

IV.

EXCAVATIONS AT REAY LINKS AND AT A HORNED CAIRN AT
LOWER DOUNREAY, CAITHNESS. BY ARTHUR J. H. EDWARDS,
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STRUCTURES ON REAY LINKS.

In 1926, when I visited Reay Links for the purpose of reporting on the Viking grave found in August of that year, I was impressed by the number of stones to be seen, some in heaps and some apparently forming definite lines of construction. The site looked promising for further investigation; and as the Council again granted me the Gunning Fellowship for 1928, and one of our Fellows, Mr Alan D. Pilkington of Sandside, had very kindly given me permission to excavate anywhere on the links, I started work in August near the Drill Hall at Reay village. Quite a number of small mounds and likely sites were examined, but, unfortunately, no new Viking graves fall to be recorded. When digging near the Viking grave found in 1913, the site of which can still be determined by the quantities of horses' bones lying in the sand, I found that this grave had been placed close to the side of a drybuilt stone wall, the top of which now shows above surface level. This wall, which must be part of a building of circular construction, measures about 4 feet in breadth and about 4 feet in height. Nearly 12 feet of its length was uncovered. To the west of the Drill Hall, and

showing at surface level where the sand has blown away, are a number of similar walls, the circular construction of the buildings of which they had formed part being clearly visible. No excavation of any of these structures was attempted, as it was a task beyond either the time or means at my disposal, but I record them here as being worthy of serious investigation in the future.

In a small mound about 160 yards west of the Drill Hall and about 22 yards north of the road, there was found at about 2 feet from the surface a long cist which measured 8 feet in length, 2 feet in breadth, and 2 feet in depth. The sides and one end were composed of slabs set on edge, and the other end of flat stones placed one above the other. The bottom was not paved, and, except for a quantity of red clay, the cist was entirely filled with sand. For a covering it had a number of flat stones with one particularly large slab in the centre, the whole being topped with small boulders and sand. The direction of the cist was north-east and south-west. No relics were found in it.

In a small heap of stones, about 120 yards north-west of the Drill Hall and beside one of the grass-covered sand dunes, the fragments of a large vessel of clay were found about 3 feet from the surface. Both sides had been crushed together, and it was only found possible to remove it in small pieces. It is made of a coarse reddish-yellow clay, the walls averaging $\frac{3}{4}$ of an inch in thickness. The diameter at the mouth has probably been about 16 inches and the height perhaps about 17 or 18 inches. On the exterior, just below the lip, it is slightly hollowed, the lower portion of the hollow being decorated with a nearly horizontal row of finger-tip and nail impressions. From the level at which the vessel was found and its construction and appearance in general, I would suggest a period subsequent to the Viking occupation as its probable date.

On the east side of the Isauld Burn, between it and the farm dyke, the remains of two long cists were found, with the head and side stones protruding above ground. They lay nearly east and west, and measured 6 feet in length, about 2 feet in width, and 1 foot 6 inches in depth respectively. No relics were found in either, both being completely filled with earth.

In addition to the above-mentioned vessel of clay, the only relics found on Reay Links were two hammer-stones, a small flint scraper, and a strap tag of bronze.

The strap tag (fig. 1), which was found lying on the surface, has a dark green patina. It measures $1\frac{7}{8}$ inch in length and is of long oval shape pointed at one end. The top, where it is $\frac{5}{16}$ inch in breadth,



Fig. 1. Bronze Strap Tag from Reay Links. (4.)

is divided and pierced with two nail or rivet holes. Towards the centre it widens to $\frac{7}{16}$ inch, and gradually tapers to a point which has been worked into a zoomorphic design. On the upper surface there is the incised decoration of a cross inside a circle, and a small oval depending from between the rivet holes, the whole being enclosed within an incised border line which runs round the edge of the object. From the circumference of the circle which encloses the cross, four lines project inwards towards the angles of the arms, one of these lines and two of the terminals of the cross being decorated serif-fashion. Of the same type, but made of silver instead of bronze, is the strap tag found at Talnotrie,¹ Kirkcudbrightshire, with associated relics among which were Anglo-Saxon and Northumbrian coins dating from A.D. 854-74.

CHAMBERED CAIRN AT LOWER DOUNREAY.

This cairn (fig. 2), which is of the round horned variety, is situated in the pasture land about 1 mile north-east of the farm of Lower Dounreay and $\frac{1}{4}$ mile from the seashore, and like many others of its kind, has long been known in the local folk-lore as "The Fairies Mound." It is also sometimes called "The Lairacks Hillock" or Cnoc na h-Uiseig. From a distance it has the appearance of a green hillock, but on closer approach there could be seen protruding above the grass-grown surface a number of slabs, the position of some of which indicated that the cairn had at some time or other been interfered with. On the southern side, and about 60 or 70 feet in front of the cairn, is a hollow or ditch-like depression in the ground, a peculiar phenomenon in a field which is otherwise comparatively level, and I can only suggest as a reason for its existence, that it was from this spot the builders of the cairn may have obtained the material, or part of it at least, for the construction of the monument.

The cairn measured about 8 feet in height above the level of the field. Across the centre, between the horns, the diameter was about 58 feet, and along the horns 70 feet. In the centre of the concavity, on the south-east side, and seen in fig. 2 as a white mark, was a large slab which measured 5 feet 6 inches in length, 2 feet 9 inches in greatest breadth, and 11 inches in thickness. With some difficulty this stone was moved downwards a few feet, and on digging below where it had lain the entrance to the chamber was found. The slab, which had probably slipped from its original position, was, I think, the lintel stone of the portal, the two jambs being the upright slabs Nos. 1 and 8, which were subsequently uncovered in the course of the excavations. The whole

¹ *Proceedings*, vol. xlvii. pp. 12-16.

of the chamber from the entrance to the back wall was completely filled with flat slabs which had formed the superstructure of the

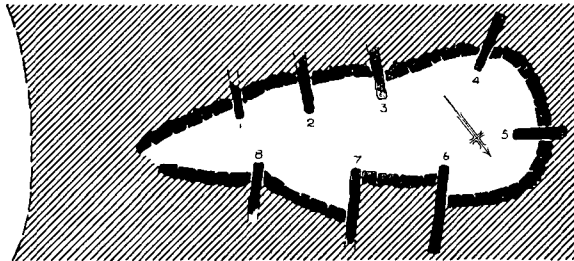


Fig. 2. Horned Chambered Cairn at Lower Dounreay, Caithness.

chamber. Amongst this mass, and at a distance of 16 feet from the entrance and 3 feet from the surface level, a secondary burial had been



LONGITUDINAL SECTION



PLAN OF CHAMBER

INCHES 12 0 5 10 15 FEET

Fig. 3. Plan and Section of Chamber in Cairn at Dounreay.

made, the cairn stones of the fallen roof having been utilised as material for the preparation of the long cist in which to place the body. The cist, which lay north-north-east and south-south-west, measured 6 feet in

length, 2 feet in breadth, and 1 foot 4 inches in depth. Both side and end slabs had been set on edge. To protect the cist further two slabs, each of which measured about 3 feet in length and 2 feet 9 inches in breadth respectively, had been placed on edge on either side of the cist at its head. Laid across these from side to side were three flat stones which formed a cover. The bottom was paved, and the skeleton, which was

lying on its back with its head at the north end of the cist, was entirely covered with beach shingle. At the south-east end of the cist, among the shingle, two fragments of a beaker urn were found.

On reference to the section and plan (fig. 3), it can be seen that the original chamber is a pointed oval in shape, having eight upright divisional slabs (numbered 1-8 in the illustrations) of varying heights set radially with drystone building between each. It lay north-west and south-east, and measured 20 feet in length. Between the walls at the entrance it measured only 1 foot in width, but gradually expanded to about 6 feet 6 inches at the back. The original height of the chamber cannot now be ascertained, but as the drystone building is at every point built higher than the upright slabs, one can assume that it must have been



Fig. 4. South side of Chamber in Cairn at Lower Dounreay.

of the dome-shaped or corbelled variety, with perhaps one or more capstones. Between the upright slabs Nos. 6 and 7 and 7 and 8 two slabs of whinstone were found, which might have answered as covers. The larger of the two measured 4 feet in length by 3 feet 7 inches in breadth and 7 inches in thickness. The only part of the chamber which may have been lintelled is that portion between the walls at the entrance on the exterior side of slabs Nos. 1 and 8, and here a few fallen slabs were found, which by their size and shape may have served as lintels.

In the removal of the stones from the back of the chamber, it was observed that the upper faces of many of these had adhering to them a layer of clay sometimes nearly an inch in thickness, the lower faces being quite clean. The use of clay has already been noted in the superstructure of cairns elsewhere,¹ so that its presence here in such a quantity and position was in all likelihood not accidental, but for the purposes of making the roof as nearly watertight as possible, and helping to bind the structure together. In the actual construction of the chamber its shape had evidently been determined by the placing of the upright slabs (fig. 4), these having been fixed in position first of all. Each slab had been sunk to some depth in the subsoil, and pinned in its position by a smaller stone wedged in at the foot on either side. The drystone walling had then been built between and above the uprights (fig. 5). The measurements of the upright stones are as follows:—

Number.	Height.	Thickness.	Breadth.
1	3 feet 3 inches	5 inches	Not ascertained.
2	4 " 6 "	5 " "	" "
3	4 " 6 "	5½ " "	" "
4	4 " 6 "	5 " "	3 feet 3 inches.
5	4 " 7 "	5 " "	2 " 10 "
6	4 " 9 "	5½ " "	4 " 4 "
7	4 " 3 "	4 " "	Not ascertained.
8	3 " 7 "	4 " "	" "

Between Nos. 1 and 2 the height of the cairn wall as it stands now is 4 feet, between Nos. 2 and 3, 5 feet 4 inches, and between Nos. 5 and 6 its highest point 5 feet 10 inches. At floor-level the base of the wall was nearly in line with the bottom of the upright slabs, but as it rose the wall gradually sloped outwards until it reached the top of the uprights. Here it became more perpendicular, and at two points above the uprights Nos. 3 and 6 it showed some sign of convergence.

The position of the upright slabs must be considered. It will be noted that except for Nos. 1 and 8, which are nearly opposite each other but not quite, the remainder, except for No. 5, are so placed that one on either side faces the interval between two on the opposite side. Moreover, the position of No. 5 upright in the centre of the semicircular back wall, leaves us with four uprights on one side and three on the other. This irregular placing of the upright slabs would seem to preclude, therefore, a splitting up of the chamber of this cairn into a series

¹ *Forty Years' Researches in Burial Mounds of East Yorkshire*, pp. xxi and xl.

of well-defined compartments. The spaces between them, however, served the same purpose, the slabs themselves being used for dividing one interment from another, as I shall show later. One other point in connection with the slabs, for which I can assign no particular reason, is the rough chipping away of the upper interior corner of each one, some more and some less. This is shown on the section, but can be

most clearly seen in fig. 4, showing the south side of the chamber, and fig. 5, a view of the back of the chamber.

In clearing the floor of the chamber, the space between uprights Nos. 3, 4, 5, and 6 was found to be completely paved, except for a small patch near the inner angle of No. 6, where there was a pocket which seemed to contain a small quantity of ashes. Between uprights Nos. 2, 3, 6, and 7 the floor was partly paved and partly covered with clay, and from this point to the entrance the floor covering consisted of clay only. On the top of the paved area was a layer of clay some 2 to 3 inches in thickness, and embedded in this were human skeletal remains, animal bones, pottery, etc. A few fragments of charcoal were also found, but so few as to be almost negligible.

The skeletal remains were fragmentary, as the weight of the fallen stones had driven the bones into the clay, breaking and crushing them, and this, together with the effect of moisture which had seeped through the stones of the cairn, had reduced many of them to such a state of disintegration as to make it impossible to remove them. From the position of the fragments which remained it was possible, however, to determine, so far, the position in which some of the bodies had been placed.

The first skeleton was found between uprights Nos. 3 and 4. It had

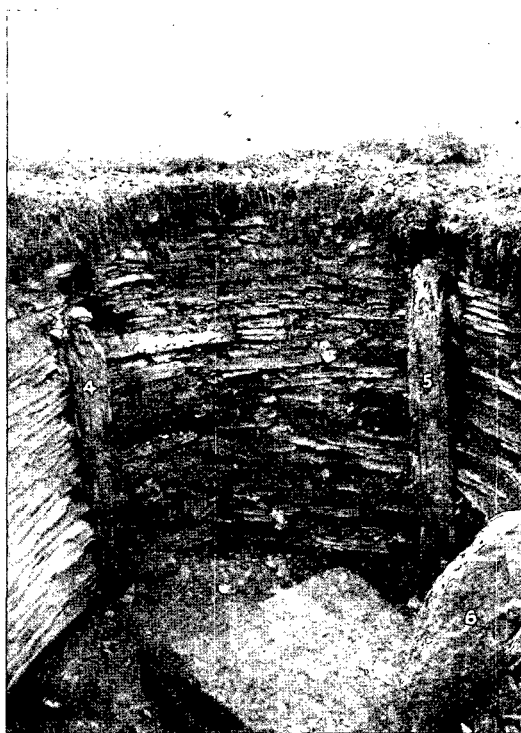


Fig. 5. End of Chamber in Cairn at Lower Dounreay.

been laid in a contracted position on its left side close to the wall, with the head in the angle made by the wall and No. 3 upright. The knees had been drawn up, one arm placed under and the other over the thigh bones. Between uprights Nos. 5 and 6 other skeletal fragments were found. Pieces of a skull were lying in the angle of upright No. 5, while close to the base of the wall, and nearly centred between the two uprights, were a number of long bones. From the position of the bones it would appear as if a body had been laid down in a contracted position. In the central space between uprights Nos. 2, 3, 6, and 7 the human skeletal remains were rather mixed, the skull of one skeleton being found in the exterior angle of upright No. 6, while another skull and a number of long bones were found midway between the upstanding slabs.

In the clay in which the bones of the first-mentioned skeleton were imbedded, and which had been removed and placed aside for examination, two fragments of neolithic pottery were found, a stone axe, fragments of two beaker urns, and a number of animal bones. Among the latter was the first phalanx of a small ox which had been pierced

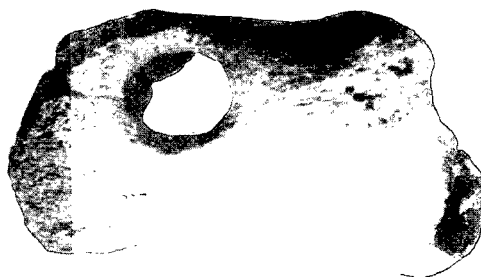


Fig. 6. Pierced Ox Bone from Chamber of Cairn at Lower Dounreay. (1.)

near its distal end, from front to back, by a hole about $\frac{5}{8}$ inch in diameter (fig. 6). A similar bone also pierced in this way, from a Stone Age kitchen-midden at Oram, in Denmark, is figured in *Affaldsdynger Fra Stenalderen i Danmark*, p. 142, fig. 4.

The axe, which is made of a micaceous sandstone, measures $3\frac{5}{8}$ inches in length, $2\frac{3}{16}$ inches in width across the cutting face, and $1\frac{3}{8}$ inch across the butt. It is roughly oval in section and measures $1\frac{3}{8}$ inch near the centre, where it is greatest in thickness. The surface generally, except in one or two places where an attempt has been made at polishing or smoothing, is pitted, showing that it has been prepared by pecking or bruising with a hammer-stone.¹ The neolithic pottery is made of an extremely hard paste. The outer surface is black and glossy, with the appearance of having been rubbed or burnished with a smooth instrument. The inner surface resembles a piece of stone, so large is the

¹ See description of this method by Dr Sophus Müller in *Mémoires de la Société Royale des Antiquaires du Nord*, 1897, pp. 148-56.

percentage of sand which has been added to the clay in the process of manufacture. The largest of the two fragments measures $1\frac{3}{8}$ inch by

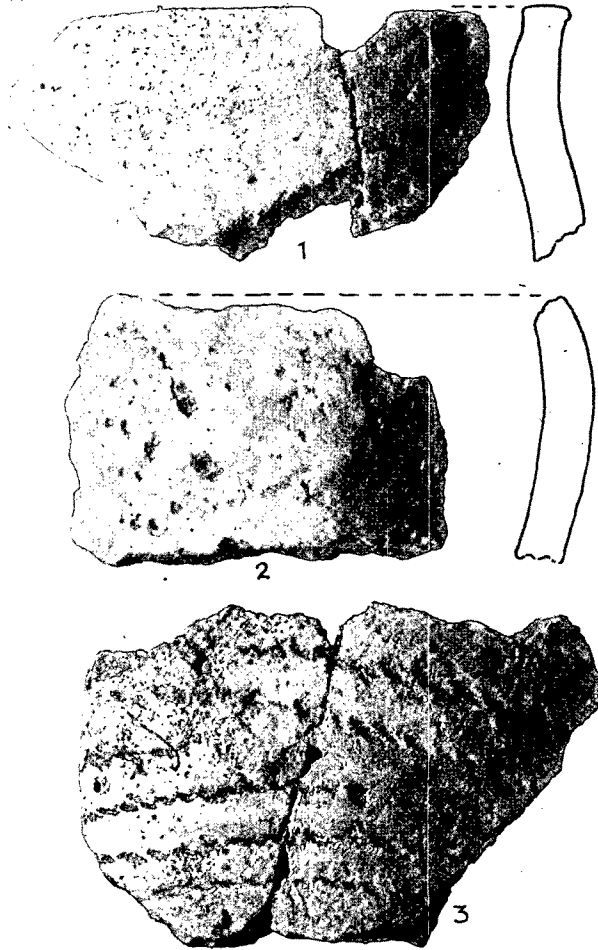


Fig. 7. Fragments of two Beakers from floor of Chamber in Cairn at Lower Dounreay.

$1\frac{5}{8}$ inch and $\frac{1}{4}$ inch in thickness. The beaker (fig. 7, Nos. 1 and 2), which is made of a fine yellowish clay, has probably measured about $3\frac{1}{2}$ inches in diameter across the mouth when complete, and $3\frac{1}{8}$ inches across the base. The lip is slightly everted, and here and there over the surface

are shallow punctulations in groups of three. As each one of the three appear to be equidistant they have probably been made with a stamp. The fragments of the beaker (fig. 7, No. 3) were portions of the body of a vessel which had been made of a light brown clay, and decorated with horizontal impressions of a twisted cord. The fragments of the other beaker (fig. 8) were found in various parts of the cairn. The lip fragment No. 1 was found immediately under the turf on the top of

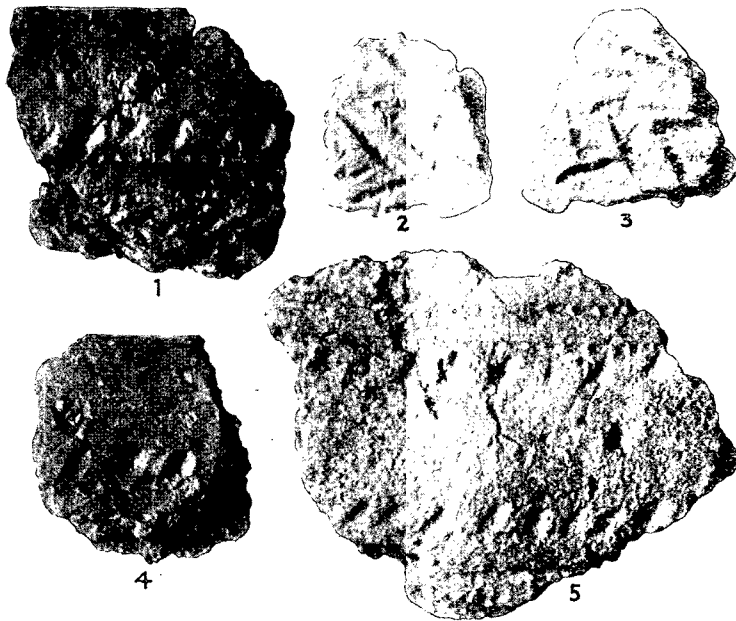


Fig. 8. Fragments of a Beaker from Cist in Chambered Cairn at Lower Dounreay.

the cairn. Nos. 2 and 3 came from the floor of the cairn, and Nos. 4 and 5 from the cist which had contained the secondary burial. It is made of a coarse dark brown clay, intermixed with small stones and quartz crystals. The lip fragments Nos. 1 and 4 are decorated with a row of nearly vertical dashes made with a stick or other implement, and closely resembling the finger-nail technique. These are margined by a line impressed with a toothed implement producing a row of hyphens, and below is an irregular chevron pattern of which Nos. 2 and 3 may be portions. Fragment No. 5, part of the bulge of the urn, has two rows of the nearly vertical dashes placed $\frac{3}{4}$ inch apart, each row of which is margined by a double line of the impressed hyphens.

For various reasons it was not found possible to examine the structure of the cairn outwith the chamber. Internally there is little deviation from the plan of excavated cairns of a similar type, although there are structural differences in detail. In the plans of the horned round cairns of Ormiegill and Gett,¹ excavated by Dr Joseph Anderson over half a century ago, the upright slabs are shown in pairs, each one exactly opposite the other, thus dividing the chamber into three compartments in the first mentioned and two in the second. Also, the upright slab in the back wall of the innermost compartment of both these cairns was placed face outwards and flush with the drystone building, instead of protruding for some distance edge outwards, as in the cairn at Lower Dounreay. Further, in the Dounreay cairn the passage is short, the distance from the outer extremity of the walls—where they are only a few inches in height—to the upright slabs Nos. 1 and 8 being only 5 feet. In the cairns of Ormiegill and Gett, and imbedded in a floor of ashes, were burnt bones, human and animal, evidence of a period during which cremation was practised. Above this accumulation were unburnt bones, splintered and broken, both human and animal, of later burials and a different method of sepulture. The relics found consisted of flint chips and worked flints, and in the cairn of Ormiegill a finely polished hammer of grey granite was found, which measured 4 inches in length and was pierced with a hole for a handle. Quantities of pottery were also found, but these are not now available for examination.

In the cairn at Lower Dounreay there was only one method of burial—by inhumation, and in two cases at least in the contracted position. No flints, worked or unworked, were found. Two of the fragments of pottery were neolithic, and the remainder fragments of beakers of the Bronze Age. The decoration of the beaker (fig. 7), with its toothed-stamp impressions and false finger-nail technique, points to an early period of that time.² The corded beaker found in association with the stone axe and neolithic pottery is an interesting record, although we must infer from the fragments found that the whole of the globular body of the beaker was decorated with the cord impressions, instead of the neck only and perhaps part of the shoulder, as in its continental prototypes of the Late Neolithic period. The stone axe is the second recorded from a chambered cairn in Scotland.³ A polished axe of greenstone was discovered by Professor T. H. Bryce in Clachaig (Limekiln) cairn, Arran. In the two chambers of this cairn were the remains of fourteen individuals, men, women, and children, the bones

¹ *Proceedings*, vol. vi. pp. 442-51 and vol. vii. pp. 480-512.

² *Proc. of the Prehistoric Society of East Anglia*, vol. iii. p. 26.

³ *Proceedings*, vol. xxxvi. p. 89.

all unburnt. It was noted that the skulls were invariably placed in the corners and the long bones against the walls, practically the same conditions as prevailed at Lower Dounreay.

From the evidence afforded, therefore, by the multiple inhumed burials, the stone axe, fragments of neolithic pottery, shards of early beaker pottery, and a total absence of bronze, we must presume that the interments in the Lower Dounreay cairn had been made in the Late Neolithic and Early Bronze Age. The relics from the cairn have been presented to the Museum by the Trustees of the late Donald Innes of Reay, to whom the thanks of the Society are due. I must also express my indebtedness to Mr Patrick Innes for his assistance, and to Mr B. G. Harris for his help in preparing the plans.

REPORT ON THE HUMAN BONES. By Professor ALEX. LOW,
M.D., F.S.A.Scot.

FROM THE CHAMBER OF THE CAIRN.

The bones are so fragmentary that apart from identifying the various pieces it is not possible to arrive at any definite conclusion as to the type of individuals represented.

Between upright slabs Nos. 2, 3, 6, and 7 were found pieces of the cranial bones of two individuals—an imperfect skull-cap, and part of the lower jaw of a young individual with a somewhat long skull and narrow forehead; a frontal bone and pieces of upper and lower jaws of an adult with narrow forehead and prominent brow-ridges.

Between slabs 5 and 6 were small fragments of two skulls and some very fragmentary and splintered pieces of limb bones—pieces of humerus, ulna, femur, and tibia.

Between slabs 3 and 4 were found pieces of upper and lower limb bones of a young man. Part of the upper extremity of the right femur shows very marked antero-posterior flattening, and the upper three-fourths of the right tibia shows lateral flattening of the shaft and retroversion of the head.

SECONDARY BURIAL IN LONG CIST.

The long cist contained the imperfect skeleton of a young man about twenty to twenty-five years of age.

The skull is too imperfect to permit of measurements being taken. The bones are thin, and sufficient of the skull-cap remains to show a long type of skull with a rather full and rounded frontal region and with high orbits. The ramus and part of the body of the left side of

the lower jaw is preserved. All three molar teeth are in position, but do not show any wearing of the crowns.

There are a number of imperfect vertebræ and a few broken ribs. The hip bones are much broken, but the pieces that remain show sex characters indicating a male.

The lengths of the entire limb bones are as follows:—

Right humerus	323 mm.
„ radius	236 „
„ ulna	258 „
„ femur	444 „
Left tibia	352 „
„ fibula	350 „

The *platymeric index* of the femur is 65·7, and the *platynemic index* of the tibia 61·7. Both tibiæ show flattening and retroversion of their heads, and the left one shows a “squatting” facet at its lower end; the lower end of the right tibia is broken. The right os calcis and both astragali are fairly complete, the latter showing “squatting” facets.

The bones are those of a young male, rather long-headed, of slender build, and of an estimated stature of 5 feet 6 inches.

REPORT ON THE ANIMAL BONES. By R. M. NEILL, M.C., M.A.,
Lecturer on Zoology, University of Aberdeen.

These number some 60 pieces, almost all very small and fragmentary. They are not of any great zoological interest. The variety of aquatic animals represented suggests that the site of the cairn has been exposed to flooding or was hard by a stream or pond, although actually there is no evidence of this at the present day.

The following is a summary of the remains :—

1. Nine pieces rib, vertebræ, scapula, and 22 pieces limb bones of a smallish ox. Of the latter the largest pieces by far are a part of the right radius and an os calcis. The stoutish build of the former seems to preclude Keltic shorthorn.
 2. Right humerus and one other limb fragment of young deer.
 3. Two leg bones of a squirrel.
 4. Part of the skull of a water-vole.
 5. Two pieces lower jaw and part of right frontal of an otter.
 6. Part of sternum and several wing-bone pieces of a gannet.
 7. Seven pieces wing bones of a grebe or grebe-like bird, and two fragments of mandible ditto.
- In addition to the above there were found 3 ox teeth, 1 sheep tooth, 1 canine tooth of a dog, 2 pieces of oyster-shell, and a fragment of bird pelvis which has not been definitely identified.