

‘Pulling the Threads of History’ - Industrial Archaeology at Brighouse

Archaeological excavation in 2024 during the construction of the Brighouse Flood Alleviation Scheme has revealed archaeological remains relating to the town’s milling heritage.

Archaeological Services WYAS were appointed by BAM Nuttall on behalf of the Environment Agency to carry out the work. The aim was to discover if any archaeological evidence of the mill races associated with Little John Mill survive.

Water powered mills were fed by a supply of fast flowing water running from a stream or mill pond along a channel known as a mill race. The main channel leading to the waterwheel was known as the head race. Wooden gates known as head gates were commonly used to control the flow of water from the race to the waterwheel. The tail race carried the water from the wheel back to the stream, the flow controlled by tail gates.

Little John Mill and its mill races are shown next to the Clifton Beck on the Ordnance Survey map published in 1854. The mill is still standing today and has been converted to industrial units, but the mill races have long been infilled and now lie beneath Wellholme Park.

We know from written sources that corn was being milled at Brighouse as early as the 12th century. The medieval Raistrick Mill was located adjacent to the medieval bridge on the north side of the River Calder. From the 17th century, mills in Brighouse were being used to grind cereals for bread, to crush malt and grain for brewing beer and to finish woollen cloth. Industry flourished further in Brighouse when the Calder was made navigable to larger boats in the late 18th century, making transportation of raw materials and finished products easier. By the mid-19th century Brighouse became a centre for cotton spinning and silk production.

By 1854 there were mills at either end of the plot of land that later became Wellholme Park. To the north was Thornhill Bridge Mill, which produced worsted, a high quality woollen yarn. There was also a dye works where dyes for colouring the yarn were manufactured. To the south was Robin Hood Mill, which made metal wire, and Little John Mill.

Little John Mill was built on ‘Ganger Ing’ in 1785 by John Clegg as a fulling, scribbling and carding mill. Fulling is the beating and cleaning of woollen cloth using soap or fullers earth, and scribbling and carding straightens and untangles wool to make it easier to spin. A third storey, for corn milling, was added to the building around 1808 by Samuel Pollard. In 1828 the mill was extended by Solomon & Frederick Pitchforth for metal wire production; and in the mid-1800s Newton and Burrow set up a silk spinning business there.

Excavations in 2024 did indeed reveal the two mill races associated with Little John Mill, which drew water from the Clifton Beck. The mill races took the form of large ditches, which would have been dug using hand tools, running broadly northwest to southeast across the site. The largest race was 100 metres long, 5.4 metres wide and 1 metre deep. The ditches had steep sides and a wide flat base.

Part of the mill race ditches were lined and reinforced by two parallel limestone walls and capped with large limestone slabs. A large rectangular stone slab with a square perforation in one end may have been from a technical part of the race, such as a head gate mechanism.

The mill races contained eleven different layers from when the ditch had silted up and the sides had slumped, at various times through history. When the mill race was no longer needed (when the mill was no longer powered by water), it was used as a rubbish tip, backfilled with industrial

waste such as bricks from a furnace, slag and cinder and 19th and early 20th-century pottery, glass, leather (including whole shoes), metal, wood and animal bone.

The artefacts

The pottery fragments, of various types, largely date from around 1840 to the late 19th or early 20th century. The ceramics include complete 'Stoneware' cream pots, and pieces of jars and beer flagons; fragments of 'Colour Glazed Ware' teapots; 'Whiteware' plates, cups and dishes, some decorated with floral transfer-printed designs. A ceramic ornament was also found - possibly representing a boy sat on a chamber pot, with the head missing.

Other objects include a complete glass beer bottle embossed 'S.WEBSTER & SONS LTD BREWERS HALIFAX', a complete rectangular measuring bottle with 'TABLE-SPOONS' and a scale on one side; a beer bottle of 'J HEY & Co Ltd BRADFORD' and an octagonal bottle with 'MILTON' on the base. Two large, folded bundles of iron wire were recovered. We know that metal wire was being manufactured at Little John and Robin Hood Mills.

Our excavations at Brighouse have added to industrial archaeological research. The West Yorkshire Archaeological Advisory Service Research Agenda for Industrial Archaeology (Helen Gomersall 2009) states that surviving mills and mill races are of special importance as representations of the development of West Yorkshire's textile industry. Ultimately there were nearly two thousand individual mills in the region. Our mill races are also exemplars in recording the power technologies (which transitioned over time from water power to steam to hydro-electricity turbines) that were used for fibre preparation, spinning and eventually weaving, in cotton, then in worsted and woollen cloth through the course of the 18th, 19th and early 20th centuries.