

# Excavation of a chambered cairn at Dalineun, Lorn, Argyll

by J N Graham Ritchie

with contributions by A S Henshall, I J McInnes and C B Denston

## INTRODUCTION

The chambered cairn of Dalineun or Loch Nell South (ARG 3; NGR NM 879267) is situated in pasture about 3 km SE of Oban at the southern end of Loch Nell and about 275 m S of the farmhouse of Dalineun. It stands in an undulating area of sand and gravel at a height of some 7 m above the level of the loch (Donner 1959, 227, fig 3; Sissons 1967, 137–9). There are a number of other cairns in the vicinity including the round cairn on one end of the sinuous esker known as the ‘Serpent Mound’, 180 m to the N (Loch Nell North; ARG 46), as well as groups of round cairns on the adjoining farms of Moleigh and Cleigh. The earliest detailed description and illustration is that of Angus Smith, who visited the site in 1869; comparison of Smith’s description as well as that of Pitt-Rivers, who visited and planned the site in 1885 (Pitt-Rivers 1885), with the state of the cairn at the present time suggests that it has suffered little disturbance in the last century. Smith records, however, that some sixty or seventy years prior to his visit the granite capstone of the chamber was partly broken to make a millstone (1872a, 104, pl xii; 1885, 249–50). This may suggest that much of the denudation of the surface of the cairn had taken place by the beginning of the nineteenth century. The cairn was also mentioned along with the other monuments in the area by the Ordnance Survey in 1870 (OSNB *Argyll*, no. 19, p 78).

In 1967 the cairn was initially surveyed by the officers of the Royal Commission on the Ancient and Historical Monuments of Scotland during the preparation of the Lorn volume of the *Inventory of Argyll*, and its two main structural features, namely a chamber of *Clyde* type and a cist built of large slabs, were noted and planned. Following the excavation of the chambered cairn at Achnacreebeag (ARG 37), carried out by the writer between 1968 and 1970, where it was possible to show that a simple megalithic chamber preceded a small passage-grave (Ritchie 1970), it was thought that examination of the Dalineun site might offer an opportunity to study the relationship of a *Clyde* chamber to a simple and yet massively-built cist. Accordingly excavations were undertaken in 1970 and 1971, and, although the evidence was not altogether conclusive because of the disturbed nature of parts of the site, at least four broad phases of use were indicated. The first phase saw the construction of what was probably a heel-shaped cairn containing a *Clyde* chamber, in which neolithic burials were deposited; a second phase in which beaker burials were added to the chamber and a small cist was inserted into a pit dug immediately outside its entrance; a third phase in which a heavy layer of blocking was laid in position outside the entrance to the chamber, thereby covering the small cist and effectively sealing off any further access to the chamber; a fourth phase in which a massive cist, perhaps originally containing a food vessel, was inserted into the cairn material behind the chamber.

## EXCAVATION (fig 1)

*Cairn* Before excavation the cairn appeared to be an irregular grass-grown stony mound measuring 18 m by 15 m and standing to a height of about 1.25 m; the top of the *Clyde* chamber and its capstone stood above the level of cairn material, as did the tops of the sides of the massive cist behind the chamber. Stone-robbing had taken place mainly in the centre of the cairn and at its E side, but a considerable peripheral fringe of the original cairn material had been left undisturbed. This was surmounted by a band of small stones and chips; it is possible that this represents material too small to be worth removing and also the debris left by dressing some of stones on the site before carting them away. Sections made at several points round the W half of the perimeter show that the cairn had a massive boulder kerb, which in places was stepped inwards on successive levels. In spite of this, however, a certain amount of cairn material had slipped outwards beyond the kerb. Four distinct layers could be distinguished in the body of the cairn material (fig 1): (1) a layer of topsoil and disturbed material, (2) the stones of the cairn material free from any admixture of earth, (3) the basal layer of stones which are surrounded by a grey-brown silty deposit (representing material washed down through the cairn over the centuries), (4) a thin old land surface deposit of brown earthy material with charcoal flecks. Beneath this was the reddish-brown natural gravel.

The original line of the façade of the cairn on either side of the entrance to the chamber could not be determined as no kerb-stones remained. The line of the kerb-stones on the NW half of the cairn suggests, however, that the façade had been straight. There was no indication of the continuation of the kerb to create a concave façade and, alternatively, there is no evidence that there had been a small original round cairn with its kerb much closer to the *Clyde* chamber than the present edge of the mound. The original cairn appears to have been approximately heel-shaped, measuring about 12.5 m along the straight NE side, and about 11 m in overall breadth, but its shape is difficult to interpret because of quarrying. The E side of the cairn is pitted by small quarries and, perhaps because this is the part of the cairn most accessible to the road, it seems from surface evidence to have been more severely disturbed than elsewhere.

An unusual and puzzling feature at the NE end of the cairn was the presence of an artificial layer of black soil (about 15 mm thick) consolidated with stones of medium or small size, extending outside the entrance to the chamber on the old land surface and definitely antedating the blocking (pl 9b). On the upper surface of this layer and also within it there were at least four spreads of charcoal and several smaller scatters of tiny flecks. The smears of charcoal did not, unfortunately, contain fragments suitable for radiocarbon determination. The most likely interpretation of this layer is that the earth is the original land surface in which the stones were deliberately laid to provide a firm area immediately in front of and round about the tomb during and subsequent to its construction. But it is also possible that the layer was designed to bring the ground outside the tomb up to the level of the sill-stone. A small cist was inserted into a pit dug into this layer and the depth of the pit and the level of the capstone are related to it; for this reason the cist is also taken to antedate the final blocking of the tomb. Four unaccompanied patches of cremated bone (Cremations III–VI, pp 60–1) are indicated on fig 1; it is not possible to assign these to any particular phase of use of the cairn, although it is possible that Cremation IV may originally have been deposited in the massive cist (as may Cremation II).

*The Clyde Chamber* The burial chamber belongs to the *Clyde* type of chambered cairn described by Scott (1969a) and Henshall (1972, 15–110). Having its long axis aligned NE–SW, the chamber was composed of six large upright stones forming the sides and rear wall and

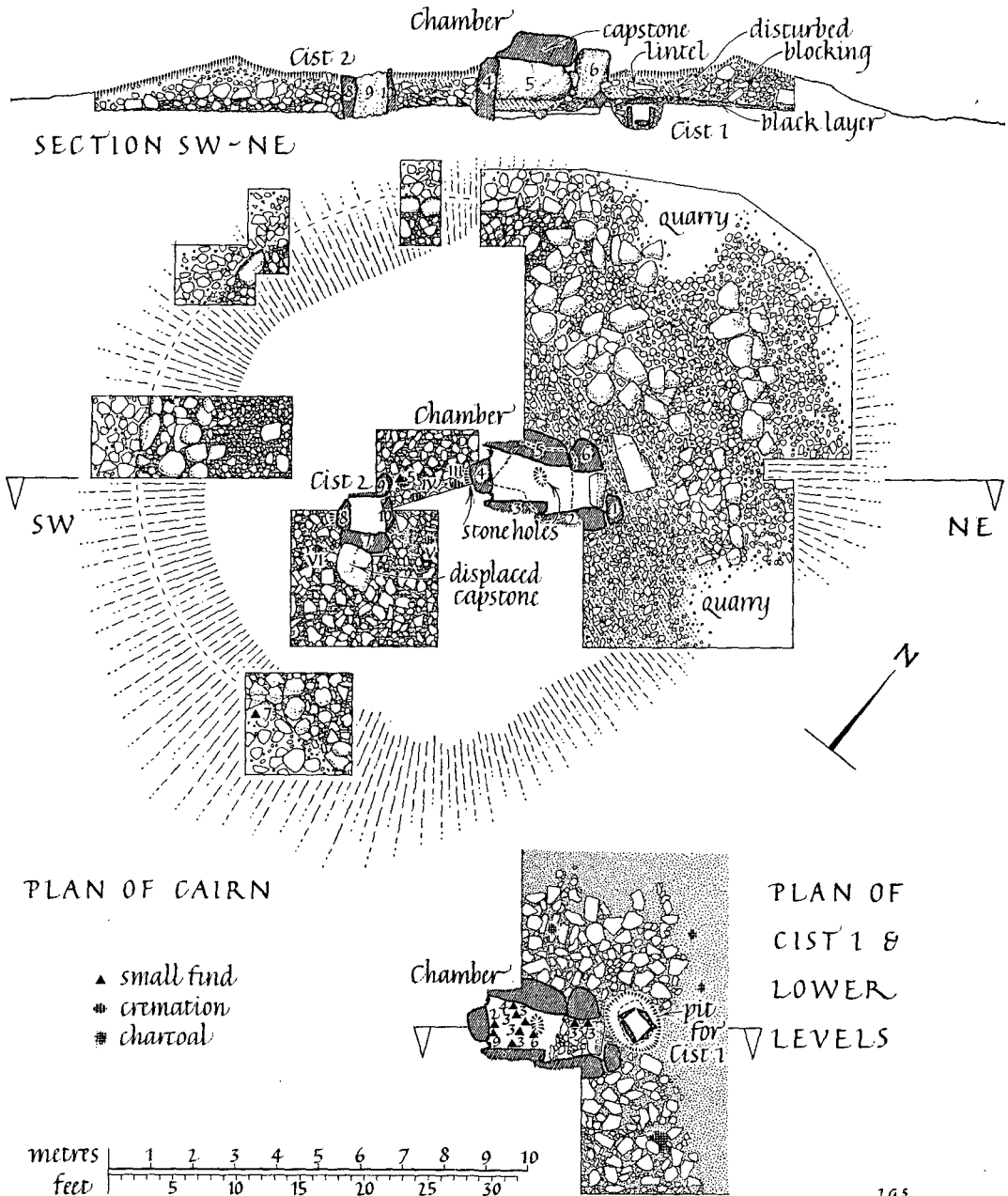


FIG 1 Dalineun chambered cairn (ARG 3); excavations 1970-1

roofed by a massive granite capstone measuring 1.95 m by 1.7 m and between 0.7 m and 0.75 m in thickness. Entered across a low sill-stone laid transversely between two portal-stones (nos 1 and 6), it measured 2.5 m by 1.2 m internally with the underside of the capstone between 1.1 m and 1.4 m above the level of the floor. The N side of the chamber consists of two stones, the portal (no. 6) and a massive slab (no. 5) which measured 2.3 m in length and 0.5 m in thick-

ness and stood to a maximum height of 1.3 m. The S side was formed by the portal (no. 1) and two other stones (nos 2 and 3). Stone 2 measured 1.6 m in length, 1.1 m in height and 0.5 m in thickness; stone 3 was 1.5 m long, 1.17 m high and 0.28 m thick. The back-slab (no. 4), measuring 0.85 m by 1.5 m by 0.5 m in breadth, height and thickness respectively, was firmly bedded in the ground with its pointed base tightly wedged with chock-stones. It was thus structurally important in supporting side-slabs 3 and 5, which were merely resting on the ground surface. Similarly stone 2, which at its W end overlapped stone 3, was supported at its E end by the sill-stone. The N end of the sill-stone in turn bore against the portal-stone (no. 6) which, like the back-slab, was firmly lodged in the ground and was self-supporting. The sill-stone was on the outside firmly supported by a series of stones under it.

The interior of the chamber had originally been divided into two compartments by a transverse slab, the inner compartment measuring 1 m by 1.15 m, and the outer compartment 1 m by 1.1 m. The transverse slab no longer survived, but the hole in which it had rested was clearly visible, measuring 0.5 m by 0.25 m and up to 0.15 m in depth. It was filled with a grey gritty silt, contrasting sharply with the natural orange gravel of the floor on either side. As the stone hole was filled with silt and not with the earthy material of the upper levels of the chamber, it seems likely that the transverse slab had been removed in antiquity, possibly at the time of the filling of the chamber. The slab can never have fulfilled any supporting function to the side-slabs.

The greater part of the chamber was roofed by the capstone, which, despite the two corners which have been knocked off it, remains a most impressive block. The E end of the chamber, however, bounded by part of stone 2 and the two portals, must originally have been spanned by a lintel of porphyrite, which was found overturned in front of the chamber. The lintel, measuring 1.45 m in length, 0.7 m in width and 0.46 m in maximum thickness, appeared to have been deliberately trimmed to fit neatly against the E end of the capstone. It had evidently been dislodged when the chamber was disturbed and the capstone broken (pl 10a).

The interior of the chamber had been so severely disturbed that only a thin layer (varying from 50 to 200 mm in thickness) of the original filling of stones and brown gravel survived. This was covered by a deposit of modern debris about 25 mm thick. The chamber may have been re-used or cleared out on a number of occasions, as the floor had been dug out to below the level of the natural (see Section, fig 1). The finds from the chamber (prefixed SF and catalogued on pp 57–9) comprised two sherds of neolithic pottery (SF 1) found unstratified among the modern debris, sherds of at least three different beakers, SF 2 and 4 lying within the undisturbed layer in the innermost compartment, and fragments of SF 3 found both in the undisturbed layer and among the original blocking of stones which had been protected by the sill-stone; a flint point (SF 6) and a flint flake (SF 9) were also recovered from the original filling, the latter associated with SF 2. With the beaker sherds in the blocking were fragments of bone on which Dr A S Clarke of the Royal Scottish Museum, Edinburgh, has provided the following comment. 'All the fragments are in much the same state of degradation and most show such similarities of form as to suggest an initial unity. Several fragments would appear to be parts of mammalian limb bones and one has just sufficient intact outer surface to be significant. Direct comparison with the mid-region of a human left tibia strongly suggests that the fragments are in fact human remains.' A number of white smears were observed on the gravel floor of the chamber. These were examined for phosphates by the molybdate/vanadate technique in the Research Laboratory of the National Museum of Antiquities of Scotland, Edinburgh, to discover whether they might yield traces of inhumation burial. The phosphorus content was much higher than the local control sample, and it seems likely that the smears are indicative of skeletal remains.

*Small Cist* (pl 10b) Immediately in front of the chamber, and with its long axis parallel to the entrance, a cist had been constructed in a pit dug into the natural gravel, so that its capstone would not have protruded above the surface of the artificial layer of stones and earth at the entrance to the tomb. The pit measured 1.15 m by 1.5 m and was about 0.6 m in depth. The cist, which measured 0.6 m by 0.4 m internally and about 0.3 m in depth, consisted of four upright slabs, a floor slab and a capstone. It contained an unaccompanied cremation, remains of which were found scattered throughout the gravel filling. A considerable quantity of the cremated remains had also been deliberately inserted into the filling of the pit along with the stones and gravel of the packing. Careful examination of the bones demonstrated that the deposits, both inside and outside the cist, comprised the remains of an adult, possibly female, an immature individual and a number of pig phalanges (Cremation I).

*Blocking* (pl 9a) In front of the chamber there was a semi-circular mass of stones laid in position to seal the tomb, but there was no indication that the entrance to the chamber had been filled with stones or dry-stone walling. With the addition of the blocking the cairn assumed its final oval shape. The E half of the blocking had been virtually destroyed by quarrying and stone-robbing, but the surviving features suggest that what was found in the W half had originally been mirrored on the E. On the W side, an arc of large boulders had been laid out in front of the entrance with an outer and rather straighter line of boulders set between 4 m and 5 m from the entrance. Between the two lines and beyond the outer one there was a mass of much smaller stones. A feature of the W half was a capping of large angular stones in several concentric lines following the general line of the kerb, though at a higher level than the kerb-stones (pl 9a). Only a small portion of the original blocking remained on the E half of the cairn, but four stones of the inner line and one massive boulder of the outer remained *in situ*, with an area of smaller stones and rubble between them and also covering them. Elsewhere on this half the blocking and cairn material had been completely robbed and only the stones of the black earthy layer in front of the tomb remained.

*Massive Cist* (pl 10c) Before excavation the tops of three large upright slabs (nos 8-10) could be seen protruding through the cairn material at a distance of 2 m behind the chamber. Further investigation revealed that these slabs, together with a fourth (no. 7), formed the sides of a massive cist roughly square on plan, measuring 0.85 m by 0.85 m and about 1 m in depth. Stones 8 and 10 were firmly bedded into the natural subsoil and stones 7 and 9 were leaning against them with their bases resting on the ground-surface. The capstone (0.9 m by 1 m and up to 0.34 m in thickness) had been dragged off and was lying dislodged near by, but it would originally have rested on stones 7-9 with its N edge up against the inner face of stone 10. The contents of the cist had been completely removed, but a crushed food vessel (SF 5) and a quantity of cremated bone, which were found near the cist on the N side, may have formed part of the original burial-deposit. On both sides of the cist, the crater in which it had been built was visible in the composition of the cairn material. To the SW it is distinguished as a pit cut through the cairn material, which was back-filled with smallish stones (in contrast to the large blocks of the cairn) intermixed with a rich red-brown earth of clayey consistency (in contrast to the comparatively earth-free cairn material). On the NE side, although the disturbance had gone to a greater depth, the hole in which the cist had been constructed appeared to be filled with stones mixed with a lighter-brown and more clayey earth than was to be found in the cairn material. In spite of sectioning, however, stone-robbing and disturbance had been too severe to permit proven conclusions, but nevertheless the evidence pointed to the massive cist being a secondary intrusion and not a primary structure.

## DISCUSSION

*Structure* The *Clyde* chamber belongs to a group of chambered tombs which has recently been discussed in detail by Scott and Henshall. The transverse slab, of which only the socket survives, indicates that the chamber belongs to the group of two-compartment sites, such as Cladich (ARG 4) and Shuna Cottage, Shuna (ARG 51), although it is unusual for a single long slab to form the wall of both compartments. The structural function of the sill-stone may perhaps be compared with the bracing-stone of the N chamber of Mid Gleniron I (WIG 1) and the similar function of the stone at the back of the chamber at Nether Largie South (ARG 23). The integral part of the sill-stone in the stability of the chamber shows that it is not possible to envisage stone no. 6 as a later addition to the construction of the chamber, while the necessity of placing the lintel on top of both stones 1 and 6 shows that the chamber is of unitary construction. The use of impressive portals coupled with the absence of any façade may be compared, for example, to Ardnadam (ARG 18), Brackley (ARG 28) and Cairnholy II (KRK 3), although the last two sites are of multi-period construction. The absence of a façade or even of a visible edge to the cairn either in line with, or curving back from the portals is one of the most puzzling features of the site. The most likely solution, however, appears to be that no massive orthostatic façade ever existed, and that the E end of the cairn, like the rest, was originally kerbed by a series of massive boulders, similar to the kerb of the passage-grave of Achnacreebeag 11.3 km to the NNE, and that this kerb was deliberately destroyed so that the boulders could be re-used in the blocking of the tomb. The large stones of the blocking may thus be the original kerb of the cairn. The re-use of stones in this way might perhaps be compared to the re-use of the roof and corbel stones of the chambered tomb at Embo (SUT 63) in the construction of the intrusive food vessel cist (Henshall and Wallace 1963, 15).

The insertion of a small cist into a pit in front of the entrance to a *Clyde* tomb appears to be without parallel in Scotland, but may be compared with the insertion of a round cist containing a cinerary urn into the floor of the ante-chamber of the wedge-shaped gallery-grave at Kilmashogue (Co. Dublin; Kilbride-Jones 1954, 466). The position of the cist at Dalineun shows that the burial took place before the blocking of the tomb and, taken with the beaker pottery in the chamber, this indicates that the final ritual acts were undertaken at a similar time to the blocking of the passage-grave at Achnacreebeag (ARG 37). It is not possible, however, to assert that all three beakers were inserted into the tomb at the same time. Only SF 3 occurred in the chamber deposits and also in undisturbed blocking material; SF 2 and 4 were separate compact deposits on the floor of the chamber and thus might be taken to indicate previous, and possibly unconnected deposits, unassociated with the blocking. This problem cannot be resolved, but the deposition of beaker sherds in chambered cairns prior to the blocking of the tomb may be instanced from Cairnholy I (KRK 2; Piggott and Powell 1949, 133).

The black layer in front of the entrance may possibly be compared to the discovery of such a deposit at Monamore (ARN 9) where a much thicker layer, rather less than a metre in depth, had accumulated in front of the entrance. The thickness of the deposit is due to the down-slope orientation of the tomb and may be the result of soil movement. Spreads of charcoal were encountered in this grey earth layer (layer 4) as well as a few sherds of pottery. In front of the entrance to the tomb were several slabs forming a 'pavement', and it was suggested that they had been laid 'to prevent the earth which was accumulating in the forecourt from entering the tomb chamber and as a way of consolidating what must have been a slippery muddy patch at the entrance' (MacKie 1964, 13).

Hearths and spreads of charcoal beneath the blocking of chambered cairns were discussed

by Piggott and Powell following the excavation of Cairnholy I and several Irish examples quoted (1949, 131-5); the problem has more recently been examined by Henshall (1972, 77-8). At Ballyalton (Co. Down) there was a paved area between the horns of the façade (Evans and Davies 1934, 85, fig 1), and in the forecourt at Doey's Cairn, Dunloy (Co. Antrim) Evans found evidence of a 'rough cobbled floor, by no means regular, made up of pebbles, some six inches in diameter, sunk into the till' (1938, 63). But such features are probably the result of local conditions, and no broad conclusions should be drawn.

Cists in which the cremated deposit has been deliberately mixed with an earth and gravel filling have been recorded at a number of sites in Scotland including Balbirnie (Fife) Cist 3, with a food vessel on the floor of the cist (*DES* (1970), 61) and at Glenreasdell Mains, Kintyre (Argyll) Cist 2 (MacLaren 1969, 111). It is no doubt a common practice connected with the gathering up of the cremated remains from the pyre, but there was no charcoal and ash inter-mixed with the Dalineun example in contrast to the filling of the Glenreasdell cist. In Ireland, examples have been found at Ballyduff, Ballycanew (Co. Wexford) with a food vessel on top of the deposit and a faience bead in it (Hartnett and Prendergast 1953, 51), and at Letterkeen (Co. Mayo) Burial II, with two inverted food vessels at the base of the deposit, themselves covering small quantities of cremated bones (Ó Ríordáin and MacDermott 1952, 92-3). At this site too 'a scatter of cremated bones was found around the side-stones of the cist'. Cremated bone was found below the sides and base-slabs of a cist at Fintona (Co. Tyrone; Jope and Jope 1952). The burial of cremated remains may in some cases have been accompanied by complex ritual involving the construction of the cist after the act of cremation, and the insertion of the bones, sometimes carefully collected and separated from any charcoal or ashes, while the cist was being built.

*Massive Cist* It has recently been suggested that some simple cists of more massive proportions than those normally associated with beakers and food vessels may be the earliest type of *Clyde* chamber, and the excavations of Cairnholy I and II (KRK 2 and 3) have been re-interpreted to show that in their earliest phases simple closed rectangular chambers were probably set within small cairns (Piggott and Powell 1949, 103-61; Scott 1969a, 193-7; Henshall 1972, 56). Certainly the excavation of Mid Gleniron I and II (WIG 1 and 2) demonstrated the existence of simple, though not closed, chambers set within small cairns which, like the Cairnholy examples, were later incorporated or adapted into more elaborate structures (Corcoran 1969a). The presence and chronological priority of such simple chambers are demonstrable when they form integral parts of the construction of a megalithic chamber or cairn complex. When a massive cist stands alone, or without definite stratigraphical evidence of its relationship to other features of a cairn structure, the interpretation of the site is a matter of individual preference. At present there are two schools of thought, one of which uses 'cist' only for small box-like chambers set into the ground (Corcoran 1969b, 97), while the other, to which the present writer subscribes, believes that the term 'cist' may also be used to describe larger above-ground structures like that represented at Dalineun. It is difficult to provide clear evidence of the use of such large cists in second-millennium contexts, for by analogy with the postulated clearing-out of chambered tombs, it can be suggested that the small finds from such cists may not represent the original or even an early deposit (Henshall 1972, 164-5).

It may be argued that at Dalineun the disparity in size between stone 7 and the other three stones of the cist is comparable to the high septal slab of AYR 1, with the possibility that burials were inserted through the gap, like letters into a letter box. The position and size of the capstone at Dalineun do not, however, support this hypothesis, and it is likely that this stone was merely tipped back when the cist was disturbed, for, when replaced, it fits neatly without any gaps.

There are, however, at least three examples of cists inserted into the cairn material of a

chambered tomb, in addition to a larger number inserted into the skirts of a cairn. The sites in question are Embo (SUT 63), Clachaig, Limekiln Cairn (ARN 16) and Nether Largie South (ARG 23). At Embo two cists, both containing food vessels, were inserted into the central area of the mound and, although neither was of remarkable size, one had been built within the chamber of a small passage-grave. 'The makers of the cist must have entered the chamber from above, dismantling the roofing. It is probable that the cist stones are re-used corbel stones, and the fact that the capstone was unnecessarily large suggests that it was the original capstone of the chamber' (Henshall and Wallace 1963, 15). At Clachaig the capstone of the cist was encountered at a depth of about 1.2 m from the top of the cairn material. Although the cist itself was not of 'massive' dimensions (it enclosed an area 0.5 m by 1 m and 0.6 m in depth), it was constructed of several large slabs and contained an inhumation burial, a food vessel, a flint knife and the upper jaw of a young pig (Bryce 1902, 84-91; Balfour 1910, 56-60, 100-1). The internal dimensions of the cist are not similar to those of the Dalineun example, but the size of stones and the work involved in inserting them into a crater in existing cairn-material may perhaps be comparable. Two secondary cists were discovered within the cairn material of the *Clyde*-type chambered tomb of Nether Largie South (ARG 23) when it was excavated by Greenwell, although only one, on the SW perimeter of the cairn, is now visible. To the N of the chamber, and thus presumably in the blocking on one side of the entrance, there was a second cist of rather greater dimensions than the massive cist from Dalineun (it measured 1.6 m by 0.9 m and 1.2 m in depth), which contained a fragmentary food vessel but no skeletal remains (Greenwell 1866, 341-2). Scott has suggested that the shape of the cairn may have been altered at the time of the insertion of these cists (1969a, 313), and has proposed that a similar reconstruction may be envisaged for Dalineun. This comparison has much to recommend it in view of the postulated re-modelling of the NE end of the cairn, when the small cist was covered by cairn material, which also formed the blocking to the chambered tomb.

The primary position of those simple chambers which form the nucleus or part of the sequence of construction of a more complex chambered cairn can be demonstrated on several sites, and the accessibility of these chambers to receive burials over a period of time may be an important consideration. The cist at Ballochroy (RCAMS 1971, 46-7, no. 57) was formerly covered by a very large cairn but, because it had been destroyed, there is now no evidence of the disposition of the cist and cairn; a large cairn would seem to be out of keeping with the series of small closely fitting cairns as at WIG 1 and 2. A site which has been put forward as an early closed chamber is that at the foot of Little Dunagoil (Bute); it is constructed of four massive slabs enclosing an area about 1 m by 1.4 m and rather less than 1 m in height, and appears to be girt by a compact cairn (Scott 1969b). In the absence of finds from the excavation of the site it is not possible to provide a date for this monument, although its size is certainly in marked contrast to the second-millennium cists on Bute.

In the valley of the River Nell there are four groups of cairns, three of which contained cists of unusual size (Cleigh, Moleigh and that excavated by Phené on the 'Serpent Mound'; Smith 1872a and b; 1885, 245-67). As the burial rite associated with these cists is cremation it is surely less likely that these examples at least should be envisaged as the precursors of monuments whose purpose is to hold collective inhumation burials. The fact that there is one local group of such sites may suggest that the size of stones employed was a local idiosyncrasy, either architectural in origin (because of the available slabs) or purely a quirk of fashion. It is perhaps unlikely that, if some of these cists were to be envisaged as an early stage in the development of the *Clyde* cairn, they should occur in a group in an area some distance from the main distribution of cairns of this type. The writer has not attempted to disprove the hypothesis that simple



closed chambers exist, or that they may be in some way ancestral to chambers of *Clyde* type; such simple chambers may be shown convincingly to be the earliest features of a number of *Clyde* cairns, and the recent excavation of the cairn at Achnacreebeag demonstrated that a simple polygonal chamber is earlier than a small passage-grave. This hypothesis should not, however, overshadow the view that several of these massive cists are later than the *floruit* of chambered tombs and are probably of second-millennium BC date.

*Small Finds* (fig 2) Miss A S Henshall has contributed the following discussion of the two neolithic sherds from the tomb (SF 1). 'The bowl from which the sherds derive seems to have been quite small, about 125 or 150 mm in diameter. The concave profile suggests a carinated bowl of Piggott's form G or H. The rim is rounded on the inside but may have had quite a sharp edge on the outside. Small fine bowls of this form may be expected to be early in the British neolithic pottery sequence. English, Irish and Welsh pottery of this general type has been discussed in recent years by Manby (1963, 189-90; 1967), Case (1961, 175, 200-14) and Lynch (1969, 149-54). Amongst the sparse Scottish material one may point to the carinated bowl and other sherds from Pitnacree (Perthshire) with the relatively early radiocarbon date of 2860 bc  $\pm$  90 (GaK-601; Coles and Simpson 1965, 41-4). Other vessels comparable in form and fineness, though generally of a somewhat grittier ware, come from varied contexts, and from both the east and the west of the country (McInnes 1969, 19-20; Henshall 1972, 168-71); besides Pitnacree, sites with pottery comparable to Dalineun include Clatchard Craig (Fife), Bantaskine (Stirlingshire), possibly Barpa Langass (North Uist), Powsode Cairn (Aberdeenshire), although the last is less close. The only west coast tomb to provide evidence of similar pottery is Dunan Beag (ARN 7), with a single sherd of similar ware apparently from the neck of a carinated bowl; bowl 1 from Cairnholy I (KRK 2) might also be included as less closely related, being of the same form with simple rim, but of a much thicker and heavily gritted friable ware.' A sample of the wall sherd was examined by Mr H P Sanders using the technique of pore size distribution by the mercury intrusion method (1973); the graph obtained from the comparison of pore diameter to pore volume was very similar indeed to that found from neolithic pottery in Warwickshire, and was markedly different from the beaker ware from this site.

The following discussion of the flintwork has been written by Dr I J McInnes. 'There is little in the way of flintwork comparable to the flint knife (SF 6) among the finds from the chambered tombs of Argyll and the west. A flake from Brackley (ARG 28) is not dissimilar but the trimming on the long edges is almost vertical and much steeper than that on the flint now under consideration (Scott 1956, 43, no. 3). A flint flake from Cairnholy I (KRK 2), although trimmed on the edges, is much closer to the Dalineun example. The Cairnholy I knife came from the cairn material overlying the blocking on the south side of the forecourt (Piggott and Powell 1949, 121, no. 2).

'In the Orkney tombs there are a number of parallels which can be drawn. Among the flints occurring with the neolithic pottery from Calf of Eday, Long (ORK 8) was one flint knife similar in form and section to the Dalineun knife but with the retouch confined to one side (Henshall 1963, 191, no. 38). From the same site another knife (no. 32) had bilateral retouch but on one side this was much steeper than on the Dalineun knife which has a true plano-convex section. This knife came from the later occupation layer. A similar knife with steep retouch on one side occurred at Midhowe (ORK 37) in the south-west side of compartment 7 along with the neolithic pottery (Henshall 1963, 224, no. 7). Almost identical to the Dalineun knife is one from Aldro barrow No. 49, Yorks (Mortimer 1905, 79, fig 177). This unfortunately is not datable as it accompanied a crouched inhumation beneath a round barrow and was associated with three flints and "some potsherds" of unknown type.

'A possible significance of this type of flint knife with bilateral retouch is suggested by Lynch in her work on the finds from the Welsh tombs (1969, 159). In discussing the flint knife from Lligwy, Lynch refers to the difference between more sophisticated plano-convex knives as defined by Clark and the more simple form as at Lligwy. Although the more sophisticated form can also be seen to have an early beginning in Scotland (for example Achnacreebeag, ARG 37) it seems possible that the simple knife, plano-convex in form with trimming confined to the edges only of the flake or blade, is in some way connected with the more sophisticated knife later associated closely with food vessels (Simpson 1968, 189-200).

'The small flint flake (SF 9), although of distinctive form, cannot be paralleled among finds from any of the other Argyll tombs or indeed from any of the other Scottish chambered tombs. The nearest comparable flint is a ? blade (now lost) from Beacharra which was recorded as having been found on the floor of the inner chamber possibly in a primary position (Scott 1964, 147, fig 9a; Bryce 1902, 104-5, fig 28). Comparison with published material from sites further south is little more rewarding. There are two not dissimilar flakes from Yorkshire round barrows. At Painsthorpe 121 the flint flake accompanied an inhumation of a child accompanied by a flint knife, and a small simple bone pin; this burial appears to be secondary to a cinerary urn (Mortimer 1905, 128, fig 326). At Garton Slack 37 a secondary or satellite burial, in a barrow with multiple burials, was accompanied by a flint flake, a pounder and deer bones. The primary burial in this barrow may be that accompanied by a beaker with flint dagger and knife, but it is not at all clear whether the two food vessel burials are contemporary or secondary (Mortimer 1905, 209-11, fig 520).'

The beaker pottery from the site has been illustrated and discussed along with similar material from the area in the report on the excavation at Achnacreebeag (Ritchie 1970, 43-6). There are at least three chambered cairns in Argyll with which food vessels have been associated, Brackley (ARG 28), Ardnacross II (ARG 35) and Nether Largie South (ARG 23); at ARG 28 and ARG 35 the vessels were secondary deposits in the chambers on prepared layers of paving (Scott 1956, 32-6; *DES* (1967), 6-7). The food vessel from Nether Largie South was found in one of two secondary cists inserted into the cairn material of the earlier *Clyde* tomb; a cist, found to the N of the chamber, contained the fragmentary vessel but no skeletal remains (Greenwell 1866, 341-2). The closest parallels for the shape and lay-out of the decoration of the Dalineun vessel are found on those from two of the cists in the cairn at Dunchraigaig, near Kilmartin, Mid Argyll (Greenwell 1866, 347-8).

The excavation was only partly successful in achieving its principal aim, that of establishing the sequence of construction of the *Clyde* chamber and the large cist. For, although there is little doubt in the mind of the excavator that the massive cist is secondary and that it was inserted into a hollow dug into the pre-existing cairn, the section is not conclusive. The disturbed position of the food vessel (SF 5), which must surely have been deposited originally in this cist, is also tantalising. The complex sequence of events at the NE end of the cairn, including the insertion of the small cist, and culminating in the blocking, shows that area excavation, on a larger scale than possible at Dalineun, is necessary to elucidate the history of such monuments.

#### SMALL FINDS (fig 2)

The find spots are shown on fig 1; an asterisk indicates an object from a disturbed position. The objects are preserved in the National Museum of Antiquities of Scotland.

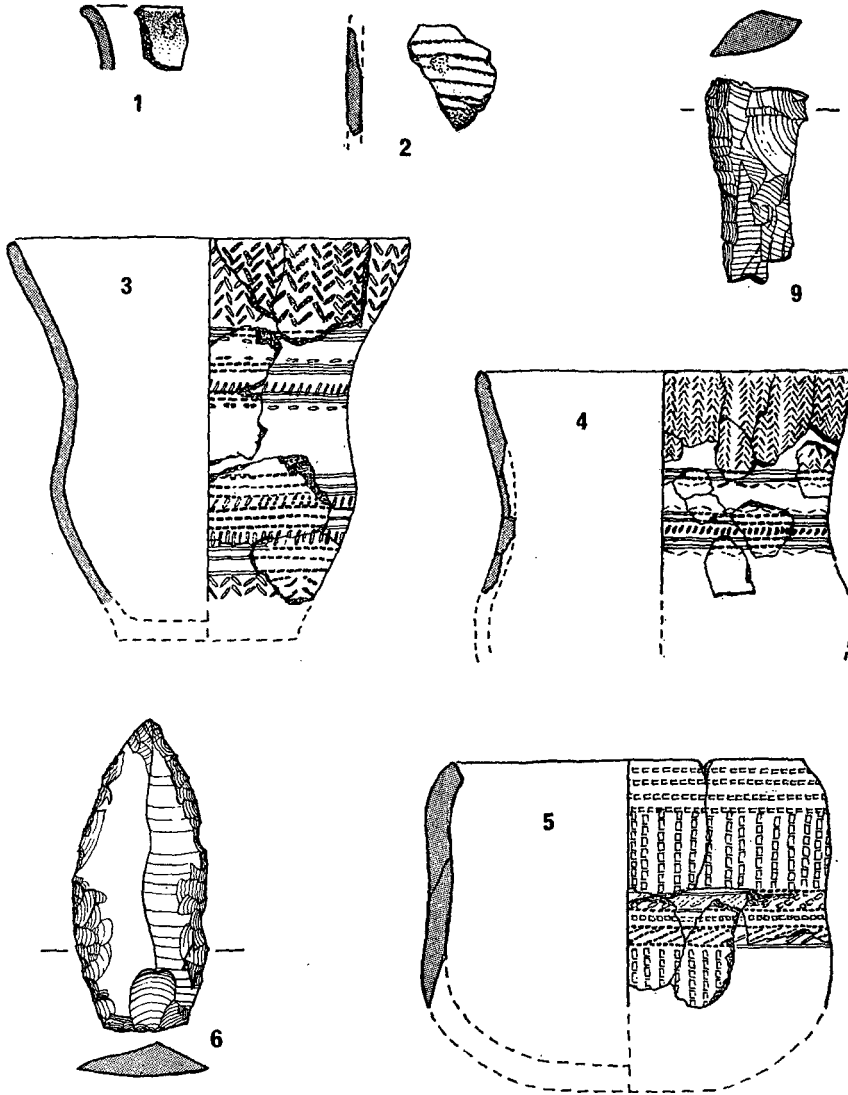


FIG 2 Dalineun chambered cairn (ARG 3); pottery (1:3) and flint (2:3)

*Pottery*

1\*. The following description has been provided by Miss A S Henshall. 'The small and damaged sherds are from the rim of a bowl, one sherd lacking the actual rim edge; the sherds measure 6 mm in thickness. The ware is fine and fairly hard with few grits and no mica or quartz temper. The sherds feel smooth and almost soapy in texture. The core is dark grey and the surface black though seeming to shade to buff at the lower edge. The exterior surface bears fine horizontal striations due to smoothing by the potter's fingers. There is also a roughly vertical line with a central ridge which appears to be the impression of a stalk or more likely a pine needle' (EO 1053).

2. Six body sherds and a number of tiny fragments of an All-over-Cord ornamented beaker; fine sandy ware, 6 mm thick, with the impressed decoration rather smudged; found with flint SF 9 (EO 1054).

3. A dozen sherds of a beaker decorated with impressions, about 160 mm in height with a wide everted rim about 160 mm in external diameter; reddish-buff ware with large grits for its 8 mm thickness. The neck decoration comprises vertical bands of stacked chevron ornament made by comb impression, and two horizontal lines of short impressions at the bottom of this zone. Round the waist are pairs of horizontal lines with traces of upright strokes between the pairs. At the belly are two further areas of this group of motifs and at the bottom of this zone there appears to have been a further band of stacked chevrons, although this is only traceable on one sherd (EO 1055).

4. Fragmentary remains of a vessel with similar ornament; the stacked chevrons of the neck (approx. diam. 144 mm) and the lower band of ornament, comprising pairs of horizontal lines with short jabs between, have been executed with a finer comb than SF 3 (EO 1056).

5\*. Food vessel. About half of the rim and the upper portion of the vessel survive, but half of the remaining outer surface, which formed the flattened underside when discovered, has been very severely abraded. The rim (about 135 mm in external diam.) has a slight inward bevel decorated with slanting lines of jabs. The profile appears to have been that of a comparatively straight-sided bowl with a slight central constriction. It is decorated with four lines of horizontal impressions below the rim, and by a band of vertical impressions running down to the constriction. The central zone comprises a triple band of decoration, the uppermost being pairs of slanting jabs, the central being formed by two horizontal lines of simple impressions and the lower by slanting lines of finer comb impressions. Below this zone there has presumably been a further band of vertical impressions, mirroring that above the constriction but only a small portion of this survives. The ware is buff-coloured, about 10 mm in thickness, smoothed on the outer unabraded surfaces, but showing large grits with some mica (EO 1057).

#### *Flint*

6. Point of grey flint, 61 mm by 26 mm, with careful working along both edges of one face and without working on the other (EO 1058).

7. Flake of yellow-grey flint, 32 mm by 17 mm, with longitudinal scars but no working (EO 1059).

8\*. Flake of yellow-grey flint, 37 mm by 17 mm, cortex along one side and very slight trimming along the other (EO 1060).

9. Irregular flake of grey flint with neat working along one side to form a knife edge; found in the same deposit as the sherds of All-over-Cord ornamented beaker (SF 2) (EO 1061).

### THE CREMATED REMAINS FROM DALINEUN, ARGYLL

by C B Denston

Department of Physical Anthropology, Faculty of Archaeology and Anthropology, University of Cambridge

*Introduction* The technique for the examination of the material was that used by the writer on previous occasions (1965; 1966; 1968), based on procedures outlined by Gejvall (1969).

Estimation of number, sex and age. The number of individuals identified from material

of a cremation is usually established by the presence of certain duplicated skeletal parts, by a great dissimilarity in the thickness of certain bones, or by the fact that epiphyseal union had taken place in some bones, while in other similar bones epiphyseal union remained incomplete. The assessment of the sex and age at death of an individual represented by cremated remains can be very precarious unless fragments of definite portions of bones from which the sex and age can be ascertained are preserved. Teeth are of great value in this respect for ageing.

*Explanatory Notes* The interest in these remains was the possibility to discover whether one burial was represented both inside and outside the small cist, or whether these were two separate burials. After much searching, the writer at last came across a fragment from each deposit which joined at a broken edge, and this was immediately followed by the finding of another fragment from each deposit. This was the positive evidence hoped for, and suggested that the remains inside the cist and those outside had been deposited in one ritual act. This evidence, however, was incomplete, as it could be seen that the remains belonged to more than one individual; this was substantiated by the finding of duplicate portions among the remains in the cist (two mandibles, one possibly of an adult and the other of an immature individual). No duplicate fragments were found among the remains outside the cist, but a few fragments belonged to an immature individual, and not to an adult, as the main bulk of remains suggested. Again, the evidence for an adult and an immature individual was incomplete, for the search among the fragments also revealed a number which were not of human but of animal origin. A few fragments were found both inside and outside the cist, the latter mainly pig phalanges.

The combined evidence suggested that the remains from both inside and outside the cist belonged to the same deposit and represented an adult individual, an immature individual, and possibly a pig. The sex of the adult was uncertain, but may have been female.

Ia Deposit inside the small cist (an ?adult ?female and an immature individual). Most of the fragments possibly represented the adult individual, but as the remains consisted also of an immature individual and fragments of an animal some of these may not have been recognised as such and are represented in the categories of bone fragments. Some fragments were recognisable as coming from specific bones. Of the long bones, tibia, humerus, radius and ulna; of the skull, occipital, petrous portion of a temporal bone, frontal bone and mandible, all possibly adult. The immature remains comprised an area of external auditory meatus, mental protuberance of a mandible, a left mandibular condyle, the olecranon and sigmoid cavity of an ulna, and possibly the sternal extremity of a clavicle. Weight 1142.9 gm; long bone a few mm to 83 mm L; skull fragments a few mm to 52 mm L.

Ib Deposit within the pit in which the small cist had been built (an ?adult ?female and an immature individual). Again most of the fragments possibly represented the adult individual. The recognisable fragments from specific bones of the adult were mostly of the skull (mandible, maxilla, zygomatic bone, a left mandibular condyle and fragments with sutural edges). The immature fragments were maxilla and two small pieces of cranium, possibly parietal bone with edges displaying small sutures. Weight 534.9 gm; long bone fragments a few mm to 64 mm L; skull fragments a few mm to 45 mm L.

II At the base of the disturbed deposit round the food vessel (SF 5). Weight 16.1 gm; mixture of bone fragments; sex and age not known.

III In cairn material just behind Stone no. 4. Weight 20.5 gm; mostly small fragments of long bone; sex not known; ? adult.

IV Disturbed cairn material between chamber and massive cist. Weight 201.3 gm; the fragments recognisable were representative of skull, long bone, ribs, and metatarsal bone; sex not known; ? adult.

V Basal layer of cairn material to E of massive cist. Weight 11.2 gm; mainly long bone fragments; sex and age not known.

VI Basal layer of cairn material to SW of massive cist. Weight 42.2 gm; fragments of long bone and skull recognisable; sex not known; ? adult.

The positions of Cremations III–VI are indicated on fig 1.

### ACKNOWLEDGMENTS

The excavation was conducted on behalf of the Royal Commission on the Ancient and Historical Monuments of Scotland, and this account is published by courtesy of the Commissioners. Mr J McColl, Dalineun Farm kindly gave permission for the excavation to take place and provided storage facilities throughout the work; he has generously presented the finds to the National Museum of Antiquities of Scotland. Dr Anna Ritchie acted as assistant director throughout, and with Mr A MacLaren, has been of considerable help in the preparation of the report for publication. The advice of Dr T G E Powell and Mr J G Scott is gratefully acknowledged. The writer is indebted to Miss A S Henshall, Dr I J McInnes, Dr A S Clarke, Mr G H Collins, Mr C B Denston, Dr S E Durno, Dr H McKerrell, Mr H P Sanders and Mr J Waddell for various contributions which have been included in the report. The drawings are the work of Miss A S Henshall and Mr I G Scott; the photographs were taken by Mrs B Naggar and the writer, and they have been prepared for publication by Mr Craig Russell. The volunteers, including members of the Lorn Archaeological Society, are too numerous to thank individually.

*Copyright* Pl 9a, Mrs B Naggar; fig 2, Miss A S Henshall; other photographs and plans, Crown Copyright, Royal Commission on Ancient Monuments, Scotland.

### REFERENCES

- Balfour, J A (ed) 1910 *The Book of Arran, Archaeology*. Glasgow.
- Bryce, T H 1902 'On the Cairns of Arran', *Proc Soc Antiq Scot*, 36 (1901–2), 74–181.
- Case, H J 1961 'Irish Neolithic Pottery: Distribution and Sequence', *Proc Prehist Soc*, 27 (1961), 174–233.
- Coles, J M and Simpson, D D A 1965 'The Excavation of a Neolithic Round Barrow at Pitnacree, Perthshire, Scotland', *Proc Prehist Soc*, 31 (1965), 34–57.
- Corcoran, J X W P 1969a 'Excavation of Two Chambered Cairns at Mid Gleniron Farm, Glenluce, Wigtownshire', *Trans Dumfries Galloway Nat Hist Antiq Soc*, 46 (1969), 29–90.
- Corcoran, J X W P 1969b 'Excavation of Two Burial Cairns at Mid Gleniron Farm, Glenluce, Wigtownshire', *Trans Dumfries Galloway Nat Hist Antiq Soc*, 46 (1969), 91–9.
- Denston, C B 1965 'The Pitnacree Cremations', *Proc Prehist Soc*, 31 (1965), 49–57.
- Denston, C B 1966 'The Secondary Cremation from Tulach an t-Sionnach', *Proc Soc Antiq Scot*, 98 (1964–6), 73–5.
- Denston, C B 1968 'The Cremations' [from Kinneil Mill, Stirlingshire], *Proc Soc Antiq Scot*, 100 (1967–8), 96–9.
- Donner, J J 1959 'The Geology and Vegetation of late-glacial Retreat Stages in Scotland', *Trans Roy Soc Edin*, 63 (1955–9), 221–64.
- Evans, E E 1938 'Doey's Cairn, Dunloy, County Antrim', *Ulster J Archaeol*, 1 (1938), 59–78.
- Evans, E E and Davies, O 1934 'Excavation of a Chambered Horned Cairn at Ballyalton (Co. Down)', *Proc Belfast Nat Hist Phil Soc*, (1933–4), 79–104.
- Gejvall, N-G 1969 'Cremations', in Brothwell, D and Higgs, E (eds), *Science in Archaeology*, London, 468–79.
- Greenwell, W 1866 'An Account of Excavations in Cairns near Crinan', *Proc Soc Antiq Scot*, 6 (1864–1866), 336–51.

- Harnett, P J and Prendergast, E 1953 'Bronze Age Burials, Co. Wexford', *J Roy Soc Antiq Ireland*, 83 (1953), 46-57.
- Henshall, A S 1963 and 1972 *The Chambered Tombs of Scotland*, vols 1 and 2. Edinburgh.
- Henshall, A S and Wallace J C 1963 'The Excavation of a Chambered Cairn at Embo, Sutherland', *Proc Soc Antiq Scot*, 96 (1962-3), 9-36.
- Jope, E M and Jope, H M 1952 'A Cremation Burial with a Vessel in a Small Stone Cist near Fintona, Co. Tyrone', *Ulster J Archaeol*, 15 (1952), 65.
- Kilbride-Jones, H E 1954 'The Excavation of an Unrecorded Megalithic Tomb on Kilmashogue Mountain, Co. Dublin', *Proc Roy Irish Acad*, 56C (1953-4), 461-80.
- Lynch, F 1969 'The Contents of Excavated Tombs in North Wales', in Powell *et al* 1969, 149-74.
- McInnes, I J 1969 'A Scottish Neolithic Pottery Sequence', *Scot Archaeol Forum*, 1 (1969), 19-30.
- MacKie, E W 1964 'New Excavations on the Monamore Neolithic Chambered Cairn, Lamlash, Isle of Arran, in 1961', *Proc Soc Antiq Scot*, 97 (1963-4), 1-34.
- MacLaren, A 1969 'A Cist Cemetery at Glenreadell Mains, Kintyre, Argyll', *Proc Soc Antiq Scot*, 101 (1968-9), 111-14.
- Manby, T G 1963 'The Excavation of the Willerby Wold Long Barrow, East Riding of Yorkshire', *Proc Prehist Soc*, 29 (1963), 173-205.
- Manby, T G 1967 'Radiocarbon Dates for the Willerby Wold Long Barrow', *Antiquity*, 41 (1967), 306-7.
- Mortimer, J R 1905 *Forty Years Researches in British and Anglo-Saxon Burial Mounds of East Yorkshire*. London.
- Ó Riordáin, S P and MacDermott, M 1952 'The Excavation of a Ring-Fort at Letterkeen, Co. Mayo', *Proc Roy Irish Acad*, 54C (1951-2), 89-120.
- Piggott, S and Powell, T G E 1949 'Excavation of three Neolithic Chambered Tombs', *Proc Soc Antiq Scot*, 83 (1948-9), 103-61.
- Pitt-Rivers, A H 1885 Note books in Public Record Office, London, *Works*, 39, nos 4 and 15.
- Powell, T G E *et al.* 1969 *Megalithic Enquiries in the West of Britain*. Liverpool.
- RCAMS 1971 Royal Commission on the Ancient and Historical Monuments of Scotland, *Argyll: An Inventory of Ancient Monuments*, vol 1, Kintyre. Edinburgh
- Ritchie, J N G 1970 'Excavation of the Chambered Cairn at Achnacreebeag', *Proc Soc Antiq Scot*, 102 (1969-70), 31-55.
- Sanders, H. P. 1973 'Pore-size Distribution Determination in Neolithic, Iron Age, Roman and other Pottery', *Archeometry* 15 (1973), 159-61.
- Scott, J G 1956 'The Excavation of the Chambered Tomb at Brackley, Kintyre, Argyll', *Proc Soc Antiq Scot*, 89 (1955-6), 22-54.
- Scott, J G 1964 'The Chambered Cairn at Beacharra, Kintyre, Argyll', *Proc Prehist Soc*, 30 (1964), 134-58.
- Scott, J G 1969a 'The Clyde Cairns of Scotland', in Powell *et al* 1969, 175-222, 309-28.
- Scott, J G 1969b 'A Possible Protomegalith at Dunagoil in Bute', *Trans Bute Nat Hist Soc*, 17 (1969), 36-8.
- Simpson, D D A 1968 'Food Vessels: associations and chronology', in Coles, J M and Simpson, D D A (eds), *Studies in Ancient Europe*, Leicester, 197-211.
- Sissons, J B 1967 *The Evolution of Scotland's Scenery*. Edinburgh and London.
- Smith, R A 1872a and b 'Descriptive list of Antiquities near Loch Etive, Argyllshire . . .', *Proc Soc Antiq Scot*, 9 (1870-2), (a) Part I, 81-106; (b) Part II, 396-418.
- Smith, R A 1885 *Loch Etive and the Sons of Uisnach*. (2nd edition) London and Paisley.

*The Society is indebted to the Civil Service Department for a grant towards the cost of this paper.*



a *Clyde* chamber and blocking



b *Clyde* chamber and lintel





a *Clyde* chamber and capstone of small cist



b Small cist



c Large cist and capstone