

# George Sorocold, Hydraulic Engineer

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*For about 7 years I have been researching George Sorocold. It all started when I found he had installed a hydraulically powered water pumping system in Derby in the 1690's, and it has gone on from there. Just over two years ago I met Paul Sharrett, who works as a modern water engineer, and we decided to pool resources. We both felt that for too long George Sorocold had gone unrecognised, and decided to propose he received a blue plaque. This article is the submission which we wrote, which, I am pleased to say, was successful.*

George Sorocold, (c.1658–1738?), is Derby's 'forgotten' water engineer. He was the son of James Sorocold (1627–1675), a Lancashire gentleman, and he moved to Derby early in his life. Little else is known of Sorocold's life until on 7th December 1684 he married, in what was to become Derby Cathedral but was then named All Saints Church, Mary, the daughter of Henry Franceys, a prosperous Derby apothecary. By 1702 they had thirteen children, of whom eight survived.

The earliest known engineering work undertaken by Sorocold was the recasting and rehangng of the bells at All Saints' Church in Derby in 1687. Although he had a varied engineering career, he is best-known for his pioneering work in a pumped water supply; he provided for Derby Corporation in 1691, the first piped water distributed round the town. The water was distributed in some 4½ miles of elm pipes which were bored on his 'engine'. One of his innovations in this area was the introduction of pumps worked by his waterwheels, which rose and fell in accordance with the level of the water supply.

Sorocold was particularly associated with waterworks in many other provincial towns such as, Bridgenorth, Bristol, King's Lynn, Leeds, Newcastle upon Tyne, Norwich, Portsmouth, Sheffield, and Great Yarmouth; but he also worked in London, improving London Bridge waterworks and providing a wind powered pump for the London New River water works.

At many sites his pumping machinery was adapted to other uses, including draining of mines and operating decorative fountains, for example at Melbourne Hall.

In 1702 he worked with Thomas Cotchett on the Bye Flatt Island at Derby and certainly provided the water powered drive system for this, the first powered Silk Mill to operate in England.

It is also quite probable that he was the engineer responsible for the construction of the adjacent, huge Silk Mill, built for the Lombe Brothers between 1717 and 1721.

He further produced the initial designs which enabled the River Derwent to become navigable from its junction with the River Trent to Derby, for many years from 1720, before the coming of the canals, thus making the town into a thriving small port. The work was in fact was possibly only enacted after his so far unrecorded death.



*The plaque in honour of George Sorocold  
Photograph - Paul Sharrett*

Sorocold was involved in other important schemes to improve navigation on the Yorkshire Derwent, River Lea, River Cam and River Dee some fifty years prior to the boom in canal construction that was to drive on the early industrial revolution.

Perhaps Sorocold's major achievement was the design of the first wet dock, which was to turn Liverpool into a major centre of sea trade, an act for which he received the freedom of Liverpool in 1710.

While Sorocold remains relatively unknown in contrast to Arkwright,

Strutt and Outram, there is no doubt he preceded and at least matched their achievements. It is worthy of note that George Sorocold has been hailed as the first 'British Civil Engineer' and that Derby City Council is currently constructing a hydro power station to harness the power of the Derwent some 300 years after Sorocold – just a handful of yards from where his 'water pumping engine' was situated.

We believe a Blue Plaque to George Sorocold, located at the Silk Mill, close to the location of his early Waterworks and Cotchett's Mill, could not fail to promote a wider knowledge and understanding of this truly great, innovative and yet forgotten, local Engineer.

Alan & Paul