The Rise and Fall of the Scottish Cotton Industry 1778-1914: ‘the Secret Spring’

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Tony Cooke has made a notable contribution to our understanding of early industrialisation and its impact, including some important studies of textile history and the heritage of the industry. Some of his early work focused on the great inventive genius and sharp business operator, Richard Arkwright, and it is no surprise that we meet the inventor and his devices early on in Cooke’s wide ranging and comprehensive history of the Scottish cotton industry.

This is both a work of synthesis and extensive new research. Cooke has trawled every major archive and many smaller collections in Scotland and elsewhere to construct a detailed picture of the industry. He has also looked at many sources, such as legal records in the National Archives of Scotland, which have rarely been tackled by historians who either did not know of their existence or found them too dusty and troublesome. But Cooke’s work on sequestration or bankruptcy cases, inventories of land, machinery and other property, linked to estates and wills, reveals a vast quantity of new information about the industry and its masters.

Most industrial or business histories tend to be essentially chronological and developmental, but here the industry is examined both chronologically and through specific treatment of major themes such as an examination of the industry’s precursors, its technology, its capital and employers, its markets, labour and work, all placed in broader economic and social contexts. Throughout important comparisons and contrasts are drawn with the experience of the industry in England, on the continent, and above all, the United States, where cotton textiles were established almost as rapidly as in Scotland.

Like other textile manufacturing cotton had a long pre-history, an extended and so-called ‘proto-industrial’ phase common to those regions where cloth making of one kind or another was established and to the regions where cotton ultimately took off in Lancashire, Cheshire, Derbyshire, Nottinghamshire and the Scottish Lowlands. In Scotland, as in Lancashire, there was an important link to linen, in skills, technology and capital formation. Another significant source of investment in the new industry was the Atlantic trade, Glasgow and the Clyde being to the west of Scotland (and well beyond) what Liverpool and the Mersey were to Manchester and its hinterland. The third source of capital, though as difficult to quantify as the others, was the landed gentry, the great majority of whom embraced cotton manufacture as an extension of
their ‘improving’ agendas (there were other explanations, to which we’ll come).

While it can be reasonably claimed, as Cooke does with some reservations, that the Scottish cotton industry in its early stages owed much to technological transfers from England, the Scottish linen and silk industries were already benefitting from mechanisation encouraged by the state (through the Board of Trustees, set up after the union with England to encourage manufactures), by the British Linen Company, and organisation by large-scale capitalists, like David Dale, who made his fortune in linen, becoming one of Glasgow’s merchant princes. Dale was to prove untypical in the extent of his involvement with the new industry, but he was not alone.

Given the relative simplicity of the technology involved in mechanised spinning it might strike us as surprising that the breakthrough to mass manufacture was so long delayed, but within a few years of Arkwright’s various inventions, the industry began to take on dynamic of its own, separate from its hybrid existence with linen. It seems probable that piracy played a big part in Scotland, as it did in England (and on the Continent and in New England), but in any case the patent laws did not strictly apply north of the border. Arkwright thus made deals with merchants and landowners to install his machines in several of the massive mills which typified the earliest phase of factory spinning, and to provide initial training at his headquarters in Cromford.

Major attractions for entrepreneurs were the copious supplies of water power, cheap labour, and an extensive network of skilled outworkers scattered throughout the Lowlands. The landed gentry were generally encouraging: cotton mills brought revenue and employment for labour displaced by agricultural improvement, the Scottish equivalent of enclosure, and in the Highland variant, land clearances which accelerated established patterns of seasonal then permanent migration to Lowland towns. So mills could be seen as extensions of the paternalism exercised by the elites and it is not without its interest that the best of the mill owners emulated this approach, especially in the country spinning mills in places like Catrine, New Lanark and Stanley. But of course, they also made money, in many cases a great deal.

The industry expanded at a dramatic rate, quickly overtaking linen. This remarkable surge in activity, seen in several other sectors, suggests that the Scottish industrial revolution, after a later start, was concentrated in a much narrower time-frame than that of England, more closely resembling the experiences of continental emulators, notably Belgium and Silesia. Moreover, Gershenkron’s tendency to ‘big-ness’, or much larger-scale enterprises in late starters, is also evident in the Scottish context generally, and in cotton even the businesses that survived the later 19th-century decline were large by the standards of British industry.

The thematic chapters also provide some remarkable revelations about the complexity and varying fortunes of this industry. In technology what Mokyr called the ‘macro’ inventions from England that set the industry going were quickly followed by ‘micro’ ones inspired by Scots. Several were at the sharp end of the production process, such as more efficient spinning and weaving machinery, but it was in the finishing trades and the industrial chemistry they inspired that Scottish innovators really scored. Cooke’s examination of the bleaching, dyeing and printing industries is thus a reminder of the more extensive and practical nature of education in Scotland compared to England, especially in the universities and colleges.

Perhaps the most revealing chapters are those on workers and employers. Cotton in all its branches was a huge employer of labour, mostly women and children, and a vast army of outworkers suggestive of the parallel paths along which industrialisation proceeded well into the 19th century. This also helps explains the success of the Scottish trade which, like many other industries north of the border, was essentially sustained by cheap labour compared to England. Workers of this period rarely speak except when mediated by parliamentary commissioners, but Cooke has trawled the evidence very thoroughly to pick up the experiences and impressions of ordinary folk. Conditions were tough, even in the best of country spinning mills where paternalism at least resulted in better housing and social provision than prevailed in places like Glasgow and Paisley. The critique of the factory system probably reflected the reality of harsh conditions and long hours, though some of the evidence has to be treated with caution as some of those testifying were
undoubtedly in the pockets of reactionary mill masters intent on resisting the national implementation of reforms proposed by Owen, Ashley and others.

In his chapter on employers Cooke has built on a recently published study he made of the Scottish cotton masters, who until then had been strangely neglected given the importance of the industry. While Crouzet’s path breaking work on the early industrialists suggested lower-middle-class dominance, Cooke’s research, in line with more recent work in England, sees the majority of businessmen in cotton coming from much better established merchant and manufacturing (and occasionally inventive) backgrounds. There were some remarkable success stories, for example David Dale and Kirkman Finlay from the early stages, and the great Paisley thread makers like Peter and Thomas Coats, the chemists like Charles Macintosh and Charles Tennant, and others too numerous to mention. The failures do not go un-noticed, their demise invariably traced in voluminous and acrimonious bankruptcy proceedings, rather than hagiographic obituaries accorded the successful, whose philanthropic endeavour endowed places like Paisley with churches, schools, libraries, art galleries and museums.

Setting aside sugar production, also built on slavery, cotton was the first global industry and the first to be transformed by mass production based on new technology. It is thus interesting that at both ends of the production process it remained enormously labour-intensive and that neither the abandonment of slavery at one end or further innovation at the other did much to alter those positions. The connection to slavery, though subject to investigation by several scholars including Cooke, remains something of a black hole in Scottish history, but incongruously something that has recently come to light is that fact that Dale, one of the founding fathers of the Scottish cotton industry, was a prominent supporter of abolition. In the longer term there can be little doubt that the freeing of the slaves, combined with the impact of the Cotton Famine during the Civil War, linked to the overwhelming competition from Lancashire and elsewhere contributed to the decline of the Scottish industry. However, the big question remains which takes us back to the old debate about entrepreneurial failure, Payne’s thinking being that second-third generation businessmen did not fail – only acted rationally in the context of the time. Much of Scottish industry, like that of Britain generally by 1914, simply could not compete.

While it is undoubtedly the case that the Scottish cotton industry had shrunk dramatically by 1914, there was, in fact, quite a lot left, highly specialised though it was. Notable among surviving firms were the great Paisley thread manufacturing firms, which as Cooke points out, had become multi-national, much as had the major jute enterprises in Dundee which also managed to survive in an increasingly globalised sector. New Lanark was extensively modernised as late as the 1950s, remaining a significant employer locally, and managed to keep going until 1968. The Stanley complex, built around the original mill, survived even longer, outliving many of the major Lancashire firms. It is thus incongruous that the enterprises that survived longest were the very ones that had pioneered the factory system while later enterprises succumbed long beforehand.

This is a significant study of a key sector in early British industrialisation, but it is also a valuable case-study of longer-term trends in the economy that continue to perplex historians and resonate to this day. Historical analogies are always dangerous, but there are many lessons here about enterprise, innovation, the creation of a skilled labour force, success in increasingly challenging markets, plus the downsides of entrepreneurial failure, loss of technological advantage, changing consumer behaviour, foreign competition, the ultimate demise of the industry and many of the communities it sustained.

But concluding on a more optimistic note, the history of the Scottish cotton industry is at least celebrated in several outstanding monuments. Two, if not more, are directly associated with the great Arkwright, Stanley on the river Tay, restored by Historic Scotland and the Phoenix Trust, which incorporates the best preserved Arkwright-type mill in the world, and New Lanark, a UNESCO World Heritage Site, where history and social regeneration jointly underpin the restoration and interpretation of one of the most significant relics of the Industrial Revolution internationally.
The author is happy to accept this review.

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