

I.

REPORT ON STONE CIRCLES IN KINCARDINESHIRE (NORTH) AND PART OF ABERDEENSHIRE, WITH MEASURED PLANS AND DRAWINGS, OBTAINED UNDER THE GUNNING FELLOWSHIP. BY FRED. R. COLES, ASSISTANT KEEPER OF THE MUSEUM.

Having been appointed by the Council of the Society of Antiquaries of Scotland, under the Gunning Fellowship, to visit and report on the Stone Circles of a portion of north-eastern Scotland, I beg to submit the following report, which is illustrated by several measured plans¹ and drawings. Almost throughout this survey, I enjoyed the willing, and indeed indispensable, assistance of my two eldest children, several of the sites examined, in Kincardineshire especially, being now so densely crowded with larches and Scotch firs in addition to luxuriant undergrowth, that single-handed commensuration would be absolutely impracticable. I may be permitted to state, briefly, the methods adopted in the course of the work. After a general look around the area to be surveyed, we began by laying off an oblong which included the Recumbent Stone and its two pillars in those circles where this characteristic feature still exists. Then, having chosen the western angle of the west pillar as a starting point, measurements were made by triangulating from this to two other points marked by pins, and so on, round the entire space, taking, of course, cross check lines where the area was clear enough to admit of this. In a few rare instances we ran out diagonals from each stone throughout the whole group, by using a stout cord and measuring with short lengths of tape, my first endeavour always being to treat the circles purely from the surveyor's point of view, that is, merely as mathematical points, and paying no attention to anything but the number of feet between the fixed points at the bases of the stones. Afterwards we took the correct measurements, first of the bases, and next of the heights, of each Standing Stone, further noting whether it was vertical or out of plumb, and the direction of its leaning, also any peculiarity of

¹ The plans are all reduced to a uniform scale of 20 feet to 1 inch.

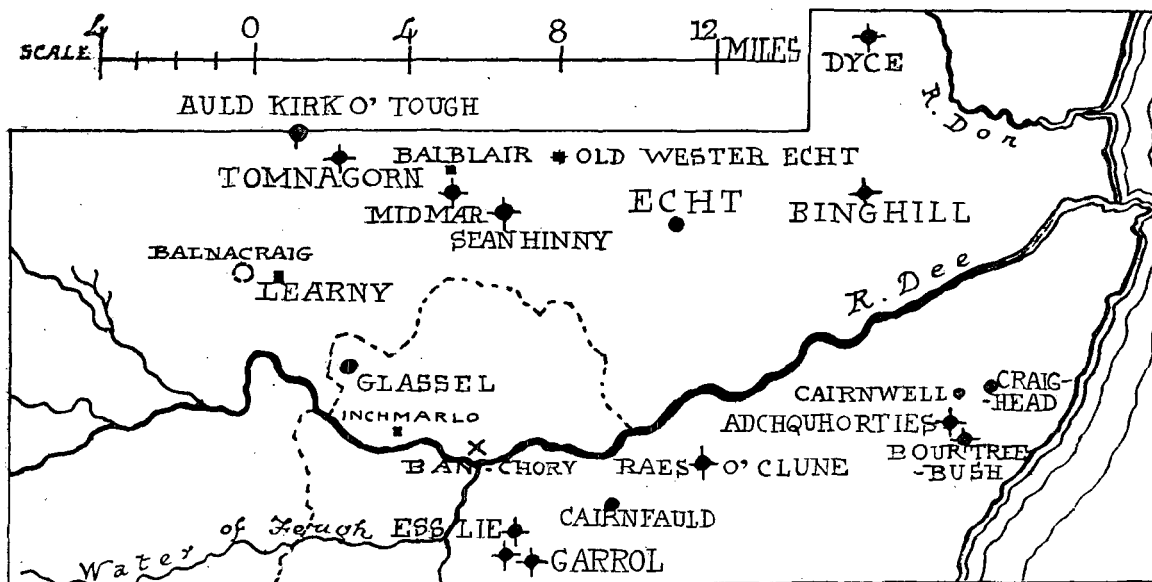


Fig. 1. Map showing Stone Circles in the district surveyed.

Explanation of the signs used on the map.

1. The sign ● marks the position of a Stone Circle now extant.
2. The sign ⊕ marks the position of a Stone Circle now extant with a Recumbent Stone.
3. The sign ○ marks the position of the Site only of a Stone Circle.
4. The sign ■ marks the position of a single Standing Stone reported to be a remnant of a Circle.

shape at its summit, and of its mineralogical composition. When all measurements were finished, the orientation was ascertained as carefully as possible. I then made drawings of such important features as lent themselves to such treatment; and I trust I worked throughout in the spirit of one who, when planning the great series of Stone Circles at Carrowmore, said:—"I examined these remains day after day with an untiring patience, mapping their situations and noting their features, till I left nothing to be discovered, and secured an accurate record of their present state, before barbarian ignorance has finished its work of destruction."¹

The accompanying map (fig. 1) of the district surveyed² during the past September shows twenty-two sites; and, in explanation of their various conditions, four different signs (for which see the map) have been used, denoting respectively—(1) Circles of plain free-standing stones more or less complete; (2) circles with a Recumbent Stone; (3) sites of circles; and (4) single stones reported to be remnants of circles. Beginning with the most south-easterly example in this district, worked from Banchory as headquarters, we have, of the four circles on Kingcausie estate:—

No. 1, Old Bourtree Bush, now in a sadly ruined state.—The ground plan (fig. 2) shows four Standing Stones only, but three of these are of such a height and bulk as to be very conspicuous landmarks, set as they are on a slightly rising ground within two miles of the sea-shore, and in an open country. The view (fig. 3) taken from the N.W. will give a good idea of the height of these ponderous blocks of porphyry, and at the same time reveal what losses this circle has undergone.

The other view (fig. 4) shows a large and bulky stone lying partly on its edge (R on the ground plan) and the four still erect stones from the

¹ *The Life of George Petrie, LL.D.*, p. 260 (Stokes).

² This district extends inland from the sea at Portlethen twenty-four miles, and in breadth it comprises Garrol Wood circle, in Durris, up to the circle formerly known as the Auld Kirk of Tough on the confines of Cluny. Northwards of Aberdeen its farthest point is at the Standing Stones of Dyce.

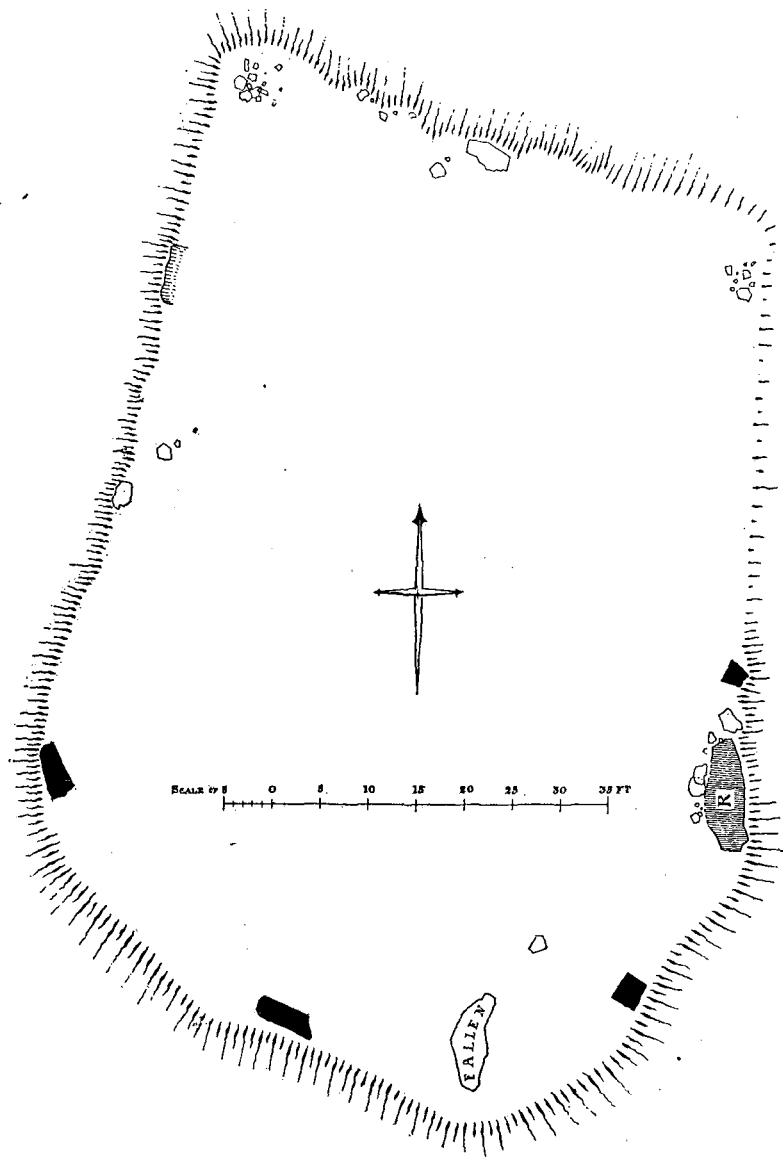


Fig. 2. Old Bourtree Bush. Ground Plan.

N.E. All the stones stand on a mound 260 feet above the sea-level, which, near the centre, is rather over 3 feet high. The edges on the N. and N.E. have been very much straightened by the plough, and its interior is now in such an utter state of chaos that I deemed it better to attempt no record of its ridges, crests and hollows, or even to map out the sites of any loose stones and boulders, not one of which seemed in its original position. The long stone on the S.E. point is doubtless the Recumbent Stone, so striking a feature in many of these circles. As it lies, it measures 11 feet 6 inches in length; but there are large fragments

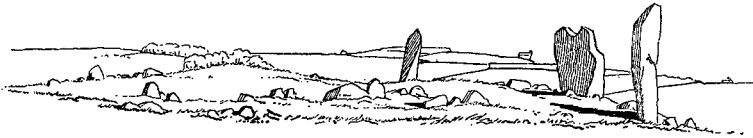


Fig. 3. Old Bourtree Bush from the N.W.



Fig. 4. Old Bourtree Bush from the N.E.

close to its north end which appear to have been broken off it.¹ Reckoning from this stone we find, 18 feet to the left, a tall pointed stone, and after an interval of nearly the same distance, a great prostrate block. These are respectively Stones I. and II. of the circle. The third, which is of enormous breadth, over 6 feet in the middle, stands about 20 feet further on, and from it to the fourth is a space of 30 feet. These, and the small Standing Stone on the right of the Recumbent Stone, are all about which we can speak with confidence.

¹ If it originally touched the Pillar Stone on the right—the usual arrangement—this Recumbent Stone must have been fully 17 feet in length.

About 45 feet north of Stone IV., partly running in to the bank, is a large stone, and, almost at the exact N. point, is another. On the assumption that these are still *in situ*, this "circle" must have been in reality an oval 100 feet long by 75 feet broad.

Heights of the stones :—

The stone just north of the Recumbent Stone, barely 4 feet 0 inches.

The Recumbent Stone 3 feet 0 inches, leaning outwards.

Stone I. is 6 feet 0 inches, pointed.

„ III. „ 7 „ 0 „ very broad and jagged at top.

„ IV. „ 8 „ 6 „ inside, but 10 feet 0 inches outside.

Distances between the stones : centre to centre :—

Between Stone I. and II. (fallen)	19 feet 6 inches
„ „ II. „ III.	20 „ 6 „
„ „ III. „ IV.	35 „ 0 „
Between IV. and the N.W. stone	53 „ 0 „
„ the N.E. stone and the angle of bank	23 „ 6 „
„ angle and the north stone	28 „ 0 „
„ N. stone and N.E. angle of bank	28 „ 0 „
„ N.E. angle and the north pillar	45 „ 0 „
„ the north pillar and south end of Recumbent Stone	20 „ 0 „
„ south edge of Recumbent Stone and centre of Stone I.	18 „ 0 „
Total circumference,	<u>290 feet 6 inches</u>

The stones consist, for the most part, of the porphyritic granite, very coarse grained, and with wide veins of quartz. Wishing to render this Report as complete as possible, I had the weight of the respective Recumbent Stones carefully computed by my friend Mr R. G. J. Watson, ordained surveyor. The computations were made, of course, from measurements of only so much of each stone as stands above ground. The weights, therefore, are all within the mark. The Recumbent Stone here weighs 10 tons 6 cwt.

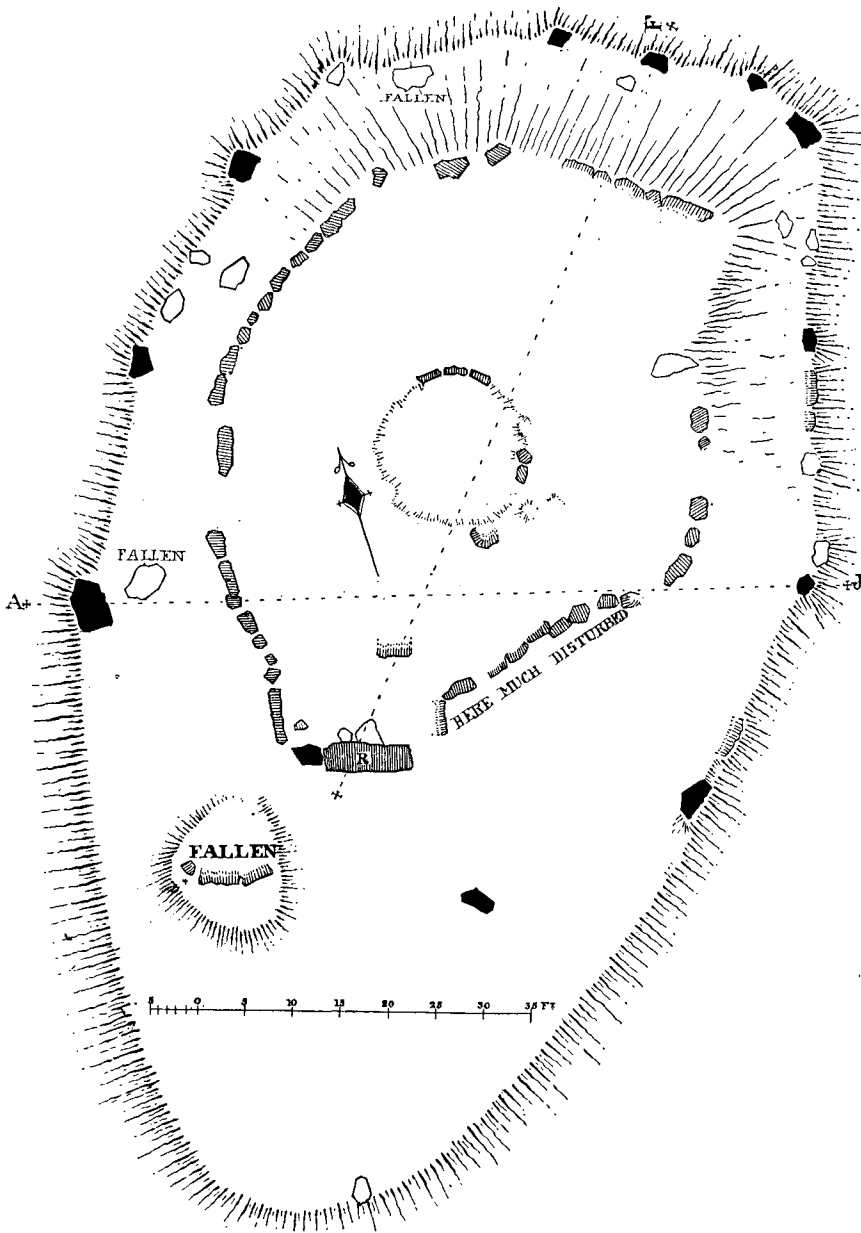


Fig. 5. Auchquorthies. Ground Plan.

The excavation conducted here, *circa* 1863, by Messrs Dyce Nicol of Ballogie, C. E. Dalrymple of Westhall, and others, and recorded¹ by Mr Alexander Thomson, F.S.A. Scot., resulted in nothing but the acquisition of the evidence of former excavation.

No. 2, *Auchquhorthies*,² Banchory-Devenick, distant from the last one furlong, slightly N.W., and on a rather higher level.—Thirteen stones remain standing on a mound fully 3 feet high; the two main diameters being N.E. and S.W., from the fifth³ stone to the thirteenth, 97 feet, and N.W. to S.E., from the second stone to the tenth, 74½ feet. The interior is very rough, densely overgrown with broom and bracken, and the inner stone-setting has been greatly damaged. Two features arrest the eye at once: the position of the Recumbent Stone, a consider-

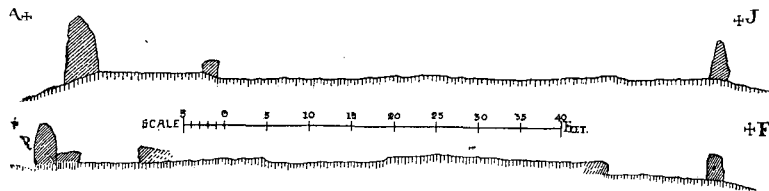


Fig. 6. Auchquhorthies. Sections.

able distance within the Standing Stones, and the prolongation of the mound carrying them 45 feet outwards from the Recumbent Stone (see fig. 5). All the stones on the northern arc are small in comparison with the others, and their insignificance is intensified by the dip of the mound on that side, which is so great that even when standing on the top of the nearest suitable dike to draw the circle *en masse*, all these northern stones were lost to view (see sections, fig. 6, and view, fig. 7). The Recumbent Stone and its solitary pillar (on the W.) are both of coarse grained bluish-grey granite broadly seamed with white quartz (fig. 8). Most of the other stones are of the reddish porphyritic granite, the

¹ *Proc. Soc. Antiq. Scot.*, vol. v. p. 134.

² Meaning suggested by Logan in *Arch.*, xxii. p. 203, *Auch. Ortha*, field of prayer.

³ Throughout the survey, I count the first Standing Stone to the left of the W. pillar No. 1, and the diameters are from centre to centre of the stones. Stones now standing are shown black; low, set stones are shaded, and all others are left in outline. The Recumbent Stone is marked R within a shaded ground.

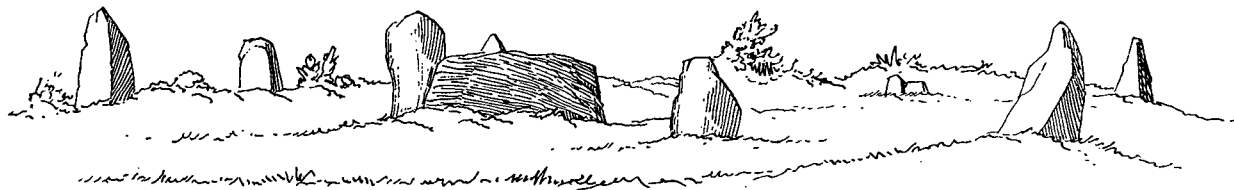


Fig. 7. Auchquorthies. View from the South.

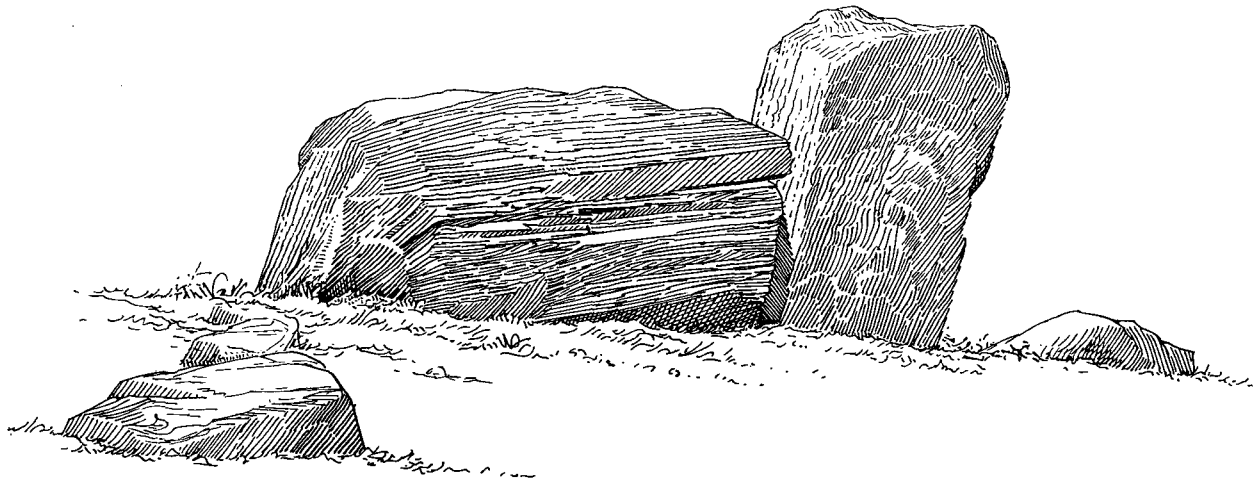


Fig. 8. Auchquorthies. Recumbent Stone.

species so commonly occurring all over the district. The interior stone-setting¹ starts, as we shall presently see in other instances, from near the base of the pillars with a long narrow stone set on edge, which, like the rest of this portion of the structure, rises from 20 inches to rather over 2 feet. The central area is faintly marked as a circular hollow, with two set stones on the E. over a foot high, and three narrow straight slabs set closely end to end on the north arc. These three slabs are 2 feet 6 inches above ground. The breadth of the flat space between the Standing Stones and the stone-setting varies from 7 feet to nearly 16; but some of its irregularity doubtless is due to comparatively recent interference. Close to the first stone lies a massive block, marked on the plan "fallen." Its position may not be of any moment; but it is worth noting that in an excellent plan made in 1822 by Mr James Logan, there is shown this stone, and, in a corresponding position, at the tenth stone, directly opposite stone number one, a stone is drawn.

The distances between the stones, measured from centre to centre, are as follows:—

Between Stone	I.	and	II., 26 feet 3 inches
" "	II.	"	III., 23 " 6 "
" "	III.	"	IV., 20 " 9 "
" "	IV. (prostrate) and		V., 15 " 6 "
" "	V.	"	VI., 10 " 8 "
" "	VI.	"	VII., 10 " 8 "
" "	VII.	"	VIII., 7 " 2 "
" "	VIII.	"	IX., 22 " 0 "
" "	IX.	"	X., 25 " 9 "
" "	X.	"	XI., 25 " 0 "
" "	XI.	"	XII., 25 " 0 "
" "	XII.	"	XIII., 27 " 0 "
" "	XIII.	"	I., 31 " 0 "

Circumference of circle = 270 feet 3 inches

¹ At present, I offer no opinion as to whether this stone-setting is an integral portion of the original structure or not.

The heights of the stones are, taken on the summit of the mound :—

Stone I., 6 feet 6 inches	Stone VIII., 3 feet 9 inches
„ II., 4 „ 8 „	„ IX., 2 „ 9 „
„ III., 3 „ 10 „	„ X., 4 „ 8 „
„ IV., (fallen)	„ XI., 4 „ 6 „
„ V., 2 feet 1 inch	„ XII., 8 „ 0 „
„ VI., 3 „ 0 inches	„ XIII., (fallen)
„ VII., 2 „ 10 „	

The Recumbent Stone is 9 feet 9 inches long, 5 feet high, and about 1 foot wide across the top; it weighs 10 tons 9 cwt. It is vertical; and close up to its inner base a rudely laid and much disturbed layer of small boulders may be traced extending unevenly towards the interior of the circle. The third stone is due N. of the twelfth, and the Recumbent Stone is set almost exactly on the S.W. point.¹ The two stones shown in outline touching it do not seem earth-fast, nor is the stone which rests upon the very verge of the extreme south end of the mound. The note of the first excavation on this site is the following :—“There has been dug up between the two outer circles, a cist-vaen, about 3 feet long and 1½ feet wide, containing some ashes.”² But in 1863, “the whole of the area of the innermost circle” was turned up, and there were found “charcoal, half calcined bones, black unctuous earth, and small fragments of a vase.”

No. 3, *Cairnwell*.—When formerly described³ this site was in a piece of boggy land invisible from the neighbouring circles, and the want of height in its few standing stones was attributed to the nature of the ground. It is distant from Auchquorthies $\frac{3}{4}$ of a mile N.N.E. The field between Cairnwell and Balquharn is now under cultivation, but the stones of the circle and the litter of lifted stones around it are still so

¹ That is to say, were the S.W. radius carried out from the centre, it would bisect the inner face of the Recumbent Stone at right angles. As will presently be shown, this is not the invariable position of this stone.

² *Sculptured Stones*, vol. i., App. to Preface, p. xix.

³ By Mr Alexander Thomson, F.S.A. Scot., in *Proceedings*, vol. v. p. 131.

inconspicuous that most persons would walk past them unheeding. Even in the district it is not known, and many antiquaries, with the exception of Miss Maclagan, have esteemed it scarcely worth the briefest note.

And yet this circle possesses points of rather peculiar interest. In the first place, it is very small, not much over 30 feet in diameter on its outermost ring. Next, the space between this ring of Standing Stones, only three of which remain, and the intermediate setting of thinner stones, is peculiarly narrow, and the same feature holds good with regard to the relation between the intermediate and the inner ring. The

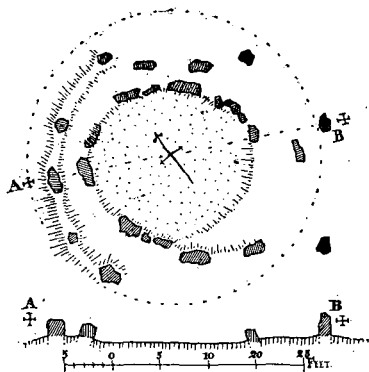


Fig. 9. Cairnwell. Ground Plan.

whole is, in fact, a circle in miniature; and, as may be seen from the ground plan (fig. 9), the stones have been laid with a regularity and neatness not always observable in the larger structures.¹

The inner stone-setting is also remarkable from all its stones being set up, not vertically, but inclining towards the centre. They average 18 to 20 inches in height. In the intermediate ring the stones are vertical, and rise to nearly 2 feet above ground.

The diameter of the inner ring is 15 feet. Its interior is pretty smooth and grassy, nor is the space between the two smaller rings so

¹ Owing to an oversight in drawing the scale, the figure 20 appears instead of 15, and 25 for 20.

crowded with small stones as we shall find to be the case elsewhere. Nearly all round the circumference, quantities of stones, of all shapes and sizes, cumber the ground.

The three Standing Stones are barely 2 feet 4 inches in height above the surface of the litter of small stones heaped up from the field. In the account given by Mr Thomson, this circle figures as much more complete and much larger. It is to be feared that its present condition is due largely to the removal of its more prominent stones for dike

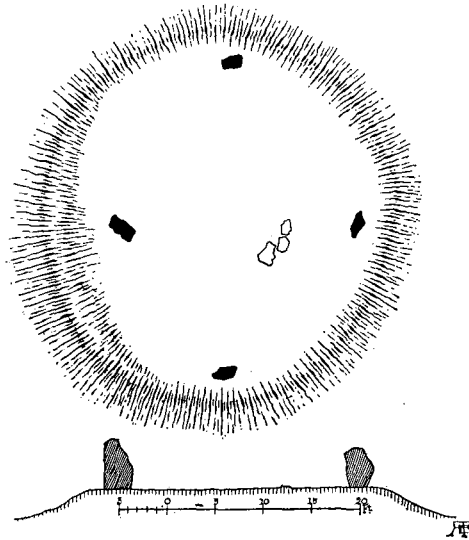


Fig. 10. Craighead. Ground Plan.

building. At any rate, Mr Thomson's measurements of 1863 and my own do not tally; but the circle he describes, as the westmost on Kingcausie, can be none other than this. It is highly interesting, therefore, to note his record of the excavation carried on here. "The free central space," he says, "is about 9 feet in diameter, and we dug up the whole of it. We found it full of black mould, *i.e.*, churchyard earth, with fragments of bones and wood charcoal; and, what was specially interesting, we found at five spots, arranged in a quincunx, fragments of coarse

earthenware urns ; thus proving unquestionably that it had been used as a place of burial."

No. 4, Craighead.—This site is on the crest of a swelling hill within a few score yards to the N. of the farmhouse, 250 feet above sea-level, and from the last site 660 yards distant in a N.E. direction. Whatever its former condition may have been (of which there are conflicting accounts),¹ it now consists of but four stones, and their relative positions are so precisely towards the cardinal points (see ground plan, fig. 10) that it is almost certain they have quite recently been moved. This is the more likely, because into the side of each stone wire ropes have been fixed in order to guy up a tall flagstaff planted in the centre. The stones

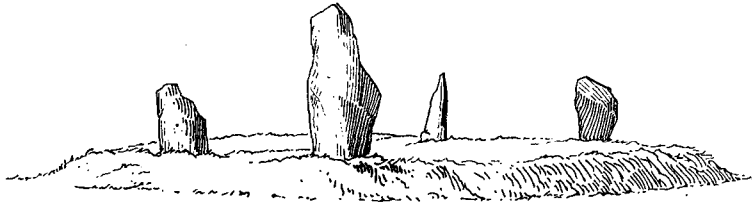


Fig. 11. Craighead. View from the South.

stand upon a mound which is now above 2 feet 6 inches above the surface of the field. The area of the top of the mound is level and grassy, presenting no vestige of stone-setting, and, but for the three thin loose slabs lying a little to the east of the centre, having no unevenness on it. On the mound edge a wall has been built, but as it interfered with the "Circle," it was omitted in the view I made from the S. (see fig. 11).

The stones are all of the same reddish granite, and their heights are : the south stone 7 feet 5 inches, the west stone 5 feet 3 inches, the N. stone 5 feet 2 inches, and that on the east 4 feet. Part of this circle was excavated in 1863 by Mr Alexander Thompson, and he reports :— "We found that it had been excavated at least once before ; but, not-

¹ In Miss Maclagan's *Hill Forts* six stones are shown in Pl. xxvii.

withstanding, we discovered unmistakable traces of sepulture—half-calcined bones and morsels of wood charcoal.”

*No. 5, Raes of Clune.*¹—Site, a most densely planted firwood on the summit of a hill 8 miles W. of the last circle and from Park station about 2 miles nearly S., at an elevation of 564 feet above sea-level. The difficulties attending the mensuration of a group of stones not one of which can be completely seen from any of the others, may be admitted to be considerable,² and, as the ruinous and littered condition of its interior added to the difficulties encountered by reason of the trees, I dare not claim quite such accuracy for this ground plan (fig. 12) as for others. We were forced to take the measurements by compass, necessarily a less accurate method than triangulating. Like many others, this circle has suffered heavily from being used as a quarry. Two of its Standing Stones are now prostrate, and evidence of tentative diggings and scoopings is plentiful; to such an extent, indeed, that, with regard, for instance, to the long row of stones trending from near the west pillar north-westwards, it is impossible to affirm that they are all a portion of the stone-setting; the majority do not seem in keeping with similar features at other sites.

The longer diameter of 58 feet lies N.W. and S.E., *i.e.*, from the second stone to the fifth; the contrary axis, from the west pillar to a point midway between Stones III. and IV., measuring 51·6 inches.

The distances between the stones are :—

From N. angle of Stone I. (fallen) to centre of Stone II., 10 feet; from II. to III. (centre to centre), 16 feet 4 inches. The space between III.

¹ This being an extremely difficult site to discover, we frequently asked at cottages for the *Raes of Clune* wood, varying the pronunciation so as to meet the requirements of the vernacular, *Rees o' Kleen*; neither of these names was known by any one of the persons interrogated; the farm lad who ultimately directed us correctly to the circle, speaking of it as in the *Savemill Wood*. Less than thirty years ago the name in its vernacular, *Rees o' Kleen* form, was quite well known, and its extinction in so brief a period seems to me significant.

² Herein lay the advantage, for the success of my survey, in my having two active and youthful assistants to whom the tangles, the spiders' webs, and the Cimmerian darkness of these Kincardineshire woods were Fairyland!

and IV., if measured on the curve, is 42 feet; between IV. and V. is 20 feet 6 inches. From V. to the east angle of the east pillar is 25 feet 4 inches; the group of three measures, over all, 16 feet 9 inches, and the space between the west pillar and the nearest angle of the first stone is 28 feet 4 inches, thus giving a total circumference of 159 feet 3 inches: probably an under-estimate, since the former position of at least two stones is unascertainable.

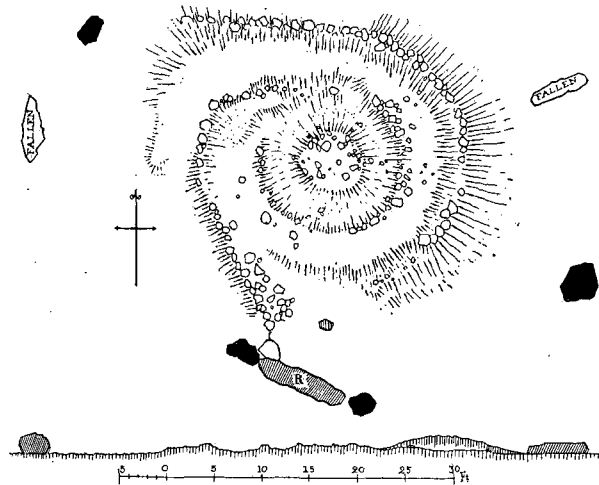


Fig. 12. Raes of Clune. Ground Plan and Section.

The Recumbent Stone is of grey granite, unlike the Standing Stones, which, so far as could be ascertained for the thick growth of lichens entirely clothing them, are of the red and coarser grained sort. This stone, just under 15 feet in length, is of a nearly equal breadth of 26 inches throughout, and has a considerable lean inwards, partly resting on a few blocks there (see the view, fig. 13). It weighs 9 tons 6 cwt. The west pillar is very square and massive, and much higher than that on the east. The position of the group relatively to the circle is almost due S.W.

The sectional view given below the ground plan is on a line between the two fallen stones, as no other so well shows the extreme irregularity of the interior.



Fig. 13. Raes of Clune. Recumbent Stone and Pillars.

The heights of the stones are as follows :—

Stone	I. (fallen)	is 2 feet 3 inches in thickness.
„	II.	„ 4 „ 9 „ high.
„	III.	„ 5 „ 1 „ „
„	IV. (fallen)	„ 1 foot 2 „ in thickness.
„	V.	„ 4 feet 11 „ high.
The east pillar	„ 4 „ 6 „ „	
„ Recumbent Stone	„ 4 „ 4 „	inside, but 3 feet 7 inches outside.
„ west pillar,	„ 5 „ 7 „	

Before this site was planted, which was about thirty years ago, its summit must have commanded a very extensive prospect.

No. 6, Cairnfauld.—In a cornfield close to the farm about 300 yards S. of the Cross-road smithy, and nearly 400 feet above sea-level, stand the five stones composing this circle, in what we must consider its very

much despoiled condition. As in the case of the four at Craighead just noticed, two of these stones are precisely N. and S. of each other (see ground plan, fig. 14). That on the N. was so placed (I was informed by the tenant), by his predecessor on the farm, about twenty-two years ago, it having till then lain prostrate "somewhere near," for no one knows

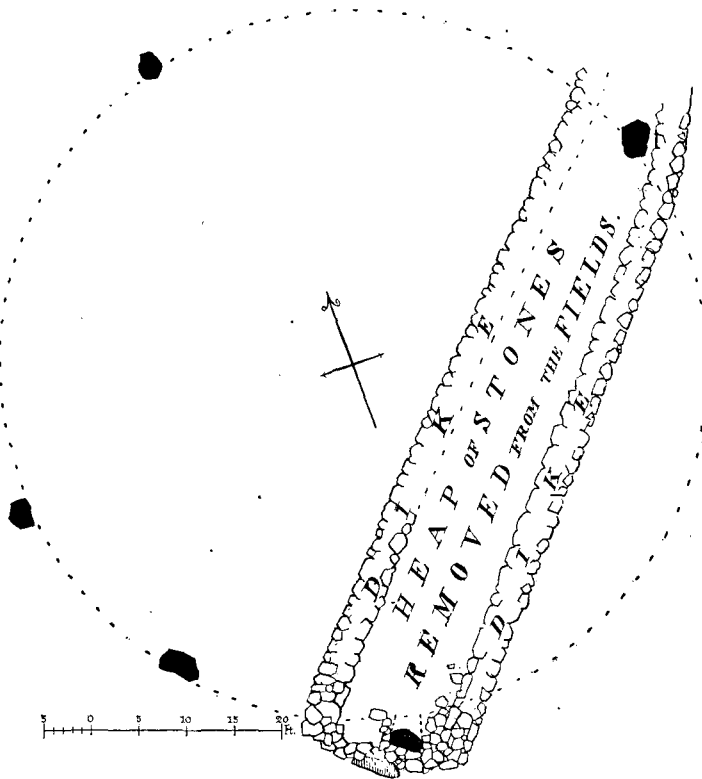


Fig. 14. Cairnfauld. Ground Plan.

how long. A true circle with a diameter of 75 feet cuts the bases of all these stones, and there is no special feature calling for notice, in the archaeological sense, except that a double dike of great extent encloses a

vast heap of stones, itself and its contents probably containing the missing portion of the circle.

As the view (fig. 15) shows, the stones are unusually straight, squarish with pointed tops and set very nearly vertically, with the exception of that nearest the S. point. Their respective heights are: the south stone 6 feet, the south-west stone 5 feet, the west stone 4 feet 7 inches, the north stone 4 feet, the east stone 5 feet.

The tenant on the farm told me that a good many years ago, at, I think, about the date of the building of the dike, some trenching was made near the centre, and human bones were found, but no record was kept of aught that may have accompanied them or of their precise position.

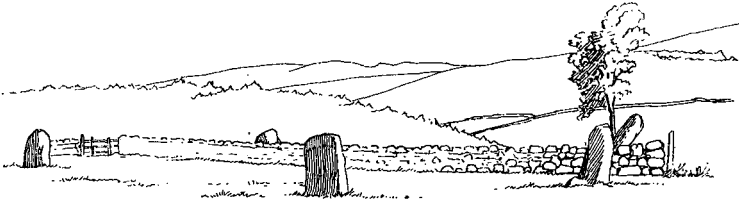


Fig. 15. Cairnfauld. View from the West.

No. 7, Garrol Wood, locally known as the Nine Stanes.—Both the site, 800 feet above sea-level, and the present condition of this circle (fig. 16) so much resemble those of Raes o' Clune, that it is a little difficult to keep a distinct image of both in one's mind. In this instance also we measured by compass. But there is one marked point of difference between the two circles: in this at Garrol Wood, the Recumbent Stone is, practically, due S., its east pillar and the third Standing Stone being precisely on the N. and S. diameter. The number of stones at present upright is eight, including the two pillars. The sixth is several feet to the E. of the circumference upon which the others are set, and between the second and third is space enough for two more. They

have probably been built into the dike on the W., which is in close proximity.

The diameters are : N. and S. 49 feet, and E. and W. 53 feet 8 inches. The interior has suffered in the usual way ; and, with the exception of one small oblong earth-fast stone in the centre, and a heavy slab that runs into the ground at a very low inclination between it and the Recumbent Stone, not a foot of measurable stone-setting remains. All

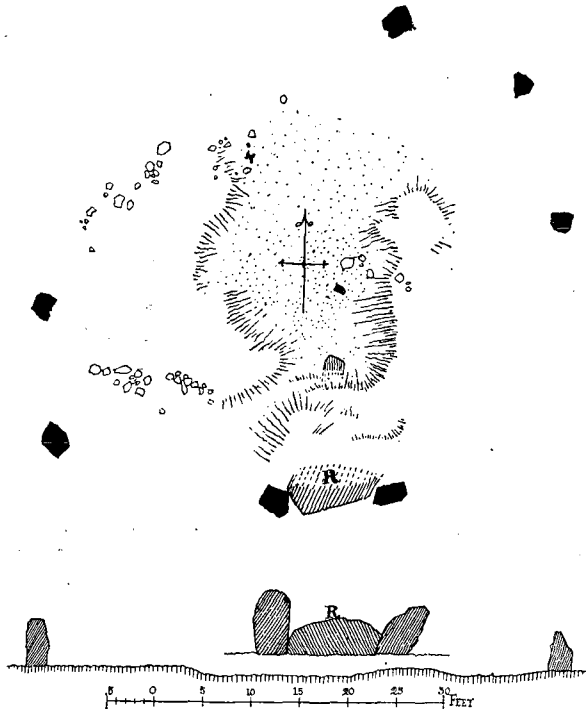


Fig. 16. Garrol Wood. Ground Plan and Section.

the stones are massive and squarish in section and of the common red granite. The Recumbent Stone (fig. 17) is, I think, diorite ; but it is clad with both lichen and moss, and is difficult to examine.

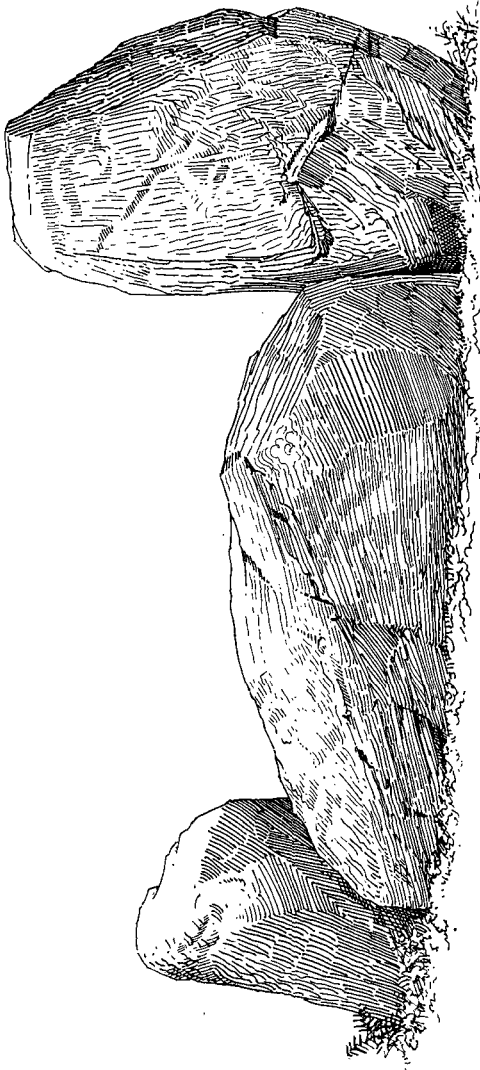


Fig. 17. Garrol Wood. View from within the Circle.

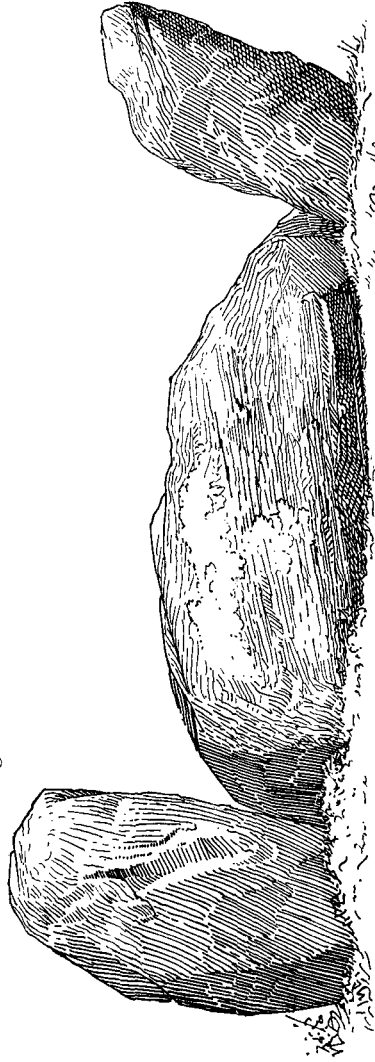


Fig. 17. Garrol Wood. View from without the Circle.

Distances between the stones :—

Between Stone I.	and Stone II.,	14 feet 6 inches
”	” II.	”
”	” III.	”
”	” IV.	”
”	” V.	”
”	” VI. and edge of E. pillar,	25
Width of the south group of three		15
Between edge of west pillar and centre of Stone I.		22
Total circumference,		183 feet 7 inches

Heights of stones :—

Stone I.	is 3 feet 8 inches	(flat-topped, and leans towards the group on the S.).
Stone II.	is 4 feet 9 inches	
” III.	” 3 ” 3 ”	(square-topped).
” IV.	” 3 ” 4 ”	(narrow-edged).
” V.	” 4 ” 0 ”	
” VI.	” 4 ” 10 ”	
East pillar	” 5 ” 0 ”	(vertical, but leans outwards).
Recumbent Stone	” 3 ” 9 ”	(much more uneven at top than others).
West pillar	” 6 ” 8 ”	(flat-topped and of great bulk).

The inner surface of the Recumbent Stone slopes downwards, and is so mossgrown, and overlaid with soil full of roots of bracken and blaeberry, that we could not ascertain its true width. Its breadth in this direction would probably equal, if not exceed, its length from E. to W., and it is therefore perhaps the most ponderous of these stones yet examined. Its top presents no level or smooth spaces anywhere. Its weight is over 16 tons.

In view of the very great stoniness characteristic of these circles in Durris, the following extract from the Statistical Account of 1842 is

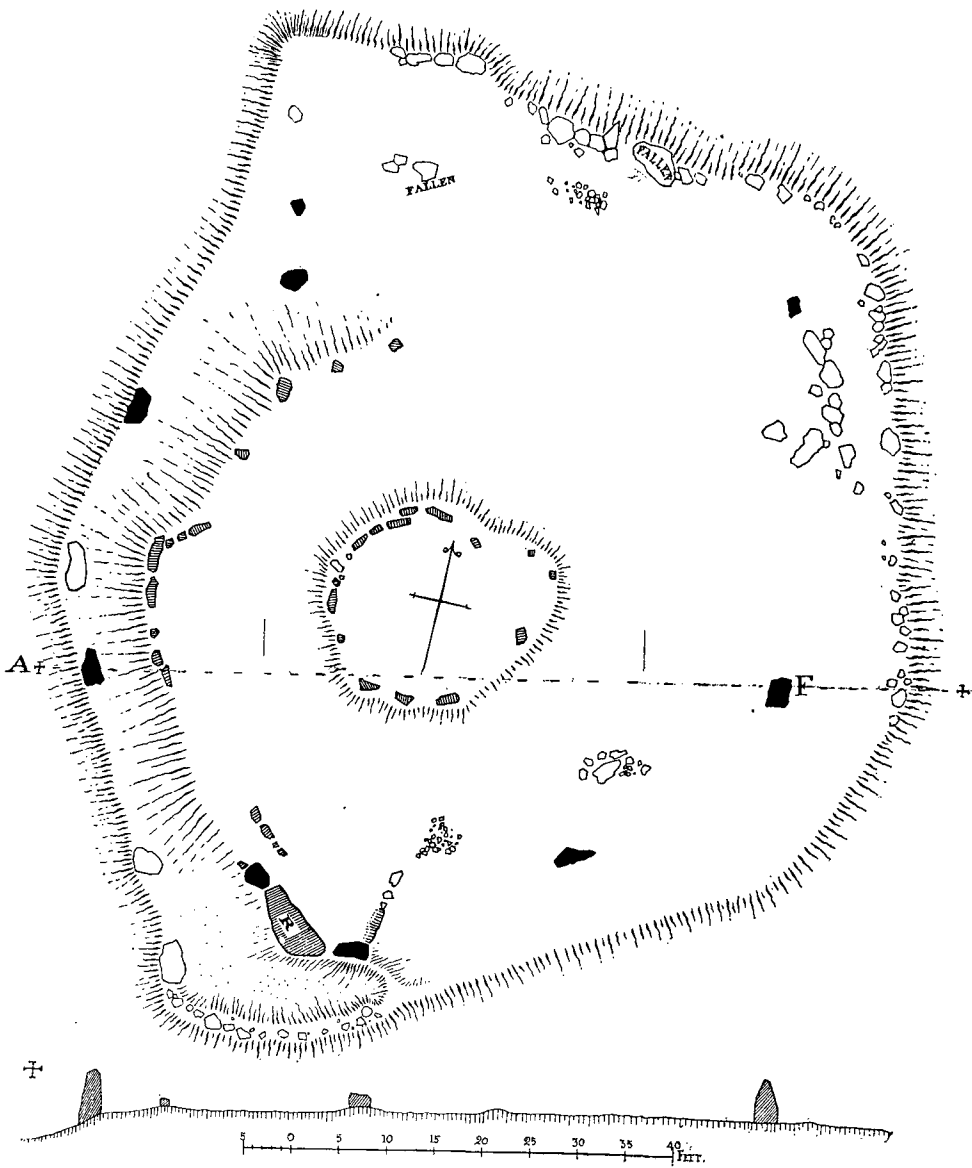


Fig. 18. Esslie (the Greater). Ground Plan.

worth quoting. In speaking of Esslie and Garrol the writer says:—"In each, the remains of an inner circle are visible, within which is a small cairn." That certainly is the impression conveyed by the stony masses in the centre of several of these circles. But that the whole area within the Standing Stones was "nothing but a cairn," as some observers have stated, is an inference due to imagination. Besides, it must be borne in mind that the cairn-like heap of stones may be (and has sometimes been ascertained to be)¹ formed by the farmers who have utilised the unarable space within the Standing Stones as a convenient place of deposit for stones gathered off the fields.

No. 8, Esslie: the Greater Circle.—In open ground about 550 feet above sea-level. If we include the two pillars which, with the Recumbent Stone, are "in line" with the other Standing Stones, this circle now consists of nine stones; but very serious disturbances must long ago have taken place, as a study of the ground plan declares (fig. 18). At least five massive stones, the two within a few feet of the Recumbent, a third between Stones I. and II., and two on the north verge, have been moved out of their original positions (which it is now impossible to fix upon); and, in addition, one now standing, Stone No. IV., is not on the same circumference as the rest. The extreme irregularity, also, of the contour of the base of the mound which carries the Standing Stones adds to the difficulty of interpreting as well as of measuring its features. Immediately south of the Recumbent Stone, for instance, is a well-marked hollow, 20 feet by nearly 5, bounded externally by an equally well-defined bank of earth and stones, and this ridge continues eastwards, then northwards, and more or less compactly to the extreme N.W. angle. It is surely remarkable, however, that nowhere in its whole course is any one of the stones actually set upon it, the two big stones on the western arc lying on an earthen slope uncharacterised by any ridge. Doubt is thus cast upon this stony ridge, which may be a thing of yester-

¹ See *Proceedings*, vol. xxxi. p. 90.

day.¹ At the east pillar-base lies a long and deeply-set stone, similar in relative position and size to one already noticed at Auchquhorthies, while two heaps of smaller stones opposite its end, and about 20 feet to the E. as well, seem to be the remnants of the inner stone-setting here, of which we find substantial alignments on the western side, where, especially in front of Stone I. (A on the section), a space of barely 6 feet separates the Standing Stone from the interior work. The central stone setting, traceable at a nearly uniform distance of 16 feet from the other, consists of fifteen quite distinct and vertically-placed stones from 8 or 10 inches to 18 and 20 inches in height on the outside, their inward sides, here and there, disappearing among a "rubble o' stones" to over 2 feet in depth. In the view (fig. 19), taken from near the centre of the circle, and looking towards the Recumbent Stone, the variation in the heights of these centre stones is shown. This drawing further illustrates a feature apparently unusual in the type of circles with Recumbent Stone, and that is, the remarkable lowness of the two pillars, the east pillar being just level with the top of the Recumbent Stone, and the west only a few inches taller.² The entire space on this mound at Esslie is as stony as possible, though overgrown with a luxuriant and treacherous growth of grass.

The heights of the stones are as follows :—

Stone	I. (A on section)	4 feet 8 inches,	tapering.
"	II.	3 " 8 "	rounded top.
"	III.	4 " 6 "	" "
"	IV.	4 " 4 "	flat-topped.
"	V.	2 " 3 "	" "
"	VI. (fallen)		
"	VII.	4 " 7 "	tapering to an edge.

¹ Putting out of reckoning the two boulders near, but well outside of the Recumbent Stone, we may state that the circle had originally, at anyrate, twelve Standing Stones, inclusive of the pillars. Probably the long gap on the east contained another.

² I am aware that the block of stone at the base of this pillar looks in the drawing as if it might have fallen off the latter; but a glance at the ground plan will show how small this fragment is, in comparison with the pillar, and therefore how very little it could have added to its height.

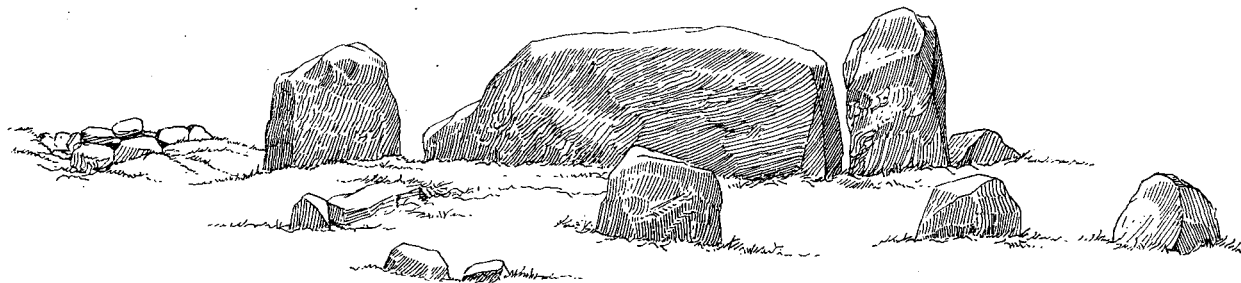


Fig. 19. Esslie (the Greater). View from the Centre, looking South.



Fig. 20. Esslie (the Greater). View from the South.

East pillar is 4 feet 0 inches, broad-topped.
 Recumbent Stone is 4 ,, 0 ,, inside, but 5 feet outside.
 West pillar is 4 ,, 2 ,, broad-topped.

A general view of the circle is given in fig. 20.

Distances between the stones :—

From Stone	I. to Stone	II.	is	29 feet 0 inches
„	„	II. „ „ III.	„	21 „ 5 „
„	„	III. „ „ IV. (displaced ?)	„	7 „ 8 „
„	„	III „ „ V. (fallen)	„	18 „ 0 „
„	„	V. „ „ VI.	„	24 „ 6 „
„	„	VI. „ „ VII.	„	21 „ 0 „
„	„	VII. „ „ VIII.	„	41 „ 0 „
„	„	VIII. „ „ IX.	„	27 „ 6 „
From centre of Stone IX. to east pillar (edge)			„	24 „ 0 „
The group of Recumbent Stone and pillars			„	15 „ 9 „
From west pillar outer edge to centre of I.			„	26 „ 6 „
		Total circumference,		256 feet 4 inches

Main diameter from Stone VI. to R. nearly N. and S. 89 feet 0 inches.

„ „ „ „ II. to F. „ W. and E. 73 „ 6 „

The Recumbent Stone weighs 8 tons 4 cwt.

Excavation was made in or about the centre of this circle in 1873, by Dr R. Angus Smith. His account¹ is this:—

“On going down about 2 feet a hard ‘pan’ was found 4 or 5 inches thick. This ‘pan’ is very general in the district. A space of 7 or 8 feet in diameter was laid bare with more or less care, and on the outer part there were found certain black marks on the hard ground, and along with them small pieces of bone. The dark marks, in some places quite black, extended so as to be the length of a not tall human being in three cases; a fourth was uncertain. There seem to have been three or four bodies laid so as to form a circle, within which were no black marks or bones. One of the men who were digging tried the centre with his pickaxe, and said that it had been opened; there was no hard ‘pan,’ and he marked out a place, feeling his way with the pickaxe, and found a softened part about 6 feet long. This space was opened without difficulty with the spade alone: the observation had been correct. After digging down 2½ feet a stone

¹ Given in *Proceedings*, vol. xiv. p. 302.

kist was found, if we may call it one, built of common boulder-stones little more than half a foot, *i.e.*, from 8 to 10 inches in diameter. . . . In the grave were found black marks and pieces of bone, but no more."

No. 9, Esslie: the Smaller Circle, commonly called West Mulloch, from its close proximity to the steadings of that farm.—Distant from the last a bare half mile, and about 70 feet higher, close to the road that winds round past West and East Mulloch down to the Cross-road smithy and Cairnfauld already noticed.

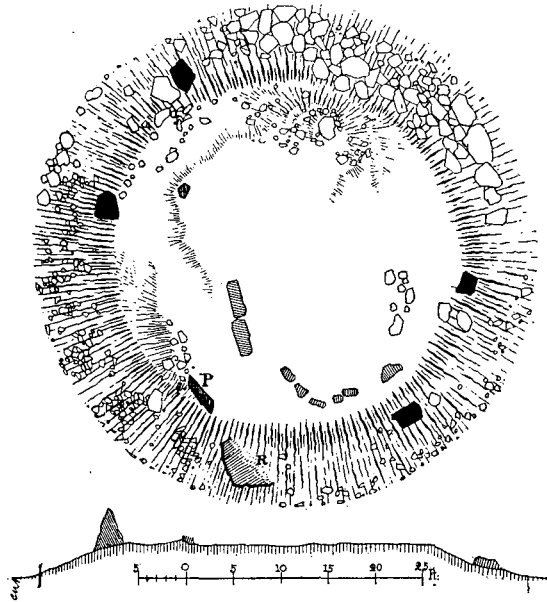


Fig. 21. Esslie (the Smaller). Ground Plan and Section.

On this site, again, one finds evidence of much disturbance; and those ineffective, half-hearted diggings, productive of nothing but hallucination and hearsay, appeared to have occurred here also plentifully. There are, however, yet five great Standing Stones set on the level crest of a mound 3 feet high, some remnant of the inner stone-setting, and, fallen over

down the slope of the ridge, close to the tallest stone, a huge block (shown on the ground plan shaded within a thick line, fig. 21) which I take to be the Recumbent Stone moved from its position, close to the west pillar and minus that which was its east pillar. That this is the correct "reading" of the present state of things is suggested by the relative positions of this remaining pillar (P) and of the portions of the inner stone-setting now *in situ*. A part of this consists of two unusually large stones 7 feet within the circle from P. Small heaps of stones in all manner of positions (see fig. 22) cause confusion, and there is one prominent boulder on the northern verge apt to be mistaken for a Standing Stone. It is not earth-fast.

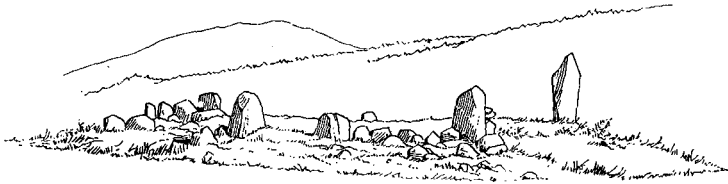


Fig. 22. Esslie (the Smaller). View from the West.

The heights of the Standing Stones are :—

Stone I.	is	4 feet 7 inches,	edged at top.
„ II.	„	3 „ 9	„ pointed.
„ III.	„	4 „ 2	„ „
„ IV.	„	3 „ 10	„ „
„ V.	„	4 „ 5	„ broad and flat.

The Recumbent Stone weighs over 4 tons.

Dr R. Angus Smith records¹ that the centre circle of small stones "was opened to the depth of from 3 to 4 feet and several large and flattish stones were found very irregularly placed; and apparently the remains of some structure broken and tossed into the hole which had been formed in opening it. It had been probably a large stone cist."

¹ *Proceedings*, vol. xiv. p. 303.

No. 10, *Inchmarlo*.—Close to the main road going west out of Banchory, 100 feet or so within the policies of Inchmarlo Cottage, stands the monolith shown in fig. 23. It is vouched for as the sole remnant of a circle seen by the late Sheriff Douglas, who was a native of Inchmarlo; and it is still called the Druids' Stone. It is a nearly square-based block of porphyritic granite, and close beside it lies a much smaller, but still weighty block, of diorite. The oblong cavity on its eastern face has been chiselled to hold, I think, one of the iron letter-

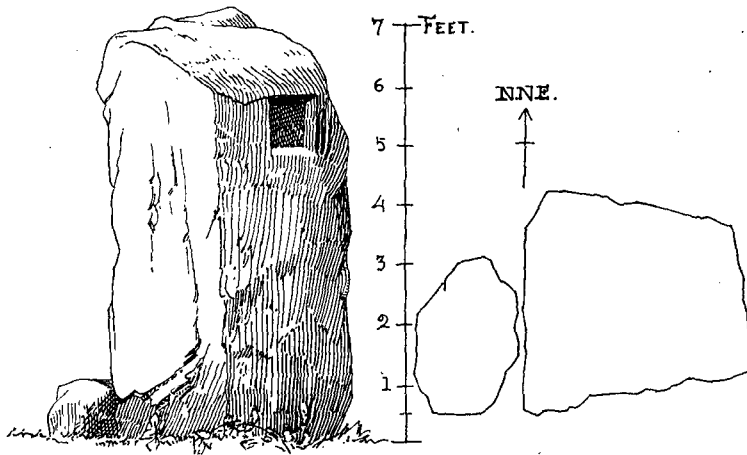


Fig. 23. Inchmarlo Standing Stone.

boxes which are common in the district. There is now no trace of the site of any other of the stones of the circle. Weight over 12 tons.

No. 11, *Glassel*.—This group of pillar stones is situated on the verge of a long and rather steep natural bank in the north part of a beechwood known as Ordie Gordie or Ordie Gordon, scarcely half a mile in a N.W. direction from Glassel station on the Deeside railway, and at an elevation of 360 feet above the sea.

Both its diminutive proportions and its form render it remarkable (see

fig. 24). The longer diameter of its interior space is but 15 feet 9 inches, the shorter 7 feet 9 inches. The stones now standing, five in number, are singularly symmetrically set, very square-based, and like one another in contour, breadth, and height; they are also all of the same reddish granite.

In the centre of the north arc is a prostrate block of indurated sandstone (see the drawings, fig. 25). Between this block and the Standing Stone on the W. is a small, quite earth-fast lump of granite; and, much closer to the edge of the bank, 10 feet S.W. of the south stone, lies a diorite or fine-grained granite boulder. The interior space is smooth,



Fig. 24. Glassel. Ground Plan and Section.

grassy, and well flattened by a path evidently the frequent resort of rambles. Below at the foot of the bank flows the Canny Burn.

Heights of the stones :—

- The diorite boulder on the south 10 inches thick.
- „ S. stone 2 feet 9 inches, rather pointed.
- „ E. „ 3 „ 3 „ rounded at top.
- „ W. „ 3 „ 2 „ flat-topped.
- „ N.E. „ 2 „ 11 „ sharp-pointed.
- „ N.W. „ 2 „ 10 „ flat-topped.

The prostrate sandstone is 1 foot in thickness.



View from the North.

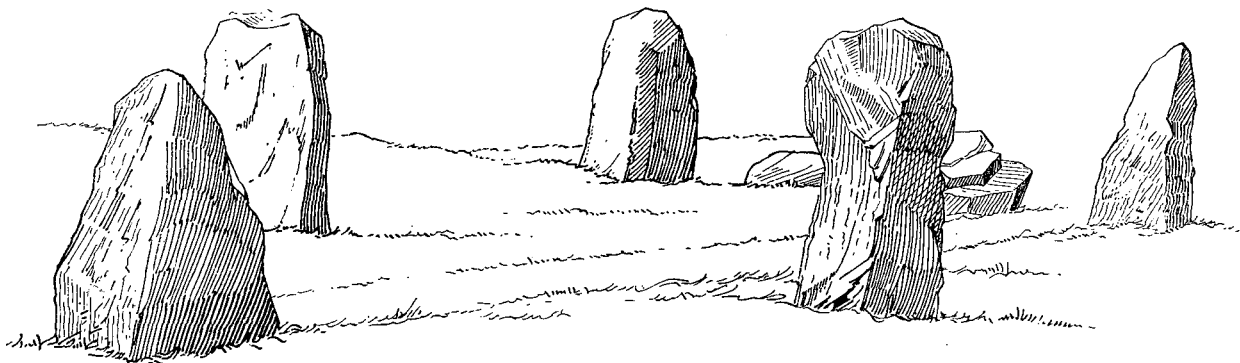


Fig. 25. Glassel. Views from the North and South.

Distances between the stones :—

Between	S. stone	and	W. stone,	8 feet 10 inches
„	W.	„	N.W.	8 „ 10 „
„	N.W.	„	N.E.	9 „ 6 „
„	N.E.	„	E.	8 „ 10 „
„	E.	„	S.	8 „ 10 „
			Total,	44 feet 10 inches

No. 12, Learny.—In an upland field N. of Gownieburn, beyond Milltown of Learny, to which we walked from Torphins station, stands the one stone of a circle well known to the folk not so many years ago. It is not conspicuous, being a rather thin, angular, and pointed red granite block. It is set nearly N. and S., stands 4 feet 2 inches in height, and girths at the base 10 feet. One side is over 4 feet in breadth. It is marked on the 6-inch Ordnance Map as “Remains of a stone circle.”

No. 13, Balnacraig, Midmar.—On the farm of this name, the Ordnance Map records and draws four very large stones at a point $1\frac{3}{4}$ mile N.W. of Torphins. But, though we made diligent search, and were fortunate enough to fall in with the present tenant, we could neither see nor hear of any vestige of a circle. On the map, however—and the one I refer to is the 25-inch scale—these four large stones are quite clearly laid down in such a form that, if measured from a common centre, the line of circumference would bisect them all and enclose a circle of about 80 feet in diameter.

*No. 14, The Auld Kirk o' Tough.*¹—All that remains of the once large circle on this remote moorland site, 1200 feet above the sea, on the confines of the parishes of Tough, Cushmie, and Cluny, is a more or less circular ridge, to some extent still stony, and, like the hollow it encloses, densely grown with heather, and one large Standing Stone set on its

¹ “The Kirk” is the name of the site of a circle on a raised ridge on Kirkby Moor. *Archæologia*, vol. xxxi. p. 450.

southern arc (fig. 26). A glance around at the nearest dikes reveals the fact that they are built largely of huge stones; and the suspicion thus raised of their having been moved from the circle was confirmed on the day of my visit by the frank admission of the crofter at Denwells, to the

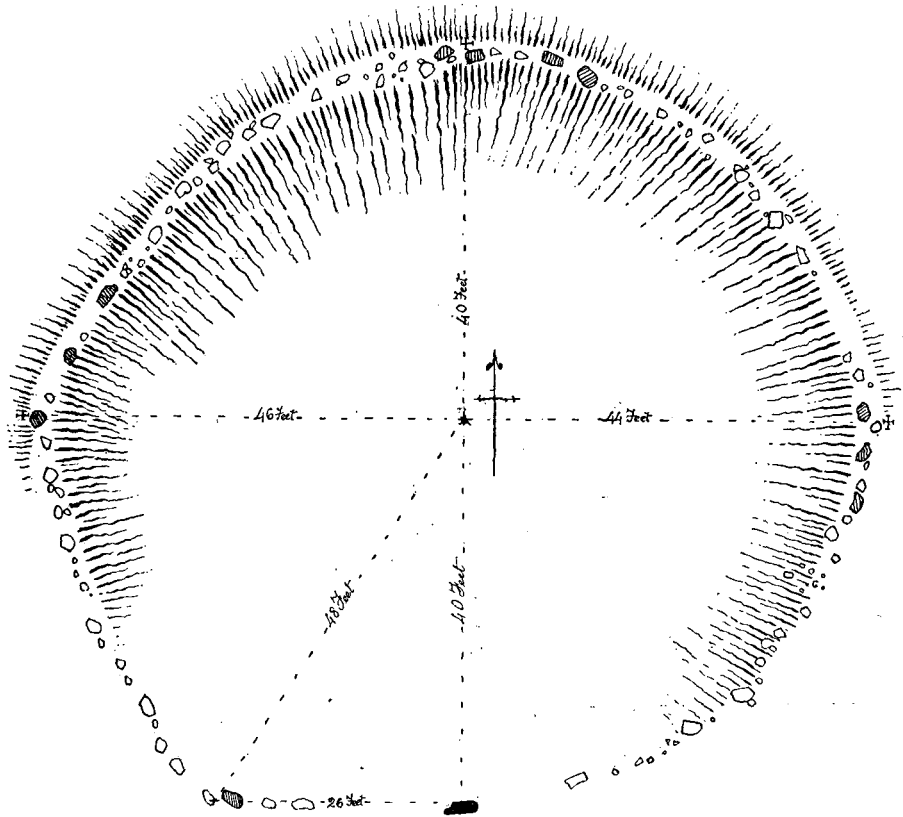


Fig. 26. The Auld Kirk o' Tough. Ground Plan.

effect that he had "shifted them a' into the dikes," one of them also being complacently shown forming the threshold of his cottage. Most of this wanton destruction must have occurred during the last twenty

years, since Miss Maclagan¹ records, in her plan, seven stones besides a Recumbent Stone and two pillars, giving a view of the latter group. When examining this site, I was puzzled with the strip of straight contour, 26 feet long on the S.W., not having then seen any plan of the ground. This, in all likelihood, was the position of the Recumbent Stone and pillars. Miss Maclagan's plan shows a circle of 75 feet in diameter, the seven stones separated by pretty regular intervals of about 20 feet, with a gap of nearly 40 feet on the E. Fifteen feet within, in her plan, is a perfectly unbroken stone-setting, within which, again, is the small central setting, its interior very stony. My measurements bring out the diameters, from the inner face of the one remaining stone due N. to the opposite and much higher crest of the ridge 80 feet, and the contrary diameter 90 feet. A good many apparently earth-fast blocks still define the circumference, and numberless smaller stones lie about all over it. Of the inner settings of stones not a specimen now exists. In Miss Maclagan's drawing of the group on the S.W., one of the pillars is twice the height of its fellow, and the Recumbent Stone is not vertical. Its breadth, also, seems to equal its length. But to which side of the circle the Recumbent Stone leans, and whether the tall pillar is on its W. or its E., cannot be ascertained.

This site, and the eight that follow, are all on the northern side of the Hill of Fare, the long flat ridge of heathy moorland which for miles forms so prominent a background to the wood-crowned uplands of this side of the Dee Valley.

No. 15, Tomnagorn.—Over 5 miles N. of Torphins station, and up a road that rises at a steep and steady gradient for fully three miles, on the summit of a wooded hill 600 feet above sea-level, are to be seen the remains of this, perhaps the most interesting of all the circles described in the present report. In spite of several of its stones being now prostrate, much of the inner stone-work remains *in situ*, and it is possible, on

¹ *Hill Forts*, pl. xxviii.

paper, to reconstruct the circle with an amount of certainty most unusual with regard to these often barbarously ill-treated antiquities.¹

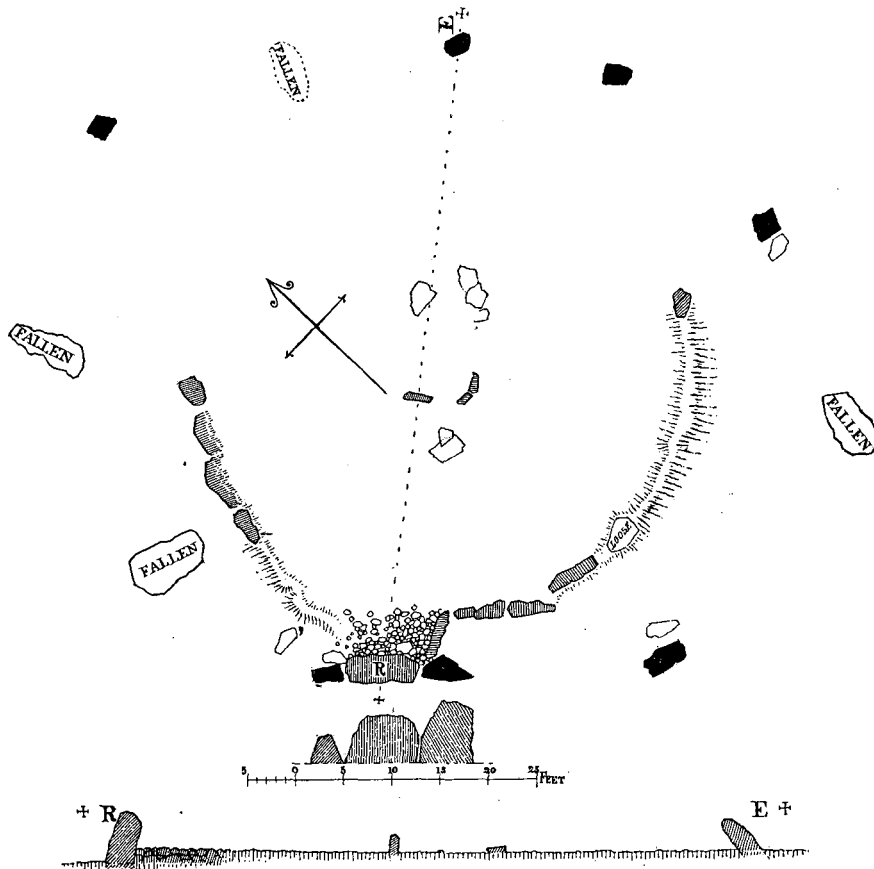


Fig. 27. Tomnagorn. Ground Plan and Sections.

The ground plan (fig. 27) shows five Standing Stones, a massive Re-

¹ What disturbance at the centre is shown was due, I was informed, to the curiosity of an idle shepherd. The tenants of the farm respect and take an interest in the stones.

cumbent Stone with its two pillars, and four of the once erect stones, fallen, but so close to the line of circumference as not to injure the symmetry of the circle as a whole. Of the Standing Stones, the third is due N. of the ninth, the fifth is N.E. of the centre of the Recumbent Stone, which is at the due S.W. point. Measured from S. to N., the diameter between the centres of the stones is 80 feet; measured from the centre of Stone I. (fallen) to a point mid-way between Stones VI. and VII., it is 70 ft. 6 in.

Distances between the stones :—

Between the two fallen stones on the W. (I. and II.)	26 feet 0 inches
„ Stone II. and III.	24 „ 6 „
„ „ III. „ IV.	20 „ 5 „
„ „ IV. „ V.	17 „ 6 „
„ „ V. „ VI.	16 „ 9 „
„ „ VI. „ VII.	21 „ 6 „
„ „ VII. „ VIII.	22 „ 4 „
„ „ VIII. „ IX.	31 „ 0 „
„ „ IX. „ edge of east pillar	20 „ 5 „
The S.W. group, over all	16 „ 6 „
From edge of west pillar to centre of Stone I.	16 „ 0 „
<hr/>	
Total circumference	226 feet 11 inches

Heights of the present Standing Stones :—

Stone III.	5 feet 6 inches, tapers to an edge.
„ IV.	(fallen).
„ V.	4 feet 0 inches (but overhangs inwards 2 ft. 10 in.).
„ VI.	4 „ 0 „ flat, oblong top.
„ VII.	5 „ 4 „ broad, irregular top.
„ VIII.	(fallen).
„ IX.	6 feet 7 inches
East pillar	6 „ 5 „
Recumbent Stone	3 „ 10½ „ inside, 5 feet 3 inches outside.
West pillar	2 „ 7 „ (possibly broken?).

Weight of the Recumbent Stone, 9 tons 1 cwt.

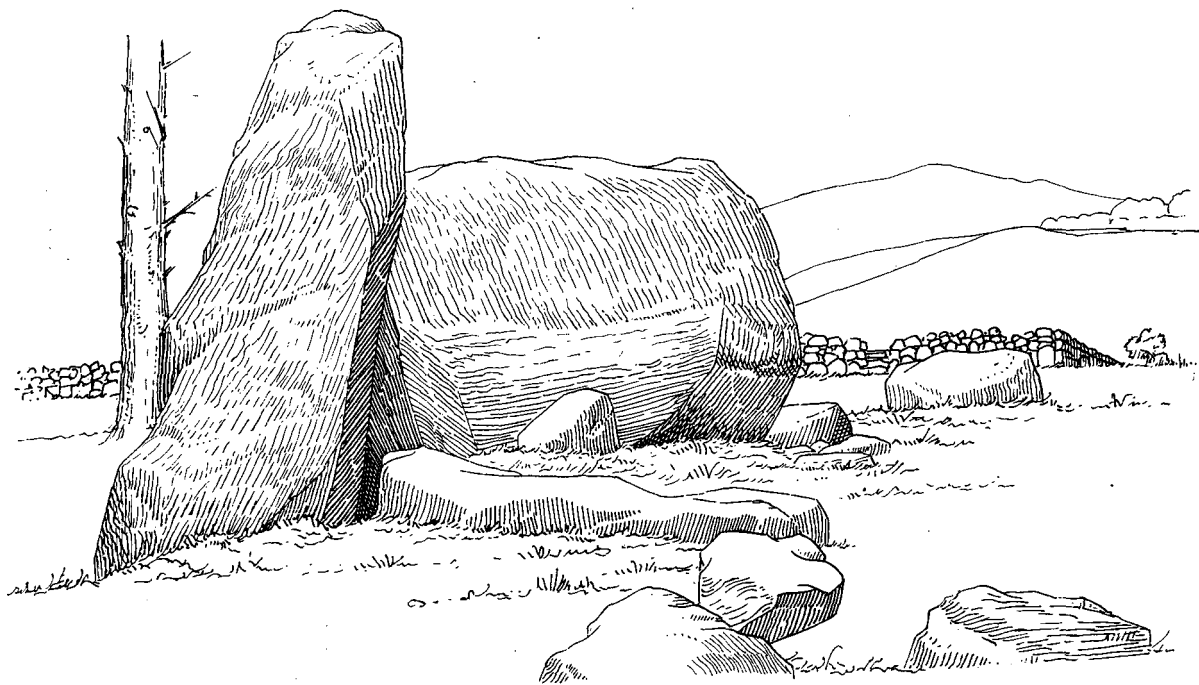


Fig. 28. Tomnagorn ; showing Recumbent Stone and beginning of Inner Stone-Setting.

The very marked difference in the heights of the two sides of the Recumbent Stone is accounted for by the layer of water-worn boulders and other small stones that are set, like a floor, in front of it facing the interior (see the section, fig. 27). We assured ourselves of the regularity of this 'flooring,' by lifting off many square yards of the thick dry fibrous carpeting of moss that covers most of the area of this circle; and, in doing this, we brought to light the long narrow slab and its three almost contiguous blocks with which the inner stone-setting begins at the base of the east pillar, and which can be distinctly traced round the east arc, though for some portion matted over with the ever-abundant blaeberry stems. See the view of the Recumbent Stone from the interior (fig. 28) which shows these stones. The whole of the N.E. and N.W. arcs are absolutely devoid of earth-fast stones, and the ground here is so level, that, if any once existed, the clearance of them has been effected most rigorously. Four large stones, varying from 14 to 26 inches high (the highest nearest the S.), form a portion of the stone-setting on the W., and between them and the Recumbent Stone a lumpy ridge exists.

In front of and almost touching the west pillar lies a block which has possibly once formed its apex, as on one side the pillar shows a broad, fractured, not weathered, surface, and its present want of height seems 'out of keeping' with the bulk and height of the Recumbent Stone and the other pillar (see fig. 29). In the central space, three narrow slabs 14 inches high are all that remain *in situ*; but the broad oblong slab now lying about 3 feet to their S. (with a smaller triangular one resting on it) must have once stood in the space now blank, its width corresponding to the blank. The cavity thus originally enclosed does not appear to have been circular, but oblong or squarish; but it is impossible to define its limits (see view from the W., fig. 30). The breadth of the free space lying between this central stone-setting and the outer one is 21 feet 9 inches, and the width from the latter to the Standing Stones of the circle is 13 feet.

The site, now completely hidden by woodland, could at no time have

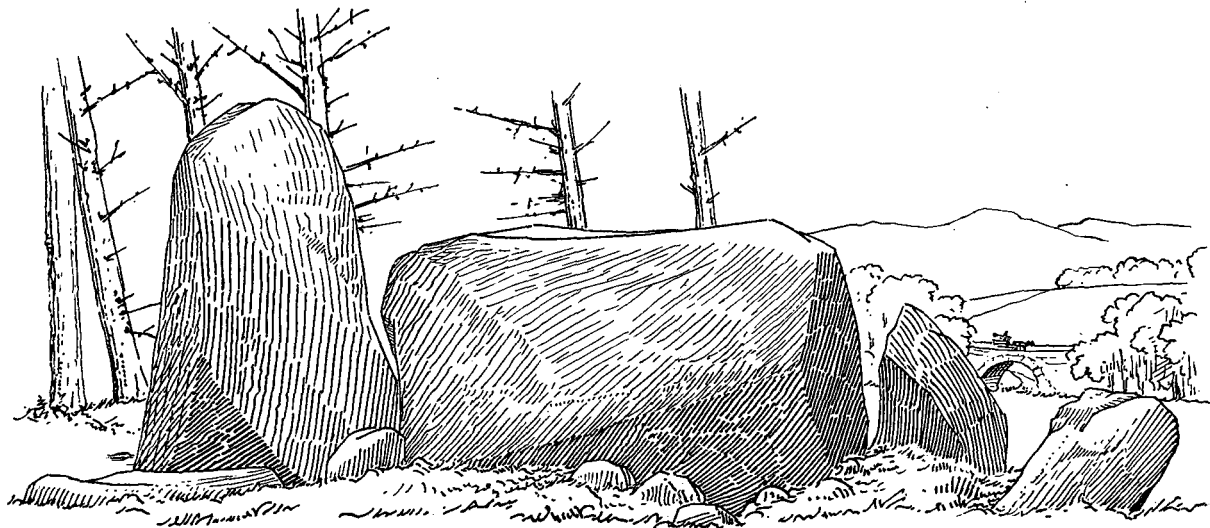


Fig. 29. Tomnagorn. Full View of Recumbent Stone from within.

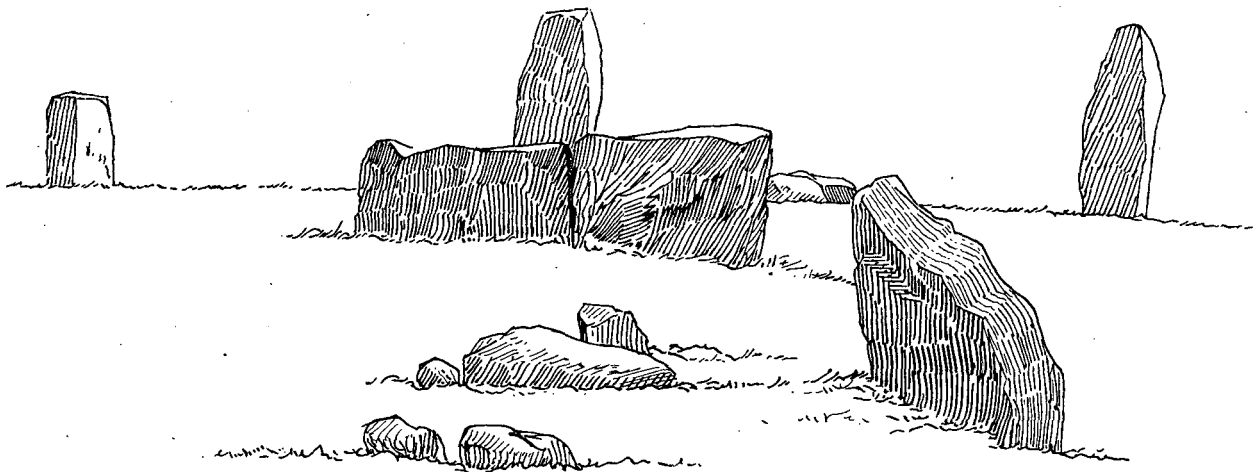


Fig. 30. Tomnagorn. Centre Stone-Setting.

been specially conspicuous ; there are much greater heights on nearly all sides of it.

No. 16, *Midmar Kirk*.—Quite on the other and eastern side of this upland portion of the district, about 600 feet above the sea-level, and most easily accessible from the village of Echt, we find a few stones remaining

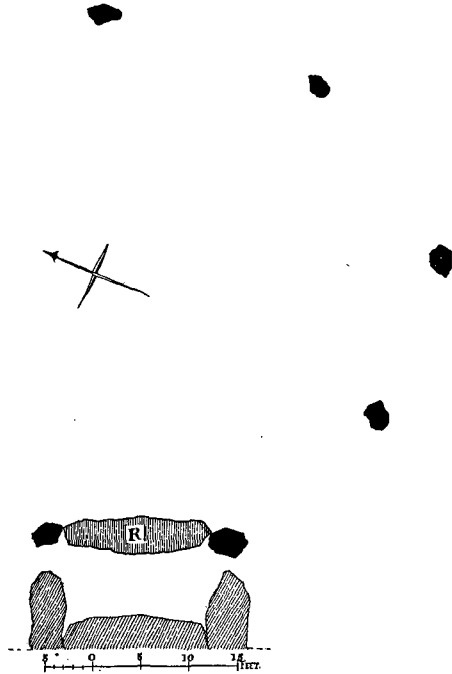


Fig. 31. Midmar Kirk. Ground Plan, etc.

of this circle, the parish church being built so close to it that I am not sure whether several of its western stones were not removed to make way for the walls. Stormy weather prevented our making more than one hurried inspection of this circle. I therefore wrote to the Rev. E. Lumsden, M.A., for accurate measurements, which were most promptly

and courteously afforded me ; and the annexed ground plan (fig. 31) has been laid out from them, with, also, some assistance from the plan given by Miss Maclagan.¹ There are at present four Standing Stones, in addition to the two very tall and massive pillars, and the vertically set Recumbent Stone. When complete, there were probably nine Standing Stones, there being ample space for three on the north arc. All the stones are of the same material, the reddish granite much weathered. The pillars are unusually equal in height, and the Recumbent Stone very broad throughout. It is set on the S.W. arc, but not so precisely as in other examples. It is 14 feet 9 inches in length, and 4 feet at the greatest breadth. The N.E. diameter of this circle, measuring from the pillar on the left to the opposite stone, is 55 feet ; the contrary axis is, of course, now unascertainable. The Recumbent Stone weighs 9 tons 13 cwt.

Distances between the stones :—

The Recumbent Stone <i>plus</i> pillars	22 feet 0 inches
Between pillar on right to next stone	18 „ 9 „
„ the next two stones	17 „ 8 „
„ „ „ „	22 „ 0 „
„ the last two stones	23 „ 9 „
Circumference of about $\frac{2}{3}$ rds of circle = 104 feet 2 inches	

Heights of the stones :—

The N.E. stone	4 feet 6 inches
„ first S.E. stone	3 „ 6 „
„ second „ „	6 „ 3 „
„ south stone	5 „ 6 „
The pillars, each	8 „ 3 „
The Recumbent Stone	3 „ 6 „ at highest.

No. 17, *Balblair*.—At the time of my visit to the circle just described, I was not aware that another once existed within about 100 yards to the

¹ *Hill Forts*, Pl. xxvii.

north. But having noticed on the 6-inch O.M. the remains of a circle marked at this spot, I wrote to the Rev. E. Lumsden again, and learned from him the following particulars. At a point 22 yards north of the road going east of Midmar Kirk, and 100 yards or so north of it, there is in a wood one tall stone standing. "It has," says Mr Lumsden, "quite the character of such (*i.e.*, circle) stones—its surfaces being either worn by natural agencies or presenting the natural cleavage of the stone. It is about $8\frac{1}{2}$ feet high, and leans over considerably to the south." The drawing to scale which accompanied this description shows the base of the stone as 19 inches wide on the west and north sides, with the south and the east sides slightly less and rounded, and the stone as viewed from the east tapering to a point. There is also at its base the remnant of a ridge about 12 inches in height. Wishing to assure myself of the former existence of a circle here, I wrote for information to Col. Farquharson of the Ordnance Survey Department. In due course a reply came to the effect that in the Name Book of date 1864, three of the residents in Midmar reported the single stone remaining at that date to be the remnant of a circle. It is not definitely stated that either of them said he had seen the circle or any more stones than this one.

No. 18, *Seanhinny*, or, to follow the local pronunciation and spelling, *Sunhoney*,¹ by reason both of its size, the regularity of its monoliths, and the almost unbroken smoothness of its grassy sward, besides its commanding position, is, perhaps, the most impressive of the circles of this district, as it assuredly is the most satisfactory to deal with from the surveyor's point of view. A dike surrounds the plantation of beech and firs, which in a manner grace without confusing the view of the stones; and its distance from the outer ridge carrying the stones is sufficiently great to allow of a clear view of the entire circle. The site is the summit of the upland fields, 400 feet above sea-level, on this farm, which is distant west from the village of Echt about $1\frac{1}{2}$ miles, and across a beautifully wooded valley $\frac{3}{4}$ of a mile N.E. from Midmar Castle.

¹ The name "Sunbrick Circles" is given to a group on the brow of a hill called Birkkrigg, near Bradsea, Morecambe Bay. *Archæologia*, vol. xxxi. p. 450.

There is every reason to believe that this circle, in respect of its Standing Stones at least, is really in the same condition as in prehistoric times. See the ground plan (fig. 33), which shows nine stones on the outer

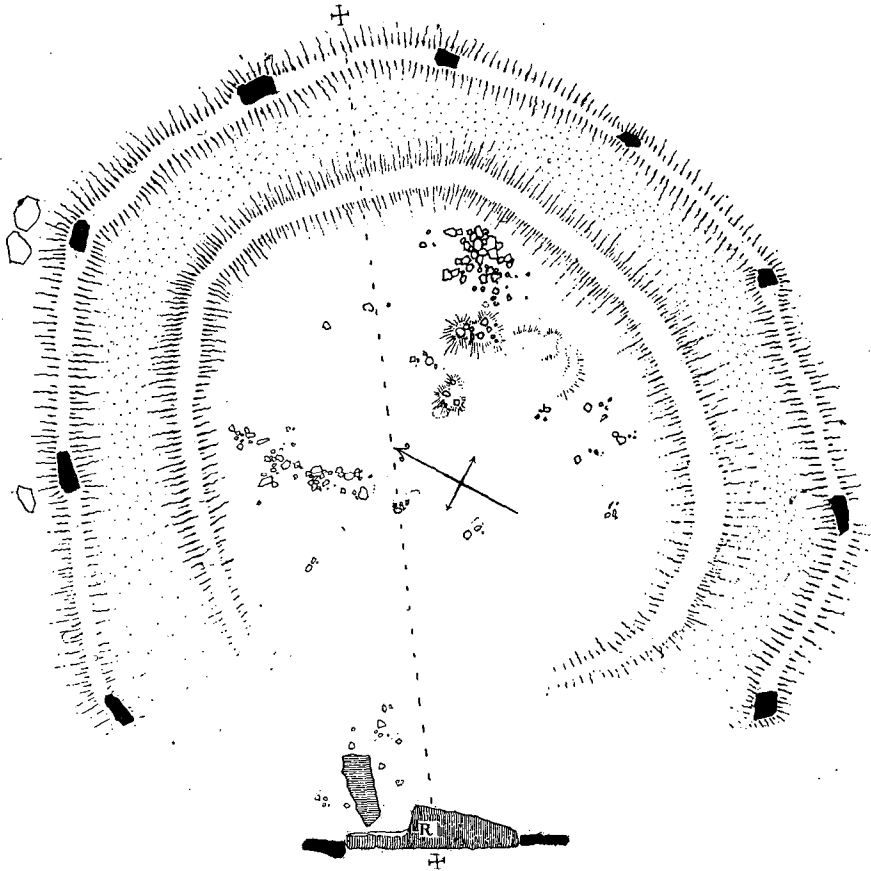


Fig. 32. Seanhinny. Ground Plan.

ridge of earth and stones, two very large pillars, and a Recumbent Stone of truly megalithic proportions, being 17 feet 4 inches in length, 2 feet 3 inches in thickness, and 4 feet 6 inches in breadth, this last dimension

being in reality its height, as this vast mass of close grained grey granite long ago fell forward, and was (also long ago) ¹ robbed of a fragment, now prostrate at right angles, which itself is of no mean bulk. It lies very slightly west of the S.W. point. The weight of this stone is over 12 tons.

The longer diameter of Seanhinny is almost precisely due N. and S., and measures 87 feet 6 inches from the centre of Stone III. to that of Stone IX. The contrary axis, Stone I. to a point mid-way between Stones VI. and VII., is 81 feet 6 inches.

Distances between the stones, centre to centre :—

Between Stone	I. and	II.	.	25 feet 6 inches
„	„	II. „	III.	25 „ 0 „
„	„	III. „	IV.	24 „ 0 „
„	„	IV. „	V.	20 „ 4 „
„	„	V. „	VI.	21 „ 0 „
„	„	VI. „	VII.	20 „ 6 „
„	„	VII. „	VIII.	26 „ 0 „
„	„	VIII. „	IX.	21 „ 4 „
From the centre of Stone IX. to east angle				
of the east pillar	.	.	.	25 „ 2 „
Breadth of the group (over all)	.	.	.	27 „ 8 „
From west angle of the west pillar to the				
centre of Stone I.	.	.	.	24 „ 0 „

This gives a total circumference through

the stones of 260 feet 6 inches

Heights of the stones taken on the inside of the ridge :—

Stone	I.	6 feet 0 inches, sharp-edged.
„	II.	5 „ 10 „ pointed at top.
„	III.	5 „ 3 „ sharp-edged.
„	IV.	4 „ 6 „ rather pointed.

¹ See the account of Seanhinny in *Archæologia*, vol. xxii. p. 193, by James Logan, with his excellent plan annexed.

Stone	V.	5 feet	3 inches	sharp-edged.
"	VI.	5 "	3 "	flat-topped.
"	VII.	4 "	5 "	" "
"	VIII.	6 "	8 "	tapers to point.
"	IX.	6 "	9 "	square and flat-topped.

The gradual rise in the heights of the stones towards the Recumbent Stone is made clear to the eye in the two sections now given (fig. 33). They are to be taken as viewed from an imaginary line, dotted on ground plan (fig. 32), which nearly bisects the circle.

The east pillar is 7 feet 6 inches; the west pillar is 6 feet 5 inches. Both may be styled rudely pyramidal when seen at the angles. All these eleven stones are of the usual reddish granite or gneiss; but the great Recumbent Stone (fig. 34) is of a widely different composition and colour :

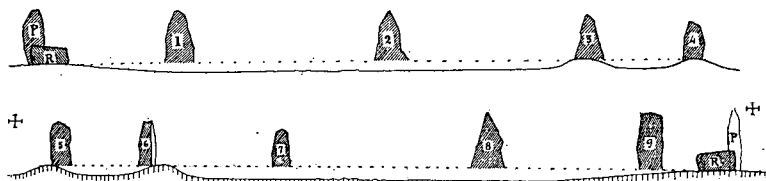


Fig. 33. Seanhinny. Sectional Views.

very compact, close-grained, of a cold grey hue; and, though not perhaps actually so hard as the diorite boulders occasionally seen in the district, this enormous block impresses one with a sense, not only of immense solidity and weight, but of the labour involved in the mere raising of it on to its edge, which was presumably its original position. Its dimensions are already given. On its present upper surface, however, there are some shallow hollows very like the cup-marks now so frequently found in many parts of Scotland, and sometimes on the pillars of stone circles. I show these 'cups' on my plan. After careful examination, I am not inclined to regard these hollows as made by tools of any age. In the first place, they do not show the slightest vestige of tool marks. True cup-marks usually do. Next, there is not the slight-

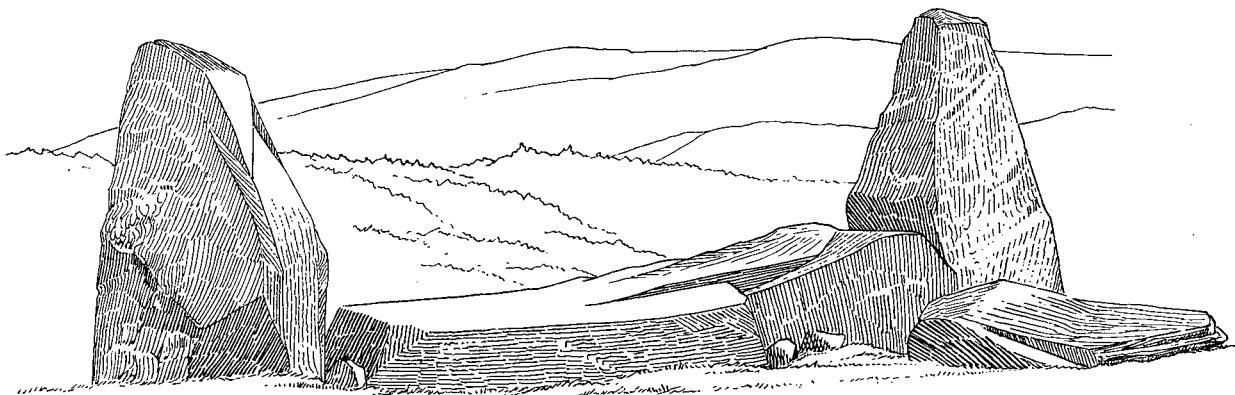


Fig. 34. Seanhinny. Recumbent Stone and Pillars from within.

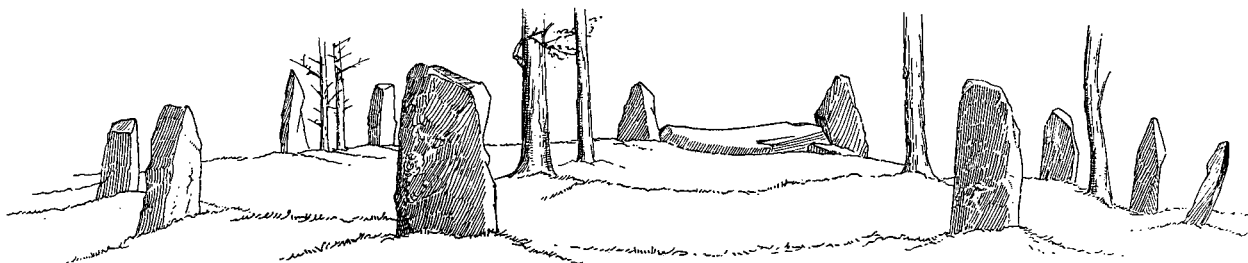


Fig. 35. Seanhinny. View from the North-East.

est vestige of any ring round them or near them on the stone. Again, when this Recumbent Stone stood on its edge—its western extremity, by the way, would *then* be precisely in line with the inner end of the west pillar—these cup-hollows, if existent at that remote period, would, in all likelihood, have been under the ground. For the innermost of them all is but 13 or 14 inches within the margin of the stone, and we must allow quite that measure as the depth of the founding of the stone. Lastly, the comparatively softer flakes of mica in this block of granite do weather into small shallow pits or hollows, and my impression is that these particular hollows may have been formed by weathering.

Of the interior little need be said, as my ground plan shows, without useless detail, the relative proportions of the two now-existing ridges; of any much smaller and almost central ridge, such as the older views record,¹ naught remains (see fig. 35). The greater portion of the area, at any rate within the inner ridge, was dug through and turned over in the years 1855-56, by Mr C. E. Dalrymple, whose examination is thus recorded: ²—

“ Within the circle there is a flat cairn, about 64 feet in diameter, of stones, raised nearly a foot above the rest of the area, and going down to the subsoil. In the centre of this cairn, through a part of it 8 feet in diameter, were found deposits of incinerated bones, with some charcoal and black mould, but in no great quantity. This part of the cairn differed slightly in construction from the rest, as the stones were not quite so closely packed, and were mostly marked with fire. At the outer circumference of the cairn, on the south side, was found what seemed to have been a deposit of some kind, as concave stones were placed so as to form a circular cist; and some fragments, apparently of a rude stone vessel, were found forming part of the enclosure; but everything of animal substance had entirely disappeared. At the foot of several of the pillars, at a depth of from 18 inches to 2 feet, flat stones appeared, similar to those which are generally found placed above and under the cinerary urns; but any deposits which may have been inserted had entirely disappeared. The richness of the soil, a deep black loam, might partly account for this. All the soil appeared to have been brought into the circle, and, except in front of the pillars, seemed almost everywhere to cover quantities of stones, though these, except in the centre, were not disposed in a regular cairn. The soil seemed also to differ from that on the outside of the circle, in which stones only occur occasionally. At the base of the pillars, the ground seemed, in various cases,

¹ See *supra*.

² Stuart's *Sculptured Stones*, vol. i. Appendix to the Preface, p. xxi.

to have been dug down into the subsoil, so as to form a pit about $2\frac{1}{2}$ feet in depth. A ridge of loose stones, like the foundation of a dyke, runs round between the standing stones. Some of the latter had a small semi-circular pavement of stones in front of them, and they all stood on deposits of middle-sized boulder stones."

No. 19.—At a point nearly mid-way between Old Wester Echt and New Wester Echt, and about two miles N.E. of Seanhinny, three Standing Stones are shown on the Ordnance Map, forming a curve 90 feet long, the remnant apparently of a circle about 120 feet¹ in diameter. The height above sea-level is over 550 feet.

On communicating with the present tenant of the farm of Old Wester Echt, Mr James Gillespie, I was informed that after having made enquiries, he learned, from a man who remembered the site when a boy, that "there were nine stones in a complete circle, and that they were removed about sixty years ago, the three largest ones being left."

Mr Gillespie subsequently sent me the measurements of these. One is 9 feet in height and girths at the ground 14 feet; the middle one is 6 feet in height with a base of about 14 feet; and the third is 8 feet in height, 5 feet broad on two sides and $1\frac{1}{2}$ feet broad on the other two.

No. 20, *Standing Stones of Echt*.—Drawn on the 25-inch scale Ordnance Survey Map, as a true circle of 50 feet in diameter, and about 100 yards to the north of the farm-steadings. Eight stones are shown. The site is on the extreme east of Echt parish. I learned from the present occupant of the farm, Mr William Hogg, that all the eight stones are still *in situ* and still erect; this being, doubtless, largely due to the fact that "they are mentioned in the lease of the farm, and must be protected."

This and the next circle will be fully described later.

No. 21, *Binghill, Peterculter*.—This site is rather over one mile in a straight line N.W. from Muirtle station, and the circle is drawn on the

¹ This rather unusually large diameter has been obtained by computation from the curve taken by the three stones as shown on the 25-inch scale of the Ordnance Survey.

map as one of seven good-sized stones, in a plantation and a few score yards to the north of a tumulus; the diameter being 55 feet or thereabouts.

No. 22, *The Standing Stones, Dyce*.—This, in older accounts, is called Tyr-bagger or Tyrie-bagger.¹ The site is 2 miles W. of Dyce junction. The circle, now planted round with trees, must, long ago,

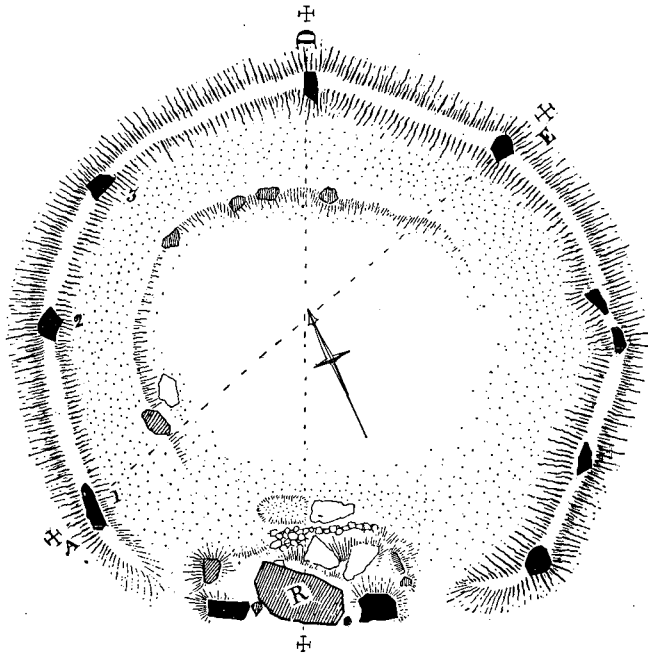


Fig. 36. Tyre-bagger, or Standing Stones of Dyce.

have been very conspicuous, situated as it is on the crown of a hill, 500 feet above the sea-level, and being composed of extremely tall and imposingly-arranged stones, twelve in all inclusively. Besides this simi-

¹ Meaning suggested by Logan in *Arch.*, vol. xxii. p. 411, *tyr bachar*, field, or land, of acorns.

larity to Seanhinny and others, Dyce circle possesses some characteristics of its own which render it interesting. In the first place, as the ground plan (fig. 36) and the section show, the ridge carrying the stones is specially well-defined and high, the interior very level, and, although full of broom and whin, almost unbroken by stone work. Part, however, of this distinctness of ridge is really due to the very matter-of-fact purpose once served by the circle; Logan¹ recording that the spaces between the stones were built up with loose stones and the spot thus converted into a cattle-pound. Another feature not so easily accounted for is the existence of the two thin stones—slabs, one might almost call them—close together on the N.E. arc, Nos. VI. and VII. The great magnitude of the pillars and the Recumbent Stone, and the striking position of the last, combine to impress this circle on the memory.

The main diameters are:—

N.W. to S.E., Stone III. to IX.	61 feet
S.W. to N.E. outside of the Recumbent Stone to Stone IV.	56 "

Distances between the stones, centre to centre:—

Stone I. to II.	15 feet 0 inches
" II. " III.	10 " 9 "
" III. " IV.	24 " 3 "
" IV. " V.	21 " 3 "
" V. " VI.	19 " 0 "
" VI. " VII.	5 " 0 "
" VII. " VIII.	13 " 0 "
" VIII. " IX.	11 " 8 "
From the ninth stone to edge of east pillar	10 " 5 "
The group of three (over all)	20 " 0 "
From the edge of the west pillar to centre of Stone I.	16 " 6 "

This gives a total circumference of 166 feet 10 inches

¹ *Archæologia*, vol. xxii. p. 411.

Heights of the stones:—

Stone	I.	7 feet 3 inches,	leans outwards ; somewhat pointed at top. (See section, fig. 37.)
„	II.	7 „ 0 „	pointed.
„	III.	5 „ 0 „	„
„	IV.	3 „ 2 „	„
„	V.	4 „ 4 „	narrow-edged.
„	VI.	3 „ 1 „	„
„	VII.	4 „ 6 „	rounded.
„	VIII.	5 „ 0 „	pointed.
„	IX.	7 „ 8 „	squarish.
The east pillar	9	„ 5 „	
„ west „	11	„ 0 „	

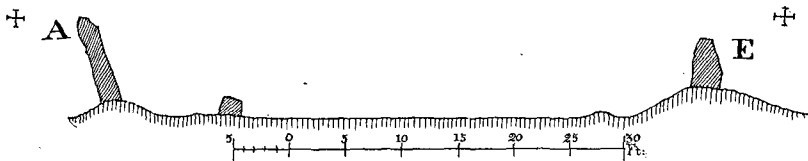


Fig. 37. Tyre-bagger, or Standing Stones of Dyce. Sectional Views.

These two great stones are very dissimilar in form. See the various views (figs. 40, 41, 42).

The vertical height of the Recumbent Stone can be stated with some certainty. Its present measurable sides show that (a) its upper edge is now 4 feet plumb above the bedding of small stones (see section, fig. 38, and view from the west, fig. 39); that (b) its under side from edge to ground is 6 feet 5 inches wide; and that (c) its outer side or back is 10 feet 6 inches wide. If 'restored' and set on its edge vertically, with 2 feet depth as foundation, we should still have a stone of fully 8 feet in height—a dimension well in keeping with the remarkable height of its two pillars (see the two views, figs. 40 and 41). The eastern end of its edge (or top if 'restored') is the widest portion, and

the middle is rather protuberant and rough. The material is a darkish grey granite, not so fine-grained as that just described in the Recumbent Stone at Seanhinny, but of a quite different species from that of any of the other stones in the circle, most of which appeared to me to be reddish and much more gritty. The Recumbent Stone is shown in Logan's plate,¹ done in 1822, leaning inwards much as it is at present. This stone being so much out of the ground, its cubical contents can be more fully gauged; and its computed weight, therefore, of nearly 24 tons need be no matter of surprise. In my view of the circle (fig. 42), taken from as near the north as was feasible, the two short thin slabs (Stones VI. and VII.) are on the extreme left.

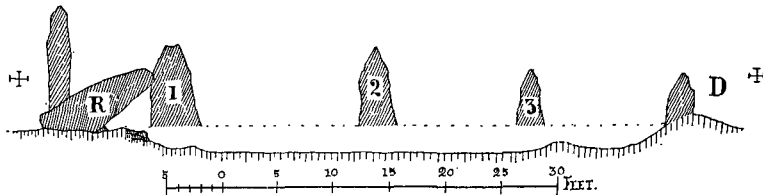


Fig. 38. Tyre-bagger, or Standing Stones of Dyce.

Conclusion.—The first result obtained by the survey here recorded is that in fifteen of the stone circles still possessing features sufficiently defined for admeasurement, three distinct types are exemplified: first, the type having only the free-standing pillar stones, as Craighead, Cairnfauld, and Glassel; second, the type comprising the pillar stones plus one or more interior stone-settings, as Cairnwell; and thirdly, the type² which is characterised by the most striking feature of the Recumbent Stone, which is *in situ* at Old Bourtree Bush, Auchquorthies, Raes of Clune, Garrol, Esslie (the greater), and Tomnagorn, Midmar Kirk, Sean-

¹ *Archæologia*, vol. xxii. p. 411.

² Drawings and measurements of many circles of this type in Aberdeenshire were made so long ago as 1862 by Dr (now Sir) Arthur Mitchell, to whose note-books I am indebted for information regarding them.

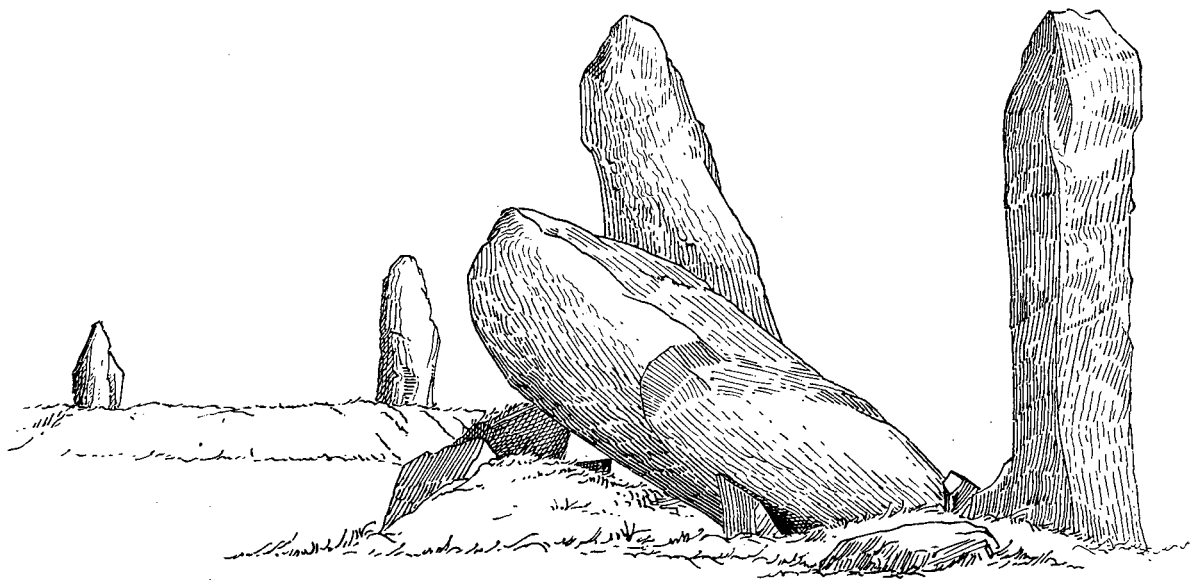


Fig. 39. Tyre-bagger, or Standing Stones of Dyce. Recumbent Stone from the West.

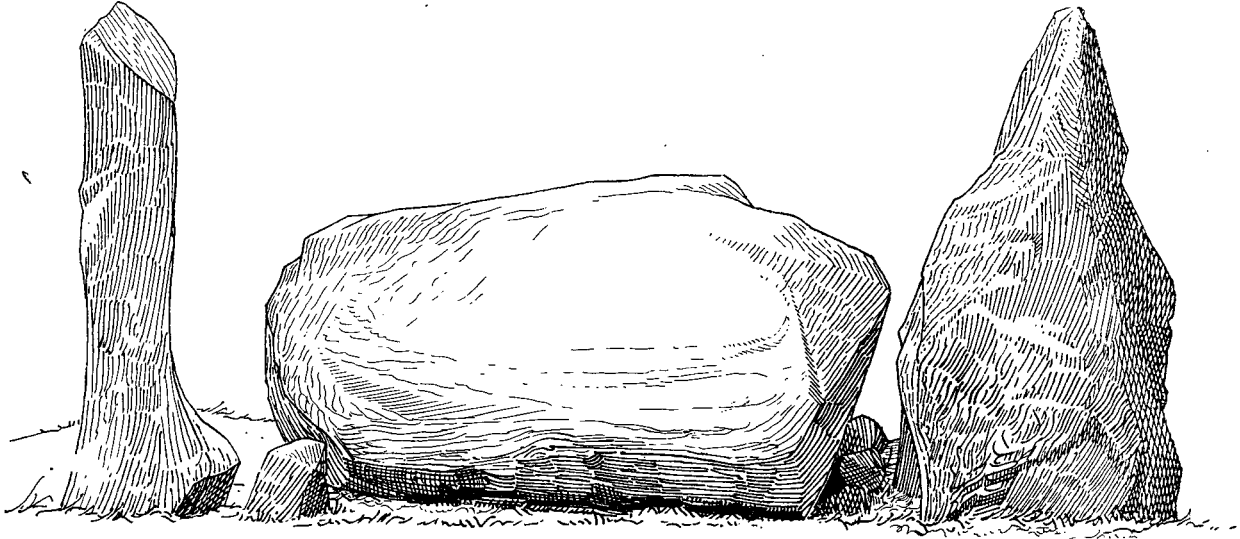


Fig. 40. Tyre-bagger, or Standing Stones of Dyce. Recumbent Stone and Pillars from without.



Fig. 41. Tyre-bagger, or Standing Stones of Dyce. View from within.



Fig. 42. Tyre-bagger, or Standing Stones of Dyce. View from the North.

hinny, and Tyrbagger, and, though out of place, visible at Esslie the smaller. If we include the Auld Kirk of Tough as having only within the last twenty years or so been bereft of its Recumbent Stone, it is evident that this third type is the type of this district. In this third typical group, also, there exist remains of at least one interior stone-setting. The next result is, that in the circles having the Recumbent Stone, the position of that stone varies in its orientation from a point S.E. of the centre to S. and S.W. Further, its position in relation to the stones on the circumference is variable. In the great Auchquhorthies example it stands well within the circumference; in all the others, unless we except Esslie (the greater) as presenting difficulties not now lightly to be explained, the Recumbent Stone is placed on the circumference, though not always upon so well-defined a ridge as that upon which the free stones stand. Again, the intervals between the stones are far from regular; assuredly, they have not been placed with exact spacing, such as would have been employed if, *e.g.*, we suppose that the circles were erected in mediæval times or by people influenced by post-Roman science. I have not yet found any intentional gaps between any two stones, for instance on the N.E. arc¹ or the S.W. arc; and, in addition to this, these circles exhibit a want of exactness in the relation of the two stones which mark the extremes of the main diameters. These diameters are in scarcely any instance 'oriented' to any point of the compass as we understand the term. For even in such examples as possess two stones practically at the north and the south points, the line between them so rarely bisects the circle, that we may safely conclude that the position of the stones was accidental.

There does exist one feature, however, in several of the circles which the measurements of this survey emphasise: this is, that the stones rise in height as they approach the Recumbent Stone—a feature already noted by the Rev. James Peter in the circle at Aikay Brae, Old Deer. (See *Proc.*, xix. p. 375.) How far this rise in height is intentional, and

¹ Mr A. L. Lewis, who has examined many stone circles, claims this as a feature directly connected with their use as astronomical observatories.

how far it is regular, are moot points, perhaps; but the evidence suggests that at anyrate the Recumbent Stone was of the highest importance, the four stones nearest being usually the largest and most prominent. What precise meaning or purpose, practical or symbolic, governed the placing of this particular stone, we are not yet in a position to explain; and the theories¹ already so lavishly propounded appear to me so inter-contradictory, and the majority of them to be built upon so very slim a foundation of fact, that we rise from a perusal of them, interested, possibly, but not convinced.

The types of stone circle found in the north-eastern portion of Scotland may, after all, be quite distinct from the types of those existing, say, in Inverness and Perthshire, or in Galloway; and without competent examination we cannot assume that their meaning and purpose and character are the same everywhere. Yet, so far as direct evidence has been obtained through rightly conducted excavations, the outstanding feature of all the Scottish stone circles that have been thus investigated is the presence within them of interments of the Bronze Age.² Any other use or purpose of these stone-encircled areas has yet to be proved. And I would submit, that, with a view to the ascertainment of the 'over-ground phenomena,'³ waiving excavation in the meantime, the right method to be employed is to institute a complete survey of these fast vanishing remains, in order that we may become possessed of a foundation of facts as trustworthy as possible. As portions of this subject upon which we still want definite information, we may state these

¹ That the Recumbent Stone was, *e.g.*, the lintel of the doorway to a broch (Miss Maclagan's *Hill Forts*); that it was an altar upon which Druid priests offered human and other sacrifices (Stukeley, Aubrey, and their school); that the circles were Viking temples of Odin and Courts of Justice (Macculloch, Hibbert, Barry, and, alas! Sir Walter Scott); that they are but the rim-stones of Cairns (Lukis); that they were sun temples and observatories (Lewis and other writers).

² We have no record of any excavation having been made in seven of the sites above described. But regarding eight other sites in which excavation was rightly conducted, we possess distinct descriptions of remains found; and these remains indicate burnt burials, sometimes in cists, at other times without cists.

³ *Scotland in Pagan Times.*

items: What is the geographical distribution of the true stone circle, *i.e.*, an area more or less circular enclosed by free standing pillar stones? To what extent do circles of this type possess, within their area, in addition (as I have shown many in the district under notice do possess), one or more approximately circular stone settings? In what proportion to the simple circles of free standing stones do the circles with the Recumbent Stone stand? Is the interior of the circle sometimes on a higher level than the level of the ground outside of the pillar stones, as notably at Craighead, and in a special manner at Tomnagorn? Is the feature of the rising in height of the pillar stones, as they approach the Recumbent Stone, a constant one? In short, we require definite information on the mere external details of the various types of stone circles to such an extent as to render any attempt at making a proper classification of them at present impossible.

TABULAR SUMMARY OF THE STONE CIRCLES ABOVE DESCRIBED.

Survey Number.	Locality.	County.	Diameters.	Peculiar Features.	Relics found.
1	Old Bourtreebush	Kincardine	100' × 75'	Recumbent Stone (on S.E.)	None recorded
2	Auchquorthies .	"	97' × 74'6"	Recumbent Stone (on S.W.)	Cist: fragments of urn and cal- cined bones
3	Cairnwell . . .	"	30' × 30'	Triple-concentric	Fragments of five urns and frag- ments of bones and charcoal
4	Craighead . . .	"	(?) 33' × 24'	..	No record
5	Raes of Clune . .	"	58' × 51'6"	Recumbent Stone (on S.)	No record
6	Cairnfauld . . .	"	75' × 75'	..	Human bones in the centre
7	Garrol Wood . . .	"	53'3" × 49'	Recumbent Stone (on S.)	None recorded
8	Esslie (the greater)	"	89' × 73'6"	Recumbent Stone (on S.S.W.)	Remains of a cist and of human remains
9	Esslie (the smaller)	"	42'10" × 38'3"	Recumbent Stone (on S.S.W.)	Remains, probably of a cist
11	Glassel	Aberdeen	15'9" × 7'9"	..	No record
14	Auld Kirk of Tough	"	90' × 80'	Recumbent Stone (probably on S.S.W.)	No record
15	Tomnagorn	"	80' × 70'	Recumbent Stone (on S.W.)	Remains of cist extant
16	Midmar Kirk . . .	"	55' × (?) 55'	Recumbent Stone (on S.W.)	No record
18	Seanhinny	"	87'6" × 81'6"	Recumbent Stone (on S.W.)	Deposits of incinerated bones
20	Echt	"	33' × 33'	Several circles of set stones non-con- centric within area	No record, and site almost un- disturbed
21	Binghill	"	39' × 35'	Recumbent Stone (on S.W.)	No record, interior undisturbed
22	Tyrebagger, or Dyce	"	61' × 56'	Recumbent Stone (on S.W.)	No record