

INTRODUCTION: MEDIEVAL WATER MANAGEMENT, SOME EXPERIMENTAL ARCHAEOLOGY

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It is only the 20th of July as I write this introduction. I have recently signed up for the [Council for British Archaeology 'Day of Archaeology'](#) and I have not got long to organise things. The big question I had was 'what to do'? As there are umpteen things on my list of things to do, I could have chosen any one of them to promote on the day itself. Did I want to excavate? No, not really. The time and effort, not least the organising, involved in that would have been too much at such short notice. But, I do not like to have things too easy, achievable yes, easy no. So this is what I have started to organise for the day itself.

The Welsh Cistercian abbey of Llantarnam was founded in or around 1179 and it lasted until the dissolution. It is thought that none of the original building survives and like so many other abbeys that share that distinction, it has not really been investigated with a keen eye, until now. Within its outer precinct (although that is a subject of debate) it possesses the remains of some remarkable water management systems that the Cistercian monks are renowned for. The hydraulic systems extended far and wide beyond the outer precinct but, as they enter the grounds of the abbey, the management of water becomes almost microscopic. It is two of these features that I would like to investigate for The Day of Archaeology.

There are, of course, many leats feeding the whole system: Existing features include two dams with a drainage system attached to one of them, weirs that contain evidence for sluice gates, the remains of a medieval bridge that not only has evidence for sluice gates, one of them is still intact and working. There is a fishpond weir, possible wharf, a culvert built over one of the mill tail races and a sluice gate built into the same. It is, quite literally, jam packed with archaeological features although it has to be noted that the largest construction project appears to be the canalisation of the Dowlais Brook.



The Dowlais Brook: Long, straight sections of rivers and brooks can indicate archaeological interference.

It is the possible wharf and drainage system attached to the dam that I am going to concentrate on though. And it has taken some arranging. Amazingly, the weather hasn't seen the need to rain heavily for some time now in South East Wales and this presents me with a problem. If I want to trace a drainage system from a medieval dam to its outlet how do I attempt that without any water? I had two options, I could either ask the fire brigade to flood the system with water, or ask somebody who specialises in drains (that they would use to flush out blocked drains during their course of work) and carries a supply of water with them to do the same. I asked both and received a positive reply from the latter.

The next problem I thought of, as I was probably going to be on my own for the day, was how to record the drain trace? As I study at the University of Wales Newport, Caerleon Campus I thought I would ask for a favour to be returned from some of their film students. Hopefully they will be there to record the experiment, if not I will have to record it with photographs. Either way it should not be a problem.



The dam nestles quite nicely next to the Magna Porta - The Great Gate



There are two leat systems feeding it.

The outlet is interesting. After heavy rain it appears to be in good working order – or is it?



Buried deep in woodland, this drain outlet still carries water during heavy periods of rain



Showing the construction of the drain outlet

It should be interesting to see how all of this turns out. The drain outlet shown above is quite a way from the dam outlet and it feeds the Dowlais Brook.