

Fig. 1: Beaumaris Castle: ground plan (from RCAM *Inventory*, 1957)

THE "MILL" AT BEAUMARIS CASTLE

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Beaumaris Castle, one of the chain of castles established around the north and west coasts of Wales by Edward I at the end of the thirteenth century, is well known as one of the most complete examples of concentric defensive works still surviving (Fig.1). The outermost defences consist of a wet moat, part of which is enclosed to form a dock: and in a tower on this enclosing wall is reputed to be the castle mill.

The description in the Royal Commission *Inventory*, reads: "The *Mill* was situated in the bastion of the Gunners' Walk. It had an under-shot wheel worked by water flowing from the eastern moat, and to the N.[recte W?] is the spillway. At some later date, following the silting-up of the dock, the water from the mill was carried across it by wooden channels to the ditch outside the Town Walls." There are also two worn mill-stones reused in the floor of the basement of the Great Hall: one is 0.95m diameter, the other 1.26m diameter.

The Gunners' Walk and the bastion was probably among the parts of the castle built after 1298: the stonework around the arrow-slits is similar to that in the later parts of the castle. Indeed, it may have been one of the sections not yet complete in 1321². It is obviously connected with the use of the dock, and would seem to be the ideal location for a small mill operating a little like a tide-mill, powered by releasing water ponded up in the dock.

However, the bland assurance of the Commission report becomes a little less certain when one looks at the remains of the mill (Fig.2-3). The irregularly-shaped bastion contains a narrow raised masonry walkway around a paved area to the south of which is a narrow channel through which water still flows. This channel is 85cm deep and 38cm wide: at its west end is an inflow from the dock through a rectangular opening, at its east end the paved floor drops and there is an iron lifting sluice. The spillway is now culverted below a grassed area. The channel has loose stone slabs covering it, but an early photograph³ shows the channel open, and a recess in the walkway to the south.

So it is just possible that there was an axle resting on this walkway. But the available space allows an undershot wheel of no more than 3m diameter and 0.35m breast: could this have driven a corn-mill? And how would water "from the eastern moat" (see above) have driven the wheel in any controlled manner, since the moat was filled by the rising tide all around the castle, and controlled release would only have occurred at low tide into the eastern moat. Well before high tide the filling of the dock would have reduced the flow westwards and therefore reduced the power of the wheel.

BEAUMARIS CASTLE

Gunners' Walk Bastion

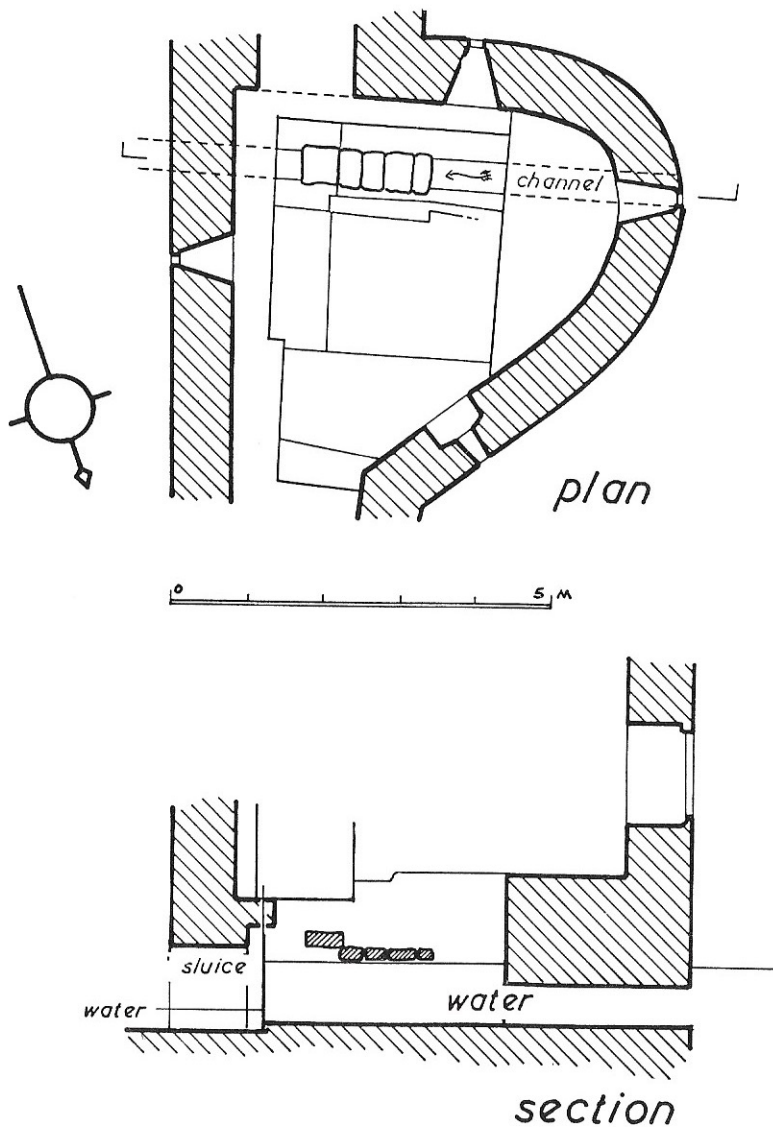


Fig. 2:

Perhaps it was in fact much less complex. A pencil note in the original Investigator's description of the castle⁴ says that the bastion "covered the control of the water in the moats", and perhaps the channel was originally blocked by sluices at either end. It would have been necessary to maintain the level of water in the dock between tides to avoid the risk of leaving ships beached. As the tide rose water would fill the moats and the dock: but as the tide dropped, water could be retained in the dock by closing the sluice(s).

References

1. Royal Commission on Ancient Monuments in Wales, *Inventory of Ancient Monuments in Anglesey* (1937), p.13
2. H.Colvin (ed.), *History of the King's Works* vol.I (1963), pp.400, 405.
3. Ministry of Public Buildings & Works, photo 0086 (in National Monuments Record for Wales)
4. In National Monuments Record for Wales