## II.

NOTICE OF THE EXCAVATION OF A OHAMBERED CAIRN OF THE STONE AGE, AT UNSTAN, IN THE LOCH OF STENNIS, ORKNEY. Bi ROBERT STEWART CLOUSTON.

The "knowe of Unstan" is situated in a piece of land jutting into the Loch of Stennis, a few hundred yards to the north-east of the Bridge of Waithe. It is in the property of Mr William Leith, who courteously gave me permission to open it in July 1884.

To the north of the knowe, and within about 20 yards of it, the cape in which it stands is traversed by a moat from shore to shore. This moat, at a point nearly opposite the knowe, is crossed by a narrow passage of filled-in earth.

The knowe, prior to excavation, presented the same appearance as the usual Orkney tumulus, having an unbroken slope to the ground. This, however, is due to the slipping down of the stones of which the cairn is composed, as there is an external wall surrounding the whole structure, which, in the parts where we found it tolerably entire, was some feet in height, and built of larger stones than those used in the interior.

On the top of the knowe there was a considerable depression, giving it very much the appearance of a previously opened tumulus; but I have no doubt this was occasioned by the falling in of the roof, more especially as I was assured that the depression had become sensibly deeper of recent years.

Digging was begun in the east side of the knowe, as there appeared to be a slight sink in the formation of the cairn at this part. A few feet brought us to several large stones, some placed edgewise, others laid flat. These we found to be the roofing of the passage by which the interior is entered.

Its direction by compass is a little to the north of east, this being as nearly as possible in the opposite direction from Maeshowe.

At the inner end of the passage, and built partly over the last of the roofing stones, were two walls composed of small stones, converging to a space of 14 inches apart, and resembling very much, as my workman
remarked, the bow of a ship. Before the excavation of the passage could be completed, I was reluctantly compelled to remove the whole of one of these walls and part of the other.

The passage has no door stone, as in Maeshowe, and the roofing only extended 11 feet from the interior. Below the last roofing stone is a downward step of about a foot to the level of the interior. The step is formed by one large stone laid across, the outside being rudely built up to its level. In the passage were found a flint scraper and a barbed arrowhead, also some fragments of pottery. The passage leads into a large chamber 21 feet long, and averaging about 5 feet broad. This is subdivided by large flagstones into five compartments, off the middle one of which is a small side chamber. These compartments of the chamber will be referred to in their numerical order, counting from the southern to the northern end of the chamber, or from left to right in the plan. The passage does not enter into the central or third compartment, but into the second from the south, the distance from the south-east corner to the middle of the passage being exactly one-third of the entire length of the wall.

The first compartment of the chamber, which lies to the south side of the entrance, varies from 4 feet 9 inches in length in its east wall, to 4 feet 1 inch in its west. The width of the end wall is 4 feet 9 inches, gradually widening to 5 feet 6 inches, where the flagstones divide it from the socond compartment into which the entrance-passage opens. The ond wall is formed below of one large flagstone, with building above it. This is also the case in the fifth compartment at the opposite end of the chamber, as well as in the small side chamber.

The opening into the first compartment from the second (which lies to the north of it) between the wall-fast slabs projecting across the floor is slightly over 2 feet in width at the base of the flagstones. Across this opening, and in the inside of the compartment, is a stone 1 foot high and 2 feet $9 \frac{1}{2}$ inches long, laid edgewise. Level with this a line of stones, also set edgewise, runs from it to the south wall, subdividing the compartment into two nearly equal parts, the space to the east being rudely paved at a level of about 6 inches above the other, which, like the rest of the chamber, was floored with white clay. About 3 feet

4 inches above the clay floor are five small stones, about the size of a man's hand, jutting out from the wall. In this first compartment were found a considerable quantity of bones, partly human, a curious black substance which appears to me to be a mixture of peat and charcoal, the bottom of a small flat-bottomed urn, and some other fragments of pottery. This compartment was much freer of soil than any of the others, most of it being more easily cleared by the hand than the pick.

The side walls of the second compartment are 4 feet 8 inches in length, but the dividing flagstones, not having been set square, give it a minimum length of 4 feet 3 inches. The distance from side wall to side wall varics from 6 feet 3 inches to 5 feet 6 inches.


Fig. 1. Ground Plan of Chambered Cairn at Unstan.
The whole structure, indeed (as will be seen from the ground-plan, fig. 1), is irregular in shape, none of the walls being quite straight, and
the wall at one side of the dividing flagstone rarely coinciding with that on the other. At the side of the S.W. flagstone in this compartment there was a small space, not covered with white clay, and in this we found several fragments of different urns. A more striking instance of how the relics must have been scattered is the fact of a piece of pottery, found in the fourth compartment, fitting into an urn, the rest of which was dug up in this second compartment of the chamber. By far the greater portion of the relics found in the chamber were in this compart. ment. Overlying its clay floor was a stratum of black ashy or earthy matter, largely composed of charcoal, in which great quantities of pottery, and several flint chips and flakes were found.

In the Caithness chambered cairns excavated by Dr Anderson, the burials were of two classes, viz., in the floor, burnt; and on the floor, unburnt.

Several fragments of bones were found in the floor of this compartment, but none which showed any trace of burning. Curiously enough, however, the flints present indubitable indications of the action of fire. Upon the black stratum there were laid several burials in the contracted posture, as in the Caithness cairns.

The third compartment of the chamber, lying to the north of that which is entered by the passage, varies from 5 feet 8 inches to 6 feet $1 \frac{1}{2}$ inches in measurement from east to west, and averages a trifle over 4 feet in length from north to south. The black stratum which covered the floor of the second compartment extended a couple of feet or so into this compartment, and also into the first compartment and the passage. A large quantity of bones were found in this third compartment, among which, close to the door of the side chamber, opening off it, there were several large vertebræ. A flint implement, $3 \frac{1}{2}$ inches long, of the class styled by Mr Evans as "fabricators or flaking tools," was the only relic discovered here, with the exception of a few fragments of pottery.

The side chamber opens off the third compartment on its west side. The door is formed of two large upright stones, thus making a short passage. Unlike the rest of the building, with the exception of the passage, the roof here is entire, its height being 3 feet $6 \frac{1}{2}$ inches. A
rude floor is made by a flagstone, small enough to have been introduced after the chamber was completed, and supported on blocks of stone.

There were two distinct burials here, in the contracted posture, one of the skulls being the most complete of any of those found, though scarcely half remained. A tooth, which has been pronounced by Dr Garson to be that of a small dog, was found near the door. A stone pounder lay under the bones of one of the skeletons, and this, with two flakes, comprised the whole of the relics found.

The fourth compartment measures 5 feet $7 \frac{1}{2}$ inches from east to west and about 4 feet from door to door. Only a few fragments of pottery and a quantity of bones were found here. On the east side there seems to have been a rude pavement of the same kind as in the first compartment.

The fifth compartment, at the northern extremity of the chamber, is the smallest of the chambers. It measures only 3 feet from the door to the end wall, and the sides taper northwards to 3 feet 9 inches. This compartment, as has already been stated, resembles that at the other end of the chamber, in having a stone placed across the door, and an end wall composed partly of one flagstone. It has also stones jutting out from the wall at a height of about 4 feet above the clay floor. Large stones were laid on the floor, which may have been covered, as in the side chamber, with a flagstone; but, if so, it was too much broken to be recognised. A small and rudely formed arrow-head was found here. Some burials, and several small fragments of pottery, were also found; also, at a higher level than any other relic, a small piece of ornamented pottery of different pattern from all the others.
[Referring to the fragments of pottery found in the chamber of the cairn of Unstan, Dr Anderson stated that having carefully examined the whole of them, it appears that the total number of different vessels they represented must be somewhere about thirty. Of these, however, only six or eight have been found capable of reconstruction, so as to show their complete form and the character of their ornamentation.

The largest urn (fig. 2) is of reddish clay, softer and more porous than the rest, and thicker in the body. It is a large shallow round-
bottomed vessel, measuring $15 \frac{1}{2}$ inches in diameter and $5 \frac{1}{2}$ inches in depth in the centre. Under the broad flat lip, which measures $1 \frac{1}{4}$


Fig. 2. Urn from the Chambered Cairn of Unstan, Orkney ( $15 \frac{1}{2}$ inches in diameter).
inches across, there is a slightly curved rim ornamented with scorings of oblique lines. In the form of the vessel there are thus three distinct parts--the round bottom, the upright brim, and the flat but slightly bevelled and everted lip. The ornamentation is confined to the upright brim of the vessel.

The next largest urn (fig. 3) is 14 inches in diameter and 5 inches deep in the centre. It is well-modelled and neatly made-almost as evenly turned as if it had been thrown on the wheel. The paste of


Fig. 3. Urn from Chamber of Uustan Cairn (14 inches diameter').
which it is composed is dark-coloured, hard-baked, and free from admixture of stones. The rounded under part of the vessel is thin, the
upright rim slightly thicker, and the lip, which is bevelled from the inside outwards, expands to $\frac{3}{4}$ inch in thickness. There is no ornament on any portion of the vessel except the vertical rim, which is $2 \frac{1}{2}$ inches high, and scored obliquely to right or to left in alternate triangular spaces. Another urn, almost exactly similar in form and character (fig. 4) is $13 \frac{1}{2}$ inches diameter and $4 \frac{3}{4}$ inches deep in the centre. It is not circular, but slightly oval ; and the vertical rim, which


Fig. 4. Urn from Chamber of Unstan Cairn ( $13 \frac{1}{2}$ inches diameter).
is only 2 inches high, has its lip almost flat, and $\frac{5}{8}$ inch in thickness. The ornamentation on the vertical rim of this vessel has the scorings of each alternate triangular space parallel to the lip of the vessel, while the others are placed obliquely to the left. Another urn of the same character (fig. 5) is $11 \frac{3}{4}$ inches in diameter and $4 \frac{1}{4}$ inches deep in the centre,


Fig. 5. Uru from Chamber of Unstan Cairn (11 $\frac{3}{4}$ inches diameter).


Fig. 6. Uru from Chamber of Unstan Cairn ( 94 inches diameter).
the lip flat, and $\frac{5}{8}$ inch in thickness, the vertical rim $2 \frac{1}{4}$ inches high, ornamented like the first, except that it has two horizontal lines carried round under the brim. A fourth urn of the same character, but smaller ( fig. 6), measures $9 \frac{1}{4}$ inches diameter and $3 \frac{1}{4}$ inches deep in the centre,
the lip flat and $\frac{1}{2}$ inch in thickness, the vertical rim $1 \frac{1}{2}$ inch high, and ornamented as the first, but with triangular spaces of longer base. The rims of two other urns (figs. 7 and 8) of $10 \frac{3}{4}$ and $10 \frac{1}{2}$ inches


Figs. 7, 8. Rims of Urns from Unstan Cairn ( $10 \frac{3}{4}$ and $10 \frac{1}{2}$ inches diameter).
diameter, are extremely thin, and both ornamented with triangular spaces similar to the second urn. A distinct variety of this form, with the rim


Figs. 9, 10. Fragments of Urns, from Unstan Cairn.
slanting outwards, is indicated by several fragments (figs. 9 and 10), with somewhat similar ornamentation. A perfectly plain vessel of oval shape (fig. 11) measures 9


Fig. 11. Urn from Cairn of Unstan (9 inches diameter). inches in its greatest diameter across the mouth, and 4 inches deep, the sides bulging considerably, and then contracting to the rounded bottom. Another form of plain unornamented urn, indicated by several fragments, seems to have had deep and almost straight sides, and a rounded bottom. These appear to have been tall, can-shaped vessels, but as none show more than a small portion of one side, with an indication of curvature at the bottom, their
precise form and proportion has not been ascertained. One flat bottom only was found, about $3 \frac{1}{2}$ inches diameter, but the upper part of the vessel has not been recovered. The prevailing type is therefore that of a round-bottomed vessel of a hard dark-coloured paste, with vertical brim, and thick flat or bevelled lip. In the Chambered Cairns of Caithness, ${ }^{1}$ the round-bottomed form of urn, made of a thin, hard, dark-coloured paste, was also the prevailing form. The Chambered Cairns of Argyle had likewise yielded to the researches of Canon Greenwell a round-bottomed form of urn, of which the example (fig. 12), from the cairn at Largie, ${ }^{2}$ will show the resemblance to the


Fig. 12. Urn from Largie Cairn (121 $\frac{1}{2}$ inches diameter).
Orkney vessels. In the cairn at Achnacree, Argyleshire, ${ }^{3}$ Dr R. Angus Smith also found several round-bottomed urns, which are now in the Museum.

The stone implements found in the Unstan cairn, with the single exception of a "pounder," or oblong pebble of sandstone, were all of flint, and their calcined condition indicates that they must have passed through the fire. They form a very interesting and suggestive group. There are four leaf-shaped arrow-heads (two of which are shown in fig. 13), and one with barbs and stem. The leaf-shaped arrow-heads are of large size and well made, the shape inclining to the elongated

[^0]lozenge with curvilinear butt. The fifth arrow-head, which is barbet, is of smaller size, and has suffered damage, but not to such an extent as to


Fig. 13. Flint Arrow-heads, from Unstan Cairn (actual size).
obliterate its distinctive form. There was also found a finely-finished scraper (fig. 14) of a form which is not at all common in Scotland,


Figs. 14, 15. Scraper and Knife of Flint, from Unstan Cairu (actual size).
with both sides as well as the front bevelled to a cutting or scraping edge ; and one of those rare implements of flint (fig. 15), an elongated
knife, with the edge ground smooth instead of being merely chipped. Such ground-edged knives have also been found in the chambered cairns of Caithness. Another flint tool, found in the chamber of the Unstan cairn, however, is of exceptional interest, inasmuch as it is the first recorded instance of its occurrence in connection with sepulture in Scotland. It is formed of a long ridged flake, nearly triangular in the cross section, and greatly worn by use at both extremities. It belongs to the class of implements styled by Mr Evans "fabricators," or flaking tools, and its use is presumed to have been that of a tool employed in the fabrication of arrow-heads and other implements of flint.

The bones found in the chamber have been submitted to Dr J. G. Garson, Royal College of Surgeons of England. In anticipation of a more detailed report from Dr Garson, it may be sufficient to state at present, that along with the fragmentary remains of several human skeletons, he recognises the presence of a large quantity of animal bones, among which he has identified those of the horse, ox, sheep, swine and dog. There are also


Fig. 16. Flaking 'lool of Flint, from Unstan Cairn (actual size). numerous remains of birds, some of which have been of considerable size.]


[^0]:    ${ }^{1}$ Proceedings, vol. vi. p. 442, and vol. vii. p. 480.
    ${ }^{2}$ Itid., vol. vi. p. $341 . \quad{ }^{3}$ Ibid., vol. ix. p. 415.

