

Possible Navigation of the River Derwent at Darley Abbey

Records and documents concerning the building of the Derby Canal indicate that the weir on the River Derwent below St Mary's Bridge was constructed to allow access by boat to Darley mills. This strongly suggests existing boat traffic serving the mills and, consequently, an existing navigable waterway.

My previous report concerned the extensive bank works visible along the River Derwent where it passes through Darley Park and the playing fields. I suggested that an archaeological dig in the river banks at Darley may reveal the reason for the works and indicate a date for the works.

My curiosity regarding the bank works led me to study the various maps starting with P P Burdett's County map of around the third quarter of the eighteenth century. Next came the map of 1834 followed by the 1860 map and the 1901 map.

What these maps show is the evolution of the westerly river channel where the 'ditch' now runs through the park. This is in addition to the main river channel flowing to the east of what is today the "wild flower meadow".

During the time that Burdett mapped the village of Darley for his county map the "wild flower meadow" is shown as an island or 'Holm' so it is appropriate that any examination of the evolution of this area should start with the Burdett Map.

Each consecutive map shows the east channel and it looks on the 1834 map as if the channel has been cut all the way through to give access to the river above the weirs. However, without any form of lock or dam this does not make sense as it would allow the water to cascade down the channel thereby undermining the purpose of the weirs.

The 1860 map shows the channel in greater detail and it does show it right the way through although now there are some structures crossing it. The northern channel is now filled in. If the sluice at the southern end of the channel, close by its outfall into the river, is a lock then the channel would have become navigable in the conventional sense.

By the start of the twentieth century most of the channel has been filled and no longer makes a connection from the top of the weirs to the river via its course.

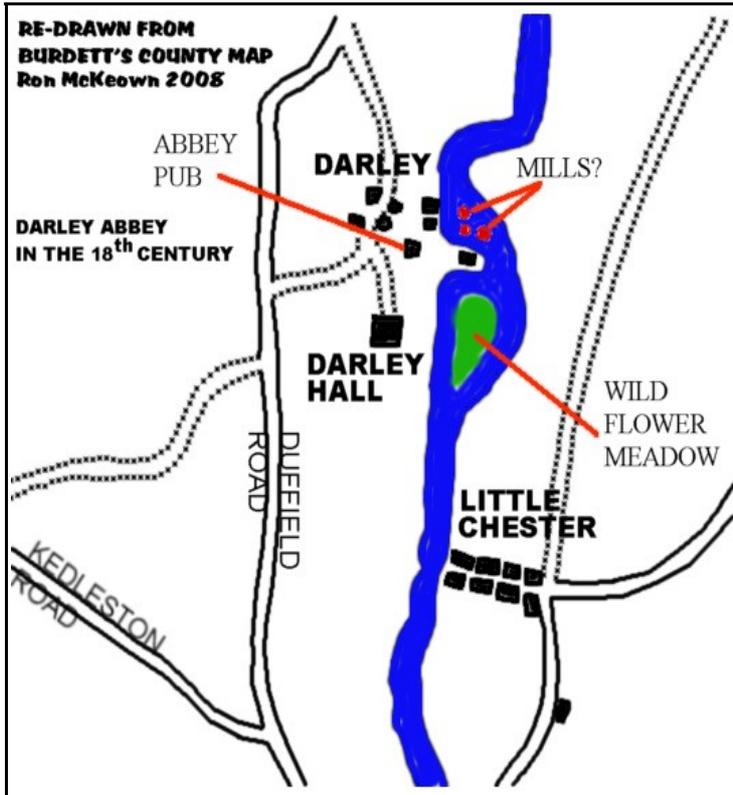
Is it possible that this was once made navigable but only for a short period of time? The maps suggest this although never actually show it. (Note – the following maps are for illustration only and are not to scale).

If anyone has information regarding this possibility I should very much like to hear from them.

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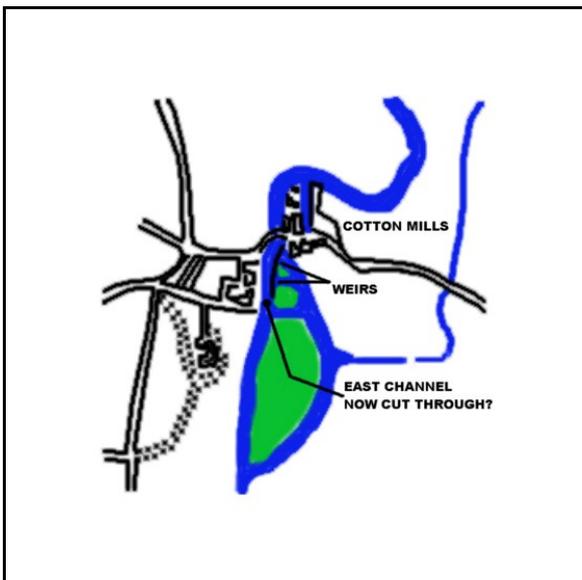
The Burdett County Map distinctly shows the current wild flower meadow as a Holm and above it is a small promontory which is now the location of Deans field. In the River above the small promontory are three structures which seem to be indicated as mills on Burdett's map.

The remains of the Abbey that are now known as the Abbey Public House are shown on Burdett's Map which enables some locational direction to be established. Only the Duffield Road and Church Lane leading to Mile Ash Road can be specifically identified. The roads within the village are not shown making the Abbey Pub the only reliable point of identification. The hall may be correctly located on the map but is not quite as useful as the Abbey Pub when comparing the local geography.

The Cartulary of Darley Abbey makes mentions of mills at Darley as follows.

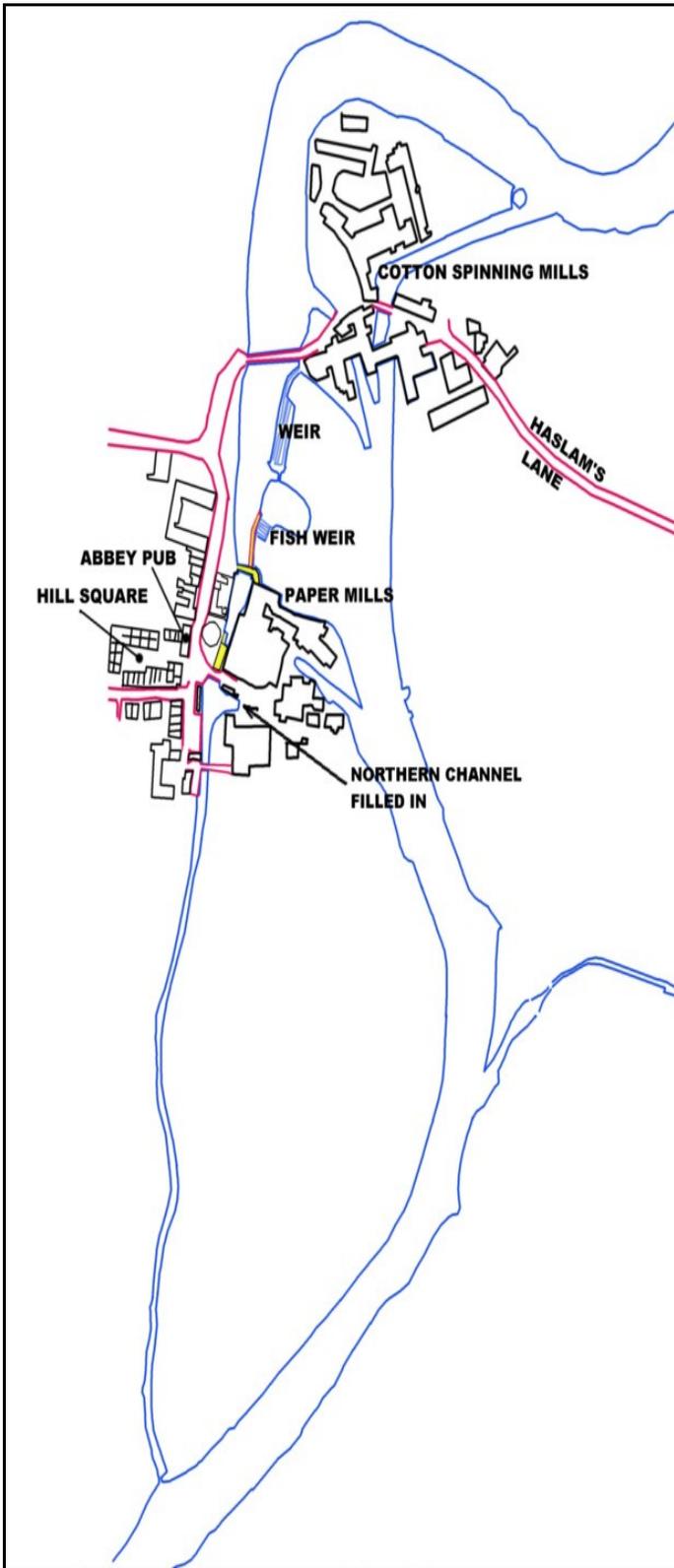
Roll A66 - Ralf son of Robert Fatteneye undertook to remove structure at end of toft extending into the Derwent to the harm of the canons mill pool – dated 21/09/1279

Roll B30 - William son of Joseph of Breadsall gave licence to the canons to maintain their mill pool on the Derwent and to repair it with wood or stone but shall not raise it higher than it was on 2nd March 1240. The canons are to make and maintain a 24 foot sluice in addition to the old one – dated 1263



By 1834 the Cotton Mills have been built North-east of the village and a feeder channel has been cut to serve the mills. The village roads are now shown and a bridge crosses the river to give access to the mills from the west bank.

The weirs have now been constructed and the east channel appears to have been cut through the small promontory although this does not make sense if the idea of the weirs is to raise the water height to provide power to the mills. This is indistinct on my copy of the 1834 map although it is possible that a sluice, lock or other structure has been built at the southern end of the east channel on the promontory to maintain the river level above the weirs. (About where my legend indicator ends in a black circle).



The 1860 map shows considerably more detail but I have only redrawn as much as is necessary to enable orientation. The buildings are shown in black and the roads in red.

Starting at the top of the map it can be seen that the channel supplying the Cotton Mills has been re-cut to come into the complex from the east and at a shallow angle. The Mills themselves have grown somewhat.

The weirs are shown in greater detail and it can be seen that the Fish Weir is only a short section.

Although I have shown the connection from the Fish Weir to the recently constructed Paper Mills as a road it is possible that it is a retaining wall otherwise the weirs would serve no real purpose.

The connecting road from the Fish Weir joins what appears to be some form of obstruction across the channel. Is this a dam or a lock or something else?

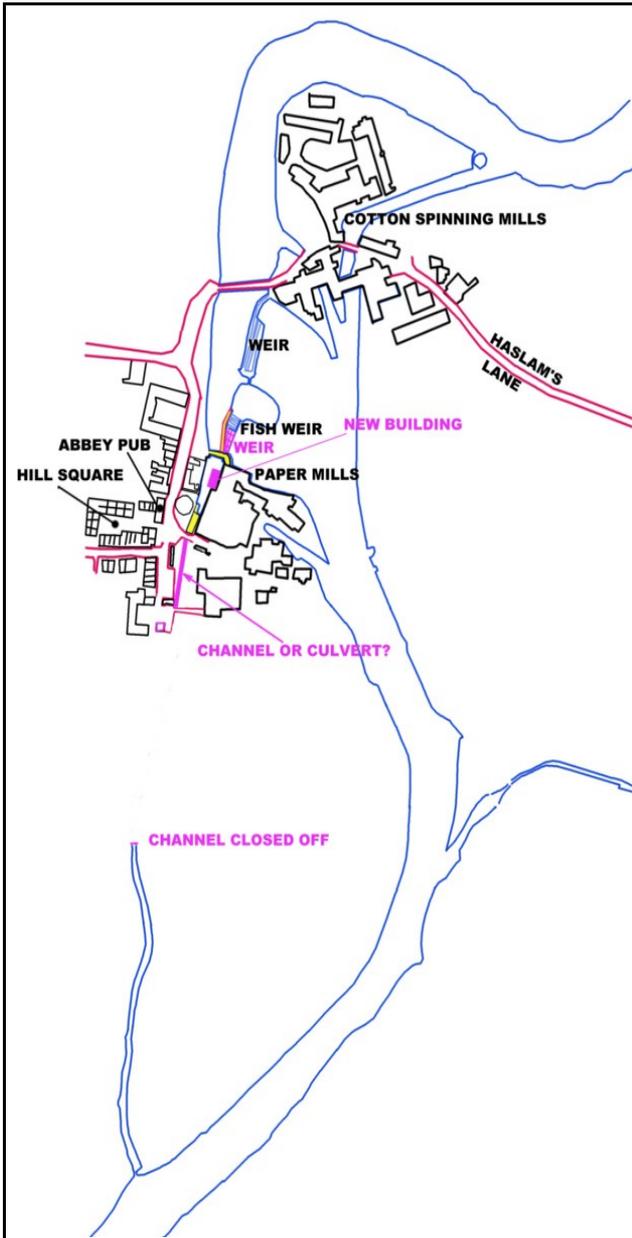
It looks as if the channel once ran through to give access to the River above the weirs but in addition to the above mentioned obstacle there are two other bridging structures crossing the channel and a possible structure actually in the channel just above the middle bridge. (Coloured yellow).

The Paper Mills and the Cotton Spinning Mills both have a potential dock open to the main river channel and this could suggest that a navigation above the weirs was not a necessity by the time of this map.

The north leg of the River above the Holm is now filled and the Paper Mills occupy what was the channel. The end of the channel

where it joins the river has been constricted.

The detail on this map suggests a channel that is being filled in and the following map shows this to be a continuing process.



The changes on the redrawn 1901 map show the continuing reduction in the east channel. (Changes in lilac)

The Fish Weir now has an additional weir and a new building has appeared in the channel but attached to the Paper Mill building.

The section below the middle bridge is now only a narrow culvert and the whole of the channel from the third bridge has been filled in leaving it as it is today.



This is the remains of what is generally regarded as a sluice at the south end of the channel. Its function appears uncertain and many suggestions have been put forward. One commonly quoted reason for it being here is that it was used by the Evans family to flood the flower meadow in the winter to make a ice skating venue.

I am a little doubtful of this because if the river was high enough to use the structure in this way the flower meadow would be flooded anyway. Also there does not seem to be sufficient flow on the land drain now feeding the cut to close the sluice and flood the meadow. However, if this was a lock then the channel could have been navigable.

We need a dig!