II.

REPORT ON THE EXCAVATION OF (1) A LONG SEGMENTED CHAMBERED CAIRN, (2) A BRONZE AGE CAIRN, AND (3) A HUT-CIRCLE, IN THE PARISH OF MINNIGAFF, STEWARTRY OF KIRKCUDBRIGHT. BY ARTHUR J. H. EDWARDS, F.S.A.Scot., Assistant Keeper of the Museum. Obtained under the Gunning Fellowship.

The Council of the Society having decided that the Gunning Fellowship for 1922 should be conferred on me for the purpose of examining some of the denuded cairns in Galloway, after consultation with Mr A. O. Curle, Director of the Royal Scottish Museum, who was familiar with the district, and to whom I am much indebted for valuable advice given before and during the time the work was in progress, it was decided that certain monuments in the parish of Minnigaff should be excavated.

Many of the cairns in this region have been opened from time to time, but we have, in respect to these, no record whatever of any scientific exploratory work.

In the old Statistical Account<sup>1</sup> for the parish of Minnigaff it is recorded that, in the year 1754, several tumuli on the banks of the Cree were opened and arms found in them. The arms were reported to have been made of brass, but were unfortunately lost. In the new Statistical Account<sup>2</sup> mention is made of parts of the cairns on the Moor of Drannandow having been carried away to make enclosures in the neighbourhood. Since then, in a great many instances the cairns have been despoiled of their stones and the chambers exposed, cists rudely opened and their contents scattered as valueless by ignorant seekers after treasure.

The particular locality selected in the parish of Minnigaff was the moorland of Drannandow, about four miles north-north-west of Newton-Stewart, on the estate of the Rt. Hon. The Earl of Galloway.

Through the kind offices of Mr Andrew M'Cormick, one of our Fellows resident in the neighbourhood, permission to excavate was granted by the Earl of Galloway, who also very generously consented to present any relics found to the National Museum of Antiquities.

A commencement was made in the last week of July, two labourers being obtained to render assistance in digging.

# LONG CAIRN AT DRANNANDOW.

Situated on a knoll at about a height of 800 feet above sea-level (the highest point of the moorland of Drannandow known as the "Nappers") and immediately behind the garden of the shepherd's cottage, are the remains of a long cairn (fig. 1).

Nearly oval in form, the cairn lies with its long axis almost east and

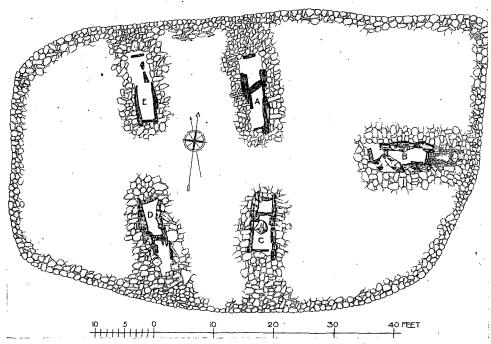


Fig. 1. Plan of segmented chambered Cairn at Drannandow.

west, and measures 79 feet in extreme length, 42 feet in breadth at the east end, 50 feet in the centre, and 40 feet at its western termination.

The cairn had been greatly despoiled in all directions, and used as a cemetery for animals and as a place for depositing household rubbish. Excavation revealed the existence of five chambers, which for convenience and future reference I shall call A, B, C, D, and E. One chamber was situated in the mesial line of the eastern end of the cairn, and two on its north side and two on its south side near the centre, lying nearly at right angles to the main axis. At the western end, directly over chamber E, there was a height of 7 feet of stones. In the centre of the

cairn, between the chambers, the height varied from 2 feet to 3 feet, the boulders being irregularly disposed. Several of the lateral stones of chambers A, C, and D just showed above ground level, and one of the lateral stones of chamber B protruded 2 feet 8 inches, practically all the stones having been removed from those parts; chamber E, only, was completely covered.

There was no indication of a frontal semicircle, and the removal of the turf and moss overgrowing the margin of the cairn revealed no evidence of any existing kerb or marginal setting.

Chamber A.—Situated some 36 feet from the eastern termination of the cairn and nearly at right angles to its main axis, this chamber lay 2° east of north magnetic or north-north-west and south-south-east. It consisted on its east side of four slabs set on edge, the second entirely overlapping the third and the third overlapping the fourth, and, on the west side of two slabs, the one overlapping the other. The first pair of lateral slabs were missing, and also the end lateral slab on the western side. The chamber, which measured 11 feet 9 inches in length, had a transverse stone at either end, and was divided into two compartments by a septal stone measuring 3 feet in length, 2 inches in height, and 6 inches in breadth.

Measurements of the lateral slabs, taken from the level of the subsoil inside the chambers, were:—

$East\ side,$	north $t$	$to\ soi$	$\iota th.$			W	$est\ sia$	le, nc	orth to	sout	h.
Length. ft. ins. (1) Missing	Heigh ft. i	nt. ns.	Thick ft.	ins.	ft		th. ins. ssing	He ft.	ight. ins.	Thick ft.	ins.
(2) 4 4	3	1	1	3	(2) 5		2	3	$4\frac{1}{2}$	1	2
(3) 4 5	1	7	0	10	(3) 2	2	4	1	5	0	5
(4) 5 9	2	0	0	9	(4) 1	Mis	ssing				
(5) 1 5	1	5	0	3							

The northern compartment measured 4 feet 10 inches in length, its width between the remaining lateral slabs being 2 feet 10 inches. The transverse stone at the outer end of this compartment remained fast in its original position, and measured 2 feet 2 inches in length, 1 foot 4 inches in height, and 5 inches in thickness.

The southern compartment measured 6 feet 3 inches in length, the transverse stone at the end of the compartment being 1 foot 5 inches in length, 1 foot 4 inches in height, and 3 inches thick. The end lateral slab on the eastern side passed about 1 foot beyond the transverse stone.

In the outer or northern compartment, a pocket of very black soil, 8 inches in depth by about 7 inches in diameter, was found in the angle

formed by the junction of the septal stone and the first remaining lateral slab on the west side. The pocket was cleared and the soil carefully riddled and examined for relics of pottery, bone, flint, or charcoal, but none was found.

In clearing the soil from the pocket it was observed that the septal stone had been underpinned with small stones to keep it in position, the digging of the pocket having made a difference in the level of the



Fig. 2. View of Chamber B.

subsoil between the two compartments. The septal stone was thus resting, partly on the subsoil of the southern compartment and partly on a prepared base of small stones in the northern compartment, which made it quite secure, so that it could not be easily dislodged or slip into the softer soil of the latter compartment.

In the southern compartment also, no relics were found, the chamber having been disturbed at some previous date.

Chamber B.—At the eastern termination of the cairn and at a distance of 8 feet inwards from its extreme edge, was chamber B (fig. 2), nearly in the mesial line of the cairn, with its long axis lying 100° east of north magnetic or east and west. It consisted, on the south side, of three lateral

slabs of blue whinstone set on edge, the first and second overlapping, while the third, the most westerly, was pointed at the top and leant inwards so far that excavation had to be conducted very carefully to prevent it from toppling over. Three lateral slabs set on edge formed the wall of the north side of the chamber, the first being entirely overlapped by the second, and as it is small in comparison with the others, it was probably used as a wedge to make up a deficiency in the length of the transverse stone. The chamber, 9 feet in length, had a transverse stone at either end, and was divided into two compartments by a septal stone. A gap between the transverse stone at the back of the chamber and the third lateral slab in the north wall was filled with the ordinary boulders of the cairn, and from here a stone had in all likelihood been removed.

The measurements of the lateral slabs were:--

South side, east to west.						$North\ side,\ east\ to\ west.$						
$rac{ ext{Leng}}{ ext{ft.}}$	gth. ins.	He ft.	ight. ins.	Thick	ness.		Ler ft.	ins.	He ft.	$_{ m ins.}^{ m ight.}$	Thic ft.	kness.
<b>(1) 4</b>	1	2	6	1	0	(1)	1	8	1	9	0	8
$(2) \ 3$	9	<b>2</b>	6	0	8	(2)	3	3	3	<b>2</b>	1	0
(3) 6	5	3	10	1	7	(3)	6	6	3	6	1	9

The septal stone dividing the chamber into two compartments was a rectangularly-shaped block measuring 3 feet 1 inch in length, 6 inches in height, and 9 inches in thickness. The eastern compartment measured 6 feet 4 inches in length, its greatest width being 3 feet 4 inches, narrowing on the inside of the transverse stone at the east end to 1 foot 10 inches.

The west compartment measured 2 feet 1 inch in length and 2 feet 9 inches in width, the transverse stone closing the west end of the chamber being 2 feet 3 inches in length, 1 foot 2 inches in height, and 8 inches in thickness. The end lateral slab on the south side protruded beyond this stone for a distance of 6 inches. The transverse stone closing the east end of the chamber was placed about 1 foot inwards between the first pair of lateral slabs, and measured 1 foot 10 inches in length, 9 inches in height, and 2 inches in thickness.

Both compartments had been previously disturbed, and contained a quantity of loose stones and rubbish. When this had been removed, it was found that the septal stone had been carefully built up at each corner, where it abutted against the lateral slabs, with small flat stones placed one above the other—perhaps to help in preventing it from slipping sideways if the lateral pressure became too great. Each lateral slab, at its base on the interior side, was additionally strengthened by a

(4) 4

4

regular placing of small stones against it in the form of a low wall built up from the subsoil to a varying height of from 4 to 8 inches.

The turf and moss between the outer transverse stone and the eastern termination of the cairn having been removed, a space of 4 feet parallel with the lateral slabs of the chamber was found to be closely packed with rubble, the remaining space to the edge of the cairn being laid with small boulders and flat stones fitting closely, any interstices being packed with smaller stones.

No relics were found in the chamber; the soil from both compartments was carefully examined, but it differed little from the ordinary soil in the immediate vicinity.

Chamber C.—Situated at a distance of 9 feet 3 inches from chamber A and nearly in alignment with it, and about 34 feet from the eastern end of the cairn, was chamber C, its main axis lying 14° east of north magnetic or north and south. It was filled with loose boulders, fragments of household crockery, and the bones and hair of some recently buried animal. These were removed and only earthfast stones left in position.

The chamber on its east side consisted of four lateral slabs set on edge, the first being of slate, split vertically into three pieces, and the others of blue whinstone much weathered. Two massive slabs of whinstone formed the western side of the chamber, which measured 8 feet 3 inches in length.

The measurements of the lateral slabs were:-

9

1

East s	iae, south	to no	rth.	• и	est st	ae, so	uth t	o i	norti	$\iota$ .
Leng ft.		eight.	Thickness.	Len ft.	gth.	Hei ft.	ght.		Thick	kness.
	ins. ft.	ins.	ıns.	(4)	ins.	10.	ins.		1.0.	ins.
(1) 2	6 2	6	4	(1) 5	3	z	U	•	U	8
(2) 2	7 1	5	9	(2) 4	9	1	10		1	3
(3) 1	3 1	6	10							

10

The chamber was divided into two compartments by a septal stone measuring 2 feet 7 inches in length,  $7\frac{1}{2}$  inches in breadth, and 2 inches in thickness. The stone, although split into three pieces, still remained in situ. On lifting the pieces, I found that it had been placed on a low wall or base of small stones and earth 4 inches in height, which made the total height of the division 6 inches. A transverse slab closing the north end of the chamber was set about 1 foot inwards between the lateral slabs, and was well buttressed at its interior corners with small stones, beautifully fitted into position. It measured 2 feet 2 inches in length, 1 foot 7 inches in height, and 3 inches in thickness.

As the southern compartment had been badly quarried from the

outside of the cairn and many loose boulders and flat stones were lying about in much confusion, it was difficult to decide which had been the transverse stone at the end of this compartment, none being earthfast. After careful elimination, I decided that the slab shown on the plan might possibly be this stone, as it was lying in what one would expect to be the correct position. Since, however, this stone was not earthfast, the correctness of this decision is open to question.

The northern compartment measured 2 feet in length by about 2 feet 3 inches in width, and the southern compartment 5 feet 10 inches in length by 3 feet in width. In the latter, under two superimposed flat stones, was a quantity of black soil of little depth.

No relics were found. The space between the extreme edge of the cairn and the first lateral slab, a distance of 9 feet, was filled in with small boulders and stones, there being no evidence of a passage.

Chamber D.—With its main axis lying 6° west of north magnetic or north-north-west and south-south-east and situated about 16 feet from chamber C and 21½ feet from the western termination of the cairn, chamber D was, on examination, found also to have been previously disturbed. The main features were fortunately almost intact and differed from those of the chambers already described, showing an ortholithic section of comparatively large stones in place of a megalithic slab. This built section, with three other slabs, formed the east side of the chamber, the innermost slab being wanting. Three slabs formed the west side, one of these being over 7 feet in length and 1 foot 3 inches in thickness. The total length of the chamber was 11 feet, a wall of earth and stones dividing it into two compartments.

In detail the construction of the sides of the chamber was:-

# East side, south to north.

(1) Three superimposed rectangularly-shaped stones 2 feet 9 inches in length, resting on a base of rounded boulders 11 inches in height; the rectangular stones measuring 7 inches, 3 inches, and 2 inches in thickness respectively.

Length.	Height.	Thickness
ft. ins.	ft. ins.	ft. ins.
(2) 2 9	2 7	0 6
$(3) \ 0 \ 8$	2  3	1 3
(4) 3 3	2  9	0 10
(5) Missing		

The end slab, No. 4, had a revetment of stones and earth which extended the full length of its base; it measured 1 foot in height and 5 inches in breadth.

# West side, south to north.

Ler	igth.	Hei	ght.		cness.
ft.	ins.	ft.	ins.	ft.	ins.
<b>(1)</b> 1	3	1	7	0	4
(2) 2	3	<b>2</b>	5	0	9
(3) 7	8	<b>2</b>	5	1	3

No. 2 slab was overlapped by No. 3.

The transverse stone at the north end of the chamber was placed 1 foot inwards from the end of the innermost slab on the west side. It measured 3 feet in length, 1 foot 10 inches in height, and 9 inches in thickness.

A compact wall of flat stones and earth 11 inches high and 9 inches thick divided the chamber into two compartments, and it may be that on this wall a septal stone had been laid as in chamber C, but is now missing.

The northern compartment measured 5 feet 9 inches in length and from 2 feet to 3 feet in breadth. In the southern or outer compartment no transverse stone was found, but removal of loose stones and rubbish revealed that the outer end of the chamber had been closed by a series of long narrow stones, stepped one above the other, tied across the top and reinforced at the back by larger and heavier stones. No relics were found in the chamber.

Chamber E.—During the removal of boulders behind the chamber last described, the transverse stone and ends of two lateral slabs of another chamber became visible. As the height of the cairn at this point was nearly 7 feet, I hoped that this chamber would be intact; but it proved in worse condition than any of the previous four, as blue paint, broken crockery, tins, etc., were found at the very bottom, and several of the lateral slabs were missing.

The chamber lying nearly at right angles to the main axis of the cairn was 20 feet 6 inches from its western termination and  $15\frac{1}{2}$  feet from chamber A, the distance from the edge of the cairn to the transverse stone at the outer end of the chamber being 5 feet. Nearly in alignment with chamber D, and with the main axis lying 1° east of north magnetic or north-north-west and south-south-east, there remained on its eastern side four lateral slabs and on its western side, one.

The measurements of the lateral slabs remaining were:

### East side, north to south.

Len ft.	ins.	Hei ft.	ght. ins.	Thickn ins.	
(1) 1	3	 <b>2</b>	<b>2</b>	8	triangular in section
(2) 1	9	<b>2</b>	4	8	<u> </u>
-(3) 6	10	<b>2</b>	6	. 9	
<b>(4)</b> 0	11	1	6	. 3	

The second slab was overlapped by the third and the third by the fourth, the last mentioned acting as a wedge for the transverse stone.

West side.—Only one slab remained, measuring 6 feet 9 inches in length, 2 feet 6 inches in height, and 9 inches in thickness. This stone had fallen back at the top, but its base remaining in position, it is shown in the plan as if in its proper place. The transverse stone at the southern end of the chamber was placed 8 inches inwards between the lateral slabs, and measured 2 feet in length, 2 feet in height, and 4 inches in thickness. The transverse stone at the north end, standing alone, measured 2 feet 3 inches in length, 1 foot 1 inch in height, and 3 inches in thickness. The total length of the chamber was 10 feet 9 inches; there was no septal stone and no relics were found. Several large flat stones nearly 2 feet 3 inches by 1 foot 6 inches, found lying under the turf in front of the transverse stone, might have been lateral slabs or roofing stones. I noticed seven or eight similar stones in use as a pavement in front of the shepherd's cottage.

At the western termination of the cairn there was no evidence of a chamber. If such had ever existed, it had been completely destroyed, and the height of 7 feet over chamber E can be accounted for by the fact that some earlier excavator had tossed the boulders on to the top of it when pursuing his search.

Between the chambers and round the margin of the cairn the turf and bracken were removed so that the construction of the base might be examined. No marginal setting or kerb was found. In front of each chamber and between the chambers, except in the centre of the cairn, the stones lying on the subsoil were placed so regularly that I was led to the conclusion that they were not merely smaller stones which had fortuitously fallen into position, but a regular formation, suggestive of a well-packed foundation on which the larger stones had rested. This was so marked in front of chamber D and for several feet on either side of it, that I at first thought there was a pavement, and attempted to follow it up, but without success.

Although the absence of relics is to be regretted, the study of the construction of the cairn adds a little to our knowledge of the Scottish long cairn. We have here five discontiguous cist-like and almost entirely megalithic chambers within a cairn, each chamber divided into two compartments by a septal stone or wall and without a passage of approach or portal stones. The cairn bears a greater resemblance to the Arran type with segmented megalithic chambers than to those of the north of Scotland, although it differs from the Arran cairns, inasmuch as it contains five chambers of two compartments each, while the majority of those in Arran and Bute have only one, and the number of

compartments into which this one chamber is divided, ranges from a single compartment to as many as five.

Further, the typical chamber of the Arran cairn is usually provided with portal stones; in a series of twenty-five chambers in cairns in Arran and Bute and two in cairns in Argyllshire, examined by Professor Bryce, the presence of portal stones is reported in thirteen, and is considered by him to be characteristic of this particular class of monument.

Although portal stones were absent in the Drannandow chambers, it cannot be assumed that they have never existed, as their proximity to the edge of the cairn would make them easy of removal by anyone desirous of acquiring them for building purposes.

The low elevation of the septal stones in comparison with the height of the lateral slabs forming the sides of the chamber is worthy of note, as it disposes of the question, in this cairn at least, as to whether they were used for constructional purposes or as actual divisions of the chamber. Assuming that at no time was the height of the septal stones increased by any superimposed structure, they would be quite useless as a provision for preventing the collapse of the sides, when the lateral pressure became too great, and their purpose must therefore have been to divide the chambers into compartments.

Cairns of this type with more than one chamber are few in number: in Bute there is only one, at Glecknabae, which has two chambers, much contracted and without compartments, both chambers being provided with portal stones. In Arran, the Lower Cairn, Dunan Beag,<sup>2</sup> is recorded as having two chambers, one with two compartments and the other with three, one chamber only having a portal stone. Another at Dunan Mor<sup>3</sup> has three chambers—one of two compartments, one of three compartments having portal stones, and the third represented by two slabs set on edge and in line with each other. Of these, the last mentioned presents the closest analogy, the three chambers being arranged in radial fashion—one at the southern margin, the second at the western, and the third at the south-east corner of the cairn; but Professor Bryce expresses the opinion that "it is not possible to avoid the conclusion, either that two of the chambers are secondary and placed without respect to the structural idea as a whole, or that the entire structure represents a departure ab initio from the typical plan." One other cairn which presents a similar disposition of its chambers within the structure is that of Cuffhill, in the parish of Beith, Ayrshire.4 The facts relating to the earlier excavation of this monument are vague and unsatisfactory, but the plan reproduced in the Proceedings shows

<sup>1</sup> Proceedings, vol. xxxviii, p. 37.

<sup>3</sup> Ibid., vol. xliii. p. 350.

<sup>&</sup>lt;sup>2</sup> *Ibid.*, vol. xliii, p. 343.

<sup>4</sup> Ibid., vol. xi. p. 278.

its resemblance. Although the Drannandow cairn differs in style from a structure such as that at East Bennan, in Arran, which contained a single chamber at one end of the cairn, divided into five compartments and having a frontal semicircular setting of stones, the central stones of which formed portals leading to the chamber, it without doubt served the same purpose in having a series of chambers divided into compartments for successive interments.

In the foregoing, in making comparisons with other cairns, I have only dealt with those which have been scientifically excavated and reported on; but there are at least two other cairns in the neighbouring county of Wigtown, at High Gillespie<sup>2</sup> and Kilhern,<sup>3</sup> which show in their external aspect and the arrangement of the chambers a striking similarity to, if not an exact counterpart of, the cairn at Drannandow. The number of chambers recorded at High Gillespie is three, and at Kilhern four; but both cairns are in a dilapidated condition, and as yet no scientific exploration of them has taken place.

### A BRONZE AGE CAIRN AT DRANNANDOW.

Situated 200 yards south-south-west of the long cairn previously described is another cairn (fig. 3), nearly circular in form, its margin overgrown with turf and moss and surmounted near its centre by a small modern cairn. On its east side an attempt had been made to explore it, but fortunately without success.

The cairn, which consists of loose boulders and small stones, measured 46 feet in diameter, and was of low elevation; its greatest height at the centre being about 3 feet. No marginal setting or kerb was found, and the original periphery was somewhat difficult to determine, as in all probability many of the stones forming the original height had become displaced and fallen outwards.

In order to examine the construction of the monument and not merely to confine myself to the discovery of a cist and relics, I had the loose boulders and smaller stones of which it was formed removed down to the subsoil, earthfast stones and parts showing structural evidence being left in position.

In the western half of the cairn and at a distance of 11 feet inwards from its edge, a double wall, 2 feet 9 inches in breadth, of twenty-two boulders set on end and shouldering each other, ran from the north side to within a distance of 11½ feet of its southern edge. Some

<sup>&</sup>lt;sup>1</sup> Proceedings, vol. xliii. p. 337.

<sup>&</sup>lt;sup>2</sup> Inventory of Monuments and Constructions in Galloway, vol. i. (County of Wigtown), No. 346.

2 feet farther east was a parallel row of nine upright boulders, averaging 15 inches in height and set about 12 inches apart; the spaces between these stones and the intervening space between them and the double wall being filled with small rubble. From the northern extremity of

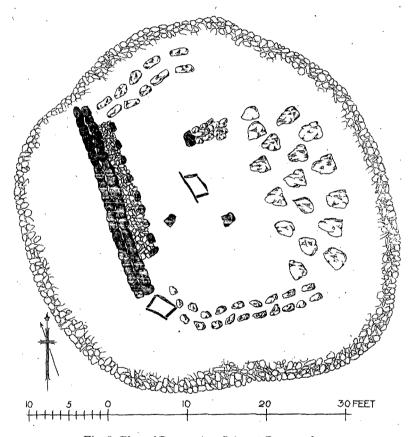


Fig. 3. Plan of Bronze Age Cairn at Drannandow.

this construction, a double row of boulders irregularly placed extended eastwards for 14 feet.

At a distance of 1 foot from the southern extremity of the first-mentioned double row of boulders the first cist was discovered, the upper face of the cover stone being above ground level. From this cist another double row of boulders stretched eastwards for a distance of 18 feet. In a northerly direction from the east end of this last-mentioned double row and extending to within 12½ feet of the north side of the cairn, a

series of irregularly disposed large-pointed boulders were set fast in the subsoil, inclining towards the centre. The whole formed a D-shaped construction, approximative to that described by Mr J. E. Cree, F.S.A.Scot., in his excavation of a cairn at Inverlael, Inverbroom, Ross-shire; the flat side of the D being in both cases on the west side of the cairn. In a cairn at Eddertoun, in Ross-shire, a similar D-shaped construction was discovered by Dr Joass, and in another at Foulden, in the county of Berwick, excavated by Mr J. Hewat Craw, F.S.A.Scot. In the last cairn this feature was much smaller than in the other two and it closely surrounded the central cist.

During the removal of the agglomeration of boulders from the centre of the cairn, I observed that the majority lay on their sides, point upwards, sloping towards the centre of the cairn, and this arrangement was very pronounced round and above the second cist which was discovered, and which lay a little to the north-west of the centre. At a distance of  $3\frac{1}{2}$  feet from the north and the same from the south of the cover stone of the cist, and nearly in a direct line with its eastern edge, two large stones were set upright in the subsoil, and a third at a point 3 feet from its south-western corner. The last-mentioned stone, leaning slightly outwards, was supported behind by a backing of smaller stones built against it to nearly its own height. These three stones measured in height 1 foot 9 inches, 1 foot 7 inches, and 1 foot 11 inches respectively, and were roughly quadrangular in form, measuring from 1 foot 3 inches to 1 foot 6 inches in thickness.

A section of rough walling, 1 foot 9 inches in height and 2 feet 3 inches in thickness, abutting against the east side of the stone on the north side of the cist, extended eastwards for a distance of 4 feet.

At Eglwys Bach, in Denbighshire, a similar feature was observed within a tumulus excavated by Mr Willoughby Gardner, F.S.A.Scot., the circle of stones surrounding the interment, however, being much more complete.<sup>4</sup>

The enclosure or partial enclosure of the central cist by a definite setting of stones within the body of a cairn has now been reported by several excavators, and probably many other Bronze Age cairns and tumuli already excavated would have shown analogous, if not exactly similar, constructions had sufficient care been taken in looking for internal structures while removing the agglomerated mass forming their bulk.

<sup>&</sup>lt;sup>1</sup> Proceedings, vol. xlviii. p. 118. <sup>2</sup> Ibid., vol. vii. p. 268. <sup>3</sup> Ibid., vol. xlviii. p. 326.

<sup>&</sup>lt;sup>4</sup> Arch. Cambrensis, sixth series, vol. xiii. p. 324.

<sup>&</sup>lt;sup>5</sup> Scotland in Pagan Times, Bronze and Stone Ages, p. 4; Bateman, Ten Years' Diggings, p. 63; Mortimer, Forty Years' Researches, p. 100, No. 55.

The cist (fig. 4) in the centre of the cairn was evidently the primary structure, being well protected by the mass of stones above and around it. Its long axis lay almost north-west and south-east, and its measurements inside were 2 feet  $6\frac{1}{2}$  inches in length, 1 foot 9 inches in breadth at the south end, 1 foot  $5\frac{1}{2}$  inches in breadth at the north end, and 1 foot  $8\frac{1}{2}$  inches in depth. The bottom of the cist was unpaved and contained a few loose flat stones. The sides were formed of

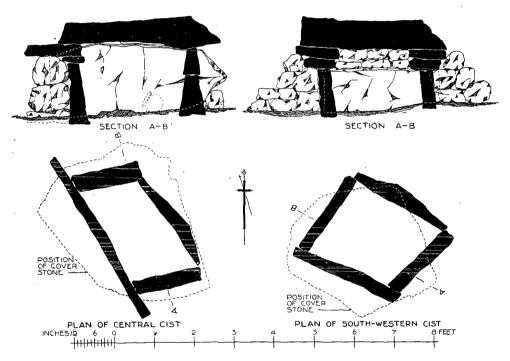


Fig. 4. Plans and sections of Cists in the Bronze Age Cairn.

whinstone slabs set upright, and, to equalise the height, horizontal slabs had been superimposed at the south end and east side. The south end was formed of one stone  $4\frac{1}{2}$  inches in thickness, and the north end of two sub-triangular stones superimposed, the lower at its base being 7 inches in thickness and the upper at its apex 3 inches in thickness. The west side stone, 4 feet 7 inches in length, protruded 7 inches on either side beyond the end stones, and measured  $3\frac{1}{2}$  inches in thickness. The east side stone, 2 feet 7 inches in length, was placed within the end stones, and measured from 2 inches to 4 inches in thickness. A single large slab of blue whinstone formed the covering stone. It

measured 4 feet in length by 3 feet 4 inches in breadth, and 9 inches in thickness. On account of its weight no attempt was made to remove it, and entrance was obtained to the cist by removal of one of the stones at the east end. An urn of the food-vessel type (fig. 5) was found lying on its side near the north end. The loose deposit on the floor of the cist was passed through a riddle and an unworked flake of flint and a fragment of charcoal were recovered.

The urn is made of a light umber-coloured clay, and measures  $5\frac{1}{8}$  inches in height,  $5\frac{9}{18}$  inches in external diameter at the mouth, 6 inches in diameter at the shoulder, and  $2\frac{3}{4}$  inches in diameter at the base. In form the lower part consists of a low truncated and inverted cone;



Fig. 5. Food-vessel Urn from central Cist in Cairn.

above is a slight shoulder with a small groove. From the shoulder the neck describes a cavetto curve and terminates  $\frac{1}{4}$  inch from the lip, which is bevelled on the inside and decorated with three rows of a herring-bone pattern. From the lip to the base the exterior is encircled with sixteen rows of herring-bone pattern formed by a pointed tool.

That the south-western cist (figs. 3 and 4) was secondary is suggested by its proximity to the margin of the cairn, and by its not being covered with any depth of boulders, the upper face of the cover stone showing above ground level before excavation. Also its position in the angle of the wall, seemingly interrupting the continuity of this structure, suggests that the grave was placed there at some later date than the wall formation.

The cist lay with its long axis almost north-west and south-east, and measured 2 feet 4 inches in length by 2 feet in breadth, and 1 foot  $6\frac{1}{2}$  inches deep. The bottom of the cist was covered with a red sandy

deposit and contained a few loose flat stones. On all four sides the height of the upright slabs supporting the massive cover stone was equalised by the addition of horizontal slabs superimposed. Single stones formed the north-west and south-east ends, that on the north-west being 2 feet in length and 4 inches in thickness. The side stone on the south-west was 2 feet 10 inches in length and  $3\frac{3}{4}$  inches in thickness, and that on the north-east 2 feet  $6\frac{1}{2}$  inches in length and from 2 inches to 6 inches in thickness. The cover stone was a massive slab of blue whinstone, measuring 3 feet 8 inches in length, 3 feet in breadth, and 9 inches in thickness.

Entrance to the cist was obtained by carefully removing the slab forming the north-east side, and the deposit on the bottom was passed through a riddle. No charcoal or flint was found, but only fragments of the wall of a food-vessel urn. The original diameter of the mouth of this urn had been  $4\frac{3}{4}$  inches. The neck is formed by two parallel grooves each  $\frac{7}{8}$  inch in width; the lip is bevelled in the interior and decorated with a single row of herring-bone pattern made with a pointed tool. The neck and wall are decorated with a similar pattern. No part of the base was found. In neither of the cists were any vestiges of human bones recovered, and the burials had most likely been by inhumation.

#### A HUT-CIRCLE IN KNOCKMAN WOOD.

In the woods of Clauchrie and Knockman, 2 miles north of Newton-Stewart, numerous cairn-like heaps of boulders, and remains of ancient enclosures of various sizes, mostly circular in form or nearly so, are to be seen in large numbers. In Clauchrie these heaps seem to be more in evidence than in Knockman, but owing to the luxuriant growth of bracken it is difficult to judge if this is so. Mr Andrew M'Cormick, who had gone over the ground many times during the winter when the bracken had fallen, drew my attention to the enclosures—some large, as if they had been used as cattlefolds, others small and mere swellings on the natural surface of the ground, and a goodly number seemingly of a hut-circle type, with the remains of walls scattered round the periphery in the form of loose boulders. Occasionally portal stones of the enclosures remained in situ, and I selected for excavation a site in which this feature was evident.

The site, which was situated near the south-east edge of Knockman Wood, before excavation presented the appearance of a shallow oval depression, measuring 13 feet by 11 feet, and surrounded by a bank of stones and earth, the greatest height of which was about 2 feet. The hollow was filled with decomposed vegetable matter, and two upright

stones had formed the portals of a doorway which faced north-north-east, away from the prevailing south-west wind (fig. 6).

Examination of the surrounding bank showed that the hut had been formed by a wall of stones, evidence of definite coursing being found on the inner face of the structure (fig. 7). The width of the base of the wall was about 4 feet on either side and 9 feet in rear. A passage 9 feet 3 inches in length and 1 foot 3 inches in width at the entrance, with an angled recess on its west-north-west side, had formed a means of approach. Direct access to the inside of the hut proper was obtained



Fig. 6. Entrance to Hut-Circle, Knockman Wood.

between two portal stones 1 foot 3 inches apart, that on the east-southeast side measuring 1 foot 3 inches in height, 2 feet 6 inches in length, and 1 foot 6 inches in thickness, and the other on the west-north-west side 11 inches in height, 1 foot 6 inches in length, and 1 foot 6 inches in thickness.

In clearing the interior a depth of about 1 foot 6 inches of decomposed vegetable matter was first removed, and then about 1 foot of loose stones and black soil. At a depth of 2 feet 6 inches the soil was hard and compact. Selecting one particular point, we continued the excavation to a greater depth, and at 3 feet 6 inches from the surface a dark layer of charcoal-like consistency was encountered. The whole of the interior was carefully cleared from this level, and the original floor laid bare, the black layer, which was in places nearly 2 inches thick, completely

covering its surface; probably this layer was the remains of a carpet of rushes or twigs. The floor had been roughly paved in parts, and immediately below the portal stones a large earthfast boulder had formed a convenient stepping-stone to assist entrance and egress.

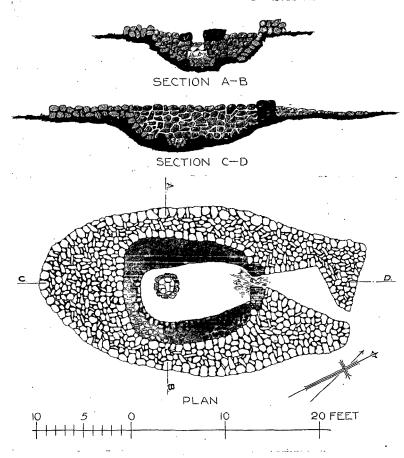


Fig. 7. Plan and sections of Hut-Circle, Knockman Wood.

Situated nearly opposite the doorway and about 1 foot 6 inches from the back wall, was a hearth sunk 7 inches below the floor level, built round with kerb stones which projected some 4 inches above the floor, and having a slightly hollow stone-lined interior 1 foot 8 inches in diameter. The floor measurement of the interior of the dwelling was 11 feet 6 inches in length by 5 feet 9 inches in breadth, while at the

surface level, owing to the walls gradually slanting outwards as they neared the top, the measurement was 13 feet 6 inches in length by 11 feet in breadth. The walls were lined with small rough boulders. No relics were found to aid in determining the chronology of the structure, which resembles some of the so-called pit dwellings of England rather than the Scottish hut-circles, and it is therefore to structural analogies that we must look for comparisons.

In the excavation of a hut-circle at Grimspound, Dartmoor, a sunk hearth similar to that described was found in Circle No. 7; but here the comparison must cease, as the floors of the numerous hut-circles excavated there are but little, if at all, below the surface of the surrounding ground. Although also unsuitable for purposes of comparison, the only recorded excavation of pit dwellings in Scotland is that made by Mr Ludovic M.L. Mann, F.S.A.Scot., who excavated three of these structures in the Mye Plantation, Stoneykirk, Wigtownshire.<sup>2</sup> These were some 7 feet in depth, and had had walls lined with branches and twigs and a floor supported on short piles, driven into the clayey subsoil, the pottery and other relics found being more characteristic of the Stone Age than of the Bronze Age. In the parish of Muirkirk, Ayrshire,<sup>3</sup> a circular pit 4 feet in diameter, and filled with stones which were darkened as if by fire, was found near the centre of a hut-circle, the diameter of which was from 34 to 38 feet. At a depth of between 4 and 5 feet, and underneath the stones, a thin layer of carbonised vegetable matter appeared, and below this were found fragments of a beaker urn of the Bronze Age.

To obtain a closer analogy to the Knockman dwelling it is necessary to refer to similar structures in England, and notably in Kent.<sup>4</sup> Here the prevailing type was a circular pit of from 10 feet to 30 feet in diameter, and from 3 to 4 feet in depth, surrounded by a bank, the floor in many of the pits being covered with a black deposit similar to that found in Knockman, but the hearth or cooking-place was situated outside the dwelling.

In pits at Hayes Common <sup>5</sup> and Millfield, Kent, <sup>6</sup> numerous flint objects of neolithic type were discovered, but there was an entire absence of pottery. At Milton-next-Sittingbourne, <sup>7</sup> also in Kent, neolithic flint

<sup>&</sup>lt;sup>1</sup> Trans. Devonshire Assoc. for the Advancement of Science, Literature, and Art, 1894, vol. xxvi. pp. 101-121.

<sup>&</sup>lt;sup>2</sup> Proceedings, vol. xxxvii. pp. 370-415.

<sup>3</sup> Ibid., vol. xlviii. p. 376.

<sup>&</sup>lt;sup>4</sup> Journal Anthropological Institute, 1899, vol. xxix. pp. 121-141.

<sup>&</sup>lt;sup>5</sup> Ibid., pp. 124-141.

<sup>6</sup> Proc. Soc. Ant. Lond., sec. series, vol. xvii, pp. 216-221.

<sup>&</sup>lt;sup>7</sup> Arch. Cantiana, vol. xiii. pp. 122-126.

objects were found, and, in addition, pottery described as flat-bottomed basins with holes pierced round the rim. At Peterborough, in North-amptonshire, in a series of pits probably the remains of similar structures, part of a round-bottomed vessel of Stone Age type, and fragments of vessels of beaker or drinking-cup type of the Bronze Age, were found in addition to neolithic flint objects.

From the evidence obtained in these English excavations the inference is that the chronological period of the pit dwellings of England extends from the Stone Age to the Bronze Age; but when we consider the hut-circles of Scotland, so far no evidence has been forthcoming to permit of our assigning them to the neolithic period. It is believed, however, that the hut-circle found in so many parts of the country associated with small cairns which appear to be sepulchral, belongs to the Bronze Age,<sup>2</sup> and the example at Muirkirk already referred to seems to confirm this. In addition, many are found in hill-forts which belong to the Iron Age.

I must express my thanks to Mr Alexander Young, Architect, Newton-Stewart, who voluntarily assisted me in the measurement of the various structures excavated. This help was invaluable, as the very short spells of fair weather during the time the work was in progress were so infrequent, that, but for his timely assistance, the task would have been well-nigh impossible during the short time at my disposal. I have also to thank him for the preparation of the excellent plans illustrating the report.

<sup>&</sup>lt;sup>1</sup> Archælogia, vol. lxii. p. 333.

<sup>&</sup>lt;sup>2</sup> Inventory of Monuments and Constructions in Galloway, vol. ii. (Stewartry of Kirk-cudbright). Introduction, p. 34.