Prehistoric burials from Angus: some finds old and new

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Introduction

T G Cowie and J S Rideout

Our chance discovery that we were involved in the preparation of two closely related papers for the same volume of this journal has prompted a measure of collaboration which requires a brief introductory note.

The first of these two papers provides details of 12 cists and one urn burial investigated during the 1950s by David Taylor and the late Dr F T Wainwright. Its preparation also provided an opportunity to draw attention to a significant but hitherto unpublished grave group excavated much earlier this century. This in turn shows how significant new light can be thrown on old finds as a result of the application of modern analytical techniques. The second paper provides details of four cists excavated by staff of Angus District Museums between 1986 and 1994, on which, at least latterly, a wider range of resources could be brought to bear.

As none of the sites had previously received much more than summary notice, the principal aim has been to place the sites fully on record, but such a sizeable sample has also offered possibilities for wider discussion. Taken together, for example, the range of sites provides a measure of the limitations of salvage / rescue excavation, many of which are just as applicable today when it comes to dealing with such discoveries. The descriptive portions of the original reports have therefore been presented as separate papers, reflecting their different origins, but the results of the work have been considered in a joint discussion section. The references have also been combined and are to be found at the end of the paper.

The locations of all the sites to be described are shown on Illus 1.

Some previously unpublished prehistoric burials from Angus

D B Taylor

in collaboration with T G Cowie, M Goodfellow, J A Sheridan, and A Zealand, and incorporating edited reports by D R Dow, J D B MacDougall, and L H Wells

Introduction

During the 1950s, the development of more powerful tractors and ploughing at greater depths than hitherto resulted in an increase in the discovery of cist burials. A number of these were investigated by the late Dr F T Wainwright (Illus 2) and the author, but apart from a brief mention in the relevant issues of Discovery and Excavation in Scotland, these sites have remained largely unpublished. This paper attempts to rectify the situation, using field books and other notes made at the time to publish details of a total of 12 cists and also one urn burial. However, it is necessary to draw atten-
Illus 1. Location of sites described in this paper:

1. East Kinwhirrie, Kirriemuir
2. Noranbank, Tannadice
3. Douglastown, Kinnetles
4. Mains of Careston, Careston
5. Meikle Kenny, Kingoldrum
6. Balhunie, Monikie
7. Mains of Melgund, Aberlemno
8. Murton, Forfar
9. Newhouse of Glamis, Glamis
10. Loch Fithie, Forfar
11. Barnyards, Tannadice
12. Myreside, Forfar
13. Hare Cairn, Pitkenney, Aberlemno
14. Mains of Melgund, Aberlemno
15. East Campsie, Lintrathen
16. Balgavies, Aberlemno
17. West Scryne, Panbride

The opportunity has also been taken to draw wider attention to a significant group of material from excavations undertaken earlier this century at Bell Hillock, East Kinwhirrie near Kirriemuir. The various sites are ordered by the date of their investigation (the location map, Illus 1, has been numbered accordingly). Throughout this paper, the original imperial measurements have been converted to their metric equivalents. Only the main conclusions of the various human bone reports have been summarised: the full reports have been lodged in the National Monuments Record of Scotland (NMRS). The descriptions of the extant finds have been prepared by Mr Trevor Cowie, with the exception of the report on the jet ornaments from East Kinwhirrie, which has kindly been contributed by Dr Alison Sheridan. In most cases, comment on individual sites and finds has been kept to a minimum in favour of a more general overview incorporated into the joint concluding discussion.

1. East Kinwhirrie, Kirriemuir, Angus (NO 388 582)

The site

The burial mound known as 'Bell Hillock' is situated SE of the farm of East Kinwhirrie and 100m N of the cottage called Redhall. The mound was first opened by a Mr Wilkie of Auchlishie some years before 1863 when an 'urn' and a 'spearhead' were found, though both of these are now lost (Original Name Book (Forfar), 59 (1843), 44). In July and August 1919, the mound was investigated by the
Rev T Fenton-Fyfe, Vicar of West Cornforth, Durham, and a native of Kirriemuir. He left notes which augment the few published details of the excavation (J Brit Archaeol Assoc, 25 (1919), 268–9). His daughter, Mrs G H Christie, kindly lent them to the author and they form the basis of the following account.

At the time of the investigation in 1919, the mound was described as cone-shaped, and measured about 17 m in diameter by about 5 m in height. An outer covering of soil, 0.1–0.4 m thick, masked a core of boulders of varying sizes, the largest being mainly at the base of the mound and grouped round a cist. The southern part of the cairn had been removed previously. The cist, measuring 1.0 m by 0.61 m by 0.55 m, was said to have been ‘of the usual type’ with an unpaved floor, oriented E–W and with clay-luted corners. It had been filled with soil to a depth of over 0.3 m; this was said to have been burned and was mixed with fine ash. No bones were discovered but on top of the burned soil and ash lay a Food Vessel and a number of barrel-shaped beads and spacer plates. What were interpreted as three roughly worked stone implements were also found, but in fact only one of these is now considered to have been artificially modified. The extant finds were formerly in Sunderland Museum but are all now in the collections of Dundee Museum and Art Gallery (hereafter DUNMG). A number of other supposedly shaped stones and what was described as part of a fossil shell were also found; as these can no longer be located, their possible significance is uncertain.

Further excavations in 1961 revealed another cist 7.5 m E of that found in 1919. It contained the
unaccompanied cremated remains of a woman aged 30–40 years (Discovery Excav Scot 1961, 4). When recorded in the early 1980s, the mound still survived as a grass-covered cairn 25m in diameter and 2m in height (Coutts 1970, 15 no 28; RCAHMS 1983, 7).

It may also be noted that, shortly before the 1919 excavations, Mr Peter Bruce found an Early Bronze Age decorated flanged axe while ploughing near the mound. The axe, of Arran type, was subsequently donated to the National Museum (Muir Haddow et al 1957, 223; Coles 1969, 80; Schmidt and Burgess 1981, 72, no 408). Such axes are relatively rare in Scotland and its presence so close to a prominent funerary monument invites interpretation in terms of deliberate deposition rather than casual loss or discard (T Cowie, pers comm).

The finds

Food Vessel (DUNMG: 1974.1058(1)). Food Vessel (Illus 3, a), complete apart from three small nicks out of the rim; upright rim with internal bevel; below the rim, the body swells to a rounded shoulder from which the wall curve to meet the base; the base itself is very slightly concave. The vessel appears to have sagged during construction. Fabric: hard fine clay matrix with small (<6mm) stone grits, visible on surface just below rim and on interior. Colour: the exterior is rather variegated, ranging from light reddish-brown and light red to brown and grey; the interior is a grey / light grey. Decoration: the internal bevel is ornamented with broad comb impressions applied transversely; around the exterior of the rim, there are four rows of horizontal rectangular-toothed comb impressions, and below this, rows of vertical comb impressions alternate with jabbed triangular impressions. The base is plain. There is a dark grey stain on the internal surface and base; some spalling of the internal surface, associated with a whitish deposit, may reflect heat damage (possibly at the time of burial?). Dimensions: height: 98–102mm; rim diameter: 136–138mm; base diameter: 68mm.

Jet spacer plate necklace and bracelet
(DUNMG: 1974.1058(2–3))
Dr Alison Sheridan

The necklace consists of 76 out of an estimated original 110 fusiform (barrel-shaped) beads, together with four trapezoidal spacer plates, two triangular end plates and a triangular fastener. It had been strung, prior to its arrival in Dundee Museum, according to the fashion popular for most of the 20th century – with the beads from the front of the necklace cross-stringing in a network pattern (see the X-ray image, Illus 4). It was re-strung, in what is now believed to be the correct manner, by National Museums of Scotland (NMS) staff in 1994 (Illus 5a). During this process, it was discovered that two fragments, formerly assumed to be separate beads, belonged to a single bead. It was also noted that the tight cross-stringing had damaged the ends of some beads; this damage was distinct from the beads' original wear marks. Maximum diameter of necklace: c 230mm.

The bracelet consists of 12 small fusiform beads, a rectangular spacer plate and two triangular terminal plates; by analogy with other spacer plate bracelets, it may originally have had more beads. Length of bracelet: c 135mm.

Non-destructive compositional analysis by Mary Davis (formerly of NMS) using X-ray fluorescence spectrometry revealed that all of the components of the necklace and bracelet are of Whitby jet. Additional detailed examination of the objects revealed that they had probably not been worn for very long before burial, and confirmed that they had been made, as a set, by a skilled jet worker.

Four methods had been used to perforate the plates (Illus 4 and 5b): i) transverse boring, for the necklace fastener and terminal plate tops; ii) elbow
boring, for the lower edge of the necklace terminal plates and for the bracelet terminal plates; iii) through boring, for the upper pair of necklace spacers and the bracelet spacer; and iv) Y-boring, for the lower pair of necklace spacers. The difficulties of achieving (iv) neatly are revealed in the X-ray. The beads, like the spacer plates, had been bored from both ends; occasional mis-bores, where the surface has been ruptured, were noted.

The plates and beads had been polished to a moderate to high sheen, and all plates except the fastener decorated with a carefully executed linear pointillé design, its lines being incised lightly before marking by the awl. Some of the surfaces are now disfigured by criss-cross or concentric cracks – a feature of ancient jet.

Although the file marks from manufacturing are still visible on the perforated ends of the spacer plates, most of the perforations are surrounded by hollows caused by the rubbing of beads against them; and some of the beads have abraded ends (Illus 5b). This shows that the jewellery had seen some wear; but the absence of replacement parts made from other necklaces or local materials – a feature noted on some other spacer plate necklaces – indicates that the jewellery was still relatively new when buried.

The presence of a spacer plate necklace of imported Whitby jet is an indicator of high status; inclusion of one or two bracelets, and burial when relatively new, underlines yet further the status of the deceased. The East Kinwhirrie material forms part of an east / central Scottish cluster of spacer plate jewellery; its nearest parallel, in terms of
elaborateness, material integrity and degree of wear, is from nearby Pitreuchie (Proc Soc Antiq Scot, 41 (1906-07), 65-6; Coutts 1971, 52, no 104 and pl 3).

Worked stone (DUNMG: 1974.1058(4)). Worked pebble of igneous stone (Illus 3, b), somewhat pear shaped in plan, tapering in profile; broader end ground and polished to form axe-like cutting edge;
Illus 5b. Bell Hillock, East Kinwirrie: details of reverse of terminals, spacer plates and selected beads (scale 2:3).
possible hafting-marks? Dimensions: L: 105mm; W: 51mm; Th: 39mm.

Natural stone (DUNMG: 1974.1058(5)). Fragmentary, thin piece of igneous stone with smoothed surfaces; described by the excavator as a worked stone but probably entirely natural. Dimensions: L: 83mm; W: 63mm; Th: 10.5mm.

Natural stone (DUNMG: 1974.1058(6)). Fragment of flattish pebble of metamorphic grit, slightly schistose with quartz veins; described by the excavator as a worked stone but probably entirely natural. Dimensions: L: 59mm; W: 39mm; Th: 15mm.

2. Noranbank, Tannadice, Angus (NO 505 587)

The site
On 2 June 1951, during ploughing operations, Robert Dutch, grieve, was collecting stones from a field at a point some 3.5m to the E of the top of a low, circular knoll when he lifted a small slab about 0.3m square and 0.05m thick to reveal what he called a 'fum'. This was a reasonable description of a bucket-shaped cinerary urn which had lost its base and had been covered by the slab. A second piece of sandstone had been fitted into the neck and the whole inverted over a third slab resting on the undisturbed subsoil (Illus 6). The urn contained a cremation deposit.

There was no sign of any cist or protecting slabs and since the grieve had been careful in removing the urn and its contents, there was no cause to doubt his assertion that none had existed. That the urn had already lost its base when the burial took place was confirmed by the abraded and weathered nature of the edges of the break, by the fact that no further pottery fragments were recovered and by the absence of soil in the urn. The apparently natural knoll in which the burial was found had been covered by trees until the beginning of the century and had only recently been cultivated.

This account supersedes the brief notices of this discovery published at the time (Counc Brit Archaeol (Scot Regional Group) 6th Rep 1951, 8; Archaeol Newsletter, 4.7 (1952), 107) and subsequently in Coutts 1971, 60, 69, no 117 and RCAHMS, 1983, 17, no 128.

The human bones
The bones were examined by Professor D R Dow of the Department of Anatomy, University College, Dundee, and found to include the remains of at least one adult and one child.

The cinerary urn (DUNMG: 1971-186)
Simple bucket urn (Illus 7, a); the rim flattened or very slightly bevelled internally. Some pressure on the rim has resulted in a slight thickening in places; the walls of the pot have been built up in slabs about 50mm broad, resulting in slight unevennesses in the thickness of the profile where the joints have overlapped so as to leave a series of broad shallow grooves on both the interior and the exterior. As noted above, the basal portion appears to have been detached in antiquity. Fabric: hard, compact clay matrix, with mainly small / medium stone inclusions <6mm, although one very large grit is visible in wall c 16mm across; gritty texture. Both surfaces are pale brown, with some grey streaks, and the core is dark grey. Dimensions: surviving height 175mm (estimated original height c 220mm); rim diameter 188mm; estimated base diameter 120mm.

3. Douglastown, Kinnetles, Angus (NO 417 475)

The site
This burial has been listed (Counc Brit Archaeol (Scot Regional Group) 7th Rep 1952, 4; Coutts 1971, 52, no 101; RCAHMS 1983, 15, no 107) but the circumstances have not been previously described in detail.

On 12 March 1952, during ploughing operations on the farm of West Ingliston, a large slab
was struck and removed to disclose a short cist, situated on top of a sandy knoll 100m or so N of Kinnettles School (Illus 8). During the removal of the capstone and subsequent excavation of the area by the ploughman, the immediate surroundings of the cist were destroyed. The cist, however, remained in place and measured 0.86m by 0.51m by 0.51m internally and had a paved floor of thin slabs. The cover measured 1.22m by 1.07m at its widest and was 0.2m thick. The magnetic bearing of the long axis was 055°.

Most of the contents had been removed, including unburnt bone and the fragments of a Food Vessel, but further fragments of pottery and some burnt bone were recovered from the cist. The surviving bones were submitted to the Department of Anatomy, University College, Dundee, but nothing further was heard concerning them and they can now no longer be traced.

The Food Vessel (DUNMG: 1971-207)

Approximately 60 sherds and fragments of the upper part of a bipartite vase (Illus 7, b), with a simple upright internally bevelled rim; the surviving remains suggest that a large part of one building ring is missing from the lower body, but one basal angle sherd is present and the overall profile can be reconstructed with some confidence. The pot’s fragmentary state almost certainly reflects the circumstances of discovery rather than its condition at the time of deposition. The fabric is rather
Friable, well gritted with numerous inclusions up to 5mm in length; the surfaces are well smoothed and possibly slipped. The exterior is light brown, the interior grey and brown. Decoration: there are two rows of twisted cord impressions around the rim bevel. The external surface has been ornamented with whipped-cord 'maggot' impressions (in this case, possibly applied with the cord wrapped around a core such as a piece of flint, stick or bone). The individual impressions are c 5–10mm long, and form five rows from rim to shoulder, with at least a further five extending from shoulder to base. There appear to be traces of some form of organic deposit on the internal surface, but their analysis was beyond the scope and resources of this project. Approximate dimensions: height 65–70mm from rim to shoulder; original height 160mm; rim diameter 140mm; base diameter 70mm.

4. Mains of Careston, Careston, Angus (NO 535 598)

In 18 April 1952, a short cist was discovered by N Ogilvie during ploughing operations on the farm of Mains of Careston. A brief notice of this discovery was published at the time (Counc Brit Archaeol (Scot Regional Group) 7th Rep 1952, 4) and it was later listed by the RCAHMS (1983, 22, no 162). The plough had struck the capstone, but unfortunately the entire structure had been removed and the ground planted before the site could be investigated. However, it was possible to establish the position of the cist and its approximate size, namely about 1.0m by 0.7m by 0.7m. The cist had contained an inhumation which had also disappeared. There were no signs of grave goods.

A further short cist is believed to exist near the dovecot of Mains of Careston to the NW of the farm (RCAHMS 1983, 23, no 170) while at least two probable round barrows survive as crop marks (NMRS: NO 55 NW 65) in the arable farmland immediately E of the standing.

5. Meikle Kenny, Kingoldrum, Angus (NO 307 531)

The site

Between the Cromie Burn and the Melgam Water lies a secluded glen containing many knolls and hillocks of morainic sand and gravel, some of which are known to have revealed cists in the past (RCAHMS 1983, 17, no 122). One of the knolls, 520m SSW of Meikle Kenny, was being quarried by the farmer, Mr W A Thomson, when, on 31 May 1952, the SW end of a cist was revealed (Illus 9). The cist was half-full of soil and measured 1.07m by 0.64m by 0.69m, the sides and ends consisting of single slabs about 0.1m thick carefully sealed with clay at the joints. The cover slab measured a massive 1.5m by 0.91m by 0.22m thick and had been covered by a number of smaller boulders. The magnetic bearing of the long axis was 230°.

A skeleton had been placed in the cist in a crouched position facing SE with the head at the NE end. Near the skull and pelvic areas were some burnt bones. Only one fragment of pottery was found.

The presence of an inhumation, traces of burnt bones and a fragment of pottery may suggest that a cist with an earlier cremation had been re-used for an inhumation after removal of the pot and
most of the burnt bone. This report supersedes the published notice of this discovery (Count Brit Archaeol (Scot Regional Group) 7th Rep 1952, 4; see also RCAHMS 1983, 17, no 123). The pottery fragment is believed to be in the collections of Dundee Museum but could not be located at the time of writing.

The human bones (NMS)

The following is an edited summary of the main points of a detailed report on the bones kindly provided by Dr L H Wells, then of Edinburgh University.

Most of the skeleton is present although the bones are corroded to varying degrees. The inhumation can be identified with certainty as that of a male, aged between 18 and 25 years (probably nearer the latter figure), and probably about 1.65m in height. The shafts of the limb bones are slender in proportion to the size of the articular ends and the muscular attachments are feebly marked. Clearly, this was not an individual with powerfully developed muscles. The upper parts of the femoral shafts are very strongly flattened antero-posteriorly. This flattening extends downwards to the middle part of the shaft and is not counteracted by any strong development of the crista aspera. The two tibia exhibit unequal degrees of side-to-side flattening of their shafts. There is a well-marked indentation on the lower end of the right tibia, which is usually interpreted as produced by habitual squatting. This indentation is not so strongly marked on the left tibia. The joints between the vertebral column and the pelvis are markedly asymmetrical on the two sides. It is noteworthy also that the joints of the lower part of the vertebral column already show arthritic changes indicative of abnormal strain. Probably this young man already suffered considerably from back-ache.

The left side of the skull is in poor condition, but is clearly markedly brachycranic. None of the wisdom teeth had appeared; the unerupted crowns of the lower wisdom teeth are imbedded in the mandible but it cannot be seen whether those of the upper teeth are also present. All the other teeth are in place and undecayed. Some of the teeth show irregularities of the enamel which may have resulted from childhood illnesses or from periods of famine.

Little could be said regarding the two small groups of cremated bones found in the cist. The fragments derive from fairly young adults but in default of other evidence it could not be established whether they represent one or more individuals.

6. Balhungie, Monikie, Angus (NO 513 345)

The site

On 15 November 1952, John Little, tractor driver at Balhungie, hit a large stone while ploughing near the crest of a low, gravelly mound that fell away steeply on the SE side to the course of the Buddon Burn (Illus 10). He pushed the stone to one side and disclosed a cist containing bones and a Food
Vessel, which he tried to remove. The owner, Col D W M Morrison, halted these operations, and as a result the cist and much of its contents were left intact for further investigation (briefly noted in *Coun Brit Archaeol* (Scot Regional Group) 8th Rep 1953, 5).

Excavation revealed that the cist had been placed in a roughly oval pit 1.5m long, 1.07m wide and 0.56m deep. The side slabs each measured 1.07m by 0.56m by 0.14m and the end slabs 0.46m by 0.56m by 0.08m. There was no sign of luting and the floor consisted of a gravelly boulder clay, the natural subsoil of the area. On this floor, an inhumed body had been laid in a crouched position on its left side facing S, the head being at the E end, with the Food Vessel placed half way along the S side of the cist. The irregular sandstone cover measured 1.1m by 0.76m by 0.23–0.28m thick and had been surrounded by a series of small boulders with a uniform diameter of about 0.23m. These had been placed around the perimeter of the cist and projected above the tops of the side and end slabs. At various points the cover had rested on these boulders.

The human bones (DUNMG: 1973-796)

The following is an edited summary of the main points of a detailed report on the bones by Dr L H Wells.

Although fragmentary, the skeleton is clearly that of a fully adult woman; the vault sutures are only just commencing to be obliterated on their inner aspect, indicating that the age was probably not over 30 years. The length of the right femur corresponds to a stature of about 1.53m. Of the limb bones only the femora are sufficiently preserved to show significant features. As in the case of the male inhumation from Meikle Kenny, the shaft is strongly flattened antero-posteriorly and the crista aspera weakly developed. However, in marked contrast, the upper part of the attachment for the gluteus maximus muscle is developed into a massive rounded prominence or 'third trochanter'. This indicates vigorous activity of the muscle which is called into play in running and climbing and also very powerfully in rising from a stooping position. Despite its fragmentary condition, the skull appears to have been markedly brachycranic.

The Food Vessel (DUNMG: 1971-184)

Fragments of the upper portion of a squat Food Vessel (Illus 7, c) with pinched-up collar with slightly concave internal bevel. The remainder of the pot was destroyed at the time of recovery. The fabric is very flaky, and contains profuse small grits including quartz and micaceous inclusions (the latter possibly accounting for the tendency to laminate). The surfaces are predominantly buff over a black core. The decoration consist of arrangements of cord 'maggot' impressions: on the internal bevel there are two rows of impressions, overlapping and at a slight angle in places. Around the exterior of the rim, there is a single row of vertical impressions; on the neck, a series of four rows of deep horizontal impressions set contiguous to each other; on what may be the shoulder (or a ridge), a row of vertical impressions with indica-
tions of a further row of horizontal impressions. One sherd (DUNMG: 1971-184-4) suggests that the decoration of the lower portion may have approximately mirrored the upper part, with at least three rows of contiguous horizontal impressions set above vertical impressions approaching the base. The condition of the pot suggests that it may possibly have been scorched. Estimated original height 130mm, rim diameter 150mm.

7. Mains of Melgund, Aberlemno, Angus (NO 542 563)

The site
On 17 October 1953, James Jackson, son of the farmer, was carting sand and gravel from a natural knoll in a field to the S of the farm when the side of a cist was exposed (Illus 11; the location of site is also shown on Illus 16). The NE end of the cist had been removed prior to Mr Jackson's discovery and it was full of earth. On excavation, the cist was found to measure 1.07m by 0.3m by 0.38m internally, the long axis having a magnetic bearing of 60°. The outline of the original pit dug to accommodate the cist could be traced except where it had been destroyed at the NE end; small boulders had been used as packing. The capstone was a massive 1.09m in length by 0.85m in width, and 0.32m in thickness. No skeleton was found but fragments of cremated bone were discovered near the surface of the filling and on the floor of the cist. In addition, two fragments of what appeared to be pottery were found in the filling.

The pottery fragments are believed to be in the collections of Dundee Museum but could not be located at the time of preparation of this report. However, R B K Stevenson, in previous correspondence, had no doubt that the fragments of pottery were associated with the cist and belonged most likely to a Food Vessel.

The human bones
Dr L H Wells identified the cremated bones on the floor of the cist as the remains of a young child, while those found at a higher level in the filling could very well be further portions of the same individual.

Discussion of Mains of Melgund cist
The fact that one end of the cist was missing, the occurrence of scattered pieces of bone only and the two fragments of pottery suggest that the cist had been discovered previously and the contents rifled. It seems likely that this has happened in modern times rather than in antiquity, when such an action was more likely to accompany the insertion of a later burial. Both Stuart (1856) and Jervise (1857) refer to the discovery of numerous burials in the vicinity, and it is possible that the 1953 find represents one of these. For the most part the locations of these previous discoveries are imprecise, but other short cists are known to have been found 80m to the ESE (NMRS: NO 55 NW 21) and 120m WSW (NMRS: NO 55 NW 62) of the site under discussion.

In 1980, further agricultural activity on the same knoll revealed another cist, this time clearly undisturbed. This contained the remains of an
inhumation accompanied by a flint scraper and a spacer plate necklace, probably of jet and cannel coal. Inspection of the site suggested that the natural mound may have been augmented by a small cairn of stones (Sherriff 1983, 290-3). However, it should be noted that Sherriff’s suggestion that the 1980 cist represents the third to be found at this location is erroneous, the 1953 cist having apparently been counted twice. It is also uncertain whether the location can be identified specifically as one of the ‘three very large tumuli’ said to have been situated ‘a little west of the Castle of Melgund’ (Warden 1881, 292).

More recently, yet another cist was found on the farm, though considerably further to the W, and this is reported on separately below (see site 14).

8. Murton, Forfar, Angus (NO 493 511)

The site

On 24 October 1953, the farmer, H Stewart, discovered a cist to the W of the farm and after a brief examination, left it intact. An area 3m by 1.8m was stripped around the cist but subsequently extended when a second cist was encountered at the W end (Illus 12, see also Illus 27). The site has been listed by the RCAHMS (1978, 13, no 67) and the pot catalogued by Coutts (1971, 52, 58, no 100) but not previously described in detail.

Cist 1 measured 0.97m by 0.43m by 0.56m internally. The side slabs, of sandstone, were a uniform 1.0m by 0.56m by 0.15m and the end slabs 0.61m by 0.59m by 0.1m. Four smaller slabs had been laid across the corners of the cist to take the weight of the roof slab, also of sandstone, which measured 1.37m by 0.74m by 0.18m. The corners had not been sealed and the floor consisted of a gravelly boulder clay. The magnetic bearing of the long axis was 75°. Within the cist a skeleton lay in a crouched position with the head to the W, together with the fragments of a Food Vessel which had collapsed in antiquity.

Cist 2 was very much smaller, measuring 0.59m by 0.38m by 0.38m. The magnetic bearing of the long axis was 90°. As in cist 1, the floor was unpaved and the corners unsealed. The cover slab, resting directly on the sides and ends, was 0.74m long, 0.56m wide and 0.11m thick. No bones remained although faint stains, traceable in the soil, suggested the possible inhumation of a child.

In 1984, a further cist, containing a cremation and a flint knife, was discovered several hundred metres to the N of the site of the 1953 cists (Sherriff 1986).
The human bones from cist 1
(DUNMG: 1973-793)

The following is an edited summary of the main points of a detailed report on the bones kindly provided by Dr L H Wells.

The skeleton is incomplete and most of the bones are heavily corroded. However, enough of the pelvis is preserved to make it practically certain that the skeleton is female. It seems likely that she was fully adult and probably not more than 30 years of age. The only long bone whose length can be directly measured is the left humerus, but combined with estimates for the original dimensions of incomplete bones, calculations indicate a stature between 1.61m and 1.63m. As in the skeletons from Meikle Kenny and Balhungie, the femoral shafts are strongly flattened antero-posteriorly and there is no compensating prominence of the crista aspera. The upper part of the gluteus maximus attachment is developed into a rounded tubercle but this is much less massive than in the Balhungie skeleton. The left tibia is a little more flattened medio-laterally than that of the skeleton from the Meikle Kenny man. The clavicles and the upper part of the humerus are stout and suggest vigorous muscular activity; the two humeri are almost equally robust but it seems more probable that the woman was right-handed. Even allowing for corrosion, the bones of the hand are remarkably delicate; those of the feet are also small. There is evidence of commencing arthritis in the joints between the last lumbar and first sacral vertebrae; it is also suggested in the joints of the hands.

Although fragmentary, the skull is again clearly brachycranian. The few remaining teeth were well worn for a young adult. The upper first molar shows a large cavity at the junction of the crown and root due to dental caries.

The Food Vessel from cist 1
(DUNMG: 1971-185)

Approximately half of the Food Vessel is intact, while portions of the remainder of the pot also survive (Illus 13, a); rim pinched-up to form a slightly concave internal bevel and external ridge, one of two c 15–20mm and c 65mm below the lip. The fabric is rather friable, with dark grey stone inclusions <5mm across, and a 'crackled' surface appearance. The ridges appear to reflect the location of the main building joints. The exterior is brown / reddish-brown, and the interior grey / brown over a dark grey core. Decoration: on the internal bevel, a row of triangular jabs; on the neck, three lines of comb impressions; on the remainder of the upper body, incised herringbone design on the broad concave zone between the ridges, with three rows of triangular jabs, and below the shoulder, three rows of horizontal comb impressions (each impression c 20–25mm long), an incised chevron pattern, the strokes overlapping in places, and finally three further rows of horizontal comb impressions. Dimensions: height: 144mm; rim diameter: 150mm; base diameter: 78mm.

9. Newhouse of Glamis, Angus
(NO 377 469)

On 17 March 1954 during deep ploughing operations, Charles Walker discovered a short cist (Illus 14). When a visit was made to the site with the farmer, Robert Adam, the cover stone had been smashed up and removed and the cist itself completely cleared of its contents. In the course of this act of vandalism, a skeleton had been broken up and scattered in fragments. As far as could be ascertained the skull had lain at the W end of the cist and no pottery had been seen. The empty cist remained and measured 1.1m by 0.51m by 0.48m with a floor of boulder clay. Four slabs had been used in the construction, varying in thickness from 0.08–0.36m, and these had been held in position by packing stones. The magnetic bearing of the long axis was 285°. The cist was back-filled and reburied following investigation.

This account supersedes the brief notice of this discovery which appeared in Councl Brit Archael (Scot Regional Group) 9th Rep 1954, 6, while the site is listed as RCAHMS 1983, 23, no 174.

10. Loch Fithie, Forfar, Angus
(NO 483 512)

On 25 May 1954, while digging into a gravelly ridge for road-mending material, the contractors employed by the farmer, Mr A Elder, uncovered and demolished what had undoubtedly been a short cist (Discovery Excav Scot 1954, 6; see also RCAHMS 1978, 12 no 59). Only the cover slab remained, a sandstone boulder measuring 1.32m by 1.02m by 0.25m. The cist had contained an inhumation, the bones being passed to the county police. The Department of Anatomy of what was then Queen’s College, Dundee was informed but nothing further was heard concerning the find. There is no report of any pottery or other grave goods having been found. In spite of the destruction it was possible to establish the position of the cist within the gravel pit.

11. Barnyards, Tannadice, Angus
(NO 478 577)

The site

This discovery was briefly reported in Discovery Excav Scot 1955, 5 and listed as RCAHMS 1983, 15, no 101. On 3 June 1955, workmen were digging foundations for an electricity standard to the W of
the steading at Barnyards Farm when they hit a flat slab. The slab broke to reveal the interior of a short cist, 0.94m below ground level. The cist lay at the S end of an implement shed built of wood on a brick foundation. Only the SW corner of the cist protruded beyond the wall and its foundations so that complete excavation would have under-mined the brickwork with risk of consequent collapse. However, it was possible to discover the main features of the burial. Internally, the cist measured 0.84m by 0.51m by 0.43m. It had a floor of natural sand and gravel and the magnetic bearing of the long axis was 101°. A skeleton lay in a crouched position with the head to the W and an intact Food Vessel lay on its side at the W end.

The Food Vessel was subsequently donated to the National Museum (Donations and purchases Proc Soc Antiq Scot 96 (1962–63), 364).

The human bones

The following is an edited summary of the main points of a detailed report on the bones by Dr J D B MacDougall, Department of Anatomy, Queen’s College, Dundee.

The skeletal remains are those of a child. The long bones and their epiphyses suggest that the child was pre-pubertal – over 6 years and under 15 to give a wide margin. However, the mandible retains a full dentition including both deciduous and permanent teeth; the pattern of their eruption allows a more accurate estimate of between 10 and
12 years, probably nearer 10 years. There is not much difference between the skeletons of young boys and girls, the sex changes appearing after puberty. However, the ossification of the long bones and the degree to which the mandibular canines are erupted tend to suggest the skeleton is that of a female. Only three long bones were available in a complete enough state for measurement. Calculations of stature, using different methods and making allowance for the incompleteness of the data, all tend to suggest that the girl was big for her age, possibly about 1.37m in height.

The Food Vessel (NMS: EE 151)

This Food Vessel is almost intact apart from some areas of restoration (Illus 13, b, see also Illus 28). It is bipartite in form though the lower body is noticeably globular; the rim is slightly thickened and out-turned, with relatively narrow internal bevel; the neck is fairly straight, giving way to a fairly weakly defined shoulder and globular lower body curving to a pronounced stand foot. The fabric is of good quality, with prominent small stone inclusions (<6mm) mostly only obvious on the interior; the exterior has probably been slipped; internal surface grey brown; exterior light brown / buff. Decoration: on the internal bevel, two rows of opposed D-shaped or oval jabs around the bevel form a band and give a rather irregular ‘false-relief’ effect; on exterior, just under the lip, irregular whipped cord impressions and jabs; around the neck, opposed D-shaped and oval jabs form a false-relief band and below this there are three rows of coarse horizontal whipped cord impressions; a further series of opposed jabs forms a false-relief band around and emphasising the shoulder; two somewhat irregular rows of horizontal whipped cord encircle the lower body, separated by a reserved zone from further opposed D-shaped and oval jabs forming a very haphazard false-relief band. The band breaks down entirely in one area where the impressions overlap to form three rows; the foot of the pot and the base are plain. Other features: on the interior there is a sooty smudge, while on the exterior, just below the rim, is a pair of small indentations some 14mm apart and apparently made after firing. Dimensions: height 119mm; rim diameter: 160mm; base diameter: 66mm.

12. Myreside, Forfar, Angus (NO 479 523)

On 22 October 1955, the farmer, Mr F W Richardson, reported that the cover stone of a cist had been discovered during ploughing operations to the NW of the farmstead. The site was described briefly in Discovery Excav Scot 1955, 5 and listed as RCAHMS 1978, 13, no 68. In detail, the capstone measured 1.75m by 1.14m by 0.18m and lay 0.2m below ground level. The internal dimensions of the cist were 0.98m by 0.58m by 0.56m, the long axis having a magnetic bearing of 66° (Illus 15). The floor was natural sand and gravel. Two massive side slabs measured 0.99m by 0.56m by 0.18m and 0.99m by 0.58m by 0.18m respectively and the two end slabs 0.58m by 0.56m by 0.18m and 0.58m by 0.56m by 0.1m. The cist contained a crouched
inhumation with the head at the NE end. However, 0.1m of soil had filtered into the cist and only those bones lying above this level had survived and even these were in a much fragmented state; the remainder had disintegrated and as a result, no analysis of the skeletal remains was undertaken. The burial appears to have been unaccompanied.

13. Hare Cairn, Pitkennedy, Aberlemno, Angus (NO 537 548)

The site
In December 1955, the farmer, Mr William Meiklejohn, reported that in the course of levelling operations at Pitkennedy, the bulldozer had disturbed a stone coffin containing a pottery vessel. Investigation revealed that in fact a cairn, known as ‘Hare Cairn’ had been totally removed. The cairn had been circular, approximately 27m in diameter and 3m in height. It had consisted mainly of earth and small stones.

Somewhere near the centre, a cist had been placed on the gravelly subsoil, lying E-W and, according to the farmer, had measured about 1.0m by 0.6m by 0.45m. The cist had been completely broken up by the bulldozer, but miraculously, a Food Vessel which had been in it was recovered intact. No trace of bone had been found. The pot was subsequently donated to the National Museum (Donations and purchases, Proc Soc Antiq Scot 96 (1962–63), 364).

This account supersedes the brief notice of this discovery which appeared in Discovery Excan Scot 1956, 2. No vestige of the cairn or cist remained when the site was recorded in the late 1970s (RCAHMS 1978, 8, no 12).

The Food Vessel (NMS: EE 152)

This Food Vessel is almost intact apart from some areas of restoration (Illus 13, c and see also Illus 28). It is bipartite in form, with a thickened and out-turned rim and proportionately broad internal bevel; a narrow concave neck with a high well-defined shoulder, below which the globular lower body curves to a pronounced stand foot; the fabric is fine with few visible inclusions; the interior surface is grey; the slipped exterior yellow and buff. Decoration: on the internal bevel, a series of transverse comb impressions, poorly defined as a result of wear; on the external lip, a series of short oblique comb impressions; below these, there are three lines of horizontal comb impressions above a row of vertical comb impressions which run down to shoulder; below the shoulder, the ornament is zonal, consisting of a series of from 4–7 horizontal lines of comb impressions alternating with rows of triangular jabs. Tiny jabs encircle the basal angle. Dimensions: height 188mm; rim diameter 162mm; base diameter 88mm.

Acknowledgements

Many of the folk who assisted with the various excavations are no longer with us, but thanks, however belated, must still be accorded: to the farmers and landowners for the reporting of the discoveries and ready permission to excavate; to the volunteers who assisted in every aspect of the excavations, often in discouraging weather conditions; to the late Professor Dow and the late Dr J D B McDougall of the then Queen’s College, Dundee and to Dr L H Wells, then of Edinburgh University, for their reports on the bones, always meticulous and often illuminating; to the late Mrs G Christie of Durham for allowing the author to make full use of her father’s notes on his excavation at East Kinwhirrie; to Mr Alan Saville for comments on the stone objects from that site; and finally, to Mrs Barbara Lees, widow of the late Dr F T Wainwright, for permission to use Illus 2. There must be others; the author apologises for any omissions. Finally, the author expresses his personal thanks to Mr Adrian Zealand for all his assistance in identifying long-recorded pots and accession details; Martin Goodfellow for much help with the preparation of the draft text; Dr Allison Sheridan for her report on the jet material.
Four cists excavated in Angus 1986–1994

J S Rideout and C J Russell-White

edited from texts and reports by R Benvie, M Bruce, A Clarke, A MacSween, B Moffat, J Olson, J S Rideout, C J Russell-White, J Sherriff and W G Watson

Introduction

Four cists, discovered as a result of agricultural activity, were investigated by staff of Angus District Museums and friends between 1986 and 1994 and initially reported in Discovery and Excavation in Scotland. Cists at Mains of Melgund (ibid 1989, 62) and East Campsie (ibid 1991, 70) were excavated by W Graham Watson; those at Mains of Balgavies (ibid 1990, 41) and West Scryne (ibid 1994, 83–4) by Rachel Eames (now Benvie). In 1996, Historic Scotland, having funded much of the post-excavation analyses, agreed to fund the remaining work and publication of the four cists in a single report. Alba Archaeology Ltd was invited to tender for, and subsequently commissioned to, carry out this work. This report has been prepared from the surviving site records, of variable detail, mostly drawings and photographs originally held in Montrose Museum.

Prior to the editors taking over the post-excavation processing, some work had been carried out on the material recovered from the cists. The skeletal material had been examined by Margaret Bruce of Aberdeen University, the reports given here being edited versions of fuller reports lodged with the archive, and the Mains of Balgavies inhumation had been radiocarbon dated at the Scottish Universities Research and Reactor Centre (SURRC). A deposit in the Food Vessel from Mains of Melgund had been assessed by Brian Moffat and the Food Vessel itself conserved.

The archive has now been lodged with the National Monuments Record of Scotland and a copy is held at Montrose Museum. The skeletons are currently in Aberdeen University. The Mains of Melgund Food Vessel and East Campsie flint knife are held by Forfar Museum, the West Scryne flint knives by Arbroath Museum.

14. Mains of Melgund (NO 536 563)
J S Rideout and C J Russell-White

The site

The discovery of a cist at Mains of Melgund was reported to Angus District Museums by the farmer, Mr James Jackson, on 14 May 1986. Situated on level ground in the bottom of a broad dry valley to the S of Angus Hill and 1.4km NE of Aberlemno, it represents the latest in a series of discoveries of cists and cairns recorded in the immediate vicinity of Mains of Melgund and Melgund Cottage (Illus 16). As noted above (see site 7), a mound or cairn 640m to the E produced two cists, one discovered in 1953, the other in 1980 (Sherriff 1983, 290–3). Cists are also recorded to the SSW (NMRS: NO 55 NW 62), ESE (NMRS: NO 55 NW 21) and SSE (NMRS: NO 55 NW 49) of the cairn. Jervise recorded a ‘tumulus’ containing cists on Angus Hill (1859, 192) and there is a further cairn 100m NW of Melgund Cottage (NMRS: NN 55 NW 46, Discovery Excav Scot 1980, 37).

The pit containing the newly discovered cist was identified only on the S side and no full section was exposed. Its size is estimated at 2.6m E/W by 2m transversely. The cist (Illus 17) comprised a base slab, two side slabs, two end slabs augmented by horizontal slabs to raise the ends to the level of the top of the side slabs, and a capstone, all of sandstone. They defined a burial space measuring 1.22m long, 0.70m wide at the W end, 0.58m wide at the E end, and about 0.70m deep. At the W end the required height had been made up by two horizontal flat slabs, while at the E end the height was achieved by adding five courses of slabs (despite the uppermost horizontal slab being large enough to serve as the end slab had it been upended). Part of the N side had also been levelled up using horizontal slabs. The
Illus 16. Mains of Melgund: map showing location of cist (site 14) and other sites in the immediate vicinity; contours in metres.

Illus 17. Mains of Melgund: plans and sections.
capstone measured 1.78m E/W by 1.08m and up to 0.28m thick. Between the cist sides and the edge of the pit, at least in the upper layers, were further slabs and rounded cobbles and boulders. The excavators suggested that this might indicate the former presence of a cairn although the stones may simply have been packing inserted prior to final filling of the cist pit.

The cist contained two crouched inhumations, back to back, with heads towards the E end. An adult male aged about 30 years faced S, while a child of unknown sex, aged between seven and nine years, faced N. The adult skull had been disturbed during discovery and is not shown on Illus 17. The fact that some bones from each skeleton were seen to overlap the other suggest that they may have been buried at the same time, while leaving it uncertain which body was actually inserted in the grave first. Had one individual pre-deceased the other sufficiently to allow enough time for the body to be defleshed, it is not unreasonable to expect either that the earlier bones would be moved out of the way or, if not, for the bones of the later burial to overlap the earlier. Indeed the positions of the skeletons suggest that the bodies were interred together or within a very short time period. It is worth noting that, unlike other burials in this report (see, for instance, site 15 East Campsie), the bodies were, technically, crouched rather than flexed: although there is no evidence for binding, it may have been necessary to prepare the bodies in some such way so as to fit both into the cist at the same time. A Food Vessel (Illus 18), probably damaged during discovery, lay at the occupants' feet.

Small samples of bone were taken from each of the skeletons for accelerator dating (at the SRRRC laboratory). The sample from the adult male produced a date of 3405 ± 55 BP calibrated at 2σ to 1880-1534 BC (AA-23259). The sample from the child was dated to 3500 ± 50 BP calibrated at 2σ to 1970-1694 BC (AA-23260).

The skeletal material
Margaret Bruce

This is a particularly interesting inhumation since the remains of two individuals, an adult and a child, are present.

The adult. The adult remains were of a male in his late twenties to early thirties about 1.72m tall, brachycranic, robust particularly in the upper body but with various lower spinal lesions. The bones were in fairly good condition with all parts of the skeleton represented to some extent. Age is estimated from evidence of molar eruption and wear, and pelvic degeneration. Sex is suggested by the shape of the pelvis; the maximum anterior-posterior diameter of the femur (McLaughlin and Bruce 1985); the prominence of occipital protuberance and supra-orbital ridges; the robustness of the mandible; and the generally robust nature of the muscle markings on the humeri and femora. Based on femoral length, estimate of stature was just above the average height for short-cist males (Bruce 1986) with the skull shape (cranial index 84) characteristic of Scottish short cist individuals.
(Bruce 1986). Unfortunately, the facial skeleton was badly damaged and no assessment of facial shape was possible.

The right humerus and radius were longer and generally more robust than the left suggesting right-handedness. It appears that this individual had well-developed shoulder musculature (marked attachments for the muscles: teres major, latissimus dorsi, pectoralis major and the deltoid) as a result of repeated powerful movements, particularly of the right upper limb. The lower limbs also showed well-developed muscle markings. Both femora had the lateral flange on the upper shaft which is characteristic of prehistoric femora (Bruce 1986). There was no direct evidence for the cause of death. The overall stature and robusticity of the bones and the lack of macroscopic evidence of enamel hypoplasia on the teeth suggest a reasonably healthy childhood with adequate nutritional intake. Dental health was good with no evidence of caries or of peridental disease. Attrition of the teeth was not marked. The vertebral column, however, shows the presence of an actively destructive disease process in the lower thoracic vertebral bodies. A very tentative diagnosis of tuberculosis of the spine may be hazardous. From the thoracic to the lumbar spine there appears to be underlying evidence of intravertebral disc herniations possibly as a result of heavy compressive loading of the spine such as might result from carrying or lifting heavy weights. This was confined to the posterior half of the vertebral body. There was also evidence suggestive of a localised trauma.

The child. The child was aged 7-9 years, of unknown sex, but also with a strong upper body. The skeleton was not as complete as that of the adult. Most diagnostic aspects of the skull, vertebræ, upper and lower limbs suggest an age between five and puberty with the length of the femur and humerus narrowing this down to age 7-9. Dental age broadly supports the skeletal age estimates. It was not possible to determine sex. Despite the youth some muscle markings were already quite marked, eg the deltoid muscle of the shoulder. The bones were well formed and well mineralised. The teeth were not carious and did not show macroscopic evidence of enamel hypoplasia.

The Food Vessel

Ann MacSween

A large portion of a Food Vessel was recovered and has been reconstructed for display purposes (Angus Museums: M.1989.66). The vessel is a simple bowl (Burgess 1974, 185) with a slightly tripartite outline. It is around 145mm in height with a rim diameter of 198mm and a basal diameter of 85mm (Illus 18). The walls vary in thick-ness between 9mm and 11mm.

The vessel has an everted rim with a flattened lip and an internal bevel. Slightly below the lip the vessel expands gently to a slight shoulder c 42mm below the lip. Below the shoulder the walls slope gently to two-thirds of the way down, from which point they converge more sharply to the narrow base. In profile the vessel is slightly asymmetric.

From examination of the section the bowl is coil-constructed, with diagonal coil junctions. The fabric is a very fine clay with around 50% of well-crushed, angular rock fragments (most between 4mm and 6mm in length), which has fired hard and is reduced (black) with oxidised margins (red on the exterior and red / buff on the interior). There are a couple of patches of sooting on the interior (no more than would be expected during firing). On the exterior there are, again, only light patches of sooting. The results of analysis of residues adhering to the vessel are discussed below.

The exterior of the vessel and the interior of the rim have been slipped and decorated. The interior is well smoothed, but not decorated. The bevel is decorated with evenly-spaced triangular impressions, possibly made with the end of a knife or spatula. The lip is decorated with a line of whipped cord impressions. Between the lip and the upper part of the shoulder are four lines of whipped cord impressions. The slight shoulder is defined by a line of zig-zag decoration in false relief. There are small oval impressions between each of the upper points of the zig-zags. Below this are five further lines of whipped cord impressions. At the point at which the vessel begins to taper more sharply, there is a repeat of the zig-zag decoration in false relief with up to eight rows of whipped cord impressions between it and the base.

The E of Scotland is one of the areas where Food Vessel bowls are most common (Megaw and Simpson 1979, 235). Finds from the area around Mains of Melgund include a bowl from Reswallie Mains, Rescobie (Discovery Excav Scot 1967, 3 Coutts 1971, no 97) and one from Netherton, Aberlemno, 2km to the NE of the site (Discovery Excav Scot 1967, 3; Coutts 1971, no 96). The most common form of decoration on Food Vessel bowls is repeating horizontal bands of comb impressions separated by bands of false relief (Simpson 1965, 30). Although the impressed decoration on the Melgund vessel was executed by impressing whipped cord, the overall effect is similar. Zig-zag bands in false relief have been noted elsewhere on Food Vessels from the E of Scotland, for example at North Mains, Strathallan and Cowdenhill, West Lothian (Cowie 1983, fig 29a and c; fig 30a).

The Food Vessel residue

Brian Moffat

Interpretation of the pollen assemblages contained
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<tr>
<td>Rosaceae - Rosa type (roses etc)++</td>
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<td>Succisa (scabious)</td>
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<td>Teucrium (wood sage)</td>
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<tr>
<td>Umbelliferae (parsley family)</td>
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<tr>
<td>Urtica dioica (stinging nettle)</td>
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</tbody>
</table>

'Extraneous' taxa: (note – for convenience, these are counted under the 'Herbs' sub-total and percentage).

Cereal-type pollen
Cereal-type pollen
Tilia (small-leaved lime)
Tilia (small-leaved lime)
Viscum (mistletoe)
Viscum (mistletoe)

Note on spores present: spores of polypody fern (Polypodium vulgare agg) and male fern (Dryopteris filix-mas type) were noted as below. All showed signs of abrasion and re-deposition, as though they may have been part of a now disintegrated pot fabric.

<table>
<thead>
<tr>
<th>Spore type</th>
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<th>5</th>
<th>9</th>
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<td>Polypody fern</td>
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<tr>
<td>Male fern</td>
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</table>

Note: ++ = major honey plant; + = minor honey plant (after Hodges, D (1978) Calendar of Bee Plants).
in residues adhering to potsherds is difficult. Precedent studies include the Ashgrove (Fife) mead; the North Mains (Perthshire) 'fermented ale' or porridge; the Hochdorf (Baden-Württemburg) 'honey mead'; the Kinloch (Rhum) 'bragot' (drink with fermentation based on honey and cereal). The conclusions of these reports are based on a number of factors, including: i) highly particular analogy (what pollen ends up in honey); ii) the use of indicators (few grains of cereal-type pollen are taken to constitute the bulk of the preparation); iii) a rough estimate of how much liquid is present (ie the original consistency of the contents); iv) what the liquid is (alcohol is often assumed although alcohol is volatile and yeasts are only exceptionally noted); and, finally, v) assumption of intent (ie purpose).

The sub-samples from Mains of Melgund were broken up at the time of discovery, and mixed up in transit. Only samples 2, 3 and 4 were residues (black-brown, fibrous and caked, shaped pieces). They held coarse macro-remains of cereal (stem, husk, bran, all greatly fragmented). Since three of the seven cereal-type grains were Hordeum group (barley group), a substantial component of cereal is indicated.

Owing to the low productivity of its pollen and dispersal only upon breaking up of the plant (harvesting or processing), cereal is rarely 'environmental'. In contrast, a whole diversity of habitats is represented by small counts of several species. These include: scrub / wet woodland (birch, blackthorn and rose, alder); herb-rich grassland (20 such taxa are represented - the low and irregular values of grass pollen itself suggest that much herb pollen may have been incorporated through honey); standing water (water lily, pondweeds); woodland with epiphytes (oak, lime, polypody fern, mistletoe);ruderal or 'weedy' habitats (the willowerbs, nettles, composites, ribwort) and a slight 'heath' element (wood sage, scabious). This geographical and topographical diversity indicated is unlikely to be encompassed by the foraging territory of one or a group of beehives; an open and unobstructed catchment for pollen is shown. The indications of honey are strong and varied. 'Major' and 'minor honey plants' are indicated in Table 1.

It is most unusual for one or two woody species to be outstanding. The high values for birch and, secondarily, alder, suggest the possible use of sap (bearing pollen grains) of these trees as a sweetening agent and a secondary base for fermentation (Haggarty 1986, 8–11; Haggarty 1991, 91). The use of birch sap is documented from the 17th century and is a continuing tradition. Birch pollen does not get taken with the sap, in quantity (Haggarty 1986, 8–11).

A note must be made concerning small-leaved lime and mistletoe. Lime is not judged to be native N of southern Cumbria although enclaves in Dumfriesshire and Fife have been suggested and recent work from the Montrose Basin, covering the entire post-glacial time-scale, shows sustained low levels of lime pollen. Mistletoe is exotic to Angus.

15. East Campsie (NO 288 527)
J S Rideout and C J Russell-White
The site
The cist at East Campsie, discovered during ploughing on 23 March 1987, was situated on a terrace overlooking the River Isla, 1.8km SSE of the Loch of Lintrathen and 10km WSW of Kirriemuir (Illus 19). There are no other cists recorded in the immediate area, although a possible cairn was recorded 1km to the NE (NMRS: NO 25 SE 29).

Only the interior of the cist was investigated (Illus 20). It was composed of two side slabs, two end slabs, and a capstone, which had been removed during discovery. The capstone was roughly triangular and measured 1.55m long and up to 1.02m wide. It covered a burial cavity 1.07m long and a maximum of 0.56m wide. From the surviving photographs, the depth appears to be between 0.6 and 0.7m. Neither section, nor profile, can be reconstructed from the existing records. The precise orientation of the cist was not recorded.

The remains of a crouched inhumation of a child, possibly female, aged between 10 and 14 years, were recovered, together with some unidentifiable animal ribs and a flint knife (Illus 21). A small sample from one femur was taken (at the SUERC laboratory) for accelerator dating. The sample produced a date of 3295 ± 50 BP calibrated at 2σ to 1733–1453 BC (AA-23258).

The skeletal remains
Margaret Bruce
The cist at East Campsie contained the remains of a single individual aged 12±2 years. Age estimation is from long bone and pelvis epiphyses, and teeth eruption. Only an extremely tentative diagnosis of female sex may be made on the evidence of a wide sciotic notch. There was nothing to suggest the cause of death, nor was there any evidence of pathological lesions. The bones were well mineralised and the teeth enamel showed no signs of hypoplasia, suggesting a childhood free from significant health or nutritional problems. Animal ribs were also present.

The flint knife
Ann Clarke
The flint artefact (Angus Museums: F.1989.9) is a unifacially retouched piece, probably a knife (Illus 21). It has been formed from an inner flake of
Illus 19. East Campsie: map showing location of cist and possible cairn nearby; contours in metres.


brown flint, probably broken at each end. The sides converge to a pointed distal end. There is steep invasive retouch down the left side and shallow invasive retouch from the right side across the rest of the dorsal surface. Maximum length 50mm, width 14mm, thickness 4mm.

16. Mains of Balgavies (NO 539 516)
JS Rideout and C J Russell-White
The site
The cist at Mains of Balgavies was discovered in 1989 during subsoiling work which had dislodged
the capstone and partly filled the cavity with loose topsoil (subsequently cleared out by the farmer). The site is located on level ground west of an unnamed burn which runs into the Lunan Water a short distance downstream from Balgavies Loch (Illus 22). This is the second cist excavated in the immediate area. The first, 140m to the ENE, on the opposite side of the burn, was excavated in 1984 and contained the remains of an inhumation of an adult over 25 years old (Sherriff 1986, 570–1).

Other sites recorded in the vicinity include a possible cairn 150m to the NE of the 1984 cist (Discovery Excav Scot 1981, 45) and a standing stone with cup marks at Westerton (NMRS: NN 50 SW 15; Barclay and Halliday 1982). Cup-and-ring-marked stones (NMRS: NO 55 SW 22, 30, 31, 36) and lithic scatters (NMRS: NO 55 SW 32, 47–55, 57–60) are recorded further to the W.

Excavation on 7 and 8 December 1989 concentrated only on the cist interior and its contents (Illus 23). Aligned NW/SE, the cist had comprised two end slabs and two side slabs defining a burial space 0.88m by 0.65m and 0.56m deep. A slab placed edge on filled a gap in the SW side at the western corner and a lower, partial, capstone covered the north-eastern corner. The dislodged capstone measured a maximum of 1.70m by 0.95m. There was no formal flooring.

The cist contained the remains of an inhumation of an adult, probably male, aged between 25 and 30 years, facing SW with head to the SE end. The humeri were submitted for radiocarbon assay and gave a date of 3680 ± 50 BP, calibrated at 2σ to 2200–1930 cal BC (GU-3847).

The skeletal material
Margaret Bruce

The remains are those of a single adult individual most probably male, aged about 25–30 years, of fairly slight build and about 1.67m tall. Age is indicated by closure of skull sutures, recent and in process and eruption of all three molars and the quite considerable wear on all teeth. Sex is suggested by the robust and prominent ridges, processes, protuberances and muscle attachments of the skull and mandible despite the relatively slight proportions of the limb skeleton. The skull was brachycranian (cranial index of 83) typical of the majority of short-cist burials in Scotland. Body build was slight although muscle markings on the back of the skull and on the upper arm were quite well marked, especially on the right side.

The femur showed some but not marked flattening of the upper shaft as a result of the presence of a slight lateral flange of bone – this is again characteristic of short-cist skeletons. The tibia did not show the marked flattening of the upper shaft found occasionally in earlier populations. The right mandibular fossa was deeper with a clearly defined rim on the articular eminence as if the mandible was frequently, powerfully slewed to the left. There was complete dentition with no caries, moderate calculus, some post-mortem damage to
enamel, enamel hypoplasia on right and left lower canines and no significant periodontal disease. There was no evidence of degenerative change on any articular surface of the vertebræ. The humeri, although not particularly robust, had well-marked attachment areas for deltoid, teres major, pectoralis major and subscapularis particularly on the right side; the circumference was also greater on the right side; the right radius was longer and more robust than the left although both were slender.

Unfortunately the innomates were not well enough preserved to permit reliable sex determination. The femora were slender and the right was intact enough to provide a reasonable estimate of length. There is no evidence for what the cause of death was. The limb bones although not robust appear well mineralised. There was no evidence of any pathological process or lesion. Dental health was good with no sign of dental caries and no significant periodontal disease although there was moderate calculus deposits on the teeth. The skull and mandible were in an excellent state of preservation. The rest of the axial skeleton was very poorly represented. The limb skeleton was moderately well preserved with all elements represented to some degree.

17. West Scryne (NO 576 365)
J S Rideout and C J Russell-White

The site
The cist at West Scryne was discovered by local amateur archaeologists and was excavated on 28 and 29 April 1994. The cist was on a slight mound, 40m in diameter and up to 1m high, to the E of Panlathymill Burn, 1.15km NE of Panbride and 550m SSE of West Scryne farm (Illus 24). A cist containing an inhumation accompanied by a Food Vessel had previously been found on the mound in 1948 and a barrow cemetery is recorded in the area to the SE (NMRS: card NO 53 NE 35). The capstone had been dislodged, probably in the previous year, resulting in soil and other material entering the cist.

The cist was aligned E/W and comprised two side slabs and two end slabs defining a burial space up to 1.28m by 0.79m and 0.60m deep (Illus 25 – the precise orientation was not recorded). Small gaps in the corners were filled with small rounded stones. The floor was neatly surfaced with locally occurring pale coloured quartz and granite pebbles. The D-shaped capstone measured 1.62m by 0.92m and up to 0.24m thick. The cist pit
measured 2.14m E/W by 1.60m.

Up to 0.15m of intrusive soil overlay the poorly preserved and much disturbed remains of a crouched inhumation of an adult male aged between 20 and 30 years, facing S with the head at the E end. Only the larger leg bones remained more or less in situ. Later, examination of the bones by Margaret Bruce produced part of a phalange of, probably, a child. At the E end of the cist were two flint knives, one on each side of the body. A small sample of bone was taken (at the SURRC laboratory) for accelerator dating. The sample produced a date of 3300 ± 50 BP calibrated at 2σ to 1735–1460 BC (AA-23261).

The skeletal remains
Margaret Bruce

The remains were those of one individual, an adult, probably male of short stature but stocky build in his twenties at the time of death. Condition of the remains was poor, the surviving bones were badly eroded and weathered with the surface cortical bone flaking, rendering it difficult to obtain metric data. Age is based mainly on evidence from molars, skull, lack of degenerative changes in general and is estimated following Brothwell (1965). Sex determination is tentative in the absence of convincing pelvic evidence but the occipital protuberance, supra-meatal crest, the maximum antero-posterior diameter of the femoral shaft (MacLaughlin and Bruce, 1985), and femoral head diameter (Bass 1987) suggest the individual is likely to be male. No assessment of skull shape was possible.

Height was calculated on an estimated femoral length and is likely to have been about 1.65m which is somewhat shorter than the mean for short-cist males, reported by Bruce (1986). The limb bones though short were quite robust with well-marked muscle attachments thereby suggesting quite a stocky build. There was no evidence to the likely cause of death, nor was there any evidence of injury or disease suffered in life. Little was recovered of axial skeleton and upper limbs. However, most of the bones of both lower limbs were recovered, enabling some estimate of height and body build to be made.

The most noteworthy feature of this individual was the very pronounced lateral flange on the upper femoral shaft (noted elsewhere as being typical of prehistoric populations), accompanied by a medial reinforcement at the junction of the neck and shaft. Together, these suggest an adaptive response of the femur to high levels of compression loading down the inner side and high levels of tensile loading down the outside of the bone (Bruce 1986). Alternatively the response may be due to normal loading levels in a bone of poor ‘quality’, possibly due to nutritional deficit.

The flint knives
Ann Clarke

One of the knives (Angus Museums: C.1995.241) is formed from an inner flake of black flint (Illus
26, 1). It has an artificial platform. The convex sides converge to an unmodified chalky distal end. It has shallow invasive retouch down the left and right edges. Maximum length 58mm, width 27mm and thickness 5mm. The other knife (Angus Museums: C.1995.242) is formed from a secondary flake of grey flint (Illus 26, 2). It has a cortical platform. The convex sides converge to a pointed distal end. There is shallow invasive retouch on the left edge and abrupt retouch on the right side and distal end causing blunting of the edge. Maximum length 42mm, width 24mm and thickness 8mm.

The flint knives from East Campsie and West Scryne

The three flint artefacts found in the cists can all be called knives, or plano-convex knives (ie they tend to be flat on the unmodified ventral face whilst the dorsal face is convex in section, shaped by retouching which is often shallow and invasive). This is a broad typological category and includes 'many variations on the same basic theme, from small slug-like forms through to larger examples with extensive flake scars on their dorsal face' (Edmonds 1995, 144) and the knives from the two Angus cists are no exception in their variety of forms. The small pointed 'knife' from East Campsie is retouched over the whole of the dorsal face to form a steep-backed, or slug-like piece. In contrast, the knives from West Scryne are more regular in form and have been shaped by shallow invasive retouch down the edge or edges of the flakes. On C.1995.242, the distal end and right side have been blunted by abrupt nibbling retouch.

The contexts of deposition of such knives are almost as varied as their forms and are found in late Neolithic and early Bronze Age deposits, particularly as funerary goods associated with inhumations and cremations in flat graves or cists either with or without mounds.
Acknowledgements

The editors are indebted to Gordon Barclay, Deborah Long and Richard Tipping for commenting on aspects of the text, and to Gordon Cook for the radiocarbon dates. The illustrations were drawn by J S Rideout. The recent post-extraction processing, and report production, was funded by Historic Scotland.

Discussion

J S Rideout and T G Cowie

Circumstances of discovery and excavation

The primary aim of these combined papers has been to furnish details of a series of previously unpublished burials from Angus. One remarkable feature of the sites investigated by F T Wainwright and David Taylor during the 1950s is the sheer frequency of discovery (for example, one each month from March-May 1952; two found within a fortnight in October 1953) (Illus 27). As noted in the introduction, this appears in part to reflect the development of more powerful farm machinery during the immediate post-war period and a consequent move towards deeper ploughing, resulting in rates of discovery unmatched since the mid-19th century (see RCAHMS 1994, 10-11 for fuller discussion of site survival, destruction and discovery in the same general region). In a number of cases, however, the discoveries also owe much to local topography, several of the sites having been found in the course of ploughing or quarrying on the natural fluvio-glacial knolls and ridges characteristic of much of the region (eg Meikle Kenny, site 5; Loch Fithie, site 10).

While the combined evidence of this joint paper offers an opportunity to compare eighteen Bronze Age burials from a single region, it is important to stress that this sample is chiefly a reflection of modern activity rather than a random sample of ancient burial practices. In most cases, the burials have been discovered because the stone components of the cists were shallow enough to be disturbed by the plough or else in locations where repeated ploughing or agricultural improvements resulted in their exposure. As a result, certain types of burial are almost certainly under-represented or absent; for example, cases where especially deep pits may have been dug for the reception of the cist structure (as at North Mains, Strathallan; Barclay 1983, 138-9). Such burials tend to defy exposure in the normal course of ploughing; the only deeply dug burial in the sample under consideration was
discovered as a result of excavation of a pit for electrical supply (Barnyards, site 11). Given that Wainwright and Taylor were responding to a high proportion of local reports of discoveries during those years, the relative infrequency of urn burials probably fairly reflects the overall pattern of finds; it seems likely that this too may be related to the increased mechanisation of farming (the urn at Noranbank (site 2) was discovered during manual clearance of field stones).
Cist construction and burial practices

Analysis of the details of the cists shows that a range of construction techniques and burial practices are involved. Most of the cists are of ‘normal’ construction – ie two side slabs, two end slabs and a capstone. Most had no formal flooring but the cist at Dougalstown (site 3) had, unusually, been paved while that at West Scryne (site 17) had a pebble floor. Only one cist, Mains of Melgund (site 14), had a significantly different method of construction, with level slabs being used in addition to the usual edged slabs. Here, the technique may have been deliberate, since there were more than enough of the right size of slab to create a ‘normal’ cist. Finally, it may be noted that two cists appear to have been luted with clay (Bell Hillock, East Kinwhirrie, site 1; Meikle Kenny, site 5). Clay luting may well have had a practical function, being applied with the intention of sealing the cists, perhaps as a preservative measure or to inhibit access (Proudfoot 1997). In view of the quality of the jet necklace and bracelet from the cist at Bell Hillock, East Kinwhirrie (site 1), it is also worth recalling that McAdam (1974) noted that clay luting might be a feature of cist construction associated with richer graves, where it may well be relevant to issues such as the differential investment of effort and resources in cist construction.

Owing to the circumstances of discovery and the restricted nature of almost all these investigations, there is little or no information on how the cist slabs were inserted into their pits, how the pits were dug, and on details of their closure. It must be assumed that, where the evidence is lacking, most of the shallower cists were inserted in simple pits, with or without packing stones to support the sides during the process. The deeper cist at Barnyards may have been in a more complex pit, similar, for example, to Burials B and C at North Mains, Strathallan, Perthshire (Barclay 1983, 138-9, figs 15 and 16).

Orientation of the cists, where known, ranged from roughly NE/SW to NW/SE. In other words only N/S and proximate orientations are not represented – possibly as a result of graves being orientated roughly on sunrise / sunset at different times of the year. The orientation of the bodies within the cists, however, shows greater variation. Six inhumations had their heads at the E end and two, possibly three, at the W end. Of these, five skeletons faced roughly S, while one, the child in the double burial at Mains of Melgund (site 14), faced N. The young female from Barnyards had her head to the west (the direction of facing is not recorded). The unsexed child from Mains of Melgund (site 14) had its head to east and faced north, while the accompanying adult male had his head at the same end but faced south, the same orientation as the adult female from Balhunigie.

The divergent courses that may follow discovery are well represented here. In some cases, burials were disturbed or destroyed by the finders with consequent loss of information (eg Mains of Careston site 4, Newhouse of Glamis, site 9) while, in others, steps were taken to minimise such loss (eg Balhunigie, site 6; Murton, site 8). In nearly every case, circumstances dictated that the burials had to be treated simply as isolated chance finds. Usually, the limited resources available to those investigating the discoveries have meant that further investigation of the wider context of the burial has been impracticable, even where the location or the archaeological background would seem to have invited such a course. The intermittent discovery of burials at Mains of Melgund (sites 7 and 14) is a particularly telling case with cists revealed at various times within a single knoll or in the immediate vicinity. This is only part of wider but unintelligible pattern of discoveries of cists and other burials on this farm alone (cf Sherriff 1983). The 1986 cist at Mains of Melgund (site 14) offers another case in point: the excavators suggested that slabs, cobbles and boulders might be an indication of the former presence of a cairn – precisely the circumstances under which further burials might be expected in the immediate vicinity. At Murton (site 8), trenching beyond the immediate confines of the grave intercepted a second cist but no further exploration of the site was feasible.

It has been argued that fuller understanding of the context of chance finds of burials would repay the additional effort and expenditure involved in opening larger areas (Barclay 1982). At Barns Farm, Dalgety Bay, Fife, for example, it was progressive expansion of the excavation area that led not only to the discovery of further cists, but also a series of simple dug graves and pits that would usually defy chance discovery (Watkins 1982).

The burials were widely distributed in Angus, occupying a range of locations, from natural and artificial mounds, some more prominent than others, to relatively level, or even slightly sloping ground. Most were found on both sides of Strathmore, although two were in the Lunan Valley and two were on the equally fertile coastal strip. This is probably a reflection of agricultural activity in both the prehistoric and modern periods. The gentle slopes and sandy / gravelly soils of the sides of Strathmore, as well as the slopes and terraces overlooking the North Sea, were easily worked in prehistory, and it is continued farming that has led to the discovery of the burials. Modern farming techniques are also now used on the wetter environment of the floor of Strathmore, but there the absence of Bronze Age burials tends to suggest that the area was not a focus for contemporary settlement.
cases, lines of oval or D-shaped jabbed impressions have been arranged, singly or opposed to form a band of ‘false relief’, in order to emphasise the main structural features (such as the shoulders of bipartite vessels) or to separate broader zones of decoration (usually series of horizontal lines). Striking contrasts in the layout of the decorative scheme emphasise the bipartite form of the fine vessels from Bell Hillock, East Kinwhirrie (site 1) and Hare Cairn, Pitkennedy (site 13) (illus 28).

The two burials from East Campsie (site 15) and West Sclyre (site 17) were accompanied only by flint knives, of forms which tend to be found more commonly with Food Vessels than Beakers (Close-Brooks 1997, 43-4).

Some unidentifiable animal ribs were recovered from the cist at East Campsie (site 15). There seems no reason to suspect that they are intrusive, which makes this a useful addition to the evidence for deposition of foodstuffs, especially pig joints, in Bronze Age graves (eg Gairneybank, Kinross-shire: Cowie and Ritchie 1991, 98; Grainfoot, Longniddry, East Lothian; Dalland 1991, 113–4, each with further references; Muirhall Farm: Stewart and Barclay 1997, 43).

Finally, particular mention must be made of the interesting grave group found in 1919 at Bell Hillock, East Kinwhirrie nearKirriemuir (site 1): the finds include the very fine spacer plate necklace and bracelet discussed fully above. Shown by scientific analysis to be of imported Whitby jet, prestige artefacts like these offer the clearest possible demonstration of the wider networks of contact with eastern England maintained by the Bronze Age communities in the rich farming heartlands of eastern Scotland. In this instance, these links seem to be reinforced by the discovery of an Arran-type axehead near Bell Hillock itself, for such axeheads almost certainly represent imports into Scotland. Significantly, there is a distinct concentration of such axeheads in E Yorkshire (Schmidt and Burgess 1981, 73–5).

The notes of the 1919 excavation also refer to the discovery of a fossil shell, which can no longer be traced. Given the outcome of re-assessment of the so-called ‘worked stones’ from the site, it is possible that the ‘fossil shell’ was of no real archaeological significance. On the other hand, fossils have been found in a number of prehistoric burials and it is just possible that this too might have been some kind of valued ‘found object’ or curiosity. If so, its presence in this grave would also be comparable, in a way, to the unusual discovery of a cache of sea urchin spines in the cist at Muirhall Farm, Perthshire (Stewart and Barclay 1997, 43).

Nor does the 1919 cist appear to have been the only richly furnished burial within the mound: unrecorded investigations some years before 1863 led to the discovery of an ‘urn’ and a ‘spearhead’ but unfortunately these can no longer be traced.

The contents of the cists

At least nine of the cists described in this paper appear to have contained pottery: at two sites, only fragments appear to have been present but in both there is a suggestion of previous disturbance of the grave, either in antiquity (Meikle Kenny, site 5) or in modern times (Mains of Melgund, site 7). In at least seven sites, the burials were accompanied by Food Vessels, but there were no Beakers from any of the cists described here.

None of the Food Vessels is a ‘classic’ vase or bowl, but this is not entirely surprising as many of the Food Vessels from the region show considerable heterogeneity of form and decoration and defy easy classification. There is, therefore, little to be gained by citing specific parallels for the various pots described and illustrated here. The range of ‘impressed’ techniques used in their decoration include linear whipped cord and more rarely twisted cord, whipped cord muggots, comb and various kinds of jabbed impression, all of which can be matched among the range of Food Vessel pottery from eastern / central Scotland. In several
Although metalwork is not specified, the circumstances would be more in keeping with the discovery of a dagger or knife rather than a spearhead.

Discussion of the contents of the Mains of Melgund Food Vessel

The Food Vessel from Mains of Melgund (site 14) is known to have contained a residue, and this was subsequently assessed for pollen content; possible organic deposit was noted in the pot from Doglastown, Kinnetles (site 3) but sampling and analysis was beyond the scope and resources of the publication project.

As Moffat notes, interpretation of the results in such cases can be problematical. It is important to note here that the report above is an assessment rather than a full analysis and was not originally intended for publication in itself. By the time the editors became involved, however, some of the original samples had been lost and it was agreed that while no further analyses could be justified, the results merited wider notice.

The interpretation suggests that honey could be responsible for some of the pollen. There are, however, alternatives. It may be that, for example, the cereal-type pollen (in sample 203) could be explained by the nearby presence of arable fields. In addition, the inference that there was a sizeable component of honey in the pot cannot be sustained only on the basis of the presence of the pollen of certain plants that may also merely have been present in the immediate vicinity. The critical measure is an anomalous abundance of these pollen types, and the spectra from the pot lack such high values. The spectra may more prosaically be interpreted as reflecting an open, secondary woodland, landscape. What the sticky residue is in this instance cannot be determined from palynological analyses, since any sticky substance will capture pollen.

What is known, therefore, is that the Food Vessel from the cist had contained a substance that had survived as a sticky deposit that contained pollen. It is reasonable to suggest that the contents of the vessel formed part of whatever burial ritual was involved in insertion of the pot in the grave. Pot residues from other sites, for instance at North Mains, Strathallan (Bohncke 1983) and Ashgrove, Fife (Dickson 1978), have been interpreted as being the remains of alcoholic drinks or flavoured
Table 2. Radiocarbon dates.

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<th>2σ (cal BC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mains of Balgavies</td>
<td>GU-3847</td>
<td>3680 ± 50</td>
<td>2140–1985</td>
<td>2200–1930</td>
</tr>
<tr>
<td>East Campsie</td>
<td>AA-23258</td>
<td>3295 ± 50</td>
<td>1672–1519</td>
<td>1733–1453</td>
</tr>
<tr>
<td>Mains of Melgund, adult</td>
<td>AA-23259</td>
<td>3405 ± 55</td>
<td>1854–1673</td>
<td>1880–1534</td>
</tr>
<tr>
<td>West Scryne</td>
<td>AA-23261</td>
<td>3300 ± 50</td>
<td>1674–1521</td>
<td>1735–1460</td>
</tr>
</tbody>
</table>

porridge because of the high proportion of *Filipendula* (meadowsweet) pollen in the samples. Although the results from the Mains of Melgund samples are not strictly comparable to those from North Mains and Ashgrove, it is likely that the content of the pot was originally some form of food or beverage, possibly based on honey or malted cereal.

It has been argued, however, that the presence of meadowsweet pollen in cists may result from a floral tribute which accompanied the body (cf. Whittington 1993, Tipping 1994). It is possible that, had samples of the cist floor at Mains of Melgund been taken, pollen from meadowsweet and other flowers may have been found. We will never know in this case. What is clear, however, is that in future ‘rescue’ excavations on burials, a careful sampling strategy should be employed both within the cist and outside it (to check for modern environmental pollen) (cf Proudfoot 1997, 20). It is worth noting that the Mains of Melgund cist was excavated before the normal flowering period of meadowsweet.

Radiocarbon dates

Radiocarbon dates have only been obtained from samples of bone from inhumations associated with the four most recently excavated cists (Table 2). All have ranges broadly consistent with other dated Bronze Age burials: in particular, Mains of Melgund (site 14) adds a further date to the as yet limited list of dated burials associated with Food Vessels from Scotland, recently tabulated and reviewed by Dr Alison Sheridan (1997, 40–1 and table 2). The near-identical radiocarbon dates for the two burials accompanied only by flint knives, East Campsie (site 15) and West Scryne (site 17), may also be relevant in this regard: Joanna Close-Brooks has pointed out that knives made on large flakes or retouched only on one edge, tend to be associated with Food Vessels (1997, 43–4).

Conclusion

Most of the burials above simply provide details to add to the growing body of knowledge on Bronze Age burials in eastern Scotland. In some cases where the burial had been disturbed prior to investigation, the level of information retrieved is not significantly greater than that derived from burials excavated in the 19th century. However, while some burials continue to be reported too late to allow meaningful investigation, an increasing number are reported in good enough condition to more than repay the deployment of modern methods of excavation and analysis.

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Abstract

This composite paper provides details of 17 separate prehistoric burial sites. These include, firstly, a series of cists and also one urn burial investigated during the 1950s but never fully published. Besides a small range of human skeletal remains, the finds include several Food Vessels fully described and illustrated for the first time. A significant but hitherto unpublished grave group found during excavations undertaken in 1919 at Bell Hillock, East Kinnaird near Kirriemuir is also described. Artefacts from this site include a Food Vessel and a spacer plate necklace and bracelet, recently shown by analysis to be of imported Whitby jet.

Secondly, details are provided of four cists excavated by staff of Angus District Museums between 1986 and 1994. Radiocarbon dates from the skeletal remains recovered from these all fall within the norm for Bronze Age burials, and, in one case, add to the limited number of dates associated with Food Vessels. Two of the cists contained flint knives.

Finally, the wider significance of this sizeable sample of prehistoric burials from the region is considered.

Keywords: Bronze Age, cist, burial, Food Vessels, jet, necklace, flint knife, Cinerary Urn