

Early Christian metalworking on Iona: excavations under the ‘infirmary’ in 1990

Finbar McCormick*

with contributions by A MacSween, J N Dore, A O’Berg
& P Wilthew

ABSTRACT

A small excavation within the ‘infirmary’ produced evidence for Early Christian period metalworking and Roman pottery.

INTRODUCTION

The building known as the ‘infirmary’ (RCAHMS 1982, 132) is located at the north-east corner of the abbey complex (illus 1 & 2). The original function of the building is unknown and before restoration its walls were only a few courses high. In recent years the building has been used as a museum and the proposed erection of St John’s cross within the building necessitated the small excavation which was undertaken in July 1990 (illus 3). The excavation was organized and financed by Historic Buildings & Monuments, the predecessor of Historic Scotland.

The modern, concrete floor (layer F1) was on the same level as the threshold of the building. Below this was a layer of hardcore (F2) composed of modern building rubble. The subsoil (F9) consisted of undisturbed raised beach material; the intervening layers between it and the hardcore consisted of anthropic garden soils. Layers F4, F8 and F7 appear to have been dumped, F4 containing discrete lumps of the raised beach soils. A linear feature (F6) may represent the bottom of a cultivation furrow. The only finds, two crucible fragments and a sherd of colour-coated pottery, were from a disturbed garden soil (F3).

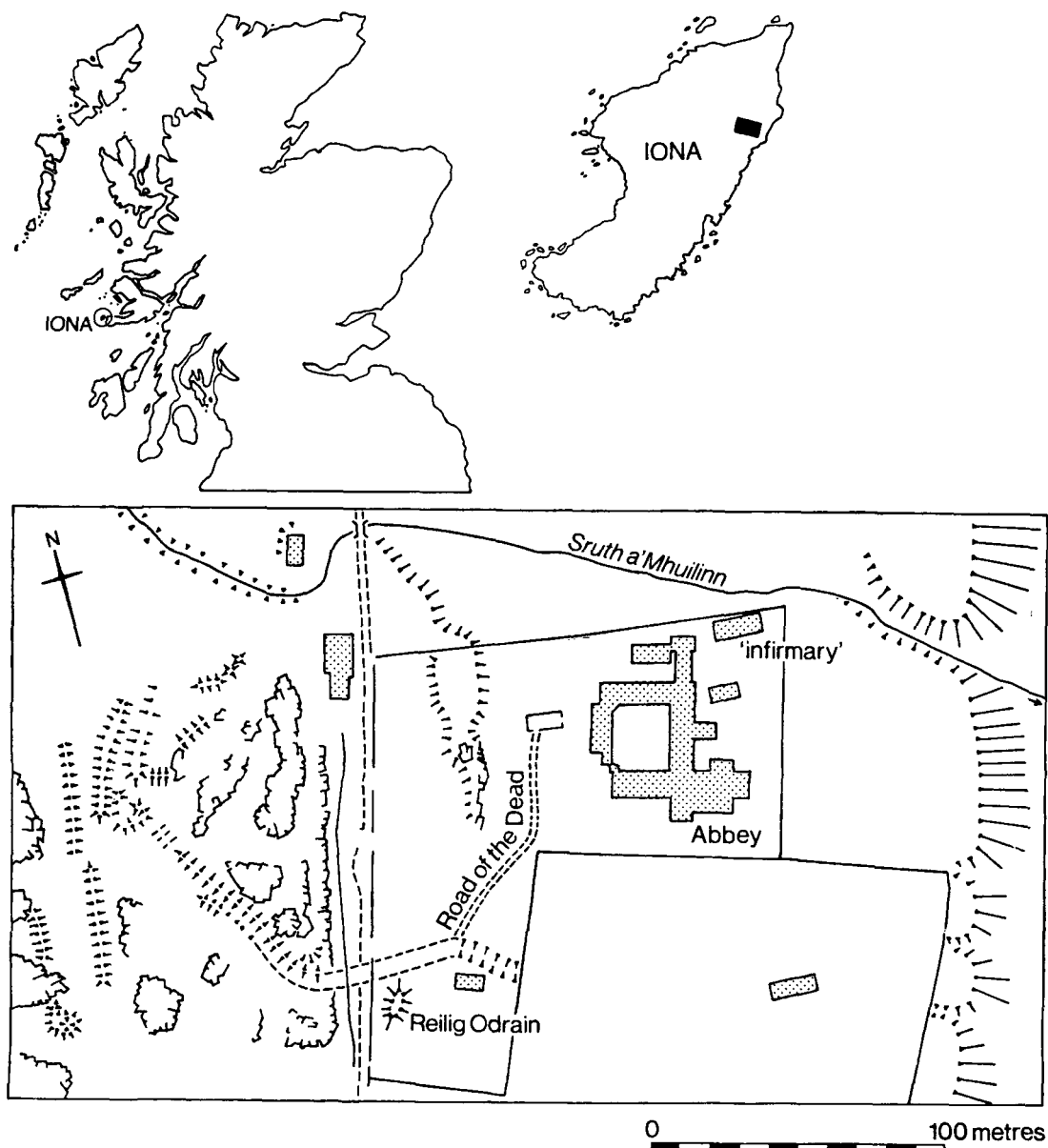
The underlying subsoil (F9) sloped downwards from west to east suggesting that the flat terrace east of the claustral buildings was at least partly artificial. The 0.7 m depth of the garden soils in the ‘infirmary’ is considerably less than the 2 m depth noted by Haggarty (1988, 205) on the same terrace about 30 m south of the present cutting.

CRUCIBLE FRAGMENTS (Illus 4)

Finbar McCormick & Ann MacSween
with analyses by Alan O’Berg & Paul Wilthew

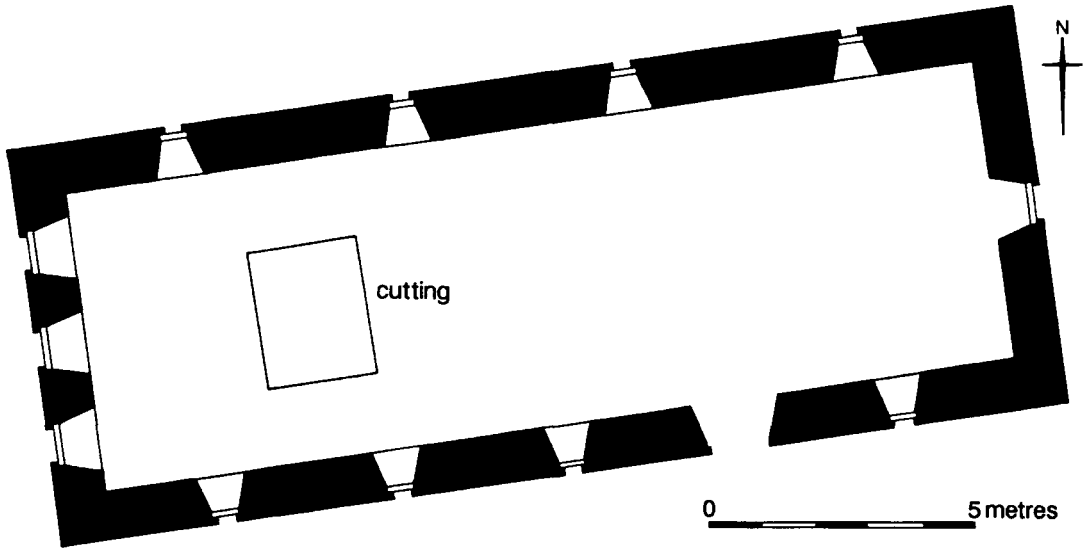
Crucibles can be used either for collecting smelting products or for melting metals prior to casting. There is no evidence for the former procedure in crucible fragments from the British Isles (Tylecote, 1986, 97).

* Dept. of Archaeology, Queen’s University, Belfast

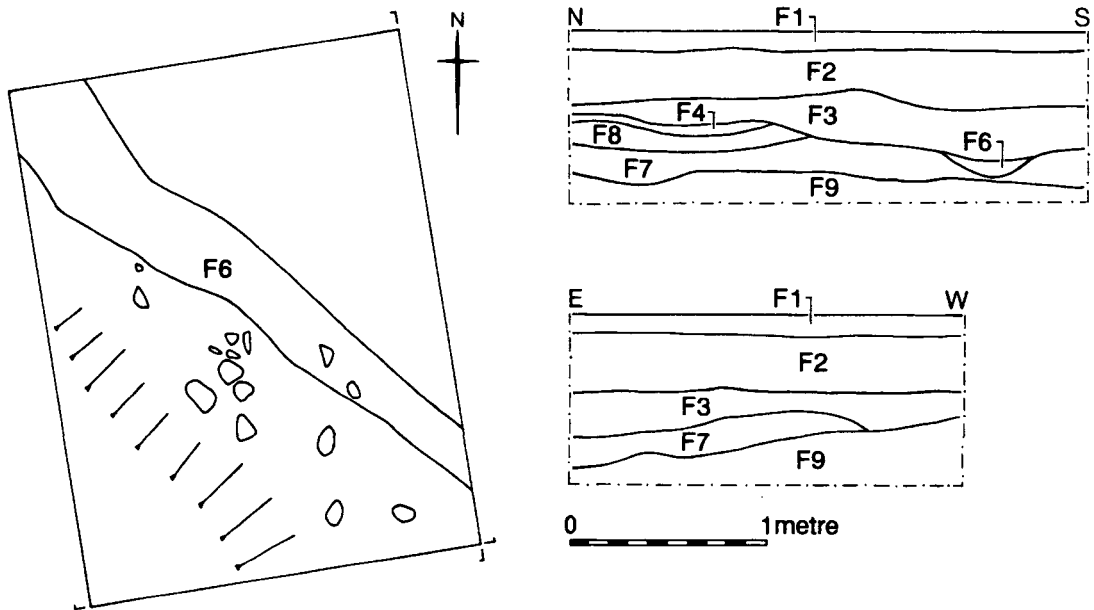


ILLUS 1 Iona location map. Based upon the Ordnance Survey map © Crown copyright

Two of the fragments from Iona (Finds 1 & 3) appear to be from triangular crucibles. The triangular type of crucible has been found in early Iron Age contexts in Scotland but tends to be large and thick. In Scotland and Ireland the type was used also in the Early Christian period, but these later examples were smaller and more thinly walled. Elsewhere in Britain, triangular crucibles were superseded by bag-shaped crucibles (Tylecote, 1986, 98). Scottish finds of triangular crucibles most similar to the Iona fragments are from early



ILLUS 2 Location of cutting in the 'infirmary'



ILLUS 3 Plan and sections of cutting within the 'infirmary': (F1) Concrete floor; (F2) Hard core; (F3) Black charcoal-rich loam; (F4) Black charcoal-rich loam with lumps of yellowish-brown sand; (F6) Very dark grey sandy loam; (F7) Black loam; (F8) Very dark brown silty loam; (F9) Yellowish-brown sand.

historic sites, eg Buiston Crannog in Ayrshire (NMS HV 144–5), and from the Mote of Mark (Curle 1914, 158). Irish sites of the Early Christian period producing triangular crucibles include Garranes, Co Cork (O'Riordáin 1942, 137), Ballinderry 2, Co. Offaly (Hencken 1942, 49), Garryduff, Co. Cork (O'Kelly 1964, 98) and Moynagh Crannog, Co. Meath (Youngs 1989, 180). Irish examples have been dated from the late sixth to the tenth century AD (*ibid* 180–7).

An Early Christian date for the Iona material is supported by the recovery of a crucible lug (Find 2), a common characteristic of crucibles from this period. Lugged crucibles have been recovered from the Pictish levels at Birsay (Curle, 1982, 40, illus 23) and from the fort of Dunadd (Hewat Craw, 1930, 123, fig 8; Christison, 1905, 314, figs 35–40). Lugged crucibles also occur on Early Christian Irish sites. These can take different forms: at Carrig Aille, Co Limerick (O'Riordáin 1945, 92), the lug extends vertically from the mouth of the crucible while at Ballinderry 2 (Hencken 1942, 49) it extends outwards on a horizontal plane from the lip of the crucible. At Garranes the crucible has a lugged lid (O'Riordain 1942, 137).

All of the crucible fragments from Iona have traces of residues. The black residues on fragments 1 and 3 resulted probably from the contents dripping down the outside and being turned to slag when the crucible was next heated. The red coating on the lug is more uniformly distributed over its surface.

X-ray fluorescence analysis of the matrix and of the interior and exterior surfaces of each of the three crucible fragments was undertaken at the Analytical Laboratories of the Royal Museum of Scotland. Find 1 had high levels of copper on the exterior surface, lower levels on the interior, and only traces in the matrix. Tin was detected on the exterior and interior surfaces but not in the matrix, indicating that the crucible was used for melting bronze. No tin was detected in Find 2, and the relatively high copper levels on the interior surface compared to those in the matrix and on the exterior surface suggest that the crucible was used to melt copper or copper alloys. The residue on the lug was fairly uniform and more like a glaze, but the high copper content again suggests it is more likely to have resulted from spillage during the melting of copper than a deliberate attempt at glazing.

CATALOGUE

(T = thickness)

- 1 Body sherd from a round-cornered crucible. The outer surface is coated in a black residue with red patches. There are possible tong impressions in the residue. The interior surface is heat-crazed; T = 5 mm; grey; partially vitrified; fabric contains 10% quartz inclusions up to 2 mm in length.
- 2 Rounded, asymmetrical lug from a crucible. Traces of a burgundy-coloured glaze/residue adhere to the surface; T = 1.1 mm; grey; fabric of coarse quartz-rich clay.
- 3 Body/base sherd from a round-cornered crucible. The vessel narrows to the base and was probably cone-shaped. The exterior and interior surfaces of the vessel are heat-crazed. Traces of black residue on exterior surface; T = 7 mm; brown with buff surfaces; fabric contains 10% quartz inclusions up to 2 mm in length.

TABLE 1 XRF analyses of crucible fragments by A O'Berg & P Wilthew.

FIND 1

	Matrix	Exterior surface	Interior surface
Cu	T	1	3
Sn	nd	3	T
As	nd	T	nd
Pb	T	T	T
Zn	nd	3	T
Mn	T	T	T
Fe	1	1	1
K	3	3	3
Ca	3	3	3
Ti	3	3	3
Ni	T	T	T
Sr	3	3	3
Zr	3	3	3

FIND 2

Cu	T	T	3
As/Pb	nd	nd	T
Zn	nd	nd	3
Mn	3	3	3
Fe	1	1	1
K	T	2	T
Ca	3	3	3
Ti	2	2	2
Sr	3	3	3
Zr	2	2	2

FIND 3

Cu	2	nd	1 = major element
Sn	nd	nd	2 = minor element
Pb	nd	nd	3 = additional element
Zn	nd	nd	T = Trace
Fe	1	1	nd = not detected

POTTERY (Illus 4)

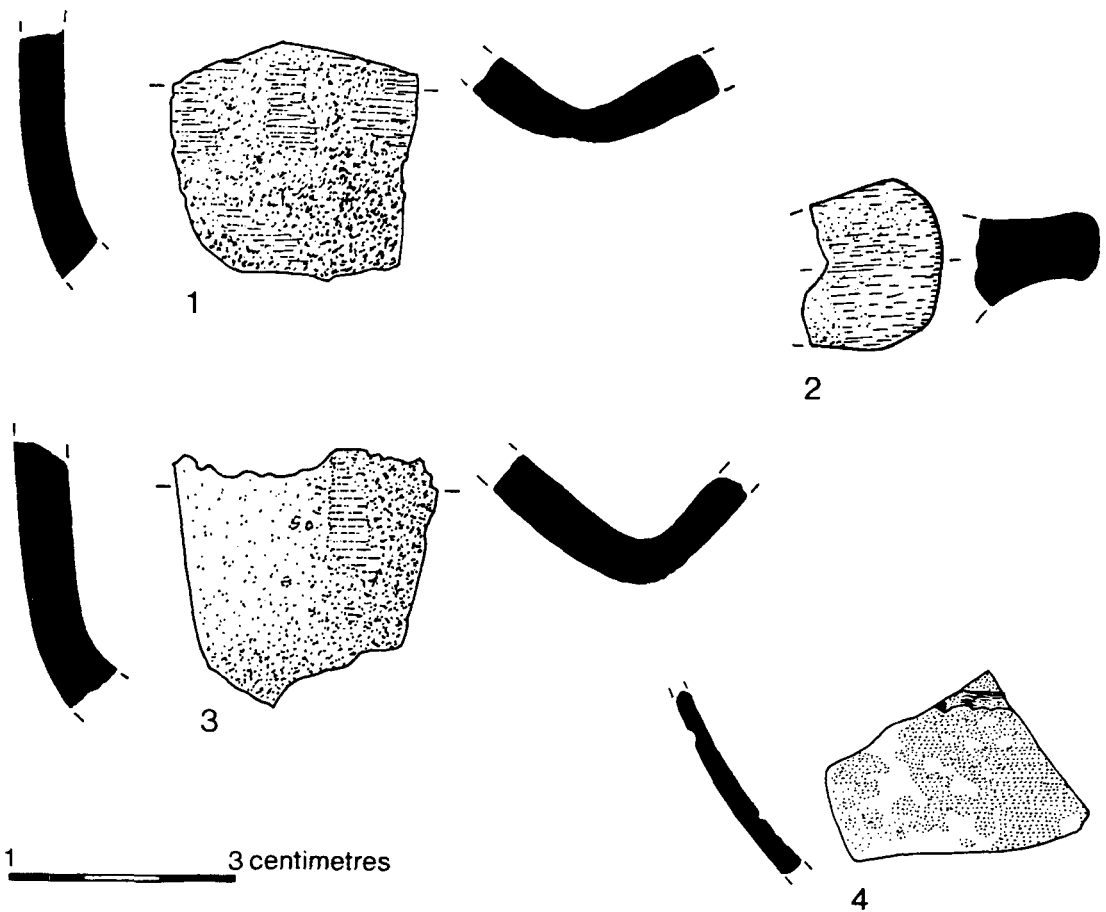
J N Dore

DESCRIPTION (FIND 4)

Fabric: pale pinkish orange (2.5 YR 6/8) on the inside, very pale orange (5 YR 8/4) on the outside; outer surface has a dark brown colour-coat (5 YR 3/2); inclusions: common, mostly 0.1–0.2 mm occasionally up to 0.5 mm, predominantly rounded quartz, occasionally iron oxide.

The curvature of the sherd and the lack of colour coating on the inner surface suggest that it was once part of a closed vessel, probably a largish beaker standing between 200 and 300 mm high. There is a slight indication of a horizontal groove near the top of the outer surface.

There seems little doubt that the sherd is Roman. It falls into the general class of Roman



ILLUS 4 Finds from the 'infirmary': crucibles (1-3) and Roman pottery (4); all were found in F3.

pottery known as 'colour-coated' ware, having a surface slip (usually a refined version of the body clay) which is fired a contrasting colour to the body. During the Roman occupation of Britain there were many centres, both in Britain and on the Continent, producing vessels in this technique.

The featureless quality of the sherd makes it difficult to be specific about date and provenance. If we begin by eliminating the obvious, the fabric does not appear at all similar to that of the products of the Nene Valley industry (probably the largest producer of colour-coated ware in Britain, and certainly the largest supplier to the north) which flourished during the third century AD, nor to that of the products of the other 'late' industries established in Oxfordshire and the New Forest. The sherd appears to be of an earlier type. Both the body colour, and the colour and texture of the colour-coat appear much more similar to those of rough-cast beakers which were produced at a number (quite possibly a large number) of centres in the late first century and throughout the second century AD (see, for example, Gillam 1970, Types 72-6). The sherd is abraded which makes it impossible to ascertain if the vessel was ornamented with rough-cast decoration.

In conclusion, the fabric suggests a date somewhere within the range late-first to late-second century AD. The tentative nature of the dating, however, must be emphasized.

DISCUSSION

The small excavation within the ‘infirmiry’ again indicated that much of the area surrounding the abbey is covered with an artificial garden soil created, seemingly, during the medieval period (see also Barber 1981; Haggarty 1988). Medieval cultivation has also disturbed, if not destroyed, earlier deposits.

The three crucible fragments would seem to be of Early Christian date, and are presumably associated with the Columban foundation. They were present in disturbed garden soil but the occurrence of three separate pieces in such a limited area indicates that they were of local origin, derived from a metalworking area in the vicinity. Ironworking at Iona is referred to in Adomnan’s life of Columba (MacDonald 1984, 274) while archaeological evidence of bronze-working has been found on the Irish monastic sites of Armagh and Nendrum (Hamlin 1985, 296–7).

The fragment of Roman pottery is the first from the island, although contemporary artefacts have been found at Dun Cul Bhuirg which was occupied probably from about 100 BC to AD 300 (Ritchie & Lane 1980). In the vicinity of the later monastery and abbey there are other indications of early activity: a cobbled area about 50 m north of the present excavation has already provided a late Iron Age radiocarbon date (McCormick forthcoming) while the vallum probably incorporates earthworks dating to the Iron Age (*ibid*). The scatter of Roman artefacts that have been found in Scotland on native sites and outside the areas of military occupation have been discussed by Robertson (1970) and by Macinnes (1989); the meagre evidence for Argyll is listed by Ritchie & Welfare (1983, 321). Roman pottery might have been brought to Iona at a much later date and need not represent contemporary activity on the site. Samian ware, for example, has been found in Irish Early Christian contexts such as Lough Faughan crannog and the Dundrum sandhills as well as on medieval sites in Ireland (Bradley 1982, 196). The importation of the Roman pottery to Iona at a much later date cannot be totally rejected but it seems unlikely. The samian ware in Ireland was transported probably for a specific reason, as a medicinal ingredient, an explanation that would not convincingly account for the sherd found on the present excavation.

ACKNOWLEDGEMENTS

I would like to thank Attie Mackecknie of the Iona Cathedral Trust for his help during the excavation and Historic Buildings & Monuments (now Historic Scotland) for financing the report and excavation. The illustrations were prepared by Christina Unwin of AOC Scotland Ltd.

REFERENCES

- Barber, J W 1981 ‘Excavations at Iona 1979’, *Proc Soc Antiq Scot*, 111 (1981), 282–380.
- Bradley, J 1982 ‘“Medieval” Samian ware – a medicinal suggestion’, *Ulster J Archaeol*, 44–5 (1981–2), 196–7.
- Christison, D, 1905, ‘Report on the Society’s Excavations of Forts on the Poltalloch Estates, Argyll in 1904–5’, *Proc Soc Antiq Scot*, 39 (1904–5), 259–322.
- Curle, A O 1914 ‘Report on the excavation, in September 1913, of a vitrified fort at Rockcliffe, Dalbeattie, known as the Mote of Mark’, *Proc Soc Antiq Scot*, 48 (1913–14), 125–68.
- Curle, C L 1982 *Pictish and Norse Finds from the Brough of Birsay 1934–74*, Soc Antiq Scot Monograph no 1, Edinburgh.
- Gillam, J P 1970 *Types of Roman Coarse Pottery Vessels in Northern Britain*, 3rd edn, Newcastle upon Tyne.
- Haggarty, A M 1988 ‘Iona: some results of recent work’, *Proc Soc Antiq Scot*, 118 (1988), 203–13.
- Hamlin, A 1985 ‘The archaeology of the Irish church in the eighth century’, *Peritia*, 4 (1985), 279–99.
- Hencken, H O’N 1942 ‘Ballinderry crannog No. 2’, *Proc Roy Ir Acad*, 47C (1941–2), 1–76.

- Hewat Craw, J 1930 'Report on the Society's Excavations of Forts on the Poltalloch Estates, Argyll', *Proc Soc Antiq Scot*, 64 (1929-30), 111-46.
- McCormick F (forthcoming) 'Excavations at Iona, 1988'.
- MacDonald, A D S 1984 'Aspects of monastery and monastic life in Adomnan's Life of Columba', *Peritia*, 3 (1984) 271-302.
- Macinnes, L 1989 'Baubles, bangles and beads: trade and exchange in Roman Scotland', in Barrett, J C, Fitzpatrick, A P & Macinnes, L (eds), *Barbarians and Romans in north-west Europe*, Oxford, 108-16.
- O'Kelly, M J 1964 'Two ring-forts at Garryduff, Co Cork', *Proc Roy Ir Acad*, 63C (1962-4), 17-125.
- O'Ríordáin, S P 1942 'The excavation of a large earthen ringfort at Garranes, Co Cork', *Proc Roy Ir Acad*, 47 C (1941-2), 77-150.
- O'Ríordáin, S P 1945 'Lough Gur excavations: Carraig Aille and the "Spectacles"', *Proc Roy Ir Acad*, 50C (1944-5), 39-111.
- Ritchie, J N G & Lane, A M 1980 'Dun Cul Bhuirg, Iona, Argyll', *Proc Soc Antiq Scot*, 110, (1978-80), 209-29.
- Ritchie, J N G & Welfare, H G 1983 'Excavations at Ardnave, Islay', *Proc Soc Antiq Scot*, 113 (1983), 302-66.
- Robertson, A S 1970 'Roman finds from non-Roman sites in Scotland', *Britannia*, 1 (1970), 198-226.
- Tylecote, R F 1986 *The Prehistory of Metallurgy in the British Isles*, London.
- Youngs, S (ed) 1989 *The work of angels*, London.

This paper is published with the aid of a grant from Historic Scotland