9. Industrialisation and the Import of Cotton

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For many thousands of years, the production of cotton cloth was a domestic enterprise, where the white, fluffy fibres of locally grown cotton were spun into yarn and then woven into fabric in communities across the Americas, Africa and Asia. Even so, Indian cotton textiles were traded globally and Europeans had, since the seventeenth century, become familiar with fabrics such as muslin, chintz and calico through the imports of East Indian trading companies.[1] Cotton was decorative, versatile, cheap and easily cleaned and so ideal for furnishings and clothes. In the 1700s, it would have been hard to imagine that, less than 100 years later, the demand for cotton products would spark European industrialisation and the development of a global industry founded on the production of cheap, slave-grown cotton from the West Indies and North America.

In England, where there were established wool and linen industries, merchants, weavers and spinners in the eighteenth century saw the popularity of imported Indian fabrics as a threat to their livelihoods. Petitioning Parliament, they persuaded the government to pass the Calico Act (1700), banning imports of finished cloth, while domestic use was made illegal in 1721.[2] Despite this, manufacturers saw the potential of the fibre, and raw cotton continued to be imported from Turkey and plantations in the Caribbean. The repeal of the acts in 1774 resulted in large-scale investment in cotton manufacture.

Samuel Greg (1758–1834) was among a new generation of textile entrepreneurs seeking to profit from the lifting of restrictions. From a family of affluent Manchester textile merchants traditionally contracting Lancashire cottagers to weave 'fustian' (a legal cotton and linen fabric), the Gregs' success owed much to eighteenth-century technological advances. John Kay's flying shuttle (1733), for instance, doubled a handweaver's production rate, while James Hargreaves' spinning jenny (1764) spun eight times more thread. Yet, it was Richard Arkwright's water frame (1769), a water-powered cotton-spinning machine, that revolutionised production. Acquiring the family business in 1782, Greg built Quarry Bank Mill (NT) at Styal in Cheshire two years later, specifically to operate water frames. It was just one of many mills that appeared across the North West, the Midlands and Scotland heralding industrialisation in Britain.

Mechanisation only increased demand for raw cotton. Planters in the British Caribbean colonies responded, with Barbados becoming the centre of production after the destruction of its sugar crop by a hurricane in 1780; the French Caribbean islands and Brazil followed suit.[3] These colonies all cultivated cotton using enslaved labour, as intensive production was believed to be unprofitable without such exploitation. Moreover, slavery enabled great fortunes to be made by European merchants, plantation owners and manufacturers.

Even so, the availability of raw cotton continued fluctuate. The 1791–1804 revolution in the French colony of Saint-Dominque (afterwards known as Haiti), freed thousands of enslaved

people but also reduced cotton imports to Britain by a quarter.[4] The solution was North American expansion. Departing from the old tobacco estates of Virginia and South Carolina, white settlers moved into Louisiana, Alabama and Mississippi, taking the enslaved population with them to cultivate cotton in vast regions previously occupied by indigenous peoples.[5] In 1793 Eli Whitney developed the cotton gin, mechanising seed-removal from short-staple cotton and thereby freeing labour for cultivation and speeding up processing. Commercial success rested on slavery, and with it came the creation of an internal slave trade and a distinct culture based on slave-ownership. By 1850, 2.5 million bales of raw cotton were produced by 2.4 million slaves, some 60 per cent of the American South's subjugated population.[6]

Shipped across the Atlantic, most slave-grown cotton alighted in Liverpool before being transported to the mills of Lancashire to be turned into yarn and cloth. Between 1811 and 1851, the weight of annual cotton imports rose from 65 million pounds to 452 million pounds, necessitating the expansion of the Liverpool docks to a length of 2.5 miles.[7] Mechanisation, a cheap labour force of largely women and children, and a global trading network in which to sell finished goods combined to create a cotton boom. The Lancashire landscape proliferated with large textile factories and mill towns, establishing Manchester as a hub for local textile production and the global export trade, its cotton fabric an important commodity used for bargaining and exchange by slave-traders along the coast of West Africa. Thus, cotton had become the engine of the Industrial Revolution, and Lancashire factories a model for a new form of industrial capitalism that would spread the world over.[8]

At Quarry Bank Mill, Samuel Greg looked again to new technology to boost production. Power to drive textile machinery was essential and his installation of a second water wheel in 1796 enabled the number of spindles to rise from 2,425 to 3,452.[9] The mill was extended in 1810 and then doubled in size in 1818–20 to accommodate new machines as the entire manufacturing process mechanised, powered by a new 'Great Wheel' of iron.[10] The outcome of Greg's investment – and that of thousands like him – was that by 1825, it took British workers 135 hours to produce 100 pounds of cloth compared with 50,000 hours to produce the same by hand in India.[11]

Despite the Slavery Abolition Act (1833) ending slavery in most British colonies, the cotton industry remained reliant on cheap, raw cotton cultivated by enslaved people in the American South. Writing in 1857, the economist J.T. Danson concluded that 'there is not, and never has been, any considerable source of supply for cotton, excepting the East-Indies, which is not obviously and exclusively maintained by slave-labour'.[12] The nineteenth-century economies of Britain and America were centred on cotton production. By the 1860s, 20–25 per cent of the population in England worked in the cotton industry, producing 50 per cent of the nation's exported goods from 800 million pounds of cotton, 77 per cent of which was slave-cultivated.[13] The value of cotton exports to the American economy was worth $192 million – 60 per cent of its total exports.[14]

This reliance was tested by the American Civil War (1861–5). Fought between northern and southern states along an approximate line that divided free and enslaved people, it was as much about the economics of slavery and cotton production as it was the survival of the union.[15] During the war, blockades halted exports, resulting in almost all cotton production in Lancashire ceasing by 1863, causing over half a million workers to seek poor relief.[16] The end of the war brought freedom to four million slaves and permanent change to the global cotton industry.[17] Expanding cultivation in Egypt, India and Brazil transformed their societies and economies, although Brazil continued to exploit slave labour until 1888.

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[1] Watt, Melinda, '"Whims and Fancies"; Europeans respond to textiles from the East' in Amelia Peck, ed., *Interwoven Globe: The Worldwide Textile Trade, 1500–1800* (The Metropolitan Museum of Art, New York and Yale University Press, New Haven, 2013), pp.82–8.

[2] Ibid.

[3] Walvin, James, *Slavery in Small Things: Slavery and Modern Cultural Habits* (Wiley Blackwell, Chichester, 2017), pp.244–5.

[4] Beckert, Sven, *Empire of Cotton: A New History of Global Capitalism* (Penguin Random House UK, London, 2014), p.96.

[5] Walvin, James, *Atlas of Slavery* (Routledge, New York, 2006), p.109.

[6] Ibid.

[7] Walvin, 2017, op. cit., pp.247.

[8] Beckert, 2014, op. cit., pp.80–1.

[9] *Quarry Bank Mill and Styal Estate*, National Trust Guidebook (2007), p.13.

[10] Ibid., p.11.

[11] Walvin, 2017, op. cit., pp.242–3.

[12] Quoted in Beckert, Sven, 'Emancipation and Empire: Reconstructing the Worldwide Web of Cotton production in the Age of the American Civil War', *The American Historical Review*, vol. 109, no. 5 (December 2004), p.1,409.

[13] Beckert, 2004, op. cit., pp.1,405–1,438; Beckert, 2014, op. cit., pp.242–3.

[14] Ibid., p.206.

[15] Beckert, 2004, op. cit., pp.1,405–38.

[16] Ibid.

[17] Ibid.