inside the original cairn some undisturbed cairn material was found (076). A trench, assumed to be antiquarian, had been cut through the cairn to a depth of 80cms (079) and then backfilled (075).



Figure 7. Fallen and upright kerb stones in north trench (left) and post-ex of north trench (right)

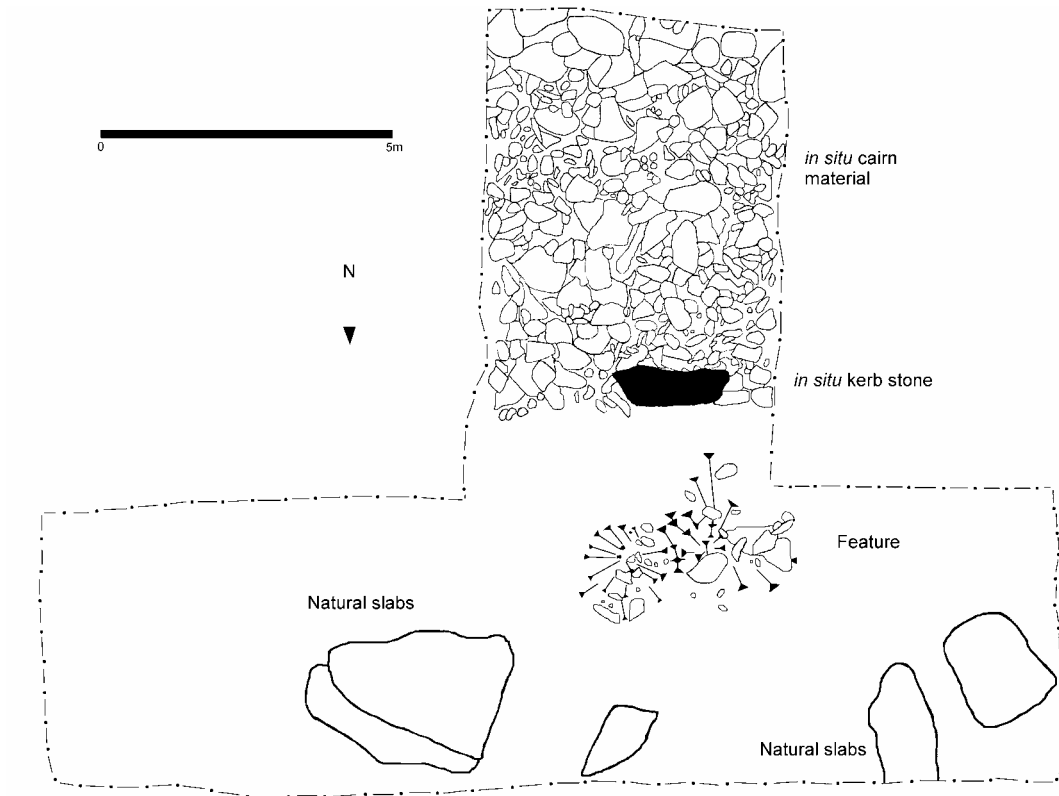


Figure 8. Plan of northern trench

Possible ditch terminal in northern trench. The cut of a narrow ditch, approximately 36cm x 61cm, 40cm deep was located, and a ditch terminal (082) was found in front of the *in situ* kerb stone (083) in the northern trench. This contained no archaeological material but a single fill (081). Slipped cairn material covered this fill (072).

Finds

The main find from this year's project was the large Bronze Age urn in pit 2. A quantity of cremated bone was also uncovered from different contexts (see below) and a small lithic assemblage was found (10 pieces). A few modern finds were also found.

Treasure Trove has been informed of these finds. All finds were initially transported to the University of Central Lancashire. The cremated bone samples were examined by Dr Mick Wysocki at UCLan, a specialist in human remains. Charcoal samples have been selected for analysis by Diane Alldritt (Glasgow), and some samples may be selected for radiocarbon dating. Dr Amelia Pannett will look at the lithics and Dr Alison Sheridan will look at the small quantity of pottery from the site. The contents of the large Bronze Age pot (context number 078) were not excavated *in situ*, the pot instead being lifted whole. The contents of the pot are being excavated in the laboratory by Jennifer Miller, who is consolidating this vessel. Samples of unconsolidated pot will be retained for scientific analysis (e.g. lipid analysis). The excavation of this vessel has already yielded interesting results outlined below, though it is not yet complete. A full list of finds is included in the appendix.

Report on the cremated bone from Bargrennan 2004

By Mick Wysocki and Vicki Cummings

Summary

Cremated bone was recovered from two features:

- The pit next to the passage, originally excavated by Piggott and Powell in 1949.
- The cist insertion which contained a large cordoned urn with cremated bone.

All cremated material from these contexts was human, with no evidence for cremated animal remains. So little material was found in the pit that little more can be said about these remains other than that they are human. The large urn contained the remains of a single individual, almost certainly an adult male. This person seems to have been cremated with a copper or copper alloy object. The material from both features was efficiently cremated, with maintained pyre temperatures of over 800°C.

Introduction

The aims of the anthropological analysis of these cremated remains were

- to establish whether the remains were human, animal or both
- to establish how many individuals were represented in each deposit
- to establish, if possible, the age and sex of the individuals
- to make inferences about the pyre technology used in the cremation of these remains

The bone was excavated in the field stratigraphically, and stored in tin foil at a low temperature prior to analysis. Most of the material was already separated from the soil within which it was found, but soil still adhered to the bones. The bone was quite robust, and survived in large pieces, so wet sieving was deemed the best method for cleaning the bones. The bones from each context were therefore gently washed by hand to remove all dirt, using 10mm and a 2mm sieves. Very little material went through the smallest sieve. The remains were then thoroughly dried. All material was then sieved again into different sizes (Table 1), following McKinley (1994) and identifiable fragments retrieved by hand for further analysis.

Results: Pit 1 (contexts: cut 038, fill 027)

Only a very small quantity of cremated bone was recovered from this context, as the pit had already been almost fully excavated in 1949. As such very little could be said about this material. It has all the characteristics of being from a human, with nothing to suggest that this was a cremation of an animal or animals. However, there is not enough material to indicate whether this was an adult or child, a single individual or many. The bone was thoroughly calcined throughout, suggestive of a high firing temperature (800-900° C).

A single long bone fragment was selected and submitted for C-14 AMS dating and produced a date of 3560±35BP. Please see the radiocarbon rationale and results for further details.

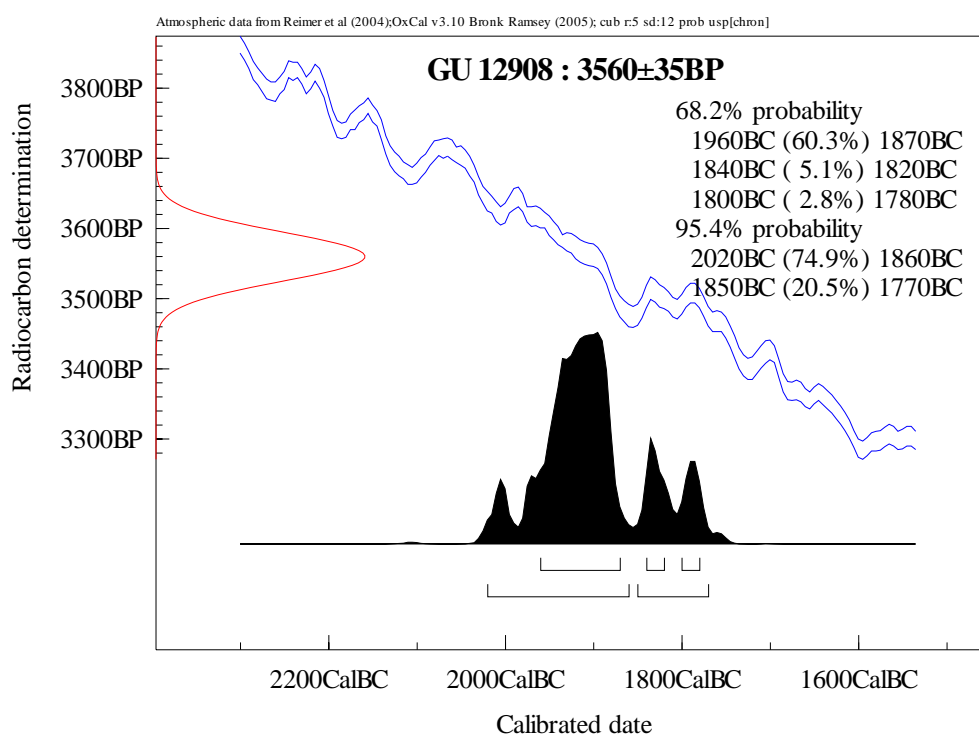


Figure 9. AMS Radiocarbon reading from human longbone, context 027

Results: Cist insertion containing collared urn (contexts: 024 pot and contents, 031 cut)

Cremated bone was found primarily in the large collared urn contained within the cist and was excavated in the laboratory. However, cremated bone was also found outside the pot, in particular at the base of the packing stones (023) and on top of a small layer of stones found immediately beneath the slab on which the pot stood (035). Due to the activity of a small rodent, the sides of the collared urn had given way in places, allowing bone to spill from the pot. In the lab it was also noted that bone from different contexts shared key characteristics, so all the bone was considered as a single deposit.

The total weight of cremated material deposited in the urn was 1272.5g. Fragmentation data are given in Table 1. Identifiable elements consisted of fragmentary portions of skull, ribs, vertebrae, upper and lower limbs. A few roots from permanent incisor-canine-premolar dentition were also recovered, as was the intact dentine crown and roots of a mandibular first molar.

The assemblage was consistently chalky white throughout, including cortical sections. A light bluey-green staining, or patination was noted on a number of cranial fragments.

Bone size	Weight	Percentage
>10mm	862g	67.7%
>5mm	341g	26.8%
>2mm	65.5g	5.2%
<2mm	4g	0.3%
Totals	1272.5g	100%

Table 1. Fragmentation data from cremated material from cordoned urn

Archaeological cremation deposits typically produce an average of 900g of skeletal material from a single adult, varying in range from as little as 100g to 1500+g, depending on circumstances (Chamberlain 2004). This cremation, therefore, would be the appropriate amount to be the remains of a single individual.

Diagnostic pieces were then retrieved and weighed.

Weight of skull frags	67g
Weight of teeth	4g
Other identifiable pieces	314g

Teeth: almost certainly those of an adult. There were no duplications in the teeth, indicative of a single individual. A second mandibular molar displayed occlusal attrition, and is therefore

likely to represent an individual in their mid-20s or possibly older. The remaining dentition indicates a minimum age of 12 years.



Figure 10. Teeth from cist cremation

Skull: Cranial sutures were fused internally but not externally. This is suggestive of an older sub-adult or younger to middle adult and is consistent with the dental evidence. Robust, well developed internal and external occipital protuberances suggest male sex.



Figure 11. Skull fragments from the cist cremation

Vertebra: Osteophytic lipping of vertebral bodies was noted. This condition is more commonly associated with individuals over 30 years of age, but it is not a very reliable indicator of age and can develop in younger individuals. The relatively large size of the vertebra is also tentatively suggestive of a male.

Other bones: a number of rib fragments were identified (number) as were a few intact hand phalanges. There were also numerous long bones from both legs and arms.



Figure 12. Long bone fragments (left) and ribs (right) from the cist cremation

Sexing: The robust nature of the vertebra, the occipital protuberances and the femoral fragments all suggest that these were the remains of a male.

Ageing: There were less indications of age, but it was estimated that this individual was likely to have lived to at least his mid 20s and possibly to his mid 30s.

Pyre technology: these remains were very efficiently cremated, leaving no charred or grey coloured patches. All bones were pure white. This suggests a large, efficient pyre with good air circulation, maintained for a number of hours and reaching temperatures in excess of 800°C. A light blue-green staining was also noted on a number of the bones, which suggests that the individual was cremated with a copper or copper alloy object.

A single long bone fragment was selected for radiocarbon analysis. It was dated to 3405+-35 BP.

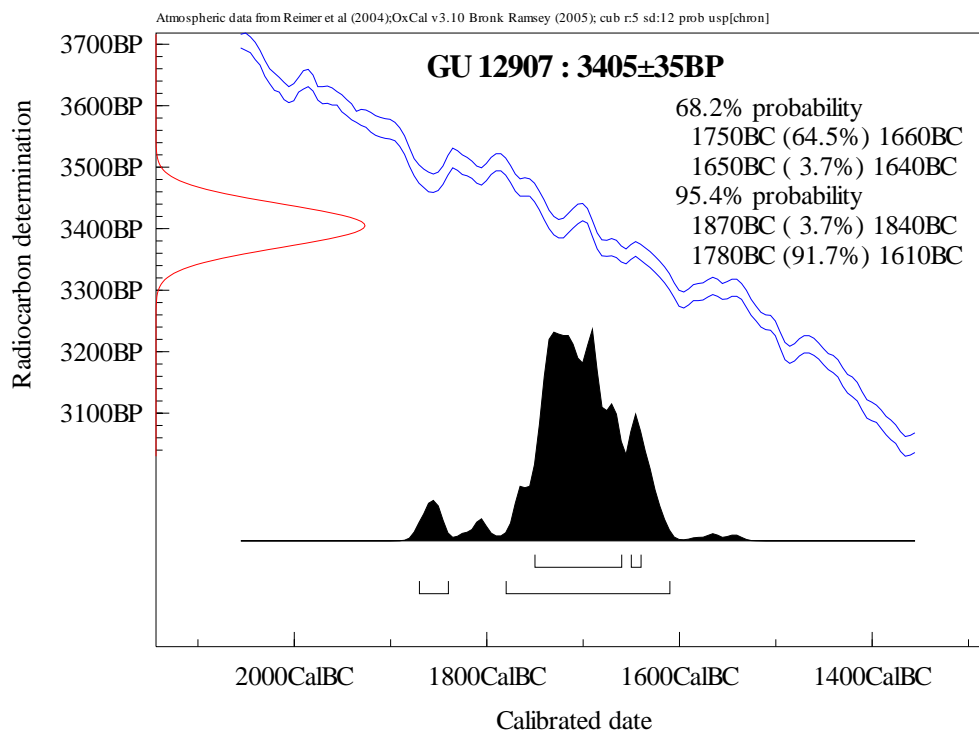


Figure 13. AMS Radiocarbon reading from human longbone, context 024

Bone report for Bargrennan 2005

Mick Wysocki and Vicki Cummings

Introduction

Cremated bone was recovered from a number of contexts

-In a pit outside the perimeter of the cairn, also containing a large upturned Bronze Age urn (045)

-A cremation inserted into the cairn to the south-east of the passage, associated with a quartz scraper

-Remaining fragments from the cist (035 and 058)

All cremated material from these contexts was human, with no evidence for cremated animal remains. So little material was found in the pit that little more can be said about these remains other than that they are human. However, more bone has been found in the pot in the pit, so that we will be able to say more about this context in the future. The second cremation insertion associated with the quartz scraper is probably that of an adult. The bones from the cist are consistent with the results of last year's report.

Pit containing pot found outside the monument (045)

A few fragmentary remains were found outside the pot in the pit. These may have been moved through animal action, as a burrow was located either side of, and going through, the

pot. All bones are very fragmentary and are probably human. There is a tooth root, a small piece of skull and a possible humerus. They have a 'soapy' feel, which suggests they have been subjected to water action (consistent with the context of the bones).



Figure 14. Cremated bone *in situ* in the pot, along with a portion of a battleaxe

There is a quantity of bone in the pot itself, which will be examined once it has been fully excavated. A sample of this bone has been selected for C-14 dating, results pending.

Cremation inserted into the cairn, associated with a quartz scraper (060)

A small quantity of cremated bone was recovered from an insertion event in the cairn, to the south-east of the passage. The remains are very small, with considerable evidence of weathering. These are probably the remains of a human, with nothing to indicate animal remains. Part of a humerus was selected for C-14 dating, results pending.

Remaining fragments from the cist (035 and 058)

A few fragments of cremated bone were recovered from contexts which were originally part of the cist cremation deposit. Fragments from 035 had blue-green staining, indicative of cremation with a copper object, and also found on the bones in and around the pot and cist. Identifiable remains include an end finger phalange, with a fused ephiphises and an ulna shaft. The phalange indicates an adult, again consistent with the bone from the cist. From context 058 there was a cranial fragment.

Collared urn from pit 2

This vessel is under excavation in the conservation laboratory. However, it has already yielded exciting results. A quantity of cremated bone has been recovered, and a sample selected for radiocarbon readings. Furthermore, low down in the vessel were found the shattered fragments of a battle-axe, which seems to have passed through the funeral pyre, and a worked bone belt hook.

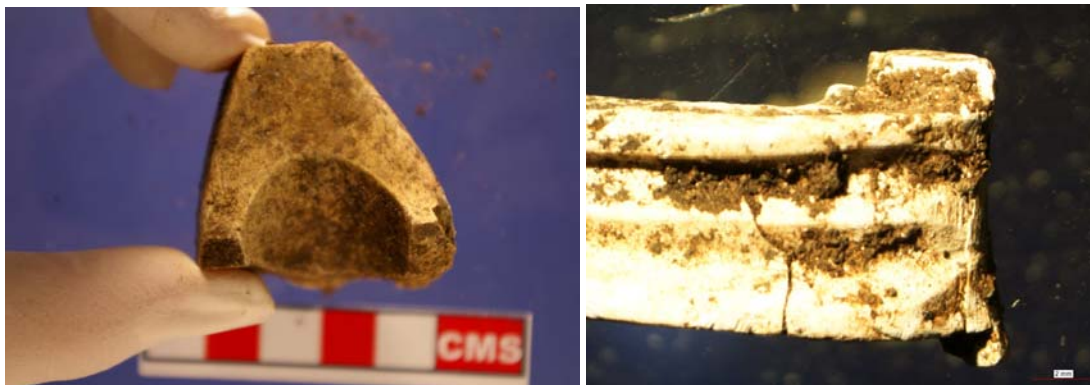


Figure 15. Part of the battleaxe (left) and the belt hook (right) from the EBA pot

Radiocarbon dating programme

Rationale. All potential dateable samples were retained for assessment for C-14 dating. This included all samples of bone, charcoal, plant macro-fossils recovered through wet sieving and other appropriate organic material. Radiocarbon dates have been preferentially taken from short-lived material, which so far has been restricted primarily to cremated human bone samples, but we have also now submitted dates on charcoal (dates pending). All charcoal was examined by a specialist prior to submission and appropriate pieces only chosen for dating. So far, no seeds/twigs/other very short-lived material has been recovered for dating, and the assessment of the flots did not locate any appropriate material.

The two radiocarbon dates from last year's project are included above. At the time of writing, an additional two cremated bone samples have been sent off for dating (from pit 2 and the cremation insertion associated with the scraper) and four assessed charcoal samples. We are awaiting these results.

Discussion and preliminary interpretations

Cairn construction

The base layer of the cairn was constructed of large rounded rocks. It is not clear whether originally these extended higher than a few courses or whether they reached up to the capstone - however, the quantity of very large stones found by our excavations at the rear of the monument suggests that this is certainly possible. The area of dry stone walling (057) wedged behind the orthostat to the east of the passage suggests that the construction was a complex but singular process with cairn, orthostats and dry stone walling all resting on one another during the construction event. No evidence for multiple phases of construction was found.

Cairn collapse

It is not thought that the cairn collapsed in a single event, but that a gradual and piecemeal process of collapse occurred. In some areas and some layers cairn stones were heavily fragmented, and some of this may potentially be attributed to human agency. However the greywhackey that composes them is brittle, and apt to split if subjected to sudden force or a fall without a soft landing. Furthermore, such stone may fracture through exposure to the elements (Alan Rosier *pers. comm.*). While, for instance, almost all of the kerb stones were damaged, and while it cannot be disproved that some of that damage was inflicted deliberately, there is no direct evidence to suggest that the kerb was pulled down, dismantled or subjected to human force.

Insertions into the cairn

The cist insertion was discussed in the 2004 interim report, and our interpretation of that feature has not changed as a result of the 2005 season. During this season we identified that the area of small, fractured stones to the east of the passage included the discrete feature, described above, which cut through the cairn. We identified that this was the location where the quartz scraper and scraps of cremated bone had been found in 2004, and investigated the feature. Fortunately, the edge of our trench had cut a section through the feature so a section could be drawn; unfortunately this meant its full extent north could not be recorded. Furthermore, the southerly extent of the upper reaches of the feature could not be recorded since disturbances to the cairn meant the edges of the feature had slipped away into the cairn - this was a contributing factor to why we were unable to locate the feature in 2004 and interpreted the scraper and bone as incidental to layers of cairn construction. It was not possible to discern when this pit was cut through the cairn as the upper reaches in section had been obliterated along with the rest of the cairn at that height, forming the layer of very small stones currently capping the monument (017). Some of the bone recovered from (059) and (060) is being subjected to AMS dating.

Early Bronze Age pit 2 compared with Cairnderry pit 1

Pit 2 does not seem to have constituted an insertion into the cairn, and does not seem to be covered by *in situ* cairn as anticipated leading up to the 2005 season. It is most likely to have been cut into the earth outside of but near to the extent of the kerbstones. It may mark the extent of collapse at that time, or have been inserted before any collapse. It is located very close to the entrance, and off to the eastern side of this southerly facing chamber. The location is similar to that of pit 1 at Cairnderry, as is the deposit. However, there are key differences between the deposits. Both contain cremated bone within a collared urn. Both include a stone battleaxe with a shafthole design. However, the bones from Cairnderry Pit 1 were dumped into the backfill along with large chunks of burnt wood, an accessory vessel was placed in the feature and the battle-axe found there does not seem to have passed

through the pyre. It was intact except for a hairline fracture - though of course it is not possible to ascertain whether this crack was caused during, for instance, a symbolic snapping of its hafting. At Bargrennan pit 2, the human remains were confined firmly within the vessel, as were all of the associated finds. Bones and artefacts had all passed through the pyre, but were picked cleanly from that pyre with minimum inclusion of charcoal in the final deposit.

Conclusions

Based on the results of the 2005 season, and the excavation and post-excavation analysis from the 2004 season, we have made the following interpretations.

1. The cairn was built in a single phase on a natural rise in the local landscape
2. It overlies a patch of ground which shows signs of Mesolithic occupation, though the extent and significance of this cannot be fully assessed without test pitting the area and other comparable locales.
3. Working on the reasonable assumption that the monument was not built in the later Mesolithic, and that later Mesolithic objects were not deposited here just prior to construction, there is no evidence of activity on the site directly prior to construction.
4. That a kerb of stones with flat faces projected outwards originally stood around the edge of the cairn. These were identified both to the front and rear of the monument, and there is no reason to believe they are not to be found around the sides. We have not been able to offer evidence for whether the kerb collapsed due human agency or natural processes. It is possible that the flat cupmarked stone was pulled forward, that the kerb was dislodged, and possibly even fractured deliberately. Equally, the kerb may have collapsed from the weight of the cairn which it supported.
5. That no evidence now remains of the original uses of the chamber and passage (Piggott and Powell may have found primary use of the passage in their 1949 excavations, but sadly that material no longer survives. Equally they may have found evidence for Bronze Age reuse of the passage).
6. With regards to the question of whether the monument seems more like 'earlier' Neolithic chambered cairns, or 'later' Neolithic passage graves, we offer no conclusive answer. It is fair to say it shares similarities with both. However, the chamber is aligned towards the sunrise and may potentially support a solar solstice alignment. This is commonly a feature of later Neolithic and early Bronze Age monuments such as passage graves (and the Clava cairns, which offer another interesting parallel for these sites). The monument was also built in a single phase and not added to later unlike some of the earlier Neolithic monuments in the area. However, the construction techniques seem to have varied little from earlier Neolithic monuments. The scale of the monument could also be paralleled with Scott's (1969) protomegaliths, found in Dumfries and Galloway at sites such as Mid Gleniron I.

7. That pit 2 was overlain not by *in situ* cairn, but by material that had slipped off the cairn. Any radiocarbon readings from this feature will give a date for the deposit, and a period before some part of the cairn collapsed but not a *terminus post quem* for the cairn construction.
8. That there is evidence of significant use of the cairn as a focus for depositing human remains and artefacts in the earlier Bronze Age. Four such episodes are clearly identifiable: pit 1 (mainly excavated by Piggott and Powell), the cist, the insertion of cremated bone and a quartz scraper into the body of the cairn, and the insertion of an inverted urn containing cremated bone in pit 2 just outside the original extent of the cairn. At Cairnderry all of the early Bronze Age insertions were found to be from a very short period of time between c. 1900 and 1700 BC (all gave almost identical AMS readings). At Bargrennan, the bone found in pit 1 (that mainly excavated by Piggott and Powell) gave a reading of c. 2020-1770 BC (2 sigma), while bone from the cist gave a reading of 1870-1610 BC (2 sigma). We are awaiting the results of readings from the other two features. The divergence of the two existing readings leave the possibility that cist and pit deposition took place in the period c. 1900-1700 but suggest the probability that these activities were separated by a wider space of time than those at Cairnderry. Further post-excavation analysis will clarify this picture.

Publication plans and future work

The DSR and this interim are available through the ADS, as are the interim report for 2004 and reports for each season at Cairnderry chambered cairn. A monograph of the final results of all surveys, excavations and post-excavation analysis carried out as part of the project, is forthcoming as a British Archaeological Report in 2007.

We are awaiting the results of the following analysis: AMS dating of samples from 2005; analysis of soil flotation samples; identification of species of carbonised organic material; pottery reports for 2005; lithic assemblage analysis.

As a result of this four-year project we have consolidated and added to what is known about Bargrennan chambered cairns. While further excavations of such monuments may provide the currently elusive material for dating, our experiences at Cairnderry and Bargrennan and our awareness of the condition of other known sites suggest this is unlikely through the current range of dating techniques on offer and that further knowledge about the prehistoric significance of these monuments is more likely to be gained in other ways at present. We plan to carry out further research into the context, use and re-use of these monuments by setting them within a broader landscape, environmental and archaeological context. We aim to investigate the landscape around the Cree and Luce Rivers through a variety of means including walk-over survey and fieldwalking, coring and environmental analysis, test pitting,

detailed analysis of aerial photographs and stray findspots. We aim to relate the use of the tombs with patterns of occupation and land use, patterns in the use and history of other monuments and the location of rock art panels. This project is envisaged to investigate evidence from the later Mesolithic period through to the later Bronze Age. For instance, the project will study the landscape setting, size and use history of Bronze Age cairns in the different river catchments of Galloway and consider how these compare with Bargrennan monuments. The work is projected to take several years, and may result in further excavations at suspected Neolithic and Bronze Age sites in Galloway. At the same time we (Chris Fowler in particular) intend to compare the variety in early Bronze Age mortuary practices at Cairnderry and Bargrennan with those from elsewhere in Britain as part of an ongoing study into the treatment of the dead and conceptions of the body and person in prehistory.

References

- Cherry, P. and Cherry, J. 1997. Two late Mesolithic sites in the Luce Bay area. *Transactions of the Dumfries and Galloway Natural History and Antiquarian Society* 72, 109.
- Coles, J. 1963. New aspects of the Mesolithic settlement of south-west Scotland. *Transactions of the Dumfries and Galloway Natural History and Antiquarian Society* 41, 67-97.
- Cormack, W. and Coles, J. 1968. A Mesolithic site at Low Clone, Wigtownshire. *Transactions of the Dumfries and Galloway Natural History and Antiquarian Society* 45, 44-72.
- Corcoran, J.X.W.P. 1969. Excavation of two chambered tombs at Mid Gleniron Farm, Glenluce. *Transactions of the Dumfries and Galloway Natural History and Antiquarian Society* 46, 29-90.
- Cummings, V. 2001. *Landscapes in transition? Exploring the origins of monumentality in south-west Wales and south-west Scotland*. Cardiff University: Unpublished PhD thesis.
- Cummings, V. 2002. Between mountains and sea: a reconsideration of the monuments of south-west Scotland. *Proceedings of the Prehistoric Society* 68, 125-46.
- Cummings, V. 2003. Monuments and landscape: encounters at Cairnholy. *Transactions of the Dumfries and Galloway Natural History and Antiquarian Society* 77, 23-36.
- Cummings, V. and Fowler, C. 2002. *Cairnderry chambered cairn, Dumfries and Galloway: survey and excavations 2002. Interim Report*. Cardiff: Cardiff Studies in Archaeology.
- Cummings, V. and Fowler, C. 2003. *Cairnderry chambered cairn, Dumfries and Galloway: excavations 2003. Interim Report*. Cardiff: Cardiff Studies in Archaeology.
- Cummings, V. and Fowler, C. 2004a. *Cairnderry chambered cairn, Dumfries and Galloway: excavations 2004. Interim Report*. Preston: University of Central Lancashire Studies in Archaeology.

- Cummings, V. and Fowler, C. 2004b. *Bargrennan White Cairn chambered cairn, Dumfries and Galloway: excavations 2004. Interim Report*. Preston: University of Central Lancashire Studies in Archaeology.
- Edwards, K. 1996. The contribution of Tom Affleck to the study of the Mesolithic of southwest Scotland. In T. Pollard and A. Morrison (eds), *The early prehistory of Scotland*, 108-22. Edinburgh: Edinburgh University Press.
- Henshall, A. 1972. *The chambered tombs of Scotland volume two*. Edinburgh: Edinburgh University Press.
- Murray, J. 1992. The Bargrennan group of chambered cairns: circumstance and context. In N. Sharples and A. Sheridan (eds), *Vessels for the ancestors*, 33-48. Edinburgh: Edinburgh University Press.
- Piggott, S. and Powell, T.G.E. 1949. The excavation of three Neolithic chambered tombs in Galloway. *Proceedings of the Society of Antiquaries of Scotland* 83, 103-61.
- Scott, J. 1969. The Clyde cairns of Scotland. In T.G.E. Powell, J.X.W.P. Corcoran, F. Lynch and J.G. Scott, *Megalithic enquiries in the west of Britain*, 175-222. Liverpool: Liverpool University Press.
- Yates, M. 1984. *Bronze Age round cairns in Dumfries and Galloway: an inventory and discussion*. British Archaeological Reports, British Series 132. Oxford.