

MORITZ VON BRESCIUS, *German Science in the Age of Empire: Enterprise, Opportunity and the Schlagintweit Brothers*, *Science in History* (Cambridge: Cambridge University Press, 2018), xiv + 414 pp. ISBN 978 1 108 42732 6. £90.00

If you were to ask people in Germany or Britain today whether the name Schlagintweit rings any bells, you would probably encounter many puzzled faces. Historian Moritz von Brescius tells the story of a largely forgotten scientific expedition to India and central Asia between 1854 and 1858, led by three German men of that name and co-financed by the East India Company (EIC) and the Prussian king. The expedition was a fiercely contested news story at the time, and Brescius uses the controversies about the legitimacy of the expedition and its leaders as the starting point for a detailed and highly skilled contextual analysis. Far from telling a heroic tale of scientific exploration, the author points out the colonial infrastructures which facilitated the mission and the brothers' dependence on indigenous assistants, and critically illustrates their knack for maximizing their personal profit throughout their journey.

Brescius previously co-curated an exhibition on the Schlagintweit expedition, which resulted in a substantial accompanying volume in German.¹ The new book under review is based on his Ph.D. thesis and offers the first comprehensive treatment of the expedition for an English-language readership. This is a highly welcome addition as the brothers themselves moved between German and British elites with ease, and both are adequately represented in the book. To Brescius, the brothers' contract with the EIC was, in fact, part of a longer history of non-British personnel employed by entities of the British Empire. This 'imperial sojourning' (p. 8), practised not only by German citizens, was a sign of the British Empire's general permeability and of transnational mobility. Yet the case of the Schlagintweits shows that it also gave critics an opportunity to summon cultural or national prejudices in personal conflicts with those perceived as foreigners. Brescius tells the story of the Schlagintweits in roughly chronological order while unfolding a different theme in each chapter.

¹ Moritz von Brescius, Friederike Kaiser, and Stephanie Kleidt (eds.), *Über den Himalaya: Die Expedition der Brüder Schlagintweit nach Indien und Zentralasien 1854–1858* (Cologne, 2015).

In the first three chapters, Brescius lays the groundwork by explaining how the expedition came about. The reader learns about the early lives of Hermann, Robert, and Adolph Schlagintweit in Bavaria, their university training in physical geography and geology at German universities, and their sympathy for comprehensive data collection in the Humboldtian style. Their personal connections with Alexander von Humboldt himself proved decisive in procuring the financial support for their costly undertaking. Not just in these chapters, but throughout the book, it is as much a story about the Schlagintweits as about Humboldt, who deftly and persistently pulled the necessary strings to make it all possible. He mobilized his London allies, including the Prussian ambassador Christian Karl von Bunsen and the geophysicist Edward Sabine, to support the Schlagintweits' plea for funding from the EIC. The eventual success of the brothers' application angered rival British naturalists, most of all the botanist Joseph Hooker. In one of his letters to the Company's Court of Directors, he expressed his indignation that 'comparative strangers' such as the three Bavarians were granted 'a carte blanche for unlimited credit on the local treasuries' (p. 73), while a British subject like himself had previously been denied financial support for his own travels in India.

The next two chapters cover the activities of the brothers and their various assistants over the course of the expedition. To abbreviate this conveniently as 'the Schlagintweit expedition', we learn, is a misnomer for at least three reasons. First, the brothers often travelled separately, resulting in several distinct expedition groups and routes. Second, they frequently used empirical data produced by other EIC servants and incorporated them into their own findings, and they also depended on the Company's infrastructure while travelling and for surveying the landscape. Finally, to focus on the brothers alone is to ignore the significant contributions made by many Indian and central Asian assistants, who took measurements, translated, collected samples, kept botanical journals, and navigated through mountain ranges.

In the last three chapters, Brescius engagingly tells us what happened after the brothers returned to Europe. The fact that the Indian Rebellion of 1857 resulted in the nationalization of the EIC greatly complicated the managing of the expedition's legacy. More than ever, Brescius shows, the brothers ingeniously played both their patrons, the unravelling EIC and the Prussian king, in order to ex-

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tract ever increasing sums. While the British press openly criticized the brothers' tendency to overspend and exposed some of their financial duplicity, German newspapers for the most part sought to defend the brothers' achievements. Although the brothers failed to open their own India Museum in Berlin, they were able to snatch the collection of roughly 40,000 objects (including fabrics, botanical journals, rocks, photographs, sketches, plaster casts of Indian prisoners, and human bones) from their patrons, who were the contractual owners of all acquired materials. They stored them in a Bavarian castle, occasionally selling off parts of the collection. Though their academic accomplishments after the expedition were rather modest, the eldest brother, Hermann, made an impressive career out of delivering public lectures on their travels. This, Brescius argues, fed a growing sentiment among the German public that glorified scientific achievements as part of German national identity, even superiority, and served to underpin demands for a colonial empire that were eventually met in 1884.

This larger argument about the long-term effects of the expedition and its treatment in the press is presumably one of the reasons why Brescius chose *German Science in the Age of Empire* as the book's main title. Other justifiable reasons may include the strong reputation of German universities for training in the field sciences, and the remarkable number of German citizens formally or informally involved in the structures of the British Empire. Yet readers looking for an overview of the role of science in German colonialism, which the title would seem to suggest, will be disappointed. Some historians of science may also cringe because the phrase 'German science' could be falsely interpreted as alluding to the somewhat outdated historiography on 'national styles' in the sciences.² Furthermore, Brescius only discusses the travellers' actual scientific undertakings relatively briefly in the fourth chapter. Other chapters explore scientific patronage, the fate of the collections, and discussions in the press on what constitutes valuable science for state institutions. While these are certainly worthy subjects in their own right, readers may have had different expectations due to the prominence of 'science' in the title, rather than, for example, 'scientists' or 'scientific patronage'. The sub-

² For a recent reflection on this tradition see Michael Gordin, 'When National Styles Were Stylish', *Historical Studies in the Natural Sciences*, 50 (2020), 11–16.

title does clarify the subject matter, but the overall impression remains that the contents of this otherwise superb book could have been more accurately advertised with a different title.

Once you know what to expect, it is a real joy to follow Brescius' thoughts, which are meticulously researched and cast in elegant prose. This applies especially to his outstanding chapter on the indigenous assistants. His portrayals of the lives of Mani Singh (pp. 169–79), Mohammad Amin (pp. 191–9), and Chibu Lama (pp. 202–5), for example, are more vivid than any I have read elsewhere in the historiography on scientific expeditions in colonial contexts. To their credit, the Schlagintweit brothers acknowledged the contributions of their hired helpers with relative generosity. This gave Brescius a unique opportunity to research and tell individual stories, one he seized with great resolve and resourcefulness. Thus the power structures between the European travellers and their guides or translators, as well as amongst the group of helpers, who were from very diverse backgrounds, emerge as complex and fluid. When one of the expeditions advanced into mountainous regions beyond British India, the Europeans depended on Amin's expertise to identify appropriate disguises, feasible passages, and possible trading routes. His case also shows that his work for the expedition, though handsomely paid, in effect forced him to give up his livelihood as a caravan merchant because he had divulged his trade secrets and committed treason against the Chinese government. After escaping from the turmoil around Adolph Schlagintweit's death in Turkestan in 1857, Amin resettled in India and successfully pleaded for employment with the British colonial government. This story brings life to the abstract concept of the 'go-between' and is therefore a highly relevant contribution to the field.³ It is also encouraging for future research because it shows what sources may be available if, like Brescius, one is willing to invest time and energy in locating them.

Wisely, Brescius declines to make any clear-cut judgement on the Schlagintweits' achievements. He remains determined not to portray the brothers as any one thing, whether fraudsters, heroes, adventurer-entertainers, or somewhat mediocre scientists. With the help of an

³ The concept was first introduced by Simon Schaffer, Lissa Roberts, Kapil Raj, and James Delbourgo (eds.), *The Brokered World: Go-Betweens and Global Intelligence, 1770–1820* (Sagamore Beach, Mass., 2009).

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impressive array of primary materials, he paints them from many angles and with appropriate nuances, all while maintaining a critical distance. Similarly, because he comprehensively contextualizes many different aspects of the expedition, he offers readers a wide variety of potential entry points. These include, among others, the inner workings of a scientific expedition, trans-imperial mobility, modes of scientific patronage, popular travel lectures, the fate of various parts of the collection, and national stereotypes in contemporary British and German media. May the book therefore receive the multifaceted audience it deserves.

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