

I.

ON THE CHAMBERED CAIRNS OF CAITHNESS, WITH RESULTS OF
RECENT EXPLORATIONS. By JOSEPH ANDERSON, Esq., Loc. Sec.
A.S.L., CORR. MEM. S.A. SCOT. (PLATE XXVII.)

Some very remarkable and interesting features in connection with the structure of the Chambered Cairns of Caithness were brought to light in the course of a series of explorations undertaken last summer by the writer and Mr R. I. Shearer for the Anthropological Society of London, Dr Hunt, the President of that Society, having liberally placed the necessary funds at our disposal. A full account of the results of these explorations is embodied in the Memoirs of the Society above-mentioned, and the following general outline of the facts observed is communicated to the Society of Antiquaries of Scotland, in the hope that it may be useful in furthering the common object by contributing towards the elucidation of the structural characteristics of these interesting relics of the early population of the country.

In Caithness the term "cairn" is applied both to the burial "cairns," whether chambered or simply enclosing a central cist, and to the ruins of the "brochs," "borgs," or "Picts' houses," as they are called here indiscriminately; but the two classes are usually distinguished by their external appearance, as "grey cairns" and "green cairns," the chambered cairns in all the instances I know being bare heaps of stones, while the "green" or grass-grown "cairns" have always turned out to be "brochs," so far as they have yet been examined. In this paper I purpose to speak only of the chambered cairns, which are externally of two forms.

The commoner form is circular, or slightly oval in its ground plan, and varies in height according to the area of its base, the smallest explored being about 25 feet, and the largest about 80 feet in diameter. It is difficult to ascertain the perpendicular height, as in all cases the top of the cairn has been considerably reduced; but in the larger cairns it seems to be pretty nearly a fifth of the diameter at the base.

The external surface is that of a heap of loose stones. The stones are gathered, not quarried; and even the large monoliths and lintels of the chambers, in a great many instances, are drift stones, with the edges rounded, and abraded ends. The bulk of the stones that compose the cairn are such as might be easily carried by a strong man, and, unless in the passage and chamber, few have been used of such a size as to require the strength of two men. Many of the lintels of the passage and the divisional stones of the chamber in the larger cairns, however, are of great size, some weighing several tons.

Although the idea of a cairn is simply that of a structureless heap of stones, there are not wanting appearances to lead to the belief that, externally, they were not altogether so originally. In several of these circular cairns there is yet traceable the foundation of one, and in some cases two, enclosing outer walls, as will be seen by reference to the ground-plan. The same thing has been observed in some cases with reference to the smaller cairns enclosing a central cist; and this curious feature is specially noticeable in the case of the singular class of cairns which these explorations have for the first time made known in Caithness.

In these, the rarer class of chambered cairns, the double enclosing wall becomes a special feature, and, along with the peculiar shape of the cairn itself, and the prolongation of its curved ends, gives a characteristic

type of cairn structure to which I know no parallel. These cairns, from their peculiar prolongations of the extremities, I have called "horned,"¹ and they appear to be of two kinds—one long, and having the chamber in the one end, and the other short, and having the chamber (like the round cairns) in the centre. The latter type appears to be a blending of the two others; for if the external structure of the horns and the double enclosing wall be removed, there remains a round cairn complete, with enclosing wall and central chamber, though the passage would then be much shorter than it usually is in the ordinary round cairns.

Internally these cairns are all of one type, whatever may be the form they assume as to external structure. The chamber is essentially of the same plan in the round cairn and the long cairn—the cairn with "horns" and the cairn with none. There are structural differences in detail, but the arrangement is the same, and the general plan is one, whatever may be its minor modifications. This will be evident at a glance, from an inspection of the ground-plans of these chambered cairns herewith sent. Of these four were explored by the late Mr Rhind, and have now been accurately measured and laid off to scale by Mr Shearer (who assisted Mr Rhind in his explorations), and for the correctness of the other I am myself responsible.

Mr Rhind, in his paper descriptive of these four cairns, characterised the arrangement of the chamber as "radically cruciform," and the typical ground-plan figured to accompany his paper seems rather to favour that idea. I think, however, that the delineation from the actual measurements gives no countenance to the cruciform hypothesis.

The arrangement of the chamber is tri-camerated, the central compartment being always the largest, and the others varying in their proportions to it and to each other. The division into compartments is effected by slabs of large size set on end in the floor, let in to the walls on either side of the chamber, and projecting across the floor till they leave only an opening from the one compartment into the other, sometimes of less than two feet. In those cairns in which the form of the chamber is most rectangular, these divisional stones appear to have served the

¹ A communication on the "Horned Cairns," from the pen of Mr Anderson, will appear in a subsequent part of the Proceedings.

double purpose of dividing the chamber into compartments and of giving support to the roof, which was most likely of flags laid across from the slightly convergent upper portions of the side walls. In some of the round cairns, again (Nos. 4 and 5, for instance), a different plan appears, as seen on the section of No. 5. Though, on the ground-plan, these two are radically the same as the others, they differ in this particular from the more rectangularly chambered cairns, that the divisional stones which separate the central from the last or furthest compartment do not reach the roof, and only rise about four or five feet above the floor. The first compartment is lintelled over, and has a flat roof of flags the same as the passage, and the other two compartments (by the lowness of the divisional monoliths) being thrown into one, the walls, after rising a few feet above the floor, gradually pass from the sub-rectangular contour of the ground plan into an oval or irregularly circular form, and, finally, converge into a truncated dome, roofed over with flags at a height of about ten feet. The tri-camerated arrangement of the ground-plan thus becomes a bi-camerated structure, in a horizontal section at a height of four feet from the floor. One out of the five has but two chambers on the ground-plan, and may be regarded as the exception which proves the rule of the tri-cameration.

The round cairns have their openings directed to no particular point of the compass, some being almost the exact reverse of the others; but the long cairns all lie pretty nearly east and west, and have the chamber in the eastern end, which is also the highest, the ridge of the body of the cairn falling away towards the west end.

Of these long cairns I only know three in the county—two at Yarhouse, Thrumster, and one at Camster—both places being in the parish of Wick. The two at Thrumster have been explored, the third has not.

The extreme length of the larger long cairn, from tip to tip, is 240 feet. The breadth of the base of the body of the cairn behind the horns at the eastern end is 66 feet, and the line across the tips of the horns 92 feet. These measurements at the west end are 36 feet and 53 feet respectively. The smaller long cairn is 190 feet in extreme length. The breadth of base behind the horns at the eastern end is 43 feet, the horns expanding till the line across their tips measures 62 feet. The same

measurements at the west end are 26 and 34 feet respectively. The "horns" are defined by a double dry-built wall, of which only the foundations remain in the larger cairn; but in the smaller it is still standing to a height of about 5 feet, where it joins the passage, falling gradually to ruin as it extends outwards. These walls are both "faced" only on the outer side, and they slope slightly inwards. In the smaller cairn the distance between them is about $2\frac{1}{2}$ feet at the maximum towards the entrance to the chamber, and about 18 inches towards the tips.

The internal structure of the two long cairns differed in the details of the construction of the chamber, though the general plan was radically the same as in all the chambered cairns. In the larger cairn the chamber was smaller than in the other in proportion to the bulk of the body of the cairn. Both consisted, as usual, of three compartments; but while in the larger cairn the third or furthest compartment was very small and low, and roofed over by a single immense block of stone, the last compartment of the other was of a semicircular form, like that of the round cairn No. 3. About seven feet of the height of the internal walls remained in the larger, and about five feet in the smaller cairn. Besides the slabs which stood across the floor as divisional stones in the smaller cairn, the central compartment had a very large slab on either side built into the wall as part of the enclosure of the chamber, the face of the slabs making part of the face of the walls.

In the first compartment of the smaller cairn a short cist was found set on the floor in the space between the entrance and the first divisional stone on the south side. It was about 4 feet long, by 20 inches wide, and was filled internally with partially blackened clay, in which was a whitish stratum as of burnt bones. An urn, with the twisted cord ornamentation, lay on its side at the east end, and through the clay were scattered a quantity of beads of lignite, about the size of, and similar in form to, the cross sections of the small end of the shank of a tobacco pipe. Beneath the urn a few lay end to end in a line, as if they had been strung when put in. Seventy of these were recovered by washing the clay that came out of the cist. The appearance and position of the cist was such as to lead to the conclusion that, as regards the chamber, it was a "secondary interment." The way in which the space between the end of the chamber and the divisional stone was adapted to the con-

struction of a cist, and the fact that the end of the stone forming the outer side of the cist projected into the passage-way, seemed to indicate that it was not part of the original purpose or structure of the chamber.

In the chambers of both cairns indications of a rough paving of small irregularly-laid slabs were found, and the floors of both were covered to the depth of several inches with a layer of clay highly charged with charcoal, and fragments of burnt and unburnt bones. In the larger cairn, however, no fragments of bone larger than an inch in length, by less than half an inch in breadth, were found, the extreme comminution of the bones being the most singular feature in connection with it. In the smaller cairn burnt and unburnt bones, broken, but not comminuted, were found in considerable abundance, both on and in the layer of clay mixed with ashes which formed the floor of the chamber. Along with a number of animal bones (broken) a portion of a human upper jaw, a few phalanges of fingers or toes, and several detached human teeth, were found in the central compartment of the chamber of the smaller cairn; and in the furthest compartment the frontal portion of a human skull, with other fragments of skulls, and a quantity of other human remains and some animal bones, lay scattered over the floor and partially imbedded in the clay.

In the larger cairn the only manufactured objects found were a few flint chips and two pieces of well-made pottery, blackened by fire. The flint chips were unburnt. In the smaller cairn not a single flint chip, and no vestige of pottery was found, the only manufactured objects it contained being the urn and beads from the (secondary) cist.

The Ormiegill cairn, as I have said, combined the specialties of external structure of the "horned" and the round chambered cairns. It differed from the long cairns, inasmuch as its greatest length did not much exceed its greatest breadth, viewing the "horned" structure as really the cairn, while it agreed with them in having the larger horns in front of the chamber, the entrance midway between them, and the smaller horns to the rear of the cairn. On the other hand, it agreed with the circular cairns, inasmuch as the chamber was placed in the centre, and had an enclosing circular wall. From this arrangement the idea is suggested that the central portion of the cairn, being apparently complete in itself as an ordinary round chambered cairn, the exterior

structure of the double wall defining the "horns" may have been a subsequent addition; but there is no evidence to guide us in drawing conclusions of this kind; and the smaller long cairn at Yarhouse, Thrumster (before described), has the appearance of the foundation of a circular wall, 30 feet behind the chamber. Before excavation, the Ormiegill cairn was, to all outward appearance, a common round cairn; and had we not been led to search in the body of the cairn for "horns," in consequence of the puzzle which the investigation of the Thrumster cairns had raised, we might have been content with a simple examination of the chamber and passage.

The "horns" are defined by parallel walls, both of which "face" to the outside, the one being thus built against the other as it were. The distance from the face of the outer to the face of the inner wall is about $2\frac{1}{2}$ feet all round. They are all well built, the stones used being mostly long and flat, and the space between the walls of a more rubbly character. From two to three feet of the height of these walls remains, and they seem to have had a considerable slope inwards, instead of rising perpendicularly. This also was observed in regard to the "horns" of the smaller long cairn at Thrumster. The breadth of the tips of the front horns flanking the entrance is 8 feet, and the distance from the inner corner of the tip of the one to that of the other is $50\frac{1}{2}$ feet. The breadth of the back "horns" is 9 feet at the tips, and the distance between their inner corners in the same way is 37 feet. The distance between the tips of the "horns" sideways along the length of the cairn was 66 feet on the one side, and 64 on the other. The horns extended about 30 feet outwards from the circumference of the circular wall enclosing the chamber. They are slightly convex at the tips, and are placed by compass as follows:—Front, E.S.E. and S.S.W. respectively; back, N. and N.N.W. respectively; line of passage, S.S.E.

The circular wall around the chamber is 80 feet in circumference. It is built of squarer, heavier blocks than either the internal walls of the chamber or the exterior walls of the "horns," and is, like them, faced to the outside only, and has a considerable inclination inwards. About four feet of its height remain in some parts.

The chamber itself, being of the usual tri-camered structure, need not be minutely described. It had a rough paving of small flags, irre-

gularly laid and broken up in the middle. Both over and under this rough pavement there was a thick layer of ashes, plentifully mixed with bones, human and animal, burnt and unburnt. Among the teeth of animals I could recognise those of the horse, ox, and dog. The long bones, both human and animal, were all broken, but not comminuted, and many were burnt quite black—converted into bone-charcoal. Some pieces of skull and phalanges of human fingers or toes were thus charred. In the central compartment were found the broken palates of two children, and several fragments of the adult human skull. A thick layer of very small animal bones occurred, which, unfortunately, were not got preserved. They were smaller even than the bones of small birds.

The manufactured objects found were a large number of fragments of pottery and flint chips; two very well finished arrow-heads of flint, one barbed; the point end of a fine flint knife, with ground edge; a disc of flint, about an inch in diameter, of the circular form, known as "thumb-flints;" and a finely-polished hammer of grey granite, perforated for the handle. Drawings of these are sent along with this paper.

The large round cairn at Camster (of which the ground-plan and section are given on No. 5) is one of those in which the tri-camerated arrangement on the ground-plan is merged into a bicamerated arrangement of the compartments in the section as previously explained. It is the only cairn I know that has any part of the roof remaining on the chamber. Its circumference at the base is about 220 feet, and the interior height of the chamber 10 feet. Except as to its vast size and general completeness, it has no special feature of difference from those described by Mr Rhind.

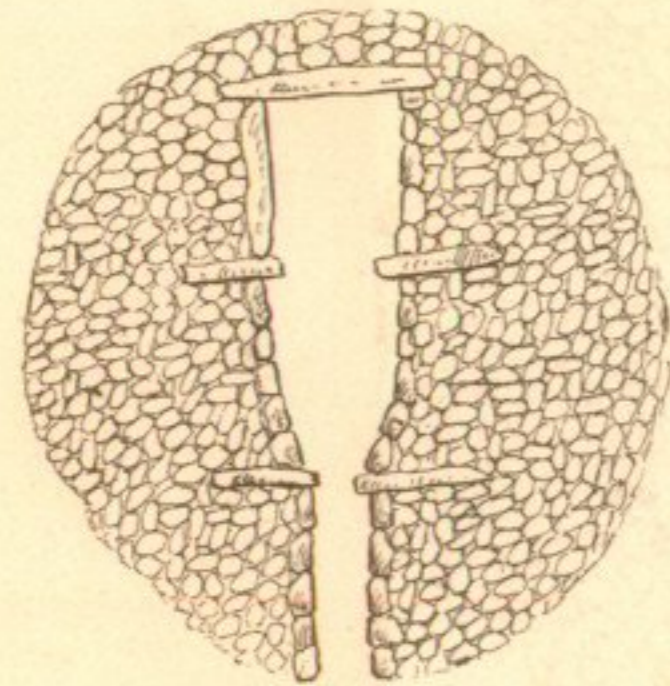
The floor of the chamber had no appearance of paving, and the clay was blacker and more earthy than that in the cairns previously described. The number of human bones was greater, and the proportion of animal bones less, than in the "horned" cairns. Most of the bones were on the floor, and fewer imbedded in it; and though there was a large quantity of ashes and charcoal scattered over the central compartment, and specially in the centre of the chamber and between the projecting divisional stones at the back, there were very few burnt bones. The fragments of skulls were numerous, and the bones that were got on the floor were chiefly those of the upper extremities.

The manufactured objects obtained from the clay of the floor were chiefly fragments of pottery, some being parts of vessels of very large size, and others of very fine make, and small size. Some were ornamented with incised lines, and one pitted all over with the point of a finger, the ornamentation being formed by the point and nail of the finger being thrust obliquely into the soft clay, thus making a depression and raising a ridge at the finger point at the same time. A small but very finely made flint knife was found buried in the floor, and near by a nodule of iron ore, about the size of a man's fist; while *on* the floor, among the bones, lay part of a broken thick-backed iron knife or dirk. The part found was the heft end, having a "tang" for insertion in the heft nearly three inches long. It was so much oxidised that the section across the blade (the back of which seemed to have been more than double the thickness of a large clasp knife) only showed a strip of bright metal little thicker than stout paper when tried with a file. I question whether it could have been the contemporary implement with the flint knife that lay below the clay; but the presence of the nodule of ore in the floor complicates the question of probabilities so much, that it is vain to speculate on the matter.

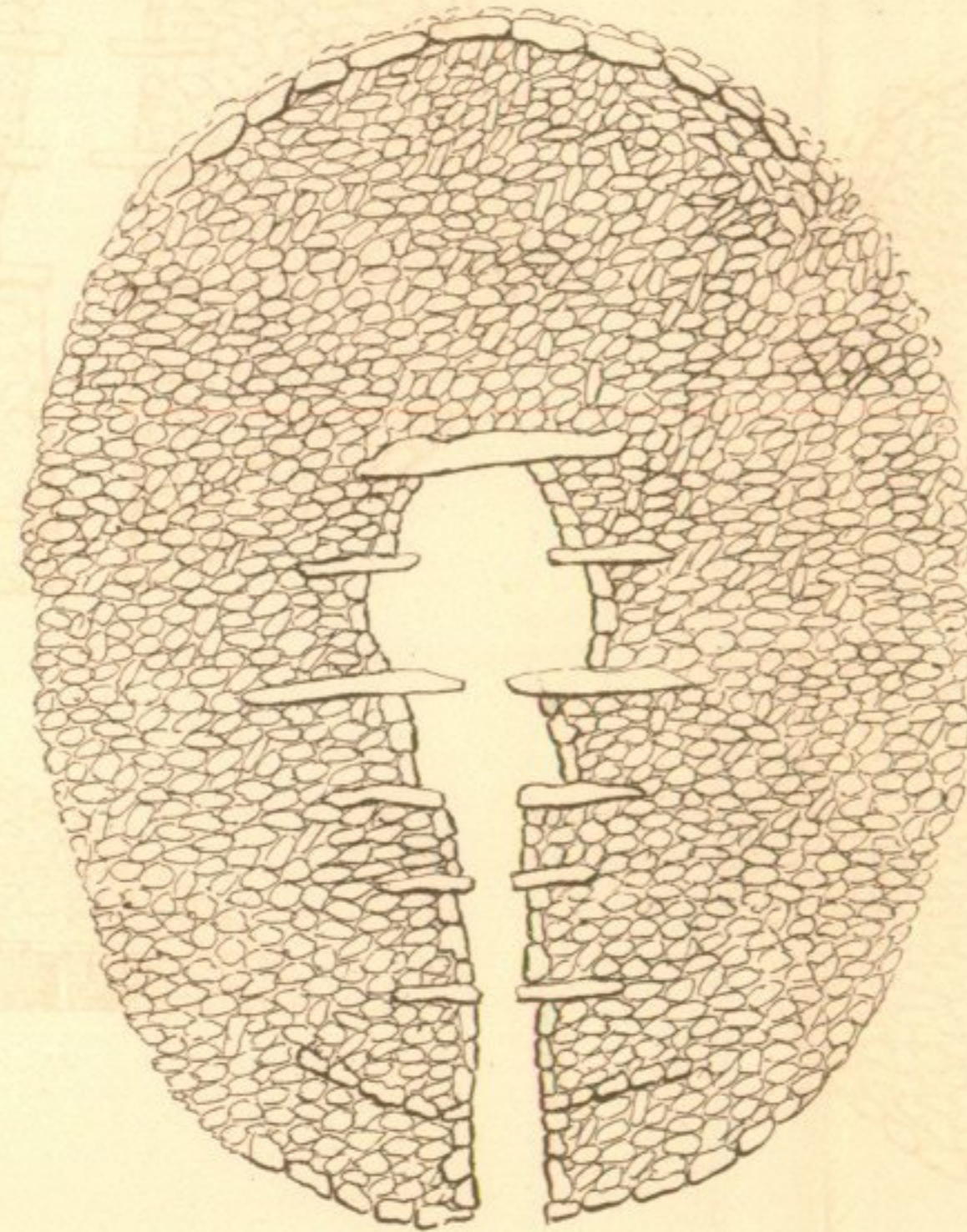
A curious feature in connection with this cairn was that, though the passage, which was upwards of 20 feet long, by 2 feet wide and $2\frac{1}{2}$ feet high (heightening and widening slightly, however, as it drew towards the chamber), was closely packed with stones from roof to floor and from end to end, two skeletons were found about half way between the chamber and the outer end of the passage. Of the skeletons only the upper extremities remained; and the skulls and arm bones were not on the floor, but among the stones above it. The suggestion of the circumstances was that the bodies had been placed there in a sitting position, and the stones that blocked up the passage packed in about them. No vestige of the pelvis or lower extremities remaining, appeared to indicate that they had been in contact with the wet floor, and had sooner decayed. The skulls and bones of the upper part of the trunk were all in fragments, though otherwise in good preservation, but perfectly deprived of their gelatine.

As to the age of these different classes of chambered cairns and their relation to each other, and to the commoner "green cairns" of the county, it is premature to hazard an opinion. Systematic and carefully conducted

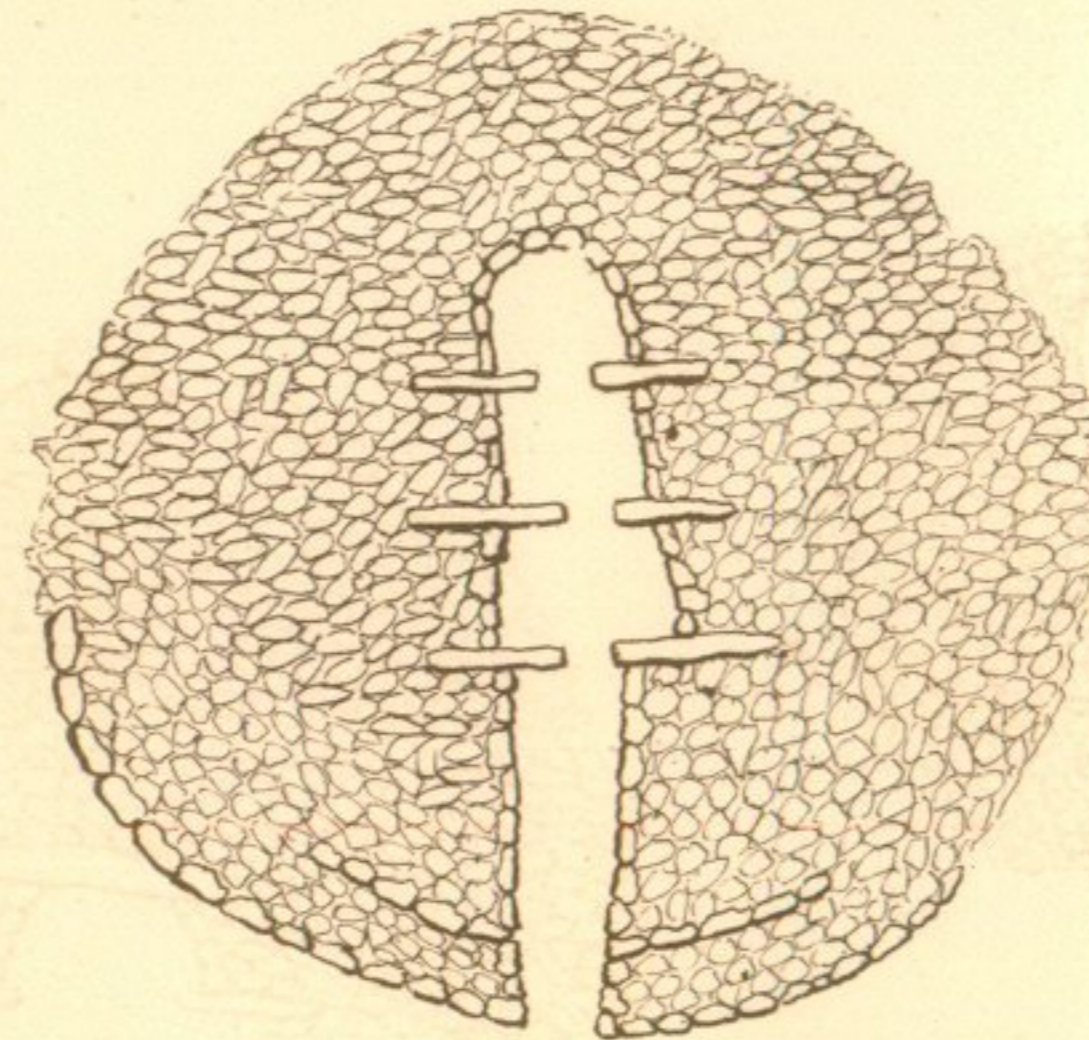
investigation of these and kindred remains in Caithness, I believe, may reasonably be expected to throw new light upon the early history of our country; but at the present stage of our knowledge of the facts connected with these early remains we are only at the threshold of archæological inquiry. The field of investigation here, from its peculiar circumstances, is wider, and the materials for collation and induction much more abundant, than in most other parts of the kingdom; but the progress of agricultural improvement and the pottering of amateur curiosity-hunters will soon sweep the last vestiges of the primitive races from the face of the country, and blot out for ever one of the richest pages of our prehistoric records.



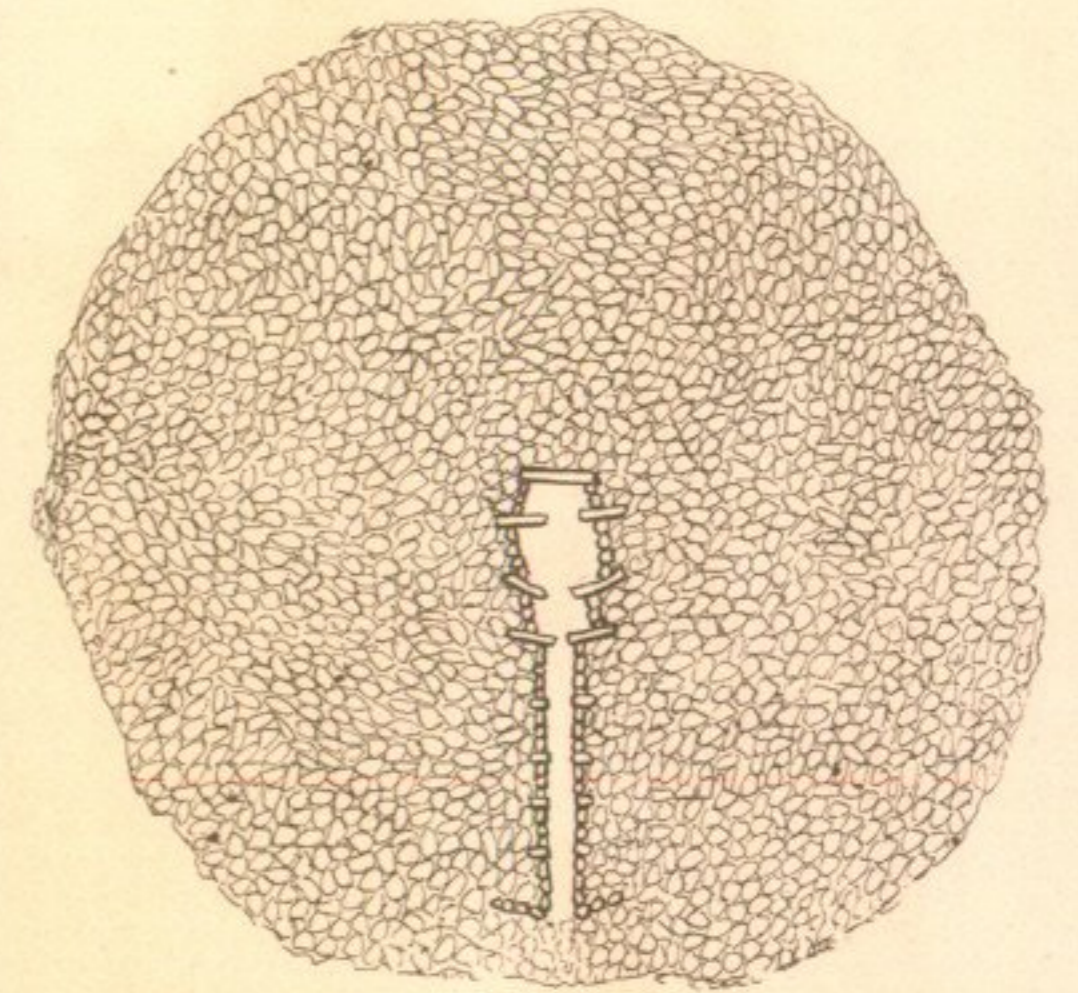
N^o 1



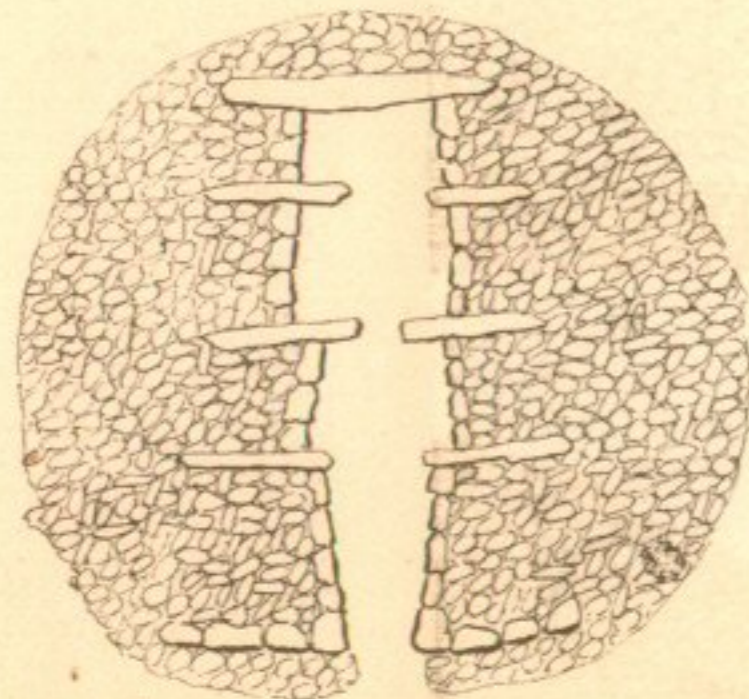
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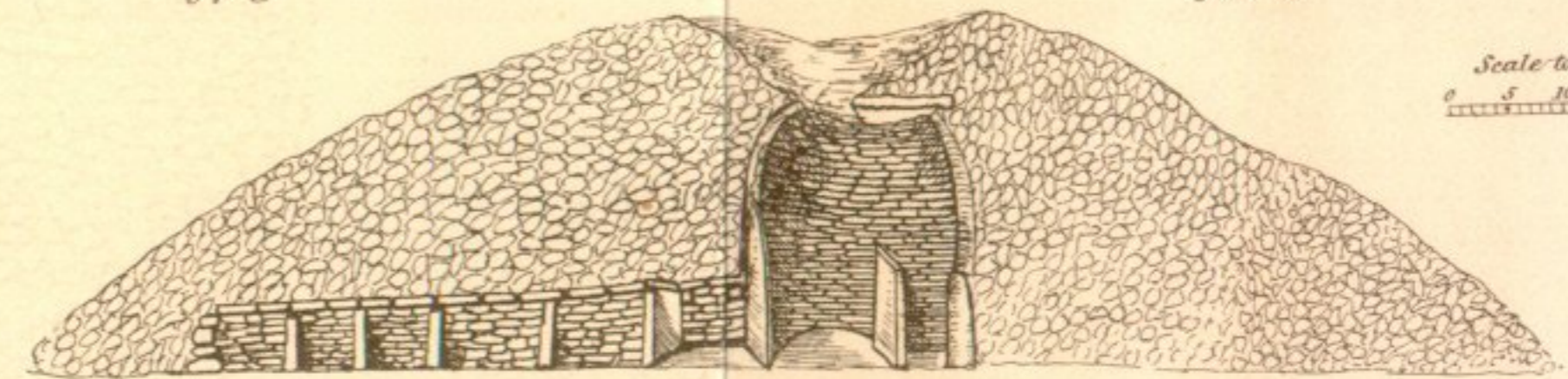


N^o 5



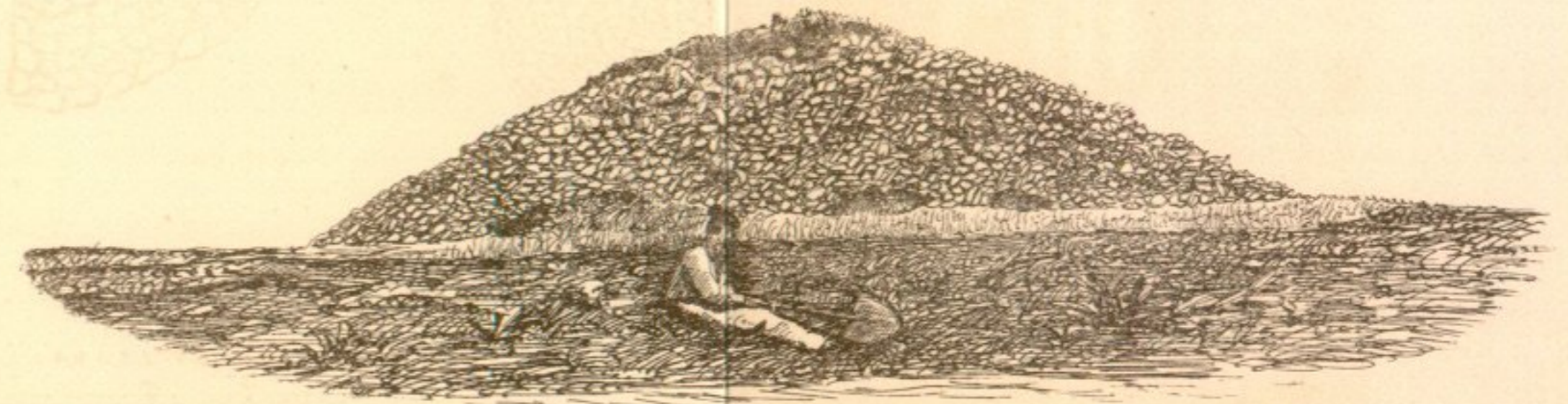
N^o 2

Scale to N^{os} 1, 2, 3 & 4
0 5 10 20 feet



Section of N^o 5

Scale to N^o 5
0 5 10 20 feet



View of N^o 5 from a Photograph

W & A. K. Johnston, Edinburgh

CHAMBERED CAIRNS AT YARHOUSE, THRUMSTER, CAITHNESS, OPENED BY M^r RHIND
AND AT CAMSTER, OPENED BY MESS^{rs} ANDERSON & SHEARER.