

Philip Hamlyn Williams, *How Britain Shaped the Manufacturing World* (Pen and Sword, 2022), ISBN 978 1 39901 515 8, 256 pp, £25

Philip Hamlyn Williams intends 'to follow the thread of British manufacturing, pausing at points of particular interest' (p.viii) in what is a very personal journey through the history of British manufacturing between the 1851 Great Exhibition and the 1951 Festival of Britain. Williams begins by examining some of the items in the Great Exhibition catalogue which caught his eye. The next chapters investigate the forces behind a variety of industries which the author claims gave Britain a 'lead over other nations' (p.9): trade, shipping and the growth of the urban population. The book then examines some of the industries which shaped Britain's manufacturing growth (coal, iron and textiles) before investigating the development of, for example, armaments, the internal combustion engine and electric power over the course of the following century. It then moves into a broadly chronological format to look at the period from the First World War to the Festival of Britain. Nevertheless, this is not a book to be constrained by a mere century, and the brevity of some chapters might leave readers wanting more. The background chapter on 'Trade, Exploration and Shipping', for example, covers the sixteenth to the nineteenth centuries in just five pages.

While the author is to be commended for his wide remit, I felt that at times more could have been done to draw out the links between ideas, innovations and indeed companies, as well as to explain some of the developments. For example, in 'Sewing Machines and Bicycles', we are told that a business belonging to William Hillman and William Herbert 'manufactured sewing machines and soon, using Hillman's skills both as a cyclist and in engineering, produced a Premier bicycle and a tricycle. They were both great successes and sold in good numbers' (p.78). Given that the author claims this chapter 'is the story of how one invention leads to another: first the sewing machine, next the bicycle' (p.76), I would have been interested to learn *how* their bicycle drew on their sewing machines, as it is not immediately obvious, to me at least.

Likewise, the picture is not always as simple as it appears. In the textiles chapter, Williams claims that Lancashire's predominance in the cotton industry was due to its damp climate. In fact, much scholarly ink has been spilled over the reasons why the cotton industry settled in the area and there is little consensus. Moreover, Williams refers several times to the centrality of Manchester to cotton production, which many people will interpret as spinning and weaving. In reality (and as Williams recognises), Manchester was the place that cotton cloth was finished and traded.

Williams acknowledges the indebtedness to other scholars which has allowed him to amass a wealth of information about a wide range of manufacturing industries. For me, though, it needed a stronger overall narrative to tie it together. Nevertheless, if you are interested in facts about some of the lesser-known names in British manufacturing, then this might be the book for you.