"By Water to Wakefield": The Calder and Hebble Navigation

Notes on talk by John Goodchild at Wakefield Archives, 23rd April 2014

The subject of this talk was the development of the Calder and Hebble Navigation which John Goodchild introduced with an apt verse written in the 1820s. He likened the development of the navigations to the building of new motorways in the present age: they reduced transport costs, provided through routes to the sea, made profits for the investors, and encouraged the growth of commerce and industry. Roads were also improved for the carriage of goods to reach the waterways.

The first scheme to construct a navigation using the River Calder upstream from Wakefield was in 1739-40, but opposition came from water-powered mills downstream which were concerned about loss of power. Although the navigation would have been of use to the textile and coal industries, it did not have sufficient financial backing compared to the Aire and Calder Navigation Company. The scheme failed in Parliament. At the same time the Wakefield to Halifax turnpike was established in 1740 providing better road transport to the west; Blind Jack Metcalf the noted engineer worked on the project.

A second attempt took place in the 1750s, but the Aire and Calder Navigation Company had taken a lease in 1741 on land that included an area at the lowest point that would be needed for any development of a Calder and Hebble Navigation. The scheme once again failed.

A third scheme was proposed in 1757. The promoters were largely Halifax woollen merchants unlike the Aire and Calder Navigation Company whose investors were primarily gentry. In 1758 the Act was passed in Parliament, with money borrowed at a fixed rate of 5% from trustees. John Smeaton was engaged as engineer. A Yorkshireman, born at Austhorpe to the east of Leeds, he was recognised for his work on the Eddystone lighthouse near Plymouth which was completed in 1759. When work was started at Wakefield, Smeaton re-used scaffolding and timbers that had been used in the construction of the lighthouse. Work above Wakefield dam started in 1761, with cuts needed to avoid stretches of rocky or shallow riverbed. Boats first reached Salterhebble in 1767, but that year and the next destructive floods caused considerable damage, with earth and debris being washed down into the new cuts.

No further money was advanced to repair the damage, so a new company was formed of investors who would be paid dividends. The Navigation was completed to Sowerby Bridge by 1770. Here woollen cloth was brought from the surrounding area and from Lancashire to be transported downriver, and raw wool was fetched upriver to be sent out to spinners and weavers. The new navigation proved profitable as it stimulated the founding of new collieries, powered textile mills, ironworks and foundries and company dividends quickly reached 9%. By 1790 the dividends rose to 13% and in the 1820s to 18%, but, although successful, they never rose above this level. The development of the railways in the 1840s provided a boost for the canals as they carried construction materials, rails and sleepers, but once finished they were in competition and dividends fell from 8% to 6%. In 1865 the Aire and Calder Navigation Company leased the Calder and Hebble at 8% for 21 years. Thereafter the dividends fell to 5% until 1913, then to 4% until 1930 and from 1945 to 3½%. However the canal was kept in good condition until nationalisation in 1948. In 1836 the canal carried ¾million tons and during the railway 'boom' in the 1840s, 870,000 tons, the greatest during the existence of the canal. From 1860 onwards 550,000 was being carried which continued into the early 20th century. The canal needed to compete with the railways, so the tolls were kept as low as possible.

Improvements were made in the canal; during the 1770s and 1780s the company again employed John Smeaton and the route was changed. An Act of Parliament in 1834 provided canalisation from Crigglestone to Horbury Bridge and to Ravensthorpe with a side cut for mills situated on the river itself. The locks were lengthened to take longer boats. The route at Fall Ing was changed as the original one came out onto a rocky part of the river. During construction this had been cut away using a diving bell, but was still unsatisfactory. In 1828 the navigation was extended from Salterhebble up into the centre of Halifax needing 14 locks and a pumping system from the river to provide water for it. Amongst other businesses, it was used by Mackintosh for carrying materials for their sweet-making and coal for power. But in 1942 when the government took control it was decided that it was too expensive to maintain.

There were also changes to the goods that were carried on the Navigation. Originally the carriage of coal had been prohibited due to pressure from collieries sited downriver from Wakefield, but in 1769 the clause was not repeated. There was expansion in the coal industry in the 1770s and 1780s with many new collieries being established. In 1773 a colliery was opened by Richard Milnes of Flockton who was a farmer, maltster and timber merchant. He constructed a railway to the Navigation at Horbury Bridge with a tunnel, the oldest existing railway tunnel in Britain, and a 20 arch viaduct.

Corn was carried to Sowerby Bridge during the second half of the 18th century and then taken by road into Lancashire and Cheshire, one of Richard Milnes' sons was involved in this carrying trade. Wakefield itself was the principal depot for the corn trade in the north of England; Richard Gill's 1790 steam powered warehouse for malting and corn still stands next to the Calder and Hebble Warehouse. Some warehouses had boat entries so that the corn did not get wet, and one had a system of docks. The Huddersfield Canal Company had their own corn warehouse at Wakefield.

New businesses developed: Holdsworth's dyeworks on the east bank of the Calder was taken over by the tramway system which had its own electricity generating station; the remains of staithing for a travelling crane to unload coal to power it can still be seen. Green's Economisers were still being taken via the Rochdale canal to Manchester in the 1940s and 1950s, and in the same period the Spencer Wire Company, sited on what is now alluded to as Calder Island, was bringing in steel for wire ropes.

Nationalisation led to the eventual collapse of commercial traffic, although it would probably have failed anyway. Not all the locks had been widened; from Liverpool through to Sowerby bridge they could accommodate boats 56½ feet long and with a beam of 14 feet, but at that point trans-shipment was necessary into smaller boats. Goods were again trans-shipped into larger boats at Wakefield to travel down into the Humber. Some commercial traffic did continue into the 1960s; coal was taken from Crigglestone up to Thornhill power station, and in 1966 wheat was still being taken up to Brighouse. In the 1930s traffic across the Pennines using the Rochdale Canal failed as the eastern part was abandoned, and has only recently been restored at great cost. The Huddersfield Canal was sold to the Calder and Hebble Navigation Company in 1944, and the canal including the Standedge Tunnel has now been restored and re-opened. Although commercial traffic on the Calder and Hebble Navigation and the canals that link to it through the Pennines may have ceased, they are well-used for leisure-boating.

John ended his talk with a personal reminiscence of visiting the 'pennyman' who lived in a one room hut at Thornes locks and was employed for a small sum to see boats through them. Boatmen would throw him small change for his help.