

## Introduction: Empires of Opportunity

---

When the German explorer Adolph Schlagintweit embarked with a group of indigenous guides and assistants on his last and ill-fated journey from northern India to central Asia in the spring of 1857, his excursions deep into the frontier regions of the British Empire coincided with the eruption of the Indian rebellion in this most important British overseas colony. The Sepoy rebellion brought British rule on the subcontinent close to collapse. It also instigated the dissolution of the East India Company, in whose service the three Munich-born brothers Adolph, Hermann and Robert Schlagintweit had formally travelled. Chinese Turkestan, the destination of Adolph's final excursion, was then regarded with interest by adjacent powers, which sought to expand their knowledge, trade and influence into the region.<sup>1</sup> A more thorough scientific scrutiny of central Asia by European travellers and officers had only started in the first half of the nineteenth century, when pioneering expeditions began to identify and chart the main routes and patterns of trade in the vast, highly complex and often dangerous environments within and beyond the trans-Himalaya and Turkestan.<sup>2</sup>

Adolph Schlagintweit and a number of his indigenous companions ultimately met their deaths in August 1857 at the hands of a Muslim warlord in Kashgar, who had rebelled against Chinese rule over this town, an important crossroad that connected the northern and southern arteries of the ancient Silk Roads. At the site of Adolph's beheading, a monument was later erected in 1889, tellingly to the sole commemoration of this 'heroic' German explorer and 'martyr of science' (Figure 0.1).<sup>3</sup> On

<sup>1</sup> Waller, *Pundits*, 14; Alder, *Bokhara*; Fletcher, 'Sino-Russian Relations', 329–32; Bayly, *Information*, 134–5; Raj, *Relocating Modern Science*, 184–5.

<sup>2</sup> Withers, 'Enlightenment's Margins'; Waller, *Pundits*; a critical and highly suggestive treatment of the 'Great Game' perspective, which often tends to ignore central Asian interests and agency by focusing almost exclusively on assumed Anglo-Russian antagonism and rivalry over *their* lands, is Hopkins, *Modern Afghanistan*, 34–60; also Morrison, 'Beyond the "Great Game"'.  
<sup>3</sup> E. Schlagintweit, 'Bericht über das Denkmal'.

2 Introduction: Empires of Opportunity

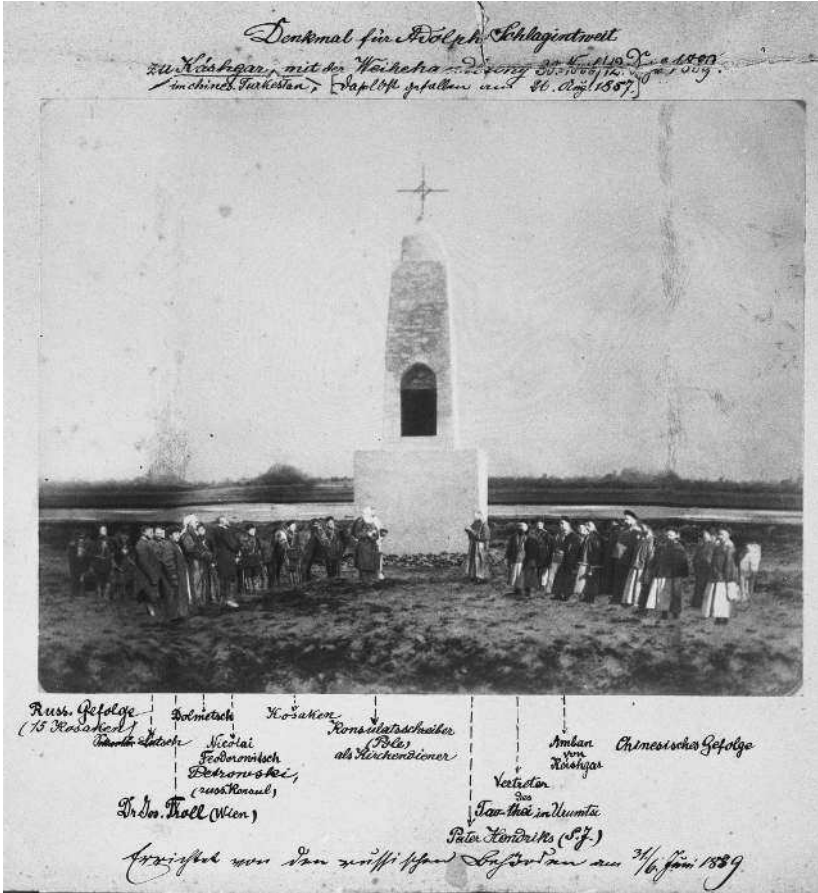


Figure 0.1 Adolph Schlagintweit’s monument in Kashgar, annotated photograph of its opening ceremony on 30 November/12 December 1889, with the attendance of Russian and Chinese representatives and the Austrian traveller Dr Troll, who was coincidentally in the area.  
 © DAV.

the face of it, it might seem odd that the memorial for a German scientific traveller on the payroll of the British East India Company was initially conceived and erected by members of the Imperial Geographical Society of St Petersburg, and that at first only their French counterparts, of the Geographical Society of Paris, were willing to contribute a commemorative plaque and a more splendid cross on top. With it, as the president of the society made clear, however, he also wanted to celebrate

France's own role as 'the first and least self-interested protector of civilisation and Christianity in the Orient' by graciously acknowledging the contributions of the traveller 'who first brought into those regions the light of modern science'.<sup>4</sup>

Only belatedly, it seemed, did Ferdinand von Richthofen, the eminent traveller to China and then president of the Berlin Geographical Society, try to join the lead of other powers in also suggesting the preparation of an additional plaque to formally honour German contributions to the exploration of extra-European lands.<sup>5</sup> Administrative hurdles meant that the German plate would only be finished a few years later, by which time the stand-alone monument in Asia had been washed away by severe floods. It was never re-erected – fittingly symbolising the fleeting glory of the Schlagintweit brothers, who remain largely forgotten today in all these national communities of remembrance.<sup>6</sup> British authorities, by contrast, which had largely financed the Schlagintweits' exploration of India, the Himalayas and parts of central Asia at the time, remained indifferent to the erection of the monument. In fact, no sign of British patronage or tutelage of this venture appeared on the memorial, leaving the site to be appropriated by others.

The monument episode captures some of the key issues that provide the rationale for this study, which together lend much wider historiographic significance to the Schlagintweits' enterprise. It puts into focus the high status of German expeditionary science in the mid nineteenth century and an increased German presence in the extra-European world. Through the brothers' official employment by British authorities, it raises, however, also important questions over the logics and contradictions of transnational science, and the mechanisms of collaboration and competition at play. The commemorative site further points to the role of the state and learned institutions in providing patronage for scientific enquiry and for shaping (that is, advancing or undermining) 'heroic' memories of exploration. It also alludes to the different ways colonial and metropolitan societies could draw meaning from such expeditionary

<sup>4</sup> *St. Petersburg Herald*, 8 August/27 July 1887, Bayerisches Hauptstaatsarchiv, Munich [BayHStA], Abt. II Geheimes Staatsarchiv, MA 53157 'Denkmalerrichtung für den Asienforscher Adolph Schlagintweit in Kaschgar, 1890', appendix to doc. 3. All translations from German and French into English are my own.

<sup>5</sup> See the correspondence of the German Consul in Peking, Max von Brandt, Politisches Archiv des Auswärtigen Amtes, Berlin [PA AA], 'Berichte der Gesandtschaft Peking', Peking II 891, fols. 77ff., series 'Wissenschaftliche Bestrebungen', vol. 5, 'Juli 1887 bis September 1892'.

<sup>6</sup> Richthofen to the 'Reichskanzler, Baron von Caprivi', 24 February 1892, Bundesarchiv, Berlin [BArch], R901, 37418.

4 Introduction: Empires of Opportunity

work, and how the scientific reputation of its ‘leaders’ was negotiated, and how at times it sharply diverged, within a transnational arena.

Finally, the monument entirely ignored the role of the indigenous partners that made much of the Schlagintweits’ excursions beyond Company terrain possible in the first place. This recurrent denial of indigenous agency and ambition at work in schemes of European exploration strongly suggests the need to overcome the myth of the western solitary traveller by taking a new and multi-perspective look at the inner life of expeditions. Such an approach requires probing the role of transcultural encounters in processes of knowledge production in the field, but also looking critically at contemporary conflicts over trust and scientific authority in reportage over distant sites and cultures at a time of great social and political crisis in Britain and its empire.<sup>7</sup>

This is the first monograph on the contested careers of German scientific travellers in a foreign empire in the nineteenth century. It offers a detailed analysis of significant facets of the programme launched by the Schlagintweit brothers in and beyond the Company realm in south Asia.<sup>8</sup> Their enterprise is significant not least for the vast quantity of materials and documents it accumulated and the ambiguous relationship it maintained throughout with its main sponsor, the East India Company, and other agents and patrons of imperial and European sciences. The multiple contexts in which the German naturalists realised their mission offer rich and unusual opportunities for the historical examination of major themes in the study of imperial knowledge and of transnational and cross-cultural engagement. Using a rich archival story, this work also examines the diverse roles of European and indigenous agents in the forming of accounts of nature, territory and society at a critical period in the development of the field sciences and of museology.<sup>9</sup> The brothers’ more peculiar story was thus connected with much broader processes readable through their personal experiences across the scientific, social

<sup>7</sup> See the suggestive works by Raj, *Relocating Modern Science*; Withers, ‘Voyages et crédibilité’; Safier, *Measuring*; Driver and Jones, *Hidden Histories*.

<sup>8</sup> This work builds on but also significantly advances previous scholarship on their expedition. A first useful overview of their recruitment and activities was given by Polter, ‘Nadelschau’; S. Schlagintweit, ‘Abriß’; Körner, ‘Brüder Schlagintweit’. Another important introductory article by Finkelstein focused mainly on generalities and the aesthetics of German science, yet with less consideration of the imperial context of the enterprise, Finkelstein, ‘Mission’; also Felsch, ‘Söhne’. New research on the Schlagintweits was undertaken in preparation for a museum exhibition in 2015, for which the author’s PhD thesis provided a more developed contextualisation of the brothers’ researches within an imperial setting; Brescius, ‘Empires of Opportunity’. The exhibition was accompanied by a richly illustrated catalogue, Brescius et al. (eds.), *Über den Himalaya*.

<sup>9</sup> An important series of case studies on the precarious status of fieldwork is given in Kuklick and Kohler (eds.), *Science in the Field*; for German museology, Sheehan, *Museums*.

and political contexts that connected the German states with British, European and south Asian patrons, institutions and interests.<sup>10</sup> While fully conscious of the great ideological and administrative power of modern and fully fledged ‘nation states’, this book uses a transnational perspective not in the narrow sense of referring only to such relatively recent polities in the western world (which would give transnational history also a problematic Eurocentric bias). A transnational perspective is here rather deployed as a methodical move intended to transcend various *internalist* frameworks applied to single states or empires, and to look for transversal connections, exchanges and mobilities also in the non-European world from the late eighteenth century onwards.<sup>11</sup>

The Schlagintweits’ case of imperial sojourning, however controversial and fraught with tension, suggests that the pursuit of expeditionary and colonial science in south Asia was, to a degree, a shared European project.<sup>12</sup> Such an approach calls into question and ‘complicates our understanding of “Europe” and “empire”’, as it presents a significant departure from orthodoxy.<sup>13</sup> Historians have traditionally worked within a framework of mutually conflictive imperial powers. That logic of internally self-contained and internationally antagonistic states engaging in a kind of zero-sum-game over imperial expansion and profit was often exemplified by the longstanding Anglo-French rivalry.<sup>14</sup> Outsider careers such as those of the Schlagintweits under the aegis of a foreign empire, with the attendant transfer of scientific and technical skills, expertise and ideologies, certainly never challenged the political or military supremacy of the sitting power. They did not work towards a form of ‘informal rule’ by trying to establish alternative power structures to undermine

<sup>10</sup> Significant works that deploy singular lives as a narrative strategy to analyse macro-processes include, Davis, *Trickster Travels*; Lambert and Lester (eds.), *Colonial Lives*; Colley, *Ordeal*; Ogborn, *Global Lives*.

<sup>11</sup> Cf. the intervention by Isabel Hofmeyr in Bayly et al., ‘On Transnational History’, 1444; see also the methodological discussions in Conrad, *Globalgeschichte*, 17–18.

<sup>12</sup> This was also the subject of a conference on ‘Colonial Careers: Transnational Scholarship Overseas in the 19th and 20th Centuries’, EUI, Florence, May 2012, organised by the author with Stefan Esselborn. The analytical focus of most studies of ‘imperial biographies’ is still confined to the personal and professional networks within one distinct imperial formation, which this work advances; see Rolf, ‘Einführung’.

<sup>13</sup> Rürger, ‘Writing Europe’, 47.

<sup>14</sup> Exemplary are the Anglo-French imperial competition on several continents during the Seven Years War, their scientific rivalry over Pacific expeditions later in the eighteenth century and the Fashoda Crisis in the late nineteenth century. The same assumption of essential conflict applies to the large historiography on various East and West India Companies, including the Dutch East India Company (Vereenigde Oostindische Compagnie: VOC) as the key rival of the British East India Company. Much in line with my approach is Arnold, ‘Contingent Colonialism’. Lindner, *Koloniale Begegnungen*, focuses on inter-imperial exchanges and cooperation in Africa.

6 Introduction: Empires of Opportunity

British sovereignty.<sup>15</sup> However, as this work will demonstrate, the hosting empire's internal workings, as concerns scientific practices and outlooks, and at times also their institutional arrangement, were clearly shaped by external participation. That in turn questions the historiographic tendency to narrate the history of science compartmentalised in distinct imperial polities.<sup>16</sup>

There were altogether six Schlagintweit brothers, who pursued publicly engaged careers in a world dominated by European imperial powers. They were born between 1826 and 1849 and fathered by Joseph Schlagintweit, a famous eye surgeon from Munich, with two different wives.<sup>17</sup> While they all led remarkable lives in their own right, at the heart of this book are the training, early Alpine excursions and especially the Indian and Himalayan expeditions in the mid 1850s of three of the brothers: the physical geographers Hermann (1826–82) and Robert Schlagintweit (1833–85), and the geologist Adolph Schlagintweit (1829–57). The three brothers' eastern journeys also deeply marked, however, the life and work of the younger Emil Schlagintweit (1835–1904), who used the observations, artefacts and Buddhist manuscripts of his siblings to turn himself into an internationally renowned and prolific Tibetan scholar.<sup>18</sup> Emil first played a crucial role as a mediator between his itinerant brothers and the German sponsors and mentors of their scheme. He was later also deeply involved in the analysis, publication and dissemination of the scientific and material legacies of the Schlagintweits' Asian travels. The armchair orientalist with excellent contacts to imperial authorities and local informants in India will therefore feature in this work. His career sheds light on the significant yet little studied aspect of kinship and the negotiation of scientific authority.<sup>19</sup>

A fifth brother, the Bavarian officer Eduard Schlagintweit (1831–66), also experienced European expansion firsthand by accompanying the Spanish military invasion of Morocco in 1859–60. Eduard contributed

<sup>15</sup> Arnold, 'Contingent Colonialism'. This can be compared with the role of hired German government advisers in Meiji Japan, who were often instrumentalised by their national government to advance commercial and political influence; Meissner, 'Oyatoi'.

<sup>16</sup> Hodge, 'Science and Empire'; Sujit Sivasundaram early warned about the possibility that the global history of science might become dominated by such 'structural frameworks'; Sivasundaram, 'Introduction', 95.

<sup>17</sup> These were Rosalie Seidl and Johanna Prentner. One of their sisters died after birth, and Mathilde Schlagintweit remained largely detached from her brothers throughout her life.

<sup>18</sup> E. Schlagintweit, *Buddhism in Tibet*; E. Schlagintweit, *Indien*. He also published on contemporary political, military and social concerns in the British Empire in India and its border regions.

<sup>19</sup> For an introduction to Emil's little-studied work, see Neuhaus, 'Tibet-Forschung'.

to the ethnographic collections of his brothers from India by taking plaster casts of the local inhabitants he encountered in northwestern Africa, and published intricate cartographic work of the lands he passed through.<sup>20</sup> To complete the family portrait, by far the youngest was Max Schlagintweit (1849–1935), who inherited a passion for travel from his half-brothers. In his early adulthood, he experienced the emergence of a unified Germany with global ambitions of its own, and decided, as a Bavarian officer, to engage himself in the colonial circles and societies of the Kaiserreich, not least by completing an expedition to Asia Minor in 1897, a region he afterwards forcefully suggested for future German economic and political penetration.<sup>21</sup>

An unusually large number of members of the Schlagintweit family thus encountered and became actively involved in different national-imperial projects through their own mobility, as they searched for and found diverse opportunities in an age of empires. They were intermediaries and brokers of knowledge: Their firsthand experiences filtered back into Europe through their erudite writings, museological displays, pedagogical materials and public performances.<sup>22</sup> The Schlagintweit trio who ventured into south and central Asia produced several monographs on their expeditionary travels and the history, cultural varieties and current state of British India.<sup>23</sup> Through the vital support of a small army of indigenous assistants and porters, the brothers also acquired a vast collection of around 40,000 natural historical and ethnographic artefacts. Originals and replicas found their ways into various museum collections and archival repositories across Europe, India and North America, after the brothers' plan to permanently establish an 'India museum' in Berlin – filled with their Asiatic booty and modelled on the famous East India Company museum in London – was frustrated by the Prussian ministry of culture.<sup>24</sup> Besides publishing a long list of popular works and producing a wealth of elaborate visual representations of eastern sceneries,

<sup>20</sup> He later went to England and France; before being killed in the Austro-Prussian War in 1866, he published *Der spanisch-marokkanische Krieg* and 'Militärische Skizzen'.

<sup>21</sup> A writer on almost exclusively colonial and military themes and a vocal supporter of the Berlin–Bagdad Railway, Max published *Deutsche Kolonisationsbestrebungen in Kleinasien; Militärische und topographische Mitteilungen; Verwaltung des Kongostaates; Afrikanische Kolonialbahnen; Routen-Aufnahme; Verteidigungsfähigkeit Konstantinopels*, among other works.

<sup>22</sup> Highly suggestive are the contributions in Schaffer et al. (eds.), *Brokered World*.

<sup>23</sup> Hermann, Adolph and Robert initially set out to publish a nine-volume work, *Results of a Scientific Mission to India and High Asia*, but finished only the first four. It was accompanied by a striking *Atlas*. A more popular German travelogue and political-social account of British India was later compiled by H. Schlagintweit, *Reisen*.

<sup>24</sup> Brescius, 'Empires of Opportunity', ch. 7: 'Conflicts of Collecting'; Kleidt, 'Sammlungen'.

8 Introduction: Empires of Opportunity

the two surviving brothers, Hermann and Robert, also recruited various popular audiences to consume the results of their travels through public events such as lectures and exhibitions that effortlessly combined academic research with entertainment spectacles.<sup>25</sup> Noteworthy was their participation in several international congresses and colonial fairs in the 1860s and 70s, which provided a privileged stage for showcasing both their acquired artefacts and personal exploratory feats.<sup>26</sup>

Through their imperial sojourning, the Schlagintweits formed, of course, part of a much larger, indeed centuries-long movement of German naturalists, travellers, doctors, soldiers, scribes and other occupational groups who had accompanied the expansionist designs by various European powers and numerous African, Levantine and East and West India Companies since the late fifteenth century.<sup>27</sup> The decades from 1760 to 1820 in particular had seen a significant wave of German scientific travellers undertaking exploratory journeys with foreign state support. Among the most notable cases were the Forsters, father and son, who had accompanied Captain James Cook on his second voyage to the Pacific in the 1780s with the official sponsorship of the British Admiralty – a journey that inspired Alexander von Humboldt's American voyage (1799–1804) after he had to give up his plans to explore Egypt as a result of the French Egyptian campaign under Bonaparte in 1799.<sup>28</sup> Carsten Niebuhr realised his extensive travels under the protection of the Danish Crown as part of the Royal Danish Arabia Expedition in the 1760s.<sup>29</sup> And besides those well-known writers there were several prominently employed (Baltic) Germans in Russian service who explored parts of Siberia and other corners of the Tsarist Empire and beyond in the eighteenth and early nineteenth centuries.<sup>30</sup>

<sup>25</sup> Daum, *Wissenschaftspopularisierung*. Robert alone made over 1,300 public appearances.

<sup>26</sup> Among them the Colonial Exhibition in London, 1862; the World Fair (Exposition Universelle) in Paris, 1867; the Second International Geographical Congress in Paris, 1875; and various meetings of the British Association for the Advancement of Science.

<sup>27</sup> A useful overview is Denzel (ed.), *Deutsche Eliten*, esp. the editor's introduction, and the contributions by Michael Mann and Jürgen G. Nagel on Germans in India in the early modern period and their leading positions in the Dutch VOC. On German soldiers in 'French' and 'British' India, and their large presence in the Dutch East and West India Companies, as in the War of American Independence, see Tzoref-Ashkenazi, *German Soldiers*, 4–5. For a helpful overview in the longue durée, see also Blackbourn, 'Germans Abroad'.

<sup>28</sup> Liebersohn, *Travelers' World*; Gascoigne, *Encountering*; Berman, *Enlightenment*; Beck, 'Forster'; Goldstein, *Forster*.

<sup>29</sup> Baack, *Curiosity*.

<sup>30</sup> Duchhardt (ed.), *Russland*. On the travels of Peter Simon Pallas in Russian Asia as part of the Academic Expeditions (1768–74), see Vermeulen, *Before Boas*, 306–10. After the turn of the century, the German naturalists Johann Tilesius (von) Tilenau and the intrepid Georg Heinrich von Langsdorff both accompanied the Baltic German admiral



The decades around the mid nineteenth century offered increased chances of exploration for a new cohort of elite university-trained Germans because of the ongoing imperial advances by various European powers into continental heartlands. The interior of Australia, Africa, the vast extents of south and inner Asia, China and parts of South America all attracted western scientific scrutiny.<sup>31</sup> Different metropolitan authorities and colonial establishments often turned their attention to recruiting skilled German naturalists and explorers on a contractual basis for numerous survey works, technical and advisory missions or administrative positions.<sup>32</sup> One reason for this was that Germans, coming from territorially fragmented homelands and lacking formal overseas territories until the 1880s, were not perceived as a threat – as agents with their own national-imperial designs. It is no coincidence, therefore, that while Germans were appointed to lead large scientific missions or even found and head entire government departments in British India, French scientists were in contrast treated with greater scepticism and hardly ever acquired such elevated administrative positions – given France's longstanding imperial interests in this world region.<sup>33</sup> The Company also regarded French travellers and those from other colonial powers with suspicion because it feared they could either join the service of various Indian princely states, which at times offered more lucrative terms of employment than the British, or undermine British sovereignty in other ways.<sup>34</sup> From the late eighteenth century British officials therefore signed a number of discriminatory treaties with Indian states that forbade the employment of European personnel in the military, civil and scientific services of the Company's Indian 'allies'.<sup>35</sup>

Adam Johann von Krusenstern on the first Russian circumnavigation of the world (1803–6); Tucker Jones, *Empire of Extinction*, 198.

<sup>31</sup> See, e.g., Kennedy, *Spaces*.

<sup>32</sup> On the survey work of the brothers Schomburgk in British Guyana Burnett, *Masters*; on Ludwig Leichardt and his famous explorations into the interior of Australia, Thomas, 'Expedition'; several cases of German travellers in Africa are mentioned in the splendid work by Naranch, 'Beyond the Fatherland'.

<sup>33</sup> A prime example of such a high office holder is the German forestry expert Dietrich Brandis, who helped establish the Indian Forestry Department in 1864 and which he subsequently led for the next two decades – only to be succeeded by two other German scientists he had personally trained who led this branch of government until 1900; see the partly autobiographical account by Berthold Ribbentrop, who replaced Wilhelm Schlich as Inspector-General of Forests in 1885–6, Ribbentrop, *Forestry*, 76; and Rajan, *Modernizing Nature*; on French influence on EIC science, Arnold, 'Contingent Colonialism'.

<sup>34</sup> See on the Company's fear in relation to the presence, in particular, of French engineers, military experts and soldiers in Indian Princely states, Jasanoff, *Edge*.

<sup>35</sup> Alexandrowicz, 'Asian Treaty Practice', 189. On Anglo-French rivalries at Hyderabad and the detailed genesis of the discriminatory treaty of 1798, see Bühner, 'Intercultural Diplomacy'.

10 Introduction: Empires of Opportunity

What further added to the appeal of appointing German specialists to scientific positions was the fact that German universities had undergone important changes in the way their graduates were trained. It was in the German states that the first modern research laboratories in the natural sciences had been established, first by Justus von Liebig in Giessen in 1826, and subsequently at different universities in the competing landscapes of the German principalities, kingdoms and free cities.<sup>36</sup> Young men from Britain and elsewhere in continental Europe, the United States and India, came to the German states for a laboratory-based training in chemistry from the 1830s onwards, but also to receive humanistic education and training in the field sciences.<sup>37</sup> There existed indeed a specific notion of ‘German science’ [*deutsche Wissenschaft*] in the nineteenth century, which nurtured national feelings of scientific and natural philosophical supremacy.<sup>38</sup>

The established overseas infrastructures of other powers can thus be understood as *empires of opportunity* for a large spectrum of scientific travellers and specialists from a country without colonies keen to satisfy their curiosity, adventurous impulses and learned interests. Crucially, this was a case of *mutual instrumentalisation*: while imperial institutions profited from the influx of foreign manpower and expertise, Germans could expand their opportunities to travel and research. Given the surplus of skilled personnel in the German states, and the attraction of paid employment in an imperial labour market, such migration patterns may indeed be seen ‘as a balancing process, a process of redistribution of human resources according to the interests of those involved ... and according to the interests of the sending and receiving societies’.<sup>39</sup>

The resulting presence of German philologists, missionaries, travellers, administrators, scientists, engineers and other occupational groups in Britain and its Empire has attracted significant interest of late.<sup>40</sup> This forms part of a wider reorientation of attention towards the remarkable permeability and openness of imperial systems for indigenous and other groups of actors, who originated from beyond the boundaries of the respective imperial motherland.<sup>41</sup> Most recent studies claim a more

<sup>36</sup> Holmes, ‘Complementarity’; Allen, ‘Parallel Lines’, 363.

<sup>37</sup> Blackbourn, ‘Germany’; exploring a whole set of Indo-German intellectual connections in the period c. 1880–1950 is Manjapra, *Entanglement*.

<sup>38</sup> See Chapter 8 for a thorough treatment of this charged notion as concerns exploration and the expeditionary sciences, dimensions less considered in Schiera, *Laboratorium*.

<sup>39</sup> Hoerder, ‘Macrosystems’, 81.

<sup>40</sup> See for a literary approach, Zantop, *Colonial Fantasies*; Home, ‘Science’.

<sup>41</sup> A pioneering work on the appropriation of imperial networks, even for anti-colonial objectives, is Alavi, *Muslim Cosmopolitanism*; Schär, *Tropenliebe*; on the ‘permeability of imperial domination’, Oppen and Strickrodt, ‘Biographies’.