

I.

NOTES ON THE CHARACTER AND CONTENTS OF A LARGE SEPULCHRAL CAIRN OF THE BRONZE AGE AT COLLESSIE, FIFE, EXCAVATED BY WILLIAM WALLACE, ESQ., OF NEWTON OF COLLESSIE, IN AUGUST 1876 AND 1877. BY JOSEPH ANDERSON, ASSISTANT SECRETARY AND KEEPER OF THE MUSEUM.

My acquaintance with the Collessie cairn dates from the month of August 1876. I had heard of it more than a year previously from Mr Alexander Laing, of Newburgh, a Fellow of the Society, who described it to me, and stated that it was locally known by the name of the Gask Hill. From his description I judged that it was in all likelihood a sepulchral cairn, and I therefore suggested its excavation. Mr Laing then communicated with the Rev. Dr Williamson, the parish minister, and Mr Wallace, the proprietor of the ground on which the cairn is situated, who entered heartily into the proposal; and in August 1876, while I was temporarily resident in Carnoustie, they organised an excavation, at which I was invited to be present. I went, accompanied by Dr Dickson of Carnoustie, a Fellow of the Society, and meeting Mr Laing by appointment at Newburgh, we proceeded to Collessie.

I had previously given general directions as to the course to be pursued, and these had been carried out under the personal superintendence of Mr Wallace. Commencing at the south-east side of the cairn, the stones had been removed from a considerable segment of its base, so as to lay bare the soil on which they had been heaped. Nothing peculiar was observed in the structure of the cairn (so far as it was then removed), except that towards the inner part of the space thus uncovered there were three or four stones of large size placed against each other on the ground level. They were so much larger than the stones that lay around and over them as to suggest that their presence in a group on that spot was not the result of accident. The smaller stones having been cleared away, and the stones of the larger group rolled aside, the subsoil underneath the level of the cairn was excavated to a depth of about 4 feet. Almost underneath the spot on which the larger stones were placed, and at the depth of about 4 feet beneath the base of the cairn, a deposit of burnt bones appeared in the gravel, occupying a stratum of about an

inch thick, and covering a space of 3 or 4 square feet. The fragments of the bones were perfectly white, broken into very small pieces, and showing the peculiar cracked and contorted condition characteristic of the bones found in cinerary urns. I recognised among the fragments small portions of a human skull and of the vertebræ. The atlas was entire, and seemed to be that of an adult. Among the bones lay the bronze dagger-blade (fig. 1), and close by it the gold fillet (fig. 2), which seems to have formed part of the decoration of the handle. At first there were apparent on the surface of the bronze blade a quantity of hair-like filaments, mingled with what seemed remains of woody fibre, but as it became dry these disappeared. In all probability they were the remains of the sheath, formed of thin slips of wood, and covered with hide.

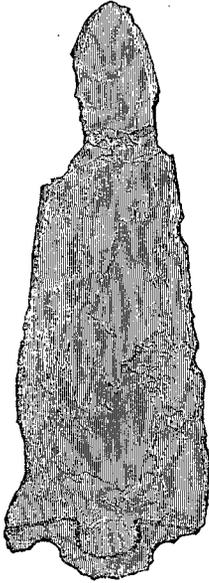


Fig. 1. Bronze Dagger-Blade.

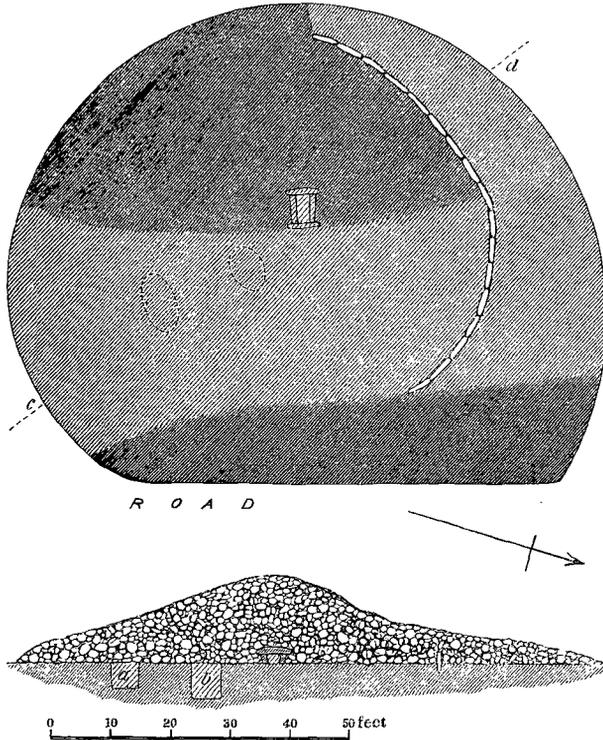
The excavation in the gravel was so close to the unremoved portion of the cairn that it was necessary to remove as much more of the superincumbent mass of stones as would allow another trench to be opened some few feet nearer the centre. The rest of the day was occupied with this, and the layer of bone-ash having been again reached, was all taken up without anything further being discovered. As the harvest was then at hand, further operations were postponed till next summer.

In August last Mr Wallace commenced to remove the mass of the cairn, so as to lay bare as much as possible of the ground on which it stood, and at the same time to make a section through it from side to side. This proved a much more formidable operation than we had anticipated, and though three carts, and a large force of labourers were employed, it required eight days' work before the ground was cleared; and when fully a thousand cart-loads of stones had been lifted and conveyed off the site,



Fig. 2. Gold Fillet which had encircled its handle.

we began to realise the magnitude of the task we had undertaken. During these eight days nothing turned up to encourage the explorers except a stray shoe-buckle, a copper coin, and one or two such odds and ends, which had made their way down into the cairn from the surface. The weather was broken and disagreeable, and appearances were altogether so



Figs. 3 and 4. Ground Plan and Section of Cairn at Collessie.

unfavourable that had it not been for Mr Wallace's steady perseverance and determination to be at the bottom of it, the work would have been given up as hopeless. When the removal of the stones was accomplished, Mr Wallace had uncovered a space of ground completely through the cairn of about 8 yards wide. (The space from which the stones were

removed is represented by the lighter shading on the accompanying ground plan of the cairn). We had thus a section through its centre (or a little beyond the centre) where the cairn was 14 feet high and about 120 feet in diameter. It was entirely composed of boulder stones, varying in size, but seldom beyond a size that a man could lift. The larger stones were mostly in the lower part, and there was no structural arrangement, except that a few feet within the base of the cairn there was a ring of sandstone slabs set on edge, close to each other, which went about one-third round the cairn, and probably had at one time encircled it. These slabs were about 3 or 4 feet high, and were bedded in the gravel, a bank of which was thrown up against the inner side of the circle, sloping up to the top of the stones.

The whole space within this circle, after the stones of the cairn had been removed, presented a most remarkable appearance. It seemed to have been made level, and was covered with a layer of fine clay, varying in thickness from one to three inches. The upper surface of this clay-bed was mottled with marks of fire, sometimes in spaces of several feet in diameter. In these burnt spaces the black ashes and charcoal of wood might be taken up in handfuls. The whole surface was more or less strewn with ashes and minute particles of charcoal. This appearance of burning was confined to the surface underneath the cairn. It did not extend up amongst the stones of the cairn, the interstices of which were filled with dark vegetable soil of the same character as the natural surface of the surrounding field. But in many places the gravel underneath the surface layer of clay was penetrated by these vestiges of fires. It seemed as if the greater part of the subsoil underneath the cairn had been disturbed, and mixed to varying depths with ashes and charcoal previous to the fires that had mottled the surface of the clay-bed, which was spread evenly over it, and that these appearances were due to fires kindled on the site previous to the erection of the cairn of stones.

We commenced at the boundary ring of slabs, and trenched over the space from which the stones had been removed, beginning with a depth of about 4 feet, so as to ascertain whether there was any deposit close to the ring of upright slabs, or underneath the bank of gravel heaped up against them. No result being obtained, we continued the trenching over the whole of the uncovered area, with similarly negative results, but

finding charcoal at various depths, and occasionally a small fragment of animal bone, unburnt, at or near the surface. During this time, some of the men who were not employed in the trenching were taking as much as possible off the inclined face of the section of the cairn in the centre, so as to make sure that we should find the central deposit.

At last the end of a cist became visible a little beyond the centre of the cairn, and placed on the natural surface of the ground. As there was now an almost perpendicular section of loose stones, about 14 feet high, on the top of the cist, there was but one method available. We dug under the end stone and slipped it out. The interior of the cist thus exposed was 4 feet 6 inches long, and 3 feet wide in the centre, being a few inches narrower towards the end we had opened. The side stones had been pressed outwards by the superincumbent weight, and there was about 15 inches of vacant space between the covering stone and the gravel in the bottom of the cist. Its appearance was that of perfectly clean washed angular gravel, nearly all of a size, with no admixture of sand or earth. This may have been due to the percolation of surface water for ages. But I think there can be no doubt that the gravel was placed in the cist over the body. There was no trace of bones on the surface, and no appearance of the urn, which, as we afterwards found, lay underneath. After carefully removing the loose upper layer, the sandy gravel was next scraped out by hand and minutely examined. Near the west side of the cist, and therefore placed either behind the shoulder or before the face of the corpse, the urn now exhibited (fig. 5) lay on its side. It was covered by the gravel, and the side that was uppermost had completely softened and disappeared. The upper edges of what remained were so crumbled that at first I had no hope of getting it out at all; but, by carefully clearing the gravel and sand from within and around it, I was at last able to pass my hands under it and lift it out. I have said that it lay either behind the shoulder or before the face of the corpse. This is matter of inference, from the fact that we found portions of the leg-bones near the further end of the cist. These were the only portions of the skeleton remaining.¹

¹ It often happens, where the cist is not sufficiently protected from atmospheric influences, that the remains disappear almost entirely. In one cist which I opened small cairn in Caithness there was nothing left of the whole skeleton but the enamel crowns of a few teeth, and the thin parts of the urn had also perished, only the thicker parts of the rim remaining in fragments.

When the whole of the loose gravel had been scraped out of the cist, the bottom appeared as if paved with rounded pebbles about the size of the clenched fist. This pavement of rounded water-worn pebbles has been frequently observed in the cists of this period. Underneath this pavement the gravel was loose and mixed with small fragments of charcoal to a depth of more than 2 feet. How much deeper the disturbed appearance of the gravel extended it was impossible to ascertain, because the sides of the cist (being undermined by excavating to that depth) threatened

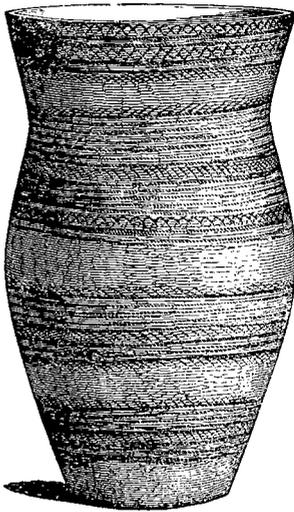


Fig. 5. Urn found in central Cist of Cairn at Collessie (9 inches in height).

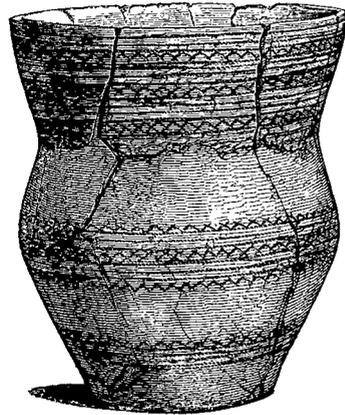


Fig. 6. Urn found 6 feet under the base of the Cairn (7 inches in height).

to collapse and bring down the whole of the superincumbent mass, and we were therefore obliged to be content with what we had ascertained at this time.

A trial excavation, in a line between the cist and the spot where the dagger had been found the previous year, was meanwhile proceeding, and had got to the depth of rather more than 4 feet below the base-level of the cairn; but it was now getting late, and there being no promising signs, those of us who had to go by rail were hospitably taken charge of

by Rev. Dr Williamson, while some of the workmen who were still sanguine of finding another deposit, proceeded to deepen the excavation. At the depth of 6 feet below the base of the cairn they found another drinking-cup urn in fragments (fig. 6) imbedded among the gravel, which was discoloured by ashes and charcoal. The fractures of the urn were old, and it appeared to have been broken on the spot where it was imbedded, as the pieces lay nearly together, and were not scattered to any distance.

Thus there were three different deposits discovered, viz., the central cist at the base of the cairn, on the original surface level; the deposit of burnt bones, with the bronze dagger, near the south-east side of the cairn, and $4\frac{1}{2}$ feet beneath the base-level of the cairn; and the broken drinking-cup, at a depth of 6 feet below the base level, and 20 feet below the level of the top of the cairn.

It is impossible to say whether there may not be more of these deposits in the ground that is still untouched. Judging from the unexpected discovery of the last urn at such a great depth, I am not at all certain that we went deep enough with the trenching, although the appearances were certainly not such as to induce us to go deeper. This is the first time in Scotland, however, that deposits have been discovered deep in the sub-soil underneath the base of a cairn; and our success, which was mainly due to Mr Wallace's indomitable perseverance, and the persistence of the workmen, will be an important lesson to future explorers.

As this is the first cairn of the Bronze Age that I have examined, and, so far as I know, the first of its kind in Scotland that has been systematically explored, my experience among the Stone Age cairns (which has been somewhat peculiar) was of no use on this occasion, and it was more a happy chance than anything else that led to the finding of the deposit with the dagger-blade on the first day's digging. That discovery, however, determined the method of the subsequent proceedings; because it showed that whatever might be in the cairn itself, there were also deposits underneath it, which could not be reached without removing the mass of the cairn off the surface of the ground. The discovery of the second urn at a depth of 6 feet showed that, while we had adopted the proper method, its complete results were only to be obtained by trenching the whole site to that depth—a task sufficiently formidable to deter the most enthusiastic amongst us.

The differences between the Collessie cairn and the Stone Age cairns, to which I had been accustomed in the North of Scotland, are sufficiently obvious and striking. These Stone Age cairns are chambered (see fig. 7), the chamber occupying the centre of the cairn, and having regularly-built walls and a roof, rudely arched by overlapping stones. A long passage leads from the chamber to the exterior of the cairn. This passage is lintelled over with large slabs. A bounding or retaining wall—sometimes single, at other times double—runs round the whole circumference of the cairn, giving it the character of a structure with external and internal elevations, and a ground plan defined by these constructions. Thus, although differing among themselves as to external form and internal arrangements, these Stone Age tombs are not mere cairns, in the sense of being heaps of loose stones thrown together at random, but structures possessing distinctive features of architectural construction. The internal space is disposed in the form of a chamber and passage. They have external and internal walls, doorways, lintels, and rudely-arched roofs. This Bronze Age cairn,

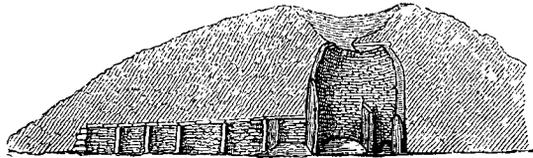


Fig. 7. Section of a Chambered Cairn at Camster, Caithness.
(75 feet in diameter.)

on the other hand, is structureless. It has nothing of the nature of a wall external or internal; and thus, for aught that it shows to the contrary, the people who reared it might have been destitute of the constructive ability to build a wall. In fact, instead of erecting a retaining wall around its exterior, they merely placed broad slabs on their edges in the gravel. And yet they were in their Bronze Age, while the people of Caithness, who constructed chambered cairns, were in their Stone Age. I do not infer from this, however, that these men of the Bronze Age in Fife were inferior in constructive capacity to the men of the Stone Age in the North of Scotland, But the facts have a very important bearing on the theory

of the relative ages of the two classes of cairns. They show that the rude structureless cairn, enclosing a simple cist of slabs, is not on that account necessarily older than the elaborately-constructed chambered cairns. They show us also that the less advanced structure may be characteristic of the more advanced civilisation ; and hence we are taught that we should have erred completely if we had attempted to measure the relative civilisation of these two peoples, by simply comparing the indications of constructive ability they have exhibited in the erection of their cairns.

The special features of the Collessie cairn are these—(1) its great size, 100 feet by 120 feet, and 14 feet high ; (2) the ring of upright slabs set round its base, which were probably at first the boundary of the cairn, though they are now at some distance within its margin ; (3) the layer of clay covering all the site of the cairn, on the level of the original surface of the ground ; (4) the appearance of fires all over this surface ; and (5) the deposits under the natural level, at different depths in the gravelly soil. No other cairn hitherto examined in Scotland has presented such a combination of peculiar features.

But our acquaintance with Bronze Age burials in this country is really so limited that I have thought it advisable to collect in one view the different forms that have been placed on record. They are as follows :—

1. *Burial after Cremation in a Natural Mound of Gravel, with or without a Cist to Protect the Urns.*—At Cambusbarron in Stirlingshire, in 1864, four urns, containing calcined bones, were discovered, placed a little apart from each other, about 18 inches under the surface, in a gravelly ridge.¹ These urns, which are of the common cinerary form, are now in the Museum. In one of them a perforated stone-hammer was found, and in another a small piece of thin bronze.²

A small cemetery was discovered in a gravel hillock at Torran-dubh,

¹ “ Proceedings,” vol. v. p. 214.

² A case apparently of this kind of burial occurred at Ardoe in Aberdeenshire, but the only notice of it on record is of the most tantalising kind, omitting all the points on which clear testimony is most desirable. The site was a sandy hillock. In it four cists were found—their sides and ends of rough slabs, and the bottoms paved with rounded pebbles. Two of these contained unburnt burials with urns. Some urns of larger size than those found in the cists were simply set in the sand near these cisted graves, and were presumably interments of the first-mentioned kind. These urns seem to have contained burnt bones, though that fact is not stated.

near Tain, in 1866.¹ The top of the hillock was occupied by a cist 4 feet 6 inches long, containing burnt bones and a broken bronze pin. Two urns were found at the base of the hillock, set in small cists not much bigger than the urns themselves. One of these was quite plain; the other ornamented with the characteristic patterns of the Bronze Age—a series of triangles filled with lines drawn parallel to one side.

2. *Burial in Cists covered by a Cairn.*—Dr Stuart has described² a cairn of the Bronze Age at Linlathen in Forfarshire, to which I shall afterwards refer in connection with the bronze dagger found in the cist. The cairn had been opened in 1834—twenty years before Dr Stuart saw it; and he was chiefly interested in the alleged occurrence in connection with the cist of a stone sculptured with the elephant figure—so called—of the sculptured stones, which was said to have been found between the covers of the cist, and had been replaced there when the cairn was closed up again.³

The cist was at the base of the cairn in the centre, on the natural surface of the ground, and was paved with rounded pebbles. It contained a drinking-cup urn (fig. 8) and a bronze dagger (fig. 9) of the same type as that found under the Collessie cairn. Both are now exhibited, by the courtesy of James E. Erskine, Esq. of Linlathen. I shall refer to this dagger further on.

3. *Burial in Cairns encircled by Standing Stones.*—At Cleigh, Loch Nell, Argyllshire, Dr Angus Smith describes a burial of the Bronze Age. It was a cairn with a central cist, and encircled by standing stones. The cist contained a bronze dagger of the same type as that found at Collessie.

One of these cinerary urns is in the Museum. It is 13 inches high by 9 inches in greatest diameter. There was also found a small half-globular bronze vessel, which was sent to the Museum of the University of Aberdeen. From the occurrence of this bronze vessel it may be inferred that this was really a cemetery of the Bronze Age, and it is clear that it was used for interments both with and without cremation. (“Proceedings,” vol. ix. p. 269.)

¹ “Proceedings,” vol. vi. p. 418.

² “Sculptured Stones of Scotland,” vol. ii.; and “Proceedings,” vol. vi. p. 100.

³ It is a curious illustration of the difficulty of obtaining full and precise information as to the most obvious facts, that Dr Stuart, in his account of this cairn, gives no hint of its size, and the nearest approach we obtain to an idea of its dimensions is from the notice in the New Statistical Account, where it is described as a large heap of stones.

The dimensions of the cairn and cist are not given ; neither is the height or number of the standing stones specified.

In his chapter on Sepulchral Memorials in the "Prehistoric Annals of Scotland," Dr Daniel Wilson refers to the opening in 1830 of a large encircled barrow at Old Liston, within a few miles of Edinburgh, and states that a bronze spear-head was found along with a heap of animal charcoal and small fragments of bones, but neither cist nor urn. The dimensions



Figs. 8 and 9. Urn (7 inches high) and Bronze Dagger ($4\frac{1}{2}$ inches long) found in a Cist in the centre of a Cairn at Linlathen.

of the barrow or cairn are not given, and the size and number of the standing stones by which it is encircled are not indicated. We are indebted to Dr John Alexander Smith, however, for the information that the base of the tumulus is about 31 yards in diameter, that three of the standing stones still retain their position, and that one about 8 feet high stands to the north-west of the mound, another about 7 feet high to the south-west, and the third to the east—size not specified. The so-called

spear-head, I presume, was one of those daggers with rivets which, at the time when Dr Wilson wrote, were almost universally classed as spear-heads. There is no authenticated instance of a bronze spear-head having been found with an interment in Scotland¹; while these daggers are invariably so found.

4. *Burial in Stone Circles without Cairns.*—The stone circle of Tuack, near Kintore, Aberdeenshire, was explored by C. E. Dalrymple, Esq.,

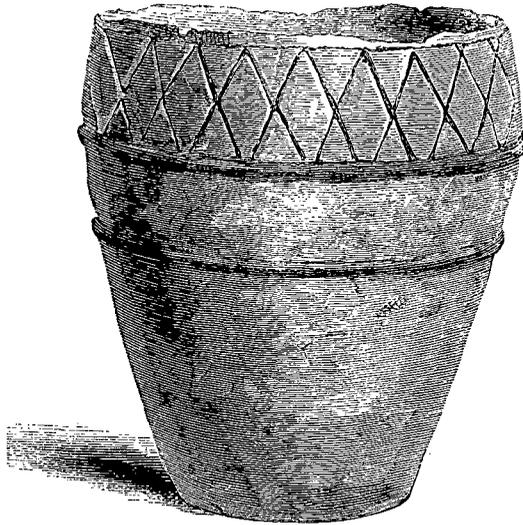


Fig. 10. Urn found in Stone Circle of Tuack, Kintore (12 inches in height).

F.S.A. Scot., in 1856.² The circle is 24 feet in diameter, and is entirely surrounded by a trench 12 feet wide. The standing stones are six in

¹ It is true that there are instances in which bronze spear-heads are said to have been found "in cairns"; but any heap of stones is termed a cairn, and in none of these instances is there any evidence that the so-called cairn was sepulchral, or that the spear-heads were connected with a burial.

² "Sculptured Stones of Scotland," vol. i. p. 20.

number, set at about equal distances round the inner side of the trench. Within the circle there were found three large urns, inverted over burnt bones, in circular pits covered with flat stones about 18 inches under the surface. In two of these urns there were fragments of thin bronze among the bones. One of the urns was entire, and is now in the Museum.

In the large group of circles at Tormore, Arran, explored by Dr James Bryce, it was found that there was no perceptible difference between the mode of interment in the circles of tall pillar-stones and that in the circles formed of smaller granite blocks. In one of the circles of tall pillars a central cist was found, with a fine urn of the form known as the food-vessel type. In others of these circles flint flakes were found, with unburnt interments in the cists, and in one circle of small granite blocks a central cist was found, in which were the fragments of an urn, several flint flakes, and a bronze pin. The body in this case had been apparently unburnt.

In regard to the general question of the burial customs of the Bronze Age in Scotland, it is thus clear that cremation and unburnt burial were practised simultaneously, and we cannot affirm from the evidence before us that there was any special preference for the one form over the other. It will be observed that at Collessie we have burials burnt and unburnt; burial in a cist over which a great cairn had been heaped, and burial with no cist, burial with urns, and burial with no urn, at least none that was discovered. No Bronze Age barrow or cairn in Scotland is chambered. The interments, whether burnt or unburnt, are either in simple cists or in graves or pits excavated in the subsoil.

It only remains now to describe the objects found in the Collessie cairn. They are :—

1. *The Bronze Dagger-Blade*.—The dagger-blade of bronze (of which the figure is here repeated as fig. 11) was found in the deposit of burnt bones $4\frac{1}{2}$ feet underneath the original surface level. It is a thin, triangular blade, with smooth surface, 6 inches long, $2\frac{1}{4}$ inches wide at the butt, and tapering to the point. It has been fastened to the handle by three rivets. The mark of the handle appears on the butt of the blade, and when first discovered there were evident traces of the sheath in which it had been when deposited. These adherent fragments separated from the

blade when dry, but they have been carefully preserved by Mr Wallace, and are now exhibited. When I examined the blade with a pocket magnifying glass immediately after it was taken up, the appearance of woody structure was quite distinctly visible in patches among the adhesive

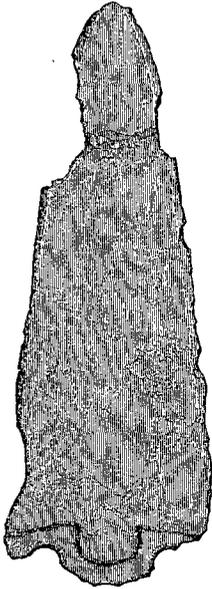


Fig. 11. Bronze Dagger-Blade found $4\frac{1}{2}$ feet under the base of the Cairn.

mass of wet ashes, bone-dust, and earth which covered its surface. Other patches on the surface of the dark layer on the blade were covered with a coating of short, straight filaments of such an excessively fragile nature that the slightest touch was sufficient to obliterate their form and render them invisible. Fortunately, there has been preserved so much of this filamentary coating of the sheath as suffices to demonstrate its character with certainty. When dry it separated from the blade in small, twisted, curling masses, which look like leather to the naked eye, and yield a strong odour when burnt. These masses are brittle, and difficult to deal with as mounted objects for microscopic examination, but after saturating one of them in warm turpentine, and subjecting it to strong pressure, I was able to mount it as a transparent object.

The microscope then resolved it into a compacted mass of agglutinated hairs, having the same form and structure as the loose filaments which were also adherent to the blade. Under polarised light they exhibit the same appearance and structure as the dark hairs of a Shetland cow taken from one of the *rivlins* or Shetland shoes of untanned hide in the Museum, with which I have compared them. But I leave the question of whether they are in reality the hairs of the British ox of the Bronze Age to be decided by more practised experts in the art of microscopic determination. In the meantime, from the examination I have made, I have little doubt that we have here the remains of the sheath of wood, covered with hide, having its hair outward, in which the dagger was when deposited.

Remains of sheaths have been similarly found with this type of dagger in England. Sir Richard Colt Hoare notices remains of the sheaths of wood "apparently of willow," in three instances, with the smaller form of bronze blade, in the barrows of Wiltshire. With six of larger size he found traces of similar sheaths, two of them lined with linen, "the web of which was still to be distinguished." Both Warne and Bateman also notice the occasional occurrence, in the barrows of Dorset and Derbyshire, of sheaths which were considered to be of leather.

The mark of the handle is also distinctly visible on the Collessie blade, showing the usual "lunation," as it has been called, in the centre. No remains of the handle sufficiently tangible for examination were, however, discovered, except the remarkable gold mounting which seems to have encircled it. This gold mounting (fig. 12) is in the shape of a thin fillet $\frac{1}{4}$ inch broad, made into an oblong mounting $1\frac{1}{4}$ by $\frac{1}{2}$ inch, and ornamented by five parallel bands, neatly rounded in *repoussé* work. The only similar instance of the gold mounting of the handle of one of these bronze blades was in the case of a very small blade found in a barrow at Stourhead, in Wiltshire. It is described as elegantly mounted in a handle formed of two pieces of amber, secured by rivets, and bound with four strips of gold.¹



Fig. 12. Gold Mounting of the Handle of the Bronze Dagger found at Collessie.

These small blades were probably knives for personal use, worn perhaps by both men and women. In those cases in which other objects have been found in the same deposit with them, they have been frequently accompanied by ornaments considered to be those of women.²

¹ Another bronze blade of larger size, also found in Wiltshire, is described as having the handle entire. It is of wood, and a marvellous specimen of delicate workmanship, being studded all over with a multitude of gold pins so minute as almost to require a magnifying glass to see them distinctly, and arranged so as to form a beautiful zig-zag pattern.

² The woman's skeleton found at Borum Eshoi, in Denmark, with its suit of clothing still in perfect preservation, was accompanied by a bronze dagger, not, however, of this type, but of the common sword-blade form of that weapon. This Danish deposit, however, shows us that in these early ages the wearing of such weapons by women was not so unusual as we, with our modern notions, might have supposed.

Nine of these thin flat-bladed knife-daggers of bronze are known in Scotland, the Collessie specimen being the tenth. Of these four are in the Museum. Only two of them, however, are entire; and it is curious that for almost a whole century, viz., from 1782 to 1872, there was only one in the collection. The following is a detailed description of these Scottish specimens, and the circumstances of their occurrence, so far as they are known. Every one of those hitherto noticed, except the Glenuisce specimen, has occurred in connection with an interment.

They are as follows:—

(1.) A finely patinated blade, now $3\frac{3}{4}$ inches long, but originally about an inch longer, and 2 inches wide at the butt end. It was found in a cist in Carlochán Cairn, Chapelarne, in the parish of Crossmichael, Kirkcudbrightshire, and was presented to the Museum by Alexander Copland of Collieston, in 1782.

(2.) The fragments of a thin, flat blade of this description, found with two urns of the drinking-cup type, in clearing away a cairn on the farm of Callachally, Glenforsa, Island of Mull. One of the urns is $6\frac{1}{2}$ inches high and 6 inches wide at the mouth, ornamented with narrow parallel bands of chevrons and short intersecting lines. The broad bands between these are filled with a series of acutely-pointed triangular spaces, filled with parallel lines. The urn is much broken; and of the other urn which accompanied it only a small fragment remains. Along with the urns and knife-dagger there was found one of those rare polished stone objects, supposed to have been "bracers" for protecting the left wrist from the recoil of the bowstring. It is of greenstone, $3\frac{1}{4}$ inches long, $1\frac{1}{4}$ inches wide, and decreasing in thickness from about $\frac{1}{8}$ inch in the middle to about $\frac{1}{16}$ inch at the ends. It is pierced by two holes, one near the middle of each end, and about $\frac{1}{8}$ inch in diameter.

(3.) A beautiful specimen of this form of knife-dagger (fig. 13), 5 inches long and $2\frac{1}{4}$ inches broad at the base, found in a cist in a cairn at Cleigh, Loch Nell, Argyllshire. The dimensions of the cist and the cairn are not given. The blade retains the mark of the handle, which seems to have been of wood, and its outline, where it covered the blade, is marked by a line of punctulations made by a punch. The three rivets by which it was secured to the handle still remain. The cist in which it was found had been previously opened, and the dagger which had been unnoticed by the

first explorers was found by Dr R. Angus Smith, F.S.A. Scot., and by him presented to the Museum in 1874.

(4.) A bronze dagger-blade (fig. 9), now somewhat mutilated, found in 1834 in a cist in the centre of a cairn locally known as Cairn Greg, at Linlathen, previously referred to. The blade, which is of the usual shape, with slight curvature of the sides, has been about 5 inches in length, and 2 inches wide at the butt end. It bears the mark of the handle, and has been fastened by three rivets, the length of which gives the same thickness of

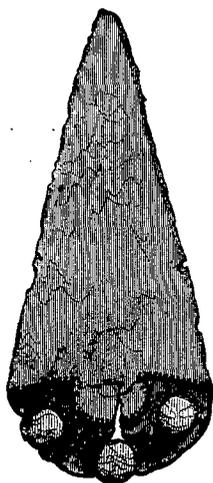


Fig. 13. Bronze Knife-Dagger, Lochnell.

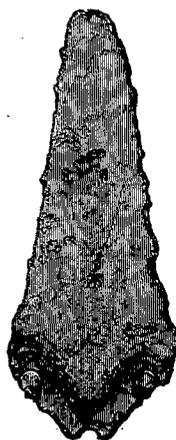


Fig. 14. Bronze Dagger-Blade found in a Cist at Drumlanrick.

handle as the width of the gold mounting found at Collessie, viz., half an inch. The cist in which it was found was 4 feet 10 inches long, 2 feet 9 inches wide, and 2 feet 10 inches in depth. It lay east and west on the natural surface of the ground, and was paved with small water-worn pebbles. When opened, the urn lay on its side, near the middle of the south side of the cist, and the dagger lay near the west end.

(5.) A fine blade of the same description (fig. 14), $4\frac{1}{2}$ inches in length and $1\frac{3}{4}$ inches broad at the base, which also shows the mark of the handle, and has two of its three rivets remaining. It was found in a cist at Drumlanrick, near Callander, Perthshire, and purchased for the Museum in 1874.

(6.) One was discovered in 1866 in a cist on the highest part of the Law of Maudslie, near Carluke, Lanarkshire.¹ The cist, which was 3 feet 4 inches long, 1 foot 8 inches wide, and 2 feet 3 inches deep, contained an unburnt skeleton in a contracted position, the head to the south-west, and the dagger-blade lay on the left side of the skeleton. The blade was $5\frac{3}{4}$ inches long, $2\frac{1}{4}$ inches wide at the butt end, and was pierced for three rivets. It differed from the usual form of these thin, flat, knife-like blades, in having a circular mid-rib running down the centre from hilt to point.

(7.) One is noticed as having been found in an urn in the parish of Tough, Aberdeenshire. It is described as a flat piece of bronze, which might have been a lance-head.²

(8.) Another is noticed as having occurred in a cist 6 feet long, 3 feet wide in the middle, and tapering thence to a width of 1 foot at each end, which was discovered in ploughing a field at Bishopmill, near Elgin. Portions of a skin, apparently that of an ox, on which the hair remained, were found in the cist.³ This blade, of which there is a cast in the Museum, differed from the ordinary type in having a wide, flat mid-rib, tapering from butt to point, and very slightly raised above the surface of the blade.

(9.) A small blade of this description, found among the sand hills near Glenluce, Wigtownshire, and presented to the Museum in 1876 by Rev. George Wilson, Glenluce, Corr. Mem. S.A. Scot. It is 3 inches long and $1\frac{1}{4}$ inches wide at the butt end, which still bears the mark of the handle. Fragments of urns were found in the sand; and in all probability this specimen, like all the others, had been deposited with an interment.

These thin, flat blades, a distinct variety from the larger triangular or

¹ "Proceedings," vol. vii. p. 440.

² "Proceedings," vol. iv. p. 384.

³ "Sculptured Stones of Scotland," vol. ii. p. 96.

leaf-shaped daggers with fluted blades, are rare in England as well as in Scotland. Dr Thurnam notices seven only from the numerous barrows described by him in the south of England. Eighteen are described by Mr Bateman from the barrows of Derbyshire, and Canon Greenwell has obtained several from North of England barrows. They occur oftener with unburnt than with burnt bodies. They are not mentioned as a specific class in Sir William Wilde's Catalogue of the Antiquities, in the Collection of the Royal Irish Academy at Dublin; and only one specimen is described which bears any resemblance to them.

Although the triangular and fluted variety of bronze dagger occurs in Denmark and Sweden, I do not remember having seen any of these thin, flat, tangless blades, without mid-rib, in any of the Scandinavian collections. None are figured from Denmark by Worsaae in his "Nordiske Oldsager," nor by Madsen in his "Bronsalderen;" and there is no notice of them in the "Antiquites Suedoises," or the "Bronsalderen i Norra och Mellersta Sverige," of Dr Oscar Montelius. Neither do they occur in the magnificent work by Chantre on the Bronze Age in France. It is true that thin, triangular daggers, not unlike them, occur occasionally in France, Switzerland, and Italy, but they are usually ornamented with flutings on the blade, and set in handles of bronze. It appears, therefore, that this thin, flat, smooth-bladed knife-dagger, fastened with rivets to its handle of wood or horn, is a variety peculiar to Great Britain, and it is the only form of bronze weapon habitually deposited with the dead. No instance of a bronze sword or of the large and thick and fluted bronze dagger, has yet been found with an interment in Scotland; while, on the other hand, this thin and elegant blade has never occurred except with interments; and when it has been accompanied by an urn, the form has always been that of the tall drinking cup. It is curious that although there were drinking-cups with the other two interments at Collessie, there was none with the interment in which the dagger was deposited. This, however, is in accordance with the experience of Messrs Bateman and Carrington, who record that all the knife-daggers found by them in the barrows of Derbyshire and Staffordshire, sixteen in number, were with bodies unaccompanied by any vessel of pottery. "The same," says Canon Greenwell, "has been the case with those found by Mr Ruddock on the Yorkshire moors, and by myself on the wolds and moors." It is also curious that the Col-

lessie dagger, though deposited among the burnt bones of the body which it accompanied, has not itself been subjected to the fire.

2. *The Urn found in the Cist.*—The urn found in the Collessie cist (the figure of which is here repeated as fig. 15) is of the ordinary type

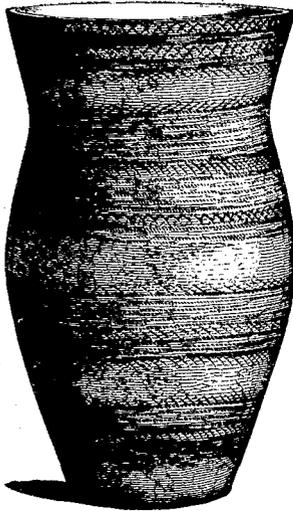


Fig. 15. Urn found in the central Cist of the Cairn at Collessie (9 inches high).

known as "drinking-cups." The name is suggestive of familiar use, but it is unknown whether they were ever made or used for domestic purposes. The drinking-cup found in the Collessie cist is 9 inches high and 6 inches diameter across the mouth. It is beautifully made, without the aid of the wheel, but perfectly regular in outline, and has been well baked in an open fire. The paste is thin and smooth, and very free from admixture of grit. The ornamentation consists of bands of parallel lines alternating with bands of small saltires and of short oblique lines. All these have been produced by the impression of an implement with closely-set teeth, probably made of wood for this special purpose.

We have never yet found a Bronze Age dwelling in Scotland, and consequently we know only the sepulchral pottery of this period. These tall drinking-cups are the handsomest of all the varieties of sepulchral pottery. They are usually, though not exclusively, found with unburnt bodies. It is not often that they are accompanied by other objects; but when this is the case, the articles so accompanying them are usually of bronze, and are either small pins or awls, and knife-like blades or daggers. Flint flakes have been found with them in some instances, as at Lesmurdie in Banffshire, and Kingswell in Forfarshire. The most remarkable thing found in connection with this form of sepulchral vessel was the horn spoon or ladle found hanging over the rim of one of these urns in a cist at Broomend of Inverurie, Aberdeenshire (see fig. 16). The cist con-

tained the skeletons of a man and a child, covered with a matted fibrous substance which may have been partly rootlets of plants, but was apparently an ox-hide laid over the bodies. As in the Collessie case, the bottom of the cist was bedded with round water-worn pebbles.



Fig. 16. Urn and Ladle of horn found in a Cist at Broomend of Inverurie.

3. *The Urn found 6 feet deep in the Gravel under the Base-Level of the Cairn.*—This vessel (fig. 17) is of the same general form and character as the one found in the cist. It is smaller, however, and belongs to the high, straight-brimmed variety of drinking-cup. It measures 7 inches high, and 6 inches across the mouth. The ornamentation is composed of bands of parallel lines alternating with zig-zag lines, produced by an instrument similar to that used for the previous urn.

Like the thin bronze blade sometimes associated with it, this special form of tall drinking-cup is limited in its geographical range. It is essentially a British form, and it is very remarkable that, while it is abundant in Britain, it only occurs in sporadic instances on the Continent, and not a single specimen is known in Ireland. Only two are in the

Museum at Copenhagen. A form pretty closely approaching it occurs occasionally in Holland and North Germany, and another not very dissimilar in Brittany and the Channel Islands. I do not remember to have seen anything like it in the Museums of Stockholm and Christiania,

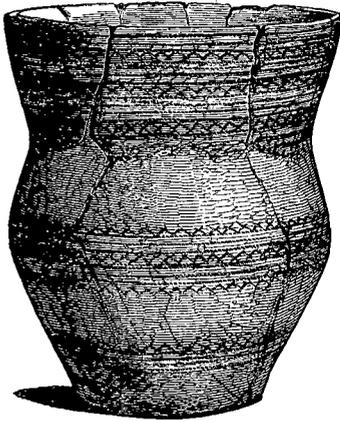


Fig. 17. Urn found 6 feet under the base of the Cairn at Collessie.

from which, and from the fact that there are only two specimens in Denmark, I conclude that it is unknown in Northern Scandinavia. It seems a fair inference, therefore, that in this bronze blade and these drinking-cups of the Collessie cairn we have local examples of the two most characteristic accompaniments of Bronze Age burial in Britain, both of them articles so peculiar in form, and so limited in range, as to be specially British, and both, therefore, representative of the native skill and culture of the time. This beautiful blade—beautiful alike in the simplicity of its design and the elegance of its form and finish—exhibits skill in its

manufacture and taste in its mounting. These vases, coarse in their texture as they may seem, evince a correctness of eye and a facility of manipulation in their makers which it takes a little thought to estimate at its true value. They made these things over a long period in every district of the country. Yet they are usually of elegant form, and I never saw two exactly alike. This almost seems to imply a general capacity in certain directions, which certainly does not exist among us at the present day to a similar extent. Let there be selected at random a hundred men, civilised and cultured; give each of them a lump of clay, raw and untempered, and let the problem be to produce the equal of this Collessie drinking-cup as a work of art, and how many in the hundred will succeed?

In conclusion, I have to say, in the absence of Mr Laing, to whom the initiatory steps of this undertaking were due, that the Society can scarcely

over-estimate the value of the service that Mr Wallace has rendered to the *Archæology of Scotland*. The zeal and earnestness with which he entered on a work of such unusual magnitude, and the energy and perseverance with which he prosecuted it to a successful issue, can only be appreciated by those who watched its progress. But when I add that he has not only presented to the Museum all the results of the excavation, but relieved the Society of the whole expense of the work, the members now present will be able in some measure to appreciate the extent of his liberality, and the importance of the contribution he has thus voluntarily made to archæological science.

[In proposing that the hearty thanks of the Society be given to Mr Wallace, Dr Mitchell announced that in consideration of the service he had rendered to science by the excavation of this peculiarly interesting cairn, and the presentation of the objects found to the National Museum, the Council of the Society had resolved to recommend to the present meeting that Mr Wallace should be made a Corresponding Member of the Society without the formality of a ballot. Mr Wallace was accordingly, on the recommendation of the Council, elected a Corresponding Member of the Society.]



Drinking Cup Urns from Lesmurdie, Banffshire.