Excavation of Culcharron cairn, Benderloch, Argyll

by E J Peltenburg

SUMMARY

The excavation of this partly preserved cairn disclosed a semicircle of small contiguous uprights graded in height, a possible false portal with cup-marked recumbent slab, a miniature upright associated with a pit, and a dense spread of quartz chips. There was no dating evidence and the cairn and its congeners in Scotland remain to be placed in a chronological and cultural context.

INTRODUCTION

This previously unrecorded cairn stands on the SE limit of the Benderloch Gravels between Ardmucknish Bay and Loch Creran (NM 913396) at the foot of hills connecting Ben Lora and Sgurr Mor near Benderloch (fig 1), together with other, largely unexcavated cairns that lie on the N and E peripheries of this moss area.[1] Before excavation, part of a ring of stones could be discerned in thick bracken growth; they projected slightly above small stones in a hollow inside the ring and similar stones extending in a slope beyond the ring. On its west side, at the edge of a ditch beside a low railway embankment, the cairn appeared to be truncated with considerable quantities of quartz chips still visible in the exposed face.

Cairn material, especially the larger stones, was subsequently found incorporated into the foundation of this rail embankment and it is clear from this and from superficial finds in the remaining body of the cairn that a substantial part of the site lay directly on the projected path of the Callander and Oban Railway and that this part was removed and used as a quarry for the construction of the line between 1898 and 1903.[2] At 16·35 m to the W of this exposed face, on the other side of the now disused railway, an irregular oval mound rises to a height of 1·60 m above the old ground surface on which the cairn was built. A test trench in this mound indicated an origin in the last glaciation: there were no data of archaeological interest. It was set on pinkish ground moraine and was composed principally of small stones and gravel near its base and compact, indurated sand and gravel lenses above giving way to very loose sand nearer the surface, a consequence of extensive animal and bracken root disturbance. The hummock clearly stood to at least this height when the cairn was built against its eastern edge, but it may be worth while noting that, given a lack of vegetation cover above 1 metre, it does not obscure a standing stone on a ridge some 600 m to the NNW or the hills of Morven on the western horizon when viewed from the presumed centre of the adjacent cairn.

EXCAVATION

Taking as a guide-line the semicircular plan of the projecting stones, two quadrants and the disturbed area next to the railway ditch were exposed (pl 11a).

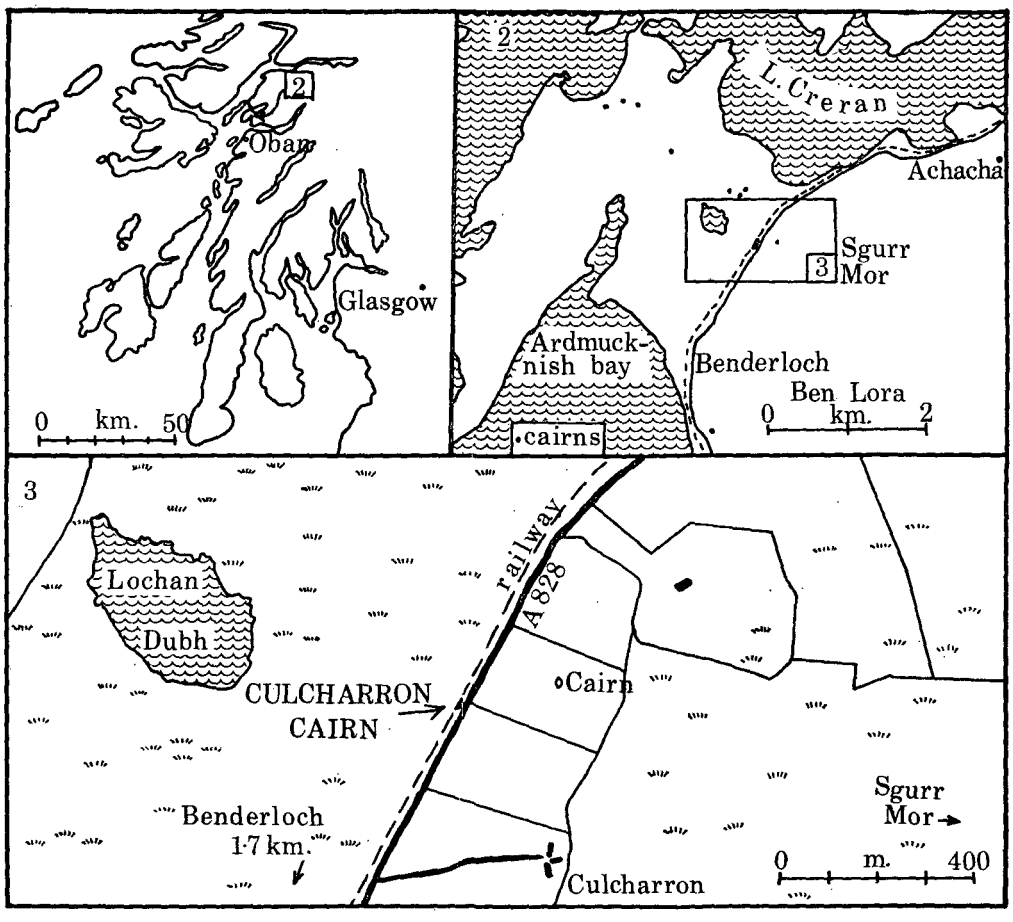

FIG 1 Location of Culcharron cairn (map 3, Crown Copyright reserved)

This revealed the irregular, kerbless perimeter of the cairn material with a minimum diameter of 15 m along the major section, A–B of fig 2. Although disturbed in places (clay pipes, a spade, glass, etc), the remnant cairn appeared to be basically intact with quartz chips lying between the stones on top of the cairn, so suggesting that the larger stones had always projected and that its total height had never exceeded *c* 1 m. Further excavation showed that the cairn consisted of a semicircular ring of contiguous uprights filled on the interior with large stones which had caused the uprights to tilt slightly outwards into an external, sloping revetment of smaller stones. These essential features, as well as associated minor ones, were erected in a two-part sequence, the evidence for which is included in the following descriptions.

The preserved *semicircular ring of uprights*, *c* 8 m in diameter, is composed of thirteen small, contiguous erratic granite boulders and one andesite block, *1–14* of fig 2, which were placed, together with packing stones and quartz round their bases, on the old land surface and not dug into sockets. Four irregularities are noticeable in this arrangement. A 25 cm deep pit under uprights *13* and *14* had, in addition to a high potash content (Appendix, Pit Samples 1 and 2), perhaps the residue of an initial clearance of the area, a soft fill and several packing stones. Evidently, some effort was made to keep the tops of the uprights at consistent levels and so it

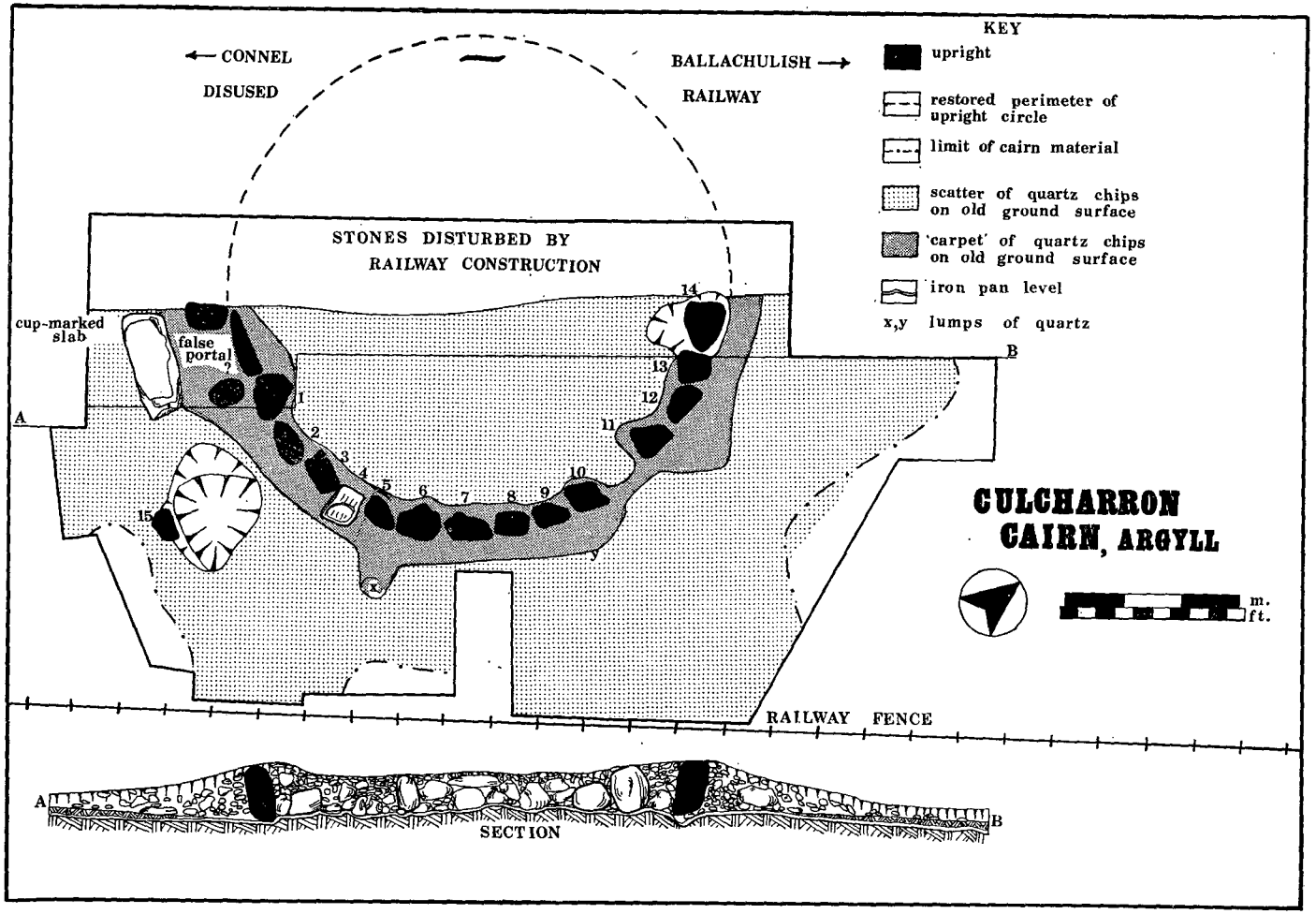

FIG 2 Plan and section of Culcharron cairn

may well be that the pit here was intended as a socket to redress the visible height of *14*, which at 1·04 m high was the tallest upright uncovered. No other remains were found in this pit, but it is unlikely that organic material such as inhumed bone would survive in these soil conditions. Between *10* and *11* is a gap sufficiently large for another upright, but the lack of a depression in the ground in this space and the absence of any outline of quartz and packers (normally delimiting the base of any removed upright) indicates that this was an intentional gap, though the reason for this is not clear. To the south is a thick, rectangular slab-like andesite block, *4*, which has fallen outwards to an angle of 38°. Beyond *1*, a greenish schist slab impinges upon the arc of the rounded uprights.

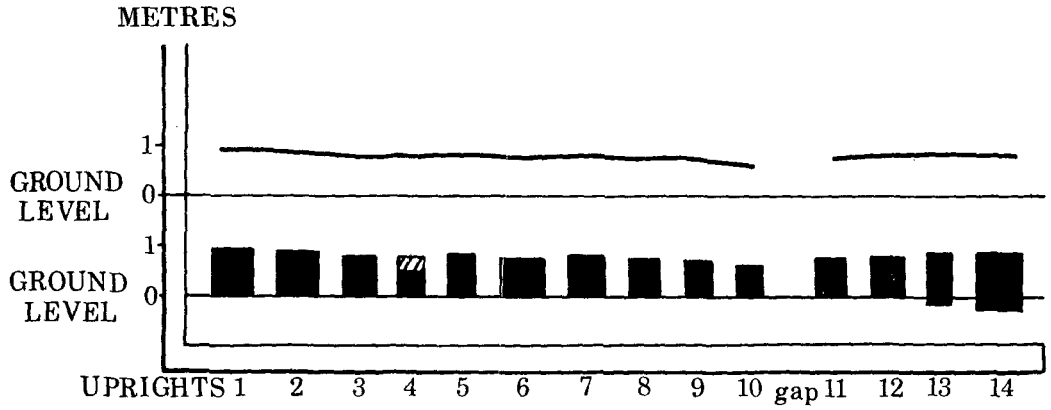

FIG 3 Graph and column chart of heights and widths of remaining uprights at standard distances from each other; total height of *4* is restored

Despite these inconsistencies, the ring of uprights, by the careful selection of similar local granite boulders, represents a moderately successful attempt to create a smooth external façade and a balanced elevation (pl 11b). The former was achieved by facing the long, flat sides outwards along the perimeter, the latter by gradually increasing the heights of the uprights from 60 cm (= *10*) and 78 cm (= *11*) on either side of the gap just mentioned to 96 cm (= *1*) and 88 cm (= *14*) at the furthest preserved uprights. This arrangement is shown graphically in fig 3 where the heights of the uprights are measured from the old land surface and the prone andesite block *4* is given its restored total height.

The balanced heights of the uprights and the flat outer façade with uneven faces turned to the interior indicate a deliberate intention to create an external ring-wall with unwieldy material. Although only a semicircle could be recovered, enough stones, including types suitable for the ring, were noted in the railway embankment to infer that there once may have existed a regular circle, the restored circumference of which is shown in fig 2. Such stones were only used in the railway track foundations in the immediate vicinity of the cairn and they are easily distinguished from foundation material recovered elsewhere along the track.

What may have been a *false portal with a cup-marked recumbent slab* is situated in the SSW of the ring, immediately adjacent to the railway ditch (pl 12a). It consists of a thin slab of greenish quartz schist set with its long edge along the circumference of the ring of uprights and flanked on the outside by two erratic granite boulders, 80 and 74 cm in height. Opposite this slab is another of the same stone, but larger and recumbent on the old ground surface. In the limited area defined by these four stones, only the normal cairn material of small round

stones and quartz was found with minor superficial disturbance (jam jar), and so the possibility that this was an eccentric and irregular burial cist seems to be excluded.

The recumbent slab may originally have stood elsewhere, but this appears unlikely as it was incorporated to form a pair with the only other quartz schist slab that excavation revealed: both are placed on the old ground surface, surrounded by quartz and covered with cairn material. It differs from its partner however in possessing cup-marks on both sides, the elaborately decorated side face down and obviously not visible. Eleven or twelve cups decorate this rectangular side, 172 by 77 cm, in two curved and parallel rows of five large and four or five small cups with two outliers above, one of them, at the edge of the slab, being chipped (pl 12b). A single cup occurs on the opposite side, near its narrow edge. No rings are visible and there are no traces of weathering or abrasion on the rims of these cups in this friable stone.

To the south of the centre of the restored circle was another *upright (15) associated with a pit* (fig 2 and visible on the left of pl 11b). It too was of erratic granite, but 42 cm in height with its only flat side facing the ring, 2·50 m distant, where it was perched on the outer edge of a round-bottomed pit, either of two phases or dug as a pit with a ledge round three sides. The fill of this *c* 40 cm deep pit consisted of small cairn stones, blackened soil which could be attributed to the discolouration caused by bracken roots and, near *15*, the same, fine, grey, sandy soil which produced such high phosphorous levels in the socket under *14*. These pit features were covered by cairn material, but it could not be decided whether *15* was originally entirely covered or if it protruded *c* 20 cm as found, in the same manner as the ring of uprights (pl 11a).

Lying on the old ground surface and in the body of the cairn were many *quartz chips*. These were included in at least five ways: (1) as chaulks wedged round the bases of uprights and the quartz schist slabs, (2) as a skin of chosen flat fragments encasing the lower halves of the uprights and held in position by the surrounding cairn material, (3) as an apron of irregular chips *c* 15 cm thick and 50 cm wide on the ground just outside the ring of uprights (fig 2 'carpet'), (4) as a scatter of slivers on the ground beyond this apron and (5) as a deposit of various sizes in and on the cairn, mostly large inside the ring of uprights.[3] It is clear from their sizes and distribution that these chips were included before and during the erection of the cairn and that not many percolated down through the cairn material. The larger lumps, located at *x* (17 by 14 by 18 cm) and *y* in fig 2, with the dense concentration of quartz that surrounds them, suggest that such lumps were brought to the site and broken into small fragments on the spot. Quartz occurs locally, although much of it is pinkish in contrast to the uniform white of the majority of these chips. Another nearby source(s) is therefore probable and in addition to the many known occurrences, those now covered by peat must also be considered. Search in the immediate vicinity of Culcharron did not reveal any quartz and it is obviously a deliberate inclusion.

The distribution of this quartz in the cairn lends force to several of the points discussed above. For example, wedged round and over, but not under the components of the false portal (?) with recumbent slab, it confirms the primary nature of these elements within the monument and, since the apron extends appreciably only on the outside of the ring of uprights, the quartz here emphasises the external importance attached to this ring, as adduced from its smooth façade.

The cairn material is noticeably different on the interior and exterior of the ring of uprights. Since these have been pushed outwards more or less uniformly, it is likely that *the interior fill* took place first, but as no upright fell over completely and *4* came to rest on a maximal external build-up of 44 cm, the two types of cairn materials should be considered as simultaneous deposits. The relatively massive stones of the lower part of this fill, some as large or larger than the uprights, are compacted and sunk into the yellowish-grey natural sandy soil here by their own weight. Resting on top of this sandy layer was a *c* 3 cm thick red iron pan lens which occasionally cuts

through stones (section, fig 2) and which is discontinuous and dips unpredictably. No other features were found on the surface inside the ring. Between the large stones of this fill are clusters of quartz, small stones and bracken root-stained soil. Also between these stones and extending up to the surviving surface where they cover the whole fill are small, angular and seemingly fractured stones resembling whinstone. Midway between *1* and *14* a flat slab, 110 by 80 by 20 cm lay horizontally just below the surface, but only the usual, closely fitting stones were found underneath.

The external cairn material was packed tightly against the uprights along the thick apron of quartz marked by the greater of the two densities in fig 2, but beyond that it persisted in an uneven and disturbed fashion (e.g. Appendix, Feature 1) to the loosely defined perimeter. The latter may well be slip, but quartz slivers were found *in situ* on the ground here: the two deposits therefore – extra-ring cairn stones and quartz slivers – need not be congruent. It consists mainly of small, round granite stones with larger blocks placed at the foot of the uprights and it probably acted as a cover for the densely spread quartz and as an external revetment for the uprights. As it bears little resemblance to the internal fill and if, as seems likely, the two were put down simultaneously, this differentiation can only have been deliberate.

To summarise the constructional phases of the cairn, the following sequence is suggested.

(1) An *open phase*. A low ring of contiguous uprights, presumably a *c* 8 m diameter circle, was placed on peaty/sandy ground sloping slightly from N to S. Attention was focused on its external face and elevation and a false portal (?) associated with a cup-marked recumbent slab, an intrusive andesite upright and an intentional gap were incorporated into it. An external pit with a miniature upright also belongs to this phase, in which no evidence was recovered for a distinctive internal deposit. There were no lines of humus growth or other stratigraphical indications in this soil of lapses of time between these stages and between the phase as a whole and the next phase. However, since the uprights were not placed in sockets, any attempt at permanency is unlikely and so not much time need have elapsed before the second phase.

(2) An *enclosing phase*. More quartz fragments were subsequently added together with an internal fill of large stones and external revetment of small stones up to the tops of the uprights. Ramp(s) over the uprights or a lost entrance would have been necessary to effect the internal fill.

CONCLUSIONS

Given the incompleteness of Culcharron, the superficial and deeper disturbances wrought by railway navvies and bracken roots and the lack of finds or datable remains, little can be stated with any confidence about its date, purpose or cultural relations. That no central feature such as a burial was found does not exclude the possibility that one existed, for the inferred centre of the circle lay in the area of railway construction encroachments. However, of the recovered features, that of the protruding ring of small uprights is the most salient element of the monument and this is best compared with the smaller rings of Achacha (fig 1), Clachadow and the excavated parallel at Strontoiller, all in the Lorn area of Argyll (Ritchie 1971). In addition to their similar rings of granite erratics graded in height, with a smooth external façade and the inclusion of at least one andesite block, Culcharron and Strontoiller share heavy internal fills (disturbed at Strontoiller) with smaller stones spread over the top, a lighter external revetment and deposits of quartz. Although Strontoiller is only half the diameter of Culcharron, both sites were clearly constructed according to an accepted concept in which the uprights were installed as a free-standing circle rather than as a mere kerb for a cairn; the height of the latter, moreover,

was determined by the heights of the uprights. Strontoiller has been compared with other undated sites in Scotland, at Monzie, Clava Stone Circle and Fowlis Wester, for example, all about half the size of Culcharron and all with evidence for burials, usually cremated (Ritchie 1971, 4–6; Henshall 1972, 273). The purpose of Culcharron therefore may well be connected with burial even though traces of these have not survived.

Other Culcharron features may eventually help to shed light on these related sites. The association of upright *15* with a pit is admittedly unusual and one may have to look to Cairnpapple II, where a taller one stood in a similar position at the head of a pit which contained a burial (Piggott 1948, 88ff, figs 5 and 10, pls xxi and xix, 2). At Monzie, a cup-and-ring-marked block lay with its decorated face upwards, *c* 2·60 m to the SE of the ring of uprights to which it was linked by a causeway (Young and Mitchell 1939, 62ff, pl xxvi, 1). This arrangement may be compared with that at the SW of Culcharron where a cup-marked slab is linked to the ring by two uprights which delimit a false entry in much the same manner as at Kintraw A at the head of Loch Craignish in Argyll, a site which otherwise has little in common with the monuments under discussion (Simpson 1967, 54ff, fig 1, pl xcix, 2; Henshall 1972, 275). There the recumbent monolith was undecorated and Simpson, in his report on this site, has outlined the southerly parallels for such a false portal. If this is in fact the intention of the arrangement at Culcharron, then it represents an intrusive element in the concept of a ring without formal entry which the excavated parallels for it support as an essential feature of such sites.

Culcharron, Strontoiller and perhaps Achacha and Clachadow therefore belong to a distinctive, but undated, group of ring cairns which are concentrated along the middle reaches of Loch Linnhe at the opposite end of the Great Glen fault from another, more elaborate group of ring cairns, possibly of mid-second millennium BC date (Henshall 1972, 270–6). More excavation of better preserved examples with small finds and secure C14 dates will be needed to ascertain if there are any connections between these groups and between them and recumbent stone circles.

APPENDIX

Analysis of soil samples

by J S Bibby

The excavation is sited on a former outwash area of the Loch Creran glacier. The parent material is of outwash gravel and sandy gravel composed of schist, gneiss and granite rocks, probably formerly incorporated in moraine.

The samples were analysed for pH, phosphorous, nitrogen, carbon and organic matter by the standard methods in use in the laboratories of the Macaulay Institute for Soil Research. The results are given below.

Feature 1: suspected burnt area (very disturbed).
Pit samples 1 and 2: light, grey, sandy soil from pit under uprights *13* and *14*.

		pH		P_2O_5	N	C	O.M.
		Water	$CaCl_2$	mg./100 g	%	%	%
FEATURE 1	70	4·2	3·5	83	0.38	11·31	19·5
PIT SAMPLE 1 *ST 14*	71	4·7	4·2	269	0·38	2·70	4·6
PIT SAMPLE 2 *ST 14*	72	4·7	4·2	336	0·45	5·14	8·8

The results for pH, nitrogen, carbon and organic matter are as expected and give little cause for comment. The figures for phosphorous pentoxide, are higher than would be expected however in two out of the three samples.

Phosphorous compounds found in soil are derived originally from rocks, but much of the phosphate has already been taken up by plants, built into their tissues, and upon death returned to the soil in organic combination. The phosphates may have been recycled several times in this way. The amount of phosphorous absorbed by plants is considerable. In the ash of many cultivated plants it frequently exceeds the other elements and the content of phosphoric acid may reach 50% in seeds and meristematic cells. Accumulations of phosphorous higher than the average values found in surrounding soils are often indicative of plant or animal debris, or ash.

On similar parent materials and soil type (peaty podzol) at Black Crofts, some 2½ miles from the Culcharron site, three profiles have been analysed but the highest figure obtained was 120 mg/100 g P_2O_5. Levels greater than 300 mg/100 g are considered high for most Scottish soils. That figures as high as 269 mg/100 g and 336 mg/100 g should be obtained in an area of heavy rainfall, and on soils notably poor in nutrients is exceptional. Such figures could reasonably be attributed to accumulations of organic material such as buried plant residues, ash or bone.

ACKNOWLEDGMENTS

Mrs C Leckie brought my attention to the cairn and its threatened position; to her and to members of the Lorn Archaeological Society who helped in the excavations my thanks are due. These were carried out with the kind permission of Mr Haldane, then of the Forestry Commission, and with the support of the Society of Antiquaries of Scotland. I am also grateful to Dr J N G Ritchie for the loan of tools and manpower, to Mr C MacKinnon for the use of his JCB, to Mr F MacPherson for providing storage facilities for tools and to Mr J S Bibby for undertaking soil analyses.

NOTES

1 For the distribution of these see Mitchell 1933, 321, fig 1. A distinction may be made between the large cairns situated in the moss near Balure Farm to the W and those cairns near Dalintober Farm which, like Culcharron, are beyond the present edge of the moss and are small and low. See Henshall 1972, 21, 123, 362. For the fluvio-glacial outwash fan which characterises the area see Cruickshank and Jowett 1972, 17, fig 4.

2 Mr D Kennedy states that there is no record of this site or of any finds from its vicinity (personal communication; Kennedy 1971).

3 Vandalism precluded an accurate assessment of the distribution of all the quartz per square metre.

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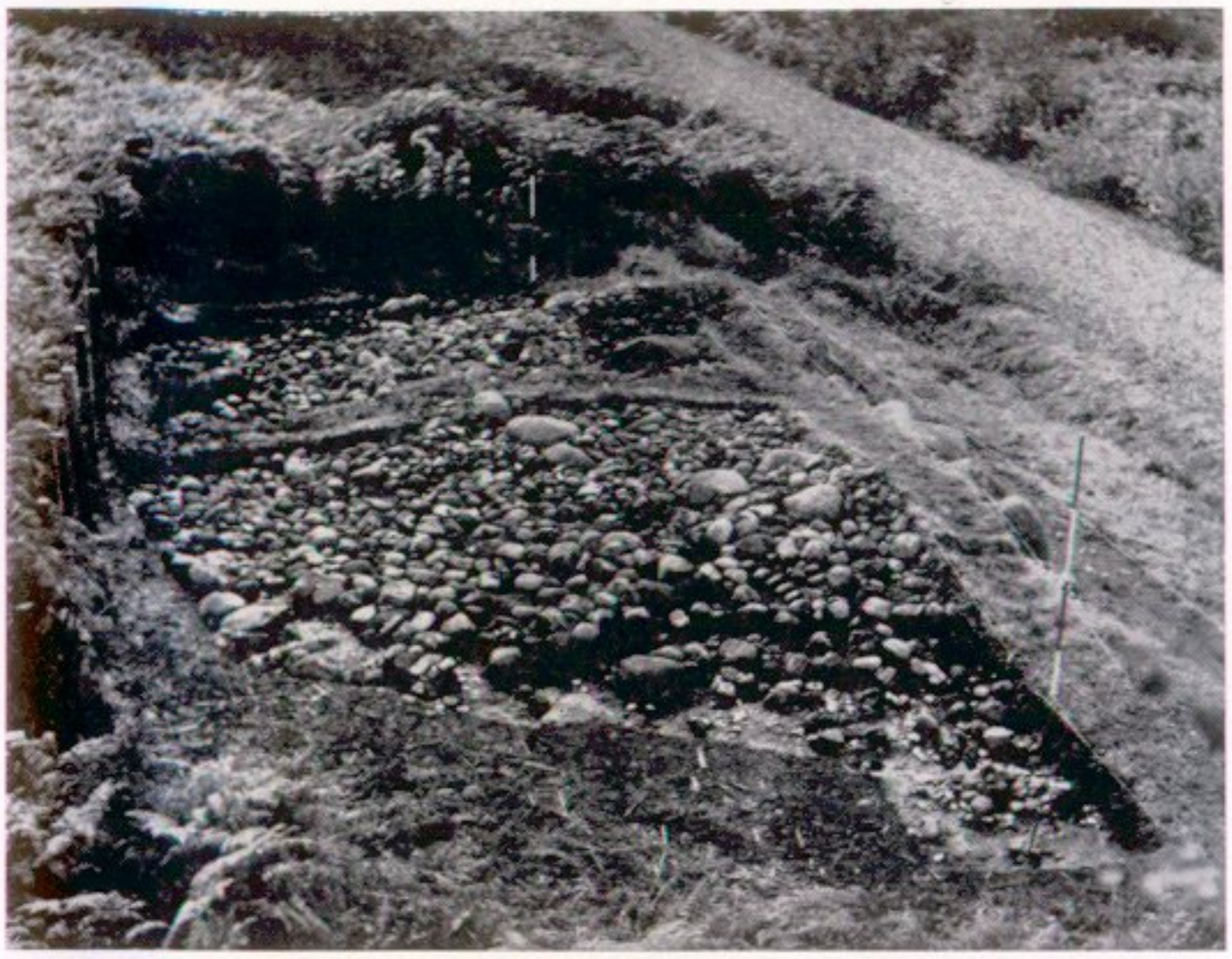
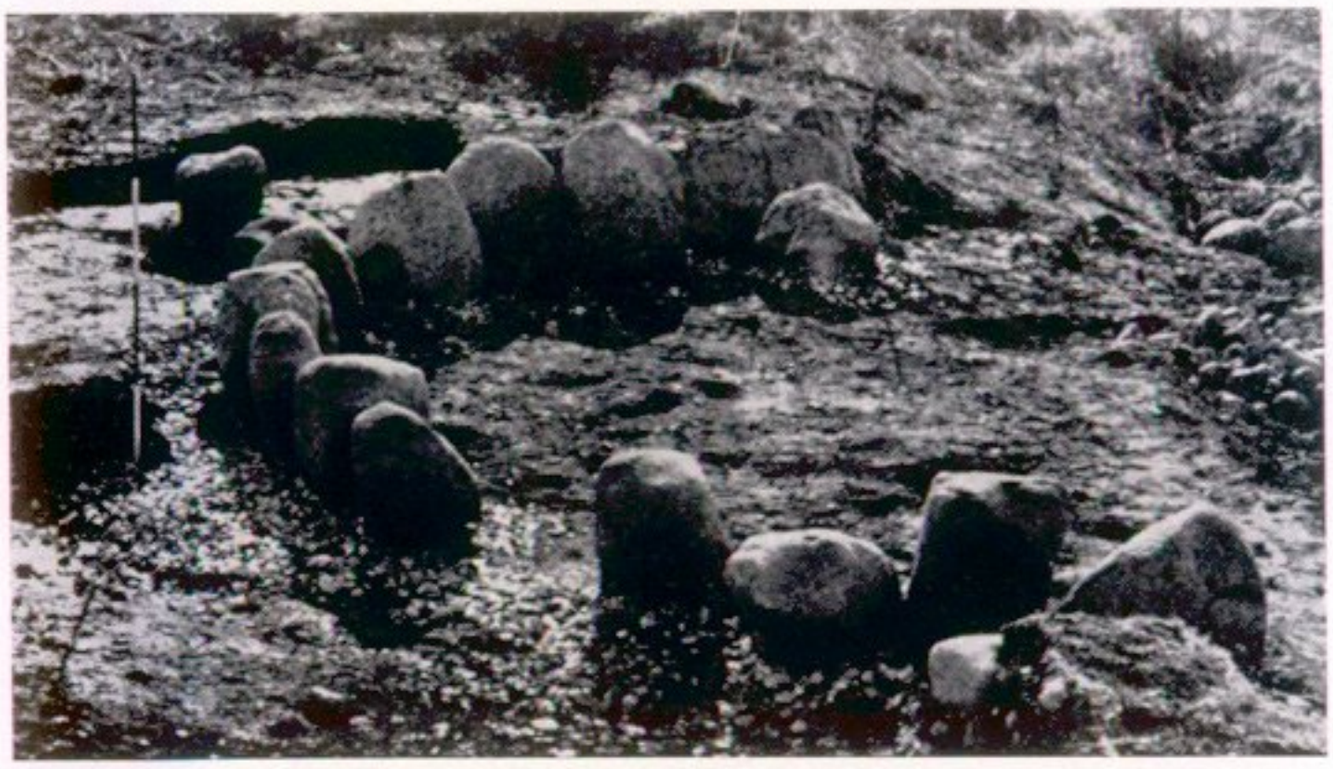


a Cairn from NE



b Semi-circular ring of uprights with cairn removed

a False portal from S

b Cup-marked slab (50 cm division on scale)