

Networks and Knowledge, A Potted History: North Staffordshire, 1750-1850

Joseph Lane



THE LONDON SCHOOL
OF ECONOMICS AND
POLITICAL SCIENCE

During the period 1750-1850 the North Staffordshire 'Potteries' district was characterised by a growing body of useful and practical knowledge about the materials, processes and skills required to produce local goods that sold in global markets. The district is exceptional because, unlike many historical industrial districts, it did not fully experience the terminal phase of its life-cycle until the late twentieth century. The years 1781-1816 witnessed an extremely high turnover of firms in the North Staffordshire Potteries with over 500 different producers and an average of approximately 100 firms active in any given year. An increasing preference for partnerships and cooperation between potters emerged with short-term partnerships of less than three years being the most frequent.

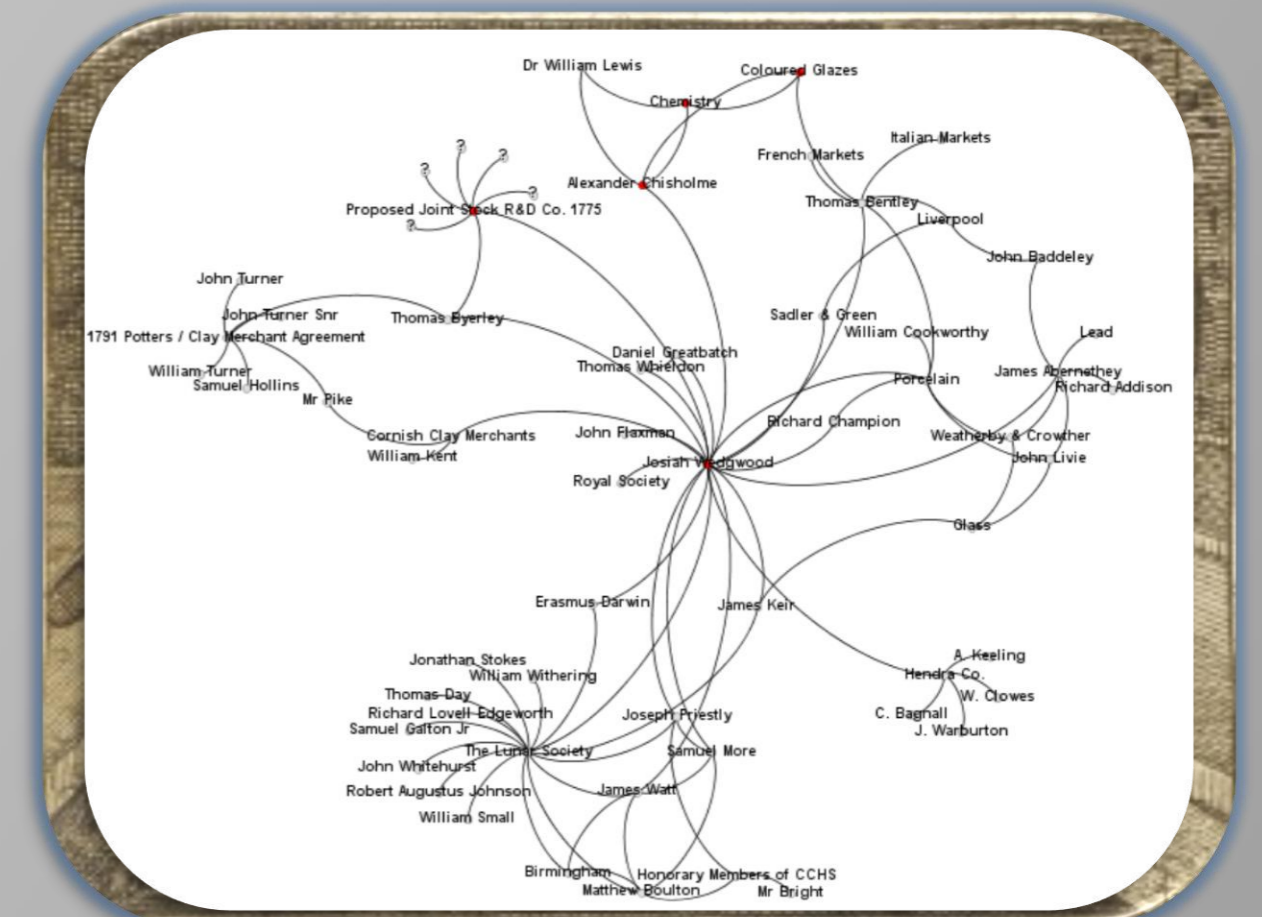
In a highly concentrated industry in which certain knowledge and expertise such as throwing could not easily be codified or reverse engineered, this behaviour suggests a complex pattern of knowledge creation and sharing across the district. How, then, did the organisational structure of the district evolve?



Sample of Staffordshire potters, 1781-1816
(weighted to the centre by number of active years)

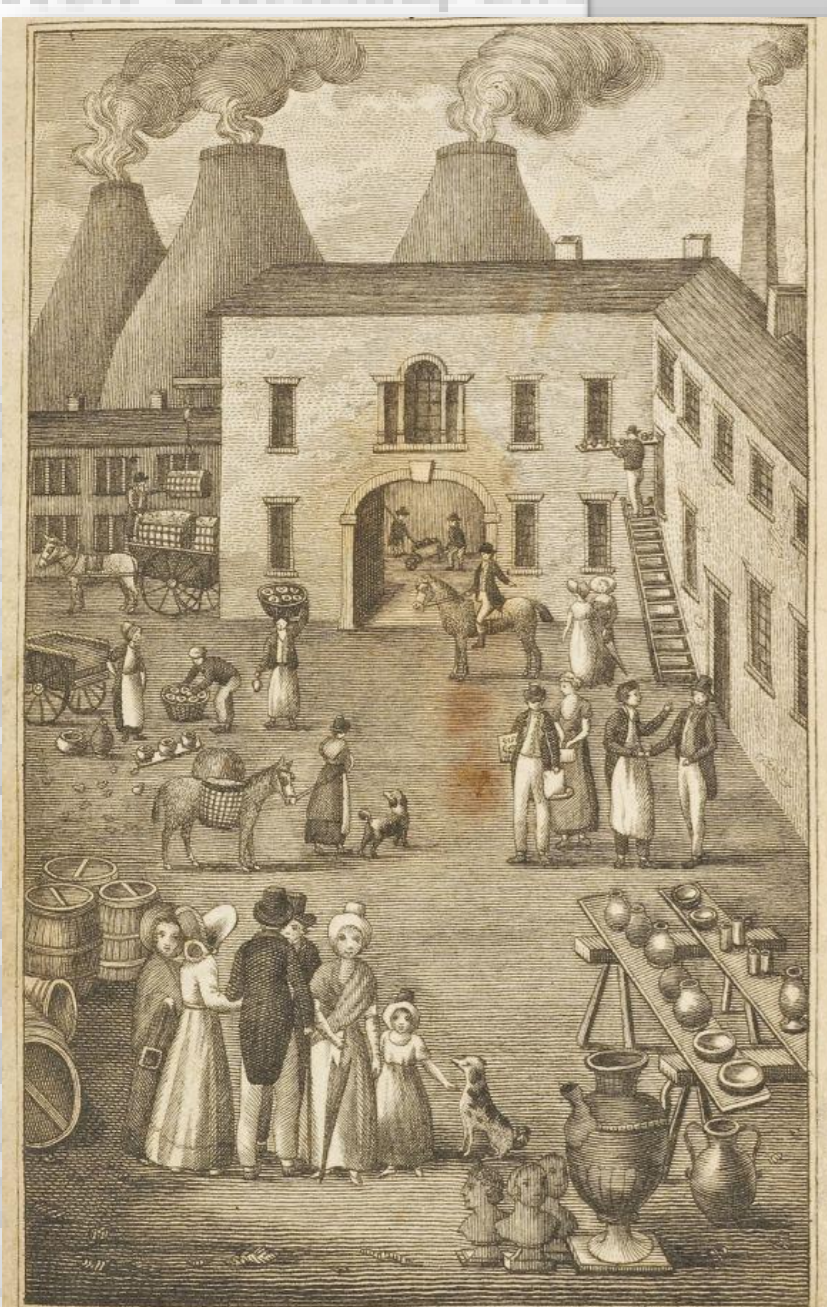
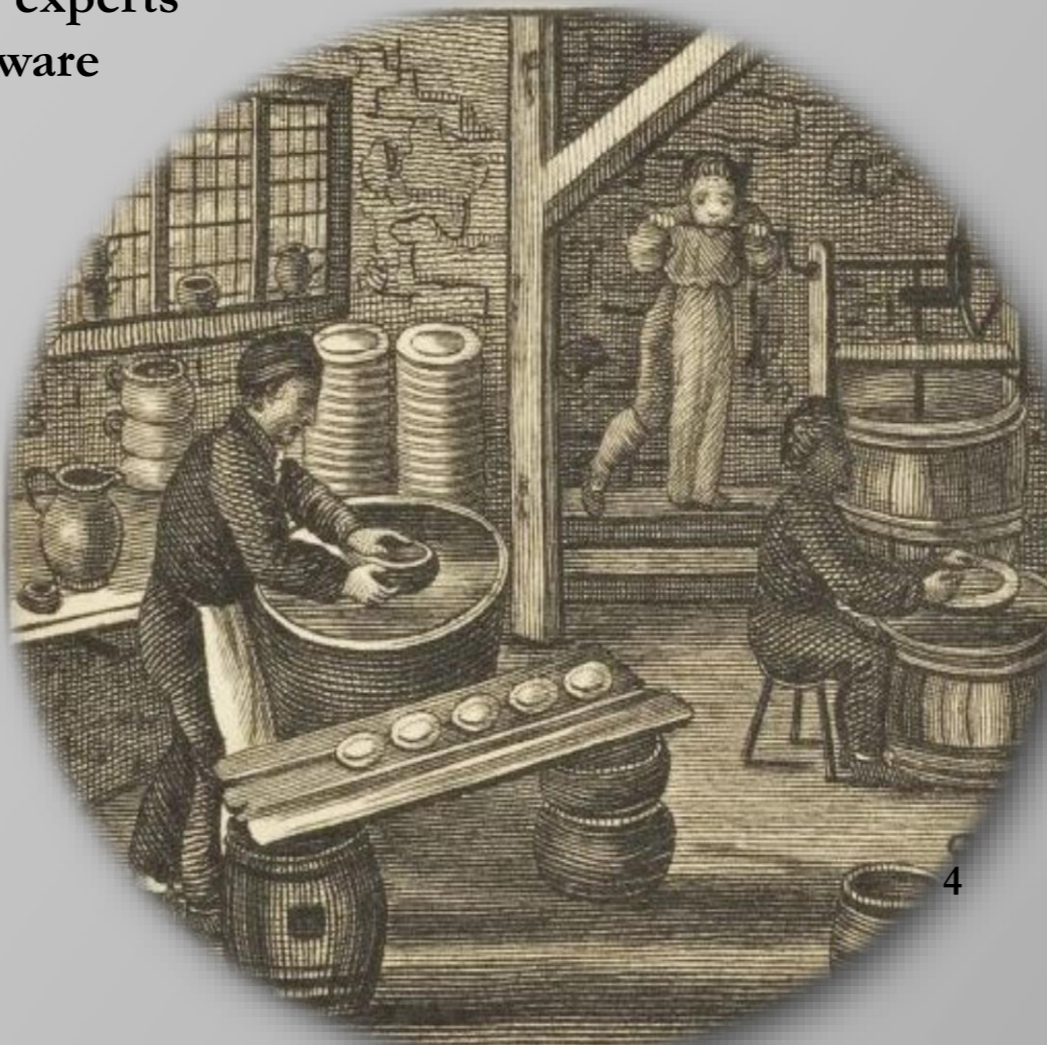


Social Network Analysis allows us to identify and examine the connections and channels through which potentially useful knowledge could, and did, flow. The network graph shown to the right is based on some of the commercial and personal relationships of Josiah Wedgwood between 1770 and 1791. Clearly a man with an extensive network at his fingertips, Wedgwood had access to the pioneers of steam, James Watt and Matthew Boulton, and it is thus no surprise that his factory at Etruria was the first in the district to install a steam engine in 1783. The advantages of external relationships and connections were not limited to physical capital and machinery, however, with much innovation in the Potteries being a result of scientific experimentation. These experiments and innovations relied heavily on the knowledge and skills of experts outside the domain of earthenware production.



The network of Josiah Wedgwood, 1770-1791

Alexander Chisholme was one such expert who proved to be of crucial importance for Josiah Wedgwood's signature Jasper- and Cream-ware. Acting as a *knowledge broker*, Chisholme bridged the 'structural hole' between the knowledge in advanced chemistry that existed in one network but not in another.



The Staffordshire Pottery.

Networks such as those constructed by Josiah Wedgwood were just one way in which the potters of North Staffordshire were able to continually innovate and adapt to an environment of increasing competition and rapidly changing consumer demands and preferences. Maintaining a competitive advantage over competing producers at a national and international level was crucial to the enduring success of the district. 'Staffordshire Ware' and the potters that produced it enjoyed an international reputation based on quality and design. During a period of sustained growth in both production and the number of firms, it is peculiar that the majority of potters favoured numerous short-term partnerships. In the context of a group of potters with a strong sense of local identity and cooperation, such frequent formation and dissolution of partnerships suggests a degree of openness and transparency perhaps not present in competing regions. With the knowledge and expertise of the district constituting such a large part of their success, there is a case to be made that Staffordshire potters did not hold knowledge secretly from their fellow producers. Short-term partnerships then become an additional medium for information-transfer (in a similar way to external networks) and helped create and disseminate a growing body of useful and practical knowledge which proved so vital to the region's long term success.



Illustrations:

- 1: Josiah Wedgwood's Jasperware copy of the Portland Vase, c.1790.
- 2: Throwing wares on a hand-powered wheel c.1800-1820, engraved illustration from a pamphlet published in 1827.
3. Frontispiece of a pamphlet on the manufacturing of earthenware published in 1827.
4. Engraved illustration showing the glazing of ware in preparation for firing c.1800-1820.
5. Exterior of a pottery factory, believed to be that of Enoch Wood, c. 1826.