

The Importance of the Douglas Navigation to the Development of Wigan

By Dr Stephen Craig Smith

2020 marks the 300th Anniversary of the Douglas Navigation Act, passed on 24 March 1720, allowing the River Douglas to become a navigable waterway connecting Wigan with the lower reaches of the Ribble Estuary. It was not the first attempt to make the River Douglas navigable, that occurred in April 1713, but the earlier attempt was unsuccessful.

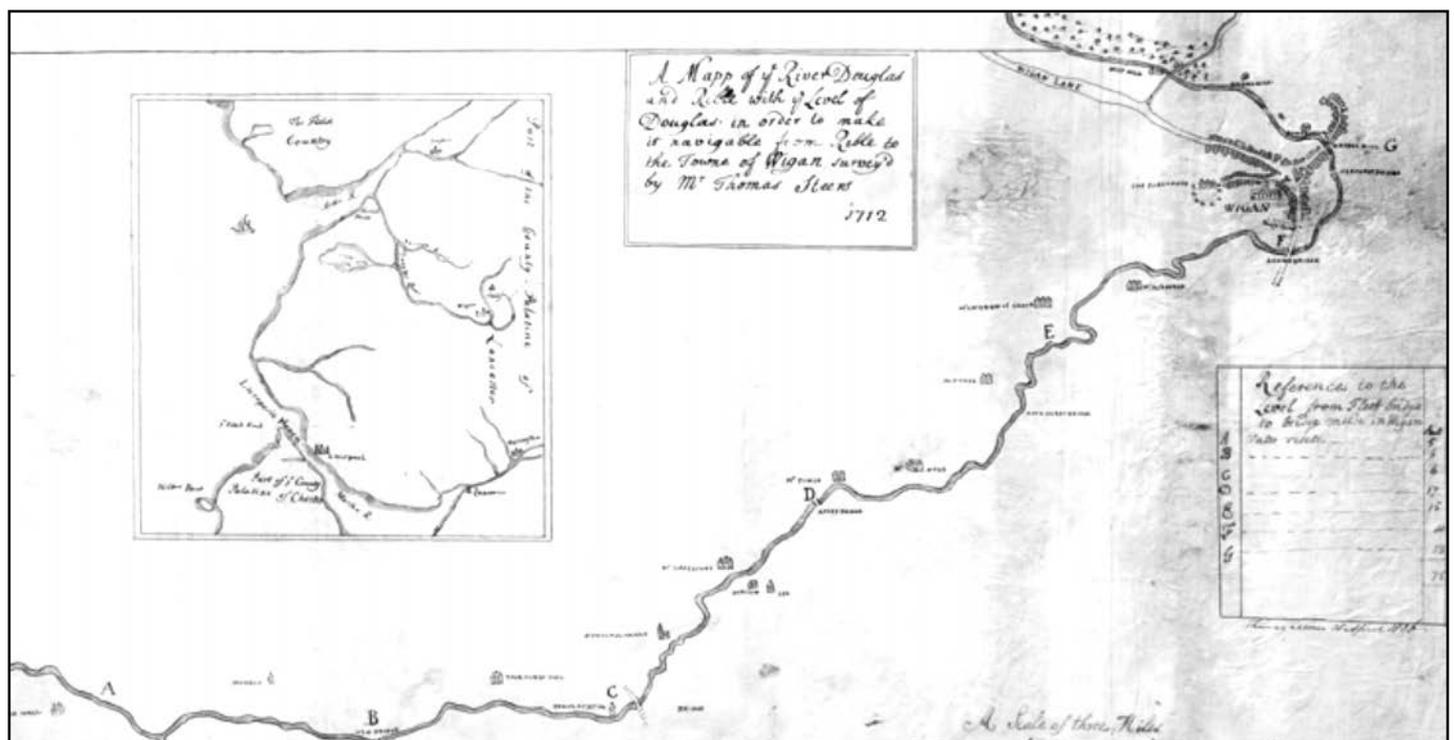
Although the Douglas Navigation existed for a relatively short time (it was finally opened in 1741 and all lock gates had been removed by 1782) its significance as a catalyst for the development of the Wigan Coal Field is out of all proportion to its short period of active use and its relatively mediocre financial performance.

Wigan had been associated with coal extraction for many centuries before the Douglas Navigation Act was passed. There is reference to coal extraction as early as 1320 when 'Margaret of Shuttlesworth exchanged land with Robert of Standish but he reserved firestone and sea coal if it be possible to find in the lands mentioned' (Hannavy, 1990) and in 1434 reference was made 'to coal mining in Pemberton and Orrell' (Shryhane, 1994, Anderson, 1975).

Until the opening of the Douglas Navigation all mining activity was small scale and focused on a local domestic market. This was due to the appalling state of Lancashire's roads prior to the eighteenth century. Coal is a heavy, bulky product which had to be transported either in paniers carried by, or in carts pulled by, horses. This involved roads which were quagmires in winter and rutted obstacle courses in summer. The cost of coal at the point of extraction doubled after carriage of only a few miles.

Liverpool was expanding rapidly around the early 1700s both as a settlement and as a port. Liverpool merchants were keen to improve docking facilities and following an Act of Parliament in 1710, contracted Thomas Steers to build a new dock. Improved docking facilities made Liverpool more accessible by sea, but profitable trading also depended on accessing coal from inland locations. Liverpool merchants were well aware of the high-quality coal and cannel mined in and around Wigan but how could it be transported to the port cheaply and efficiently?

Steers had a good understanding of the relationship between transport and commerce and by 1712 had surveyed the River



Copy of the original Thomas Steers 1712 Survey of the River Douglas
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Douglas to assess its navigable potential to connect Wigan with Liverpool by water transport. On the upside there were relatively few water mills to contend with between Wigan and the river mouth, but on the downside there was frequent risk of winter flooding. Steers felt the Navigation was possible with the construction of seven locks on a total river rise of 75 feet between the river mouth and Wigan.

A Bill was duly presented to Parliament on 10 April 1713, although it is unclear exactly who was behind the project. Steers may have been, Sir Roger Bradshaigh and the Earl of Barrymore, both significant landowners around Wigan, were certainly keen supporters having much to gain if the proposed project went ahead (Anderson and France, 1994).

Although there was much support for the Bill there were many against it. Serious opposition came from local riverside meadow and marshland owners who feared the Navigation would interfere with seasonal flooding thereby depriving them of periodic rich silt deposition on their land. In the face of this opposition the Bill was rejected by the House of Lords on 6 June 1713.

Following the failure of the 1713 Bill there was little interest in the project for the next six years. When interest finally returned, Steers became more closely involved, being named 'project undertaker'; Liverpool merchant William Squire was a strong supporter and Wigan M.P. Sir Rodger Bradshaigh expressed enthusiastic interest. The Borough and Corporation of Wigan, together with other interested parties, petitioned Parliament in 1720.

This time the project proposal was more favourably received. It passed its first reading on 21 January and after some amendments passed its second reading ten days later. Following further petitions from local landlords still concerned about riverside farmland, and Ormskirk merchants afraid trade might bypass their town, the Bill was finally sent to the House of Lords where it was approved following further minor amendments (73 for and 27 voting against) on Thursday, 24 March 1720. Thomas Steers and William Squire, both of Liverpool, were named undertakers of the project and 32 landlords were named commissioners whose job it was to settle any disputes between the undertakers and local landowners. The Act stipulated that the River Douglas, between Miry Lane End and its outfall into the Ribble Estuary, had to be completed within 11 years (i.e. 1731).

Given eight years had elapsed between the initial survey in 1712 and the passing of the 1720 Act one might have expected a swift construction start but financial problems delayed progress further. Unfortunately, the Act was passed at the time of the South Sea Bubble when shares soared to dizzy heights only to crash a short while later.

Some construction work started but was severely limited by a chronic lack of capital. A ford was removed and replaced by a bridge near Rufford, about one and a half miles of river downstream from Rufford were widened and straightened, and a start was made on a second lock. At this point construction work stopped, and little further activity took place until the 11-year 1731 deadline was rapidly approaching.

Alarmed at lack of progress and cognisant of the approaching 11-year deadline stipulated in the 1720 Act, Alexander Radcliffe of Ormskirk and Alexander Leigh of Wigan both

offered to take over supervision of the project. This was granted on 12 June 1731 and a further 11-year construction extension period was granted. Both these individuals had been against the initial project in 1720 but now recognised its future potential and its benefits to the Wigan coal mining industry.

A new river survey was commissioned and completed by William Palmer in March 1733. This survey recommended 12 locks each 12-foot wide, 60-foot long and 3-foot deep to cope with the 60-foot fall in river level between Wigan and the Ribble estuary. This was estimated to cost £6,684. The possibility of rerouting the Navigation in its lower reach across Martin Mere and entering the Irish Sea just north of Southport was considered but rejected.

In spite of this renewed interest and enthusiasm, and with just five years left of the 1720 Act's extended terms, no further construction started until 1737! Four locks were constructed in 1738 and a further three in 1739. By mid-1739 the river was navigable from its mouth to Bispham and Lord Derby could export his coal down river to the Fylde. In 1741 Steers was paid for advice on Crooke Lock and a mooring basin at Wigan. In 1741 at a cost of £12,385 the Navigation was finally in full use – 21 years after the passing of the successful Act and 30 years after the project was initially conceived.

The Navigation, ten miles in length with just under two miles canalised, finally comprised thirteen locks: Croston Finney, Rufford, Wanes Blades, Bispham, Douglas Bridge (Newburgh), Chapel House, Gillibrands, Appley Bridge, Upholland (near Bank House), Gathurst, Crooke, Hell Meadow, and Harrison Platt just below Wigan.

Boats using the Navigation were of two kinds. Small open boats called 'flatts' were confined to river work and capable of transporting up to 20 tons of cargo. These were pulled along the river by men walking along the riverbank, crossing boundary fences using stiles. Larger boats capable of carrying 30 or 40 tons had fixed masts and sails so these boats were confined to the open sea, sailing from the river mouth to north Lancashire, to Liverpool or across the Irish Sea to Dublin.

In the early 1840s 'Resolution' (20 tons capacity), and 'Dispatch' and 'Speedwell' (both 30 tons capacity) worked the river, but by the late 1740s there were 12 boats in regular operation plus a 'Pleasure Boat', probably used for river inspection purposes. Private traders operated their own boats – one Samuel Bold claiming he worked on the Navigation for 35 years, transporting over 2000 tons of limestone to Wigan over the years.

Once open, the Navigation facilitated a significant increase in the volume of coal transported to north Lancashire via the Fylde, and the rest of the world via the port of Liverpool. Wider markets encouraged increased coal extraction, formation of larger mining companies and an expanded work force. Coal was not the only commodity carried on the river, but it was very significant. Other materials carried on the Navigation included limestone, pig iron, timber, building stone, sand, gravel, slates, soap and ashes.

The Navigation was a success, but it had its limitations. Like many early navigation projects, there was initial scepticism about just how profitable it might be, and with limited investment much construction work was not of the highest quality requiring much maintenance and repair. The fact that

cargo had to be moved from one type of boat to another at the river mouth was a further drawback. Variable river flows ranging between raging floods in wet weather and a lack of water during long dry spells was another issue.

Despite its economic limitations the Navigation did lead to further advances in water transport which have also to be considered when examining the project's full significance. Not long after the Douglas Navigation started operation, great strides were being made in canal engineering projects which ultimately overtook most of the original river navigations - the Douglas Navigation included.

The Douglas Navigation had operated for just 25 years when there was a national interest in canal construction the length and breadth of England. Canals had many advantages over river navigations: greater reliability of water levels, fewer bends and curves and properly planned tow paths. The major scheme to potentially affect the Douglas Navigation was a Lancashire and Yorkshire joint plan to construct the Leeds and Liverpool Canal from Liverpool on the Irish Sea coast to Leeds in west Yorkshire via Preston and the Aire Gap – a natural low point over the Pennine chain.

This idea was first reported in a York newspaper in 1764 and was followed by numerous surveys the following year. Many possible routes and options were discussed. Leeds wanted the canal to cross the Pennines via the Aire Gap between Skipton and Preston, being the lowest crossing point and therefore the cheapest option. Liverpool merchants, on the other hand, wanted the canal to take a more southerly route thereby connecting Liverpool with the Wigan and Burnley coalfields. This was a more expensive option but of greater benefit to Liverpool.

Without fully resolving the 'cross Pennine issue' the Leeds and Liverpool Canal Act was passed on 19 May 1770. The Douglas Navigation operators had a keen interest in these developments, and although they lodged an objection to the initial idea they were not totally averse to some form of cooperation. Not only did the 1770 Act allow for a branch canal to link Parbold with Wigan, by November 1771 the Douglas Navigation operators had sold the greater part of their operation to the Leeds and Liverpool Canal Company. (The branch canal was called Leigh's Cut after Holt Leigh - Alexander Leigh's son and a major shareholder of the Douglas Navigation) (Clarke, 2016).

The first section of the Leeds and Liverpool Canal in Lancashire (linking Liverpool with Parbold) was launched with an opening

ceremony in November 1770 and work on Leigh's Cut soon followed. By 1774 the Leeds and Liverpool Canal was open to Parbold and Leigh's Cut linked Parbold to Gathurst. The final section from Gathurst to Wigan was still via the River Navigation.

By 1776 another branch canal linking the Leeds and Liverpool Canal with the mouth of the Douglas Navigation was started. By 1781 the entire Douglas Navigation was duplicated by canals from its mouth on the Ribble Estuary to the heart of Wigan thereby rendering the old river navigation redundant. By 1782 all lock gates on the river navigation had been removed emphasising the end of its working life. One lock gate remained on a link between the canal and the river at Gathurst, but this was primarily for controlling water levels.

Financially, the Navigation itself was not a great success and operated for just 40 years but, taking a broader view, it is important to remember the significant increase in coal extraction made possible by the Navigation. This expansion generated substantial profits for numerous colliery enterprises in and around Wigan. It allowed Wigan collieries to expand before the height of the industrial revolution and, thanks to Leigh's Cut linking Wigan with Liverpool, the Leeds and Liverpool Canal operators finally changed their mind on the northerly Aire Gap route to a more southerly one which put Wigan on the path of one of the most significant canals in England.

Wigan owes a lot to the Douglas Navigation.

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Cargo transhipment at Tarleton



Joining the Douglas from the Ribble



The river narrowboats at Parbold