

Cists at Traigh Bhan, Islay, Argyll

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SUMMARY

The examination of three cists, situated at Traigh Bhan, Islay, Argyll, and dating to the second half of the second millennium BC, is here described; two of the cists had been used to receive burials on two separate occasions, one of them associated with a food vessel.

EXCAVATION

In June 1980, three cists, which had become exposed by erosion in the sand-dunes at the head of Traigh Bhan, at the NW tip of Islay and some 2 km N of Smaull (NGR NR 215700), were discovered in the course of fieldwork undertaken by members of the staff of the Royal Commission on the Ancient and Historical Monuments of Scotland. The cists were excavated by the writers, with the help of their colleague Mr I G Parker, in order to make a full record of the burials (figs 1 & 2).

Cist 1, aligned ENE and WSW, was composed of four slabs and measured 1.05 m by 0.6 m and about 0.5 m in depth. Several small stones helped to fill in the corners at the ENE end and a single slab provided some additional support at the WSW. The capstone did not survive. The cist contained the remains of two burials, the disarticulated bones of a young individual (body 1), possibly male, aged between 17 and 25 (depending on the stress laid on the skeletal or the dental evidence presented in Appendix 1), and the remains of an older person (body 2), possibly female, between 30 and 35 years of age (Appendix 1); the second burial was associated with a complete food vessel slightly tilted over (p 553). There is no doubt that the bones of body 1 had been gathered together in a disarticulated state with the long bones laid out over the skull and broadly parallel to the WSW end-slab (eg bones nos 1-7, 10 on fig 2; humerus, radius and ulna, femora and tibia). It is noticeable that the bones of the hands and feet were missing. The bones of body 1 partly overlay a flat slab which in turn overlay the skeletal remains of body 2; this was in rather more recognizable anatomical order, the head at the E, facing S, with the back to the N, the upper arms (bones nos 3 & 6 on fig 2) with the lower limbs (nos 1-2, 4-5 & 7) suggesting a tightly crouched position. The cist had a reasonably homogeneous fill of dark brown sand, with several slabs placed flat within the sand (fig 1); five tiny fragments of flint were the only other finds (nos 2-3, 5-6 & 8).

Radiocarbon determinations of 1380 bc ± 95 (GU-1378) and 1055 bc ± 105 (GU-1379) were obtained from analysis of collagen from the bones of body 1 and body 2 respectively.

Cist 2, aligned NNE and SSW, lacked the NNE end-slab, but it would have measured about 1.0 m in length, 0.36 m in width at the W end and 0.66 m at the E end, and 0.4 m in depth. The cist was thus trapezoid on plan; the three surviving slabs were of rather different heights. The capstone did not survive. The removal of the NNE end-slab had disturbed this end of the cist and had affected the disposition of the skeletal remains (Appendix 1), most of which were found towards the middle and the SSW end in a disarticulated state; it is clear, however, that two individuals are represented. The main filling of the cist was dark brown sand, but there was an upper layer of yellow sand with some dark mottled patches at the SSW end. The bones from the

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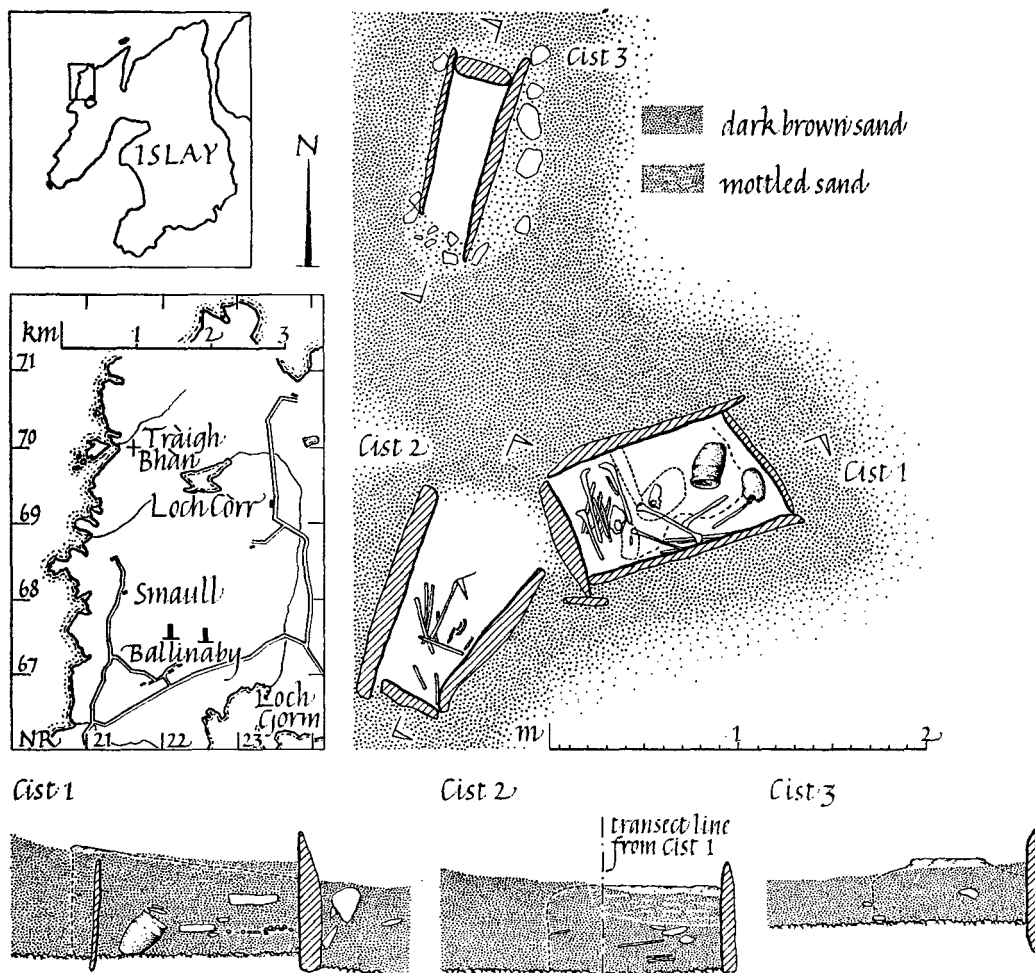


FIG 1 Traigh Bhan, Islay: cists excavated in 1980

upper levels were thus disturbed, some almost on end, but those squashed into the shingle floor (including a number of ribs) which could be preserved, gave the impression of being in more anatomical order. For example, bone no 2 (a fragment of L femur of massive build; cf no 8) was found above the stony layer shown on the section, fig 1, in mottled sand, but bone no 1 (another L femur) and no 3 (the ? upper end of the shaft of a femur ?R) were found below the stones in the dark brown sand. The second individual probably represents the original interment. One small fragment of flint pebble was the only find (no 1).

A radiocarbon determination of $1260 \text{ bc} \pm 120$ (GU-1380) was obtained from analysis of the collagen from the bones within the cist; although the bones are those of two individuals the date provides at least some indication of the chronological span for the use of the cist.

Cist 3, aligned NNE and SSW, was about 0.8 m long, 0.35 m broad and 0.3 m deep; the SSW end-slab had not survived. The NNE end-slab stood to a height of about 0.15 m above the level of the two side-slabs. The cist was filled with dark brown sand and, except for two flints

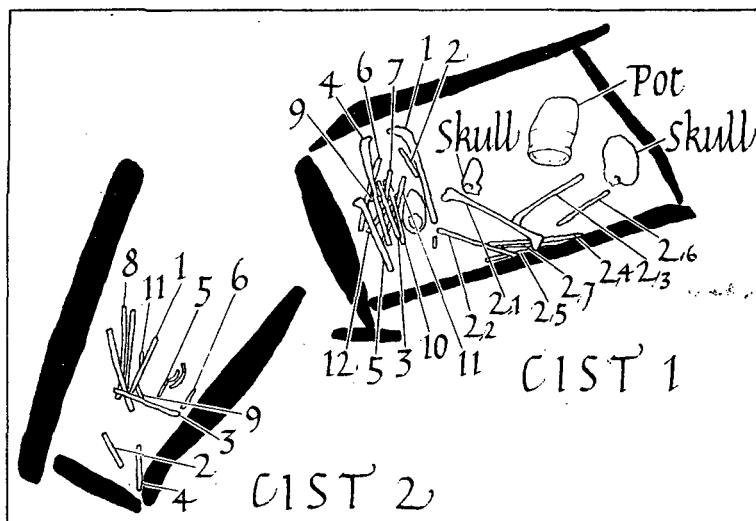


FIG 2 Traigh Bhan, Islay: location of bones in Cists 1 and 2

(nos 4 & 7), there were no small finds nor skeletal remains. The traces of the pit in which the cist had been set could be detected by the presence of packing stones among the sand, but it could not be seen as a definite colour change, though the sand in the pit tended to be rather browner than that round about; the pit was about 1.5 m long and 0.65 m broad. There was no trace of the missing end-slab nor of a capstone.

DISCUSSION

Small cist-cemeteries of the type found at Traigh Bhan are widely spread in western Argyll and figure prominently in the pages of the Commission's *Inventory of Argyll*; single cists are equally numerous, and in many cases probably represent the only recorded example from such cemeteries. It is unfortunate that erosion had removed part of the dune to the SE of Traigh Bhan and built up a sand-hill on the NW, preventing further excavation, and that it was not possible to discover whether there had originally been more than three cists. Such cemeteries are frequently found in, or close to, agricultural land, and it is tempting to see this site as the burial-ground of an established group of farmers who exploited both the flat valley floor of Gleann Tuath and the surrounding slopes, as well as the sea, which can be conveniently entered through the sheltered bay at the mouth of the valley.

The incidence of multiple burials in cists, whether simultaneous or successive, is relatively high; inhumation is the usual burial rite, although cases of mixed inhumation and cremation are recorded (Cavers Mains, Roxburgh; Christison 1897). The commonest form of simultaneous burial is that of an adult female, probably the parent, and a newly born child, but there are also examples of adult males, as well as females, being buried with older children (Kirk & McKenzie 1955, 1-6; Kenworthy 1977, 83). Less common are instances where, because both skeletons are articulated, simultaneous adult inhumation appears to have occurred; the adults may both be male (Hay Chalmers 1868), or both female, but simultaneous male and female burials are rarer. The inhumations from Cist 1 at Traigh Bhan represent a further type of multiple burial, in which

the interments were successive; such cases are normally identified by the careful rearrangement of the earlier skeleton to allow the deposition of the second body. The bones of the primary burial may be either neatly redeposited at one end of the cist, as in this case, or laid in a semi-articulated state along the side of the cist (West Pinkerton, East Lothian; Stevenson 1939, 231–3). In terms of ritual, the closest parallel to Cist 1 is a cist from Balbie Farm, Burntisland, Fife (Piggott 1948), where the skeleton of the primary burial (an adult female) was rearranged and placed with a food vessel by the head of an articulated crouched adult male.

Cist 2 also contained two adult inhumations; later disturbance had made it impossible to tell whether they were simultaneous or successive, but the latter is the more likely. As already noted, successive burials are comparatively rare, and the discovery of two burials in the same cemetery is most unusual, although this may also have happened at Buckstone Road, Edinburgh (Close-Brooks 1974). The cemetery as a whole is closely paralleled by that at Kilmaho, Argyll, where there were three cists, one of which contained two adult inhumations (*Discovery and Excavation in Scotland 1959*, 3; RCAMS 1971, 50–1, no 77).

The concept of successive burial assumes that the disarticulated (primary) skeleton had in fact been interred in the cist for some time before the second burial was added. An alternative explanation, equally in keeping with known later Neolithic burial practices, is that the primary skeleton had been stored for some time prior to burial, and was already in a disarticulated state when it was buried along with the articulated skeleton. The radiocarbon dates for Cist 1, however, appear to make such an explanation less likely than that of simple successive burial.

No capstones were found on any of the cists, nor were any large slabs visible nearby, and it is possible that the cists originally had wooden coverings.

A group of three cists at Uragaig, Colonsay, contained burials accompanied by food vessels but the pots themselves do not appear to have survived. The vessel from the first cist is described as being 'from seven to eight inches in extreme diameter and probably as much in height . . . elaborately ornamented with the usual diagonal lines impressed on the soft clay by means of some simple notched or toothed implement'. The fragmentary vessel from the second cist was perhaps more comparable to that from Traigh Bhan; it is described as 'a very plain urn, the only decoration, a little notching round the lip' (Society of Antiquaries of Scotland MS no 175; a copy has been deposited in the National Monuments Record of Scotland).

The pottery vessel (fig 3), though virtually complete (only a part of the base is missing), had been severely distorted by the weight of sand above it; it measures 198 mm in height, 188 mm in rim diameter and 90 mm in base diameter (Museum of Islay Life, Port Charlotte, IMT.81.27). Orange-brown in colour, the outer surface is well-smoothed, with a marked carination about two-thirds from the bottom of the vessel. Only the rim is decorated, the outer lip having a single line of whipped cord ornament, the broader inner bevel having a series of infilled interlocking triangles neatly executed in the same technique. The vessel cannot be easily categorized within the existing terminology; the absence of decoration on the exterior surface and the relative squatness of its proportions serve to distance the pot from the food vessel class, but in general our understanding of the range of such material is based on areas of Scotland other than the Atlantic coastline. Indeed apart from the vessel from Uragaig, Colonsay, mentioned above, few comparable examples can be cited. Two pots of similar shape, but of very different size, may also be mentioned, though neither have the distinctive elaborately decorated rim; a smaller vessel comes from Craighuadh, Killean, Kintyre (Ritchie 1967, 94, pl ix), and a much larger vessel comes from Kneep, Lewis, which held a cremation deposit, carbonized material from which produced a radiocarbon date of 1460 bc ± 55 (GU-1174) (information from Dr Joanna Close-Brooks).

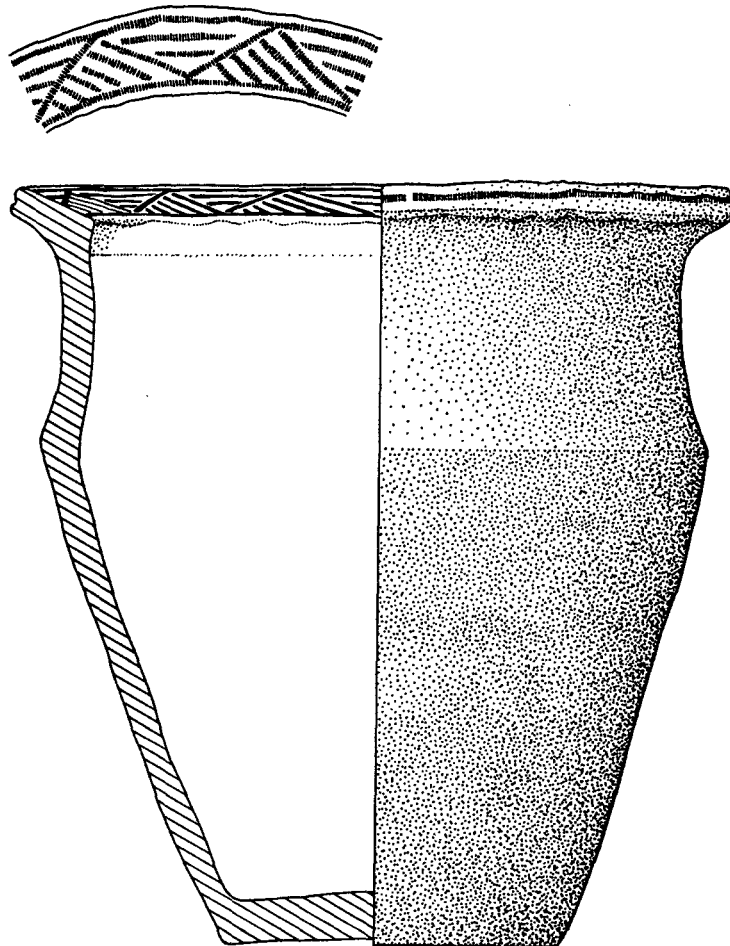


FIG 3 Traigh Bhan, Islay: food vessel from Cist 1 (scale 1:2)

FLINT by C R Wickham-Jones, National Museum of Antiquities of Scotland, Artifact Research Unit

- Natural Pebble
- 1 Orange; corticated; patinated; 17:11:07; Cist 2.
- Secondary Chunk
- 2 White; corticated; 33:21:07; Cist 1.
- Inner Chunk
- 3 White; corticated; 26:16:07; Cist 1.
- Primary Flakes
- 4 White/orange; corticated; 24:27:08; Cist 3.
 - 5 White/pale grey; corticated; 26:19:09; Cist 1.
- Inner Flakes
- 6 White; corticated; artificial faceted platform; hinge ended; 21:24:07; Cist 1.
 - 7 White; corticated; artificial platform; 26:21:08; Cist 3.
 - 8 Orange/pale grey; corticated; broken; proximal segment surviving; artificial platform; 20:17:05; Cist 1, inside pot.

Notes

- i All pieces are of flint.
- ii When examined, they are always held with the dorsal face uppermost and the proximal end towards the observer.
- iii Dimensions are given in millimetres in the order; length:width:thickness. For pebbles, chips and chunks, these axes have been arbitrarily chosen.
- iv Length is measured along a line at 90° to the platform of the piece; width is in the same plane, and at 90° to the length, along a line taken across the widest part of the flake; thickness is measured from the ventral surface to the highest point of the dorsal surface along a line perpendicular to both length and width. Each measurement gives a maximum reading.
- v Chips and chunks have neither a platform nor a ventral surface. The largest dimension of a chunk is over 15 mm; that of a chip is under 15 mm.
- vi Cortication refers to the matt discoloration, usually white or cream, that may eventually cover the surface of a flint; patination is the lustrous sheen that may subsequently develop (Shepherd 1972, 114–18).

The eight pieces from these cists are all of flint and probably represent the knapping of local beach pebbles. No fresh black flint is present. Where the cortex exists it is always well-rounded and abraded. There is one small unworked pebble (no 1), from Cist 2. Every piece is corticated; this has occurred after deposition in response to the surrounding conditions and does not reflect the appearance of the flint when in use. It is probable that more colours were previously present than are now visible.

Only five of the pieces are actual flakes with ventral surfaces and/or platforms, too small a number to give any technological detail about the manufacture of the assemblage. The three inner flakes, nos 6–8, all preserve their platforms. In each case an artificially flat area has been created upon which to strike, and on no 6 this has been further prepared by faceting to aid the blow. This, however, is the only technological information that may be drawn from the flakes.

None of the pieces has been retouched. Although some may have been used unaltered, detailed microscopic study would be necessary to confirm this; such examination, however, was not possible for this study.

APPENDIX I

Skeletal Remains from Traigh Bhan, Islay by *Dorothy A Lunt*, Department of Oral Biology Dental Hospital and School, University of Glasgow, and *A Young*, Department of Anatomy, University of Glasgow.

The positions of the major bones that can be identified, or of major concentrations are indicated on fig 2, and the numbers are given in parentheses in this Appendix.

CIST 1, BODY 1

Skull and Dentition

The teeth that were packed with the skull all belonged to this individual. Of the seven loose teeth sent separately and assigned to Body 1, six can be assigned with reasonable certainty to this individual. However, a lower canine cannot belong to Body 1, which already has both lower canines *in situ* in the mandible. This additional lower canine was found to fit an empty lower canine socket in Body 2 and was transferred to that individual. This shows that there has been some slight mixing of the two skeletons, and in the direction opposite to what might be expected: thus it would not be surprising if a loose tooth from Body 1 had remained in the centre of the cist when Body 2 was inserted; whereas in fact an isolated tooth from the later Body 2 had found its way to the disturbed Body 1.

The skull was broken up into a number of pieces, but most parts were present. There are two holes (probably trephine holes) in the calvarium in front of the bregma, that on the R of the mid-line measures approximately 13 mm by 9 mm at the level of the inner surface, while that on the L is 20 mm by 10 mm at its widest; neither shows any splintering of the inner table, and the margins slope outwards to the outer table. The appearances of these margins suggests that the one on the L possibly preceded that on the R by some time, and that the one on the R had perhaps been made near to the time of death. The calvarial bone is fairly thick, the supraorbital ridges are marked, the frontal sinuses are large and extend

well laterally, the mastoid processes are strong and well-developed, and the occipital muscle-markings are also well-developed.

Fragments of both sides of maxilla and mandible (fig 2, no 9) are present, the body of the mandible being fairly deep and strongly built. Twenty teeth could be fitted into sockets in the incomplete jaw bones and there are an additional four loose teeth which by their appearance belong to the same individual.

The degree of attrition of the teeth is relatively slight. There is no evidence of dental caries. Marked chipping of the crowns of three of the first molars could be due to hypoplasia of the enamel, but since the remaining molar shows no sign of this developmental defect, the chipping is more likely to have been caused *post mortem*.

There is moderate to severe horizontal resorption of the alveolar bone, which affects all areas. Immediately distal to the maxillary first molars there has been a gross loss of alveolar bone and probably abscess formation, and it seems certain that the second molars had been lost *in vivo*. There is no means of telling whether the third molars had also been lost *in vivo* or whether they had been congenitally absent, but they cannot have been present at the time of death. Such very severe destruction of alveolar bone in localized areas without obvious cause is not common, and what makes this case even more unusual is that the condition has affected both sides with complete symmetry of the lesions.

The degree of attrition of the molars suggests a young individual, aged about 20–25, but the severity of periodontal disease is unusual at this age. Either the individual had suffered from unusually early onset of periodontal disease, or the rate of attrition was slower than expected and the individual is rather older, perhaps in the late 20s or early 30s.

In summary the dentition present may be represented as follows:

$$\begin{array}{r|l} 6543 & 123456 \\ \hline 8765432 & 1234567 \end{array}$$

Vertebra: part of a 2nd cervical; *Clavicle*: L (below skull and on foot of Body 2); *Scapula*: part of R; *Humeri*: shaft of L, the lower end is separate and is incomplete in that it lacks the epiphyseal parts (fig 2, no 6); most of the shaft, but lacking both ends, of a R (fig 2, no 11); *Radii*: shaft of ? L, lacking both ends (fig 2, no 8); shaft lacking both ends of ?R (fig 2, no 2); *Ulnae*: broken upper half of a L (fig 2, no 3) upper end of R (fig 2, no 12), further fragments possibly of the same bone (fig 2, no 10); *Sacrum*: fragments; parts of a *Hip-joint*; *Femora*: shaft, lacking both ends, of L (fig 2, no 4); shaft and lower end of R, separation of these pieces apparently occurred at the epiphyseal plate, indicating an upper age around 20–22 years (fig 2, no 4); *Tibiae*: shaft, lacking both ends, of L (fig 2, no 5); shaft, lacking both ends, of R (fig 2, no 7).

The puzzling thing about this body is the absence of the epiphyseal portions of these long bones. The only one found had separated from the shaft (R femur). This may well imply an age lower than that indicated by a study of the dentition, perhaps an age of about 17 years.

CIST 1, BODY 2

Skull and Dentition

During removal from the mass of sand it was possible to retain the major part of the cranial vault intact. Though the cranial base and some of the facial bones were in more or less their original positions, these areas had been shattered in the ground and could not be kept intact.

The teeth that were packed with the skull all belonged to this individual. The three loose teeth sent separately and assigned to Body 2 all belong definitely to this individual. In addition, as already described, one of the loose teeth ascribed to Body 1 actually belongs to Body 2.

The skull, though fragile, was slightly better preserved than that of Body 1. It has a similar rounded calvarium; supraorbital ridges are slight, the frontal sinuses are small, as are the mastoid processes. The forehead was high and the nose was probably prominent. There is a small bony nodule fixed to the frontal bone 40 mm above the L supraorbital foramen just to the L of mid-line. The R temporal bone has a bony bridge (8 mm wide) across the groove for the sigmoid sinus – there is no sign of such an abnormality on the L temporal bone, which is damaged at this point. The coronal and sagittal sutures are obliterated both internally and externally, but the lambdoid suture with several wormian bones is not fused.

Fragments of both sides of maxilla and mandible are present. Thirteen teeth are *in situ* and there are a further fourteen empty sockets. The right side of the mandible is missing behind the premolars. The mandible is smaller and more delicate than that of Body 1, and has a small, pointed chin.

There is moderate attrition of most teeth, but the maxillary first molars are particularly heavily worn. The degree of attrition suggests an age at death of about 30–35 years.

Severe horizontal resorption of alveolar bone is present in all areas, and in many cases has progressed to severe periodontal disease, with the formation of infected pockets, particularly round the molars. Obvious pockets are present around 76] and 78] and in the case of 6] there are abscesses on two of the roots, though it is not certain whether these are due to periodontal disease or to the severe attrition experienced by this tooth. A good deal of calculus is present and extends quite far apically on some of the roots.

Two small carious cavities are present, at the necks of the maxillary right second premolar and first molar. They are secondary to periodontal disease.

This dentition shows a fairly well-advanced stage of breakdown, with loss of most of the supporting bone of some teeth and less severe bone loss in the case of other teeth.

In summary the dentition may be represented as follows:

$$\begin{array}{r|l} 7654 & 3456 \\ \hline & | 3 \ 5678 \end{array}$$

Clavicles: L (found under the skull); R medial end; *Vertebrae*: several fragments including pieces of ? lumbar vertebrae; *Ribs*: fragments; *Scapulae*: pieces of L and R scapular spines; *Humeri*: two pieces, less head and lower condyles of L (fig 2, no 2, 6); lower end, less the condyles, probably of a R (fig 2, no 2, 3); head of a ? humerus; piece of shaft of a forearm bone; *Ulna*: pieces of R (overlying 4 and 5); *Metacarpals*: four; *Phalanx*: one proximal carpal; *Sacrum*: possible fragment; *Innominate bone*: fragments including part of R; *Femora*: shaft and other fragments of L (fig 2, no 2, 4); shaft and pieces of R (fig 2, no 2, 1); head of a femur; *Tibiae*: pieces of L (fig 2, no 2, 5); pieces of shaft of L (fig 2, no 2, 7); pieces of R (fig 2, no 2, 2) and other fragments; *Calcaneum*: pieces of R (fig 2, no 2, 2); *Talus*: pieces of R (fig 2, no 2, 2).

No epiphyseal parts were present, except for the parts of R femoral condyles, a femoral head and a ? humeral head, and these showed no evidence of persisting epiphyseal plate. The size of the femora and the condition of the cranial sutures, however, are in accord with the assessment of age, suggested by the dentition, as adult, around 30–35 years of age; this individual was probably female.

CIST 2

Skull and Dentition

One small fragment of a mandible is present and there are seven isolated permanent teeth. Five of the teeth show a similar degree of wear and could have come from an individual in the late teens or early twenties, but no older; one of these teeth is a right maxillary first molar. The other two teeth show a very much greater degree of wear, such as to suggest an individual of 30–35; one of these teeth is also a maxillary first molar, but from the left side. The mandibular fragment contains three very shallow molar sockets and probably belonged to this older individual. No tooth is duplicated, so it is not possible to prove that two individuals are represented here. But it seems most unlikely that maxillary molars on opposite sides of the same jaw could show such widely differing degrees of attrition. None of the teeth shows evidence of dental caries.

In summary the dentition may be represented as follows:

$$\begin{array}{r|l} \text{Less worn} & 6 \ 3 \ | \ 4 \\ & \hline & 54 \ | \\ \text{Heavily worn} & | 6 \ 7 \ \text{or} \ 8 \end{array}$$

Clavicle: pieces of L (fig 2, no 9); *Vertebrae*: two pieces of lumbar vertebra (fig 2, no 6); fragment of another; *Rib*: L 1st; fragments of others (fig 2, no 9 and beneath nos 8 and 12); *Humeri*: shaft of L in two pieces and lower half of R (all articular parts of these two bones are missing); part of a ? humeral head; *Radii*: upper half of L (fig 2, no 5); part of another L (fig 2, no 11); shaft of R (less both ends); two *Carpal phalanges* (fig 2, no 9); *Metacarpals*: shafts of two; fragment of another (fig 2, no 9); *Femora*: upper half of L, less head and some of the neck (fig 2, no 1) – the epiphysis for the lesser trochanter is fully fused to the shaft and the age is thus over eighteen years – this bone is heavy with well-marked muscle attachments; pieces of the head, probably of a femur; one fragment of cortex seems to fit the broken

margin of the neck of the L femur described above (fig 2, no 1); upper end of L of massive build (fig 2, no 8) and a further fragment of it (fig 2, no 2); shaft of R (fig 2, no 4) and head of a R, probably belonging to the same bone (under no 5); ? upper end of the shaft of a femur, ? R (fig 2, no 3); part of the head of a femur (fig 2, no 6); *Tibia*: fragments, ? L (fig 2, no 8); *Cuboid*: possible fragment; *Calcaneus*: fragment; *Metatarsals*: basal half of R 5th. Pieces of long bone shafts.

The evidence both of the dentition and of the other skeletal remains suggests the presence of two bodies in the cist, one possibly in late teens or early twenties and the other between 30 and 35.

Animal

A complete animal tooth is also present and can be identified as a bovine maxillary right first deciduous molar. The tooth shows very little wear: less than that of a modern calf aged 4 weeks, so the animal was probably less than a month old. Two small fragments of animal tooth are probably also bovine but cannot be identified exactly; they appear to be from an older animal.

APPENDIX 2

Skeletal Material and Radiocarbon Analysis

CIST 1, BODY 1

A radiocarbon date of 1380 bc \pm 95 (GU-1378) was obtained from analysis of the collagen of bones 1, 4 and 7 (L and R Femora, and L and R Tibiae).

CIST 1, BODY 2

A radiocarbon date of 1055 bc \pm 105 (GU-1379) was obtained from an analysis of the collagen of bones 1, 4 and 5 (L and R Femora, and L Tibiae).

CIST 2

A radiocarbon date of 1260 bc \pm 120 (GU-1380) was obtained from an analysis of the collagen of the bones; it was thought useful that a date be sought, although the skeletal material was mixed, in order to provide a general chronological guide for the use of the cist. The skeletal material used included bones 1, 2, 4, 8 and 9 (femora, tibia, clavicle, carpals, metacarpal and ribs), as well as a bag containing smaller fragments already listed (*Rib*: L 1st; *Humeri*: L two fragments, lower half of R shaft; *Metacarpals*: shafts of two; *Radius*: R less both ends; *Metatarsal*: basal half of R 5th; fragments of long bone shaft).

The remaining bones have been deposited in the Royal Scottish Museum, Chambers Street, Edinburgh.

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