

express her gratitude to museum staff, especially Mr N. Gandy, Ms M. Solly and Mrs Leslie Webster. Dr Robert Young has read and commented on successive drafts of this paper.

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## NOTES

<sup>1</sup> T. D. Kendrick, 'A new escutcheon from a hanging-bowl', *Antiq. J.*, xvi (1936), 98–99; G. Haseloff, 'Fragments of a hanging bowl from Bekesbourne, Kent and some ornamental problems', *Medieval Archaeol.*, II, 72–103; E. Fowler, 'Hanging bowls', 287–310 in J. M. Coles and D. D. A. Simpson (eds.), *Studies in Ancient Europe* (Leicester, 1968); R. Bruce-Mitford, 'Ireland and the Hanging Bowls — a review', 30–39 in M. Ryan (ed.), *Ireland and Insular Art A.D. 500–1200* (Dublin, 1987).

<sup>2</sup> C. Fell, *Early Settlement in the Lake Counties* (Clapham, 1972).

<sup>3</sup> Haseloff, op. cit. in note 1, 80–81, pl. viii, c; G. Speake, *Anglo-Saxon Animal Art and its Germanic Background*, pl. 15, b (Oxford, 1980).

<sup>4</sup> Speake, op. cit. in note 3, pl. 15, i.

<sup>5</sup> Speake, op. cit. pl. 15, b; A. L. Meaney and S. C. Hawkes, *Two Anglo-Saxon Cemeteries at Winnall, Winchester, Hampshire* (London, Soc. Medieval Archaeol. mono. 4, 1970), pl. 3.

<sup>6</sup> E. Bakka, 'Some English decorated objects found in Viking graves', *Arbok for Universitet i Bergen, Humanistisk Serie*, 1–66, at 53.

<sup>7</sup> C. Scull, 'Further evidence from East Anglia for enamelling on early Anglo-Saxon metalwork', *Anglo-Saxon Studies in Archaeology and History*, 4 (1985), 117–24.

<sup>8</sup> *Ibid.*

<sup>9</sup> L. Laing, 'The Mote of Mark and the origins of Celtic interlace', *Antiquity*, XLIX (1975), 98–108.

<sup>10</sup> J. Graham-Campbell, 'The Mote of Mark and Celtic Interlace', *Antiquity*, L (1976), 48–50.

<sup>11</sup> Bede, *H.E.* I:34.

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## FURTHER NOTES ON FOWLER'S TYPE F<sub>3</sub> PENANNULAR BROOCHES (Pl. ix)

At the time of writing the original paper on Fowler's Type F<sub>3</sub> penannular brooches fourteen specimens were known to exist.<sup>1</sup> Since then, however, a mould for casting a Type F<sub>3</sub> brooch and two brooches, one an unfinished specimen, have come to light. Together they constitute an important addition to the corpus and contribute to making the F<sub>3</sub> the most fully documented group of zoomorphic penannular brooches.

The mould (Pl. ix, A) was found in the course of excavations at Dunadd Fort, Argyll, during the early part of this century and is uncontexted.<sup>2</sup> It is a large fragment of the lower valve of a bi-valve clay mould containing the matrix for a portion of the ring and part of the left-hand terminal of a small F<sub>3</sub> brooch (max. ext. diameter 25.25 mm). The eyes are cylindrical and blind and protrude above the surface. The snout is round in profile and breaks the line of the hoop. It compares closely to the snout of an unprovenanced Irish Type F<sub>3</sub> brooch.<sup>3</sup> The ring was probably D-shaped. The collar is cylindrical. The mould has a single-flue, V-shaped ingate and the negative keying device consists of a V-shaped nick on the edge of the mould.

One of the brooches is a stray find from Culbin Sands, Morayshire (Pl. ix, B) and is very similar to the one that would have been cast in the Dunadd mould, the only difference being the shape of the snout which is more D-shaped, like those of the native Irish brooches, and its marginally larger external hoop diameter (26 mm mx.).<sup>4</sup> The brooch is badly corroded, only the right-hand terminal surviving to any extent. The one surviving eye is cylindrical (4 mm high) and stands proud of the other features. The pin is missing.

The second brooch comes from Ireland and is a miscast (Pl. ix, c).<sup>5</sup> The right-hand terminal is incomplete and no attempt has been made to finish the brooch by filing away the peripheral seams and ingate stubs. Consequently, we can be certain that the brooch was cast in a bi-valve mould with dual-flue ingate, thus corroborating the information already known

from the Dunadd mould except with respect to the ingate form. Some of the terminal features are slightly degenerate. The snout is prominent and breaks the line of the hoop. The collar is ill-defined, partly due to its flawed casting, and the eyes are round and bun-shaped, in contrast to the normal cylindrical shape, having more in common with foreign varieties of the F<sub>3</sub> type such as those from Glenluce and Ronaldsway<sup>6</sup> than the native Irish group. The brooch has been fitted with a plain, looped-over pin that is substantially longer than the hoop is wide (the ratio is about 4:1). The lower one-third of the shank has been flattened-out in a manner characteristic of ringed-pins, pseudo-penannular brooches and ring-brooches of the 8th and 9th centuries and is therefore likely to have been a later addition to the brooch. The length of the pin suggests that the object functioned as a ring-brooch, thus explaining why the ingate stubs were left intact despite the fact that they block the pin from swinging freely around the hoop and therefore prevent it from functioning mechanically as a penannular. It also serves to illustrate an important chronological aspect to the ratio of pin length to hoop diameter which can be summarized thus: The earliest zoomorphic penannular brooches have pins which barely span the hoop of the brooch. Later, the length of the pin was increased to nearly twice that of the hoop diameter while the hoop, remaining quite wide, lost its gangly appearance and became substantially sturdier. The final phase in the sequence saw a dramatic shrinkage in the diameter of the hoop culminating in its becoming a mere pendant on the pin (as in Kilbride-Jones's Group D brooches)<sup>7</sup> and the emergence of a new dress-fastener type, the ring-brooch. The form of the latest zoomorphic penannular brooch, Kilbride-Jones's Group D,<sup>8</sup> may have played a key role in the origin of the characteristic kidney-shape of the ring brooches.

The Culbin Sands brooch and the Dunadd mould are important additions to the Scottish corpus, not least because they are typologically much closer to the main Irish group than are the two Glenluce brooches which have eyes that are far less cylindrical than is normally the case. They help to show that the principal difference between the Scottish and Irish brooches is not the form of the terminal feature, as was previously believed,<sup>9</sup> but rather the overall size of the brooch: the average external diameter of the Scottish brooches is 25.25 mm, that of the Irish is 34 mm. The miscast Irish specimen proves that brooches with both cylindrical and bun-shaped eyes were being manufactured in Ireland.

The discovery of a Type F<sub>3</sub> mould at Dunadd lends considerable weight to the view originally proposed that the type was an Irish introduction into Scotland.<sup>10</sup> Dunadd, one of the key seats of Irish power in Dalriada, is geographically and politically ideally placed to have been the centre of dissemination of Type F<sub>3</sub> brooches in Scotland. The discovery of a specimen in Morayshire highlights the strategic position of Dunadd at the head of Glen More, *the* natural highway between Dalriada and Pictland.

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#### NOTES

<sup>1</sup> C. Newman, 'Fowler's Type F<sub>3</sub> Early Medieval Penannular Brooches', *Medieval Arch.*, xxxiii (1989), 7-20.

<sup>2</sup> Royal Mus. Antiq. Scotland H.P.O. 61. J. Hewat Crow, 'Excavations at Dunadd and other sites on the Poltalloch Estates, Argyll', *Proc. Soc. Antiq. Scotland* 64 (1929-30), 111-46. Thanks are due to Dr A. Sheridan and Mr T. Cowie for assistance.

<sup>3</sup> Newman, *op. cit.* in note 1, Fig. 3, 1.

<sup>4</sup> Royal Mus. Antiq. Scotland unnumbered.

<sup>5</sup> British Museum 68, 7-9, 24; ext. D. hoop 29 mm; height eyes 4.5 mm; L. pin 120 mm. Thanks are due to Mrs S. Youngs for drawing my attention to this specimen.

<sup>6</sup> Newman, *op. cit.* in note 1 Fig. 3, 2 and 3, and L. R. and J. Laing, 'The Early Christian period settlement at Ronaldsway, Isle of Man: a reappraisal', *Isle of Man Natur. Hist. Antiq. Soc.*, lxxiii (1987), 389-415.

<sup>7</sup> H. Kilbride-Jones, *Zoomorphic Penannular Brooches* (London, 1980), 65-67.

<sup>8</sup> The reader is referred in particular to an unpublished Group D brooch from Athlone, Co. Roscommon (BM 68, 7-9, 32); ext. D. hoop 26 mm; L. pin 122 mm; which is clearly too small to have functioned as a penannular.

<sup>9</sup> Newman, *op. cit.* in note 1, 16.

<sup>10</sup> *Ibid.*, 14.