
http://repository.nms.ac.uk/260

Deposited on: 14 July 2015
Scotland’s Neolithic Non-Megalithic Round Mounds: New Dates, Problems and Potential

Alison Sheridan

INTRODUCTION

The purpose of this contribution is to review briefly the non-megalithic round mounds of definite and probable Neolithic date in Scotland, and to draw attention to some accelerator mass spectrometry (AMS) radiocarbon dates, relating to the use of four of these monuments – Midtown of Pitglassie, one of the cairns of Atherb, East Finncery and Pitnacree – that have been commissioned by the author over the past seven years as part of an ongoing, and broad-ranging, National Museums Scotland (NMS) radiocarbon dating initiative. The issues involved in obtaining these dates, and in seeking to obtain others for Scottish non-megalithic round mounds, will be outlined. Where the potential exists to obtain further new dates, this is pointed out.

BACKGROUND: THE NMS RADIOCARBON DATING INITIATIVE

Since the early 1990s, and in addition to commissioning fieldwork-related dates, the NMS Archaeology Department has undertaken radiocarbon dating programmes to target specific aspects of Scotland’s archaeology (Sheridan 2002 and see annual NMS datelists in Discovery and Excavation in Scotland from 2001 onwards). Until 1998, this work was principally geared to providing information for the Early People displays in what was then called the Museum of Scotland (now part of the National Museum of Scotland), and it tended to focus on organic finds from peat bogs, such as wooden bowls and pieces of clothing (Sheridan et al. 2002, and see Oxford Radiocarbon Accelerator Unit (ORAU) Datelists 16, 20 and 29 in Archaeometry). Thereafter, and taking advantage of developments that allowed the structural carbonate in cremated bone to be dated (Lanting et al. 2001), human bone associated with Beaker pottery (Sheridan 2007a), early Bronze Age cinerary urns (Sheridan 2003, 2007b), Food Vessels (Sheridan 2004) and various other early Bronze Age artefact types including jet jewellery (Sheridan 2006a; 2007b) was dated. Additional dates relating to Scottish Beaker, Food Vessel and aceramic early Bronze Age graves have recently been produced by Mike Parker Pearson’s Beaker People Project (Sheridan et al. 2006; 2007) and Neil Curtis’s Beakers and Bodies project (Curtis et al. 2007). Funding for the NMS-commissioned dates has come from NMS, Historic Scotland, the Society of Antiquaries of Scotland, Aberdeenshire Archaeology and NERC (through the ORADS scheme); in addition, the University of Groningen kindly provided a number of determinations at no cost.
The dating of Neolithic funerary monuments has been a long-standing interest of NMS Archaeology, and working in collaboration with Rick Schulting (University of Oxford), Finbar McCormick (Queen’s University Belfast) and Richard Jones (Glasgow University), it has been possible to obtain a number of useful new dates for Scottish megalithic chamber tombs (e.g. Cuween passage tomb, Orkney: Sheridan 2005a and b; 2006a; cf. Schulting 2004 for some of the others and see Schulting and Sheridan in prep. for a synthesis). Among these, of considerable interest have been the results of dating eagle bones from Isbister chamber tomb, Orkney, which revealed that the eagles had been deposited in the tomb during the second half of the third millennium BC, long after its construction (Pitts 2006; Sheridan 2005b).

The quest to improve the dating of Scotland’s Neolithic non-megalithic round mounds was a logical part of this overall desire to maximise the potential of the existing body of evidence. Accordingly, attempts were made, from 2003 onwards, to locate and date suitable samples – especially those of cremated bone which, until shortly before then, had not been datable. Funding for these dates again came from various sources; particular thanks are extended to the late Ian Shepherd, of Aberdeenshire Archaeology, who kindly arranged sponsorship of the Atherb date, and to Tom Higham of ORAU, for the East Finnercy date.

All the dates cited here have been calibrated with OxCal v.4.1, using the IntCal 04 calibration curve (Reimer et al. 2004); values at 2σ are cited, rounded to ten years, as advocated by Mook and Waterbolk (1985).

NEOLITHIC NON-MEGALITHIC ROUND MOUNDS IN SCOTLAND

Credit for confirming the existence of this class of monument in Scotland must go to John Coles and the late Derek Simpson, whose excavation at Pitnacree, Perth and Kinross – part of a study of the barrows, standing stones and stone circles of Strath Tay – demonstrated the Early Neolithic date of this particular round mound (Coles & Simpson 1965). In discussing other possible Scottish examples, they cited East Finnercy in Aberdeenshire and Courthill, Dalry, North Ayrshire.

Ian Kinnes subsequently reviewed the evidence for this class of monument, on a nationwide basis, in 1979; he returned to the subject in 1985, 1992 and 2004, and his current work with Marcus Brittain will update and refine the corpus further. The number of Scottish sites has remained small, and the list of candidates has varied between publications (cf. Brophy, this volume Chapter 2); this author would exclude Kinnes’s 1992 suggestions of Gullane, East Lothian and Achnacreebeag, Argyll and Bute, on the grounds that the former is very likely to be of Iron Age date, and the latter is a megalithic monument lying at the beginning of Scotland’s passage tomb tradition. Whether one should follow Kinnes in including Mid Gleniron B, Dumfries and Galloway, with its stone chamber under a round mound, and Hilton, on Bute – a partly slab-built chamber built against a rock outcrop, with a roughly semi-circular mound – is debatable, although the early Neolithic date of at least the latter monument is not to be doubted. Hilton, together with the simple megalithic stone chambers under round or oval cairns forming the Phase 1 structures at Mid Gleniron 1 and 2 (Corcoran 1969), and indeed the simple megalithic chamber at Cairnholy 1, Dumfries and Galloway, associated with a façade and long rectilinear cairn (Piggott & Powell 1949), may
Alison Sheridan

Indeed, the emergence of the “Clyde cairn” monument type is clearly part of this process (Sheridan 2006b). Such monuments, although not unrelated to the sites discussed in this paper, broaden the debate about early Neolithic funerary monuments beyond the scope of this contribution.

This paper will focus on the candidates that provide the strongest evidence for (or best chance of) being Neolithic non-megalithic round mounds, and of these, all but one are to be found in northeast and east-central Scotland, at Boghead, Moray; Midtown of Pitglassie, Atherb cairns numbers 2 (Pow Sod/Powsode), 3 and possibly 4, and East Finnercy, all Aberdeenshire; and Pitnacree, Perth and Kinross. The exception, at Courthill, Dalry in North Ayrshire, lies in southwest Scotland (Figure 3.1). Others may well exist, of course, but without excavation it is impossible to determine whether they are of Neolithic or of Bronze Age (or even later) date. In Strathtay, for instance, excavation of a large (20m in diameter, 1.3m high) cairn at Sketewan Farm, Balnaguard, just 2km from Pitnacree on the opposite side of the Tay, revealed that it was of early Bronze Age date (Mercer & Midgley 1997).

The reader is referred to the published reports for full details of the sites in question; what follows is a brief description of the mounds, their associated finds, pre-existing dates, potential for obtaining new dates, and (in the case of some of the mounds) dates that the author has obtained.

THE SITES: DATES AND DATABILITY

1. Boghead, Fochabers, Moray
Excavated in 1972 and 1974 by Aubrey Burl, this round mound – consisting of a sandy capping over a cairn comprising three or four discrete heaps of stones, the whole around 15m in diameter and surviving to a height of c.1.5m high – was found to cover a 3cm-thick layer of charcoal, other carbonised plant remains and burnt sand, containing sherds, flints and a few comminuted fragments of cremated bone (Figure 3.2 and Burl 1984). This black layer overlay a patch of heavily-burnt sand, believed to represent the location of a pyre, and also a pit, with a hole for a substantial post close to it. Also present under the black layer were several stakeholes and two small hollows; there were also further stakeholes, and larger hollows, not covered by the black layer and not all covered by the stone heaps. Sherds from at least thirty-seven vessels in the modified Carinated Bowl (CB) tradition (Figure 3.3: Henshall’s “North-Eastern style”: Henshall 1984; henceforth, CBNE: Sheridan 2007c) were found, mostly in the black layer but also among the cairn stones, on the old ground surface, in the central pit, in a couple of the hollows and around the mound. Many of the sherds had been scorched. The flint finds (some of which were burnt) were also mostly found in the burnt layer and on the old ground surface. The charcoal was mainly of oak; other carbonised plant material included grains of emmer wheat and naked 6-row barley, and hazelnut shells. The burnt bone was too small to permit identification; the excavator assumed that it is human, and suggested that the body or bodies in question may first have been buried in the pit, prior to being cremated in skeletal (or at least decomposed) form. There was also evidence for later activity at Boghead, with a pit containing an early, undecorated Beaker (Burl 1984, illus 11.44); the possibility that this may have been an
Figure 3.1: Map showing the non-megalithic round mounds discussed in this paper. 1: Boghead; 2. Pitglassie; 3: Atherb; 4: East Finnery; 5: Pitnacree; 6: Courthill
Figure 3.2a (above) and 3.2b (facing page): Boghead, Moray: plan and section of the mound, and plan of the sub-mound features. (From Burl 1984; I am grateful to the Society of Antiquaries of Scotland for permission to reproduce these images)
Figure 3.3: Boghead, Moray: the Early Neolithic pottery. (From Burl 1984; I am grateful to the Society of Antiquaries of Scotland for permission to reproduce these images)
early Beaker inhumation grave has recently been discussed (Sheridan 2008). A small cist near the surface of the mound, containing a little cremated bone from a young female and infant, may be of Bronze Age date; and the mound had also been re-used as a cemetery for extended inhumation graves orientated roughly east to west, probably during the first millennium AD.

Eight radiocarbon dates, from charcoal from various contexts, were obtained by Burl from the Scottish Universities Research and Reactor Centre (Table 3.1 and see the Historic Scotland on-line C14 database, whose URL is listed in the bibliography). Of these, three were of oak and may therefore be subject to the old wood effect; the species of the other five was not specified. Four of the dates have standard deviations of, or exceeding, ±100 years, rendering them of limited value. Furthermore, in their critical review of Scottish radiocarbon dates, Patrick Ashmore et al. (2000) recommended that the quoted errors for dates obtained before the mid-1980s should be multiplied, since in their view there was systematic bias and unexplained variability in these determinations. As a result, all of the Boghead dates have ended up with standard deviations in excess of ±100 years, meaning that they are effectively useless.

The Boghead finds archive was allocated to NMS in 1995, and in 2006 the cremated bone from underneath the mound was examined to determine whether it was viable for radiocarbon dating. Unfortunately, with one possible exception (still embedded in sediment), the comminuted fragments were found to be too small to constitute single-entity samples (and indeed, even if all the loose fragments from each find location under the mound were to be put together – a practice that would not be acceptable, given the need to submit single entity samples – they would not attain the minimum acceptable sample weight of 1.3g). Therefore, unless the technique of dating burnt bone develops so that much smaller samples can be dated – and unless the piece in sediment turns out to be of sufficient weight – this material is of no use for dating. The best chance of obtaining new radiocarbon dates lies with the carbonised cereal grains and hazelnut shells, but unfortunately these do not seem to have been delivered with the rest of the assemblage and enquiries have not succeeded in tracking them down – at least, not yet.

Some of the sherds have a thin layer of encrusted organic residue, and this might be usable for radiocarbon dating. One other potential source of datable material may exist, in the form of invisible organic residues absorbed within the potsherds; this is true of all the

<table>
<thead>
<tr>
<th>Dated material and context</th>
<th>Lab. No.</th>
<th>Date BP</th>
<th>Date as adjusted by Historic Scotland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oak charcoal in infill of central pit</td>
<td>SRR-683</td>
<td>4946±175</td>
<td>4946±250</td>
</tr>
<tr>
<td>Charred oak, layer XIII under North Cairn</td>
<td>SRR-684</td>
<td>4823±60</td>
<td>4823±110</td>
</tr>
<tr>
<td>Oak charcoal, bottom of Hollow M</td>
<td>SRR-685</td>
<td>5031±100</td>
<td>5031±140</td>
</tr>
<tr>
<td>Charcoal (species unspecified), layer XIII</td>
<td>SRR-686</td>
<td>4898±60</td>
<td>4898±110</td>
</tr>
<tr>
<td>Charcoal (species unspecified), Beaker pit</td>
<td>SRR-687</td>
<td>3867±70</td>
<td>3867±110</td>
</tr>
<tr>
<td>Charcoal (species unspecified), above ‘cobbling’ under layer XIII</td>
<td>SRR-688</td>
<td>4124±200</td>
<td>4124±280</td>
</tr>
<tr>
<td>Charcoal (species unspecified), layer XIII</td>
<td>SRR-689</td>
<td>4959±110</td>
<td>4959±155</td>
</tr>
<tr>
<td>Charcoal (species unspecified), under West Cairn</td>
<td>SRR-690</td>
<td>6006±60</td>
<td>6006±110</td>
</tr>
</tbody>
</table>

Table 3.1
pottery from the sites considered in this contribution. Initial attempts to date such material, by Rob Berstan and colleagues using early Neolithic sherds from the Sweet Track, Somerset, have been claimed as successful (Berstan et al. 2008), and research continues to refine this technique, and to investigate further the issues surrounding the dating of visible encrusted organic residues on pottery (R. Evershed and A. Bayliss pers. comm.). This author would welcome seeing the results of further research on dating absorbed lipids before submitting sherds; but it appears to be a potentially useful approach. The only other source of dating for the Neolithic material is comparative dating of the modified (North-Eastern style) CB pottery (for a recent review of which, see Sheridan 2007c). Here, the growing number of dates – including those from the “hall” at Balbridie and from sites at Kintore, Aberdeenshire – indicates that this variant of the CB tradition developed rapidly after the first appearance of the tradition as a whole, and was in use by the thirty-eighth century. (See also below for the dates for Midtown of Pitglassie, where this kind of pottery was found.)

2. Midtown of Pitglassie, Aberdeenshire

This monument was excavated by Alexandra Shepherd in 1978, following earlier partial excavation by Alexander Fenton during the 1950s (Shepherd 1996). The sequence of activity, reconstructed by Shepherd, is as follows: a circular area was delimited by the stripping of turf; a funerary pyre was lit in the centre of this area and an individual was cremated. Several pits and scoops were dug, and that individual’s remains were then placed in three pits and on the stripped surface, along with pieces of broken pots and of struck flint (including a leaf-shaped arrowhead) and quartz. The scoops may have been settings for uprights of stone or timber. A sticky layer of black-grey charcoal-rich soil, rich in potsherds, was deposited in the northeast arc of the mound (if not elsewhere as well) – around the pits and scoops. The stripped turves – along with stones and earth (containing potsherds, struck flint, quartz and quartzite and a few fragments of cremated bone) were then used to construct a ring-cairn (c.7.2m in maximum diameter) that covered the pits, and finally a capping of topsoil and gravelly clay was placed over the ring-bank, with struck quartz scattered on it (Figure 3.4). The ring-mound survives to a height of c.0.6m. The central area may have been filled in with cairn material at this point, or else later; its chronology is uncertain, because the area was heavily disturbed by Fenton’s excavations in 1952. If this central cairn was a later addition, then it is likely to be associated with a putative cist structure, from which a complete, crushed, cord-impressed Beaker was found; sherds of two or three other cord-impressed Beakers were also deposited in the central area. Finally, the ring-mound was used in the recent past for a sheep burial.

The pottery found in the pre-mound levels and in the mound is, as at Boghead, of CBNE type; pieces from at least fifteen vessels are represented (Figure 3.5). Apart from the leaf-shaped flint arrowhead, no chronologically-diagnostic lithic item was found. The abundance of quartz was noted as being a feature not characteristic of early Neolithic monuments.

Two radiocarbon dates were obtained for the excavator, from bulk samples of charcoal of relatively short-lived trees (ash, alder, birch, beech and willow) sealed under the ring-mound. One, from Cremation Pit 1, produced a date of 3970–3520 cal BC (GU-2014: 4935±135 BP); note that, in the Historic Scotland on-line radiocarbon database, it is incorrectly stated that the dated material for GU-2014 was encrusted organic residue from a sherd.
The excavation publication makes it clear that charcoal was the dated material. The other, from the black layer, produced a date of 3630–3350 cal BC (GU-2049: 4660±50 BP). Since these dates were obtained after the mid-1980s, their standard deviation values have not been adjusted upwards by Ashmore et al.; that for GU-2014 is already unacceptably large. In 2007, the author commissioned a date from a fragment of the cremated human bone, from Cremation Pit 3. The result came out at 3940–3670 cal BC (GrA-34772: 4995±35 BP). Quite how the discrepancy between this result and GU-2049 is to be explained is unclear. There is scope for further dating, with more cremated bone (from the same individual) and more charcoal being available; one alternative is the encrusted organic residue that was noted on some of the sherds of pot ASH 13 (and possibly also any absorbed lipid that may exist inside these and other sherds).

3. One of the Cairns of Atherb, Aberdeenshire

An 1892 paper by John Milne, on Traces of Early Man in Buchan, describes four cairns at and near Atherb that had been “swept away by the march of improvement” (Milne 1892). Three of these (Nos 2–4) were round; the fourth (No. 1), long. Two of these will be described here in some detail, since the cremated bone from Atherb that was dated for the author in 2003 will have come from either No. 1 or No. 2.

Cairn No. 1 appears to have been a non-megalithic long cairn, about 100 yards (c.91m) long, c.27m wide and c.4.25m high at its centre. From its description it seems likely that it had contained a substantial wooden mortuary structure at its centre, which had been set alight, the heat of the fire vitrifying the cairn stones in this area to a depth of c.90cm. In addition to “the charred remains of oak logs, some of which must have been pieces of large trees” that “traversed the [cairn] in various directions”, sherds of undecorated early Neolithic pottery and “vast quantities of calcined human bones” were found. The bones were recovered from among and below the vitrified cairn stones and the best-preserved examples were parts of skulls; jaws still with teeth present; and “joints of vertebrae”; bones from all other parts of the body were present, including the tips of fingers. Among the bones were “many flint arrow points, all heart or leaf-shaped, some entire and some broken, but all showing that they had passed through the fiery ordeal. They must have either been in the bodies or placed beside them prior to their calcinations”. The sherds were mostly found outside the area of vitrification, on the old ground surface under the cairn; Milne argued that they had been deposited as sherds, rather than as complete pots.

Cairn No. 2, called “Pow Sod” (or “Powsode”), was round, 34m in circumference and 1.83m high. Excavated by Milne in 1854, the cairn was found to comprise a mixture of stones, earth and wood ash, but none of the stones was burnt (except where “hallow[en]-fires” had been lit in the recent past). “A good many” pieces of cremated human bone were found among the cairn material, with skull fragments predominating (as in Cairn 1). No reference was made to any sherds being associated with these bones, or of any pottery that sounds to be Neolithic being found in the cairn. A cist-like structure at the west of the cairn – not necessarily contemporary with its construction, but almost certain to be Neolithic – contained seventeen flint nodules, each missing a chip as if from testing its quality, together with a fine blade-polished axehead of black nodular flint and a large flint scraper/knife. Later activity is attested by the presence of an All-Over-Cord (AOC) decorated Beaker, found crushed on its side; a small pot, probably an early Bronze Age
Figure 3.4a (this page) and 3.4b (facing page): Midtown of Pitglassie, Aberdeenshire: plan of ring-bank structure and subsoil features, and sections AB and CD. (From Shepherd 1996; I am grateful to the Society of Antiquaries of Scotland for permission to reproduce these images)
Figure 3.4b

- white fire-hardened subsoil
- upper pit fill
- loose stone and gravel
- disturbed burrow
- iron pan
- sticky black turf
- lenses of black (charcoal) and white deposit
- grey silty clay
- yellow clay mound material
- paler yellow clay mound material
Figure 3.5: Midtown of Pitglassie: the Early Neolithic pottery. (From Shepherd 1996; I am grateful to the Society of Antiquaries of Scotland for permission to reproduce this image)
accessory vessel; and two small lined pits dug into the cairn, filled with small pebbles, ash, and minute fragments of calcined bones. No description was provided of the surface at the bottom of the cairn, but from Milne’s account it seems likely that bodies had been cremated here, their remains becoming incorporated within the cairn, and so this appears to be a Neolithic non-megalithic round cairn, analogous to Boghead, with secondary re-use.

Cairn No. 3, “Tor Voe”, seems to have matched Pow Sod in its size, appearance and the construction of the cairn, which was around 18m in diameter and 1.83m high; the farmer who had it cleared claimed that the bones were “far more numerous and in a better state of preservation” than those from Pow Sod. He “had the bones buried near the spot”. Cairn No. 4, on the farm of Honeynock, had mostly been “carted away before I was interested in such things”, and no bones seem to have been spotted during its demolition, but Milne noted “wood ashes and burnt stones” on the site when he visited, and stated that he suspected that the cairn had resembled No. 1. Other archaeological remains found on the Atherb farm where the cairns had stood comprise “vestiges of old fire-places, and sometimes the entire floors of pre-historic dwellings”; pottery from one of these, preserved in NMS, is of an AOC Beaker.

Some of the finds from Atherb have ended up in NMS. Milne reported having presented “a good few of the larger and best preserved bones from both cairns [i.e. Nos. 1 and 2] … along with the flint axe and knife, arrow points, broken urns and fused rock … to Dr (now Sir Arthur) Mitchell of Edinburgh”, and most of the artefacts – along with sherds from at least one of the “hearth” sites – were acquired by the then-named National Museum of Antiquities of Scotland (NMAS), presumably from Mitchell, either in 1880, 1881 or 1896. (The record is ambiguous and the finds labelling somewhat confused. The relevant registration numbers are NMS X.AC 527–30, described as “fragments of steatite vessels” – not mentioned in Milne’s account; NMS X.HH 52–3, vitrified stone, and NMS X.EO 909–925, pottery. The flint items are not present.) The Neolithic pottery has been described and illustrated by Audrey Henshall (1983, 39–40 and fig. 5); it falls within the CB tradition and represents either the earliest, “traditional” variant of that kind of pottery or its early regional variant, CBNE. The Beaker sherds were included in David Clarke’s corpus of British and Irish Beakers (1970, 510). The bones did not accompany the artefacts, and had been bequeathed to NMAS by Sir Francis Tress Barry, and received in 1908 after his death in 1907. The boxes in which they had been stored are clearly labelled “from the Cairns of Atherb”, and the bones match Milne’s description as being large, and mainly comprising skull fragments, so presumably Mitchell had passed them to Tress Barry (as a fellow antiquarian). Even though it was impossible to determine whether the bones had come from the long cairn No. 1, or the round cairn No. 2, it was deemed worthwhile to obtain a radiocarbon date, and the result came out at 3700–3390 cal BC (GrA-23971: 4815±45 BP). This is a little later than the date obtained for cremated bone from Midtown of Pitglossie, and it is particularly frustrating not to know whether it comes from the long cairn (and therefore dates the CBNE pottery), or from the round cairn, seemingly with no Neolithic pottery associated with it. The only scope for obtaining new dates, apart from by dating further pieces of cremated bone, would seem to lie in the absorbed lipids that may (or may not) exist within the pottery from Cairn 1, or in the organic encrustation noted on one of the sherds.
4. East Finnercy, Aberdeenshire

This relatively featureless round cairn – which survives as an oval mound 26.5m long, 22m wide and 2m high – has been investigated on at least three occasions: in 1924 or 1925 by the tenant farmer; again in 1925, under supervision by a Commissioner of the RCAHMS; and in 1952, by R. J. C. Atkinson. The results of all these interventions were finally published in 2000 (Leivers et al. 2000); the inadequacy of the records has made it difficult to establish a detailed structural description.

The cairn, of stones mixed with earth, had rested on the old ground surface which, apparently, had not been stripped. On this surface were found sherds of CBNE pottery (with sherds from three vessels found during Atkinson’s excavations: Figure 3.6), along with cremated bone (in a degraded condition, but including possible sheep remains), charcoal and “hearth” (according to the 1950s documentation); towards the south-east end of Atkinson’s trench was found a shallow oval pit. Further sherds, along with a leaf-shaped flint arrowhead and a fragment of an unburnt human femur (see below) were found in the cairn material; documentation from the 1920s excavations claimed that there were layers of ashes in the cairn, and that some of the cairn stones appear to have been burnt. At some point, it appears that a cord-impressed Beaker sherd was claimed to have been found at East Finnercy, but it seems likely that this is a case of accidental “accretion” of unrelated material, unless it was found during the 1920s; the sherd was not found in Leivers’ review of the material held at the University of Cardiff, and it is not in the NMS collections (see Leivers et al. 2000, 193).

The surviving finds from the 1925 excavations, held by NMS, comprise thirty-two sherds, one small charcoal fragment and a single piece of flint debitage (NMS X.EO 385–92 and unregistered). In 2008, the documentary archive from the 1920s and from Atkinson’s excavations was passed to NMS, for forwarding to the National Monuments Record of Scotland. Atkinson’s finds accompanied the documentary archive; among this material was the unburnt femur shaft from the cairn.

No radiocarbon dates had previously been obtained for material from East Finnercy, and Historic Scotland – funders of Leivers’ et al. work – had decided not to get the unburnt bone fragment dated, on the grounds that its contextual integrity could not be guaranteed. The current author decided, however, that even though there was a good chance that the bone may result from secondary activity, it would be useful to get some indication of its date, and accordingly a small sample was sent for radiocarbon dating in 2008. The result, through the kindness of ORAU, confirmed that the bone was indeed secondary to the early Neolithic activity: AD 830–990 (OxA-18374: 1124±27 BP). The $\delta^{13}C_{\%o}$ value is -21.21, indicating that no adjustment for any marine element in the individual’s diet needs to be made: this is a normal signature for a terrestrial diet. Therefore, the individual dates to a period when Viking presence was being felt in parts of Scotland. The absence of any associated artefacts makes speculation as to the individual’s identity fruitless. It should, however, be noted that the chances that the individual had been a Viking are slim, since the findspot lies well outside the main area of pagan Norse graves, notwithstanding the somewhat tenuous evidence from Fordhouse barrow, Angus (where a mid-tenth century copper alloy ringed pin was found at the top of a Neolithic mound and could conceivably have come from such a grave: Paterson & Proudfoot, unpublished MS 1936/06 in National Monuments Record of Scotland).
Figure 3.6: East Finnercy, Aberdeenshire: the Early Neolithic pottery and leaf-shaped flint arrowhead. (From Leivers et al. 2000; I am grateful to the Society of Antiquaries of Scotland for permission to reproduce this image)
The Atkinson finds included, in addition to the femur shaft fragment, several small pieces of charcoal and cremated bone ostensibly from relatively secure contexts. One piece of cremated bone is clearly of sufficient weight to be dated, and so this is next on the NMS’ “To date” list; judgement will have to be exercised in deciding whether to date the charcoal (on the grounds that charcoal fragments could have been moved around by worm action. The same may be true of the cremated bone; one can only test this by dating). A couple of sherds have thin organic residues, but probably not enough material to be dated; once again, absorbed lipid may be present and datable.

5. Pitnacree, Perth and Kinross

Pitnacree is a large, earthen barrow, one of a distinctive group of imposing earthen round barrows in Strathtay. Before excavation it was slightly oval, c.27m in maximum diameter and 2.74m high (Coles & Simpson 1965). Coles and Simpson’s excavations revealed the following sequence of activities (Figure 3.7):
Pre-construction phase: Possible burning of – or else, burning on – the old ground surface (represented by “a considerable quantity of carbonized wood”), and deposition of sherds from at least eight pots (of “traditional CB” type: Figure 3.8), together with some flints. The fact that many of the sherds, flints, and natural schist fragments were found on their edge, and that the soil in this area seemed particularly thick, was interpreted as possible evidence of cultivation. The burning was interpreted as pre-construction clearance of vegetation.

Construction phase 1: Digging of two large oval pits and erection of two massive split-trunk posts, 2.75m apart, to create what Kinnes (1979) has termed a “linear zone”. Some abraded sherds of traditional CB pottery found on the old land surface may relate to the use of this monument. The posts stood long enough for them to decay in situ.

Construction phase 2: Construction of a northwest to southeast orientated, horseshoe-shaped bank of stone in the same area, overlying the upcast from the post pits. A stone-capped, drystone entrance passage, 1.5m tall at its inner end, led east southeast from the open end of the bank. The inner surface of the stone bank was covered with a grey sandy deposit, possibly a deliberate lining. Erection of the bank must have been preceded by the deposition of further sherds on the old ground surface. Within the embanked area, four discrete deposits of cremated human remains, representing an adult male, an adult (probable) female and a child, were placed on the old ground surface (although the
excavators argued that two of these deposits, from the adult male, must have been laid down when the turf mound was being constructed, as they were found 15 cm apart, and separated by 5 cm of mound material. However, disturbance of a pre-existing deposit when the turf mound was being erected seems an equally, or more plausible explanation. These were then covered by the construction of a long rectangular stone “enclosure”, represented by a mostly single course of stones set on edge, found leaning inwards. (Whether this had been a free-standing enclosure, or else a frame for some kind of wooden structure, was not discussed by the excavators, who clearly favoured the former interpretation; the presence of carbonized wood was, however, noted within the enclosure, along with sherds of coarse quartz-tempered Neolithic pottery.) The next actions were the blocking of the passageway with earth and boulders, filling in of the enclosure with boulders, and erection of the turf mound, covering the whole of the structure. The outer edge of the mound was defined by a low drystone wall revetment, but the excavators noted that this had been “blocked” by further, external revetment in the form of waterworn stones and pebbles.

There was evidence of secondary activity on the mound. At least one, probably two, short cists were inserted into the side of the mound, probably during the late third or early second millennium BC; and, on the summit of the mound, a pit was dug; cremated remains of an adult, possibly female, were deposited in it along with charcoal, probably from the pyre; and a standing stone was erected in the pit. The cremated remains “lay upon and mingled with a radial agglomeration of stones”.

Coles and Simpson obtained two dates from charcoal (species unspecified), one (GaK-601: 4810±90 BP) from the material resting on the old ground surface (see 1 above), the other (GaK-602: 4220±90 BP) from the standing stone pit. In their review of Scottish radiocarbon dates Ashmore et al. (2000) were particularly critical of the radiocarbon dates obtained by the Gakusan laboratory, and accordingly in the Historic Scotland on-line C14 database, the standard deviations have each been increased to ±270, rendering them useless.

In an attempt to improve the dating of this site, in 2001 the author set out to find and date the cremated bone. Coles and Simpson had sent the bone, for identification, to osteologist Bernard Denston in the (then-named) Duckworth Laboratory of the Department of Physical Anthropology at Cambridge University. Through the kindness of Maggie Bellatti at the Laboratory, the present author searched through the human bone store there, but unfortunately, despite an extensive search, the Neolithic cremated bone could not be located. Only the bone from the standing stone pit was found. A fragment of this was duly dated, at the University of Groningen, producing the following result: 2340–1960 cal BC (GrA-21744: 3740±60 BP). Although this does not move forward the dating of the early Neolithic activity, it does nevertheless usefully locate the creation of this pit grave with standing stone to the period when Beaker (and, from the twenty-second century BC, Food Vessel) pottery was in use. The juxtaposition of the grave with the standing stone is reminiscent of a few other sites of this general period, including most notably the North Grave at Cairnpapple (Piggott 1949); and an echo of this practice was recorded at the nearby funerary monument at Sketewan where, during the pre-cairn phase of funerary activities, the position of a large cist was marked (albeit temporarily) by a post, 15 cm in diameter (Mercer & Midgley 1997, 297).

The new Pitnacree date also helps to clarify the sequence of late third/early second millennium activities in this part of Strathclyde. If the radiocarbon dates from Sketewan are
accepted at face value, the inaugural episode/s of cremation that established that site as a focus for funerary activity may have been contemporary with, or slightly later than, the Pitnacree standing stone grave: the earliest date, from mixed oak and alder charcoal found (according to the publication) at the base of the pyre remains, is 2130–1770 cal BC (GU-2676: 3590±50 BP). The possibility of an “old wood” effect from the oak cannot be ruled out, however, although this date would not be inconsistent with that of the Food Vessel that was found in the aforementioned, central cist whose pit cut through the pyre debris.

6. Courthill, Dalry, North Ayrshire
This monument was the subject of a rescue excavation by R. W. Cochran Patrick in 1872, as it was imminently to be engulfed by tippings from iron-works; the quality of the description allows a clear impression of the nature of the sub-cairn structures to be made (Cochran Patrick 1874). The monument consisted of a flat-topped, sub-circular or oval earthen mound, 27m in diameter and 5 to 6m high (Figure 3.9); organic preservation was good, as pieces of still-green plant matter were found within it. At the base of the mound was found the burnt remains of a northeast to southwest orientated rectangular enclosure, 13.7m by 6m, made from oak stakes (some of which had fallen into the enclosure). Two pairs of much larger, grooved, squared-off stakes had been set at equivalent positions along the long sides, towards the northeast end; the c.1m-wide gap between each pair was filled by narrow hazel and birch posts. From this description it seems likely that the latter had been part of removable hurdle screens, capable of being slid up the grooves to form entrances into the enclosure. At the southeast entrance, an oar- or paddle-like piece of hard oak was found.

Within this enclosure, evidence for construction and other activity was found. A low wall of boulders and smaller stones ran close to, and in alignment with, the southwest side of the enclosure; immediately above these stones “were layers of burnt earth, mixed with pieces of charcoal and other burnt matter, and in this was found a very good flint arrow-head”, together with some flint chips and fragments. Above this was found “a stratum of dark unctuous earth, with layers of vegetable matter composed principally of fern and moor moss.” Elsewhere within the enclosure, set equidistant from its southwest and northeast ends, was a pair of pits for large oak posts, of which traces still survived; these were set 8.2m apart. The southwest post was found to be charred, and preserved tool-marks from where it had been squared off; a possible stake-hole was found around 1.2m away. Adjacent to the southwest post was an area where the old ground surface had been burnt by “a fierce and long-continued fire”. Immediately above this was a thin layer, up to 5cm thick, of “grey and red ashes, with occasionally small fragments of bone. The largest of these was apparently part of the bone of a large deer.” Flint chips and pieces of worked flint, including a scraper, were found immediately above this bed of ash; above that was a “thin layer of highly compressed moss and bracken”, and on top of that was a thick layer, up to c.1 m deep, of “dark unctuous earth.” containing “fern, moor-moss, coarse grass, reeds, &c., mixed with small pieces of charred wood”. The other large post towards the northeast end of the enclosure was described as “corresponding to the one first discovered”, and so was presumably also burnt. Extending eastwards from this was “a deposit of ashes about 3 inches [c.7.5cm] thick, nearly 6 feet [1.83m] in length, and about 2½ [feet, i.e. c.0.75m] in breadth. Amongst the ashes were numerous small fragments of bone, and parts apparently of deer horn [i.e. antler].”
Figure 3.9: Courthill, North Ayrshire: plan and sections. (From Cochran Patrick 1874; I am grateful to the Society of Antiquaries of Scotland for permission to reproduce this image)
From this description it seems possible that some kind of “linear zone” mortuary structure (or structures) had stood within the enclosure and that the one/s associated with the large posts had been burnt down. Unfortunately, the positions of the ash layer extending from the northeast post, and of the low wall with burnt material on it, were not marked on the otherwise excellent published plan, and have to be interpolated from the description.

On the southwest side of the mound, and covered by mound material, was found a small cairn covering a cist-like structure; a broken Beaker lay inside, along with a “piece of blackened oak”. Cochran Patrick argued that the fact that soil and gravel from the mound ran over and beyond this cairn indicated that it pre-dated the main mound; but it is at least possible that this Beaker grave had been a secondary addition, covered by mound slump.

While the precise structural arrangement at Courthill cannot be paralleled, each element – the paired large posts, the areas of burning, the rectangular enclosure and the round mound – can be matched among early Neolithic monuments elsewhere in Britain, and it seems reasonable to include Courthill in any review of Scottish Neolithic non-megalithic round mounds. That it may not have been alone in the area has been suggested by John Linge, whose review of survey evidence in North Ayrshire revealed the presence, or former presence, of nine other similar mounds within a 15km radius (Linge 1987).

Cochran Patrick recorded that a selection of finds from Courthill, including some small bone fragments that had “with difficulty been preserved”, had been presented to the NMAS. The Beaker is certainly present (NMS X.EG 11), as are four flint scrapers, two flint knives and numerous flint chips (NMS X.AB 1–24); but unfortunately the bone is not with these; has never been registered; and has not been located in the NMS stores, despite an initial search. It is not impossible that it is lurking among the over one million items in the NMS Archaeology collections; alternatively, like some other unregistered material, it may have gone astray in the distant past.

CONCLUSIONS

It is hoped that this brief review of our current state of knowledge of Neolithic non-megalithic round mounds in Scotland will have highlighted some of the issues involved in trying to improve our understanding of their chronology. Old museum collections have the ability to produce both unexpected bonuses and mixed blessings (as in the case of the Cairns of Atherb bones) and, as seen above, in some cases all that the newly-obtained radiocarbon dates have been able to demonstrate is the date of secondary activity.

The existing dating evidence from the construction and primary use of these monuments suggests, that in Scotland, as elsewhere (e.g. Lyle’s Hill, Co. Antrim), these mounds were constructed during the first half of the fourth millennium BC: at Pitnacree, the traditional CB pottery is indistinguishable from that found in earliest Neolithic sites elsewhere in Britain and Ireland (Sheridan 2007c) and may belong to the earliest Neolithic; elsewhere, the CBNE pottery present at Boghead, Pitglassie and East Finnercy relates to the generations that succeeded the earliest CB farming groups, not necessarily far removed in time. (The Atherb pottery could be classed as either “traditional” CB or as CBNE.) Why the builders chose the round format over the long format is a question that will remain to be answered; as Kinnes’s work showed (1979), there seems to be a northern British bias to such sites.
(Here one excludes the non-megalithic round and oval barrows that post-date the Early Neolithic, such as Whitegrounds, North Yorkshire – although it may be that the frequency of such mounds in Yorkshire constitutes a reference to the older, pre-existing round mounds there that would constitute ancient ancestral monuments.)

The existing body of dates is far from adequate for undertaking the kind of Bayesian modelling as used by Alex Bayliss et al. for funerary monuments in southern England (Bayliss and Whittle 2007). Furthermore, even though there is scope, as indicated above, for obtaining a few additional dates (funding permitting) from the existing material – and from any additional material that may turn up – nevertheless the best “bet” for improving our knowledge would be to excavate several additional candidate sites (targeting the ones identified by Brophy, this volume Chapter 2), and apply the kind of rigour to the procurement and dating of samples as has been shown by the work of Bayliss and colleagues.

Meanwhile, as far as the NMS Archaeology Department are concerned, the search for datable material continues. Watch this space.

ACKNOWLEDGEMENTS

I am grateful to Jim Leary, Dave Field and Tim Darvill for inviting me to contribute this paper, and for their patience. All those who have assisted with the funding of the dates cited here are warmly thanked.

BIBLIOGRAPHY


Scotland’s Neolithic Non-Megalithic Round Mounds


