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ARTICLE

The Trees of the Forest: Uncovering Small-Scale Producers in an Industrial District, 1781–1851

Joe Lane 

This article uses trade directories and notifications in the *London Gazette* to reconstruct the Potteries industrial district at the firm level for 1781 to 1851, a dynamic period of growth for a knowledge-intensive industry. It cuts across the organizational spectrum of the district in terms of the scale and scope of firms traditionally examined by including both the larger lead-firms and the smaller firms for which limited or no business records survive. It addresses difficulties associated with analysis of early clusters before the late nineteenth century. Directories offer a consistent series of records that, when cross-referenced with the *Gazette* and local newspapers, allow for detailed examination of firm behavior and the structure of the district during a formative growth period. Analysis highlights patterns of cooperative competition in an industry in which tacit knowledge played a crucial role as a source of competitive advantage, raises questions for future research, and provides an empirical base on which to consider further investigation of the trees that made up the forest.

Keywords: industrial districts, manufacturing, Pottery, Trade Directories

It seemed as though all the porcelain and earthenware for the supply of the world might be made here. Acre after acre and mile after mile of kilns and furnaces, crowded together in some instances, or a little more scattered in others, covered this region.¹

Introduction

By 1820 almost 80 percent of the national earthenware labor force was working in the Potteries across a multitude of businesses, which embodied the varieties of capitalism now celebrated in business histories of the Industrial Revolution era and late nineteenth century.² The giant

1. Fisk, *Travels on the Continent of Europe*, 503.
2. Weatherill, *Growth of the Pottery Industry*, 393, 453.

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“redwoods” of the industry employed hundreds of specialized skilled workers in large factories with an extensive division of labor, producing in excess of half a million pieces of ware each a year.³ These producers became household names, their legacy of industrial architecture still dominating the region today, be it factories like Josiah Wedgwood’s in the village of Etruria (and his workforce, a “colony raised in the desert”)⁴ or the Grade II-listed Herbert Minton Building, a former school of art.⁵ In the eighteenth and nineteenth centuries, as now, the fame and renown of the district’s potters extended beyond this local heritage. Staffordshire potters accounted for almost half of all earthenware exhibits and prizes for innovation and workmanship at the Great Exhibition in 1851.⁶ It is these potters that tend to be the focus of histories of English pottery production from the eighteenth century onward; their achievements became “lionized,” to use Hannah’s aphorism, and they grew large and survived long enough to leave a historical record.⁷ While their significance in the district is not underestimated, the history of the smaller “trees and saplings” that operated alongside these giant redwoods is less known. As Popp notes about the second half of the nineteenth century, the detailed empirical landscape and mechanisms underlying assumptions of industry structure have not been fully explored empirically.⁸ This article draws attention to the multitude of much smaller-scale, often short-lived, and perhaps less financially successful, family- and partnership-based businesses. These businesses made up a considerable portion of the vibrant district that changed and evolved over time. The new evidence presented here is the first step in analyzing the district at this finer level.

“The Potteries” in its prime was so much more than its large-scale famous inhabitants; it was a dynamic industrial district that was also home to hundreds of now largely anonymous producers engaging in short-lived and often small-scale partnerships. Together, they employed a workforce in the tens of thousands and produced millions of pieces of ware a year that were sold locally and globally.⁹

This article cuts across the organizational spectrum of the district and introduces a firm-level reconstruction of the North Staffordshire Pottery industry for the years 1781 to 1851. It exploits two rich sources, trade directories and the *London Gazette*, to breathe life and character into the many small-scale potters of North Staffordshire who, alongside their more famous peers, contributed to growth, innovation, and progress in the district at large. By the eighteenth century, the region was already thought of as a collective district. The renowned Berlin-based potter and scientific ceramicist Hermann Seger (1839–1893), whose published works covered pottery regions across the world, preferred to use general terms such as the

3. For an indication of the extent of the division of labor and the number of different rooms within some of the larger factories to accommodate this, see evidence from the Children’s Employment Commission visits to factories in North Staffordshire in 1840: *Parliamentary Paper, [431], Children’s Employment Commission, C1-18*.

4. Anonymous, *Tour from London*, 19. This book was also published under an alternative title and a playful presumed pseudonym of A. Walker.

5. Jenkins, “Stoke-upon-Trent,” 194–205.

6. *Official Catalogue of the Great Exhibition, 125–127; Reports by the Juries*.

7. Hannah, “Marshall’s ‘Trees.’”

8. Popp, *Business Structure*.

9. For British export destinations by number of pieces and declared value, see *Tables of the Revenue*, Table 82, 98.

“Staffordshire” or “English” potter. He highlights only two Staffordshire potters specifically: Josiah Wedgwood I, whom he praised as one whose name was “written in golden letters in the history of nations”; and Pinder, Bourne and Co., a company known for their archetypal factory layout rather than production prowess. The hundreds of firms operating the thousands of kilns in the district belonged to the anonymous “English Potter.”¹⁰ An academic trade-off has existed between limiting either geographical coverage or temporal scope, with the paucity of data and sources hampering attempts to achieve scale in both. Popp addressed the data paucity in his reconstruction of the district for the second half of the nineteenth century by concentrating on two of the six main boroughs in the district and from the 1870s to the 1890s and 1913 to 1915.¹¹ The other major reconstruction of the district, by Weatherill, covers 1660 through 1815, providing invaluable information in dating key moments in the district’s early development.¹² There remains, then, an opportunity to resolve this trade-off by extending both the temporal and geographical scopes. Regional trade directories and notices in the *London Gazette* permit the identification of numerous small-scale producers that contributed to the success of the district during the eighteenth and nineteenth centuries. Examination of these sources allows us to analyze and interpret organizational aspects of the district that, until present, have not received as much focus as the lead firms.

The article is organized as follows. First, a literature review motivates the research and provides the theoretical perspectives adopted. A methods and sources section outlines the empirical strategy and the choice of trade directories and the *London Gazette* as key sources, considering the difficulties associated with firm-level analysis of historical clusters before the late nineteenth century. There is a discussion of some of the underlying features of the district over a crucial period in its development, 1780 to 1851, and then the reconstruction of the district is presented through new empirical data on small-scale pottery businesses. Concluding remarks present the key contributions of the article, along with the questions that remain. While the bigger trees are important, as Fridenson notes, “a tree should not hide the forest.”¹³ This article is about the trees that formed the larger part of the forest.

Literature Review

The development and long-lived success of pottery production in North Staffordshire have been of interest to historians, collectors, and commentators since the eighteenth century.¹⁴ The region’s legacy as a highly successful industrial district remains important for questions around reindustrialization in the United Kingdom, regional policy, and the regeneration of

10. See Bleininger, *Collected Writings*, 770.

11. Popp, *Business Structure*.

12. Weatherill, *Growth of the Pottery Industry*.

13. Fridenson, “Business Failure,” 562. The author thanks anonymous colleagues for their enthusiasm around the use of woodland-based metaphors in article titles.

14. For some accounts that contain a specific focus on pottery and the Potteries, see Anonymous, *Tour from London*; Campbell, *London Tradesman*; Fisk, *Travels on the Continent of Europe*; Spiker, *Travels through England*.

“old” industrial districts.¹⁵ Its famous inhabitants and their commercial successes have long been celebrated, generating a significant number of biographies and histories.¹⁶ From a broader business and economic history perspective, interest has increased in recent years through a number of key studies. Weatherill’s works on the national industry from the seventeenth century provide perhaps the most complete overview of early commercial pottery production in England, and are useful in terms of the likely scale and scope of business organization at the national industry level. However, her study stops at 1820.¹⁷ Popp also reconstructed the district at the firm level for the second half of the nineteenth century by using rate books, a source not consistently available for the period covered in this article.¹⁸

A key theoretical lens through which industrial districts in England have been considered in recent decades is that of Popp and Wilson’s life-cycle framework for growth and decline over the long term. The evidence presented in this article confirms the framework’s applicability for North Staffordshire’s industrial districts: *critical mass, take-off, cooperative competition, maturity, saturation, decline, or renaissance*.¹⁹ Until now, consideration of the Potteries within this framework have focused either on the very early stages of development in achieving critical mass and take-off or on empirical evidence largely from the second-half of the nineteenth century, by which time signs of saturation were clear and maturity had been reached.²⁰

Weatherill’s work on the structure of the industry during the eighteenth century confirms the earlier stages of the life-cycle: critical mass and take-off having been achieved by the late eighteenth century. The first stage in North Staffordshire’s development can be traced to the seventeenth century and the expansion of different branches of earthenware, which led to the shift from London’s dominance in production to North Staffordshire by around 1720. The first half of the eighteenth century then witnessed further consolidation and accumulation in the district of human and physical capital required for intensive pottery production. After critical mass had been achieved by the middle of the century, the next stage—take-off—occurred. This period saw sustained growth and innovation in the types of wares and production methods coinciding with the rise of world-famous master potters such as Josiah Wedgwood (1730–1795), Josiah Spode (1755–1827), Herbert Minton (1793–1858), and William Copeland (1797–1868), to name a few.²¹ According to Weatherill’s estimates, by the last quarter of the

15. Tomlinson and Brantson, “Turning the Tide,” 489–507.

16. Falkner, *Wood Family of Burslem*; Godden, *Minton Pottery and Porcelain*; Haggard, *Masons of Lane Delph*; Jewitt, *The Wedgwoods*; Nicholls, *Ten generations of a potting family*; Reilly, *Josiah Wedgwood*; Wedgwood and Wedgwood, *Wedgwood Circle*; Whiter, *Spode*.

17. For a detailed list of the sources used, see Weatherill, *Growth of the Pottery Industry*, Appendix 2. The evidence for the number and scale of firms in her work is based on sources that include lists of potters compiled by contemporaries, archaeological studies and local histories, parliamentary papers, and encyclopedias of pottery marks. Several trade directories were also used, although only four referred to North Staffordshire and covered the years 1784, 1798, 1802 and 1805. Weatherill, *Growth of the Pottery Industry*; Weatherill, *Pottery Trade and North Staffordshire*.

18. Popp, *Business Structure*; Popp, “Trust in an Industrial District”; Popp, “Identity and Entrepreneurship”; Holt and Popp, “Josiah Wedgwood”; Holt and Popp, “Emotion, Succession”; Popp and Wilson, “Life Cycles.”

19. Popp and Wilson, “Life Cycles.”

20. Popp and Wilson, “Life Cycles.”

21. For a recent discussion of some of the key innovations during this period, see Lane, “Secrets for Sale?”

eighteenth century, it was clear that the Potteries would become the seat of earthenware production in England, employing over half the national labor-force and include over a third of the potteries. This was at the same time as other pottery-producing regions were in relative decline.²²

What is less clear is the next stage of the life-cycle—cooperative competition—before the breakdown in trust and collective identity in the second half of the nineteenth century as identified by Popp.²³ Popp and Wilson argue this third stage occurs when the advantages of clustering and networking help a district achieve competitive advantage over rival clusters. In the case of English pottery, the threat of potential rival clusters had already been eliminated by the sheer concentration of factors of production identified by Weatherill.²⁴ Competitive advantage had clearly been generated over rival clusters, although a business-level empirical base is required to examine the crucial period between take-off and maturity.

A second key motivation in the literature is an overwhelming emphasis on Josiah Wedgwood I. For example, McKendrick placed the master potter firmly at the center of business and management innovation in the industry, highlighting his contributions to the organization of production in the factory system he developed at Etruria, his marketing prowess, and his overall business strategy. As an entrepreneur, Wedgwood was the cornerstone for the commercialization of the English pottery industry.²⁵ He has been the subject of sustained academic interest, with emphasis ranging from his technical abilities at the potter's wheel to his scientific and experimental approach to innovation and to his ability to create and manage far-reaching personal and business networks.²⁶ In particular, his partnership with Thomas Bentley received attention for the way it allowed Wedgwood to stay alert to changing fashions and market demands across Europe.²⁷ The Wedgwood and Bentley partnership was an exemplar in Casson and Dodgson's work on product design and its role in shaping strategy and capacity-building initiatives at the district level, such as design schools, institutes, and organizations.²⁸ While Wedgwood and Bentley remain relevant and important, the exploits of an industry's pioneers can only be fully understood in the context in which they operated. In this case, the industry was intensely competitive, at times collaborative, and always dynamic.²⁹ This article provides detail and clarity to some of this context by shifting perspective to the considerable number of smaller, relatively ephemeral firms that played a vital role in defining the structure, character, and success of the district.

It does this by drawing on two key areas of literature from business history. The first concerns the resurgence and importance of family businesses from the last quarter of the twentieth century, and the second concerns the subsequent methodological and source-based

22. For her estimates see Weatherill, *Growth of the Pottery Industry*, Tables A1–8.

23. Popp, "Trust in an Industrial District."

24. Weatherill, *Growth of the Pottery Industry*; Weatherill, *Pottery Trade and North Staffordshire*.

25. Koehn, *Brand New*, 11–42; McKendrick, "Josiah Wedgwood: An Eighteenth-Century Entrepreneur"; McKendrick, "Josiah Wedgwood and Factory Discipline"; McKendrick, "Josiah Wedgwood and Thomas Bentley"; McKendrick, "Josiah Wedgwood and the Commercialization of the Potteries."

26. Dodgson, "Exploring New Combinations."

27. Blaszczyk, *Imagining Consumers*; Koehn, *Brand New*.

28. Casson and Dodgson, "Designing for Innovation."

29. Dodgson, "Exploring New Combinations."

developments that have been employed to shed light on these smaller businesses. A brief overview of these two strands will be followed by a discussion of sources and methods.

The pioneering work of historians of family capitalism, benefitting from a broader revisionist approach to the Chandlerian perspective on the deficiencies of British businesses during the later nineteenth century, has laid the groundwork for sustained and focused work on the history of family business in Britain throughout the nineteenth century.³⁰ This work has stressed the importance of family firms and small producers as units of analysis, their variation both within and between national contexts, and their resilience over time.³¹ Regional- and industry-specific historical case studies have demonstrated the vitality of family business and showcased the varieties of business organization adopted by them. Whether small- or medium-sized and short-lived, which the majority tended to be, or large and long-lasting, family firms have been a crucial element of business for centuries, and remain commonplace today.³² This shift in perspective on family business has generated new methods and approaches to business history and reiterated longstanding attempts to understand the ordinary and extraordinary facets of the diversity of English business in the eighteenth and nineteenth centuries. In a new general trend in the literature, figureheads of the British Industrial Revolution were drawn on again, but with a new emphasis on attempts to explain the less explored business environment in which they operated. As Hoppit puts it succinctly: “If the brilliance of Wedgwood and the adventurousness of Boulton have been expertly detailed, the ranks of businessmen filling the trade directories have remained untouched and unsought by the historian. [...] The importance of the inventor or the major industrialist cannot be denied, but few businessmen were either.”³³

Attempts to address this imbalance must deal with the scant documentary evidence of the manufacturing businesses that left little or no trace of their operations during the eighteenth and nineteenth centuries beyond physical specimens of their wares or goods. Many of the businesses that have fallen between the archival cracks were ephemeral enterprises that came and went, leaving nothing in industry reports or their business premises that, in some cases, were rented quickly by competing firms to be taken over or repurposed.

The resulting empirical strategy to deal with such “dispersed and disparate sources,” as noted by Newton and Carnivali, is the necessity for a “bottom-up” approach to sources, which has informed the approach taken in this study.³⁴ The traces of small businesses must be followed and triangulated across a range of sources, each of which may or may not provide a complete picture of an industry and its businesses. Occasionally, substantive business records were kept and survived only to be lost or destroyed in subsequent years, as in the case of a fire in 1964 at the headquarters of the piano-making company Chappel’s.³⁵ Studies piecing together these archival jigsaw pieces help us to understand the business environment of the eighteenth and nineteenth centuries, although they are largely industry- or region-specific, and none cover the Potteries during its period of growth and expansion from the

30. For a summary see Colli, Howorth, and Rose, “Long-Term Perspectives.”

31. See Jones and Rose, “Family Capitalism,” all articles in the symposium.

32. Colli and Rose, “Family Business,” 201.

33. Hoppit, *Risk and Failure*, 10.

34. Newton and Carnivali, “Researching Consumer Durables,” 18.

35. Newton and Carnivali, “Making and Selling the Piano,” 21.

1780s through the middle of the nineteenth century. This article, as the data and methods section to follow will lay out, attempts to piece together this puzzle for pottery production.

Trade directories and the *London Gazette* are analyzed here for their relatively consistent coverage for the period and their use in several recent reassessments of classic industrial districts, which analyzed business longevity and failure, small-scale family business models, and turnover rates in family firms during similar periods of the eighteenth and nineteenth centuries. For instance, Solar and Lyons used the *London Gazette* to analyze bankruptcies and partnerships in the cotton spinning industry (1780–1840), highlighting the intensifying concentration of spinning in Lancashire rather than in Manchester, and a declining rate of bankruptcy and partnership dissolution as the nineteenth century progressed. The systematic use of such a source revealed “spatial and temporal patterns of change” in the organization of business for the industry that had previously not been documented.³⁶ Although explanation of the patterns observed are less-readily found in these sources, the empirical contribution made through such an exercise is invaluable in generating hypotheses for further research and for validating or challenging existing assumptions around industrial structure and the location of industry over time. The authors also note the limitations of attempts to address the rate of bankruptcy or dissolution due to the lack of comparable studies, calling for more work at this level to be conducted for other industries.³⁷

Barker and Ishizu analyzed regional trade directories for Manchester and Liverpool, along with wills, to examine and reassess inheritance practices in small-scale family businesses between the 1740s and 1820s. In this case, trade directories were a confirmatory source, as were probate records that provided evidence that family firms continued or remained in family hands far more often than was previously thought. This was frequently a means of supporting widows and children.³⁸ Barker and Ishizu note that trade directories could capture the fate of family businesses with more frequency than formal wills and testatory documents, which is important advice for this article.³⁹ Their findings point to a general level of accuracy in trade directories as sources, a point that will be discussed further in this section.

The final “bottom-up” approach that has guided the sources selected for this article is Tweedale’s work on cutlery producers that operated in Sheffield between the 1740s and 2010. Many of these producers were small enterprises with only a handful of workers and which left no records. Within a broader range of sources, Tweedale used trade directories and the *London Gazette* to help identify family firms, build genealogies, and identify owners as well as record firm size, types of organization, numbers and locations of factories, products made, and general reputation.⁴⁰ Such a focused empirical contribution supported a persuasive and robust argument against the “alleged shortcomings of the family firm” maintained by Chandler.⁴¹ While not on the same scale as Tweedale’s extensive database, it is hoped that the evidence presented in this article shows the continued relevance of such approaches.

36. Solar and Lyons, “English Cotton Spinning Industry,” 313.

37. Solar and Lyons, “English Cotton Spinning Industry,” 314–315. It should also be noted that this type of approach is extremely time consuming.

38. Barker and Ishizu, “Inheritance and Continuity,” 236–238.

39. Barker and Ishizu, “Inheritance and Continuity,” 233.

40. Tweedale, “Backstreet Capitalism,” 867.

41. Tweedale, “Backstreet Capitalism,” 886.

Sources and Their Use

To address the relative lack of visibility of smaller pottery firms, an empirical strategy used for this article involves the construction of a database of pottery producers in the district between the years 1781 and 1851. Two key primary sources have been used: twenty-one trade directories and the notifications of bankruptcy or partnership dissolution published in the *London Gazette*.⁴² For the construction of the database, the directories were used for the initial identification of potters, and the *Gazette* was consulted to identify known listed partners and to confirm market exit where bankruptcy notifications were filed. Data from the British Business Census of Entrepreneurs were subsequently used as an additional check for the end of the period.⁴³

Trade Directories

Directories for the eighteenth and nineteenth centuries are widely used as historical sources because a single directory offers a snapshot of an industry or region at a given point in time and thus is a useful tool for identifying businesses and producers. Using numerous directories for a single region over a period of time allows the character of that region to be observed and highlights the dynamism of structural change that a single directory cannot reveal. The use of trade directories is not new. For example, one pioneering study by Tilly used four directories by the same publisher (Kent) to cover seven decades of change in London, from 1759 to 1828; and Corfield and Kelly consulted sixteen urban directories by fourteen different authors over a much shorter period, from 1772 to 1787, with each urban center represented by one directory.⁴⁴ The empirical strategy for this article combines elements of both of these approaches to gain a long-run perspective. **Table 1** shows twenty-one distinct directories from twelve publishers.

The first caveat in using trade directories across time is the variety in authorship, which has the potential to be problematic with coverage, methodology, and accuracy varying across publications. However, trade directories needed to accurately reflect the communities they served. As a region's business community and character altered, a new trade directory was required to reflect those changes. Directories were commercial ventures featuring advertisements, and contemporaneous publishers incentivized consistency and accuracy. Raven argues trade directories by different publishers can be comparable in terms of depth and range of coverage, thus mitigating some of the potential to capture trends in the source itself rather than the subject firms.⁴⁵ More recently, Barker and Ishizu maintain that trade directories, despite any differences among them, "provide the best means of tracking the fate of businesses over time."⁴⁶ Nevertheless, as a check on the accuracy and coverage of the directories for the end of the period under consideration, this study used census data for 1851 and the British

42. See *Trade Directories* in the bibliography; the archives of the *London Gazette* are available in electronic and searchable format at thegazette.co.uk.

43. I thank the anonymous referee who suggested the use of these records.

44. Stanley, "Kent's Directories of London"; Corfield and Kelly, *Directories Database, 1772–1787*.

45. Raven, "Trade Directory," 16–18; Raven and Hooley, "Industrial and Urban Change," 24.

46. Barker and Ishizu, "Inheritance and Continuity," 241.

Table 1 Trade directories covering North Staffordshire Potteries, 1781–1851

Year	Publisher	Notes
1781	Bailey	
1784	Bailey	
1796	Chester and Mort	
1798	Barfoot and Wilkes	
1802	Allbut	Includes map with location of potteries.
1805	Holden	
1809	Holden	
1811	Holden	
1816	Underhill	
1818	Parson and Bradshaw	First to include street addresses with towns/villages.
1818	Pigot and Dean	Some street addresses for businesses listed.
1822	Pigot	Lusterers and Gilders included along with potters (excluded as ancillary).
1822	Allbut	Street addresses for business listed.
1828	Pigot	Street addresses for business listed.
1830	Pigot	Street addresses or factory name listed.
1834	White	131-page history and map of the county included, street addresses for businesses listed.
1835	Pigot	Street addresses for business listed.
1841	Pigot	Street addresses for business listed.
1846	Williams	Street addresses for businesses and some private addresses listed.
1850	Kelly	First coverage of Potteries from Kelly; street addresses for businesses listed.
1851	White	History of the district included, and street addresses for businesses and some private addresses listed.

Notes: Directories excluded from this list are discussed in the text. For specific Trade Directories consulted, see *Trade Directories* in the bibliography.

Business Census of Entrepreneurs (BBCE) database as comparative measures for the number of entrepreneurs (i.e., business owners) operating in pottery production in the region. These data are shown in the next section.

The second limitation associated with the use of directories concerns the irregularity of publication across periods of study. Table 1 shows the length of time between publications of directories, ranging from one year (1850 to 1851) to twelve years (1784 to 1796). Most of this can be explained by the commercial nature of the directories. For it to be financially viable for directory agents to revise and republish a directory, sufficient changes in the local business composition needed to occur first.⁴⁷ The largest gap of years in this study—between Bailey’s directory of 1784 and Chester & Mort’s in 1796—was because of two plagiarized publications in 1787 and 1789 by William Tunnicliff. These two volumes included verbatim copies of Bailey’s 1784 entries for the district and were the only directories published by Tunnicliff to include the district. I thus excluded them from any analysis, leaving the twenty-one directories shown in Table 1. Caution is required, therefore, when constructing a database and drawing conclusions from patterns and observations. This topic is discussed in the analysis of the data.

The national and local trade directories that covered the Potteries differed in their presentation style but were relatively consistent in the basic information contained within. Each lists

47. Raven, “Trade Directory,” 18.

the trading names of earthenware producers and their location at the town or village level until 1818, when most begin to include street addresses for the businesses (see Notes column in Table 1). These were transcribed and cross-checked where possible with consultation of secondary sources: contemporaneous histories, maps, and collectors' encyclopedias of pottery marks. It is assumed that the database contains only those enterprises operating from their own business premises (rented or owned), therefore excluding those very small-scale producers who may have rented kiln space in other manufactories. It is not possible to determine inclusion criteria across trade directories, which is a feature common to many directory studies. Small-scale enterprises in other occupations are included in the directories, along with potters, so there is no reason to suggest that pottery is treated any differently.⁴⁸

There were several years when directories were either exact reprints of a previous edition or plagiarized works copied by another publisher, such as the above-mentioned Tunnicliff. As noted, these reprints have been excluded from analysis, as it is assumed that no directory agents were sent to the district to compile new material, and the copied directories cannot be trusted as accurate. There were also two years in which more than one directory was published: 1818 and 1822. For both of these years, the entries in the competing directories were cross-checked against the other and to encyclopedias of marks and stamps and to the local newspaper (the *Staffordshire Advertiser*). This allowed a composite list of entries for 1818 and 1822 to be produced.⁴⁹

London Gazette

The second key source used to check the potters identified in the directories was the *London Gazette*, specifically looking for notifications of the dissolutions of partnerships or bankruptcy proceedings, which were consistently reported for this article's entire period. The *Gazette* is a crucial source in identifying and characterizing business activity during the eighteenth and early nineteenth centuries. During this time, a partnership did not have a separate legal identity to that of its named partnerships. Partners held the capital and property and were named and party to all contracts undertaken, thus subsequently being named in any litigation cases and bankruptcy notifications and being liable for all debts. The concept of a partner being immune to the claims on a business (in the limited partnership sense) was contradictory to English common-law. The continuity of a partnership was tied to the individuals concerned: if a partner died, retired, was declared bankrupt or insane, the partnership had to be legally dissolved. Any existing or new partners who wished to carry on business had to create a new partnership.⁵⁰ As such, notices of dissolution or bankruptcy in the *Gazette* identify named partners in industrial firms, which were verified (where possible) against trade directory entries.

Notification was not a legal requirement, although previous studies of partnership dissolutions and bankruptcy notices in Manchester cotton textile firms between 1770 and 1840 found that almost 90 percent of dissolutions were published in the *Gazette*, and were for a

48. Berg notes this practice in pottery clusters in China; see Berg, "In Pursuit of Luxury," 118.

49. *Staffordshire Advertiser*, 1818–1822; Godden, *British Pottery*; Cushion, *Handbook of Pottery and Porcelain Marks*; Coysh and Henrywood, *Dictionary of Blue and White Printed Pottery*.

50. Harris, *Industrialising English Law*, 19–21.

variety of reasons such as “terminating joint liability for debts” and notifying debtors and creditors.⁵¹ The pages of the *Gazette*, therefore, offer a relatively robust check on directory entries. Although not explored in detail in this article, they also are a potential source of details on changes and adaptations over a firm’s lifetime.

A New Database of Pottery Producers

Using the process described above, over 2,500 entries led to the identification of 1,279 distinct earthenware producers in the Potteries district of North Staffordshire. The descriptive statistics on the number and composition of firms listed in each directory for the entire period of 1781 to 1851 are seen in Figure 1 and Table 2. Hereafter, all data shown relating to the twenty-one directories in Table 1 have been cross-checked with the trade directories and *Gazette*, amalgamated for 1818 and 1822 (as described above), with duplicates removed and errors corrected where appropriate. The data show the number of firms operating in the district increased overall (albeit with some fluctuation), as did the tendency for firms to be listed as partnerships of some form.

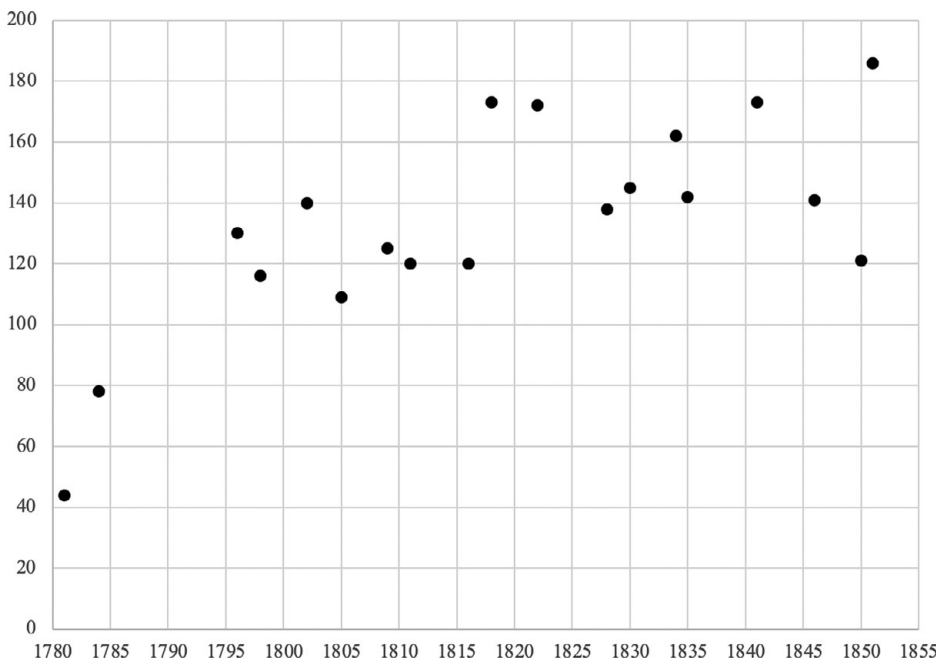


Figure 1 Total entries for potters in trade directories covering the Potteries, 1781–1851.

Sources: See Table 1 and *Trade Directories* in the bibliography.

51. Solar and Lyons, “English Cotton Spinning Industry,” 308–309.

Table 2 Composition of directory entries, 1781–1851

Year	Partnerships (%)	Sole proprietors (%)	Total Entries
1781	34	66	44
1784	29	71	78
1796	39	61	130
1798	33	67	116
1802	44	56	140
1805	47	53	109
1809	54	46	125
1811	45	55	120
1816	58	43	120
1818	49	51	173
1822	51	49	172
1828	56	44	138
1830	51	49	145
1834	48	52	162
1835	50	50	142
1841	47	53	173
1846	52	48	141
1850	49	50	121
1851	47	53	186

Sources: See Table 1 and *Trade Directories* in the bibliography.

BBCE Data for 1851

The final set of checks applied to these data was the digitally available BBCE, which uses integrated census microdata (i-CEM) from 1851 to 1911.⁵² The BBCE indicated the proportion of businesses covered by the trade directories for 1851 (the final year studied in this article), and thus reinforce the value of trade directories for pre-census era industrial development and smaller-scale businesses. It is beyond the scope of this article to extensively analyze the BBCE data for 1851, yet the following descriptive statistics are useful and provide a map of the region in 1851 at the parish level.⁵³

The locations of the pottery entrepreneurs in Staffordshire (business owners either as employers or self-employed), which were generated from the census returns contained with the BBCE database for 1851, is presented in Figure 2. The entire county is shown in the top right of the image, with the dark gray shaded parishes being those where potters were listed. The larger map shows those parishes by Potteries district and by number of potters in each district. The underlying data is shown in Table 3. In Figure 2, the two parishes in Derbyshire, situated to the far east of the county border, were over thirty miles from the center of the Potteries and so were discounted in this analysis. The two parishes to the northeast of the district are in Leek and represent two potters. Leek is not covered in any of the directories used

52. Schurer and Higgs, Integrated Census Microdata (i-CeM), 1851–1911. The i-CEM data is available in a digital format online at <https://icem.data-archive.ac.uk/>. The BBCE is available for download online at <https://beta.ukdataservice.ac.uk/> (under “SN 8600”).

53. For a detailed explanation of how the BBCE was constructed, the variables used, and their implications, see the working papers accompanying the data deposit in the UK Data Archive. See Van Lieshout et al., “The British Business Census.”

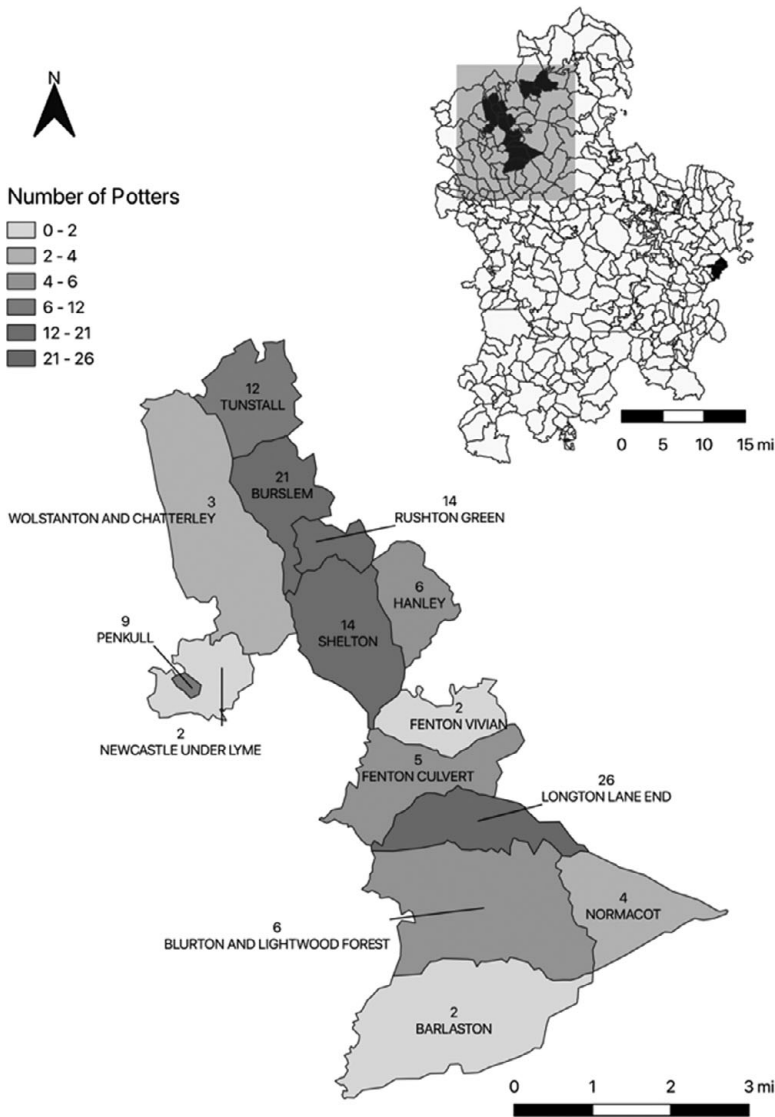


Figure 2. Map of Potteries in the industrial district

in this analysis. These have also been removed, leaving 127 potters within the industrial district.

The BBCE data show 127 pottery entrepreneurs operating within the industrial district in 1851. By way of comparison, Kelly’s 1850 directory listed 121 manufacturers, with White’s 1851 volume listing a much higher figure of 186. Explaining these differences adds some clarity to the reliability of the data in this article. Kelly’s 1850 directory was the publisher’s first foray into the district, and it is argued by some to be notably less comprehensive than other

Table 3 Distribution of pottery entrepreneurs across North Staffordshire, 1851

Parish	Potter Entrepreneurs	Share (%)
Barlaston	2	1.3
Burslem	21	13.7
Burslem, Rushton Grange	14	9.2
Burslem, Sneyd	1	0.7
Church Gresley (Derby)	23	15.0
Church Gresley (Derby), Swadlincote (Derby)	1	0.7
Leek, Endon	1	0.7
Leek, Longsdon	1	0.7
Newcastle under Lyme	2	1.3
Stoke upon Trent Hanley, Hanley	6	3.9
Stoke upon Trent Hanley, Shelton	14	9.2
Stoke upon Trent Longton, Lane End and Longton	26	17.0
Stoke upon Trent, Fenton Culvert	5	3.3
Stoke upon Trent, Fenton Vivian	2	1.3
Stoke upon Trent, Penkhull	9	5.9
Stone, Normicott	4	2.6
Trentham, Blurton and Lightwood Forest	6	3.9
Wolstanton	3	2.0
Wolstanton, Tunstall	12	7.8
Total for Staffordshire	153	100.0
Total for Potteries District	127	

Note: Number of potters estimated using the “empstatus_ind” variable from the BBCE dataset (Bennett et al., British Business Census of Entrepreneurs, 1851–1911).

well-established directory publishers at the time.⁵⁴ The volumes before and after Kelly’s (i.e., Williams 1846 and White 1851) are notably more comprehensive in their coverage, suggesting that both Kelly’s directory and the census data likely undercounted the total number of earthenware businesses in the district.⁵⁵ This undercounting in the BBCE is explained in its user guide and working papers. It rests on the industry-specific cut-off used in the regression-based methodology. The industry-specific measures used by the BBCE undercounts entrepreneurs yet comes with a higher degree of certainty that those who were counted were truly entrepreneurs.⁵⁶ Alternative measures to the BBCE overrepresent workers rather than employers, and so have not been used here. For example, the BBCE ‘NUM’ measure includes 286 pottery entrepreneurs in the district in 1851, which seems high when compared to directories and other estimates.⁵⁷ Trade directories thus offer a reasonable estimate as to the number of pottery businesses operating in the district by the middle of the nineteenth century.

54. Kelly’s later editions are more substantive in their coverage of the second half of the nineteenth century. See Henrywood, *Staffordshire Potters*, 293.

55. Barker and Ishizu, “Inheritance and Continuity,” 241.

56. Bennett et al., British Business Census of Entrepreneurs 1851–1911; Bennett et al., “Reconstructing Entrepreneur and Business Numbers”; Bennett et al., “Reconstructing Business Proprietor Responses for Censuses.”

57. Bennett et al., British Business Census of Entrepreneurs 1851–1911; Bennett et al., “Reconstructing Entrepreneur and Business Numbers”; Bennett et al., “Reconstructing Business Proprietor Responses for Censuses.”

For the pre-census period in this article, they remain some of the best long-run evidence on small-scale businesses.

With the sources and methods discussed, the article now turns to the analysis of the new database of potters from 1781 to 1851.

The Trees of the Forest: Exploring the Data

A closer analysis of the data reveals that the organization and character of the district was dynamic and variegated, with smaller enterprises exhibiting a range of strategies and business fortunes. The organization of businesses ranged from sole proprietors to father–son enterprises, and from sprawling family dynasties and partnerships (with fathers, sons, wives, and cousins taking the helm) to shorter-term partnerships between two or more one-time competitors. The changing composition in the recorded entries of the directories over time is shown in Figure 3. It is important to note that the way in which directory entries were recorded may have differed among publishers. Although the exact style or naming conventions for each publisher are not known, there are some caveats to Figure 3. For instance, it is not known in every case whether “& Co.” signified a partnership with multiple potters or a naming convention used to give the perception of legitimacy. It is possible that some of these entries were individuals working alone, although the large proportion of firms listed as individuals would seem to suggest that this is not a well-used tactic.

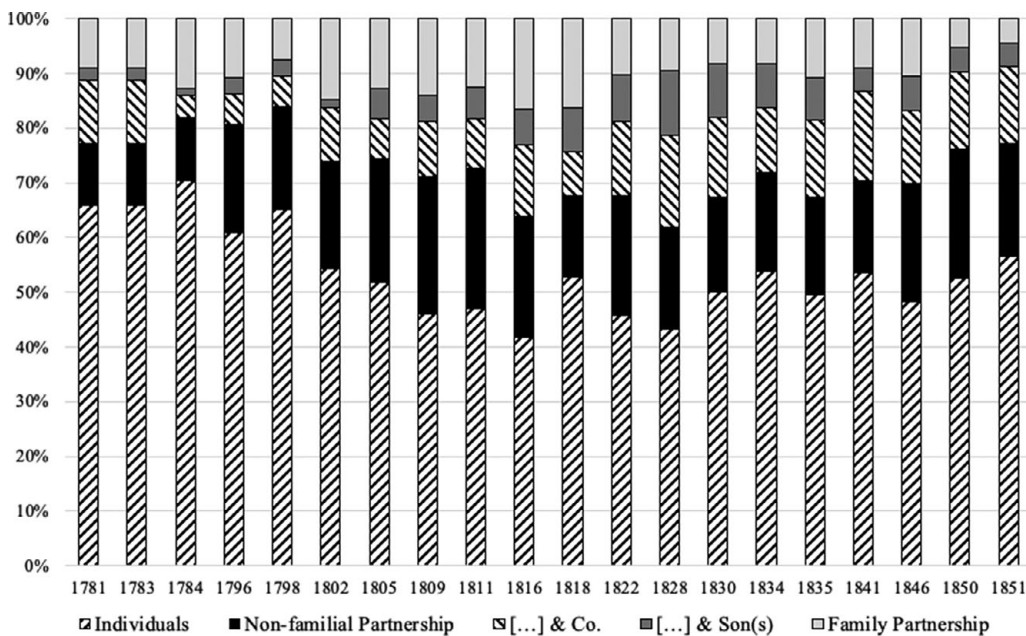


Figure 3. Composition of pottery businesses as listed in trade directories, 1781–1851

Notes: See Table 1 for the list of directories. The length of time between publications is not equal, as discussed in the text.

The overall composition shows business organization patterns fluctuating between increased use of familial and nonfamilial partnerships, particularly in the decades around the turn of the eighteenth century, to a levelling out and reversal of this trend in the middle of the century. The lack of evidence prevents further clarification beyond this observation, although it is hoped that the database of firm names provides a good starting point for further research. It is possible to identify the names of partners in some cases through the *Gazette* and *Staffordshire Advertiser*, although with many of the smaller and lesser-known partnerships, unless they published a notice of dissolution or bankruptcy, they are mostly invisible beyond directory entries.

The decline in partnerships of family members indicated in Figure 3 is an interesting development, given the prevalence of family potting dynasties throughout this period. In the decades around the turn of the century, there were many families in which members were operating businesses either in partnership or concurrently. The famous Wood family in Burslem, for instance, had several “branches,” with four businesses connected to the family name listed in Allbut’s directory of 1802: John Wood; Ralph Wood; Enoch Wood & James Caldwell; and William Wood & Co.⁵⁸ The less-known but more prolific Booth family in Stoke accounted for at least twenty businesses from 1781 to 1841 (Table 4)

Behind the changing composition of the district, directories also reveal a degree of turnover as well as growth in the overall number of businesses over time (Figure 4). There are some fluctuations over time and some clear outliers.

The sharp increase in firms listed in 1818, for instance, is likely due to the bumper composite nature of the directory entries for that year. The high turnover rate in White’s

Table 4 The Booth family of potters, 1781–1841

Directory year	Firms listed
1781	Hugh Booth
1784	Hugh Booth
1796	Booth & Marsh; Ephraim Booth & Sons
1798	Booth & Dale; E. Booth
1802	Booth & Co.; Booth & Marsh; Booth & Sons
1805	Booth & Bridgewood; Hugh and Joseph Booth; William Booth
1809	Messrs Booth
1811	Messrs Booth
1816	Booth & Bentley; Messrs Booth
1818	J. and T. Booth; Shelley, Booth & Co.
1822	Joseph & Thomas Booth; Pye & Booth
1828	Joseph & Thomas Booth; Richard Booth & Sons
1830	Joseph & Thomas Booth; Richard Booth; Richard Booth & Sons
1834	Booth & Son; Richard Booth
1835	Booth & Son; Richard Booth
1841	George Booth, Robins & Co; Joseph Booth; Richard Booth

Note: Data was cross-checked with notices in the *Staffordshire Advertiser* and *London Gazette* to ensure each business was distinct. Sources: See *Trade Directories* in the bibliography.

58. *The Staffordshire Pottery Directory* (1802).

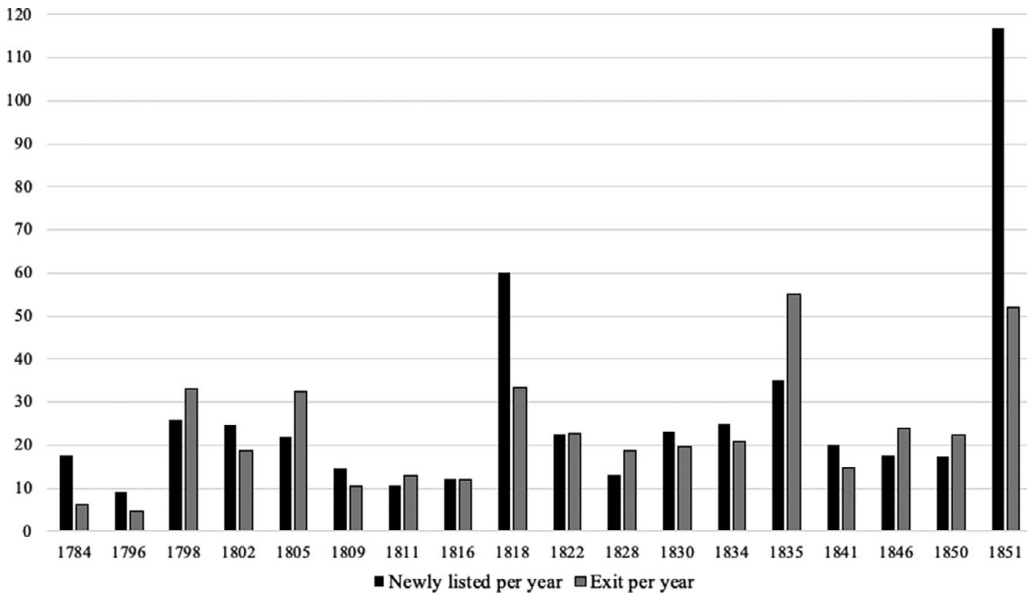


Figure 4 Turnover of businesses between directories, 1784-1851

Notes: The value shown for each publication year is equal to either the total number of new entries or the total number of entries that were dropped from the previous directory divided by the number of years since the previous directory publication (e.g., the bars for 1798 show the number of new entries and exits per year for the two years since the 1796 directory. The directory for 1781 is not shown here as this is the first in the series and thus has no prior publication to compare.

Sources: *Trade Directories* in the bibliography.

1851 directory reflects the relatively limited coverage in Kelly's directory of 1850, which was one of the first forays into provincial directories by the long-established publishers of the *Post Office Directories*.⁵⁹ White's 1851 directory, on the other hand, brought a return to the trend of overall increasing entries reflected in the uptick in new entries capturing those missed by Kelly the year before.

The internal dynamism in the district is admittedly rather difficult to explain beyond a degree of turnover being a characteristic of economic and business growth.⁶⁰ The first decade or so of the nineteenth century, for instance, had the lowest turnover between directory publications, signaling a degree of similarity between Holden's three directories of 1805, 1809, and 1811, and Underhill's 1816 directory. This period also coincides with a slowing in the growth of pottery businesses in the district starting around 1800, also noted in Weatherill's estimates on growth from 1670 to 1820.⁶¹ Turnover picked up again with overall numbers increasing, the 1818 directory year notwithstanding.

59. Norton, *Guide to the National and Provincial Directories*, 61–62.

60. Molina Morales et al., "Role of Local Institutions."

61. Weatherill, *Growth of the Pottery Industry*, 453.

Table 5 Consecutive entries of businesses in trade directories, 1781–1851

Consecutive Entries	Number of Businesses	Share of total (%)
1	737	57.62
2	271	21.19
3	133	10.40
4	60	4.69
5	32	2.50
6	22	1.72
7	12	0.94
8	6	0.47
9	3	0.23
10	1	0.08
11	2	0.16
Total	1279	100.00%

Sources: See Table 1 and *Trade Directories* in the bibliography.

The vast majority of the 1,279 businesses in the trade directories were short-lived, with 90 percent not appearing in more than three consecutive directories in the same form (Table 5). Change, then was a necessary and functional component of growth within the pottery industry in North Staffordshire, whether that was exiting the industry due to failure, a change of partnership or business structure, or growth to incorporate multiple business sites. There were firms that survived and thrived for much longer, becoming the household names so often synonymous with the pottery industry of North Staffordshire and whose works feature heavily in the pages of collectors' handbooks and general studies of the trade.⁶² The majority of firms, however, did not last. As previously noted, a degree of turnover is expected or inevitable given the legal framework governing the formation and dissolution of partnerships. Turnover in this instance, and in examples cited here, may not necessarily indicate radical change within the firms but rather a change among those in control of the firms.⁶³

Underlying Dynamics of Growth

The growth of the pottery industry in North Staffordshire was a dynamic process, as made clear in the database and seen in the changing organizational structures underlying the churn within the majority of businesses that made up the district. The rest of the discussion explains these dynamics by using cases and examples drawn from the evidence presented above.

There are numerous producers who appear, disappear, and then reappear in various partnerships and businesses throughout the period under study. A prime example is the potter Ralph Baddeley (d. 1812), who appears in Bailey's directory of 1781 as a potter in Shelton operating under his own name with no known partners.⁶⁴ Between 1781 and 1796, Baddeley

62. Godden, *British Pottery*; Cushion, *Handbook of Pottery and Porcelain Marks*; Coysh and Henrywood, *Dictionary of Blue and White Printed Pottery*.

63. Harris, *Industrializing English Law*, 19-21.

64. Death recorded in *Staffordshire Advertiser*, June 27, 1812.

entered into a partnership with four other potters under the name Samuel Perry & Co. in Hanley.⁶⁵ He then reappears in Chester and Mort's 1796 directory under his own name, and in Barfoot and Wilkes directory of 1798 in partnership with his brother, under the firm name of John & Ralph Baddeley. Ralph appears in no subsequent directories after 1798, and there is evidence that he retired around the turn of the century. His house, substantial potworks, and eight dwelling houses were advertised to let; and his utensils and other paraphernalia were advertised for auction between October 1801 and October 1802.⁶⁶ Aside from these references, Ralph Baddeley neither appears in any other types of trade directories, nor does his name appear again in the *London Gazette* or *Staffordshire Advertiser*.

Baddeley's partnership in Samuel Perry & Co. with four other potters—Ephraim Booth (d. 1802), Charles Bagnall (d. 1815), Edward Keeling (d. 1833), and Samuel Perry (d. unknown)—provides further clarity.⁶⁷ Dissolved by mutual agreement on September 29, 1796, the precise date of formation is not known, although there are strong connections to a forty-one-year lease agreement in 1784 for access to coal between Baddely, Samuel Perry, Charles Adderley, and Hugh Booth.⁶⁸ The agreement shows that partnerships were entered into along different elements of the supply chain beyond the physical production of wares, which suggests vertical integration. Directory entries reveal Booth went into business with his sons for several years after the dissolution of Samuel Perry & Co.; Keeling operated on his own for several years before entering a partnership with a family member, Anthony Keeling; and Bagnall continued his work as a founding partner in the New Hall Porcelain Company (est. 1781). Samuel Perry was also a partner in Anthony Keeling & Company, which dissolved in 1793. While it is not possible to determine the fate of all the potters who "exited" directory listings, this case is illustrative of the many collaborative enterprises undertaken in the district and the complexity and vitality of business relations.

Another example of the benefit of triangulation of the sources is found in Keeling, Toft & Co., first listed in Holden's directory of 1805 and then appearing in various forms in the years 1809, 1811, 1816, 1818, and 1822. From directories alone, it is possible to identify only two of the partners: James Keeling and Thomas Toft. The *Staffordshire Advertiser*, however, reveals numerous adaptations over the company's lifetime.⁶⁹ It was originally founded sometime before 1801 by seven partners to produce porcelain and earthenware in Hanley. The partners were William Mellor (d. 1801), James Keeling (d. 1837), Thomas Toft (d. 1834), Philip Keeling (d. unknown), John Howe (d. unknown), Samuel Hatton (d. unknown), and Thomas Dimmock (d. 1827).⁷⁰ Notices detail that after Mellor's death, his executors (the potters John Mare, John Whitehead, and John Daniel) carried in his stead, raising the number of partners to nine. In September 1801, Howe retired from the partnership and sold his shares and interest to Mellor's wife, Ann, who is named as the mortgagee in insurance records for a range of

65. *Staffordshire Advertiser*, April 29, 1797.

66. *Staffordshire Advertiser*, October 24, 1801; February 20, 1802; August 28, 1802; October 2, 1802; October 9, 1802.

67. *Staffordshire Advertiser*, November 20, 1802; July 15, 1815; November 9, 1833.

68. MS 3878/682, Birmingham Archives; *Staffordshire Advertiser*, April 29, 1797.

69. *Staffordshire Advertiser*, September 20, 1806; March 7, 1812; December 31, 1814; February 4, 1815; March 2, 1816; December 11, 1819.

70. *Staffordshire Advertiser*, March 7, 1801.

potworks and for the premises in which the company operated, valued at £1,070.⁷¹ The firm continued in operation with the remaining original partners, Ann Mellor, and her husband's three executors until July 14, 1806. On that date, Ann Mellor and her husband's executors retired from the business, vesting their shares and interest to two new potters, Sampson Wright and James Greaves. This returned the number of partners to seven. This level of detail is not possible for all partnerships listed in the directories, although it does show the possible level of dynamic partnerships and business relationships, with constant turnover within and between them.

There are also clear examples, despite the turnover rates, of successful strategies of Staffordshire potters pursuing new and successful business ventures with their peers or family. Family businesses feature extensively in the trade directories and pages of the *Gazette*, in their frequency and turnover (see Figure 3), and their longevity and business continuity practices. Directories reveal producers such as Ann Chetham, also a widow who continued to successfully operate businesses after her husband's death in 1807. The first business was formed in the 1790s by her husband James and with Richard Wooley (Chetham & Wooley). Ann dissolved that partnership in 1809. In that same year, she used the premises to form a new partnership with her son (Chetham & Son), which then became Chetham & Robinson by 1822, followed by Chetham, Robinson & Son in 1837, before closing its doors for good in 1841.⁷² Ann deciding to sever ties with Wooley proved a shrewd business decision, as two years later Wooley was declared bankrupt.⁷³

This melting pot of familial and nonfamilial cooperative competition, where one-time competitors found themselves as partners in new business ventures, served the district and its potters well. It could and did, of course, also work in reverse. For example, George Wolfe and Miles Mason fully dissolved their partnership by mutual consent in July 1800,⁷⁴ and they continued to operate independently. Mutually desired dissolution is one reason why many firms did not feature in more than two or three consecutive directories. In other cases, dissolution was due to business failure. It is here that the bankruptcy notifications in the *Gazette* offer some clarity and confirmation as well as an additional opportunity to identify unknown partners.

For context of the following data, during the eighteenth-century, North Staffordshire County was unexceptional in terms of bankruptcies across all trades and industries, having neither the most nor least bankruptcies. Hoppit included potters and pottery dealers in a "Miscellaneous" category, along with thirty-one occupations ranging from candlemakers to papermakers to surgeons, including "gentlemen" and those with titles. This Miscellaneous category never accounted for more than 7.2 percent of bankruptcies for the century. In the final decades of the eighteenth century, the metal trades in Staffordshire accounted for a slight increase in the number of bankruptcies in the county.⁷⁵

71. Edmundson, "Staffordshire Potters," 89.

72. *Staffordshire Advertiser*, December 16, 1809, 1; see Trade Directories in the bibliography, between 1809 and 1841.

73. This is an area for further research given the following works featuring trade directories as key sources. See Barker, *Business of Women*; Aston, *Female Entrepreneurship*.

74. *The London Gazette*, July 8, 1800, issue 15274, 793.

75. Hoppit, *Risk and Failure*, 57–62.

Table 6 Bankruptcies of pottery manufacturing businesses in the *London Gazette*, 1781–1851

Decade	Bankruptcies
1781–1789	5
1790–1799	11
1800–1809	10
1810–1819	22
1820–1829	16
1830–1839	14
1840–1849	25
1850–1851	1
Total	104

Source: *London Gazette*, 1781–1851.

Table 7 Pottery-related bankruptcies listed in the *London Gazette*, 1781–185

	North Staffordshire	Rest of England
Manufacturers	104	93
Dealers	4	133

Source: *London Gazette*, 1781–1851.

The influence of the pottery district and its central position is clear in the observation that over 50 percent of bankruptcies were by solicitors in the Potteries, a reflection of the concentration of production in the district. The number of pottery-related bankruptcies listed in the *Gazette* between 1781 and 1851 is in Table 6. However, Table 7 shows that most of the *dealer*-related bankruptcies were registered in the rest of England, because most manufacturers were in North Staffordshire County while most dealers who went bankrupt were from outside of the county, reflecting a reliance on outsiders to move finished products to consumers. In other cases, potters included an element of dealing or trading in their statement of occupation to be eligible for bankruptcy proceedings.

While incomplete in their coverage of business failure, bankruptcy notifications help to explain some of the turnover and change observed at the business-level in the district, and offer a little more context as to the fortunes of some of the businesses recorded in directories.⁷⁶ Business failure was not rare, and bankruptcy was a legitimate option for Staffordshire potters, whether famous as in the case of Ralph Wedgwood in 1797; or relatively unknown such as Jesse Tams, who features only in 1843; or larger partnerships, such as that between John Breeze, Michael Lewis, William Reade, and William Handley, who were declared bankrupt in 1829; or family businesses, such as the William and Samuel Edge bankruptcy in 1847.⁷⁷ Regardless of size and scale, pursuing bankruptcy was not a decision to be taken lightly and did not come without consequences and a certain degree of stigma attached. While Hoppit argues it represents only the tip of the insolvency iceberg, its absolute nature and strict

76. Hoppit, *Risk and Failure*; Solar and Lyons, “The English Cotton Spinning Industry”.

77. *London Gazette*, in order: April 11, 1797; February 24, 1843; November 17, 1829; May 14, 1847.

requirements for eligibility means it serves as a reliable and relatively consistent measure of failure over time.⁷⁸

It is difficult to accurately determine the likelihood of failure as a potter in North Staffordshire, although a valuable insight can be gained through comparison with Weatherill's employment estimates for different regions in England.⁷⁹ By 1780 two-thirds of England's pottery labor force was located in North Staffordshire, increasing to 80 percent by the 1820s. In only three years of the study—1793, 1798, and 1833—did the proportion of bankrupts in the district exceed the proportion of employment. This is a crude measure, but one that prompts investigation for future research.

The observations in the new database can also be used to discern the types of partnerships and business agreements made within an industry in which access to raw materials, production-specific knowledge, and sales networks were crucial for success. Thomas argues the main reason for turnover of partnerships in the Potteries was largely due to the highly speculative nature of clay mining and the "loose associations" on which manufacturing partnerships were formed.⁸⁰ The evidence presented to support this argument is somewhat confusing, however, as it seems to suggest much tighter arrangements for accessing raw materials. For example, Thomas refers to Hendra Co., a syndicate formed in 1781 to secure raw materials through the purchase of land and mines in Cornwall. It fell into arrears by 1841, yet was in operation for far longer than the majority of partnerships identified in directories. Another example is Josiah Wedgwood I and the Cornish clay merchant John Carthew, who formed the Wedgwood Cornish Clay Company in 1782, purportedly with the altruistic aim of securing raw materials supplies for the district at large, although the result was much closer to a monopoly on access to specific clays for Wedgwood's wares. Thomas also points to a formal agreement in 1791 between twelve potters to purchase a minimum of twelve hundred tons of clay annually for five years from a Cornish merchant, Mr. Pike, at a minimum price of £120 per year. This was followed in 1797 by a twenty-one-year lease on a Cornish mine, although this seems to have run its course by the turn of the century.⁸¹ The lease lengths were generally for multiple years and indicate attempts at vertical integration by Staffordshire potters directed *outside* of the district. These lease relationships were very different when compared to the short-term partnerships *within* the district.

Conclusions

The use of trade directories and the *London Gazette* to reconstruct the industrial district of the Potteries over the long-term reveals much about the multitude of small—and hitherto unknown or overlooked businesses—that formed the largest portion of the forest. Returning

78. Hoppit provides a sound overview of changing attitudes toward credit and bankruptcy in 18th- and 19th-century Britain. Hoppit, *Risk and Failure*; Hoppit, "Attitudes to Credit in Britain," 305–322.

79. Weatherill, *Growth of the Pottery Industry*, 453.

80. Thomas, *Rise of the Staffordshire Potteries*, 41.

81. Thomas, *Rise of the Staffordshire Potteries*, 35–40.

to Fridenson's remarks noted in the introduction, and from a business history perspective, it is clear from the evidence presented in this article that, outside of the pages of collectors' encyclopedias or ceramic marks, the trees were hiding the forest. By utilizing a bottom-up approach to sources has provided the first step in understanding the composition, dynamism, and characteristics of this forest.

In some cases, the analysis confirms what is already known about the district: it was a vibrant center of business activity that incorporated the birth, survival, and death of many distinct types of businesses. The value-added of building the empirical base from the bottom-up is the ability to shift the focus to ask new questions about a classic industrial district that survived well into the twentieth century. The database can highlight why the turnover of businesses and partnerships cannot be explained solely by bad management or industry decline, for instance. The degree of change in business formation and organization is described in this article as a function of the district. The entry of new businesses and the bankruptcy and dissolution of others are normal observations in any business context; in the Potteries, the formation of multiple and recurring partnerships between one-time competitors was a constant feature. Certainly, some potters were simply bad at business and incapable of successfully running a potworks without facing financial ruin, as shown by the bankruptcy records. What is notable is that a high firm turnover rate was an asset to the district over the long run.

The analysis on smaller and lesser-known businesses brings the North Staffordshire Potteries district back into focus for classic industrial district studies. Canonical districts, such as textile production in Manchester and cutlery and metalworking in Sheffield, were the first focus on the small-scale family businesses that made up the bulk of early development phases. A closer inspection allows us to add evidence in support of Popp and Wilson's life-cycle theory of English industrial districts. This article shows that after experiencing early success by the last quarter of the eighteenth century, the Potteries began a period of cooperative competition until at least the middle of the nineteenth century. A third phase shows that short-term partnerships were commonplace along with a growing pool of competitors and potential collaborators. The evidence suggests that this third phase of the life-cycle was, like those stages that came before and after, prolonged.⁸² It is clear that the life-cycle remains a useful structure when considering long-term trends and patterns at the business-level of industrial districts, not least in the protracted life of the Potteries. This article complements the application of this framework, extends it beyond Popp's focus on the post-1851 period, and provides empirical evidence for this crucial period.

The district was not exceptional in its features; indeed Jones and Rose suggest that small-scale family firms and the "vital dynamism" of their formation and turnover was a feature of industrialization in many countries.⁸³ The cotton textile industry in Manchester in the first half of the nineteenth century exhibited a large proportion of firm exits, and piano manufacturing in London in the second half of the nineteenth showed similar

82. Popp and Wilson, "Life Cycles," 2984.

83. Jones and Rose, "Family Capitalism," 1.

characteristics.⁸⁴ So too, the pottery industry in North Staffordshire during the period 1781 to 1851 exhibited such parallel characteristics to cutlery in Sheffield, jewelry in Birmingham, gloving in Worcester, and chemicals in Widnes. All had significant turnover in the composition of their districts as well as growth and innovation.⁸⁵ The use of trade directories and the *London Gazette* brings the details of the Potteries district in North Staffordshire into sharper focus and confirms Fridenson's aphorism that trees, no matter how large, should not hide the forest.

The findings of the article provide the foundation for further research into the business structure of the Potteries in the eighteenth and nineteenth centuries. Pottery requires significant knowledge and skill in its production and innovation. The growth process explored in this article questions the reasons why and how successful pottery firms chose a business model of multiple, occasionally repeated, short-term partnerships with their competitors. This requires further research. The extent to which business-level strategies considered knowledge creation and sharing is so far unclear. If the creation or appropriation of knowledge can garner a competitive advantage, one might expect most producers would want longer-term partnerships as a means of protecting certain types of knowledge. It is extremely difficult to control knowledge once it leaves the boundary of the firm. It is even more difficult to control it if the bulk of the tacit knowledge and skill is attached to individuals who move with their employers among partnerships. There is currently no explanation for this at present, although the reframing of the district allows for a more thorough future analysis of some of the decisions and strategies made by potters. Did new entrants align with those experienced potters who had knowledge, skills, experience, and access to networks? Were outsiders to the district incorporated through partnerships? If so, how well were they received given the tensions that existed in the district later in the nineteenth century?⁸⁶

The character of the district was complex and dynamic. A steady supply of new potters entered the industry between 1781 and 1851, and many could not survive and thus ceased operation and exited the field. A small number survived relatively unchanged for long periods of time and became major competitors. Other firms survived by continually changing and reinventing themselves after short-run partnerships ended. Together, these strategies generated a fast moving, vibrant, and dynamic business environment in which most producers did not stand still. The pursuit of survival by the myriad producers that did not become household names or leave much in the way of business records nevertheless created growth and vitality at the district level.

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84. Newton and Carnevali, "Making and Selling the Piano"; Lloyd-Jones and le Roux, "Marshall and the Birth and Death of Firms," 143–145.

85. Popp and Wilson, "Emergence and Development of Industrial Districts." For contemporaneous clusters that exhibit high turnover rates as a positive growth characteristic, see Johansson, "Turnover of Firms"; Molina Morales et al., "Role Local Institutions."

86. Popp, "Identity and Entrepreneurship."

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