

NOTES

¹ Interim reports on the first two seasons of excavation will be found in C. Heighway, 'Excavations at Gloucester: fourth interim report: St Oswald's Priory, Gloucester, 1975-76', *Antiquaries J.* 58 (1978), 103-32, which included an interim report on the bell-pit; and C. Heighway, 'Excavations at Gloucester 1977-78: fifth interim report: St Oswald's Priory', *Antiquaries J.* 60 (1980), 207-26. The method of reconstruction of the first church is described in C. Heighway and R. Bryant, 'A reconstruction of the 10th-century church of St Oswald's, Gloucester', in R. Morris (ed.), *The Anglo Saxon Church*, Festschrift in honour of H. Taylor (London, C.B.A. Research Report 60, 1986), 188-95. The documentary evidence is summarized more fully in M. Hare, *The Two Anglo-Saxon Minsters of Gloucester* (Ninth Annual Deerhurst Lecture, 1993). A final report on the site is in preparation.

² Russell M. Davies and Peter J. Ovenden, 'Bell founding in Winchester in the tenth to thirteenth centuries', in M. Biddle, *Object and Economy in Medieval Winchester*, part ii, Winchester Studies (Oxford, 1991), 104.

³ H. Drescher, 'Glockenfunde aus Haithabu', *Berichte über die Ausgrabungen in Haithabu*: Bericht 19 (Neuminster, 1984), 9-62, at 29-35; *Das Reich der Salier 1024-1125*, Katalog sur Ausstellung des Landes Rheinland-Pfalz (Sigmaringen, 1992), 405-19.

⁴ M. Bliss, *Church Bells of Gloucestershire* (Gloucester, 1986), 357-61 and pers. comm.

⁵ J. Hawthorne and C. Smith (ed. and tr.), *Theophilus: on Diverse Arts* (New York, 1979); see also Davies and Ovenden, op. cit. in note 2.

⁶ Hawthorne and Smith, op. cit. in note 5, 169-70.

⁷ Ibid.

⁸ Ibid.

⁹ E. Okasha, 'A supplement to the handlist of Anglo-Saxon non runic inscriptions', *Anglo Saxon England* 11 (Cambridge, 1983), 92, no. 167 and Pl. VIc.

¹⁰ Data for Winchester from Davies and Ovenden, op. cit. in note 2, 108 and 112; for Chichester from A. Down, *Chichester Excavations III* (Chichester, 1978), 164; for Hedeby from Drescher, op. cit. in note 3, Table 6 and for the rest from R. F. Tylecote, *The Prehistory of Metallurgy in the British Isles* (London, 1986), Table 23.

¹¹ Alan Hughes of Whitechapel foundry, *in litt.* He also commented, 'If the bell was cast to a particularly thin scale, and if additionally the cooling rate was rapid, the effects would have been partly offset'.

¹² Hawthorne and Smith, op. cit. in note 5, 171.

THE OUTER GATE HOUSE AT DUNAMASE CASTLE, CO. LAOIS (Figs. 11, 12; Pl. VI, A)

Dunamase Castle has been described as 'perhaps the one convincing piece of Marshall castle masonry in Ireland'.¹ The Irish Pipe Roll of 1211-12 includes the entry 'And £6 [rendered by William Marshall] for the land on which the castle of Dunamase stands'.² Because the castle stands on a precipitous limestone hill, it has always been assumed that it was built of stone from the first, and so, by implication, that the remains now visible are in the main those of the first castle. H. G. Leask, whose book on Irish castles is still the only one in the field, describes the castle briefly, with a sketch of the outer gate tower, which he states is 'a round-faced gate tower which has the traces of a drawbridge'.³

If we combine Leask's description with the dating evidence outlined above, it is only reasonable to conclude that the outer gate of Dunamase Castle gives us an early 13th-century (probably before 1225) example of a drawbridge in the British Isles. Because this would be a notable occurrence it seemed worth a small amount of work to check the possibility in the field. Evidence for a drawbridge could exist in various ways. The standing masonry might preserve pivot stones at the base of the gate opening; there might be a recessed frame for the bridge to close into when raised; there might be holes in the front wall for the lifting chains to pass through, or traces of a pit behind the gate proper, into which a counter-balanced bridge could drop. Outside the gate, the outer end of the drawbridge when down would have to be supported, either on a revetment of the outer edge of the ditch, or on a pier built within it.

The castle crowns the hill with only one practicable approach, from the SE.; the gate tower stands at the apex of a triangular outer bailey covering the line of approach (Fig. 11). The walls of the outer bailey are structurally additions to the curtain walls of the main castle, but this need not be significant for the date of the building because, at the junctions, the main curtains are built on ledges of the limestone rock of the hill: to bond them to the walls of the outer bailey would have been difficult and unnecessary. The gate tower is unique in plan (Pl. VI, A, Fig. 12) but is effectively a round tower pierced by the gate passage. There are the

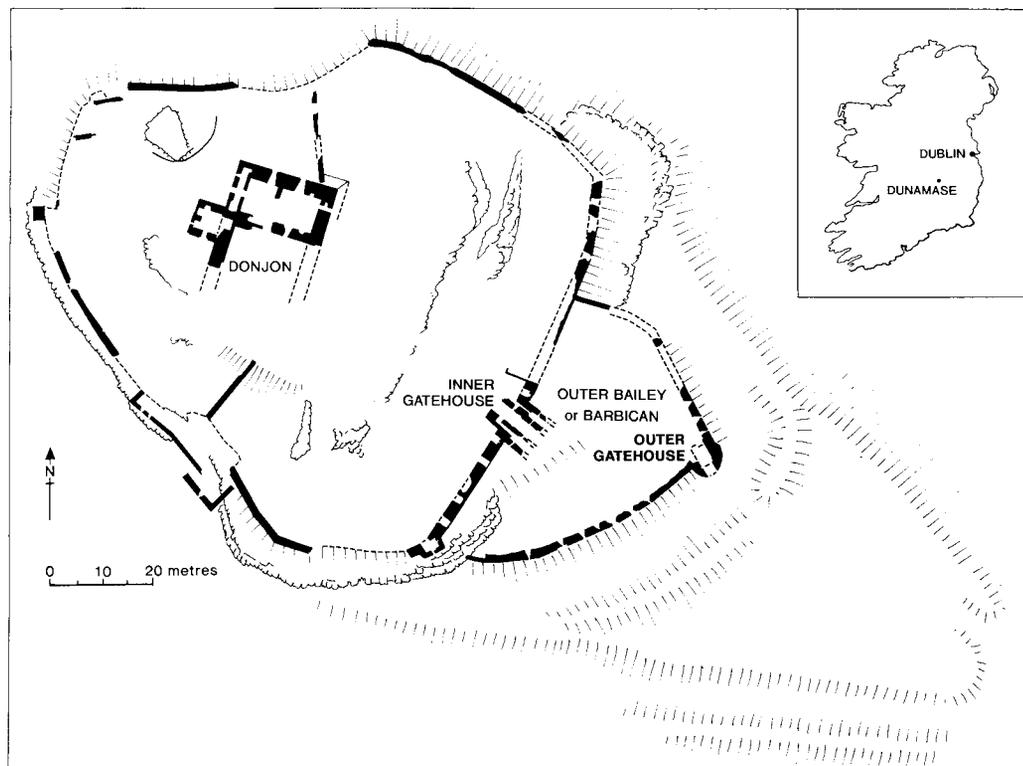


FIG. 11

Dunamase Castle, Co. Laois: plan of the castle showing the location of the outer gatehouse.
After R. Stapleton, Office of Public Works, Dublin

poorly preserved remains of a first-floor chamber over the gate passage and the two side towers. There are no chambers flanking the gate passage at ground level, but there is a line of three arrow loops in the wall to the NE.: details of the southernmost of these are shown in Fig. 12. The gate opening itself has lost some of its lower dressings but it can be seen that it was built directly on the living rock. There is no sign of either pivot stone at the base of the opening, or of any hole for a chain. The sides of the gate have no recesses into which a bridge could fit, but there is the emplacement for a beam over the top of the gate, below a relieving arch. Above the chase for the beam the walling projects out over the gate opening, to continue the curve of the tower on either side. The beam might have been to provide a flat surface for the bridge to close against, and so avoid the awkwardness of closing against the convex face of the tower above. It is this which probably led Leask to describe it as a drawbridge.

The height of the gate tells us that any bridge closing against this beam would have to be *c.* 4.7 m high or long, which could not span the castle ditch outside it (Fig. 12). A drawbridge would therefore have needed a masonry pier in the centre of the ditch to support it. A contour and electrical resistivity survey⁴ was carried out over the area in front of the gate tower and along the gate passage; the ground fell away so steeply into the ditch to the NE. that it could not be pursued further in that direction, and dense scrub prevented work to the W. The crucial part, *c.* 4.7 m from the gate, was at the deepest part of the ditch. Resistivity values were falling there from their peaks against the base of the tower wall, which were probably the result of masonry fallen from the first floor of the tower and piled against its base. Had

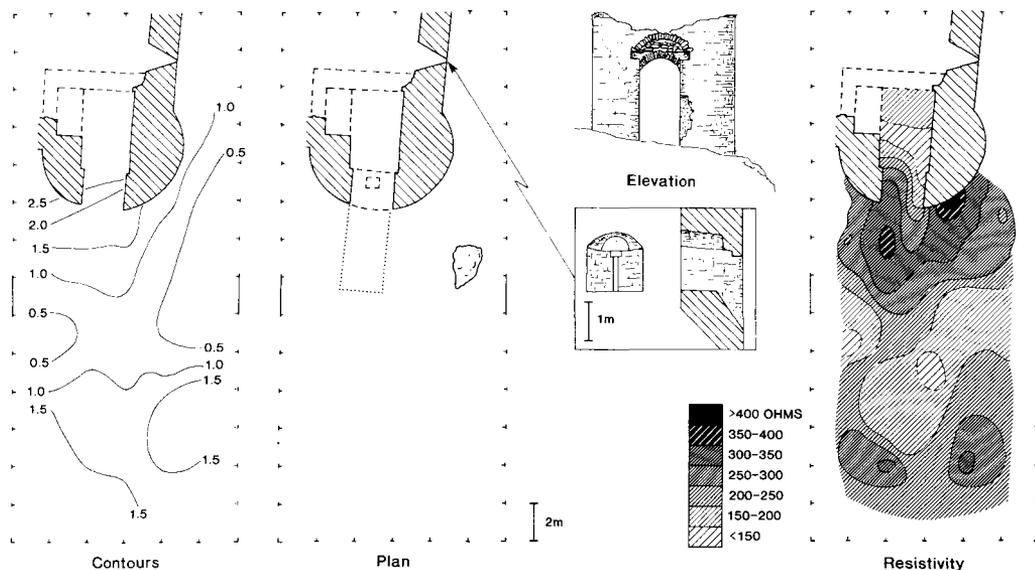


FIG. 12

Dunamase Castle, Co. Laois: plan and outer elevation of the outer gatehouse, with contour and resistivity survey results

there been a pier, it is unlikely (given the amount of standing masonry still present) that it would have been robbed or collapsed to such an extent that it would not cause high values. Inside the gate passage there was a small area of relatively low resistance immediately behind the gate, with the values rising again further in. This was probably caused by water running down the hill from inside the castle and some being retained by the masonry of the gate. There was no indication of any bridge pit within the passage. Irrelevant to the question of the gate tower, but worthy of note are the two restricted areas of high resistivity in the counterscarp bank opposite the gate (Fig. 12), possibly indications of masonry defining the access gap through the bank.

This leaves the emplacement of the beam above the gate as the only indication of any drawbridge. This is more easily explained in terms of the problems for the masons caused by the shape of the tower. As it was laid out, and for the first *c.* 4 m of height, the tower consisted of two segments of a circle, separated by the gate passage. Because it was built directly from the rock which was at surface level, there was no need for foundations to link the two halves under the gate itself. When they came to the top of the gate, the masons were faced with the problem of joining the two. If they simply bridged the two sides of the gate, the front of the tower would have to be flattened in plan. If they continued the convex curve of the tower, the walling would project out over the centre of the gate. They inserted a beam at the top of the gate to carry the projecting wall and its relieving arch over the space. The appearance of the tower is not the result of the fitting of a drawbridge but of a rather ad hoc solution to an awkward problem of detail.

Dunamase reflects not the latest design for castle gates, but the device of inexperienced masons. Similarly, the arrow loops to the NE. show a knowledge of the contemporary style of plunging design, but it is carried out without the use of ashlar, let alone the sort of elaboration illustrated in Knight.⁵ The design of the main gate to the inner ward is also odd. It either has twin towers on either side of the gate passage, in concept the plan of the classic castle gate house, but both the passage and the flanking towers are very narrow, or else can be seen as a single square tower with a passage. It relates less to the main lines of development than to a peculiar variant also seen at Carlingford, Co. Louth.⁶

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NOTES

¹ J. R. Knight, 'The road to Harlech, aspects of some early 13th century Welsh castles', in J. R. Kenyon and R. Avent (eds.), *Castles in Wales and the Marches* (Cardiff, 1987), 84.

² O. Davies and D. B. Quinn, 'The Irish Pipe Roll of 14 John, 1211-1212', *Ulster J. Archaeol.*, 4, supplement (1941), 16-17; note the correction in D. B. Quinn, 'Index and corrigenda to Irish Pipe Roll of 14 John', *Ulster J. Archaeol.*, 6 (1943), 35.

³ H. G. Leask, *Irish Castles and Castellated Houses* (Dun Dealgan, 1964), 64.

⁴ Carried out using a Geoscan Research RM4 machine with twin electrode probe configuration.

⁵ Op. cit. in note 1.

⁶ V. Buckley and P. D. Sweetman, *Archaeological Survey of Co. Louth* (Dublin, 1991), 320-23.

THE CHANNEL ISLANDS CONFERENCE 1993

The 1993 Annual Residential Conference was held in the Channel Islands and was hosted by the Guernsey Museum Service and the Société Jersiaise. Chris Aubin, Bob Burns, Mark Patton and Margaret Finlaison acted as Local Secretaries.

The conference started on Friday 2 April, with a tour of St Peter Port led by John McCormack followed by a Vin d'Honneur at Candie Gardens Museum hosted by the States of Guernsey Tourist Board. On Saturday lectures were delivered by Bob Burns, 'Archaeological introduction to Guernsey'; Warwick Rodwell, 'The early Christian archaeology of the Channel Islands'; Kenneth Barton, 'The fortification of the Channel Islands by the English after the loss of Normandy'; and Marion Archibald, 'Medieval and early modern coinage in the Channel Islands'. After lunch Kenneth Barton, Warwick Rodwell and John McCormack led a trip to Chateau de Marais, Vale Castle, Vale Church and St Sampson's Church. In the evening Bob Thompson and Richard Keen talked on 'Medieval wrecks of Guernsey and their cargoes'.

On Sunday 4 April, the conference was given a guided tour of Castle Cornet by Kenneth Barton and a medieval and later pottery workshop by Bob Thompson and Duncan Brown. After flying to Jersey the conference was guided around the Fisherman's Chapel, St Brelade by Warwick Rodwell and La Hougue Bie by Dr Mark Patton. In the evening Prof. Pierre-Roland Giot gave a talk entitled 'Twilight on the Dark Ages of Armorica'. On Monday 5 April, the conference heard talks by Mark Patton, 'The archaeology of Jersey' and 'The cist grave cemetery of La Motte (Green Island)'; Chris Aubin, 'The mills and pergages of Jersey'; and Prof. Wendy Davies, 'The Channel Islands and Brittany: some reflections on medieval settlement studies'. After lunch the conference was guided around Gorey Castle by Kenneth Barton and in the evening was given a Vin d'Honneur at The Jersey Museum hosted by the Société Jersiaise. On Tuesday 6 April, the conference was guided around the late medieval and later farm of Hamptonne and the church of St Lawrence by Warwick Rodwell followed by a tour of Elizabeth Castle led by Doug Ford.

Thanks were given to all who helped to make this conference an enjoyable and informative occasion, especially our hosts, the Local Secretaries and Warwick Rodwell. We are also very grateful to Aurigny Air Services for help with air travel between the islands.

ALAN VINCE