

A History of Dulverton's Mill Quarter

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Further work is required to definitively identify when Dulverton's Watermill Landscape (weir, leat and watermill system) was originally built, most experts believing it to have been constructed in the 11th or 12th centuries.

Intriguingly the Dulverton system is not listed in the Domesday Book, but there is a system at Otterton in Devon which is listed. Its similarities with Dulverton are stunning (see fig. 1) and this would tend to support the current view of the age of the Dulverton system.

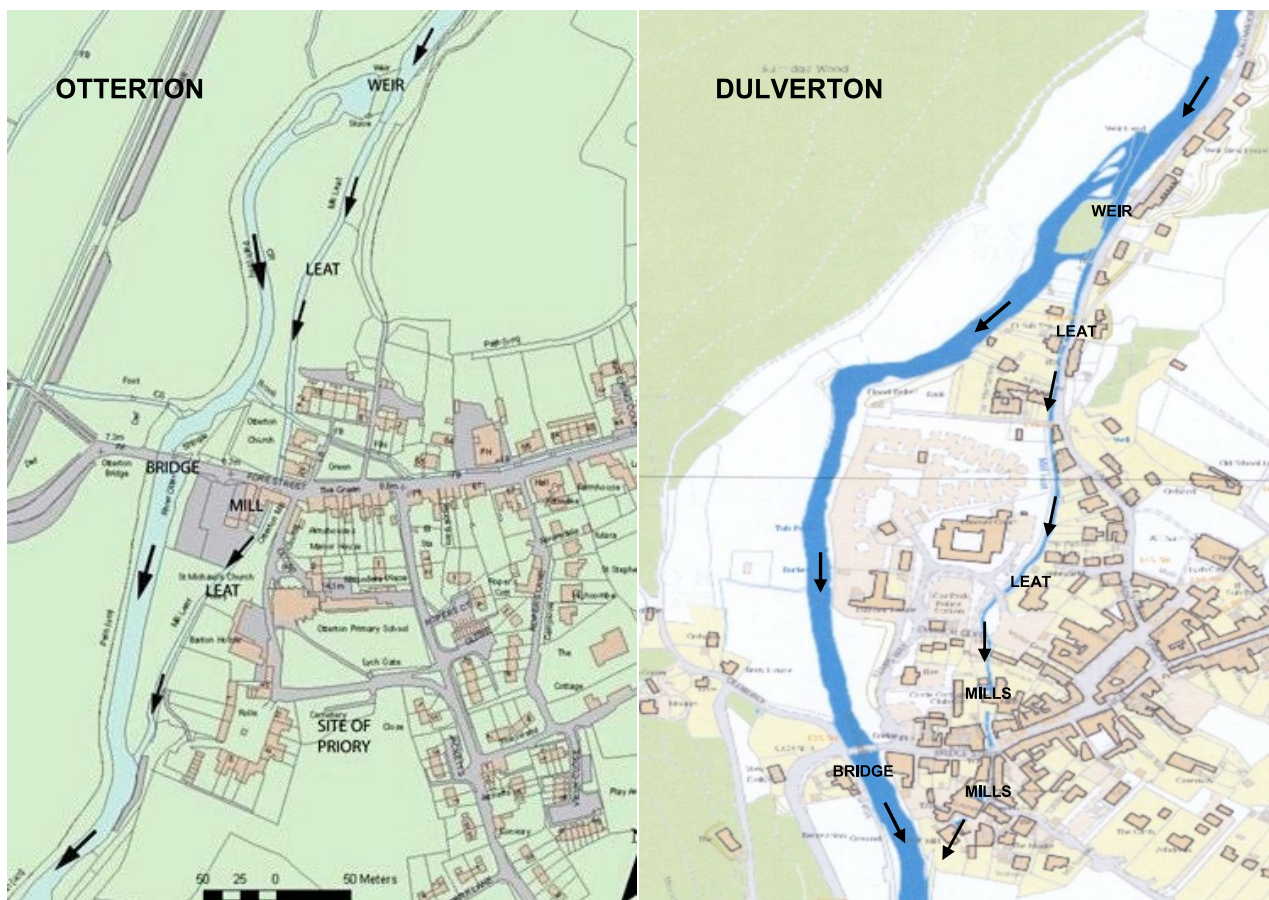


Figure 1: Maps of Otterton and Dulverton

The Watermill Landscape still visible in Dulverton gives clear indications of the town's importance as an industrial centre and has implications for our understanding of the history of the town itself. Nowadays we look back on Dulverton's past and tend to see it as generally bucolic (as it is today), perhaps with a few watermills scenically grinding corn for making artisan bread, and perhaps more fish in the leat.

The reality could not have been more different. The centre of Dulverton was a dirty, smelly, noisy place with closely packed small cottages, very close to the mills where the occupants worked. In the 1830's there were up to 70 people working in the silk and crepe mill (now the laundry) alone. Cottages now housing one or two retired people would have contained whole families living without running water or sanitation, quite possibly with a fair amount of deprivation, exploitation and child labour.

The 1841 census shows 104 people living in 16 cottages in Chapel Street, with 8 of the cottages housing a Silk Weaver. The leat itself, as well as being used to drive the mills was an open sewer carrying domestic and industrial waste.

These are very much conditions that we tend to identify with the industrial Midlands and North, resulting from the (second) Industrial Revolution based on coal.

The Historian Jean Gimpel pointed out that in fact there was an earlier (first) Industrial Revolution based on water power, which took place in the middle ages and the Engineer Jacques Bresse writing in the 1850's opined that the term 'Waterwheel' itself is a misnomer, we should properly call them 'Hydraulic Motors'.

In the middle ages waterwheels were 'cutting edge' technology, giving vast gains in productivity and output over work previously done by horses and men (a waterwheel that did the work of 5 horses was said to be of 5 horsepower). Gimpel refers to '*the medieval genius of inventiveness*' which led to the harnessing of waterpower all over Europe. Watermills were not only being used to grind corn; the Domesday book records that two mills in Somerset were being used to forge iron. Waterwheels aroused fear, awe and wonder amongst onlookers much as nuclear power does today.

Dulverton was part of this first (waterpower) industrial revolution, with the constantly flowing waters of the River Barle allowing a major investment to be made in the new waterpower technology. Water from the river was diverted by the construction of a 160 metre long weir at Weirhead to feed a leat, which ran along what was then the western boundary of the town. The skill in medieval leat engineering was to keep the water in a leat as near horizontal as possible, whilst allowing it to flow forwards so as to build up the maximum 'fall' or 'head' (power) when it arrived at the point where it was to be used to drive machinery.

A walk along the leat (particularly opposite Hanover House) reveals how carefully the medieval engineers laid out retaining banks to keep the leat level. The same skills were used in canal building - but 600 years later! The system at Dulverton provides a particularly powerful fall of 30 feet allowing a succession of mills one after another in close proximity to be worked at the bottom end of town and so well was the system constructed, that it was to remain a power source for more than 700 years of continuous industry in the town.

Whilst the first mill in Dulverton was probably a flour mill, we know that by 1330 there was at least one fulling mill. The abundance of sheep grazing on Exmoor provided a plentiful supply of the raw material for Dulverton to become established as one of the major manufacturing centres for heavy woollen blankets, along with Witney and Leeds. The process provided employment for spinners, weavers, dyers, fullers (or tuckers, as they were known locally) and finishers.

The fulling process involved soaking in a number of agents including stale urine and fullers earth and pummeling the cloth with large wooden hammers, or fulling stocks, tripped by wooden cams directly driven by the waterwheel.

After washing the finished woollens they were hung out to dry in the rackfields above the town at Weir Cleeve, where there were longer hours of sunlight than in the valley (Middle, Upper and Lower Rack Closes were later offered for sale in November 1847 see fig.2).

By the 18th Century, there were at least nine waterwheels powered by the leat. Dulverton's Watermill Quarter was divided in two by the High Street.

Upstream was **Town Mills**, comprising four waterwheels each with grinding stones, mainly dedicated to flour milling (offered for sale in 1796 see figure 3).

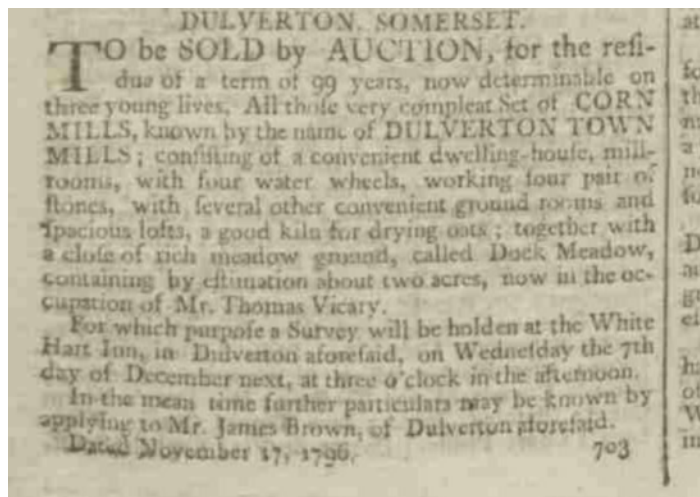
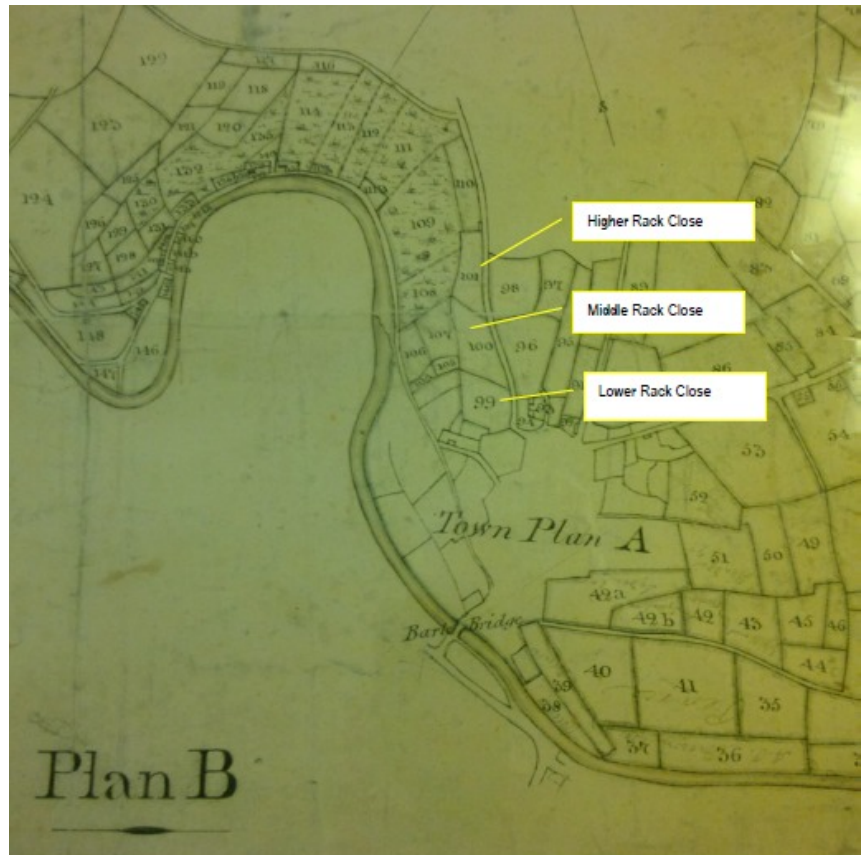


Figure 3: Town Mills for sale notice 1796

Downstream of the High Street was a blade mill, fulling mills and a woollen factory.

The houses in Chapel Lane(then known as 'Duckpuddle') were occupied by the mill workers. The narrow street would have been a chaotic scene with carts coming and going throughout the day.

The woollen trade was the mainstay of Dulverton's economy for more than 400 years, but by the start of the 19th Century, the trade was in demise because of cheaper imports and efficiencies of scale achieved by larger coal powered mills in the North of England.

But this was by no means the end for Dulverton, using the existing resources but adapting to changing markets, industry and employment continued. By 1828, the former woollen factory had become a silk and crepe mill using Power Looms newly invented by M. Debergue and manufactured by Sharp Roberts & Co. in Manchester. The mill workers were again living mainly in the same industrial part of the town. They had their own local pub, 'The White Ball' in Duckpuddle (run by James and Anne Reed) and their own place of worship at the Congregational Chapel (built in 1831), while the gentry attended the Parish Church at the top of the town.

By the end of the 1860s, Dulverton again saw a period of change. The silk trade had gone the same way as the woollen industry. The silk and crepe mill became a joinery workshop using water power to manufacture windows, doors and staircases for new building developments in the area.

In the meantime, Town Mills had been re-built with two breast wheels. Lower Mill concentrated mainly on milling animal feed and a fulling mill had been taken over by a blacksmith. The rackfields that had been used for drying the woollens in the sun were planted with strawberries and a tramway was laid for taking irrigation water up to the fields from the leat.

In 1897 a laundry started in part of the joinery factory to serve the needs of the hotels and sporting estates. Ultimately, the laundry took over the whole building, using water from the leat. These same premises were again the town's largest employer. The laundry continues in the same building to this day but no longer uses water from the leat. A good deal of the original watercourses under the laundry are still visible but are now silted up (see figure. 4).

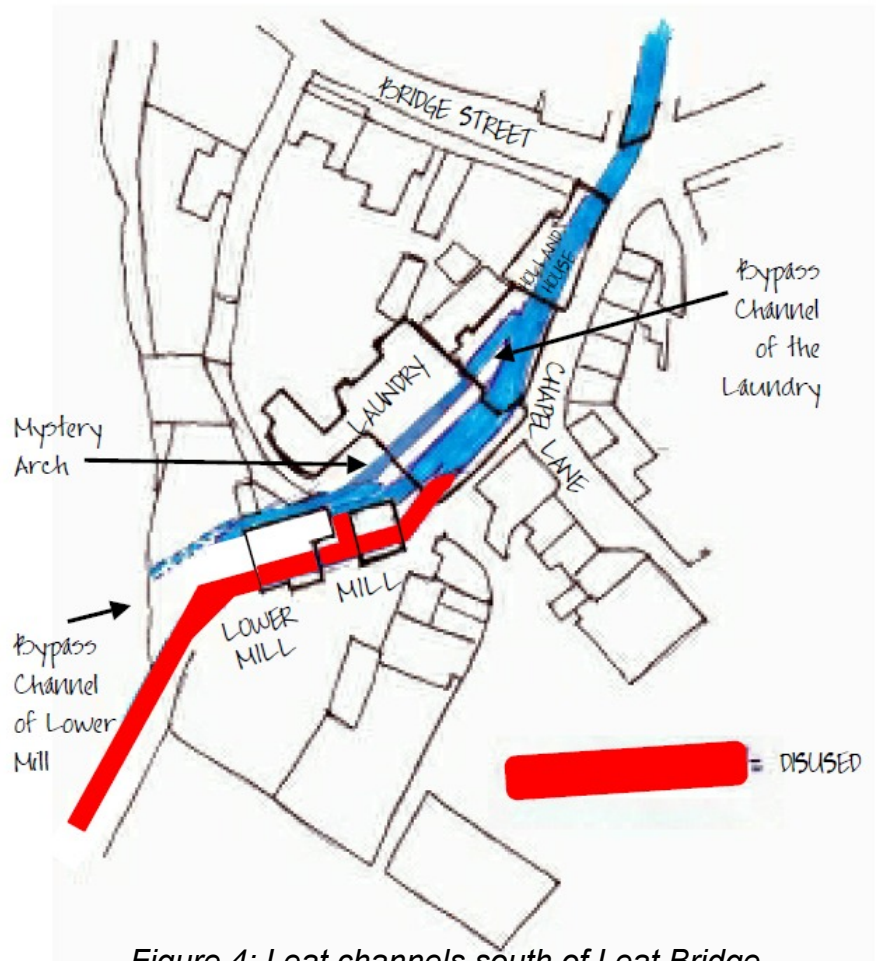


Figure 4: Leat channels south of Leat Bridge

On a recent visit Dr Edgeworth of Leicester University identified an additional mill building adjacent to the Laundry as well as uncovering the original gear wheel casting patterns from the Dulverton Laundry waterwheel (figures. 5a or 5b).



Figures 5a and 5b: Gear wheels

The waterwheel was removed in the 1930s and although we do not know what happened to it, the casting patterns will enable us to estimate its size. Town Mills continued milling flour until 1972.

Town Mill's waterwheel was later relocated to Bickleigh Mill where it is still turning albeit as a centre piece for a Tea Room (figure. 6).



Figure 6: Waterwheel at Bickleigh Mill

Much of Dulverton's Watermill Landscape is still in place and still visible as a testament to Dulverton's industrial past. Sadly it is currently not protected by legislation and is falling into disrepair. There is now a groundswell movement in the UK to value weirs and leats as important historical structures in their own right as well as recognising that they can make important contributions to the communities in which they are situated via tourism, recreational use and amenity value. We hope that the Dulverton Watermill Landscape will also be recognised and conserved for future generations.