NOTES.

1. An Irish Millstone Cross.

The subject of this note is "Colum Cille's Cross," a great stone cross which lies prone in the graveyard of the old church of Ray,[1] some 2 miles ENE. of Falcarragh crossroads, Co. Donegal. The church, which is now abandoned and roofless, is said to occupy the former site of an abbey; and the place, which is near the mouth of the Ray River, was no doubt a convenient terminal for traffic across the strait to Tory Island. The cross is of interest on account of the method used for keeping it upright, which seems to have entailed the use of two millstones or, more probably, of a millstone and the crusher of a whin-mill of the wheel or grindstone type.[2] It does not, indeed, appear that the method was particularly effective in practice, as the cross was blown down early in the 18th century; [3] but as the arrangements seem to have been unique, and a reconstruction has been published [4] which is patently erroneous, it is worth while to re-examine the facts.

The cross has been cut from a single thin slab of schist, showing veins and specks of quartz. O'Donovan records a tradition that it was quarried in the townland of Brockaghs, and it is said locally that the cavity from which it was cut can still be seen somewhere on Muckish mountain; but Mr Seán Ó Heochaidh, of the Irish Folklore Commission, has never found anyone who is prepared to indicate the actual spot. O'Donovan states that the cross was intended for the abbey on Tory Island, but against this must be set a contradictory legend [5] that it was brought from the Island to Ray. O'Donovan's version is to be preferred, as Harkin's may well have been inspired by Getty's statement [6] that the cross was removed from the Island after the date of the Ordnance Survey; and this is shown to be wrong by the fact that O'Donovan saw it at Ray in 1835.[7]

As it now lies, the cross measures 20 ft. 6 ins. in length by 7 ft. 6 ins. across the arms; it varies in thickness, in so far as the encroaching turf permits of accurate measurement, from 3 ins. at the top to 6 ins. at the intersection of the arms and also at the base. Its general appearance can be judged from fig. 1, which shows the exposed surface, while some details can be seen in Pl. XXVII, 1–3. The only surviving traces of decoration are a raised moulding, greatly wasted, at the end of the sinister limb, and two square panels, one on each limb, of which the sinister one measures 9 ins. either way and the dexter one rather less. In 1907 traces of a third panel were visible in the centre.[8] The two dexter sections of the nimbus have been broken away, the upper limb is fractured, and the shaft likewise in two places.

The features that bear on the method of foundation are to be seen at the base of the cross. The bottom of the shaft, which is 2 ft. $2\frac{1}{2}$ ins. wide, rests in and

[1] The name is given as Raymunterdony in *J.R.S.A.I.*, xxxvii (1907), 193.

[2] This instrument is described, with illustrations, in *P.S.A.S.*, lix (1924–5), 134 ff., and figs. 3 and 4.

[3] O'Donovan was told that this happened about a century before he visited the place, in 1835. (O'Donovan's *Letters*, Co. Donegal, 77, under date 11th September 1835; MS. in Royal Irish Academy.)

[4] E. Getty in *Ulster J.A.*, O.S., i (1853), 143 ff.

[5] Harkin, *Scenery and Antiquities of North-west Donegal* (Londonderry, 1893), 129.

[6] *Ulster J.A.*, loc. cit.

[7] See note 3 above.

[8] *J.R.S.A.I.*, loc. cit.

exactly fits a rebate cut in the edge of a large round stone, as shown in fig. 1 and Pl. XXVII, 4. This stone is 3 ft. 2 ins. in diameter by about 9 ins. thick in the centre, and its upper surface shows a wide hollow zone about an inch deep sur-

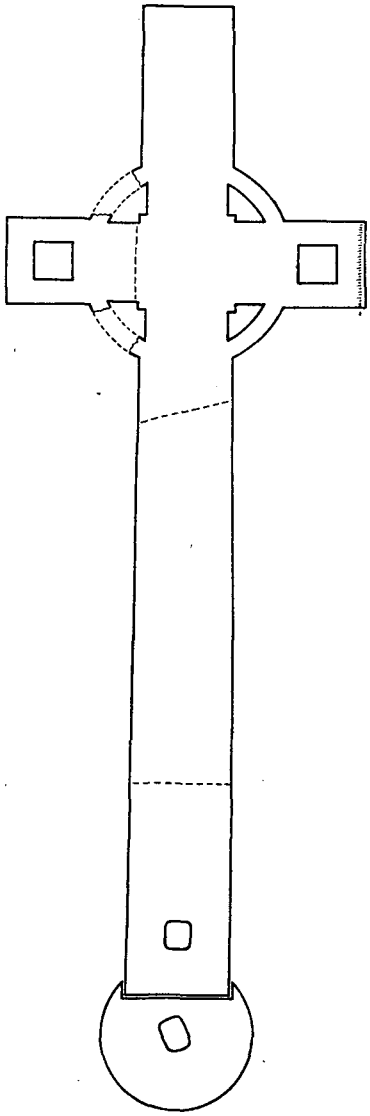

Fig. 1. Diagrammatic drawing of exposed surface of cross, showing fractures and traces of decoration.

rounding an oblong perforation (8½ by 6½ ins.) which is not quite precisely in the centre. The rebate enters 4 ins. into the stone at its ends and about 10 ins. at its centre. At the same time a hole very similar to the one in the stone, though slightly smaller (7 by 6½ ins.), and like it considerably weathered, pierces the

cross-shaft 15 ins. (centrally) above its lower end. Getty misread these remains, as he writes [1] of "a stone apparently formed into its present shape by cutting a millstone . . . in two," whereas the stone in question has in fact simply been notched; while his suggested method of using the stone as a foundation would not have been structurally stable. On the other hand, he may have been near the mark in postulating a "circular stone set on edge" and pinned to the bottom of the cross-shaft, as just such a stone was actually found, in fragments, inside the ruined church. Not all the fragments were recovered, but enough were fitted together to show that they belong to a millstone 3 ft. 3 ins. in diameter and pierced by the usual hole. The edge of this stone was not rebated.

To identify the rebated stone outright as an ordinary millstone is unsafe on account of the position of the hole, which is slightly, though definitely, excentric,

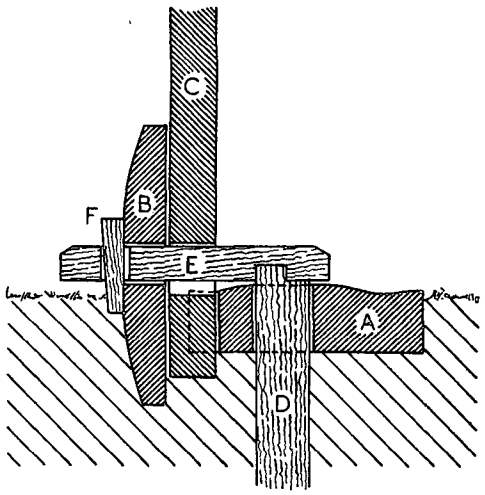

Fig. 2. Reconstruction of foundation of cross. A, rebated stone; B, millstone; C, base of cross-shaft; D, stake; E, bar; F, wedge.

and of the hollowing of the upper surface, which is not easily explicable as resulting from use in a mill. Dr Franz Oelmann, discussing a stone with an excentric hole, which he believes was used as the base for an image in a Gallo-Roman temple of 4th-century date, suggests [2] that this was originally a crusher (*Kollergangstein*), like those of the Scottish whin-mills,[3] and not a true millstone. The same may well be true of the stone at Ray, as the hollowing could have been produced by wear against the inner edge of the groove in whieh the crusher travelled; [4] while, if the crusher stood for long periods in the same position, the part of its periphery that was constantly damp would have worn more quickly than the remainder, and the hole would thus gradually have ceased to be perfectly central. This happens in the case of grindstones which are mounted in a permanent bath of water.

In the light of these various remains, the foundations of the cross should probably be reconstructed as follows (see fig. 2). The rebated stone (A) was

[1] *Ulster J.A.*, loc. cit., note c. [2] *Bonner Jahrbücher*, CXXXIII, 70 f. [3] *P.S.A.S.*, loc. cit.

[4] As in fig. 3 of *P.S.A.S.* article just quoted. The crusher of the whin-mill at Whitelums, near Gartly Station, Aberdeenshire, shows a worn belt round the margin of its inner face, apparently produced by rough usage.

set in the ground with its upper side more or less flush with the surface, and was anchored by a long, stout stake (D) which passed down through the hole. The cross (C) was set upright in the rebate, with the lower edge of the hole at the bottom of its shaft just level with the top of the stone. Against the opposite side of the shaft, the millstone that is now in fragments (B) was set in the vertical plane; a heavy wooden bar (E) was passed through both it and the shaft and made fast to the head of the stake; and the bar was secured and tightened by a wedge (F) outside the millstone. A distance-piece (not shown in fig. 2) between the cross-shaft and the head of the stake would have given the anchorage still greater solidity. Just what part the vertical stone was expected to play in the arrangement is not entirely clear. Its weight would not have lowered the centre of gravity of the cross enough to increase its stability to an appreciable extent; but it may have helped to tighten the fit of the horizontal bar, and perhaps to counter any overturning moment by enlarging the area that offered resistance to the soil.

Evidence for the use of millstones as bases for standing crosses is not very plentiful in Britain, though Oelmann states [1] that they can be seen not infrequently (*nicht selten*) serving as socket-stones for wayside crosses in a district on the lower Moselle (Maifeld). Two examples are known in the Isle of Man [2]—one in Maughold parish churchyard,[3] where a cross of the 10th–11th century is set in a largish upper millstone, and the other in Ballachonley cemetery.[4] In this latter case the broken butt of a cross-slab stood in the axial perforation, deliberately enlarged, of a millstone which formed part of the covering of a "lintel grave" such as is normally found with the Early Christian "keeils" in Man; the dated example at Balladoole was in use in the 9th century, but the Ballachonley cross-slab may belong to the 10th or 11th century. Some further cases could be quoted of millstones or quernstones used as actual gravestones, or occurring in association with graves; but these would not be germane to the present problem, which is purely one of construction. A well-known ancient example is provided by Adamnan's allusion to a *crux molinari lapidi infixa* at Iona; [5] but as nothing further is said about the precise arrangements it is natural to suppose that the cross-shaft was simply inserted in the axial perforation. As at Ballachonley, this may have been enlarged to receive it, or the cross may have been a wooden "stob-cross" with a comparatively slender shaft. Regarding crushers, Oelmann cites, in addition to the image-base from Mayen, near Coblenz, which has already been mentioned, an example from a Gallo-Roman cemetery in the Neuscheuer district of the northern Vosges, which he believes once supported a grave-monument in the form of a house.[6]

While none of the foregoing examples shows parallels with Colum Cille's Cross, the ordinary reference books on the Early Christian monuments [7] are equally unproductive. The evidence both of crosses which are actually standing,

[1] *Bonner Jahrbücher*, CXXXIII (1928), 72 f.

[2] For this and other information about millstone crosses I am indebted to Mr B. R. S. Megaw, F.S.A., who has generously placed his notes on the subject at my disposal.

[3] Kermode (*Manx Crosses*, No. 39, p. 117) describes this simply as a "round socket stone," but Mr Megaw is reasonably satisfied that it is the upper stone of a mill.

[4] *P.S.A.S.*, LV (1920–1), 258 f.

[5] *Vita S. Columbæ*, iii, XXIV.

[6] *Bonner Jahrbücher*, CXXXIII, 72 f., fig. 10. Its dimensions are given as: diameter, 2 ft. 10½ ins.; greatest thickness, 9½ ins.; hole, 10¼ by 7½ ins.

[7] *E.g.* Stuart, *The Sculptured Stones of Scotland*; Romilly Allen, *The Early Christian Monuments of Scotland*; Macalister, *Corpus Inscriptionum Insularum Celticarum*; Nash-Williams, *The Early Christian Monuments of Wales*.

and also of their representations carved on slabs, shows that cross-bases were commonly massive blocks of stone, of square, oblong, truncated-pyramidal or semi-rounded elevation. In some cases an oblong base-block is shown as relatively thin, but this by no means need imply that the blocks in question were millstones, as it is just such a large, flattish block, rectangular in profile, that serves, *e.g.*, as a base for Eliseg's pillar at Valle Crucis.[1] To take another example, the base-block at Corwen, which might well look like a millstone if crudely depicted, is actually 5 ft. 6 ins. in diameter by 11 ins. in thickness.[2] Only one carving has been found which might possibly be held to show a millstone at the base of a cross-shaft; [3] this stone is at Iona, and the slab in question bears, in addition to an inscription, the outline of a high cross with a circle at the bottom of its shaft. Too much should not however be made of this carving, as the circle might equally represent the top of a truncated-conical base shown not in profile but on plan. The top of a cross-base seems to have been shown in this way in at least one case, at Aldbar,[4] where a perforated rectangle appears below the base of the cross-shaft though disconnected from it.

No parallel can thus be quoted to the arrangements noted at Ray, and their purpose remains enigmatical. It may well have been desired to sink the shaft into the ground for as short a distance as possible, in order to show off the great height of the cross to full advantage; but this could presumably have been done and stability ensured by the use of a heavy stone socket of the usual kind. Indeed, the contrivance of the crusher and millstone may have formed no part of the original plans for the cross, but simply have been adopted as a makeshift at some later time. The absence of proper foundations on the site at Ray would be natural enough if the cross was in fact not destined for erection there at all, but for removal, as O'Donovan records, to Tory Island.

I am much indebted to Mr Seán Ó Heochaidh for his help in examining the cross, as well as for supplying me with the facts that I have quoted about its history; also to Mr C. S. T. Calder, F.S.A.Scot., for valuable suggestions about the anchorage, and for his kindness in preparing the drawings for reproduction.

ANGUS GRAHAM.