

## I.

## NOTICE OF THE EXPLORATION OF A CAIRN OF THE BRONZE AGE AT GREENHILL, IN THE PARISH OF BALMERINO, FIFESHIRE. BY ALEXANDER HUTCHESON, F.S.A. Scor., BROUGHTY FERRY.

A cairn on the summit of Greenhill in the parish of Balmerino had long been a subject of antiquarian interest to the proprietor, Mr Henry Scrymgeour-Wedderburn of Birkhill, and on 20th July 1899 he had excavations made which resulted in the discovery of a burial cist a little to the south-west of the centre of the cairn. Operations resulting in further discoveries were from time to time resumed until the whole site of the cairn had been examined. It is the object of this paper to give a chronological and detailed description of these operations and discoveries.

The eminence known as Greenhill is situated near the western extremity of the parish, and at a distance of about five furlongs from the river Tay. It may be described as the north-eastern and highest point of a ridge of rising ground sloping with comparatively easy gradients from the south-west, but on the north and east descending abruptly towards a plateau lying between it and the Tay.

The cairn, which is of circular form, occupies the highest point of the hill, 608 feet Ordnance datum, and measures about 50 feet in diameter from north to south, and about 48 feet from east to west. It is outlined very distinctly on the south and west, not so clearly elsewhere,<sup>1</sup> by a circle of stones which average from 2 to 3 feet in length, and from 18 inches to 2 feet in the other dimension, set, as usual, with their longer axes in the direction of the circumference. From this ring of stones, the cairn, composed of earth and stones, rose in the centre to a height of about five feet above the natural summit of the hill.

The accompanying plan shows the outline of the cairn, together with the order and position of the various discoveries.

The cist first discovered (marked A on plan) lay nearly north and

<sup>1</sup> Such enclosing circles are frequently and perhaps purposely left incomplete.

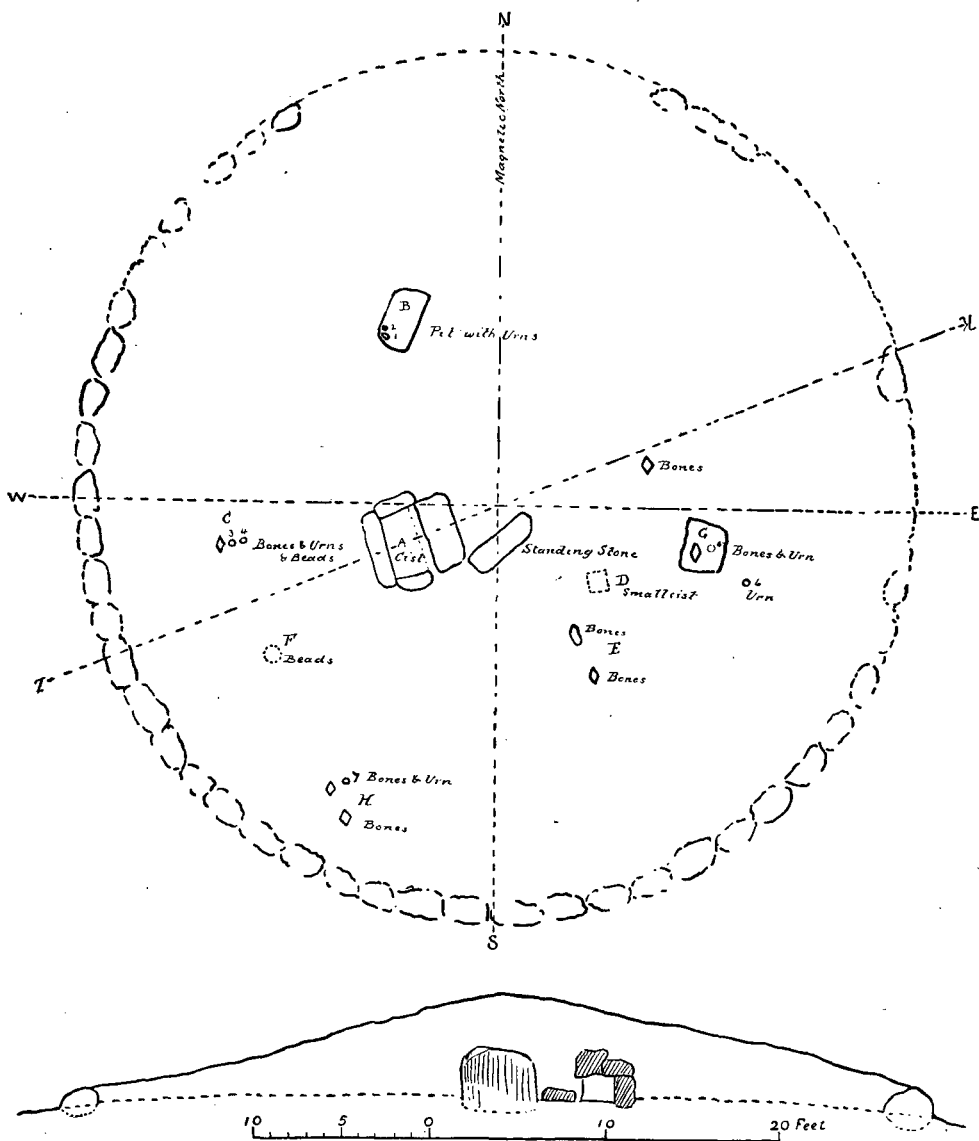


Fig. 1. Ground Plan and Section of Cairn at Greenhill.

south, was rhomboidal in form, and measured internally along the west side 3 feet 7 inches, along the east side 3 feet 11 inches, at the north 1 foot 9 inches, at the south 1 foot 10 inches wide, and about 1 foot 8 inches in depth. It was formed of whinstones remarkable for their weight and dimensions, due doubtless to the absence of pavement stones in the district. They measured as follows:—

	Length.	Depth.	Thickness.
W. side stone of cist,	4 feet 3 inches.	1 foot 6 inches.	0 feet 10 inches
N. „ „	2 „ 3 „	1 „ 9 „	0 „ 9 „
E. „ „	4 „ 2 „	1 „ 9 „	0 „ 9 „
S. „ „	1 foot 7 „	1 „ 8 „	0 „ 6 „
N. top stone	4 feet 2 „	1 „ 10 „	1 foot 6 „
S. „ „	4 „ 0 „	1 „ 2 „	0 feet 9 „

It will be observed that the cover of the cist was composed of two stones of weighty proportions corresponding with those forming its sides.<sup>1</sup> The top stones had given way and drooped down into the cist, partly from their own weight and the superincumbent weight of the cairn, and partly from the removal of one of the side supporting stones, as will be afterwards noticed.

The cist, which was full of earth, was cleared out, and was found to be neatly and closely paved with small water-rolled quartzite pebbles, but no relics of burial were met with. From the disturbed state of the cist it may, I think, be assumed that it had been examined at some earlier period, when such relics, if existent, had probably been either removed or destroyed. This seems evident from the recumbent position in which the large slab which had formed the eastern side of the cist was discovered when the present excavations were made. Instead of standing on edge like the other side stones, it lay flat at the level of the bottom

<sup>1</sup> Cists having covers of much greater weight and dimensions than any of the stones here have been recorded, in particular, a cist found at Duncraig, the cover of which measured 14 feet long, 8 feet 4 inches broad, and 15 inches thick. Such extreme sizes are probably due, not to any selective process, but to the absence of more portable stones from the neighbourhood. *Proc. S. A. Scot.*, vol. vi. 348.

of the cist, precisely as if the supposed excavation of that earlier time had been made to the east of the cist, and that this slab being thus disclosed had been pulled over from the top, revolving on its lower edge as if on a hinge. The interior of the cist had presumably then been ransacked, and whether or not further search had then been made in the cairn, the earth had again been filled in, thus covering up, as it lay on its side, the fallen stone.

A remarkable feature revealed by the excavation was the presence, at a distance of about 2 feet to the east of the cist, of an upright slab of whinstone, the side edges perpendicular and the top edge rounded. It measured 4 feet 2 inches in breadth, was from 12 to 14 inches in thickness, and stood 3 feet 3 inches high above the subsoil in which it was inserted, and had a foothold, as subsequently ascertained, of 9 inches. It was smooth and flat on the side next to the cist, but nowhere bore any tool marks or other evidence of shaping. The subsoil beneath and around was carefully examined without evidence being disclosed of any burial at a lower level. Circles of upright stones within a cairn and enclosing a burial cist have been previously noted.<sup>1</sup> Here, however, there was no such circle. This stone stood alone, so far as could be ascertained from the excavations subsequently carried out, and it is quite possible that it may have been erected before the cairn was reared. Its weather-worn and rounded edges and surfaces were certainly suggestive of a long period of exposure to atmospheric influences before it was covered up.

The result of these discoveries was to stimulate Mr Scrymgeour-Wedderburn to prosecute the further exploration of the cairn. Circumstances, however, prevented the work being resumed until 11th January 1901, when, in presence of Mr Scrymgeour-Wedderburn, Mr Frederick Scrymgeour-Wedderburn, Rev. Dr Campbell, Balmerino, and the writer,

<sup>1</sup> For some very suggestive remarks anent circles, see Rev. Mr Greenwell's Account of Excavations in Cairns near Crinan, *Proc.* vi. 337. Also account of supposed inner circle of upright stones in the Auchterhouse Cairn, by the writer, *Proc. S. A. Scot.*, vol. xxiii. p. 218.

another cist, enclosing an urn, together with the interesting little urn now to be noticed, was discovered.

The work of excavation was resumed by cutting a trench about 7 feet in width away to the northward of the former operations. Here, at a distance of about eight feet from the first cist, a large flattish stone (B on plan) was come upon which was supposed to be the cover of another cist. Excavation was carefully made at one end, when an opening was disclosed under the stone, and close at hand within the opening were the fragments of an urn subsequently described as No. 1. The surrounding earth was then carefully cut away so as to permit of the cover being lifted. Owing, however, to the stone being close to one side and near to the end reached in the excavation, all that could be done by the workmen was to raise the stone carefully upon edge. It was then found, contrary to expectation, that there was no cist in the ordinary acceptation of the term, but that a rudely rectangular pit<sup>1</sup> had been sunk in the subsoil to a depth of about 8 or 9 inches, when the surface of the rock had been reached. The urn had then been placed standing upright, close to the south-east angle of the pit, and then the stone cover, which measured 2 feet 9 inches long, 2 feet 3 inches broad, and 9 inches thick, was laid carefully down, its edges resting on the hard clay edges of the pit. These had probably yielded under the weight of the stone slab, with the consequence that the urn was found crushed and broken. While it was being rescued in fragments the covering slab had been supported on edge by the workmen, but now in order to get the interior better examined, it was deemed necessary to lower the slab entirely over on to its upper surface, and it was while this was being carefully done, so as not to break down the edge of the pit on which it rested, that the quick eye of Mr William Murray, gardener at Birkhill (who was assisting in the operations), caught sight of a small cup-like object close in below the edge of the slab and lifted it, handing it to Mr Scrymgeour-Wedderburn.

<sup>1</sup> Pits cut or sunk in the chalk are common in the south of England, but appear to be usually circular or oval in outline. Hoare's *Anc. Wiltshire*, vol. i. pp. 102, 243, etc.

The little object so fortunately discovered (and possibly just in time to save it from being crushed out of recognition), proved to be a miniature urn (No. 2), so small as to entitle it to be considered unique.

As this is the most interesting object which these operations have disclosed, the fullest description is necessary. But first as to its position in the pit; this can only be guessed at—whether standing free, or embedded in the soil at the edge of the pit, it is impossible to say. One thing is clear: the little urn was not inside the larger one. The class of small urns, sometimes described as “incense-cups” (which, however, are of type quite distinct from the Greenhill little urn), are usually, if not invariably, found placed inside an urn of the cinerary type.<sup>1</sup> These cinerary urns, as is well known, are of large dimensions, and quite different in size and character from those to which the Greenhill urn No. 1 belongs, which is of “food-vessel” type. Judging, then, from analogy, it was not to be supposed that the little Greenhill urn would be enclosed in the larger one, but they must have been set in close proximity to each other; and it is fortunate for the settlement of this point that I had previously removed the urn No. 1, nothing being found in it but a little earth that had crumbled into it from the sides of the pit. It is almost needless to remark that after these discoveries the interior of the pit was most carefully examined, and the edges cleared away all round down to the rock, without, however, any other relics being met with.

Before describing the little urn, it is proper from priority of discovery to deal with urn No. 1 (see fig. 2). This urn is of the wide-mouthed or food-vessel type. It is 7 inches in height, and measures 6 inches across the lip, which is slightly everted. Two projecting bands encircle the waist, from the lower of which it descends in a full and graceful curve to a narrow filleted base measuring only 3 inches in diameter. The body of

<sup>1</sup> Dr Joseph Anderson, in treating of these small cuplike urns and their relation to the cinerary urns, says, “It appears in all cases in which the position of the small urn with respect to the larger urn has been ascertained, the smaller vessel is invariably found within the larger.” “The form of the larger urn with which it is always found associated is the cinerary form which accompanies burials after cremation” (*Scotland in Pagan Times: The Bronze and Stone Ages*, p. 46).

the urn is ornamented externally with a series of indentations arranged in short rows as if by the impression of a small comb of twelve or thirteen teeth, arranged between the projecting bands in a diagonal manner so as to produce a sort of chevrony pattern; but below and above the bands, and on the inner edge of the lip, is a series of parallel rows encircling the urn. The bands are themselves ornamented, the upper band with two rows, the lower with one row of triangular depressions



Fig. 2. Urn (No. 1) from deposit B in the Greenhill Cairn. ( $\frac{1}{8}$ .)

produced by pressing the point or corner of a spatulate tool into the soft clay at uniform distances, while below the lower band diagonal and horizontal lines of ornamentation, as if produced by the teeth of a comb, are continued to the base of the urn.

I come now to deal with the little urn No. 2 (fig. 3); and as nothing will better convey an idea of its diminutive character than a picture, it is here represented of the actual size. The urn measures  $\frac{7}{8}$  of an inch

in height, is  $1\frac{1}{8}$  inch across the top,  $\frac{1}{16}$  of an inch in diameter at the base, and weighs rather less than half an ounce avoirdupois.

In form, it swells slightly at rather over a third of its height below the lip, whence it recurves inwards to the base. Around the base it is scored vertically, but irregularly, with about twenty-seven notches or scores of rather less than  $\frac{1}{8}$  inch in length. A series of similar notches indents the top and inner edge of the lip, but from a small part of the lip having been damaged, the number of scores here cannot be counted. The body of the urn, or between the vertical scores of the base and the lip, is scored with longer lines measuring from  $\frac{1}{4}$  inch to  $\frac{3}{8}$  inch long running obliquely, not regularly arranged, but all in one general direction.



Fig. 3. Small Urn (No. 2) from deposit B in the Greenhill Cairn.

The cavity in the interior measures fully  $\frac{7}{8}$  inch in diameter by  $\frac{1}{2}$  inch deep. The interior has a whitish encrustation similar to what is sometimes seen on parts of the interior of a stone cist in which there has been an unburnt interment, and probably due to the same cause, doubtless a deposition of lime due to the decay and dispersion of the elements of the bones in a humid atmosphere. The encrustation in this little vessel points to the same origin, although no other evidence of interment was detected in the pit where the urn was found, for beneath this whitish crust is visible a blackish skin, also adventitious, through which, in places, the clay structure of the urn may be distinctly seen.

It may be vain to speculate on the purpose which such a diminutive vessel was intended to serve, yet an attempt may be pardonable to



assign to it its place in the series of sepulchral urns. The class of small urns usually called "Incense Cups," which have hitherto held the field as the smallest specimens of fictile art known to Scottish archaeology, are separated by a wider interval of dimension from the little Greenhill urn than divides them from the urns of food-vessel type, which rank next above them in size. The term "incense cups" derives its chief support from the perforations which characterise the urns of this class;<sup>1</sup> but the little Greenhill urn differs from them, not only in form and diminutiveness, but in having no perforations, and also in having no association with a cinerary urn, nor even with a cremated burial. Indeed, it may be said to approach more nearly to the form of the cinerary urn. Its ornamentation also suggests the work of an amateur, rather than that of the practised artist who formed urn No. 1; but until other specimens are found, it will be wise to reserve speculation.

It must, however, be remarked that the pick and the shovel<sup>2</sup> are not the most promising tools with which to make search for such diminutive vessels, and it may well be that many such may thus have perished or eluded observation. Meanwhile it is to be hoped that greater care will henceforth be exercised in looking for such small objects in similar future explorations.

Circumstances prevented the prosecution of further search at this time, and operations had again to be suspended, but were resumed on 26th September. A trench was opened of 5 feet in width running from the site of cist A on plan straight to the boundary of the cairn, a distance of 16 feet. This was cleared out down to the subsoil with no

<sup>1</sup> For notices of the so-called incense-cups see *Proc.*, vol. ix. p. 189; also Dr Joseph Anderson's *Scotland in Pagan Times: The Bronze and Stone Ages*, pp. 43-48.

<sup>2</sup> About four years ago the writer heard of the discovery of a cist, a short distance from Dundee, and made his way to the site, only to learn from the farmer that one of his men had cleared it out with a spade, but "nothing was found"! But on making prolonged enquiry I was told that a piece of "fiddle roset" had been picked up. This, as I surmised, turned out to be an amber bead  $\frac{3}{8}$  inch diameter; probably more might have been recovered had a less masterful implement than a spade been employed. The bead was handed over to the proprietor of the ground.

result, except to establish the fact that for a few feet from the cist the soil was found to be of finely pulverised earth, quite free from stones as noticed in the Auchterhouse Cairn.<sup>1</sup> The trench was in like manner prolonged in the other direction until the centre of the cairn was reached; and here also in proximity to the cist the presence of the same fine dark coloured soil was abundantly evident, changing towards the centre of the cairn into an equally fine but now yellowish sandy clay that had, however, been turned over, since it was found to be mixed with pieces of burnt wood, very small white stones, pieces of quartz<sup>2</sup> and signs of burnt earth. This it was thought might cover a burial, but on being cleared away, the "hard pan" of the subsoil was reached without disclosing any sign of lower disturbance.

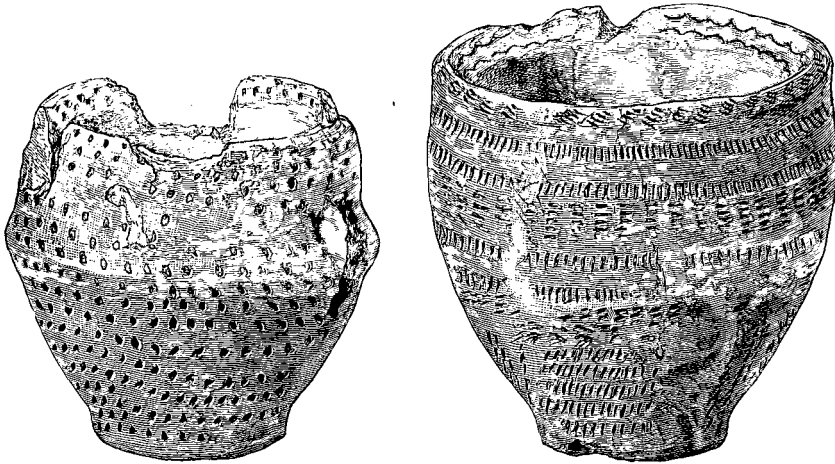
At the same time as these operations were being pushed forward, another trench of 6 feet in width was being run in a circular direction just outside of the site of pit (B), until it formed a junction with the first named trench; and here, just before this junction was reached, a quantity of incinerated bones (C) was disclosed along with two urns Nos. 3 and 4. The urns were slightly sunk into the subsoil, but apparently had no other enclosure. They stood upright, and were set close together. They were much broken *in situ*, apparently by the pressure of the earth which filled them. They were closely surrounded on the west side with a considerable quantity of incinerated bones, apparently human, since several crowns of human molars were found among them. Here also amongst the bones were found two beads of small dimensions, and resembling in form, though rather larger in size, those beads found in a cist with an urn in the floor of the Horned Long Cairn at Yarhouse in Caithness.<sup>3</sup> The two now described are of equal size and measure  $\frac{1}{4}$  inch in diameter, rather over  $\frac{1}{16}$  inch in thickness, and are pierced in

<sup>1</sup> *Proc.*, vol. xxxii. p. 218.

<sup>2</sup> The white pebbles and broken pieces of quartz have been, in the writer's experience, the invariable accompaniments of the fine soil which usually surrounds a cist in cairn burials. See *Proc.*, xxxii. p. 216; other observers have had a similar experience. See *Proc.*, vi. p. 342, note.

<sup>3</sup> For description and illustration of the Yarhouse beads, see *Proc.*, vol. ix. p. 246.

the shortest diameter by a hole  $\frac{1}{8}$  inch wide, which in one of the specimens is not quite concentric. One of the beads is white and appears to be of bone,<sup>1</sup> and has therefore presumably passed through the fire, but the other is black and looks like lignite. They are, however, probably both of the same material, whatever it is, and owe their difference of appearance to the greater or lesser action of the fire to which the bones were subjected. The urn (No. 3) represented in fig. 4 measures 5



Figs. 4 and 5. Urns (No. 3 and No. 4) from deposit C in the Greenhill Cairn. ( $\frac{1}{2}$ .)

inches in height, is 5 inches in width at the lip, swelling to 6 inches diameter at a sort of ridge which encircles the waist, whence it tapers to a diameter of 3 inches at the base. It is ornamented by six rows of punctures between the lip and the centre ridge, and nine or ten rows of similar markings below. The other urn (No. 4, represented in fig. 5) is more cup-like in form and slightly larger, measuring 6 inches in height

<sup>1</sup> A piece of worked bone was found amongst a quantity of burned bones contained in an urn found at Murthly, Perthshire. Sir Arthur Mitchell, in describing this find, refers to it as the first instance in which a piece of worked bone has been found in a sepulchral urn. See *Proc.*, vol. ix. p. 269.

by  $6\frac{1}{4}$  inches in diameter across the mouth ; the side a slightly swelling curve, with a gradual taper below to a base of  $2\frac{3}{4}$  inches diameter. The ornamentation has some peculiar features. On the inside bevel of the lip are two rows of impressions like those of a thumb-nail. On the outside, along the lip, and over the surface, are rows of impressions of the fibrous end of a broken stem arranged in bands, vertical and horizontal. Along with the burnt bones (none of which were in the urns) was found a skelb of yellowish flint in shape somewhat like a rude arrow-head. It measures  $1\frac{1}{2}$  inch long,  $\frac{1\frac{3}{8}}{1\frac{3}{8}}$  inch broad at the widest part, and rather under  $\frac{1}{4}$  inch in greatest thickness. It is pointed at one end, but exhibits no secondary working nor bulb of percussion, but along one edge is some chipping, apparently not purposely intended for shaping or sharpening, but accidental and resulting from some use to which the edge had been applied.

After the urns had been lifted and the bones placed in a riddle for more careful scrutiny, there was found among them a modern brass ring for the finger, stamped on the inside with what seems to be the letter M and a star. I had gathered up the bones and earth very carefully by means of a gardener's trowel, placing them in the riddle, and in doing this saw no sign of the ring, which I incline to think may have dropped from the surface.

This concluded the work done on 26th and 27th September. Circumstances prevented my further attendance, but Rev. Dr Campbell kindly consented to furnish particulars of the subsequent discoveries. Suffice it to say that the greater part of the remainder of the cairn was turned over and the site thoroughly searched. In the course of the subsequent proceedings (and I give the particulars from Dr Campbell's notes), near the centre of the cairn a small cist (D) was found. It was about a foot square, four stones forming its walls, and sunk through the subsoil down to the rock. It contained nothing but fine mould. Near it, but with no enclosing stones, were two deposits of bones (E) evidently incinerated, as in the former case. Further to the west, a most interesting find was a great number of beads of jet, sixty-two of which were

disc-shaped, and ten oblong and bugle-shaped, which no doubt formed a necklace. They were lying on the surface of the rock (F), not far from the cist (A) first discovered. They had no apparent covering other than the earth. These discoveries were made on 1st October.

The work was again suspended, but was resumed on 19th November, by clearing away some more of the cairn, when the site of another interment apparently was disclosed. I am again indebted to Dr Campbell's notes. A large flat stone (G) was discovered, and when this was raised it was found that the edge of it had rested on an urn (No. 5, shown in



Fig. 6. Urn (No. 5) from deposit at G, in Greenhill Cairn. ( $\frac{3}{8}$ .)

fig. 6), which was thereby much broken, but nearly all the pieces were recovered. When reconstructed the urn measured  $5\frac{1}{2}$  inches in height by  $6\frac{3}{4}$  inches in diameter at the mouth. The lip is bevelled towards the interior, and is  $\frac{5}{8}$  inch in thickness. The upper part of the urn has three slight mouldings about an inch apart, the upper one being about the same distance underneath the brim. The lower part slopes or curves away gradually to what seems to have been a rounded bottom. The interior of the bottom is regularly rounded, but the exterior has the outer half of the thickness of the wall of the vessel completely scaled off, so

that it is impossible to decide with certainty whether the apparently rounded form of the bottom may not be due to the scaling off of a tapering under part with a slightly flattened base, which is the usual form of these vessels.<sup>1</sup> The ornamentation is peculiar. On the bevel of the rim are four rows of impressions as of a twisted cord. In the hollow between the first moulding and the projecting upper part of the lip are two rows of similar impressions. On the upper and under rise of the moulding are zigzag markings of the same nature; under these a band of four parallel lines apparently produced in the same way; under that a band of zigzags, which are in some parts duplicated; on the projecting part of the third moulding a band of two horizontal lines of the twisted cord impression; under that a broad band of zigzags sometimes duplicated or triplicated; and finally a double row of closely set vertical markings as if with the fibrous end of a stem. The rest of the ornament has scaled away, but on one side are four vertical lines of similar marking, converging to the bottom. Along with the urn there were bones which had apparently been cremated.

Very shortly afterwards the men came upon the fragments of another urn (No. 6, shown in fig. 7), a little to the south-east of the last mentioned urn. The fragments recovered were small, and a considerable portion of them must have got mixed with the earth, and so dispersed. Nevertheless, when reconstructed, fully more than half the vessel showed the complete vertical side. It measures  $5\frac{1}{2}$  inches in height and  $5\frac{3}{4}$  inches in diameter at the mouth, the side showing a regular slightly bulging curve from lip to base. The base is narrow, being only  $1\frac{7}{8}$  inch in diameter. The lip is sharply bevelled to the inside and ornamented on the thin edge as well as on the bevel with impressed markings as of the teeth of a comb. The whole exterior is covered with ornament from lip to base. Immediately underneath the rim is a band an inch in width of three horizontal rows of deeply indented triangular impressions, the first row having a line of comb impressions close under it, and the second and

<sup>1</sup> But compare this with another urn showing an apparently rounded bottom from a cist at Doune, subsequently described by Dr Anderson.

third rows having a similar line both above and below. Underneath this band is a band of chevrony comb-lines, with a line of the triangular indentations following the angles of the chevrons. Below this to the base the whole surface is covered with a chevrony pattern of comb impressions made by a slightly curved instrument, with lines of the triangular indentations inserted at intervals.

On the following day the men found near to the south-west edge of the circle two small quantities of burned bones (H) near to but quite

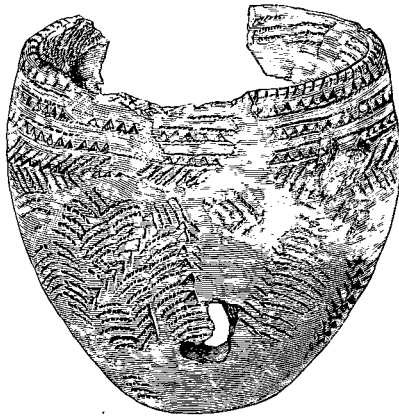
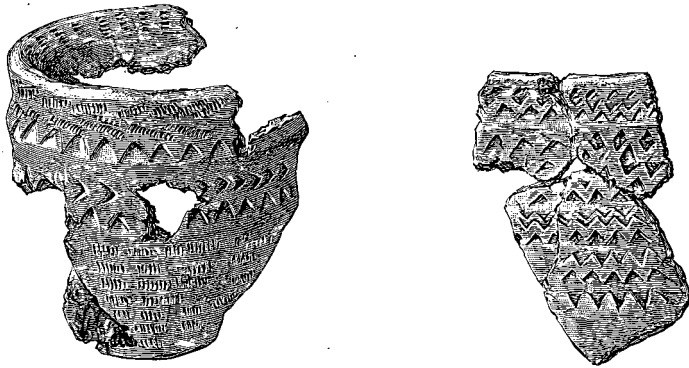


Fig. 7. Urn (No. 6) found near deposit G, in Greenhill Cairn.  $\frac{1}{3}$ .

distinct from each other. One of these quantities had an urn (No. 7, shown in fig. 8) beside it, but only a few fragments of it could be recovered. It has, however, been reconstructed sufficiently to show the form and ornamentation. It is a small urn,  $4\frac{1}{4}$  inches in height and  $4\frac{1}{4}$  inches in diameter at the mouth, with two slight mouldings about 1 inch apart, the upper being about the same distance below the rim, and the vessel tapers from the lower moulding to a base of  $2\frac{1}{4}$  inches in diameter. The rim is bevelled inwardly, and the bevel is ornamented with slightly marked comb-lines across it less than  $\frac{1}{2}$  inch apart. On the exterior under the rim are short diagonal comb-lines faintly marked. On the rise of the

first moulding are triangular spatulate markings in a row with the points uppermost. Below the moulding a row of similar markings with the points in line of the row which goes round the vessel horizontally, and under this a third row of the same markings with the points upwards. The lower part, sloping to the base, is ornamented by short comb-lines in horizontal rows. Near this were the fragments of another small urn (No. 8, shown in fig. 9), ornamented with spatulate markings only, and a double zigzag round the shoulder.



Figs. 8 and 9. Urns (No. 7 and No. 8) from Greenhill Cairn. ( $\frac{1}{3}$ .)

Following on this the remaining portion of the cairn which lay to the north and north-east were examined, but nothing whatever was found in these directions. Rainy weather set in and the work had again to be delayed; but on the 22nd work was resumed at the south-west, where a small portion of ground still remained unexplored. This, however, although carefully examined, yielded no result, and it was felt that nothing more could be done. The whole area covered by the cairn had been gone over except a narrow border all round, within and close to the outer circle of stones, and previous experience had led us to expect nothing there.

To sum up: this burial mound exemplified, it may, I think, be presumed three, if not four, modes of interment:—(1) Cist burial (A and perhaps



D) of an unburned body ; (2) earth burial (C, E and H) of cremated remains ; (3) pit burial (B) of an unburned body ; and (4) pit (?) burial of cremated remains under a stone cover. It is true that no osseous remains were found in the cist A or in the pit B, but the care with which the cist was formed, the labour involved in moving its ponderous materials into position, the paving of it with pebbles, all point to its having been intended as a place of burial. Had it contained originally a cremated interment, some evidence of it would have remained even though the contents had been scattered around at the time when I supposed it had been examined previous to Mr. Scrymgeour-Wedderburn's researches, and I therefore conclude that the cist had contained an unburned interment. The same reasons weigh with me in considering the pit the site of a similar mode of burial, strengthened in this case by the presence of an urn. It is indeed probable that the other instance described where a flat stone (G) was found covering another urn may have been also a pit burial, although no such excavation was noted by the workmen ; yet it has been often found that percolation of water from the surface by carrying down the fine particles of sand and earth has quite filled up the cavity of a cist ; so in this case the cavity of a pit, if such here existed, might have been filled up in such a way as to elude ordinary observation. Only, in this latter case, as bones were found beside the urn, it would introduce, as I have said, a fourth mode of burial, namely, a cremated interment in a pit, covered over by a flagstone.

In all seven urns of food-vessel type had been disclosed. One of these had been placed in a pit and covered with a slab ; another, if not also in a pit, was similarly covered ; while four of them were placed in shallow pits in the subsoil with or without other covering (as to which see after) ; each, however, having its accompanying parcel of cremated bones beside it.

The unique little urn and its position and locality in the cairn have been already dealt with. Two different varieties of beads had been met with. The set consisting only of the two specimens recovered at C had

apparently been submitted to the action of fire. The other set, on the contrary, had been carefully placed in an excavation made down to the solid rock, although it does not seem that any covering—anything at least, that had survived—had been placed over them before the earth was placed above them. That no such covering was not detected does not, however, prove that no covering was used.

This brings me to mention what I discovered when raising the two urns Nos. 3 and 4 (marked C on plan) from their seat in the subsoil. When the workmen came upon the little gathering of white bones these urns accompanied, the urns had not been detected and the bones had been left untouched for my inspection. On my arrival I at once set about the careful collection of the bones, and in this way discovered the urns. At the same moment I discovered a reddish horizontal line or stratum at the level of the top of the urns. I endeavoured to extract a portion of it for closer examination, but found it so exceedingly "short" and fragile that it would not bear handling. I found that while it existed in the bank beyond the edges of the urns it failed on the top of them. On clearing out the urns, however, from the earth which filled them, I was surprised to find in the bottom of them, below the earth, the same reddish material. A suspicion was at once raised that the red material represented a covering of some kind which had been placed above the urns, and that this had given way from the weight of the earth, and portions of it had been carried down into the cavities of the urns by the falling earth. I now examined the reddish material more carefully by means of a magnifying lens, and came to the conclusion that it represented wood. The fibre in places seemed plainly visible. I, however, carried a portion of it home with me and put it under the microscope, when its character as a woody structure was clearly manifest. It seems, therefore, established that these two urns were set in the subsoil mouth upwards, and the bones which they accompanied, were protected from the earth which was to cover them by a board or slab of wood, which had been apparently fairly uniform in thickness. It was impossible to tell what that thickness was. It may have been

about half an inch ; it could scarcely, from what was left, have been more, and it could scarcely have been less in thickness than that. If we are to enquire by what means or by what tools such a board or slab was prepared, it may be answered that the bronze age was not destitute of good cutting implements, and that such a board as is here supposed could easily have been separated from a tree by tools of bronze.<sup>1</sup> I regret that my absence at this time prevented this line of enquiry from being followed up. But I trust that these remarks may lead others who may have the opportunity, to exercise the utmost care in noting all particulars which might cast a fresh light on this subject. Too frequently all that is aimed at in such investigations is the discovery of cists, or of an urn or two, to the utter disregard of the methods of burial, which, to my mind, are of far more importance as evincing the reasoning powers and engineering skill and the knowledge of the mechanical arts possessed by the people of that far-off time.

Finally, it is not unworthy of notice that here, as has been remarked before of other similar mounds, the interments discovered were chiefly confined to the southern side of the cairn. Possibly this is an evidence of the early existence of a superstition which has prevailed in modern times against burial along the northern side of a graveyard, and preference for the southern side.

It is to be hoped that the praiseworthy example set by Mr Scrymgeour-Wedderburn in carrying out these interesting explorations resulting in such valuable discoveries may stimulate others possessing similar sites as yet unexplored to have them examined in the interests of this branch of Scottish archæology.

<sup>1</sup> I formerly pointed out (*Proc.*, vol. xxv. pp. 461-2) that in the case of the cemetery at Gilchorn, there was a presumption that little wooden posts or stakes had been driven into the ground, either to form a sort of palisading for protection round the urns there, or else to mark out their sites so as to prevent them from being interfered with or injured by subsequent burials. What if these posts had also supported horizontal boards on the top of them to protect the urns and their contents from the weight of earth to be piled on the top of them ?