

⁵ The few earlier finds from the British Isles are described by D. B. Harden, 'Anglo-Saxon and later medieval glass in Britain: some recent developments', *Medieval Archaeol.*, xxii (1978), 11-14. Other find-spots range from the Middle East to Scandinavia.

⁶ H. Tait, *The Golden Age of Venetian Glass* (London, 1979), 16-17, pl. 1, B.

⁷ E. Baumgartner, 'Emailbemalte Gläser des Mittelalters in schweizerischen Sammlungen', *Zeitschrift für Schweizerische Archäologie und Kunstgeschichte*, 37 (1980), 207-09, abb. 1 and 2.

⁸ Apart from discussions by Tait and Baumgartner, op. cit. in notes 6 and 7, who also provide good bibliographies, further recent contributions to the debate include A. Engle, 'Glass finds at Acre throw new light on the Syro-Frankish group', *Readings in Glass History*, 13/14 (Jerusalem, 1982), 34-65, and A. Gasparetto, 'Il Medioevo' in R. Barovier Mentasti et al. (eds.), *Mille Anni di Arte de Vetro a Venezia* (Venezia, 1982), 39.

⁹ L. Zecchin, 'Fornaci Muranesi fra il 1279 ed il 1290', *J. Glass Studies*, 12 (1970), 82-83.

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COLLATION SEATS IN IRISH CISTERCIAN HOUSES: GREY ABBEY, COUNTY DOWN AND GRAIGUENAMANAGH, COUNTY KILKENNY (Pl. XIII)

In the exterior S. wall of the nave of Grey Abbey, almost mid-way along the N. walk of the cloister, is a feature described in *An Archaeological Survey of County Down* as 'a blind arch, with moulded, pointed archivolt springing, 3 ft. above ground, from moulded corbels'.¹ It is marked on the *Survey* plan (fig. 176) and is visible in plate 96, just W. (left) of the middle buttress. These buttresses were added in the early 20th-century restoration work and impinge on what was the N. alley of the cloister walk.

Plate XIII, A shows the arch in its present fragmentary state. The stone is too badly weathered for the details to be clear except for the E. (right) capital, which has a heavy square abacus. Only the W. (left) segment of the arched head survives, its apex at about 1.67 m above ground level. The presence of a base on the W. side, though weathered to a shapeless lump, suggests that the two capitals are true capitals and not corbels. There must originally have been detached circular shafts defining the sides of the feature, but these are now missing. The arch was not further discussed in the 1966 *Survey* but having seen a far better preserved arch in this position at Cleeve Abbey in Somerset I suggested in 1979 that these could be the fragmentary remains of a rarely surviving Cistercian feature, the abbot's Collation seat.²

Mr R. Gilyard-Beer has recently discussed the Collation ceremony and its architectural remains, with special reference to documentary evidence from Boxley Abbey, Kent.³ He lists six Cistercian houses in the British Isles with surviving Collation features, compared with only two on the Continent: Byland and Cleeve in England, Melrose in Scotland, Strata Florida and Tintern in Wales and Monmouthshire, and Jerpoint in Ireland.

The Collation ceremony originated in St Benedict's Rule and took its name from John Cassian's *Collationes*. It was an evening reading for which the community gathered after Vespers and before the last service of the day, Compline. It was also a time when the monks were allowed some refreshment. Gilyard-Beer discusses the evidence from the Continent and from a 1373 building contract for Boxley Abbey that the Collation reading took place in the cloister walk adjoining the church. This was either the N. or S. walk, depending on whether there was a S. or N. cloister, the walk which was also used for day-time study.⁴

The features fall into two groups: the reader's bay, projecting into the cloister to provide light for the reader at the lectern, and facing it the abbot's seat against the church wall. At Tintern both features are present, but at Byland, Strata Florida and Jerpoint only the projecting bay, at Jerpoint rebuilt N. of its original position during the 15th-century remodelling of church and cloister (Pl. XIII, D). At Melrose a specially decorated bay indicates the site of the abbot's seat against the church wall, and at Cleeve a shallow, trefoil-headed recess must have framed the abbot's chair (Pl. XIII, B). The Grey Abbey arch, though

set rather low, must have been the architectural frame for the abbot's seat, perhaps of wood.⁵ At Inch Abbey, also in County Down, two low rectangular blocks of masonry project from the line of the S. aisle wall into the site of the cloister's N. alley, one mid-way along its length and the second further W.⁶ Early restoration at Inch is poorly documented and the significance of these two blocks is uncertain. One possibility is that the centrally placed foundation supported the abbot's Collation seat, but excavation would be needed to investigate this further.

At least one more clear Irish example can be added to Gilyard-Beer's list, at Duiske Abbey, Graiguenamanagh, County Kilkenny, visited by the Society during its 1982 Kilkenny-based conference. The abbey was founded early in the 13th century by William Marshall and was planned and built on a grand scale during the first half of the 13th century.⁷ The church, the largest Cistercian church in Ireland, has recently been reroofed and is undergoing major restoration, but the substantial conventual buildings are partly incorporated into and partly obscured by the buildings of the town which cluster closely S. of the abbey. Mr D. Newman Johnson has recently published a survey made in 1967 as a preliminary to a forthcoming full architectural description.⁸ His plan shows the feature illustrated in Pl. XIII, c in the S. wall of the S. aisle, about 16.15 m (53 ft.) from the angle of nave and S. transept, E. of the mid point of the N. cloister alley, which Robert Cochrane suggested was 119 ft. (36.24 m) long.⁹ The S. aisle wall has recently been partly cleared of abutting structures (Pl. XIII, e). The embrasure (Pl. XIII, c) is 2.23 m high, 0.74 m wide at the base, and decreases in depth from 0.216 m at the base to 89 mm at the top. The arch is trefoiled with a hood moulding, too badly damaged and weathered to retain its profile clearly. The opening is framed by a filleted three-quarter round attached roll, also weathered and partly broken away. The roll is uninterrupted by capitals and dies out at ground level without separately worked bases. The stone is very soft and friable, but some fine diagonal tooling is visible on the sheltered inner faces of the jambs. The back of the embrasure is rough rubble, formerly probably plastered, in contrast to the cut stone of the Cleeve Abbey seat which retains its gently rounded back (Pl. XIII, b).

In the past the Graiguenamanagh arch has been taken to be a blocked door, as happened also at Cleeve Abbey, but there can be no doubt that it is the frame for the abbot's Collation seat.¹⁰ The Graiguenamanagh arch is strikingly like the Cleeve example, and it is interesting to note that Dudley Waterman pointed to Graiguenamanagh as one of the Irish sites where imported Somerset stone was used in the 13th century.¹¹ Graiguenamanagh has often been compared with Strata Florida Abbey¹² and this is one of the houses where structural evidence for the Collation ceremony has survived, in the stone cloister built to replace a wooden one in the 15th century.¹³

Ireland can now offer three examples of surviving Collation remains, valuable reminders of one element in the Cistercian monks' daily routine, to add to the two in England, one in Scotland and two in Wales and Monmouthshire. Do any more remain to be recognized?

ANN HAMLIN

NOTES

¹ *An Archaeological Survey of County Down* (H.M.S.O. Belfast, 1966), 277.

² A. Hamlin, *Grey Abbey, County Down* (D.o.E.N.I. guide-card, Belfast, 1979), 4.

³ R. Gilyard-Beer, 'Boxley Abbey and the *Pulpitum Collationis*', in A. Detsicas (ed.), *Collectanea Historica: Essays in Memory of Stuart Rigold* (Maidstone, 1981), 123-31.

⁴ *Ibid.*, and L. F. Salzman, *Building in England down to 1540* (Oxford, 1967), 448-49.

⁵ It is interesting, and humbling, to discover that over a century ago J. J. Phillips recognized the function of the Grey Abbey remains, though not associating them with the Collation ceremony. In his fine illustrated account of the abbey he marked the 'Carol of the Prior of Cloisters' on the ground plan and gave a detailed sketch of the feature: *St Mary's of Grey Abbey, County Down, Ireland, as existing in the year A.D. 1874* (Belfast, 1874), figs. 1 and 13.

⁶ *Op. cit.* in note 1, fig. 178.

⁷ J. Bradley and C. Manning, 'Excavations at Duiske Abbey, Graiguenamanagh, Co. Kilkenny', *Proc. Royal Irish Acad.*, 81C (1981), 397-426.

⁸ *Ibid.*, 424–26.

⁹ P. O'Leary and R. Cochrane, 'Notes on the Cistercian Abbey of Graignamanagh', *J. Royal Soc. Antiq. Ireland*, 22 (1892), 237–42.

¹⁰ G. Carville, *Norman Splendour, Duiske Abbey, Graignamanagh* (Belfast, 1979), 22, where 'Transept' should read 'Aisle'. For Cleeve see N. Pevsner, *South and West Somerset* (Harmondsworth, 1958), 126, but the feature had been properly identified by E. Buckle, 'The Buildings of Cleve [*sic*] Abbey', *Proc. Somerset Archaeol. and Natur. Hist. Soc.*, 35 (1889), 100.

¹¹ D. M. Waterman, 'Somersetshire and other Foreign Building Stone in Medieval Ireland, c. 1175–1400', *Ulster J. Archaeol.*, 33 (1970), 63–75.

¹² O'Leary and Cochrane, *op. cit.* in note 9, 245, and Carville, *op. cit.* in note 10, 26–27.

¹³ Gilyard-Beer, *op. cit.* in note 3, pl. 25; C. A. R. Radford, *Strata Florida Abbey, Cardiganshire* (H.M.S.O. London, 1949).

A TECHNICAL NOTE ON SOME 13TH-CENTURY STEELYARD WEIGHTS

The study of 13th-century steelyard weights, having a 'latten' casing and with a lead interior, was pioneered by Drury who published a series of papers on the subject between 1926 and 1942.¹ He gave details of about sixty weights and these have been added to by others.²

The casings of the weights carry decoration consisting in most cases of armorial bearings on escutcheons, usually three or four in number. Drury classified the weights on the basis of the type of arms. Class I weights have recognizable arms, sometimes with a single form repeated, in other instances with a variety of bearings. Class II weights are of cruder form and have pseudo-armorial patterns on the escutcheons, usually consisting of various straight-line arrangements. These are in a minority in the surviving population.

A study of the alloys used in making the casings of these weights has shown that there is justification for dividing Class I weights on compositional grounds. Many of the copper alloys used contain small amounts of tin, modest or in some cases large amounts of lead but insignificant amounts of zinc and would, using modern terminology, be called leaded bronze. Others however contain less tin and lead but zinc in the range 10–12% and would today be called leaded brasses. It is proposed therefore that the latter 'brass'-type be referred to as Class Ia weights and the former 'bronze'-type as Class Ib weights. Such Class II weights as have been analysed are also leaded bronzes.

Full alloy analyses are not given at this stage nor is a comprehensive review of their significance in relation to Drury's comments on the weights attempted. It may however be of interest to remark on certain correlations between alloy composition and armorial bearings of Class I weights which have already emerged.

Of 27 weights so far analysed, seven are zinc-containing Class Ia weights and all have 'a lion rampant' and 'a double-headed eagle displayed' accounting for two of the escutcheons. Those with four escutcheons in total also have one with 'three leopards in pale' and one with 'a crowned lion rampant gules within a bordure bezanty'. Those with three in total carry *one or other* of the latter two, together with the lion and eagle arms. This is a remarkably constrained specification compared with Class Ib weights (of essentially zinc-free alloys) which bear assorted combinations of arms including lions and eagles of various types of generally inferior workmanship. This difference in specification of alloy and decoration for Class Ia and Ib weights may be significant in any consideration of the origins and development of these weights.

The authors would be interested to learn of any unpublished medieval steelyard weights, particularly those recently discovered or which have passed from private hands into museum collections since Drury's review so that they may be included in a more complete study which is continuing. The assistance of the following museum staff in furthering this study is gratefully acknowledged:

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