Dulverton Weir



Cross-section





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The ancient (original) structure of Dulverton weir appears to have been built in a style that is typical of the Norman period. At first sight, the weir might appear to be a very simple structure. However, closer inspection reveals that the people that built this weir in the 13th/14th century, knew exactly what they were doing and clearly had experience.

The materials are local stone and timber stakes. The design comprises five elements with each element supporting the others. These are:

- 1. The "toe" of the weir a step cut in the river bed for the structure to compress against.
- 2. Oak stakes hammered into the rock bed of the weir to prevent horizontal slippage (probably located into holes actually drilled into the river bed).
- 3. Facing stones large flat stones laid on edge across the upstream face of the weir to prevent seepage.
- Substructure large random sized stones laid from the toe going forwards to support the stakes horizontally and the glacis stones vertically.
- 5. The glacis rounded edge stones laid from the toe going forwards to form a slope from the

crest of the weir down to the toe (approximate angle 20°).

How was the weir built?

The site was prepared by excavating the ground to form the weir pool and the level bed of the weir. A step was cut in the edge of the river bed to form the toe of the weir.

Holes were drilled in the rock to accommodate at least 3 rows of hardwood stakes about 600mm apart

Between the first two rows of stakes, large flat stones were laid on edge across the face of the weir to prevent seepage.

From the toe going forwards, the substructure was laid to provide lateral support behind the facing stones and to form the "crest" of the weir.

Above the substructure, the "glacis" was formed by laving rounded stones on their thinnest edge. similar to a dry stone wall but at an angle of approximately 20° to the horizontal.

Under pressure from water, the resulting structure is always in compression against the toe and, therefore, is resistant to displacement of stones by the water flow. In effect, the pressure squeezes the stones against each other, holding them in place

As more is discovered about the Dulverton Urban Watermill Landscape it's becoming more and more obvious that Dulverton Weir and Leat is not the simplistic and charmingly haphazard structure that most have formerly believed. When it was built it was at the cutting edge of technology at the time and it was built by skilled individuals

It's probable that one or two of the men who came to built the weir and leat met local women and stayed on.

Dulverton Weir and Leat Group has done a huge amount of work on the weir and would be happy to answer your questions -323 526 - hull@weirhead.net

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