

I.

ON THE CAIRNS AND TUMULI OF THE ISLAND OF BUTE. A RECORD OF EXPLORATIONS DURING THE SEASON OF 1903. BY THOMAS H. BRYCE, M.A., M.D.

The Island of Bute is comparatively rich in the monuments of prehistoric times. This paper will deal, however, only with the cairns and tumuli, of which a number still survive out of a larger series, concerning which a record of one sort or another exists.

As was to be expected from the cultivated state of the Island, all the sites have suffered severely from previous disturbance, but the measure of success which has attended the work is greater than my preliminary survey led me to anticipate.

Even a much-ruined structure may supply the missing line from a record which can now only be pieced together from numerous fragments, and my experience again proves that the method of systematic digging-out of all structures, however dismembered, within a given area, may yield results beyond expectation.

The exploration received the sanction of the Marquess of Bute, and I beg to express my sense of obligation to him for the favour, and for the opportunity of placing in the Museum a number of objects of value. The work was greatly facilitated by the help kindly rendered by Mr J. Windsor Stuart, who solved the labour problem by providing me with men from his estate squad.

I must also record my thanks to Dr King Hewison, minister of Rothesay, who directed me to a number of the sites, and whose list of prehistoric monuments in the Island, published in his work *Bute in the Olden Time*, proved very helpful.

The structures I have explored may be grouped into four classes :

A. Chambered cairns.

B. Short cists placed either (*a*) within cairns or tumuli, or (*b*) under the surface with no overground structure remaining to mark the site.

- C. Tumuli containing a burnt interment without a cist.
- D. Mounds in which no interment was discovered.

A. CHAMBERED CAIRNS.

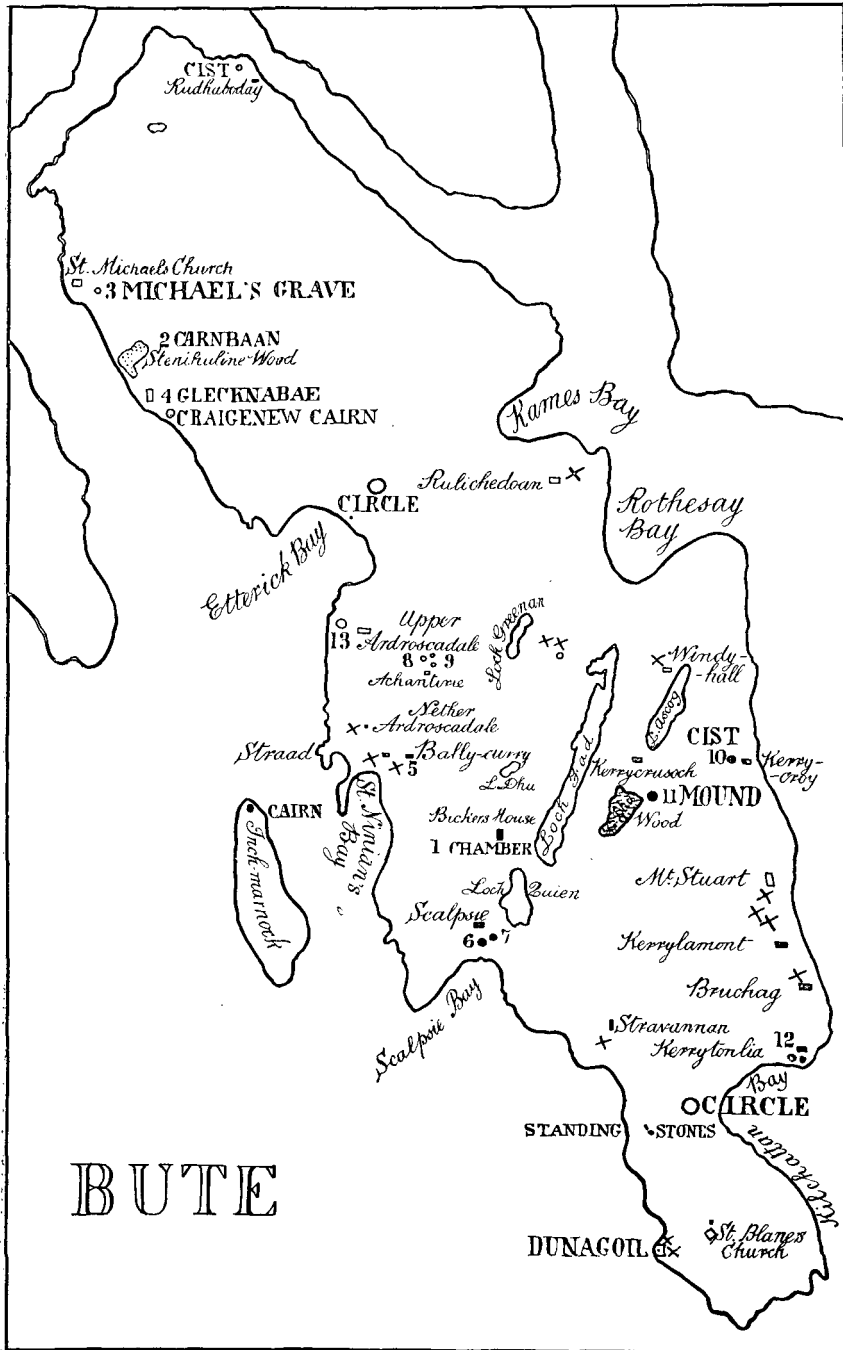
In my earlier memoirs on the Cairns of Arran, I have been able, by gathering together the data yielded by the exploration of thirteen examples of this class of structure, to reconstruct a type of chambered cairn occurring in the south-west corner of Scotland; and as I have found the same type to prevail in Bute, it will facilitate my descriptions if I repeat my definition of it.

It is a large rectangular cairn, with a definite ground-plan once marked off in all probability by a setting of flagstones. At one end this setting is disposed in a semicircle, and bounds a space leading to the portal of a chamber which occupies one end of the cairn. The chamber is formed of two sections,—a deeper, built of large stones set on edge, bounding a trench-like space divided into compartments by septal slabs set right across the floor; and an upper, built of small flags placed horizontally upon the upper edges of the stones forming the basal portion. The object of this upper section is twofold: to afford head room within the chamber, and to provide a level surface for the roofing flags to rest upon. There is no passage of approach, but merely a portal of entrance placed some distance above the floor. The compartments contain the remains of several successive interments, the bones being in some cases unburnt, in others burnt. Associated with the interments are found implements of stone only, and vessels of pottery made of a dark paste and with rounded bottom.

I. BICKER'S HOUSES CHAMBER.

This monument stands on the open moor, in a broad valley between Barmore Hill, which overlooks the lower end of Loch Fad on the west, and Kilmory Hill. It is not marked on the Ordnance Map, and was first described by Rev. Dr Hewison.¹

¹ *Bute in the Olden Time.*



Errata in names on map.—For Rulichedoan read Rulicheddán.
For Slenihuline read S. Lenihuline.

Close to the chamber are the ruins of some cottages called Bicker's Houses, now converted into sheepfolds, and the remains of fallen walls which mark off an area of land once cultivated, but now reverted to moorland and covered with heather and bracken.

The cairn has been the convenient quarry out of which the buildings and walls have been constructed, and little of it now remains. The mass of stones left, however, indicates that it must have been a very large cairn, at least 100 feet long. There is now no trace of any series of flags marking off the outline, nor any signs of a semicircular setting at the end adjoining the chamber.

Before excavation, only the tops of two of the flags of the chamber wall projected a little above the surface at the south end. The roof has been here removed, and the whole upper small flag section of the walls has collapsed except at one part. At the north end, however, one of the large roofing flags remains still *in situ* (figs. 1 and 2). It is a large and heavy block of schistose rock, 7 feet 3 inches in one diameter, and 6 feet 10 inches in the other, 1 foot 9 inches thick at one edge, tapering at the other to 6 inches. The upright stone (A on plan, fig. 3) stands 4 feet 10 inches above the ground, is 2 feet 4 inches broad, and 1 foot 8 inches thick. It bounds the portal on the east, and owing to its weight, and grip of the ground, into which it is imbedded to the depth of 20 inches, it has stood fast in the general collapse of roof and wall. The opposite portal stone, on the other hand, had fallen when the weight of the flag, owing to the fall of the wall beyond, came to bear on it, and now lies on its face under that stone. When cleared out, the chamber was found to be a segmented chamber of the Arran type. The trench contained many large stones and small flags, the debris of the upper part of the walls. It measures 15 feet over all, and has an average breadth of 3 feet 4 inches. Its long axis lies north-east and south-west. It is divided by two septal slabs into three compartments. Of these the middle is the largest, being 5 feet in length; the other two are each 4 feet long.

The stones forming the Megalithic section of the chamber are rough



Fig. 1. Bicker's Houses Chamber from the north-east, showing portal of entrance.

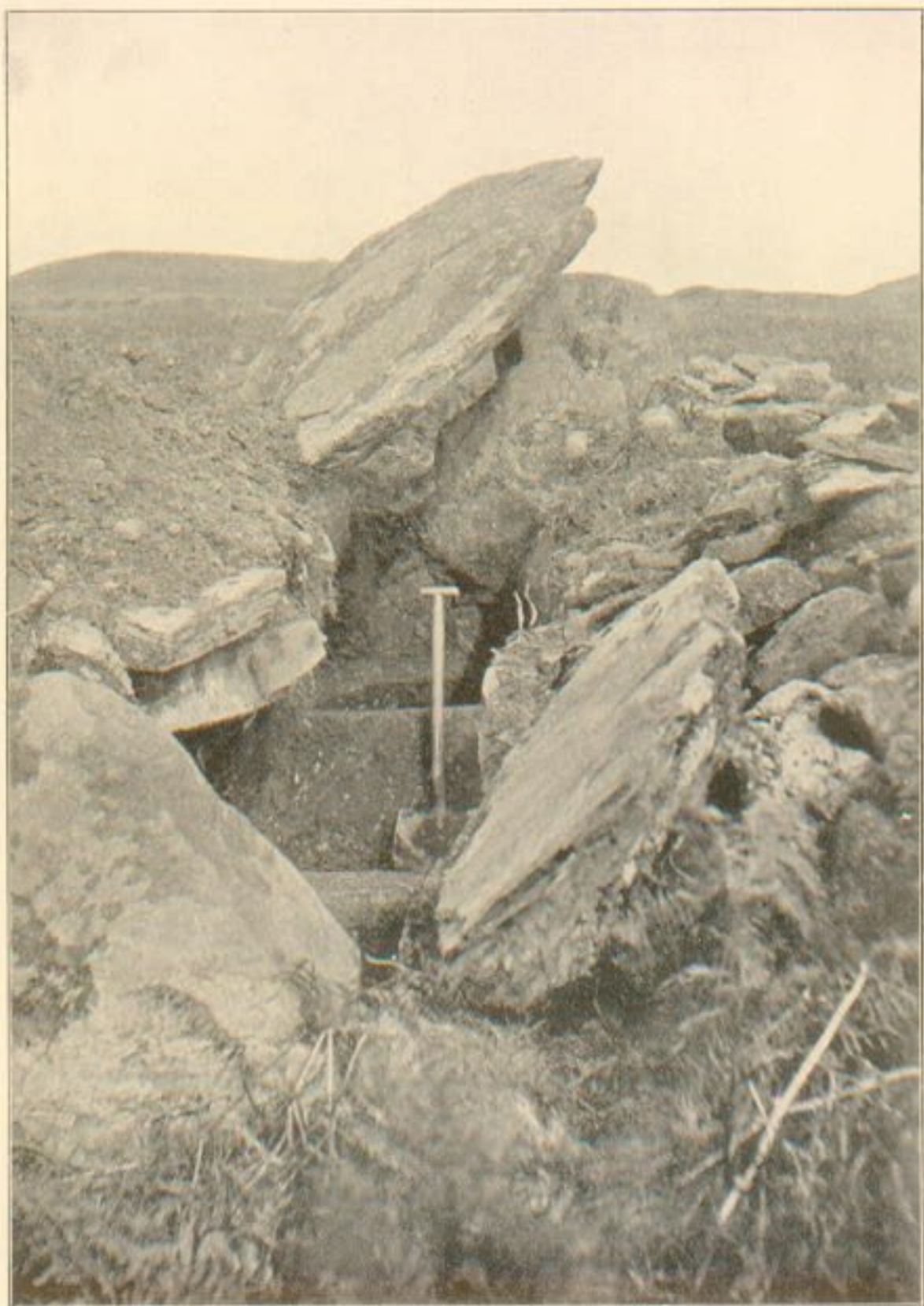


Fig. 2. Bicker's Houses Chamber from the south-west, after excavation.

and irregular blocks, or rude flags, of schist, placed approximately parallel to one another—with the exception of the west stone of the

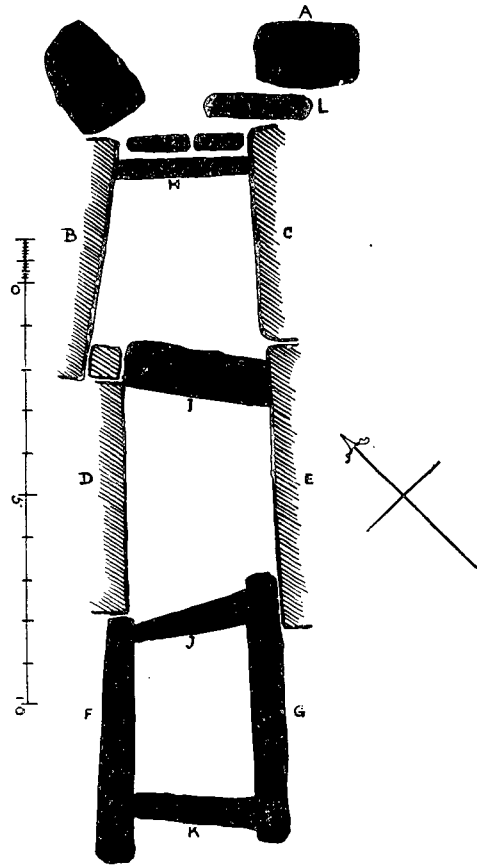


Fig. 3. Plan of Bicker's Houses Chamber.

northern compartment (B), which diverges outwards. This displacement has occurred in the setting of the stone, and has necessitated a building in of smaller stones between it and the first septal stone, as indicated in

the plan (fig. 3). The south end of the chamber is closed by an end stone (K), 4 feet 3 inches high, the north end by a low flag (H), standing 18 inches above the floor.

As the structure stands on a slope, with the portal at the higher end, the south compartment is deeper than the middle, and that deeper again than the first. Thus, while the slab H is 18 inches high, I stands 1 foot 10 inches, and J 2 feet 2 inches above the floor.

The lateral stones are of very varying heights. Beginning at the north end, the west stone (B) is 3 feet 10 inches, the east (C) 2 feet 6 inches; of the second pair, the west (D) is 2 feet 2 inches, the east (E) 3 feet 2 inches; and of the third pair, the west (F) is 5 feet 1 inch, and the east (G) 2 feet 10 inches in height. Owing to the slope of the ground, the south stone (F) on the west side is on the same level as the north stone (B), though it is more than a foot higher; and owing to the protection afforded by them, a portion of the wall built of small flags is preserved between them. The middle stone (D) of the series, as above noted, is only 2 feet 2 inches high from the floor to its upper edge, and on that upper edge are two flags laid horizontally and seen in figure 2. They overlap into the chamber, and show clearly how the walls were carried up to the level of the under surface of the roofing flag. From the under surface of this flag, where it rests on the portal stone, to the floor of the chamber is 7 feet, so that the small flag section of the wall must have been about 3 feet to 4 feet 6 inches, according to the depth of the Megalithic section—with this exception, that the south stone of the western series (F in plan) must have nearly reached, if it did not quite reach the roof, seeing that the roofing slabs always overlapped from the portal inwards. In this case the terminal roofing stone probably rested on the end stone (K), the upper edge of which is on the same level as F. Lying on each side of the south compartment, and within it, were flags obviously belonging to the upper part of the wall.

From this description it will be clear that what remains of the chamber corresponds in every essential detail with the Kilmory chamber in Arran.

The portal is placed 2 feet above the upper edge of the transverse stone marked H in the plan, and differs a little from that of the Kilmory chamber, but agrees closely with that of the Giant's Grave, Whiting Bay.¹

Beyond the actual chamber walls there is the upright stone already mentioned on which the large flag rests; and behind that is another (L) 2 feet 8 inches long and 4 feet high, encroaching further on the portal space, so that where the other side of the entrance was intact only a very narrow chink, not more than 18 inches, can have been left. It may seem that this is a matter of small importance; but as there can have been no other means of access to the vault, it has some bearing on the form in which the remains of the dead were placed therein. In both the Giants' Graves at Whiting Bay, where the portal space is little more than a foot, and in this chamber, the deposits were of burnt bones, so that there is no question of a body being transferred entire through the narrow entrance.

Each compartment contained the dark soil, with portions of charcoal intermingled, found in all these chambers. The floor was covered with a layer of charcoal and ash. Only one fragment of bone was recovered, but it was a piece of burnt bone, and the difficulty again presents itself as to how and why the bones have disappeared.

Only one flake of flint was picked up, but in the south compartment the fragments of the urn represented in fig. 4 were found; and in the north compartment several fragments of three other urns (figs 5, 6, 7) were recovered.

Number I (fig. 4) is $3\frac{3}{4}$ inches in height; the under portion or body is uniformly rounded and is much blackened. It ends above in a shoulder $5\frac{1}{2}$ inches in diameter, from which the upper portion or brim inclines inwards to the mouth, which is 4 inches across. The lip is quite thin. The type of decoration is peculiar. It consists of six groups formed of three rows of dotted impressions on the brim; but there is a degree of irregularity in the arrangement, and the impressions are not symmetrical, indicating that they must have been done freehand

¹ See plan p. 48 of my paper, *Proc. Soc. Antiq. Scot.*, vol. xxxvii, 1902.

with a pointed tool. Under the shoulder there is a double range of similar impressions, but only round one-half of the circumference, the remainder being occupied by a double range of roughly-made short vertical

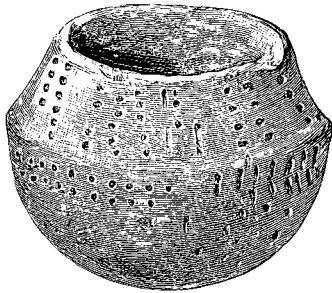


Fig. 4. Urn from south compartment Bicker's Houses Chamber. (Scale, $\frac{1}{3}$.)

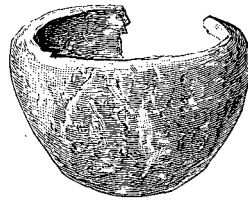


Fig. 5. Urn from north compartment Bicker's Houses Chamber. (Scale, $\frac{1}{3}$.)

lines. These occur also on the brim without apparent motive, and over the rounded body there are some scattered dots, also without grouping.

Number 2 (fig. 5) is a very small vessel. It stands only $2\frac{5}{8}$ inches

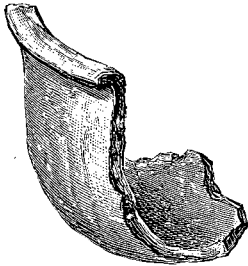


Fig. 6. Urn from north compartment Bicker's Houses Chamber. (Scale, $\frac{1}{3}$.)

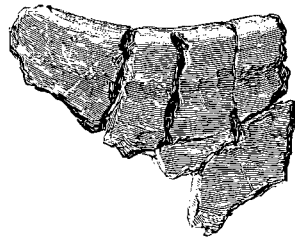


Fig. 7. Fragment of Pottery from north compartment Bicker's Houses Chamber. (Scale, $\frac{1}{3}$.)

high, and measures $3\frac{3}{8}$ inches across the mouth. It has no decorative pattern, and the paste is coarse and of a greyish colour.

Number 3 (fig. 6) is a fragment of a vessel $4\frac{7}{8}$ inches in height,

with a brim of $6\frac{1}{2}$ inches in diameter. The mouth is bounded by a flat projecting lip, and both it and the body of the vessel are quite plain. The paste is blackened outside, but is slightly reddish within.

Number 4 (fig. 7) is a portion of a larger and thicker vessel. The paste is very dark and coarse, and is much blackened. As the rest of the fragments could not be put together, its shape cannot be arrived at, but no portion of a flat base occurs among the fragments. The lip is rather thin but not everted, and there is a slight indication of a horizontal row of markings under the rim.

II. CARNBAAN—SOUTH LENIHULINE WOOD.

This structure, unlike the last, has been long an object of interest, and the subject of much irrelevant discussion. It stands in the upper part of South Lenihuline Wood, on the western shore of Bute.

Blain (pp. 100–101) describes it thus:—"A pile of stones thrown together in a rude manner along the surface of the ground in the form of a cross, the body whereof has been about 168 feet long by 15 in width, and the transverse about 75 feet or thereabout. Of this last little now remains, as the fence of the wood has been cut along it, and the most of the stones of which it is composed, carried off to help in facing up the enclosure there, and in its neighbourhood. The shaft of the cross was all along formed below into cavities or chests by the placing of large broad stones at the sides, end, and bottom of each, or where stones of sufficient size were not at hand, it was done of common masonry, without any sort of mortar; all of them had been covered with other flat stones. They were discovered on taking away materials for the neighbouring fences, where many of them were destroyed or filled up. A few, after having been looked into, remain unfilled, and were left uncovered until about a dozen years ago, that the farmer finding some of his sheep occasionally fell in, and not being able to extricate themselves perished by famine, he filled them up or had them destroyed, except one left for a specimen, but so far covered as to prevent sheep from entering."

In 1858 John Mackinlay gave a brief description of the cairn in the *Proceedings of this Society* (vol. iii., part ii., p. 180). "It consists," he writes, "of a mound of stones 200 feet in length lying east and west, and from 15 to 24 feet in breadth. Near its east end is a transverse piece, like the transom of a cross 47 feet in length. When the wood was enclosed, many years ago, the portion of the stem of the cross (about 25 feet in length) above the transom, which projected beyond the line of the wood, was removed, and its materials were used in the construction of the fence; but the form and extent of the part removed was (and I believe still is) perfectly distinct, its outline being defined by a line of small debris. At the west end of the stem of the cross there is a cell, 4 feet 6 inches long by 2 feet 3 inches wide and 3 feet deep, the top, sides, and ends of which are formed of flags of schistus. The country people believed that there was a series of such cells all along the body of the cross; and in order to ascertain this point, I took a labourer with me in the summer of 1833, and opened up the top of the mound all along, at short intervals, and found that the whole of the mound was composed of shapeless lumps of wacken, schistus, and quartz, about the size of a man's head, and apparently brought from the channel of the burn, at the bottom of the bank on which it is placed; and I could find no trace of any cells or any flags capable of making them, except one or two near the intersection of the cross where it is said that a cell or cells were found at the time the east end was removed."

The Rev. Dr Hewison¹ corrects and amplifies these statements. He writes: "The cairn is now a long congeries of moss- and grass-grown stones broken from the slate-rock cropping up in the vicinity, and extends within the wood 165 feet, varying in breadth from 15 to 19 feet over its irregular ridge, and 5 feet high. The Ordnance surveyors make the cairn terminate in a circular mound within the fence which, as Blain states, severed the cross head; but beyond this fence and fosse a slight mound some 20 feet in diameter is still visible at the east end. The cairn declines westward. At its west-south-west end it termi-

¹ *Bute in the Olden Time.*

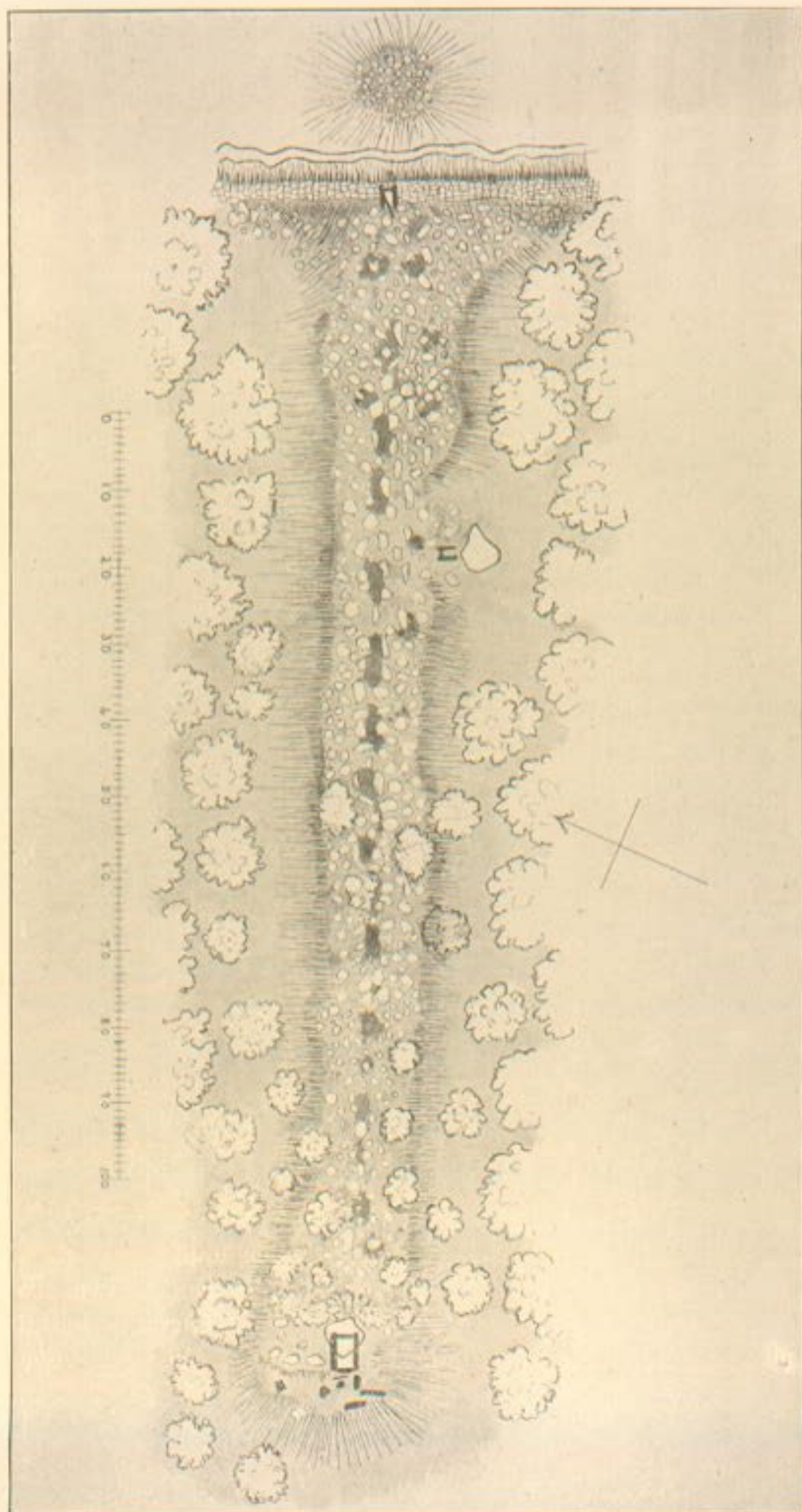


Fig. 8. Sketch Plan of Carnbaan in South Lenthuline Wood.

nates in a circular congeries of stones, moss- and grass-grown, 22 feet in diameter, in the centre of which remains a cell, partly covered by a flagstone." He gives the measurements of this, and proceeds: "At a distance of 30 feet from the east end another quite intact oblong cist is exposed on the south side of the main body of the cairn, its greater length being at right angles to the direction of the cairn. It consists of four slabs set on edge, and measures internally 3 feet long, 2 feet broad, and 2 feet deep. The covering, which is a ragged triangular slab, measures 5 feet 6 inches long, 4 feet 6 inches broad (at its broadest part), and 5 inches thick, and rests partly over and upon the cist.

"No fewer than fourteen cavities exist along the length of the stone-formed ridge, but it would, in their present confused and ruined condition, be hazardous to infer whether these were each an independent cist, or only parts of a continuous passage throughout the cairn. The stones lying in these holes vary in size from 1 foot to 3 feet or more."

My measurements agree closely with those of Dr Hewison, but it is difficult to be exact in a surveyor's sense owing to the undergrowth in the wood, so the figures are only approximate.

The maltreatment which the cairn has received at the hands of fencers, farmers, and antiquarians has left nothing to be done in the way of excavation. I therefore contented myself with planning the cist at the west-south-west end, and two secondary cists at the east-north-east end, and repeating Mr Mackinlay's operations along the ridge. Of course, it need hardly be said that the cross-shape is merely an accident of, or rather incident in, the demolition of the cairn. It is probable, though by no means certain, that the cairn outside the wood is, as all the observers have thought, a portion of the original cairn. If this be so, the whole is more than 180 feet long, and the largest cairn I have seen in this part of Scotland. I make the present breadth, counting in the slope on each side, from 24 to 33 feet. The back of the cairn consists of massive stones, and I presume that the demolition proceeded from both sides till only this central ridge remained. I removed the stones at various

points along the cairn, and agree with Mr Mackinlay that there is no built structure at any point, and no sign of a passage.

The west-south-west end has a greater breadth than the average of the ridge, being about 30 feet across. The "cell" (figs. 9 and 10), lies in the long axis of the cairn. It measures internally 4 feet by 2 feet 8 inches,



Fig. 9. View of Cist at west-south-west end of Carnbaan.

broadening at the floor to 3 feet, and the lateral stones are each 5 feet 6 inches long by 10 inches to 1 foot thick. There are two transverse stones remaining, the outer one being on a lower level than the lateral members. The depth is a little over 3 feet. On the occasion of my visit it was partially filled with water, and as it had long ago been rifled I considered any excavation useless.

The covering stone is 5 feet 10 inches in its longest diameter by 5 feet in the other. It rests on the lateral stones, which are practically on the same level. It is impossible to say whether this is its original position, or whether there had been any upper built section to the walls.

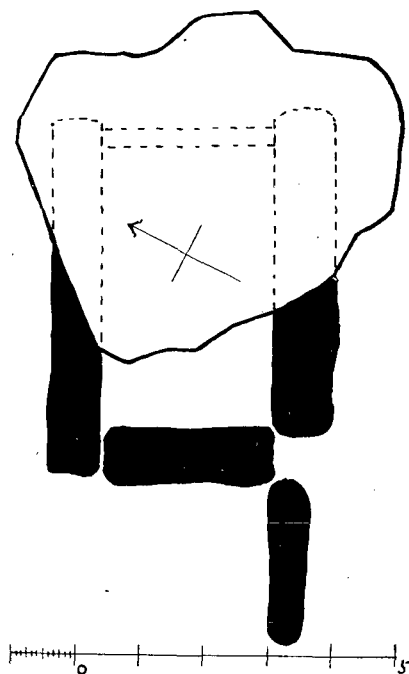


Fig. 10. Plan of Cell at west-south-west end of Carnbaan.

The outstanding stone is 2 feet 6 inches long, 7 inches thick, and 3 feet high.

This free-standing stone is in a line with the lateral stone of the "cell"—and my first conclusion was that it was the lateral stone of a second compartment, the intact compartment being the last survivor of a segmented chamber of the Arran type. In this conclusion I was sup-

ported by Blain's statement that there were a number of "cells" which were removed, one only being left as a specimen. The outstanding stone is, however, very short for the lateral stone of a chamber, and it is clear that the arrangement cannot have been such as occurs in the typical examples of the class. While, therefore, it may have been a chamber constructed like that next to be described—Michael's Grave—it is not impossible that there may never have been more than one



Fig. 11. View of Chamber called Michael's Grave from the south-east.

compartment, as in the Glecknabae chambers to be described later, and that the free-standing stone is a survivor of two portal stones like those possessed by these chambers, or by a similar Megalithic vault at Ardnadam on the Holy Loch.

III. MICHAEL'S GRAVE, KILMICHAEL.

The chamber which goes by this name stands on an elevation in a field near the Chapel of St Michael, at the north end of Bute. It is entirely denuded, and the base of the cairn alone remains, extending

over about 34 feet. As seen in the photograph (fig. 11), certain of the stones forming the vault stand free above the surface to a considerable extent, and its main outline and its portal could be made out before excavation. The roof is now displaced, but one of the large roofing flags lies on the slope below the chamber. It is a slab of schist measuring 7 feet 3 inches by 4 feet 7 inches, and is from 10 to 12 inches thick.

When cleared out, the chamber was found to measure 10 feet 6 inches in length, with an average breadth of 2 feet 6 inches (fig. 12). Thus it is unusually short and narrow compared with those I have described in earlier papers. Its axis lies east-south-east by west-north-west, and the portal is placed at the eastern end. The portal stones are *in situ*. The space between them is only 1 foot 1 inch. The south block is 5 feet 7 inches in height, more than one-half of which is beneath the surface, and forms the end wall of the chamber on its own side (fig. 12). It is 2 feet 4 inches broad and 9 inches thick. The other member is smaller, being 1 foot 3 inches broad and 10 inches thick, and is only 3 feet 5 inches tall, with its upper edge on the same level as its neighbour.

In a line with these stones stand three small flags on edge, and in a photograph in Dr Hewison's book, taken more than a decade ago, appear two others. It is possible that these may have formed a setting bounding the space in front of the portal; but, again, they may be merely portions of the chamber fortuitously placed.

The chamber is divided by a single septal stone into two compartments, each 5 feet in length (fig. 13). The upper edge of the septal slab is nearly 6 feet below the highest point of the chamber wall, and it stands only 18 inches above the floor. There is no cross stone at the portal end, but the chamber is closed at its west end by a tall stone 2 feet 9 inches broad and about 5 feet high.

The chamber walls differ in some respects from those of the chambers formerly described. The east compartment has two tall stones on its south side, but only one on the north; the interval between it and the lateral stone of the second compartment being filled up by building with small stones (fig. 13). The two stones placed opposite one another are

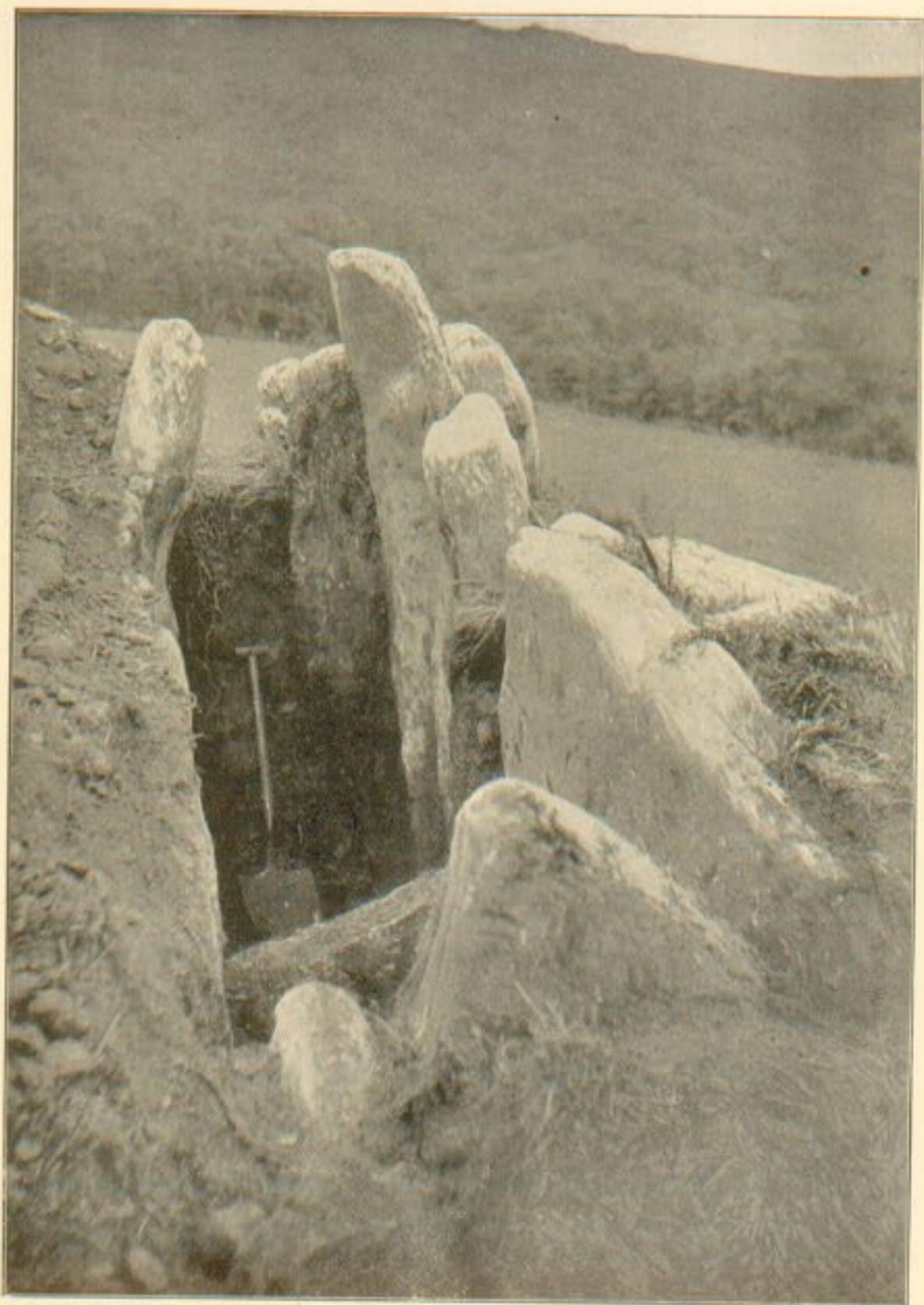


Fig. 12. Chamber known as Michael's Grave, after excavation.

7 feet 6 inches and 6 feet 3 inches high respectively, measured on their inner faces, and they lean towards one another, approaching to a distance of 2 feet from one another above, while at their bases they are

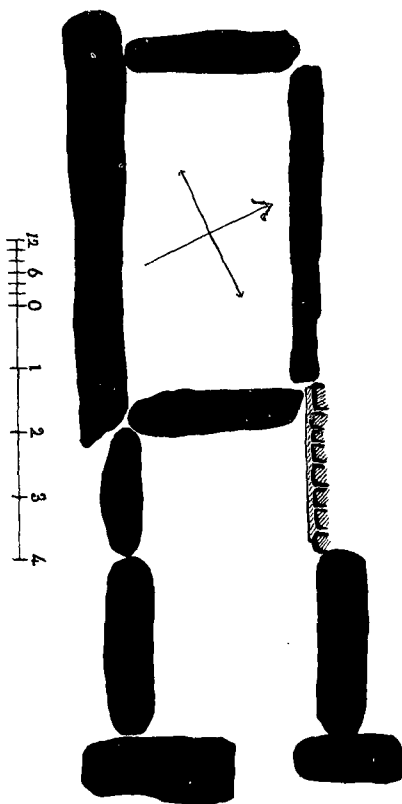


Fig. 13. Plan of Chamber known as Michael's Grave.

2 feet 6 inches apart. The second stone on the south side is a narrow pillar 5 feet 3 inches tall and 1 foot 11 inches broad.

The second compartment is bounded by two stones placed parallel to one another—the south member being 6 feet 2 inches long and 4 feet 3

inches deep, the north 5 feet 2 inches long and 3 feet 2 inches deep. The latter is not firmly wedged by the transverse stones, as is usually the case, and it showed signs of falling in after the chamber was dug out. This was avoided by a log set across, and we had a demonstration of the importance to the chamber walls of the transverse stones. The want of support was due, I believe, to the breaking away of the ends of the stone, which was a very friable flag of schistose slate.

The chamber contained as elsewhere many large stones, partly the debris of the upper part of the walls; but the building with small stones must have been employed here only to a very limited extent, as the tall side stones of the first compartment are higher than those of the portal.

The floor of each compartment was covered by a layer of black earth with charcoal, and on the floor were found a few fragments of burnt human bone, a molar tooth of a pig, and some fragments of ox bones.

No implements were recovered, but it is possible these may have been missed, because the day on which I excavated the chamber was one of drenching showers, and the riddling of the soil was impossible. A flake of flint, a block of Corriegills pitchstone, and a few fragments of black pottery were found on the floor.

IV. CAIRN AT GLECKNABAE. (*Craigeneu Tumulus*, fig. 14.)

This cairn is situated to the south-west of the farm of Glecknabae, on the west coast of the island, near the outlet of the Kyles of Bute. It is marked "tumulus" on the Ordnance Map. It stands in a field sloping down to the shore, and about 150 to 200 yards from the sea.

The cairn as it now appears is an elongated oval, about 60 feet long by 30 feet across, and about 4 feet high. It has been encroached on greatly by the plough, and the farmer informed me that he removed nearly a third of it on the south side some years ago. A line on the plan (fig. 15) indicates roughly what may have been the extent of the cairn before this removal was effected. The whole surface of the cairn

is covered with large stones in every position, most of which have been thrown on it from the field.

On examining the surface, I noticed that at the south-east corner a large flag stood on end; at the west corner another flag, partially exposed, lay horizontally, its edge just projecting beyond the face of the cairn where it had been quarried; while a few feet from the north edge, and 6 feet from the horizontal flag, there were seen the upper edges of two blocks of schist placed nearly parallel to one another, and



Fig. 14. View of Glecknabae Cairn from the west.

4 feet 6 inches apart. I commenced operations here, making a trench extending from between these two upright blocks and the horizontal flag, in the expectation that there would thereby be uncovered a chamber such as I am now familiar with. A foot of soil being removed, we defined two transverse stones, 3 feet apart. Taking these for the septal stones of a segmented structure, the trench was extended about 10 feet on either side, but nothing was revealed except the loose stones of the cairn, and when the horizontal flag was reached it proved to be the cover of a short cist.

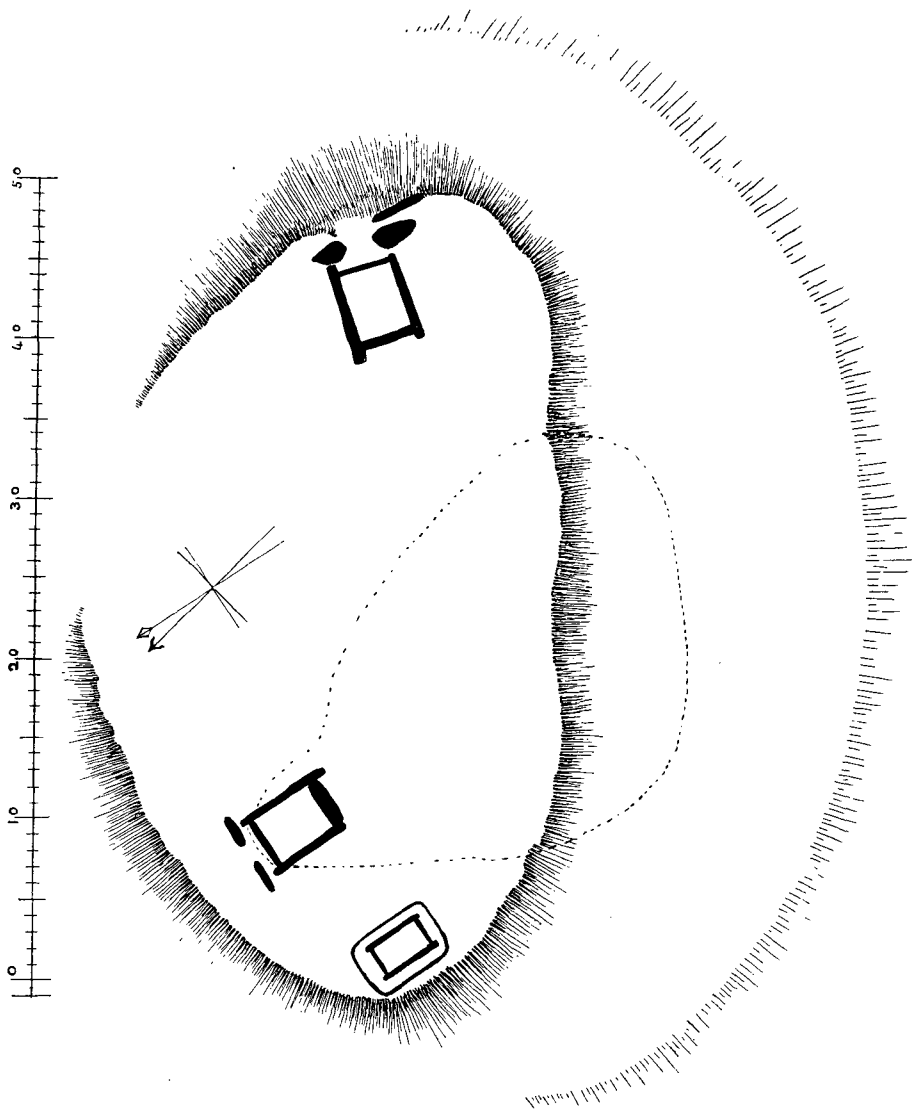


Fig. 15. Plan of Glecknabae Cairn.

I next extended the trench in the opposite axis, and finally laid bare the small chamber represented in the photograph (fig. 16) and plan (fig. 17). In the plan it has the appearance of a cist, but the photograph shows that the slabs are massive, irregular, and unequal in height. Moreover, the transverse stone D in the plan, not seen in the photograph, is 18 inches below the upper edge of G, 2 feet 3 inches below B, and 3 feet lower than A, the end stone of the chamber. Opposite each side stone of the chamber, and set at right angles to them, are two flags E and F, seen leaning inwards in the photograph, 2 feet 5 inches and 2 feet 2 inches broad respectively. Between these stones there is left a space of 2 feet 1 inch, which is the portal by which an access had been provided into the chamber, over the sill formed by the transverse stone D.

There is no sign of any capstone lying near, and no indication of how it, or they, had been supported. To the outside of the stone E, another block G further encroaches on the portal space, corresponding to a fourth H, outside F. Whereas F and G are on the same level, and flush with the top of the end stone A, the inner stone E is a foot lower than G, and H is a foot lower than F. The interval between G and H is reduced to 11 inches; and as they are light stones, one is tempted to suppose that they may have been flags which were used to block the portal after an interment.

The chamber itself is 4 feet in length and 3 feet in width, with its long axis lying due north and south (magnetic). The side stones are long flags of schistose rock, the east measuring 6 feet 8 inches long by 8 inches thick, the west 5 feet 3 inches long by 11 inches thick; B on the east side is 5 inches lower than C on the west. The end stone A is a massive block which looks almost as if it had been squared. It is 5 feet 1 inch high, 3 feet broad, and 1 foot 2 inches thick, and its upper edge is a little more than a foot above the side stones. The transverse stone D is 3 feet 5 inches broad, so that the chamber narrows slightly from the portal inwards, and the top of the stone is 18 inches above the floor. The depth of the chamber from the upper edges of the lateral stones is nearly 4 feet.

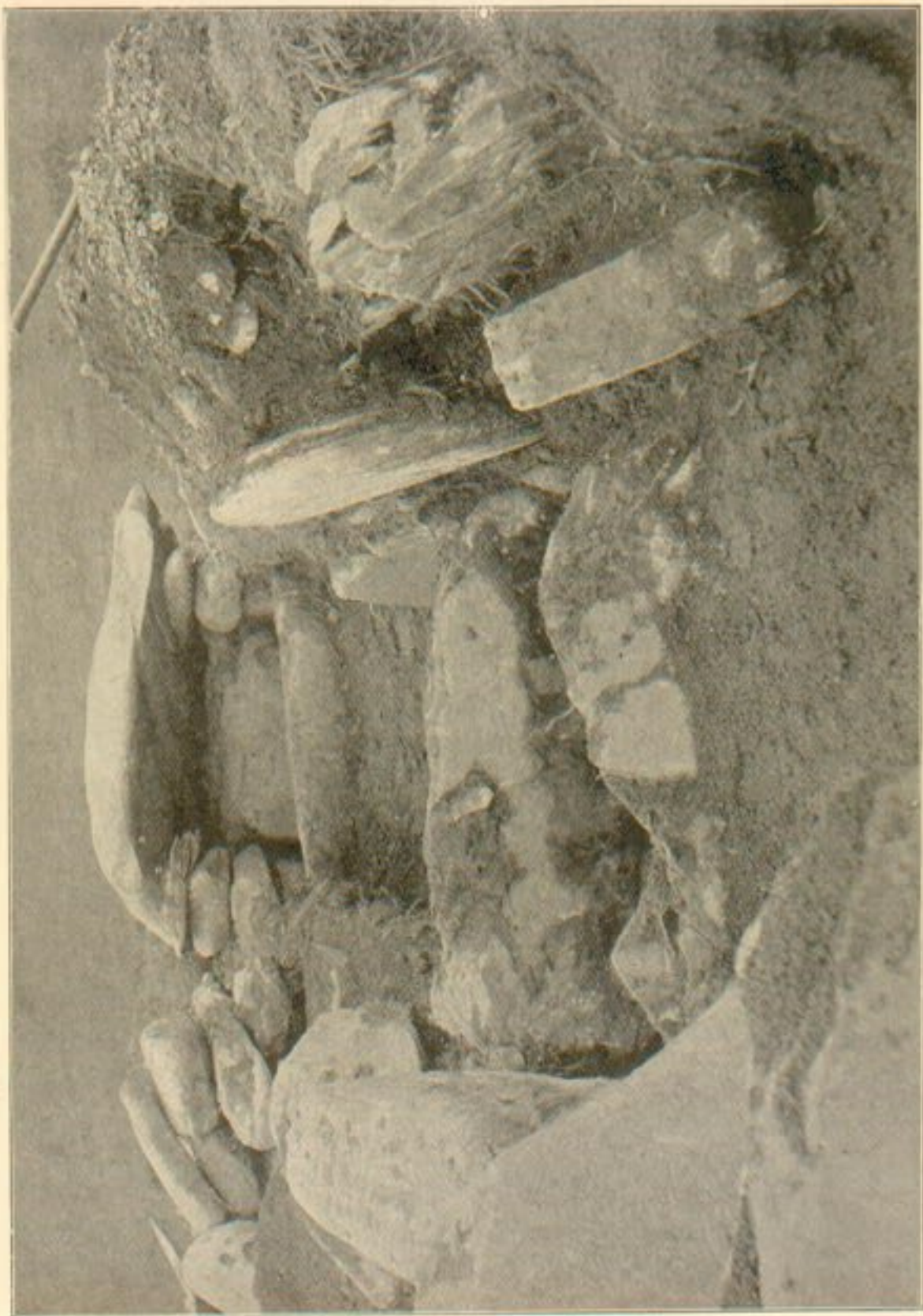


Fig. 16. View of small Chamber and short Cist at north-west corner Glecknabae Cairn after excavation.

The chamber contained in its upper part a number of large stones, but its deeper part was mostly filled with dark earth containing pieces of charcoal. About 2 feet or 2 feet 6 inches down, a heap of *burnt* bones was found along the east wall; and a foot deeper, in the south-east corner, there was an *unburnt* interment, of which a few fragments of a much decomposed skeleton were recovered. On the floor were scattered

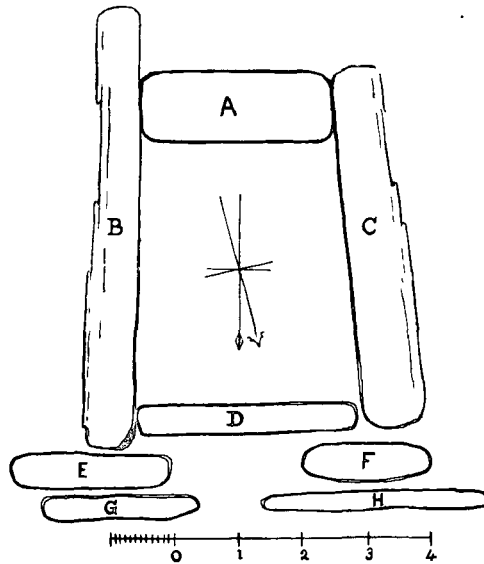


Fig. 17. Plan of small Chamber at north-west corner Glecknabae Cairn.

many fragments of reddish pottery, which I shall describe later. In the riddlings were recovered some flakes of flint, a flake of pitchstone, and pieces of broken quartz.

When the bottom of the chamber had been reached, to my surprise the spade brought up quantities of shells of many varieties—whelks, limpets, clams, oysters, mixed with ash and charcoal, and fragments of ox bones. The shell layer was more than a foot deep, and extended underneath the stones of the chamber, which therefore, it appeared, had

been placed on the top of a refuse-heap or kitchen midden. To ascertain the relations of this layer of shells to the cairn, I deepened the trench beyond the end stone and carried it onwards to the edge of the cairn. It was then found that the cairn consisted of large and small stones, many of which were of quartz from the shore. At a depth of about 3 feet the stones ceased to occur, and the colour of the soil in which they were imbedded in the upper strata, changed from brown to black. This black layer covered a stratum of shells varying in thickness from 2 feet to 1 foot. In some places it thinned away to nothing, though the layer of black earth was present all through the trench below the cairn structure. The stratum of shells rested directly on the clay subsoil. Everywhere the refuse-heap showed the same varieties of shells, and fragments of the bones of the ox were also found, though very sparsely distributed. The shell layer extended about 16 feet beyond the present cairn to the south, *i.e.*, under the base of that part which was removed, and the manner in which it passed under the existing cairn left no room for doubt that part of the cairn covered the site of an earlier kitchen midden. The dotted line on the plan (fig. 15) indicates approximately the extent of the refuse-heap as ascertained by excavations in various parts of the cairn. On the south side I made trenches every few yards on each side of our main trench, until the layer of shells disappeared. At the north side it ceased before it reached the edge of the cairn, ending below the north side of the chamber. Its whole extent is thus about 35 feet north and south and 25 feet east and west, but it is not a layer of uniform thickness, for, though spread over that area, the shells occur in heaps of greater height here and there.

Mr Alexander Somerville, B.Sc., F.L.S., lately president of the Conchological Society, has been good enough to name the shells collected. There are six, all present-day species.

Littorina littorea L.

Ostrea edulis L.

Pecten maximus L.

Patella vulgata L. type.

„ „ forma depressa.

Tectura testudinalis (Mull).

Trochus cinerarius L.

The mass of the deposit consisted of *Littorina*, the common periwinkle. The other species occurred sparingly, and are arranged in the list in order of frequency.

It is not pretended that this list is necessarily complete. I took specimens of all the species I saw, but others may have been present in other parts of the deposit. The absence of the mussel is to be noticed. I noted at the time that no shells of this species were observed in the trenches.

I must now return to the description of the chamber discovered in the south-west corner of the cairn. As mentioned above, a large flag rests on its end at the edge of the cairn at this spot. It is 5 feet 3 inches in its longer and 3 feet 3 inches in its shorter diameter, and is 3 inches to 7 inches thick.

I caused a trench to be sunk into the cairn from the edge adjoining the flag, and the digging revealed a chamber very similar to the one already described. The photograph (fig. 18) was taken from the outer side looking into the chamber. To the left is seen the flag which originally must have formed part of the roof; on each side are the two portal stones. The interval between their mesial edges is 2 feet. The right-hand stone is 2 feet 1 inch broad, is triangular in section (fig. 19) with the flat face directed outwards, and measures 1 foot thick at the base. The left stone stands lower than the right, and is seen (fig. 18) partially hidden by the flag in front. It measures 2 feet 6 inches broad, and 1 foot thick at the base of its bluntly triangular section. Between these upright stones is seen a transverse flag, the sill of the portal; but as shown in the plan (fig. 19), it lies nearly 2 feet behind their opposing edges. It is placed between the ends of the lateral stones of the chamber, stands 20 inches above its floor, while its upper edge is 2 feet 6 inches below the upper edges of the lateral stones.

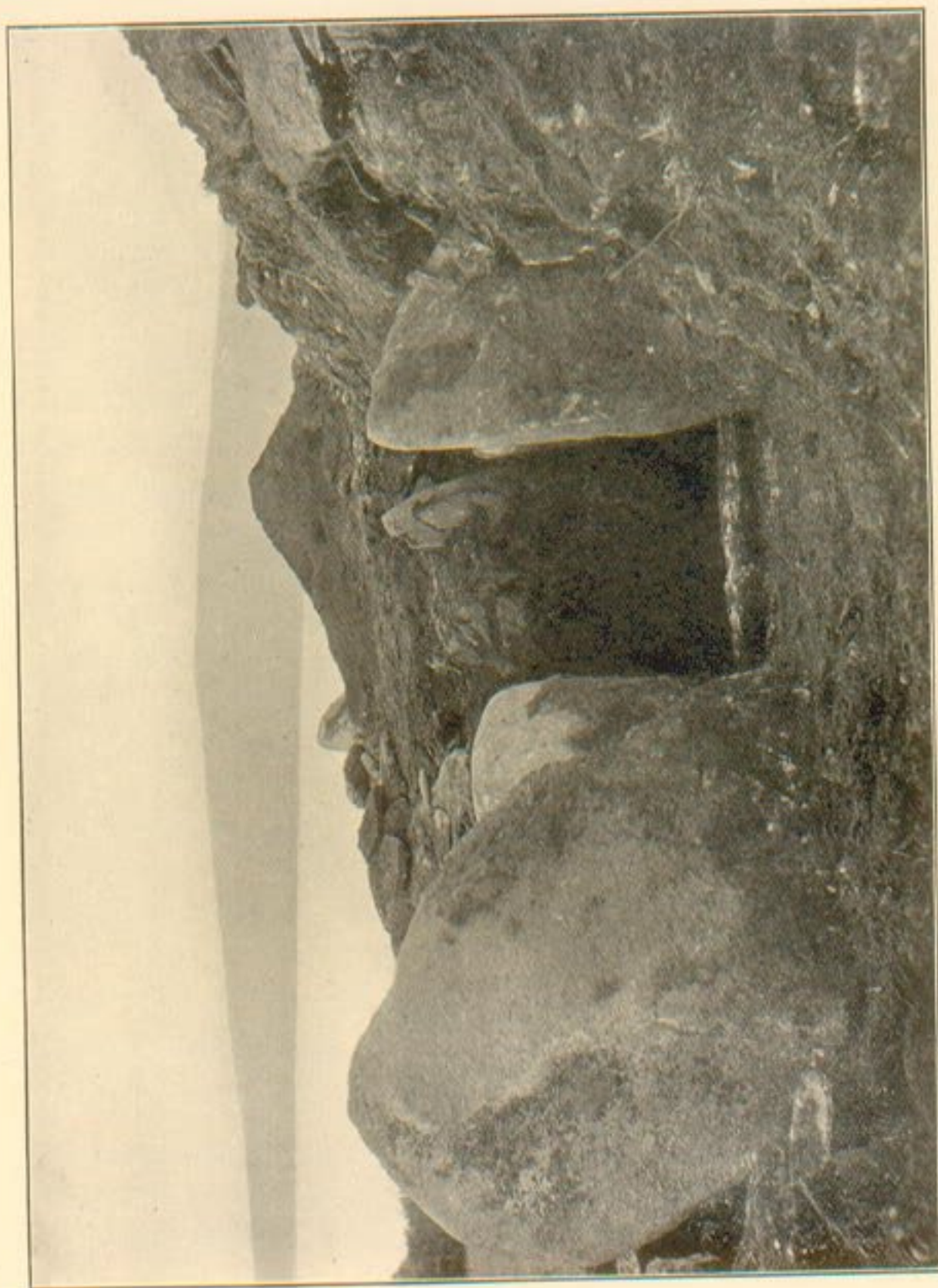


Fig. 18. View from the east of Portal Chamber No. 1, Glecknabae Cairn.

The chamber measures 4 feet 6 inches in length and 3 feet in breadth, its long axis bearing nearly east and west—strictly, east by south and west by north. It is formed of three large blocks of schistose slate. The lateral stones measure 6 feet 6 inches and 5 feet 6 inches, and are both from 9 inches to a foot thick. The north stone is 3 feet 6 inches deep, and nearly level along its upper edge; the south stone stands lower,

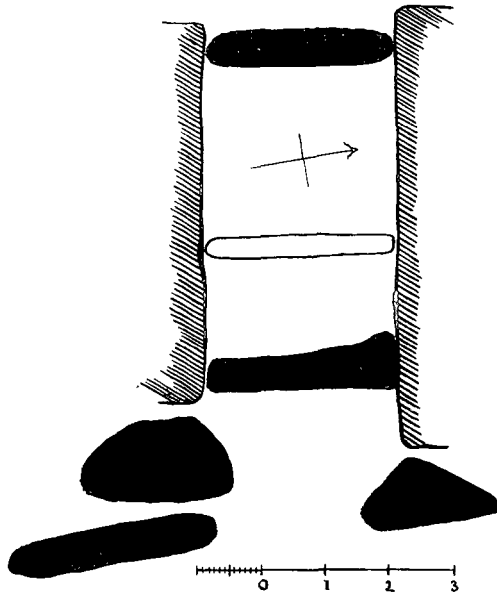


Fig. 19. Plan of Chamber No. 1, Glecknabae Cairn.

being 3 feet deep at the portal end, while its upper edge sinks down a foot at the inner end. The end stone is 2 feet 11 inches broad and 7 inches thick, and it stands 4 feet 10 inches from the floor—nearly 18 inches higher than the lateral stones.

The side walls, in all probability, were at one time raised to the level of the end stone by building with small stones, or flags, overlapping inwards. The dimensions of the large flag are sufficient to cover the

chamber if this were the case, without resting on the portal stones, which guard the open side of the vault on its outer side.

Set across the chamber, and dividing it superficially into two unequal compartments, there was a slab 2 feet 10 inches broad and 3 to 4 inches thick. The stone was loosely placed, and being only 1 foot 9 inches deep, did not reach the floor. It had no part in supporting the lateral stones, and it did not seem possible that the smaller compartment, only about 18 inches broad, could be a genuine division of the chamber. Its measurements, however, show that if the slab had rested on the sill it would have completed that side of the cell; and as it was quite light and easily moved, I am tempted to believe that its original purpose was to close the portal, and that it was displaced inwards when the chamber was first disturbed.

The interior of the chamber had the usual debris in its upper strata. Among the stones removed there was one perforated, which turned out to be a fragment of a large quern.

The soil contained many water-worn quartz stones from the beach, and at one place the floor seemed to have been paved with a layer of these rounded stones, all about 2 to 3 inches in diameter.

On the floor, close to the sill, were found two large fragments of the small urn represented in fig. 20, several fragments of the larger and thicker vessel represented in fig. 21, and a flint knife (fig. 22). The floor had the usual dark charcoal layer resting on it, beneath which was the undisturbed till. There was no shell layer in this part of the cairn.

In the riddlings I recovered two small fragments of burnt bone, seven flakes of white cherty flint, a flake of pitchstone, and many fragments of the two urns. There were also numerous fragments of chipped white quartz.

The small urn (fig. 20) is an example of the lipped type of chamber pottery. It is $3\frac{1}{2}$ inches in height, and its mouth is 5 inches across. The rounded segment of the body is very shallow, while the upper portion, which is vertical, is deep. The mouth is bounded by a projecting flat lip, which is the only decorated portion of the vessel.

The decorations consist of shallow groovings or flutings all round the periphery.

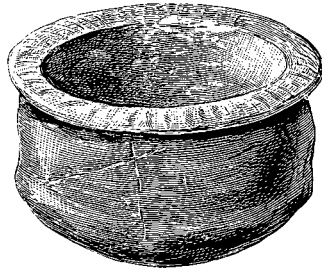


Fig. 20. Urn from Chamber No. 1; Glecknabae Cairn. (Scale, $\frac{1}{3}$.)

The larger urn (fig. 21) was unfortunately so broken that only a portion of the lip could be reconstructed. The paste is black and coarse, and the vessel must have been a massive one, with a mouth at least 10

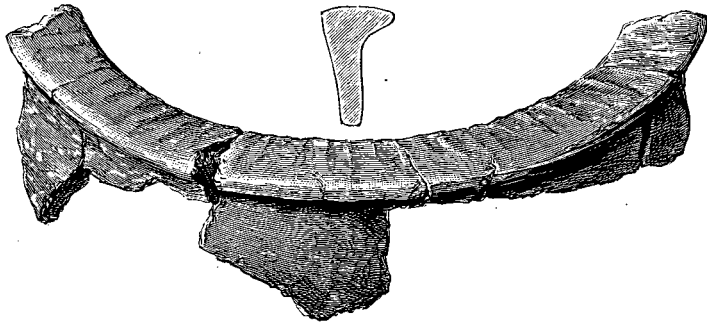


Fig. 21. Fragment of large Urn from Chamber No. 1, Glecknabae Cairn. (Scale, $\frac{1}{3}$.)

inches across. The flat projecting lip is $1\frac{1}{16}$ inches broad, and decorated with shallow groovings just like that of the smaller vessel. As among a large number of fragments no portion of a flat base was found, it is probable the bottom was rounded.

The flint implement (fig. 22) is a broad oval knife of brown flint nearly 2 inches wide.

The pottery from chamber No. 2 turned out to represent fragments of four vessels, all probably of the same general type. The paste was red

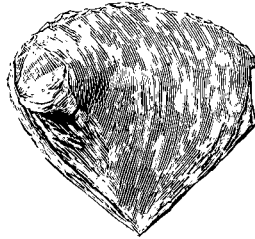


Fig. 22. Flint Implement from Chamber No. 1, Glecknabae Cairn. (Scale, $\frac{2}{3}$.)

in colour, and the walls considerably thinner than the vessels of dark paste found in the other chambers. The vessels, as indicated by fragments of the bases, were flat-bottomed, and, as fig. 23 will indicate, they

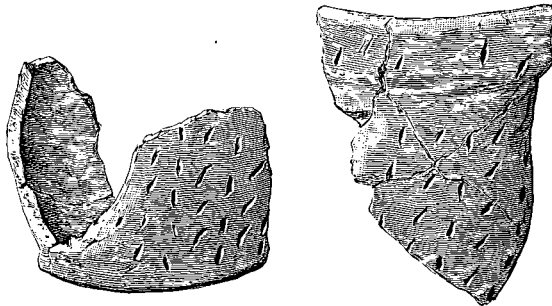


Fig. 23. Urn from chamber at north-west corner Glecknabae Cairn. (Scale, $\frac{2}{3}$.)

must have been tall in proportion to their width. Further, several fragments of the brim showed that they possessed thin lips distinctly everted. The base of the vessel represented in fig. 23 is $2\frac{3}{8}$ inches in diameter, and its total height must have been at least 6 inches. The body of the vessel bulges outwards, and is again constricted at the neck.

The decorative pattern must have covered the entire body. It consists of shallow incised lines, irregular both in size and direction, which, though arranged more or less in vertical lines, follow no definite scheme, and cannot be said to be disposed in zones. The fragment represented in fig. 24 has the same diameter of base—viz., $2\frac{3}{8}$ inches—as the last; but the decoration differs in being disposed in horizontal lines formed of discontinuous markings made by some square-toothed implement. The other fragments are portions of the flat bottoms of two vessels of brown and rougher clay, and have no ornament; while in addition are several smaller fragments which do not seem to belong to any of these vessels.

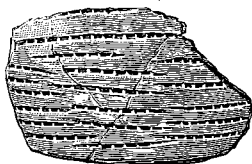


Fig. 24. Fragment of Urn from chamber at north-west corner of Glecknabae Cairn. (Scale, $\frac{3}{8}$.)

The short cist seen in the photograph, fig. 16, lay in exactly the same axis as the Megalithic vault, No. II., and 6 feet from it. The photograph was taken after the covering slab had been levered up and supported. It is a fairly heavy stone, and is roughly rectangular, measuring 5 feet 6 inches by 4 feet, and 7 inches thick. The cist (fig. 25) measures internally 3 feet 3 inches long by 2 feet 1 inch broad, its long axis lying due north and south (magnetic). The slabs of which it is built have been to some extent, I believe, smoothed, they are so much squarer and smoother than the rough slabs of the same stone forming the adjoining chamber. They are all on the same level, and the end stones are placed within the side members. It is about 2 feet deep, and was filled with fine earth, which was carefully removed and riddled. On the floor lay some much-softened and decomposed fragments of the long bones of an unburnt skeleton; but in spite of careful searching nothing else was recovered.

The contrast afforded by this short, carefully constructed, and completely closed cist to the two chambers is instructive; and the whole cairn, with its underlying shell-refuse layer, is a curious example of a site utilised successively in different phases of culture, and at different periods. But I have not exhausted the phenomena presented by the cairn without mentioning that the farmer, Mr Martin, a number of years ago, when removing a portion of the cairn, came on a vessel "like

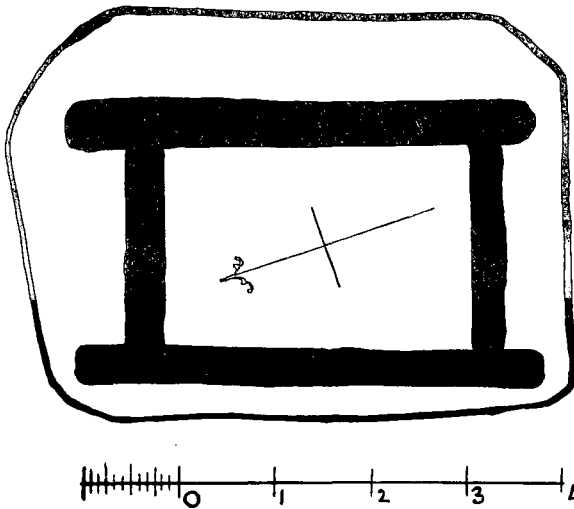


Fig. 25. Plan of Short Cist in Glecknabae Cairn.

a flower-pot" lying in the soil. It seems from his account that it was not provided with a protecting cist, but simply imbedded in the cairn, and unfortunately it is not quite clear what its relation was to the shell layer.

The only other structure of this class in Bute, I believe, is to be traced at the site of a cairn long ago removed, on the farm of Ballycurry on St Ninian's Bay. There is a "tumulus" marked on the 6-inch map, but

I cannot find any traces of it. In a fence, however, running over the site marked on the map, there are some large stones arranged in such a way that I was inclined to believe they represented the ruins of a chamber.

B. CAIRNS WITH SHORT CISTS.

I. SCALPSIE TUMULUS.

At Scalpsie Bay there are two cairns marked on the map. Near the shore there is an extensive area covered by a confused mass of stones,



Fig. 26. Tumulus at Scalpsie Bay.

which is probably the site of some ancient buildings, for I was informed that an old mill once stood in the field. There is another heap of stones further inland towards Scalpsie farmhouse, which is undoubtedly a cairn, but it has been in great part removed. A cutting had been carried through its centre, and as a large flag, evidently a capstone, lay on the heap of stones, it was clear that the interment had been disturbed. I therefore turned my attention to a mound adjoining the road, marked "Tumulus" on the Ordnance Map. It is a low elevation between 4 and 5 feet high, covered with whin bushes (fig. 26). It is nearly circular—

45 feet in one diameter, 43 in the other, but its contour is not quite regular.

I first caused a trench (fig. 27) to be dug from the north-east side,

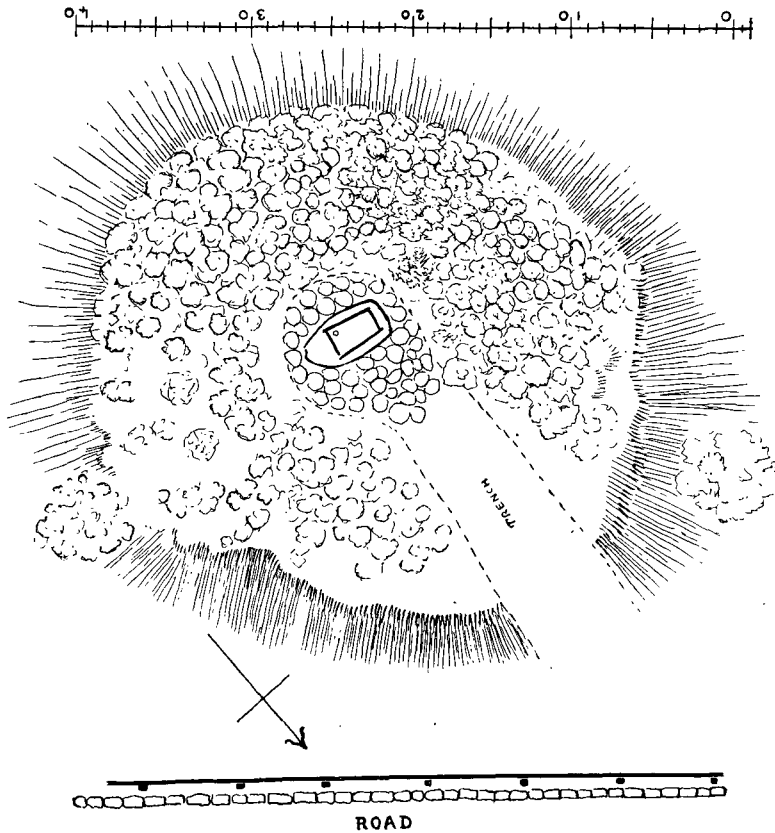


Fig. 27. Plan of Tumulus at Scalpsie Bay.

towards the centre of the mound. The outer portion consisted of earth with comparatively few stones, but these were of some size. When the centre of the tumulus was reached we ascertained that under the turf

and a layer of soil, there was a core of rather heavy boulders, which were so firmly welded that my labourers insisted that they had never been placed by human hands. On removing these stones a flat flag was reached, about 3 feet from the surface. When fully disclosed this was found to be a schistose slab, irregularly rectangular in shape, and measuring 5 feet 8 inches in length, 3 feet 4 inches in breadth, and 6 to 8 inches in thickness. This proved to be the cover of a cist (fig. 28), small relatively to the size of the capstone. It was care-

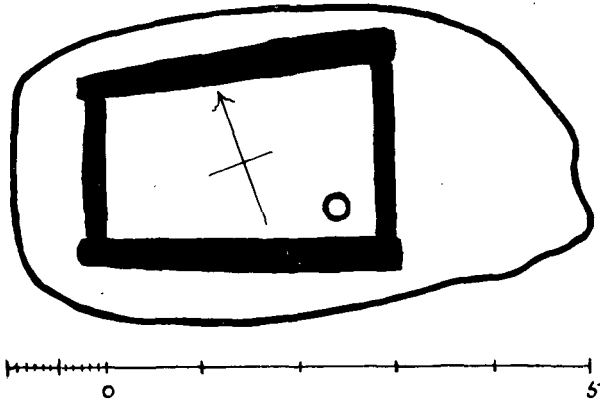


Fig. 28. Plan of Cist in Scalpsie Tumulus.

fully constructed of squared stones, and measured 2 feet 10½ inches in length and 18 inches in breadth. Its long axis lay west-north-west and east-south-east. The four component stones were all of equal thickness, and stood all on exactly the same level. The end stones were not of equal length, so that the cist narrowed slightly to the west-north-west end.

The cavity was filled to the third of its depth, which was 1 foot 10 inches, with fine sandy soil. This lay on a base of fine gravel and beach stuff.

In the south-west corner, just covered by the soil, and placed mouth

downwards, I found the food-vessel figured (fig. 29), which I was fortunately able to take out entire. Scattered on the floor were many fragments of *burnt* human bone; and in the riddling were recovered a bronze pin, a flint scraper and several fragments of the same substance, a number of broken pieces of quartz, and a jet bead.

The urn (fig. 29) lay mouth downwards. It belongs to the food-vessel class, is $5\frac{1}{2}$ inches in height, with a base $2\frac{3}{8}$ inches in diameter,



Fig. 29. Urn of food-vessel type from Cist in Scalpsie Tumulus. (Scale, $\frac{1}{2}$.)

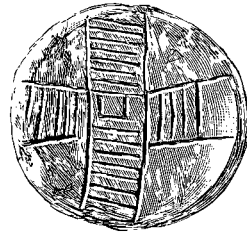


Fig. 30. Base of Urn of food-vessel type from Cist in Scalpsie Tumulus. (Scale, $\frac{1}{2}$.)

and an inlet $5\frac{3}{4}$ inches across. Round the shoulder there is a broad groove bridged over in each quadrant by a bar which is not perforated. The whole body is covered by zones of a chevron pattern, even the groove, edge, and upper surface of the broad bevelled lip being decorated in a similar way. On the body, neck, and lip a further ornament is added in the shape of a zigzag produced by small but deep triangular sinkings arranged alternately, and done with fair precision.

The flat bottom of the vessel is also decorated (fig. 30) by a square-armed cross, the limbs of which are formed of two bounding lines, joined

by a series of cross lines arranged parallel to one another. The centre is marked by a small rectangular figure.

The bronze pin (fig. 31) measures $\frac{3}{4}$ -inch in length, and is somewhat rectangular in section.

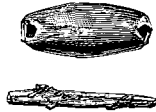


Fig. 31. Jet Bead and Bronze Pin from cist in Scalpsie Tumulus. (Full size.)

The bead (fig. 31) is of jet, and somewhat polished. It is $\frac{5}{8}$ -inch long, and oval in shape.

The flint implement (fig. 32) is a knife or scraper made of a greyish flint. It measures $2\frac{1}{8}$ inches by $1\frac{5}{16}$ inches.

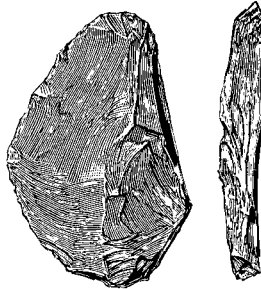


Fig. 32. Knife or Scraper of Greyish Flint from Cist in Scalpsie Tumulus. (Scale, $\frac{2}{3}$.)

It will be convenient to take here the other instances of short cist interments which I have examined, though there were no overground structures to mark the sites, and it remains a matter of speculation whether they were ever covered by cairns. I have three instances to record, and they are all situated on a long elevated ridge running east and west above the farmhouse of Auchantirie. The site has all been

cultivated, and in each case the cist was laid bare by the plough; therefore there is no improbability attaching to the supposition that they may at one time have been marked by a cairn or tumulus.

II. CIST NO. I.—AUCHANTIRIE (FIG. 33).

There is no sign of any cairn, and the covering slab is exposed on the

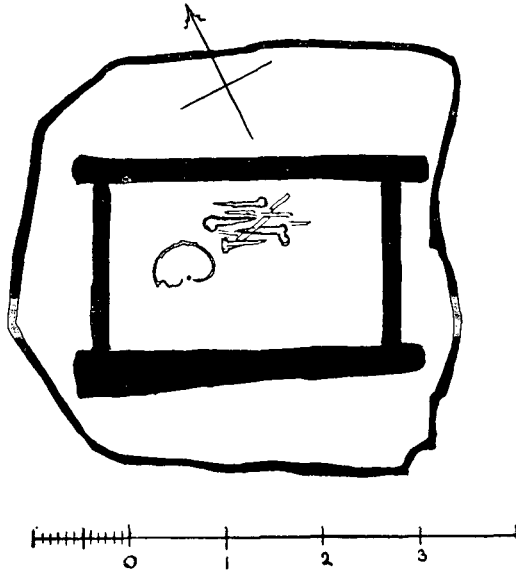


Fig. 33. Plan of Cist No. I, Auchantirie.

surface of the field. The cist was opened by the farmer many years ago, but the contents were not removed.

The covering stone is a heavy irregular slab of schistose rock measuring 4 feet 3 inches by 4 feet 2 inches, and is $7\frac{1}{2}$ inches thick.

The cist measures internally 2 feet 10 inches long by 1 foot 9 inches broad. The side stones are strictly parallel, and the end stones placed within them. The long axis lies west-north-west and east-south-east.

The depth of the cist is about 18 inches, and the bottom, to the depth

of 8 to 10 inches, was covered by fine soil. On this layer, lying as shown in the plan, was the left half of a skull, and in the soil were the fragments of some of the long bones. They all lay together as indicated; but it is evident that the disposition of the skeleton was interfered with when the cist was previously opened. The absence of the greater part of the right half of the skull shows that it had probably reposed on that side; and as the parietal and occipital bones are more broken away than the frontal, the head probably lay on its right side with the face slightly tilted up (*cf.* Mountstuart cist). In the riddlings of the soil I recovered a few fragments of an urn.

The skull (figs. 34, 35) is unfortunately defective, the greater part on one side where it lay on the ground being absent, while the base, face, and lower jaw have also disappeared. A small portion of the upper jaw, with some teeth, was, however, recovered separate from the skull itself. The skull is that of a female, in all probability, and is of small size, its maximum glabello-occipital length being only 170 mm. The individual to whom the skull belonged was beyond the middle term of life, as the sutures are in great measure obliterated, and the teeth are worn flat and the crowns considerably ground down.

The bones are light; the mastoid process, the glabella and superciliary ridges, and the occipital protuberance are all relatively slightly developed.

The forehead rises fairly vertically to the level of the frontal eminences, which are not prominently marked, and from this point to the occipital protuberance the vault is nearly uniformly rounded. The occipital region is somewhat globose; but this character is exaggerated in the photograph on account of the fact that the lambdoidal suture could not be so closely dovetailed as it naturally ought to be, when the occipital bone, which was separate, was placed in position. Notwithstanding, the posterior part of the skull does not fall away so rapidly as it does in a pronouncedly brachycephalous cranium. The occipital point is slightly above the inion. The parietal eminence is not prominent, and the side of the skull is well filled out and rounded below.

The skull is thus of a somewhat nondescript character—but as it is probably that of a female the features which characterise race are not emphasised.



Fig. 34. Skull from Auchantirie Cist No. I.

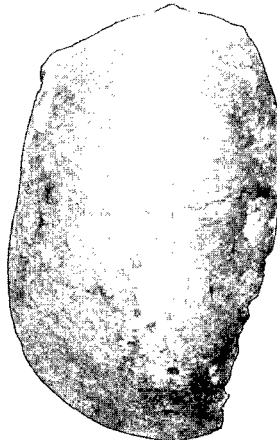


Fig. 35. Norma Verticalis of Skull from Auchantirie Cist No. I.

The following are such measurements as it is possible to take or ascertain. The transverse diameters are estimated by doubling the distance from the point in question to a carefully-placed artificial mesial

plane. Thus each figure is accurate on the supposition that the skull was strictly symmetrical.

Glabello-occipital length,	170 mm.
Ophryo-occipital length,	169 "
Horizontal circumference,	492 "
Minimum frontal diameter,	92 "
Stephanic diameter,	112 "
Asterionic diameter,	112 "
Greatest parieto-squamous breadth,	138 "
<i>Cephalic Index</i> ,	81
Frontal arc,	108 "
Parietal arc,	126 "
Occipital arc (lambda toinion only),	59 "
Vertical transverse arc. (From auditory meatus to the vertex and figure doubled),	284 "
Radii. (From point on post-meatal process of squamous below mastoid crest.)	
<i>A</i> to nasion,	114 "
<i>B</i> to glabella,	117 "
<i>C</i> to ophryon,	122 "
<i>D</i> to bregma,	124 "
<i>E</i> to vertex = greatest vertical height,	124 "
<i>F</i> to lambda,	107 "
<i>G</i> to inion,	88 "

The bones of the extremities preserved are too fragmentary to yield measurements of any value. They are the lower half of the left humerus; the upper portion of the shaft of the left femur, and the lower ends of both these bones; and portions of the upper ends of both tibiæ.

All the bones are light and delicate, a further indication that the individual was a female, and all the epiphyses have fully united, showing that she was of full adult age.

The humerus is not perforated through the olecranon fossa. The head of the tibia is not reverted, and there are no signs of either marked platycnemia of that bone, or of platymery of the femur.

CIST No. II.—AUCHANTIRIE (FIG. 36).

Several hundred yards east of the last cist described on the same elevated ridge, there are two cists lying 15 feet from one another with

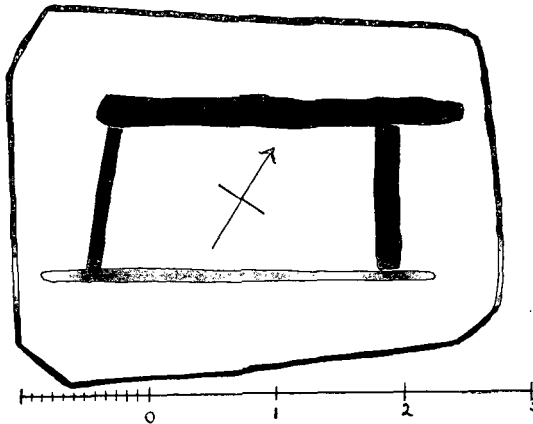


Fig. 36. Plan of Auchantirie Cist No. II.

thin covering slabs just overlaid by a thin covering of turf. They are both small shallow cists compared with the last.

Cist No. II. (fig. 36) is covered by a slab 3 feet 9 inches long by 2 feet 11 inches broad, and quite light. The cist measures internally 2 feet 2½ inches long by 14 inches broad, and 1 foot 5 inches deep. The slabs forming its walls are quite thin and light, one being only an inch thick. The end stones lie within the side stones which, are, however, not opposite one another. Its long axis lies east north-east and west-south-west.

The whole cavity was filled with burnt human bones, mixed with a little soil.

There was no urn, and the riddle caught nothing whatever in the way of implements or ornaments.

CIST No. III. (FIG. 37).

The third cist lies 15 feet to the south-east of the last.

It is covered by a light somewhat oval flag, measuring 4 feet 3 inches by 2 feet 5 inches. The internal measurements are 2 feet 3 inches in length, 1 foot 6 inches in breadth, increasing to 1 foot 7½ inches at the

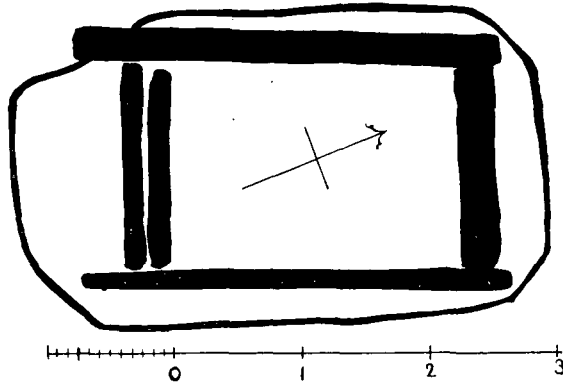


Fig. 37. Plan of Auchantirie Cist No. III.

south-south-west end. The long axis lies south-south-west and north-north-east, so that it does not lie parallel to No. I.

The end stones lie within the side stones, and the south-south-west end is provided with two. All the flags are very light and shallow, and the depth of the cist is only 14 inches. The interior was filled with soil which contained the much broken remnants of the skull, and long bones of the unburnt skeleton of a child in its first dentition.

The skull is represented by fragments of the right frontal, parietal, occipital, and temporal bones.

The bones are very thin, showing very little diploë tissue. All the sutures are open.

As neither the maxilla nor mandible has been preserved, it is not possible to speak definitely as to the age from the dentition, although a number of milk-teeth crowns were found in the soil. In the absence of evidence from the teeth, it may be noticed that the frontal sinus is only in the earliest stages of excavation—which would point to the child having been somewhere between seven and eight years of age.

4. MOUNTSTUART CIST (FIG. 38).

Within the Mountstuart policies, a few yards from the west lodge, in March 1887, a cist was exposed containing an unburnt interment. Since this find is interesting and important, as a contrast to that which I opened at Scalpsie Bay, I may be permitted to repeat here such salient facts as are known about it. These are found in a letter from the late Marquess of Bute.¹

The surface presented some irregularities which Lord Bute always looked on as a natural hillock, but which he inclined after the discovery to think must have been the remains of a tumulus. Eighteen inches below the surface of this hillock, during the progress of some work, a slab of red conglomerate sandstone such as occurs on the sea-shore, about a quarter of a mile distant, was laid bare. It was 5 feet long by 3 feet 3 inches wide, and about 6 inches thick. It rested on six weather-worn flattish stones set on their ends—two at the head, two at the feet, and one on each side. The cist was oriented north and south, and was 4 feet 2 inches long by about 18 inches wide. The east stone had fallen in, and was therefore unsupported by the end stones—differing in this respect from the ordinary short cist. It was three-quarters full of sand and sea-pebbles; and lying on the floor formed of sand, pebbles, and gravel lay the fragments of a skeleton much decomposed. From the disposition of the parts Lord Bute justly concluded that the body had been placed in the doubled-up position, and on the right side. The skull, represented by the face and left side of the vault, lay turned towards the east and

¹ A letter to Dr Anderson, published in the *Glasgow Herald*, March 25th, 1887. Quoted here from *Bute in the Olden Time*, J. King Hewison.

tilted somewhat upwards, the right side, as is so frequent, having decomposed where it lay in contact with the soil. The remaining bones were in fragments on the floor; but the remnants of the thigh and shin bones lay close together, and end to end.

On the floor was found, under the upper part, some burnt stuff. Near the feet and near the head lay what seemed like the remains of pins or

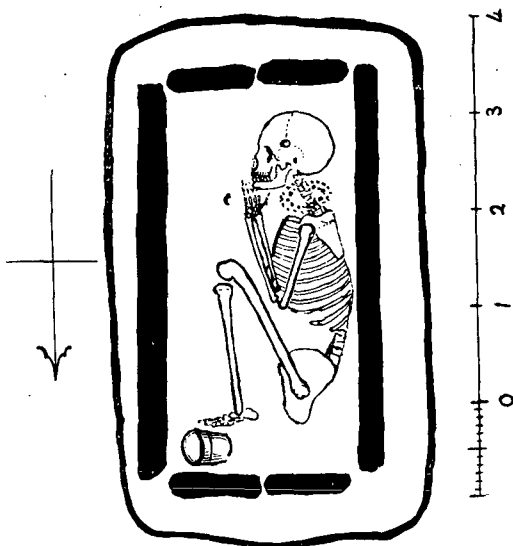


Fig. 38. Plan of Cist and reconstruction of the Skeleton in Cist at Mountstuart.

skewers. In the north-east corner was an urn lying on its side. In front of the chin, "where the hands had been," lay a "corrupt piece of bronze," and where the neck had been, 100 jet beads, which when put together formed the necklace figured on p. 66 (fig. 40).

The urn is of the usual food-vessel type, made of darkish red paste. It is 7 inches in height, with a base $2\frac{1}{2}$ inches in diameter and a mouth 7 inches across. The upper part is ornamented with horizontal bands of a chevrony pattern, like that on the urn from the cist at Brownhead, Arran, figured in my paper in the *Proceedings*, vol. xxxvi., p. 122.

The piece of bronze is so small as to be indeterminable, except that there is no doubt of its being bronze.

The necklace (fig. 40) is of the usual character of the necklaces, made of bugle-shaped beads and rhomboidal and triangular plates of jet with punctulated ornament. It consists of two terminal triangular plates and four intermediate rhomboidal plates with 98 beads and a triangular pendant.

The skull (fig. 41) has obtained some celebrity owing to the existence



Fig. 39. Urn from Cist at Mountstuart, Bute. (Scale, $\frac{1}{2}$.)

of a perforation on the left frontal bone, which Dr Munro has attributed to trepanning.

Dr Beddoe, who examined the cranial fragments, came to the opinion "that the owner was a young woman. The wisdom teeth have not appeared, but the other teeth are already slightly worn by the use of hard food. The mandible is rather small. The skull, indeed, must have been a small one altogether, but this cannot be attributed to mere youth, as the owner must have arrived at the age when the skull is pretty well grown.

"Frontal diameter is 98 mm.—this is pretty good; Stephanic diameter
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(about) 115 mm., which is small. Whether the skull was brachy or dolichocephalic I cannot say, but I incline to think the former. There is

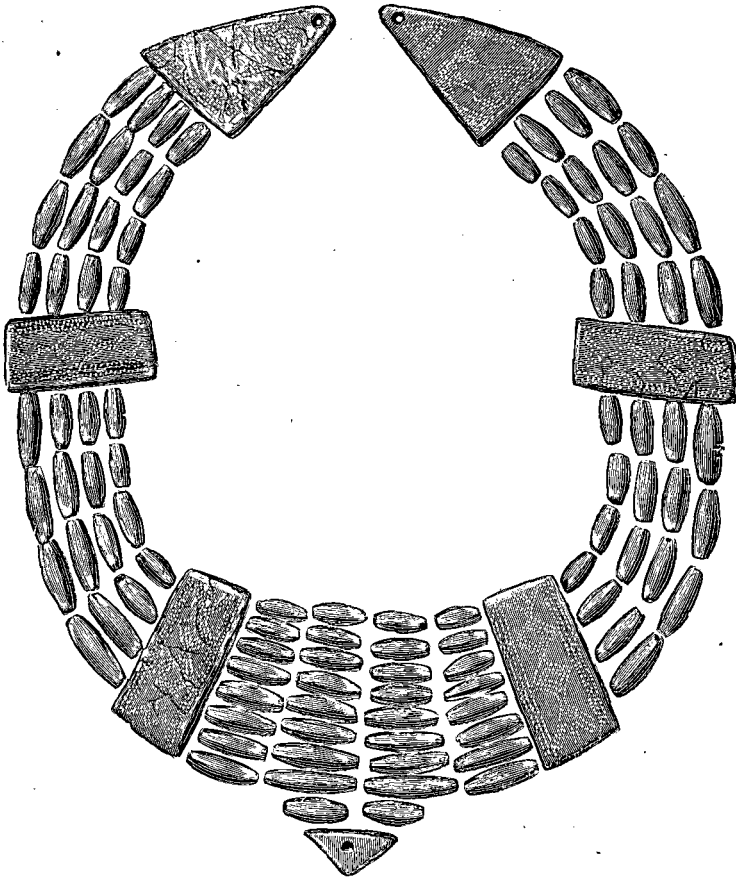


Fig. 40. Necklace of Jet Beads and Plates from Cist (with Urn, fig. 39) at Mountstuart, Bute,

a small degree of alveolar prognathism which is more usual (in Britain) with the former."¹

¹ *Proc. Soc. Antiq. Scot.*, vol. ii., series iii., p. 7.

I have very carefully re-examined the specimen, but cannot add anything further to Dr Beddoe's description. Comparing, however, the general characters of the fragment with the larger portion of the Auchantirie skull, I recognise a general resemblance which leaves no doubt in my mind that it belongs to the same class.

On the left frontal bone, behind and above its external angular process, with its upper edge touching the temporal crest, there is a shallow depression, roughly circular, measuring 27 mm. by 24 mm. It

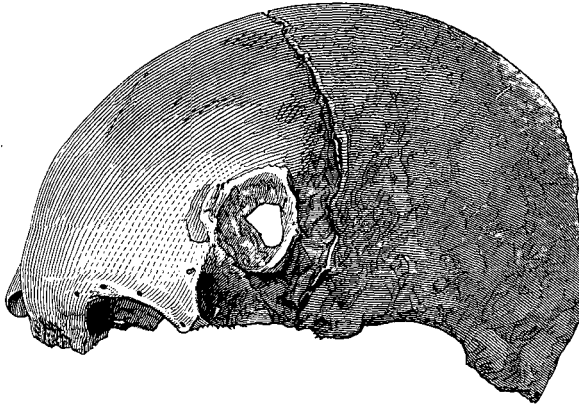


Fig. 41. Skull from Cist at Mountstuart, Bute. (Scale, $\frac{1}{2}$.)

involves both the outer table and the diploë of the bone, and is bounded by an elevated lip formed by a heaping up of new bone round the fossa. At the lower and anterior angle this lip is undermined, elsewhere it passes gradually into the floor of the excavation. This floor is rough, and covered by minute foramina, and is further perforated by an irregularly rectangular opening, measuring 9.1 mm. in its longer by 6.9 mm. in its shorter axis. The edges of the perforation are sharp, are in no way rounded off, and are flush with the inner surface of the skull.

As I have said above, Dr Munro has advanced the theory that this opening was the result of a trepanning operation carried out during life.

If this be the case, the specimen is one of great interest, and no account of the prehistoric remains in Bute can pass it by without careful examination. The authority of so distinguished an archæologist—himself a doctor of medicine—is a strong support of the suggestion; but my own analysis of the specimen, while it does not lead me to the conclusion that the perforation is necessarily an accidental breaking through of the floor of the fossa *post-mortem*, does not support the theory of trepanning. Without committing myself to a categorical statement, I shall simply state the arguments against the theory:—

1st. The site is an improbable one for a prehistoric trepanning through sound bone in life, as it lay under cover of the thick temporal muscle.

2nd. The elevated lip of the fossa is undoubtedly to be referred to deposit of new bone in the course of a vital process. The uneven surface of the floor, and of the undermined portion of the lip, has all the appearance of a bony surface, which was, during life, covered by granulation tissue. The fossa thus shows evidence of a prolonged pathological process occurring during the life of the individual; and it undoubtedly was a necrosis of the bone, not improbably the result of a wound or blow.

3rd. The perforation of the floor of the fossa shows, on the other hand, no evidence of a vital process. The edge is quite sharp, and not rounded off as one would expect if the hole were made by an instrument, and the individual had survived the operation for a time.

4th. Two explanations suggest themselves which equally well, to my mind better, accord with the appearances than that of trepanning:—

(1st.) While the edge is not such as would probably result from an operative opening, certain specimens of perforation by necrosis I have examined, indicate that it may have been left thus by the necrotic process attacking the inner table of the skull.

(2nd.) The pathological process having eaten away the whole thickness of the *diplœe*, so as to expose the inner table at the bottom of the depression, the thin papery shell of compact bone left was broken out after the maceration of the skeleton. Every other portion of such bone in the skull was broken when it was found.

This cist at Mountstuart is, so far as I know, the only instance of a short cist interment in Bute which has been adequately described, and from which the relics have been preserved. I have examined every known site in the island, except the circles, so that, until some accidental circumstance reveals a new site, I have exhausted the available data regarding this class of structure.

A considerable number of sites¹ of prehistoric sepulture are, however, referred to in the small available literature; of these Dr J. King Hewison² gives a complete list, and I shall briefly refer to them.

John Blain³ in his Manuscript, now published in book form, refers to three "barrows" which were removed in the end of the 18th century to the south of Mountstuart, at Kerrylamont. In a manuscript History of Bute, by a teacher named Macconachie, referred to by Dr Hewison, it is recorded that at Bruchag, the next farm to Kerrylamont, in 1817, the farmer found an ornamented urn with burnt bones during the removal of a tumulus.

Urns apparently deposited in the soil have been found also at Scalpsie, at Straad, at Nether Ardrosedale, and on a hill above the farm of Windyhall, near Rothesay. The latter discovery was made about twenty-five years ago, when several urns were dug out, until the proceedings were stopped by the late Marquess of Bute. I visited this site, which has been ploughed this year for the first time probably since the date of the discovery; but nothing now remains to show the character of the interment. The farmer informs me that he found nothing, and I could see no cist covers appearing anywhere on the hill.

Blain mentions that a cairn with a cist containing an urn and burnt bones was removed from a field near Brechoch, and that in the same field there were several small cairns containing bones but no urns. He also refers to "barrows" at Craighiorach and Upper Barone Farms near

¹ Marked with a X in the outline map.

² *Bute in the Olden Time*, vol. i., p. 38.

³ For account of Blain see *History of the County of Bute*, by J. Eaton Reid, 1864, Preface, p. 2

Loch Greenan. He further describes several "graves" in the hollow under Dunagoil, which he caused to be opened under the superintendence of Mr John Norton, the chief gardener at Mountstuart. He obtained undoubted evidence, in the shape of bones, that they were places of sepulture, but he does not say what manner of graves they were.

On Stravannan Farm, near Kingarth Church, a tumulus is marked on the six-inch map which has now disappeared. I have gone over the ground more than once without being successful in finding traces of it. Dr Hewison informs me that a number of years ago a landslip in the valley of the burn here revealed an ancient grave, now removed.

At Rudhabodach, on the north-east point of the island, there is exposed on the surface the cover of a cist which was opened many years ago. A skull was found, which Dr Hewison ascertained was sent to Professor Huxley.

Remains of a cairn are still to be seen on the Point House Burn above Ardbeg. It is referred to by Blain, and in the *New Statistical Account*, Buteshire, vol. v., p. 104, it is stated in a note that it had been partially opened, and "was found to contain many human bones mixed with the stones."

Dr Hewison¹ gives the following account of the cairn:—"Above Ardbeg Point there lies a little farm, now designated Rulicheddan, but a century ago noted in Dr Maclea's (parish) Visiting Book as Reiligeadhain, which signifies the burial-place of Eadan. . . . On part of the farm, close to the highway, where Eilyer Cottage now stands, on a mound beside the Point House Burn, there existed till about twenty-five years ago an immense cairn, some twenty feet high, which was only a portion of a larger cairn which was used as a convenient quarry. . . . In 1858, when the stones were being removed, it was discovered to be a place of prehistoric burial, and eighteen cists, each about 30 inches square, containing in some cases black dust, in others sepulchral urns, were laid bare round the circumference of the cairn.

"Again, at the final removal to obtain material to build the dykes

¹ *Bute in the Olden Time*, vol. i., p. 163.

round Kames Bay, a cist, now built into the wall at Kames Castle Gate, was found in the centre of the cairn. The cist was about 30 inches square, and contained dark, apparently burnt ashes, together with a rudely ornamented urn, which on being handled, broke into fragments."

Class C.

Tumulus containing a burnt interment without a cist.

Above the farmhouse of Kerrycrusoch, which is situated near the

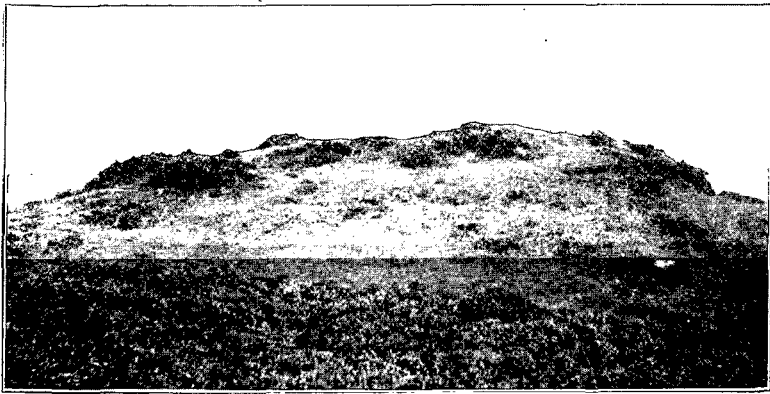


Fig. 42. View of Mound on hill above Kerrycrusoch from the south-east.

south end of Loch Ascog, there is an elevation marked "Mound" on the Ordnance Maps.

It stands (fig. 42) on the open moor, its highest point commanding a wide prospect. Itself covered with smooth close turf, it projects 5 or 6 feet above the heather which surrounds it on every side. It is nearly circular, measuring 44 feet east and west by 38 north and south. No record or tradition exists regarding its ever having been opened, but a depression on the top excited a suspicion that I had been forestalled.

I first caused the turf to be removed over the summit of the mound,

when there was revealed a small central cairn about 6 feet in diameter. The superficial portion of this was formed of small white quartz stones, water worn, the deeper of larger boulder stones. At a depth of 2 feet, under the centre of the heap of stones, a mass of burnt human bones, mixed with charcoal, was laid bare, lying on a layer of black soil. There was no urn, and no relics of any kind were discovered, in spite of careful riddling.

Having removed the whole heap of stones without coming on anything further I sunk the excavation down to the undisturbed subsoil. This was here on a considerably higher level than over the general surface of the moor. The trench was now extended in both directions until the greater part of the mound was cut through; and it was then clearly seen that it was in great part a natural hillock, on the summit of which the interment had been placed. Over this in turn there was heaped the small cairn to mark the site; and this in process of time was itself hidden by a layer of soil and a covering of turf.

While I have referred to this as an example of an interment without a cist, I do not venture to say that it was not originally one with a cinerary urn, because the possibility occurred to my mind, in view of the signs of disturbance of the surface, that some previous explorer might have removed the urn, and left the deposit of burnt bones *in situ*.

MOUNDS OF DOUBTFUL NATURE.

I. ARDROSCADALE MOUND (FIG. 43).

Close to the farm of Upper Ardrosdale, and overlooking Etterick Bay on the south, there is a mound about 40 feet in diameter and 4 feet high, which is named "Watch Hill" on the Ordnance Maps.

Many years ago, the farmer, moved by curiosity, dug into the heart of the hillock and found, under circumstances which I cannot now recover, some implement of what is said to have been bronze, and like a "sword blade." This has unfortunately disappeared. The mound is now

a rabbit-warren ; and during this summer, at the mouth of one of the holes, evidently scraped out from its interior, there was picked up what was described to me as a metal buckle, green in colour. Left on view in the farm parlour, this too has disappeared.

I caused the mound to be trenched right across the centre in the hopes of discovering something to throw light on these finds ; but absolutely nothing was exposed. The mound consists of clayey soil with a few large stones, but there is no cairn core as at Kerrycrusoch ; and I saw neither



Fig. 43. View of Mound at Upper Ardrosedale from the south.

charcoal nor signs of burnt material. I then carried trenches at right angles to the first, out to the other extremities of the mound, but they brought nothing to light.

The hopelessly spoiled record of what would have been a most interesting group of phenomena leaves one unable to say whether the mound is a tumulus or not ; only one thing is certain, that it never contained a short cist. It is not impossible that there were fragments of an urn found on the first opening ; and it is quite conceivable that an untrained explorer would fail to observe such a deposit of burnt bones as was found in the Kerrycrusoch mound.

II. TUMULI AT KERRYTONLIA.

Below the farmhouse of Kerrytonlia, quite close to the beach, off the northern point of Kilchattan Bay, there are twin green mounds—designated as tumuli on the Ordnance Map. Blain refers to them in his *History*, and mentions that a third mound in the same neighbourhood; when opened, yielded implements of bronze.

One of the existing mounds was opened a number of years ago, as recorded by Dr Hewison, but nothing was discovered. In the absence of any definite signs to show which of the pair had been explored I trenched both. They are placed 84 feet apart. Each is a circular mound of very nearly the same dimensions—the eastern one measuring 44 feet by 42, the western 45 feet by 42. The former is, however, considerably higher, standing nearly 6 feet above the general surface; while the latter is only some 3 feet high.

Both mounds are formed of beach stuff covered by a layer of soil, and each has in its heart a cairn of stones.

In the higher mound the mass of stones was about 14 feet across, and the stones were large irregular blocks mostly of sandstone, loosely piled together. The intervening material was beach sand, consisting mostly of shells in minute fragments; but there were also many larger fragments, and numbers of entire shells—whelks, cockles, limpets, and clams.

I cut into this central core, turned out all the stones, dug below them down to the subjacent shingle of the old sea-beach, on which the mound stands, and then extended the excavation outwards some distance on every side through the sandy strata underlying the surface layer of soil; but absolutely nothing was revealed.

The lower western mound presented quite similar appearances; but as it was, I believe, the undisturbed member of the pair, I have more confidence that my observations record the original features.

I carried a trench 4 feet wide inwards towards the central point of the mound from the south edge. For the first 12 feet, it was formed of

a layer of soil resting on a layer of beach sand, then a mass of large stones loosely piled was met with. They were mostly irregular slabs of sandstone from the cliffs of the 25 foot beach, some 200 yards inland, or conglomerate from the beach. There was no sign of any arrangement; but they had been quite obviously piled artificially. The mass of stones did not occupy the exact centre of the mound, being nearer the south and east edges. It was smaller than that in the neighbouring hillock, being 10 feet in diameter. It extended downwards to a depth of 2 feet 6 inches from the surface. The interstices between the stones were filled with beach sand, and beneath them there was a stratum of loose beach stuff, about 18 inches thick, this again resting on the coarse shingle of the old beach. This layer of beach sand contained many fragments of shells, as well as whole shells water-washed.

I removed the whole central area of stones, and found, at a depth of 3 feet from the surface, a thin stratum of charcoal at one point. It was nearly in the centre of the mound, but not under the centre of the heap of stones, and it was very limited, extending 18 inches at most, and not more than 1 inch thick at any part.

There were no burnt bones found in this charcoal bed, nor in any part of the excavation; and no pottery or implements were seen. The nature of these mounds is thus quite doubtful, though the disposition of the central mass of stones, and the fact of finding a layer of burnt wood so deep as 3 feet from the surface, show that they have been raised artificially. It seems to me unlikely that they are sepulchral; but it is difficult to see how they could be sites of habitation. They are not kitchen middens for the disposition of the shells, and the appearance of them is quite different from the undoubted heap of that nature at Glecknabae.

ANALYSIS OF DATA YIELDED BY EXPLORATIONS.

If the three mounds of uncertain nature, last described, be omitted from consideration, the record I have submitted in this paper presents,

as might have been expected, a set of circumstances in almost all respects similar to these observed in the neighbouring island of Arran.

There is evidence of two markedly different cultural phases superimposed on one another. As in Arran, the earlier phase is represented by the chambered cairns, the later by the short cist interments.

In Bute, however, we have in the Glecknabae cairn a set of phenomena which corresponds with *nothing* observed in Arran, for in the kitchen midden we must recognise an earlier phase than anything met with in that island, while in the modified chambers there is reason for believing that there is represented a phase which may be termed transitional.

Taking the refuse-heap first, it is to be noticed that it rested on an old surface, and was itself covered by a superficial layer of soil which intervened between it and the stones of the cairn. The question arises, was the cairn built at a time when the refuse-heap was already hidden by a layer of soil and a covering of turf? The probabilities are in favour of an affirmative answer, and therefore the midden may reasonably be referred to an earlier date than the cairn.

Coming now to the chambers, it will be noticed that they differ from the typical structures within the field of my personal observation, yet, notwithstanding the structural differences, the essential idea is the same. They are chambers provided with a portal of entrance, indicating the custom of successive interments in one vault. Taking the cairn as a whole, however, there is no indication that it is a structure with a definite relationship to one or other of the chambers, nor that it formed with a chamber a monument expressive of a single structural idea.

The outline and general plan is no doubt gone beyond recall; but as both chambers must have been placed at the edge of the cairn from the first, their relative position indicates that it cannot have been a structure such as the great cairns associated with the larger segmented chambers.

The departure from the idea expressed in the larger chambered cairns might be only a local manifestation of the same phase of culture; but as we shall see later, the evidence provided by the deposit indicates

that the variation from the type has probably more than a casual significance.

Looking at the position of the chambered cairns, on the map, as compared with that of the short cists, it is to be noticed that they are placed only on the western side of the island. In an island of such narrow dimensions this may have no significance, but it is worth noting since this line of chambered cairns is the eastern limit of such structures in the Clyde basin.

A structure, the essential characters of which are exactly similar to the small chambers in Glecknabae Cairn, still stands at Ardnadam on the Holy Loch. It has two portal stones bounding the entrance, which stand nearly 6 feet above the ground, and are therefore more prominent features than those of the Glecknabae chambers.

When referring to the distribution of these chambered cairns, I may mention that, besides those recorded in this and my former papers, I have met with a much ruined example at Glenreisdale, a short distance inland from Skipness Bay, in Argyleshire; and that, from certain descriptions I have seen of structures which existed in the peninsula between the Kyles of Bute and Loch Fyne, I am certain they are to be found in that locality also.

Implements.—The structures in Bute have yielded very few implements as compared with the Arran examples; but such as have been found in no way alter conclusions based on earlier work. Nothing made of metal has yet appeared. The occurrence in the Bute chambers of the same greenish mineral which was found in the Arran chambers, and which was identified as Corriegills pitchstone, is a curious feature.

So far as I know, none of this rare mineral is found naturally in Bute, and in two of the chambers the pieces were undoubtedly chips or flakes broken artificially.

It may have been employed for making articles of personal ornament, or in the absence of an adequate supply of flint it may have taken its place in the manufacture of tools with cutting or scraping edges; but the fact that neither ornament nor implement has been found made of this

stone, combined with the fact that it occurs more frequently in the form of unchipped rough pieces, perhaps points to its having been regarded as an object of intrinsic value, but what significance underlies its occurrence in the chambers it is not possible to guess.

POTTERY.

The vessels put together from the fragments in which they were recovered form a valuable addition to our collection of chamber pottery.

Those with rounded bottoms are all types met with before, and the general character of the ornament when it occurs is the same as previously described. There is the shallow grooving seen on the lips of the two vessels from Glecknabae chamber No. I., and the pattern of dots and lines on the vessel from Bicker's Houses chamber. In the latter the ornament is in some respects different from anything yet observed. The dotted impressions which form the pattern are larger and more irregular, and made by a pointed, not a toothed implement. The curious device of decorating one-half of the circumference of the bowl by rows of dots, and the other half by vertical lines, is paralleled in the large vessel from Beacharr¹ in which the lip has a different pattern over each half of the circumference. This vessel in size and shape must have been the counterpart of the large thick-walled vessel from chamber No. I., at Glecknabae cairn, of which only the lip could be put together.

The small urn from Bicker's Houses chamber, though in shape similar to certain of the Arran and Beacharr urns, is the smallest vessel yet discovered. The lipped urn from the same chamber, and that with a lip from chamber No. I. in Glecknabae cairn, belong to the same class as the Largie and Achmacree urns, though the decoration in the second is confined to the lip, while in the Largie urn it covers the whole body of the vessel.

Glecknabae chamber No. I. thus corresponds in every respect in its deposit of pottery with the chambered cairns of Arran and Argyle; but chamber No. II. has yielded vessels of a type not hitherto found in any

¹ "Cairns of Arran," *Proc. Soc. Antiq. Scot.*, vol. xxxvi., p. 108.

chambered cairn in Scotland. In form the vessels correspond to the variety known as the drinking-cup or beaker type of urn. The ornament is, however, atypical. The largest fragments show only a series of vertical markings, not unlike the decoration on the "beaker" from Suffolk, No. 34, Plate XXVIII. of the Hon. John Abercromby's paper on this class of ceramic.¹

On the other fragments the design is more elaborate, and on one it is arranged in a somewhat irregular zonular manner.

The occurrence of the drinking-cup or beaker class of urn in a chamber identical with another in the same cairn which yielded typical chamber pottery, is of much interest and significance.

If we accept Mr Abercromby's conclusions that this class of ceramic was introduced at the end of the Neolithic period, and that the type named α is earlier than those designated as β and γ , we are obliged to conclude that the culture of the Stone Age persisted in the Western Islands for the whole period corresponding to type α in South Britain.

However this may be, the discovery of the beaker type of urn in one of these small chambers proves that they must have represented a terminal phase of the Stone culture in Scotland. They would seem therefore to provide a link between the Stone Age and Bronze Age of Scotland, or, perhaps better, between the chamber culture and the short cist culture, and to supply us with a working hypothesis for the classification of the structures assigned to the Stone Age in this part of the country.

SHORT CIST INTERMENTS.

The relics from the short cist interments are not numerous; but such as they are, they provide the same striking contrast to the earlier monuments as was seen in Arran.

Bute has been fairly rich in graves of this class; and considering that the island is so much cultivated, and that the relic-hunter has left his tracks, it is a matter for thankfulness that we have even two short cist inter-

¹ *Jour. Anthropological Institute*, vol. xxxii., Part ii.

ments with associated relics properly recorded. Out of the six short cist interments described in this paper, one was placed in a cairn or tumulus, one in a cairn of an earlier date, and the remaining four were placed beneath the surface with no overground structure to mark the site; of these, again, the Mountstuart cist probably was once covered by a tumulus, while the remaining three presented no features on which a surmise could be founded in regard to this point.

There are among those I have described or referred to, eight undoubted short cist graves, in which the mode of interment is certainly known. In six of these the body had been inhumed, in two it had been previously cremated.

The short cists in which inhumation was the mode of burial are distinctly larger, more capacious—with the exception of Auchantirie cist No. II., in which quite a young child was buried—than the cremation cists.

Of the six cists of which we have a complete description, three contained no furniture of relics; one contained only fragments of a decorated urn; the remaining two, the Mountstuart and Scalpsie cists, had urns and other objects, among which were articles of bronze.

The Scalpsie cist contained burnt bones, the Mountstuart an unburnt body in the contracted position; yet in the matter of relics there is nothing definitely to indicate that the different custom of burial belonged to a different phase or stage of the Bronze Age. Both contained objects of bronze, jet beads, and urns of the food-vessel type, differing from one another only in the detail of ornament; and further, the Scalpsie urn is practically identical with one found with an unburnt body at Glenkill in Arran.

Thus in that phase of the Bronze culture, when burial in short cists was the rule, the same diversity of custom in the form of the interment prevailed as in the Neolithic culture of the chambered cairn period.

In this connection it is worth noting that in one of the chambers in Craigenew cairn at Glecknabae, both customs had been adopted, as both burnt and unburnt bones were found, though at different levels.

HUMAN REMAINS.

Unfortunately the practice of cremation seems to have been the rule among the chamber-builders of Bute, so that the exploration of their graves throws no light on their physical characters, and I am unable to add any confirmatory evidence to that obtained from the examination of the osseous remains found in the Torlin and Clachaig chambers in Arran.

From the short cists, however, we have two fragmentary skulls; but as they are both female, the racial characters are not represented in a marked degree.

Both skulls are small and delicate. The Mountstuart specimen is too fragmentary to enable one to judge of the ratio between length and breadth, but the proportions of the Auchantirie skull can be estimated, and though the method adopted may admit of a degree of error, I believe I am justified in calculating the index above 80.

Thus the skull agrees with the two recovered in short cists in Arran, and the contrast in skull form between the chamber builders and the short cist builders in the Clyde islands is maintained.