

The Wokingham Society

The Great Stink

The life and work of Sir Joseph Bazalgette (1819-1891)

A presentation by David Tinker at the AGM on Wednesday 21 November 2018

David Tinker expressed great admiration and respect for his subject when he began his presentation by saying he thought Joseph Bazalgette did more to enhance the lives of Londoners in the Victorian age than any other engineer, architect. or designer. In fact, he thought his achievements were as great as or possibly even greater than those of Brunel.

The audience were presented with a plethora of facts and details recording the state of London's sewers as far back as the fifteenth century, before in 1856 Bazalgette was appointed by the Metropolitan Board of Works as the Metropolitan Commissioner of Sewers.

The huge growth in London's population throughout the first half of the nineteenth century meant that in 1856 there were 328,000 cesspits, which had flooded the drainage system. 2,600 miles of sewers of poor design and bad workmanship had been built each year from 1831. The system simply could not cope, and flaws in the system had led to massive blockages and contamination. The introduction of WCs and the movement of 1,000 horse-drawn carriages each day increased the amount of effluence disgorged and contributed to the breakdown of the system. Eventually millions of gallons of waste ended up in the Thames and the network of tributaries.

Things had come to a head after the cholera epidemics in 1848-49 and 1853 in which nearly 30,000 people died. The generally accepted theory was that the outbreaks were caused by miasma, although a physician, Dr John Snow, had correctly shown that the problem was in contaminated water, based on research he had undertaken in Soho. Incredibly after seven failed attempts to convince Parliament that his plans could work, Bazalgette was given the go-ahead by Prime Minister Disraeli in 1858, the year of the *Great Stink*, and the process began to create a network of 82 miles of underground brick main sewers and 1,100 miles of street sewers, based on plans designed by the artist John Martin 25 years earlier.

In the process of construction 3 million pounds of earth had been removed and 318 million bricks were used to create the brickwork, which was strengthened by Portland cement. Gravity was used to create a flow of 1.5-2mph and four pumping stations were built to move the sewage to two large Outflow Sewers north and south of the Thames. The system was amazingly complex and, but it was officially opened by The Prince of

Wales in 1865 and finally completed in 1875. Cholera and typhoid had been virtually eliminated and the Thames had been purged of the worst effects of contamination, ironically despite the fact that Bazalgette had believed in the miasma theory.

It is easy to see why David Tinker holds Bazalgette in such high regard, not only because of his achievements as a civil engineer responsible for bringing a working and reliable sewage system to London, but also because of his designs for major buildings and thoroughfares in the heart of the capital. His pumping stations with their elaborate and ornate interior designs and mighty engines can be viewed as *cathedrals of power*; the Thames Embankments north and south of the river with their decorative iron lampposts and other street furniture as well as the bridges linking them are true monuments to his vision and creativity. Modern Londoners and visitors can stroll or sit today in gardens he created close to and as part of the Embankments.

The illustrations of his work and the details provided by the speaker encouraged the audience to undertake further research themselves. His life and achievements have been recorded in biographies and television productions, but it is somewhat surprising that there is only one memorial dedicated to him in London, although at least it is situated appropriately on Victoria Embankment at the southern end of Hungerford Bridge.

In thanking David Tinker for sharing his thoughts on a great Victorian engineer, Peter Must presented him with two books reflecting David's interests, and the audience responded generously to his comments. The presentation certainly made me feel that I would like to visit one of Bazalgette's great pumping stations, and I will aim to look more closely at the design of the Embankment and its renowned bridges.

John Griffin

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