

Hybrid knowledge in the early East India Company world

By Anna Winterbottom. Basingstoke: Palgrave Macmillan, 2016. Pp. xii + 324. 12 illustrations. Hardback £80.00, ISBN 978-1-137-38019-7.

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This outstanding book explores the gathering and transfer of useful knowledge between the shifting horizons of the East India Company's Asian 'world' and Britain during the late seventeenth and early eighteenth centuries, and as such it has strong echoes of the late C. A. Bayly's *Empire and information: intelligence gathering and social communication in India, 1780–1870* (Cambridge University Press, 1996). The knowledge involved was 'of people and their customs, of objects, of languages, of plants for medicines and food, and of the topography of land and sea' (p. 1); and it was knowledge that was transferred between the settlements of the East India Company in India and elsewhere. These were forms of 'hybrid' knowledge that were described as being 'natural' or 'useful', and were gathered by men on the spot in Asia who were often the collaborators of scholars in Britain, many of whom were members of the Royal Society in London.

After an introduction which examines 'Patronage and the politics of knowledge', each chapter considers forms of knowledge gathered in each of the Company's settlements – South East and East Asia, Maritime Southeast Asia, Bengal, Madras, Bombay, and Ceylon – while a final chapter looks at 'Slave knowledge and Company plantations'. Each chapter also focuses on one producer of 'useful knowledge': Thomas Bowery (c.1655–1713) and the production of a Malay dictionary; John Marshall (b. 1642),

who worked closely with Madhusudana to produce translations of two Hindu texts; Samuel Browne and Edward Bulkley, who collected dry plants to send to the London apothecary James Petive; and Captain Robert Knox (1641–1720), who wrote *An historical relation of the island of Ceylon*. The final chapter, on the French Huguenot immigrant John Chardin (1643–1713), focuses on human trafficking as a form of knowledge transfer. This is especially important as it sets out for the first time the size and the scale of the Company's slave trade, which has tended to be neglected. All of these men were cosmopolitan go-betweens who owed loyalty to several sources of patronage.

The effect of all this is to acknowledge an East India Company that was voracious in its appetite for useful knowledge, and this established a tradition of corporate information-gathering that was to last until the end of its days. But there is much more to the story than this corporate one because the book reveals multiple private connections which facilitated the exchange of new information, and knowledge. This gets to the heart of the East India Company and how it operated. It was at all times reliant on the private sector, and never more so than in this case because individuals went well beyond what was expected of them. This meant that the 'man on the spot' was often taking instructions from two sources: the Company and a patron in London. It was this duality that served to create the tangled web of connections that Winterbottom has created and which takes her well beyond the Company archive.

The 'hybrid' or 'motley' knowledge discussed in the book is a form of information assembled from diverse local sources and then fed into a wider body of knowledge. Winterbottom discusses this process and summarizes the various stages as 'openness, collaborative work, collecting or prospecting, classification, and circulation' (p. 207). This was a process facilitated by the East India Company's bureaucratic practices, but Winterbottom warns

us against taking a teleological view of the accumulation of useful knowledge leading to the later creation of a powerful colonial state. As she puts it ‘The circulation of knowledge alone does not lead to power’ (p. 203). Nonetheless, the reader is constant struck by a corporate thirst for knowledge and information that enabled the Company to make well-informed decisions about political and commercial policy.

One wonders whether the Dutch, Portuguese, French, and other Europeans were as assiduous in their gathering of hybrid knowledge as the British (one suspects they were), so we are left to consider just how good the East India Company servants were at it. Winterbottom believes that they were very good, and she concludes that they were very effective in their production of ‘useful’ or ‘natural’ knowledge in the early East India Company settlements (p. 207).

Consideration of other Europeans is a task for another book on another day. For now, Anna Winterbottom has produced a beautifully written, richly detailed, and well-structured monograph that is required reading for all those with an interest in the East India Company, as well as all students of global history in the early modern period.

The gunpowder age: China, military innovation, and the rise of the West in world history

By Tonio Andrade. Princeton, NJ: Princeton University Press, 2016. Pp. x + 432. 25 b/w illustrations, 10 maps. Hardback £32.95, ISBN: 978-0-691-13597-7; paperback £19.95, ISBN: 978-0-691-17814-1.

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In this book, the Sinologist Tonio Andrade has two goals. One is to rewrite the history of

gunpowder in China and the West. The other is to dispel some tenacious old myths about China and military technology, namely that the Chinese, having invented gunpowder, then neglected to make good (namely, military) use of it in guns and cannons because of their Confucian philosophy and their mandarins’ contempt for technology and for military matters. In fact, Andrade argues that China held its own in comparison to Europe, except for the period 1839–1945, during which it truly did fall behind.

This book therefore has two parts. In the first fifteen chapters, Andrade describes Chinese military technologies from the Song Dynasty (960–1279) to the mid eighteenth century. During this period, China was frequently at war with its nomadic neighbours to the north, with Europeans to the north and south, or with rebels within its territory. Several times the Han Chinese were defeated and much or all of their land was conquered by their northern neighbours, the Xi Xia, the Jin, the Mongols, and the Manchus. However, in three wars with Europeans – the Portuguese in 1521–22, the Dutch in 1661–62, and the Russians in 1685–89 – it was the Chinese who prevailed. Though their ocean-going ships were no match for those of the Europeans, on land their firearms and tactics were every bit as effective. In the fourteenth century, amid the constant wars between the Ming and the Manchus, China possessed the largest and most advanced arms industry in the world, one that supplied weapons to armies that would have dwarfed any European army. The fortresses with thick earth-filled walls that Europeans built during the military revolution of the seventeenth century were very similar to those that Chinese cities had possessed for centuries. Likewise, the drill, introduced to Europe by the Dutch in the seventeenth century, had long been practised in China and Korea.

What Andrade calls the Great Military Divergence – to distinguish it from the Great