Empires of Opportunity: German scholars between Asia and Europe in the 1850s

Moritz von Brescius

Thesis submitted for assessment with a view to
obtaining the degree of Doctor of History and Civilization
of the European University Institute

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European University Institute
Department of History and Civilization

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Examining Board

Prof. Dr. Antonella Romano (EUI / EHESS Paris)
Prof. Dr. Jürgen Osterhammel (University of Konstanz)
Prof. Dr. Simon Schaffer (University of Cambridge)
Prof. Dr. Jorge Flores (EUI)

Thesis Abstract:

This thesis investigates the involvement of German scientific experts in the British Empire in Asia during the mid-nineteenth century. My study focuses in particular on a small band of scholars – the three Munich-born Schlagintweit brothers – who between 1854 and 1857 found employment in the East India Company, a former trading body that came to rule large parts of the Indian subcontinent. This central case study is used to demonstrate how the German lands, a country without colonies at the time, provided the scientific expertise for the exploration, administration, and exploitation of territories in South and Central Asia. Inspired by the paradigm of global history, my study makes a significant contribution to the recent endeavour to understand the transnational nature of European imperial systems in the modern period.
In turn, I also assess how the contributions and 'sacrifices' of German scientists to the overseas rule of other European powers led to increasing claims by German politicians, journalists and public agitators that their own nation had also earned the status of a formal imperial power. By exploring the volatile nexus between science, empire, and popular discourses in Britain, India and the German lands, I reveal key elements of transnational collaboration and competition in around the mid-nineteenth century. The main focus of my analysis is on the problem of scientific authority, and how it is negotiated and contested in a transnational arena. The figure of the itinerant scientist is used to explore the fragile nature of scholarly reputation in the overlapping contexts of overseas exploration, metropolitan science and multiple public spheres in Europe.

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As was so often the case with European accounts of exploration, the present work is also not merely the result of a 'voyage of discovery' undertaken by the author alone but, to some extent at least, the outcome of many 'hands' and 'minds' involved in different ways over the last four years.

The exchange with a number of outstanding scholars and friends has made this journey toward submission a hugely rewarding experience, and I remain ever so grateful to all of them. First and foremost, I would like to thank my outstanding first supervisor Antonella Romano, who has generously accompanied the thesis. My sincere thanks also go both to my second supervisor, Jürgen Osterhammel at Konstanz, and my second reader, Jorge Flores. In different ways, they each provided me with the right mixture of support, criticism and, crucially, the necessary academic freedom to realise this work – especially since it took some unexpected turns. Their mastery in writing and teaching history, and their reassuring confidence in the richness of individual case studies to explore broad and important historical issues have all left their mark on the thesis.

The European University Institute (EUI) in Florence has been the right place in which to embark on my project. Its lively academic community and intense writing seminars offered a valuable forum in which to present my first findings in front of a truly international audience. The EUI also generously funded my research missions, and thus made possible many of the trips to archives located in seven countries to carry out the research for this work. At the same time, the Institute also enabled me to find some welcome distraction from my thesis by generously funding two conferences that I was fortunate to organise – one on *Colonial Careers: Transnational Scholarship Overseas in the 19th and 20th Centuries* (May 2012); the other on *Ideologies of Empire in the Modern World* (Jan. 2014). I am thankful for the help of my co-organisers Antonella Romano, Dirk Moses, and my doctoral colleagues Florian Wagner and Alexandra Pfeiff. I am also grateful to the senior scholars for their important contributions to the events, David Arnold, Ulrike Lindner, Frederick Cooper and Jane Burbank. Writing the proposals for the two events, preparing my papers and receiving feedback on them have all lastingly shaped this thesis as a whole.

The staff at the history department and the patient librarians in Florence also receive my warmest gratitude, as they kindly dealt with my requests for numerous, and often rare books, journals, and maps. The same appreciation goes to the many helpful archivists in other countries, especially in Britain, The United States, France and Germany, without whom the archival research could not have been so efficient and pleasant.

The intellectual universe I encountered in Cambridge during an academic exchange matched the lively academic community in Florence. First as a visiting PhD student, then (thanks to the kind offer of Henning Grunwald) as visiting scholar in the DAAD research programme 'Germany and the World in the Age of Globalization', I enjoyed an inspiring time among leading Germanists and world historians. In particular, I

would like to thank my mentor Christopher Clark for our stimulating and cheerful meetings, as well as for allowing me to undertake my first teaching experiences at our college, St Catharine's, where I encountered a kind and warm reception. I am also thankful for the valuable feedback I received at Sir Richard J. Evans' German History Workshop, where I presented chunks of my work on several occasions, and at the World History and Modern European Workshop in Cambridge.

The work also greatly benefited from discussions with other people. While I have accumulated too many personal debts, in this respect, to name everyone individually, I am grateful to Daniel Robinson, Devyani Gupta, Christof Dejung, Adam Storring, Jason Pack, Nicola Hargreaves, Robrecht Declercq, Nimrod Tal, Etienne Stockland, Stephanie Kleidt, Friederike Kaiser, Jan Rüger, Camille Cole, Ulrich Päßler, Sebastian Conrad, Hermann Kulke, Emma Martin, Tamson Pietsch, Sujit Sivasundaram, Tony LaVopa, and Harry Liebersohn for cherished discussions and feedback. I am also thankful to Ali Khan, James White, Hermann Kreutzmann, Shekhar Pathak and Christoph Cüppers, who kindly helped with the translation of difficult non-European sources in Persian, Russian, Hindi, and Tibetan. No other person took a livelier interest in, and was kind enough to engage in numerous conversations about, those German explorers than my wife Meike von Brescius.

While I presented my research at conferences, the one event that stood out was the SIAS Summer Institute on 'Cultural Encounters: Global Perspectives and Local Exchanges, 1750-1940'. Our meetings at the Wissenschaftskolleg zu Berlin greatly enriched my understanding of the (sometimes failed) encounters that nonetheless often decisively shaped the knowledge production in overseas contexts. I remain ever grateful for the social and intellectual experience with my fellow participants and the two outstanding convenors.

Since travelling abroad is expensive work, I am also glad to thankfully acknowledge several grants. Among them was a generous Gerald D. Feldman Travel Grant of the Max Weber Stiftung at the German Historical Institutes in London and Paris, a Herzog-Ernst-Scholarship by the Fritz Thyssen Foundation in Gotha, and a one-year PhD Scholarship by the Schoeneberg-Stiftung. The thesis was furthermore supported by a Completion Grant from the EUI, a PhD grant by the German National Academic Foundation (*Studienstiftung des deutschen Volkes, ideelle Förderung*), and a three-year PhD scholarship by the German Academic Exchange Service (DAAD). Their support was more than merely financial, as their interest encouraged me along the often uncharted course of this project.

Lastly, I am most greatly indebted to my family. As regards Meike, I know I would not be where I am today without her untiring cheer and encouragement over the years. Without her loving support, my years at Oxford, Florence, and Cambridge would not have been half as fun, warm and bright. The same thanks go to my parents and my brother, who provided the most kind assistance from afar, and also turned several relocations between England, Berlin, and Florence into rather enjoyable 'road trips'. Therefore, this book is especially dedicated to them.

Cambridge (UK), August 2014

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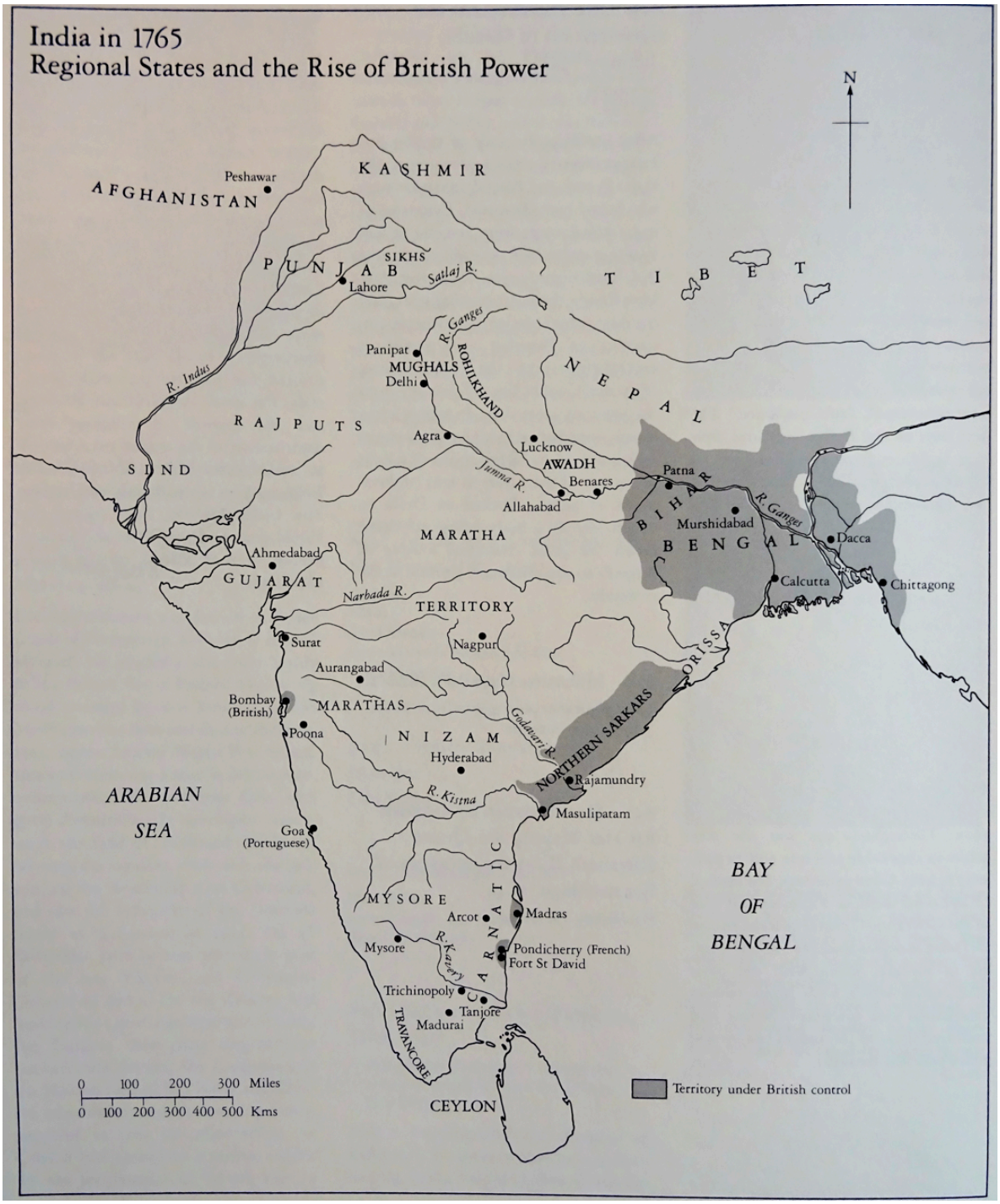

India in 1765: Regional States and the Rise of British; source and copyright: C. A. Bayly, *The Raj. India and the British 1600-1947* (London, 1990), p. 416.

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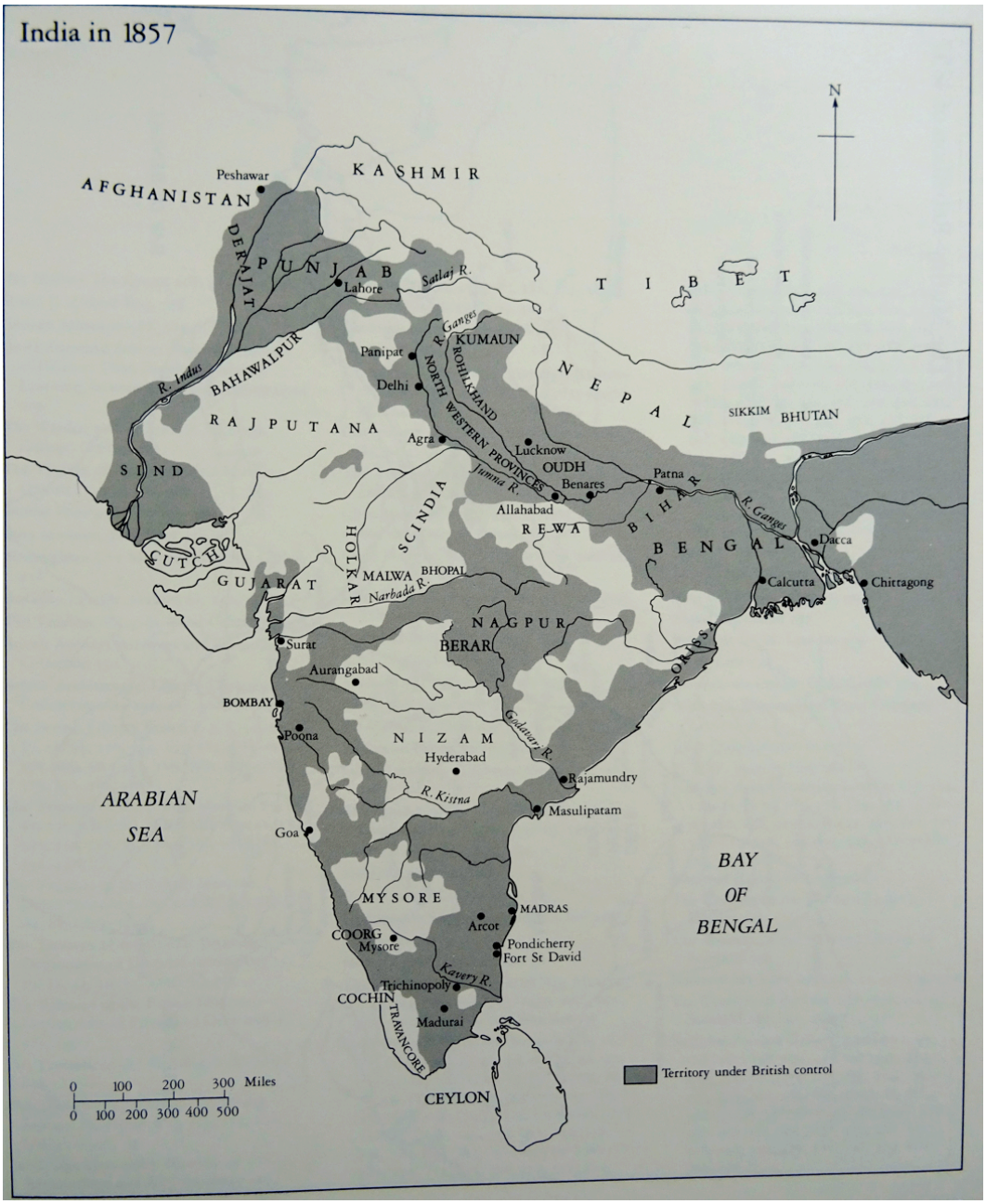

India in 1857; source and copyright: C. A. Bayly, *The Raj. India and the British 1600-1947* (London, 1990), p. 417.

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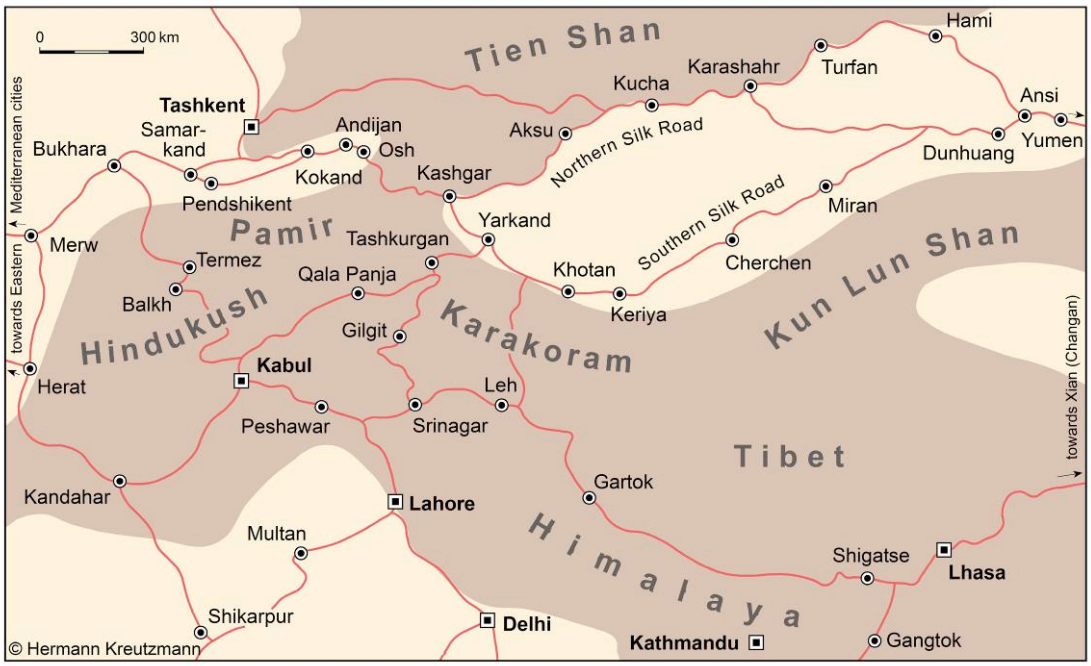

The Silk Roads in Central Asia; source and copyright: Hermann Kreutzmann, 'Geographical Research in Chinese Central Asia: Aims and Ambitions of International Explorers in the 19th and 20th Centuries', *Die Erde*, 138 (2007), pp. 369-384, 373.

Introduction:

When the German explorer Adolph Schlagintweit embarked with a group of indigenous guides and assistants on his last and ill-fated journey from 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 revolt in this most important British overseas colony. The uprising brought British rule on the subcontinent close to collapse. It also instigated the dissolution of the East India Company, in whose service Adolph and his two brothers Hermann and Robert Schlagintweit had formally travelled across India, the Himalayas, and also parts of Chinese Turkistan in Central Asia between 1854-57 – during one of the largest and most expensive scientific undertakings of the empire at the time. Central Asia was then regarded with great interest by adjacent powers, which sought to expand their influence and trade into a region of significant economic and geopolitical importance. A more thorough scientific scrutiny of Central Asia 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 of the trans-Himalayan regions.[1]

Adolph Schlagintweit and a number of his indigenous guides and assistants ultimately met their deaths in August 1857 at the hands of the Muslim warlord Wali Khan in Kashgar, who had rebelled against the Chinese rule over this town, an important crossroad that connected the northern and southern arteries of the ancient Silk Roads.[2] At the site of Adolph's beheading, in the interior of Chinese Turkistan, a monument was later erected in 1889, tellingly to the sole commemoration of this German 'heroic traveller' and 'martyr of science'.[3] Yet, the memorial was neither realised by his German compatriots nor by British authorities, but had been mainly initiated by Russian officials and imperial explorers. In view of this striking constellation behind the erection and funding of the monument, questions of prestige,

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[1] Charles W. J. Withers, 'On Enlightenment's margins: geography, imperialism and mapping in Central Asia, c.1798–c.1838', *Journal of Historical Geography*, 39 (2013), pp. 3-18; Derek J. Waller, *The Pundits: British Exploration of Tibet and Central Asia* (Lexington, 1990); B. D. Hopkins, *The Making of Modern Afghanistan* (New York, 2008), chapter 2; Christopher A. Bayly, 'Elphinstone, Mountstuart (1779–1859)', *Oxford Dictionary of National Biography*, 2004; online edn, www.oxforddnb.com.ezproxy.eui.eu/view/article/8752, accessed 11 May 2014.

[2] For the strategic importance of the oasis town, see map 0.3 of this work.

[3] Emil Schlagintweit, 'Bericht über das Denkmal für Adolf Schlagintweit in Kaschgar', *Sitzungsberichte der Bayer. Akad. d. Wiss., hist. Kl.* (1890), pp. 457-472; on these tropes, see ch. 8.

acknowledgement and glorification come sharply into view; yet, whose 'glory' was reflected in the monument?

In the Russian case, the idea to install a memorial to the German explorer had originated shortly after Adolph's death. After the Russian Captain Chokan Chingisovich Valikhanov had visited the re-conquered city 'in the garb of a Kokand merchant' in 1859 to enquire about the explorer's earlier fate, Valikhanov had soon proposed the scheme to the Imperial Geographical Society in St. Petersburg.[4] However, the decisive driving forces behind its final erection thirty years later were the Russian Consul in Kashgar, Nikolai Petrovskij, and Nikolai Przheval'skii, *the* celebrated Russian explorer of Central Asia.[5] Arguably, by honouring the German 'sacrifice', Petrovskij, Przheval'skii and the Russian Imperial Geographical Society implicitly made a statement about their own roles and accomplishments in the 'opening up' of Central Asia. By citing Valikhanov's report from thirty years earlier, Petrovskij made clear in his inauguration speech that Russian officials and travellers had not only been at the forefront of shedding light on Adolph's tragic demise, but also of exploring Central Asian territories more generally.[6]

[4] Scott C. Bailey, 'A Biography in Motion: Chokan Valikhanov and His Travels in Central Eurasia', *Ab Imperio*, 1 (2009), pp. 165-190, 178-79; see also 'Lord Ashburton's Address', 26 May 1862, *Proceedings of the Royal Geographical Society*, 6 (London, 1862), pp. 121-192, 162. An article, published anonymously, provides significant extracts of Valikhanof's report; see 'Information about the circumstances which led to Adolph Schlagintweit's death', *Proceedings of the Russian Imperial Geographical Society*, Vol. 1 (1861), pp. 14-24; I thank Hermann Kreutzmann for help with the Russian sources on the monument.

[5] Peter Waldron, 'Przheval'skii, Asia and Empire', *The Slavonic and East European Review,* 88 (2010), pp. 309-327. On his support, see N. F. Petrovskij, *Turkestanskie Pis'ma [Turkestan Letters],* ed. by V. S. Miasniko (Moscow, 2010), No. 89. Petrovskij to N. M. Przheval'skii, Kashgar, 30 January 1887; I thank James White for detecting the correspondence and helping with the Russian translation.

[6] As described by Emil Schlagintweit, the youngest of the brothers who had remained at home during their Asian explorations, in his 'Bericht über das Denkmal', p. 466.

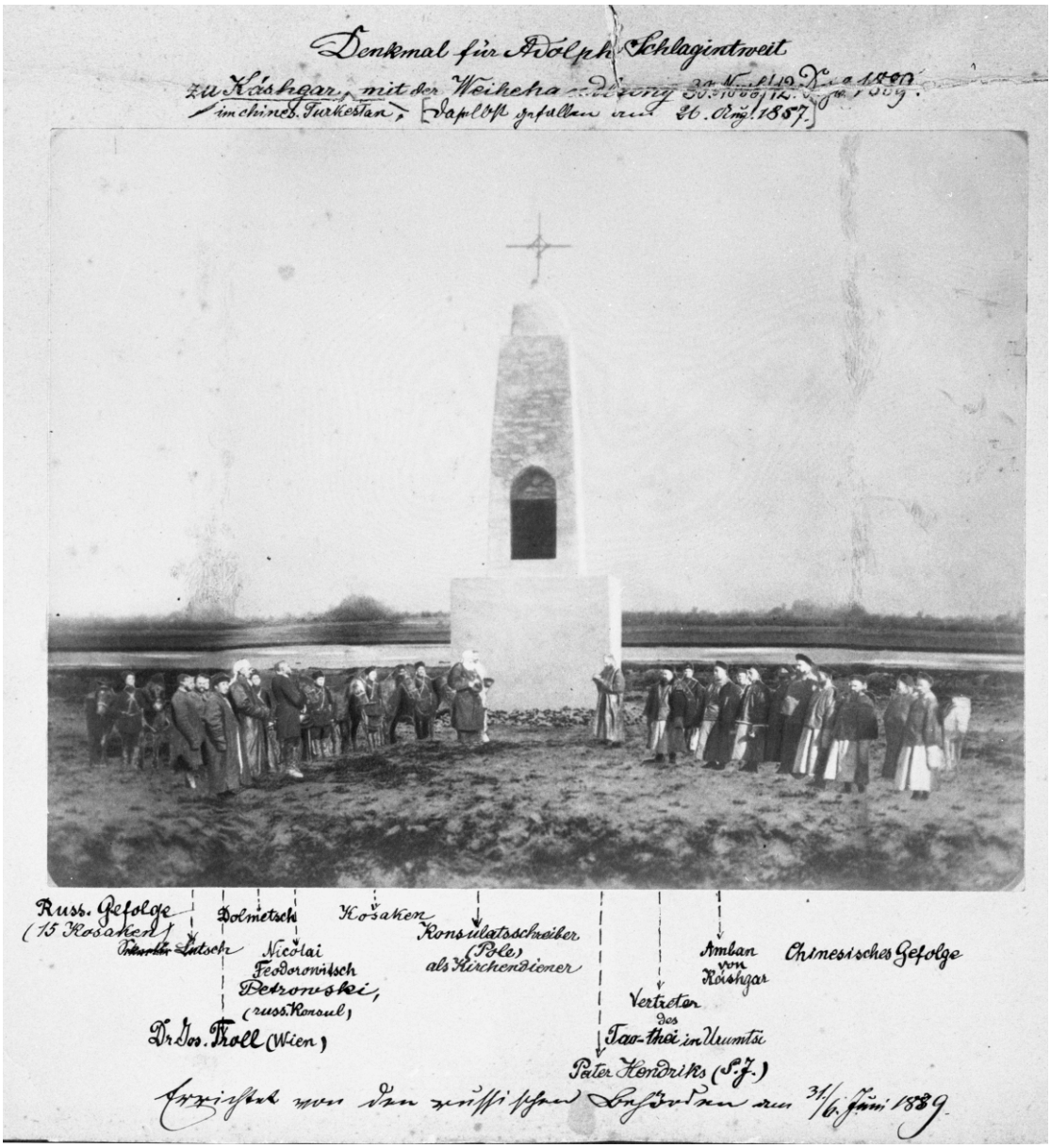

Fig. 1.1 Adolph Schlagintweit's monument in Kashgar, annotated photograph of its opening ceremony on 30. November / 12 December 1889, with the attendance of Russian and Chinese representatives, and the (more incidentally present) Austrian traveller Dr Troll; source and copyright: Claudius C. Müller and Walter Raunig (eds.), *Der Weg zum Dach der Welt* (Innsbruck, Frankfurt a.M., 1982), p. 64.

As can be seen in the photograph of the opening ceremony (fig. 1.1), Chinese officials and representatives of the city of Kashgar also took part in the gathering – tellingly separated from the Russian officials. Yet, it is unlikely that the Chinese authorities would commemorate the scientific results and victims of an Anglo-German imperial expedition – especially one that had been strictly forbidden to enter Chinese territory in the first place. It is therefore more plausible to assume that they remembered the deaths of dozens of Chinese inhabitants of the region during Wali

Khan's and other Muslim warlords' upheavals during their often short but bloody seizures of the city in the past.[7]

Yet, soon after the memorial's completion, the Geographical Society of Paris also prepared its own commemorative plaque for the monument, and sought to replace the existing cross with a more splendid version. In stating the reasons for doing so, the president of the society made clear that French geographers wanted to celebrate primarily the French 'civilising influences' in Asia through commemorating the 'glorious death' of Adolph Schlagintweit. It could thus be read from the French motives that: 'True to tradition, France has fulfilled the glorious task to be the first and least self-interested protector of civilisation and Christianity in the Orient. It is a continuance of our traditional role if a cross, sent from France, will crown the death monument of the scholar who first brought into those regions the light of modern science, and whose remains, [...] there, in the heart of Old Asia, under the ruins of numerous vanished nations, represent the Christian, civilised Europe.'[8]

Now that even Germany's great European rival had bowed to Adolph's 'sacrifice', whose fate had by now come to symbolise more than an individual tragedy but rather the spread of European culture, science and religion in the whole of Asia, the German learned institutions and wider German public sought to become involved.[9] Not without irony, the Berlin Geographical Society under the presidency of the eminent traveller to China, Ferdinand von Richthofen, now belatedly sought to prepare its own plaque to commemorate Adolph's earlier death. Yet, through him, further-reaching German contributions to the exploration of extra-European lands were also to be remembered and memorialised, about which the Berlin society in particular harboured great pride.[10] While administrative hurdles and a slow

[7] A useful historical sketch of recurring Muslim upheavals in this region is given by the Muslim merchant Mohammad Amin in a 'Sketch of the Modern History of Turkish China', in R. H. Davies (ed.), *Punjab (India): Report on the trade and resources of the countries on the north-western boundary of India* (Lahore, Government Press, 1862), Appendix XXIX. B.

[8] *St. Petersburger Herold*, 8 August/27 July 1887; the newspapers article survives in the Bayerische Hauptstaatsarchiv München (Bavarian State Archive Munich, henceforth HStA), 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 in this work are my own. In other cases, I will gratefully acknowledge the help of colleagues for the translation of Russian, Tibetan, Persian and Hindi sources.

[9] See the correspondence of the German Consul in Peking, Max von Brandt at the Politisches Archiv of the German Foreign Office, 'Berichte der Gesandtschaft Peking', Peking II 891, fol. 77ff., series 'Wissenschaftliche Bestrebungen', Vol. 5, 'Juli 1887 to September 1892'.

[10] See the pronouncedly patriotic, if not nationalistic language in which the Berlin Society repeatedly issued statements of intent to equip and send out exploratory missions into Africa in the second half of the nineteenth century: 'Die Thätigkeit des Vorstandes der Gesellschaft für Erdkunde zu Berlin […]

collaboration with the Munich geographical society meant that the German plaque would only be finished a few years later, the stand-alone monument in Asia had by then been washed away by severe floods, and was never re-erected – fittingly symbolising the only fleeting glory of the Schlagintweit brothers, who remain largely forgotten today in all these national communities of remembrance.[11]

In a wider sense, the monument's unveiling can be seen as one of the public performances of civility among rival nations who were in the midst of what some historians later called the 'Great Game' – the inter-imperial rivalry over spheres of political influence, natural resources and trade routes in Central Asia that peaked during the second half of the nineteenth century.[12] In this context, the absence of a British plaque or attendance at the ceremony is remarkable, as is the fact that Schlagintweit's death was then almost forgotten among metropolitan audiences in Britain itself. This is the more significant since the brothers' former explorations had clearly reflected the empire's ambitions in this region, and their former travels had been part of a series of attempts by British itinerant scholars and diplomats to explore and map out territories beyond the northern frontiers of British India.[13]

This striking British indifference to the Schlagintweits' scholarly contributions points to the central theme of this work: the contested nature of scientific reputation in a framework of transnational collaboration and competition. The more peculiar cases of the three German brothers are used to demonstrate in a more general sense that the reputations of sojourning scholars were never universal or stable.[14] On the contrary,

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Expedition auf die Erforschung Aequatorial-Afrika's', *Zeitschrift der Gesellschaft für Erdkunde*, 8 (Berlin, 1873), 'Erster Aufruf', etc., pp. 170ff.

[11] Richthofen, Berlin, 24.2.1892, to 'his excellency the Reichskanzler, Baron von Caprivi', Bundesarchiv Berlin (BArch), R901, 37418, 'Akten betreffend: die wissenschaftliche Reise der Brüder Schlagintweit, vom Januar 1890 bis Juli 1902'.

[12] Yet, as scholars have increasingly noted, this notion (coined by the British officer Arthur Conolly in the early 19th century) is deeply Anglo-centric in its perspective, ignoring the vital role of non-British and non-Russian actors and societies in Central Asia in this geopolitical competition over *their* lands; for a valuable critique of the term, and an analysis of how it reflected British colonial anxieties perhaps as much as realities in the contest with Russian advances into Central Asia, see B. D. Hopkins, 'The Myth of the Great Game', in idem, *The Making of Modern Afghanistan* (New York, 2008), pp. 34-61; see also Moritz Deutschmann on the overlooked role of Persia in this political context, *Empire and Statehood in the Russo-Iranian Encounter, 1880s–1911* (unpubl. PhD thesis, European University Institute, 2013); and Alexander Morrison, 'Introduction: Killing the Cotton Canard and getting rid of the Great Game: rewriting the Russian conquest of Central Asia, 1814-1895', *Central Asian Survey*, 33 (2014), pp. 131-142.

[13] Charles C. Withers, 'On Enlightenment's Margins'; Derek Waller, *The Pundits*; Davies, *Punjab Trade Report*; and Robert Montgomery, *Maps accompanying report on the trade and resources of the countries on the north western boundary of British India* (Lahore, Government Press, 1862).

[14] Martin J. S. Rudwick, *The Great Devonian Controversy: The Shaping of Scientific Knowledge among Gentlemanly Specialists* (Chicago, 1985), p. 420.

their reputations were forged within a landscape of multiple public spheres and scientific communities, while the boundaries between those spheres were porous and open to outside influences. Controversy is, of course, a key driving force behind knowledge production and for scientific progress in general.[15] Yet, controversy is not merely an instrument of scientific enquiry. As this work will explore in more detail, it is also a social and cultural phenomenon that shaped reputations, made and unmade scholarly careers and profoundly influenced the legacies of overseas explorations.[16]

Instead of presenting a biography, it is the ambition of this study to explore, through the polemic over the Schlagintweit brothers, a number of major scientific and political developments that connected the German lands, Britain, and South Asia in the mid-nineteenth century. While the scholars' individual trajectories are fully acknowledged, their lives and works are nonetheless claimed to be representative of broader historical trends, in what the microhistorian Edoardo Grendi has coined their 'exceptional normality', as their life stories 'bring into greater perspective the prevalent norms and conventions of the period'.[17] Major developments such as the professionalisation of science, the emergence of the 'expert' in colonial and metropolitan contexts, and the nationalisation of imperial rhetoric loom large in this study. Yet, they are pitted against a counter-narrative of transnational collaboration and scholarly exchange that continued to shape the culture and practices of nineteenth-century science.[18]

Whereas historians have become increasingly interested in the heterogeneous nature of European colonial systems, and have begun to investigate the multitude of actors involved in empire-building abroad, the conflicts that surrounded transnational scientific collaborations have, by and large, been ignored.[19] This work fills that

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[15] A fine study for the field of Victorian geology and disputes among members of the same national community is, James A. Secord, *Controversy in Victorian Geology: The Cambrian-Silurian Dispute* (Princeton, 1986).

[16] On the social dimensions of scientific authority and scientific practices more generally see the important work of Simon Shaffer and Steven Shapin, *Leviathan and the Airpump: Hobbes, Boyle, and the Experimental Life* (Princeton, 1985); and Shapin, 'Here and Everywhere: Sociology of Scientific Knowledge', *Annual Review of Sociology*, 21 (1995), pp. 289-321, 303-03.

[17] Edoardo Grendi, 'Microanalisi e storia sociale', *Quaderni Storici*, 7 (1972), pp. 506–20; for the usefulness of this approach, see also its application in Kapil Raj, *Relocating Modern Science*, p. 22, and ch. 1.

[18] Many of these themes were first explored during an international conference organised by the author in Florence, May 2012: *Colonial Careers: Transnational Scholarship Overseas in the 19th and 20th Centuries*. I remain deeply grateful to the other participants for valuable discussions.

[19] For instance, while scholars have shown an increased interest of late in the role of German scholars in overseas explorations, there has been a tendency to focus significantly more on 'stories of success' than on exploring historical failures and conflicts, see Heinz Duchhardt (ed.), *Russland, der Ferne*

important gap by investigating the tensions that arose out of the integration of German scientists into a foreign national empire overseas.[20] By exploring the place of these 'imperial outsiders' within the different scientific and national communities they moved in, the thesis seeks to provide a more nuanced understanding of the mechanisms of inclusion and exclusion that were at play.[21]

Although it is argued that the pursuit of colonial science and expansion in Asia was, to a certain degree, a shared European project, the lines of competition nonetheless ran deep. To demonstrate this point, the following chapters revolve around the case of the Schlagintweit brothers, whose eastern journey in the mid-1850s culminated in a public debate about their scientific achievements, perceived failures, and scholarly reputations. Due to the rich surviving material, their case offers a rare opportunity to analyse how German experts recruited by the British Empire were perceived by different European and non-European scientific patrons and communities, and how personal obligations and 'gentlemanly' codes of conduct would decisively shape their contested careers.

While there were five Schlagintweit brothers in total, all born in Munich as sons of the renowned eye-surgeon Joseph Schlagintweit (1791-1854), the focus of this work is on the itinerant geographers Hermann (1826-1882) and Robert (1833-1885), and the geologist Adolph Schlagintweit (1829-1857), who together embarked on their large-scale scientific mission to the east in 1854. Their younger brother Emil (1835-1904) was too young to accompany them on the voyage. Yet, on the recommendation

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Osten und die "Deutschen" (Göttingen, 2009); Ravi Rajan, *Modernizing Nature: Forestry and imperial eco-development 1800-1950* (Oxford, 2006); and Ulrike Kirchberger, *Aspekte deutsch-britischer Expansion. Die Überseeinteressen der deutschen Migranten in Großbritannien in der Mitte des 19. Jahrhunderts* (Stuttgart, 1999). A few exceptions on other groups, at least for the eighteenth century, are Mary Terrall, *The Man Who Flattened the Earth: Maupertuis and the Sciences in the Enlightenmen*t (Chicago, 2002); and Neil Safier, *Measuring the New World: Enlightenment Science and South America* (Chicago, 2008).

[20] This work thus provides an important counterpoint to recent useful studies that have stressed the collaborative character of Anglo-German scholarly networks, mostly with a focus on inter-European intellectual transfers, as in the field of university reforms; see Ulrike Kirchberger and Heather Ellis (eds.), *Anglo-German Scholarly Networks.* While the contributions in this edited volume place great emphasis on cooperation, the importance of shared Protestant leanings and even the discourse of a shared 'Anglo-Saxon race', believed to have facilitated Anglo-German collaboration, the present work, by contrast, takes more seriously the decisive role of scientific controversies in shaping the itinerant careers of German experts in the British imperial establishment, and their subsequently asymmetric assessment.

[21] In that regard, the work takes up and advances current interests pursued in global history to pay close attention not only to forms of collaborations and processes of homogenisation, but also to explore fragmentations and new forms of differences, which may have been initially spurred by transnational entanglements and transfers; see Sebastian Conrad and Andreas Eckert, 'Globalgeschichte, Globalisierung, multiple Modernen: zur Geschichtsschreibung der modernen Welt', in idem and Ulrike Freitag (eds.), *Globalgeschichte. Theorien, Ansätze, Themen* (Frankfurt a.M., 2007), pp. 7-49, 21.

of Alexander von Humboldt, he developed a career around the study of the language and religion of Tibet, profiting from the rich material, observations and connections of his elder siblings. Emil became a typical German orientalist in the sense that he did not travel to pursue his learned scholarship and struggled like so many philologists at the time to make a living from his intellectual work.[22] Although he was never rewarded with a permanent position at a German university, his erudition and publications were widely acknowledged and praised. While his trajectory figures less in the following study, Emil's important role as an intermediary between his travelling brothers and numerous patrons and publics at home is considered. The fifth sibling, Eduard Schlagintweit (1831-1866), also pursued a different career in the Bavarian army, yet he also became a short-lived scientific traveller by joining the Spanish invasion of Morocco in 1859-60 as an officer, making diverse observations and collections on the country's human and natural worlds.[23]

The figure of the itinerant scientist is particularly suited to shed light on the complex processes by which scientific authority and reputation was established, questioned, or destroyed.[24] The work explores how the international controversy over the brothers' employment, and the value of their scientific results, ultimately led to highly divergent reputations of the Schlagintweits in India, Britain and on continental Europe – especially in the German lands. By applying a discourse analysis to a significant corpus of nineteenth-century newspaper and journal articles, private letters and books, it is ultimately argued that the diverging culture of commemoration that emerged in the German lands about the overseas travels of these German scholars can reveal crucial aspects of the reinforcement of an imperial ideology in a non-colonial

[22] Emil worked as a lawyer at various government posts in Bavaria, failing to ever get appointed to a Sanskrit chair, which he had long wished and applied for; see for his multiple efforts to become Professor for 'Sanskrit and Oriental Languages' between 1864-66 in Würzburg, ARS-Akte 1589, Universitätsarchiv Würzburg. The best portrait of the large group of German orientalists active around mid-century is the recent monograph by Suzanne L. Marchand, *German Orientalism in the Age of Empire. Religion, Race, and Scholarship* (Cambridge, 2009).

[23] His role is only considered in the way that he complemented the anthropological artefacts his brothers had collected in India and Central Asia.

[24] The problem of scientific authority in the British Empire has been a topic of renewed interest recently. The figure of the colonial scientist lends itself to the discussion of contested reputation building. The best contributions on the subject have focused on 19th-century professional botanists, see Jim Endersby, *Imperial Nature: Joseph Hooker and the Practices of Victorian Science* (Chicago, 2008); David Arnold, 'Plant Capitalism and Company Science: The Indian Career of Nathaniel Wallich', *Modern Asian Studies*, 42 (2008), pp. 899-928; and Richard Drayton, *Nature's Government: Science, Imperial Britain, and the 'Improvement' of the World* (New Haven and London, 2000).

country.[25] That is, precisely because the German lands were then neither unified as a nation nor possessed any overseas territories, these intrepid travellers could be glorified as trailblazers and 'heroes' of a *future* German Empire that ought to be built on their overseas achievements and personal martyrdom.[26] In this imperial vision, the 'sacrifices' made by German scholars for the exploration and opening up of extra-European lands to western science, commerce, and colonisation had earned their homelands the status of a formal overseas power as well.[27]

While the German lands exported scholars, they also accumulated and produced knowledge about Asia on a grand scale.[28] The distinct contribution of German orientalists to the studies of ancient and modern Asian languages, religions, and philosophies has been the subject of revived interest recently. The works of Suzanne L. Marchand, Sabine Mangold, and Ursula Wokoeck in particular have led to a new understanding of the fascination with and institutional developments of Orientalist knowledge in nineteenth-century Germany.[29] Scholarly engagements with Asia, either through travel or deep immersion in libraries or scriptures, were, as Marchand reminds us, never limited to imperial concerns. Orientalism in Germany

[25] In total, some 470 newspaper and journal articles on the brothers and 130 contemporary books on travel and exploration have been consulted.

[26] See, e.g. Ernst Friedel, *Die Gründung preußisch-deutscher Colonien im Indischen und Großen Ocean mit besonderer Rücksicht auf das östliche Asien, eine Studie im Gebiete der Handels- und Wirthschafts- Politik* (Berlin, 1867), pp. 82-3; and Chapter 9 on 'asymmetric reputations'.

[27] In that regard, this study makes a significant contribution to the growing literature on 'heroes of empire', which until now has merely focused on 'exceptional' figures within already existing colonial societies. However, what John MacKenzie has argued on 'Heroic myths of empire' applies for Adolph's death too: 'the most potent hero is the dead hero, and in particular the martyred hero, since it is through his death for the cause and his disappearance from the temporal world that his heroic status can be most easily inflated, interpreted and manipulated', in idem (ed.), *Popular Imperialism and the Military* (Manchester, 1992), pp. 109-38; 122.

[28] The strong presence of German scientists in holding high offices in 19th-century Australia has been noted by Rod Home, even though he applied a highly problematic diffusionist paradigm of 'modern science' as an exclusively western accomplishment, subsequently presented as a gift to the world through 'European expansionism', idem, 'Science as a German export to nineteenth century Australia', *Working Papers in Australian Studies*, 104 (1995), pp. 1-21.

[29] Sabine Mangold, *Eine "weltbürgerliche Wissenschaft". Die deutsche Orientalistik im 19. Jahrhundert* (Stuttgart, 2004); Ursula Wokoeck, *German Orientalism: The Study of the Middle East and Islam from 1800 to 1945* (London, 2009); Marchand, *German Orientalism*. Jürgen Osterhammel, in his study on the 'disenchantment of Asia' at the end of the 18th century, has likewise pointed to the significant interest in Asian cultures and history in the last decades of the enlightened century amongst a pan-European arena of *philosophes* and travellers, whose empathetic engagements with the foreign cultures of Asia should not be dismissed as simple European displays of pompous self-adulation in the encounter with alterité; idem, *Die Entzauberung Asiens: Europa und die asiatischen Reiche im 18. Jahrhundert* (Munich, 1998).

thus does not always sit comfortably with Saidian notions of empire building and orientalist learning as being necessarily and inextricably connected.[30]

Instead, much of the German interest in Asian religions and languages grew out of the tradition of critical bible studies and an interest in ancient rather than modern Asia. Marchand, however, has used only a narrow definition of what constituted an 'Oriental' scholar, confining her analysis to rather small and obscure circles of philologists, philosophers and theologians, who seem strangely detached from contemporary concerns about the East. There might, however, be something to be gained from including a broader range of actors in the framework of German orientalism. The reason is that many more groups of people, and itinerant scientific experts in particular, contributed to eastern studies by providing images, texts, and – at times grossly misleading – judgements about Asian cultures, which nonetheless often found a wide resonance.[31]

The three Schlagintweits who travelled to the east did not go there as orientalists, and yet they became increasingly interested in local languages, dialects and cultural differences. They planned to measure the Himalayan heights and Indian climates but also ended up collecting religious artefacts and manuscripts, an expansion of interests brought about by their experience of overseas travel rather than prior training. While the itinerant Schlagintweits remained largely detached from the specialist debates of German orientalism at the time[32], they did nonetheless provide what could be seen as Oriental knowledge, including a 'geographical glossary'[33] and

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[30] See Edward Said's highly influential yet also critically received work, *Orientalism: Western Conceptions of the Orient* (New York, 1978) that, significantly, left out a thorough discussion of the case of German Orientalist learning in the nineteenth century; see, however, Thomas R. Metcalf, *Ideologies of the Raj* (Berkeley, 1995), p. 135: 'Germanic Indology, though never directly a part of the ideology of the Raj [...], played a critical role in sustaining the intellectual assumptions that bulwarked Britain's Indian Empire.' As Kirchberger reminds us, German Indologists were also in other ways woven into the fabric of British rule, such as by instructing candidates for the Indian Civil Service, or were even directly involved, like Max Müller, in political decisions in the latter's reforms in the 1850s; idem, 'German Scientists in the Indian Forest Service: a German Contribution to the Raj?, *Journal of Imperial and Commonwealth History*, 29 (2001), pp. 1-26, 14.

[31] See for the ethnographic practices of the Schlagintweits in Asia, and the fragile 'information order' that they used to pursue their Oriental studies during the expedition, Chapters 5 and 6.

[32] According to Marchand, these were 'traditional, almost primeval, *Christian* questions, such as (1) what parts of the Old Testament are true, and relevant, for Christians? (2) how much did the ancient Israelites owe to the Egyptians, Persians, and Assyrians? (3) where was Eden and what languages was spoken there? and (4) were the Jews the only people to receive revelation?' Idem, *German Orientalism*, p. xxiv.

[33] *Geographical glossary from the languages of India and Tibet including the phonetic transcriptions and interpretation. Based upon the materials collected by Messrs. de Schlagintweit chiefly from verbal information in the respective provinces and from native writings, edited by Hermann Schlagintweit*, in *Results*, Vol. 3, part II (Leipzig and London, 1863), pp. 133-293.

eclectic insights about eastern religious and social practices (both ancient and modern), often gleaned from personal encounters with spiritual leaders and monks, which were later used by their brother Emil in a somewhat more systematic manner.

Border-crossers and the boundaries of transnational science

The wider significance of the Schlagintweit case lies in the fact that the mid-nineteenth century marks a period in which substantial numbers of German scientific experts found employment in Europe's overseas empires. The British East India Company, in particular, had a great need for trained geographers, mining experts, foresters, orientalists and administrators who filled key positions in the growing infrastructure of colonial domination.[34] The transition of British rule in South Asia in the aftermath of the Great Mutiny created numerous new departments where Germans helped to implement a wide range of colonial policies that lastingly shaped India's environments and social life.[35] Itinerant scholars represented a somewhat smaller group of this outward movement of German experts, whose careers differed markedly from their colleagues who laboured more as anonymous scribes in the hierarchical government departments. The mapping and scientific scrutiny of territories that were still beyond the frontiers of the British Raj brought those scholars who were involved in such risky undertakings the prospect of international fame. At the same time, however, their increased public visibility also exposed them to the critical eyes of British competitors and the diverging expectations of different scientific and popular audiences across Europe and South Asia.

But, why are we faced with such a significant recruitment of *German* experts at this point in time? From the perspective of German botanists, doctors, explorers and other medical, technological and scientific experts, the established colonial infrastructures of foreign empires provided them with important prospects for personal career advancement. In the mid-nineteenth century, the German lands lacked any overseas possessions of their own that could have absorbed their workforce and provided the chance to satisfy those travellers' ambitions.[36] Perhaps unsurprisingly,

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[34] Noted, though not further explored, in Marchand, *German Orientalism in the Age of Empire*, p. 143.
[35] On the expansion of the imperial administration after the British Crown took over after the Mutiny, see David Arnold, *Science, Technology and Medicine in Colonial India*, (New Cambridge History of India III, 5) (Cambridge and New York, 2000), on German forest experts in the hugely influential forestry department, see Ravi Rajan, *Modernizing Nature.*
[36] See also John R. Davis, Margrit Schulte Beerbühl, and Stefan Manz, 'Introduction: Germans in the British Empire', in idem (eds.), *Transnational Networks: German Migrants in the British Empire,*

an important number of German itinerant scholars and specialists thus turned their attention to those extra-European lands that stood under the rule of other western powers, which they successfully appropriated as their own 'empires of opportunity'.

Yet, additional factors accounted for this large-scale recruitment of north European expertise into British India. The middle decades of the nineteenth century were a period in which British scientists and colonial officials perceived German specialists in particular ways. By contrast to (especially) French scholars, the Germans were not seen as the vanguards of any imperial ambition of their homelands in the East. As in the case of Danish and Swedish scholars formerly enlisted in the East India Company service during the late eighteenth and early nineteenth centuries, German experts were now likewise regarded as scientifically useful *and* politically neutral.[37] The fragmentation of the polycentric German world seemed to guarantee, in British eyes, that no concerted effort of formal overseas expansion was pending or even likely to appear in the future. This differed from other European states, whose representatives were often treated with greater suspicion by the Company, which feared that such foreigners could either join the service of semi-autonomous Indian princely states, or undermine British sovereignty over South Asia in other ways.[38]

What further added to the appeal of appointing German *savants* to scientific positions overseas was the fact that German universities had undergone important developments in the way their graduates were trained. Crucially, it was in the German lands 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.[39] Young men from Britain and elsewhere in Europe and the United States came to Germany for a laboratory-based training in chemistry from the

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1670-1914 (Leiden, 2012), pp. 1-17, 1-2. Yet, the present work takes much more seriously the ways in which German careerists in British service manipulated the financial and social architecture of British imperial science, while also paying closer attention to the considerable tensions that arose from such manoeuvring.

[37] The influx of Scandinavian scholars is further analysed in Chapter 1, and featured also in David Arnold's Keynote Lecture to the conference *Colonial Careers*, EUI, 2012.

[38] It should be remembered that while scholars speak in essential terms of 'British India' in the mid-19th century, there still existed a number of other European enclaves on the subcontinent, such as the French possessions in Pondicherry, Mahé and Chandernagor (among others), but also small Danish and Portuguese holdings, such as in Goa or Tranquebar (until 1845). German merchants enjoyed a remarkably strong presence, for instance in Bengal, but there existed no formal German dominion over any territories in South or High Asia.

[39] Frederic L. Holmes, 'The Complementarity of Teaching and Research in Liebig's Laboratory', *Osiris*, 5 (1989), pp. 121-164.

1830s onwards, but also to receive a practical education in the field sciences.[40] With the achievements of the archetypical 'philosophical' traveller, Alexander von Humboldt (1769-1859), still shining, who moreover lent his support and patronage to a great number of aspiring young German naturalists and explorers until the late 1850s, German scholars often ranked high in the esteem of their contemporary competitors in Europe.[41] This perception, which was shared by many British naturalists, metropolitan patrons and colonial officials alike, greatly facilitated their frequent appointments into the ranks and services of other powers, for which patronage played an extremely important role.[42]

Closely related to this project is the work of historians who have recently turned to 'imperial biographies', a thriving field that this thesis seeks to reassess. There now exist a number of edited volumes and monographs on medical, scientific, and technological experts who moved not only between the European metropole and one overseas colony, but whose careers connected different overseas localities within a single empire. These studies have been important to the extent that they raised greater awareness of how not only personnel, but with them also scientific practices, material objects, and political agendas circulated between the different overseas sites controlled by the same imperial nation.[43] Yet the analytical focus of most studies is still confined to the personal and professional networks within one distinct imperial formation, and thus fails to engage with such careers that transcended the borders of any given overseas power.[44]

The present thesis expands this research by refocusing the debate on those careers that scholars from formally non-colonial countries pursued across national and

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[40] David Blackbourn, 'Germany and the Birth of the Modern World, 1780-1820', *GHI Bulletin*, 51 (2012), pp. 9-21.

[41] As also noted by Ulrike Kirchberger, *Aspekte deutsch-britischer Expansion*.

[42] To be sure, the notion that German naturalists possessed valuable skills that could serve British scientific and imperial interests can be traced back to the late 18th century, exemplified in Sir Joseph Bank's 'predilection for German rather than British botanists' to be appointed to scientific positions in India; Richard H. Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600-1860* (Cambridge, 1995), p. 331; for significant examples of this imperial recruiting see chapter 1.

[43] A pioneering work in that regard was David Lambert and Alan Lester (eds.), *Colonial Lives across the British Empire: Imperial Careering in the Long Nineteenth Century* (Cambridge, 2006); on the movement of policies through intra-imperial agents such as John Pope Hennessy, who held multiple offices across the British world, see Lambert, 'Reflections on the Concept of Imperial Biographies', *Geschichte und Gesellschaft*, 40 (2014), pp. 22-41.

[44] Malte Rolf, 'Einführung: Imperiale Biographien. Lebenswege imperialer Akteure in Groß- und Kolonialreichen (1850-1918)', in idem (ed.), *Imperiale Biographien*, special issue of *Geschichte und Gesellschaft*, 40 (2014), pp. 5-21.

imperial boundaries. Many of such scholars were enabled to take part in overseas science and expansion through the existence of transnational networks, maintained by scientific societies, missionary organisations, universities, or humanitarian bodies.[45] Yet, in the mid-nineteenth century, personal patronage through letters of recommendation amongst the learned elite was still key for the movement of scientific experts across borders. Epistolary networks did not lose their old function in a changing world of increasing professionalisation and state intervention in scientific research. The Schlagintweits directly profited from the weight and influence that their royal and scientific patrons had in Victorian Britain, but also among the imperial establishment in India. The tension between national rivalries on the one hand, and transnational scientific collaboration on the other, is taken as a starting point to discuss a number of issues surrounding the multidimensional interaction between the European 'metropoles' of imperial powers, their respective national colonies abroad, and non-imperial countries in Europe – spaces that were all connected through the life and work of the scholars under consideration.[46]

One significant methodological contribution of this work is that it addresses a problem in historiography by going beyond simplistic constellations advanced by the 'new imperial history' to analyse the interactions between European societies and overseas possessions merely within a binary framework of one 'centre' and its respective overseas 'periphery'.[47] While British society, its sciences, arts, commerce, and politics were undoubtedly deeply shaped by the encounters that the country's global expansion entailed, this should not blind us to the fact that there were multiple 'centres' in Europe that engaged in significant ways with Asian societies and natural

[45] Yet, there have recently been welcome attempts to explore scholarly networks that cut across national boundaries, as in Ulrike Kirchberger and Heather Ellis (eds.), *Anglo-German Scholarly Networks*; for the important careers of 'go-betweens', both of European and non-European extraction, see especially the path-breaking volume by Simon Schaffer, Lissa Roberts, Kapil Raj and James Delbourgo (eds.), *The brokered world. Go-betweens and the global intelligence, 1770-1820* (Sagamore Beach, MA, 2009).

[46] A longue durée perspective on the involvement of German merchants, sugar bakers, missionaries, savants, immigration agents, and others in the imperial peripheries of Britain overseas is offered in John R. Davis, et al. (eds.), *Transnational Networks.* The work is important for offering new insights into the wide-ranging geographies of the professional networks that these professional groups established within and across the borders of the British Empire.

[47] The *locus classicus* is the call to analyse these interactions within 'one analytic field', instead of multiple 'fields' within distinct geographies, in Frederic Cooper and Ann Laura Stoler, *Tensions of Empire. Colonial Cultures in a Bourgeois World* (Berkeley, 1997). Applications include Kathleen Wilson (ed.), *A New Imperial History. Culture, Identity, and Modernity in Britain and the Empire, 1660–1840* (Cambridge, 2004); Catherine Hall, *Civilising Subjects. Metropole and Colony in the English Imagination, 1830–1867* (Cambridge, 2002); and Tillman W. Nechtman, *Nabobs: Empire and Identity in Eighteenth-Century Britain* (Cambridge, 2010).

environments. By putting the focus on Berlin as one such scientific hub, whose members established both robust networks with British scientific communities and far-reaching ties with South Asia's imperial establishment, this work makes the point that the German lands were thoroughly integrated into imperial knowledge networks.[48] Travelling scholars like the Schlagintweits were crucial mediators in this process, and yet the ramifications that their careers in foreign imperial service had for their non-colonial homelands have barely been studied.

What makes the study of intrepid German explorers such as the Schlagintweits all the more significant is that their cases can offer important new insights in relation to the growing literature on German 'colonial fantasies'. Any historian eager to study Germany's colonial history is faced with a particular constellation of the country's past which distinguishes it from other European imperial powers in modern times: in the German case, a 'real' national imperial period of only some decades (1884-1918) is pitted against a much longer history of German overseas ambitions and (often failed) projects that started in the sixteenth century.[49] Whereas the historiography on German colonialism has traditionally focused almost exclusively on the national project of the late nineteenth and early twentieth centuries, a new and thriving scholarship has recently looked beyond this short period of formal empire.[50] In particular, research inspired by literary and cultural studies has introduced new perspectives and has raised new questions about German overseas ambitions and fantasies that predated the late 'imperial fulfilment' during the *Kaiserreich.* Moreover, recent work has shown that these ambitions did not end abruptly with the loss of the German colonies in the Treaty of Versailles, but that imperial nostalgia and

[48] It thus expands the existing literature on imperial capitals as, in Latour's phrase, 'centres of calculation', as has been studied with regard to Paris and London; see, e.g., David Philip Miller, 'Joseph Banks, Empire, and "Centers of Calculation" in Late Hanoverian Britain', in David Philip Miller and Peter Hanns Reill (eds.), *Visions of Empire: Voyages, Botany, and Representations of Nature* (Cambridge, 1996), pp. 21-37.

[49] Birthe Kundrus has made this point on several occasions, see her contribution to the 'Forum: The German Colonial Imagination', with Lora Wildenthal, Jürgen Zimmerer, Russell A. Berman, Jan Rüger, Bradley Naranch and Birthe Kundrus, *German History*, 26 (2008), pp. 251–71, 252. See for German colonial projects in Venezuela in the 16th century, Rolf Walter, '*Die Welser in Venezuela,* ein Stück deutscher Kolonialgeschichte des 16. Jahrhunderts', *Nachrichten der deutsch-venezolanischen Gesellschaft*, 2 (1984) pp. 66-77; for a critical assessment of the literature on the Welser interests in South America, see Jörg Denzer, *Die Konquista der Augsburger Welser-Gesellschaft in Südamerika 1528-1556* (Munich, 2005).

[50] See for this narrow focus the classical account by Hans-Ulrich Wehler, *Bismarck und der Imperialismus*, (Cologne and Berlin, 1969).

private and public forms of memory on German colonialism developed during and well after the Weimar Republic.[51]

This new strand of research was mainly initiated by the work of the American literary scholar Susanne Zantop. Her path-breaking book on German colonial fantasies, published in 1997, has opened up new vistas for the cultural study of long nurtured German intentions to earn the status of an imperial power.[52] According to Zantop, '[i]maginary colonialism anticipated actual imperialism, words, actions. In the end, reality just caught up with the imagination'.[53] While this account of the transformation of German fantasies into formal rule needs to be criticised for its inherent teleology, her work has nonetheless inspired a new generation of scholars to transcend the strict temporal boundaries of Imperial Germany in their work on the (imaginary) origins of German colonialism.[54] Studies in this field are thus geared towards the realm of the imagination, and trace imperial longings in a wide array of literary expressions such as novels, (fictional) travelogues, poems, plays, and songs.[55]

A different yet complementary strand of research has focused on the German colonial movement at home, which began to gain momentum and coherence in the 1840s, subsequently smouldering in different degrees of intensity until the 1880s.[56] What tends to unite many of the works in this field is that the analysis only rarely leaves the European context, focusing instead on party-political agendas and overseas claims proffered by different interest groups in the meetings of middle-class societies, in pamphlets and other publications. This is partly to be explained by the fact that

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[51] Britta Schilling, *Postcolonial Germany: Memories of Empire in a Decolonized Nation* (Oxford, 2014); Jason Verber, *The conundrum of colonialism in postwar Germany* (unpubl. PhD diss., University of Iowa, 2010). Sara Friedrichsmeyer, Sara Lennox, and Susanne Zantop (eds.), *The Imperialist Imagination: German Colonialism and Its Legacy* (Ann Arbor, 1998); Matthew Jefferies, *Contesting the German Empire, 1871-1918* (Malden, Mass., 2008), p. 176. Karsten Linne, *Deutschland jenseits des Äquators?: Die NS-Kolonialplanungen für Afrika* (Berlin, 2008).

[52] Susanne *Zantop*, *Colonial Fantasies*. *Conquest, Family, and Nation in Precolonial Germany, 1770–1870* (Durham, 1997); Birthe Kundrus (ed.), *Phantasiereiche: zur Kulturgeschichte des deutschen Kolonialismus* (Frankfurt/Main, 2003); Hans Fenske, 'Ungeduldige Zuschauer. Die Deutschen und die europäische Expansion 1815-1880', in Wolfgang Reinhard (ed.), *Imperialistische Kontinuität und nationale Ungeduld im 19. Jahrhundert* (Frankfurt am Main, 1991), pp. 87-123.

[53] See Zantop, *Colonial Fantasies*, p. 9.

[54] See inter alia, Matthew P. Fitzpatrick, *Liberal Imperialism in Germany: Expansionism and Nationalism, 1848–1884* (New York, 2008); for a critique of Zantop's ahistoricity, S. Conrad, *German Colonialism: A Short* History (Cambridge, 2011), pp. 15-16.

[55] Susanne *Zantop*, *Colonial Fantasies*; Birthe Kundrus (ed.), *Phantasiereiche*.

[56] Frank Lorenz Müller, 'Imperialist Ambitions in Vormärz and Revolutionary Germany: the Agitation for German Settlement Colonies Overseas, 1840-1849', *German History*, 17 (1999), pp. 346-368; Matthew P. Fitzpatrick, *Liberal Imperialism in Germany: Expansionism and Nationalism, 1848–1884* (New York, 2008); Hans Fenske, 'Ungeduldige Zuschauer'; Bradley Naranch, *Beyond the Fatherland: Colonial Visions, Overseas Expansion, and German Nationalism, 1848-1885* (unpubl. PhD thesis, University of North Carolina, 2006).

many of the protagonists of Germany's colonial movement – from political economists to journal editors, newspaper writers and teachers – never went abroad. Instead, they relied heavily on the expertise provided by mobile men of science and entrepreneurs who made a career for themselves abroad. This crucial link, however, is rarely explored.[57] What has thus too often been ignored is the way in which German scholars with first-hand experience of the worlds of colonialism overseas imparted their own imperial visions and concrete fantasies to bourgeois German audiences. This study therefore opens up valuable new opportunities for considering the complex relationship between the personal experiences of empire made by intrepid German scholars abroad, and the formation of a colonial discourse in their homelands.[58]

Yet, German scholars brought back home more than knowledge and fantasies about empire. Rather, the Schlagintweits' case allows us to explore in detail how their sojourn in Asia helped to bring also the material riches of extra-European lands into the German periphery. Among the most striking and visible legacies of the brothers' excursions was an immense collection of over 20,000 objects in the fields of natural history and ethnography. These were complemented with a set of 750 sketches and paintings, which provided German and European reading classes with tangible images of the human cultures and natural environments of the east (figs. 1.2-1.4).

[57] Sebastian Conrad, 'Rethinking German Colonialism in a Global Age', *The Journal of Imperial and Commonwealth History*, 41 (2013), pp. 543–566, 550.
[58] The valuable exception is Naranch, *Beyond the fatherland*, whose work on German nationalism in a global context, however, does not explore the group of itinerant men of science in greater depth, nor how scientific objects and painted views of pleasing overseas landscapes ignited an overseas momentum among German bourgeois classes.

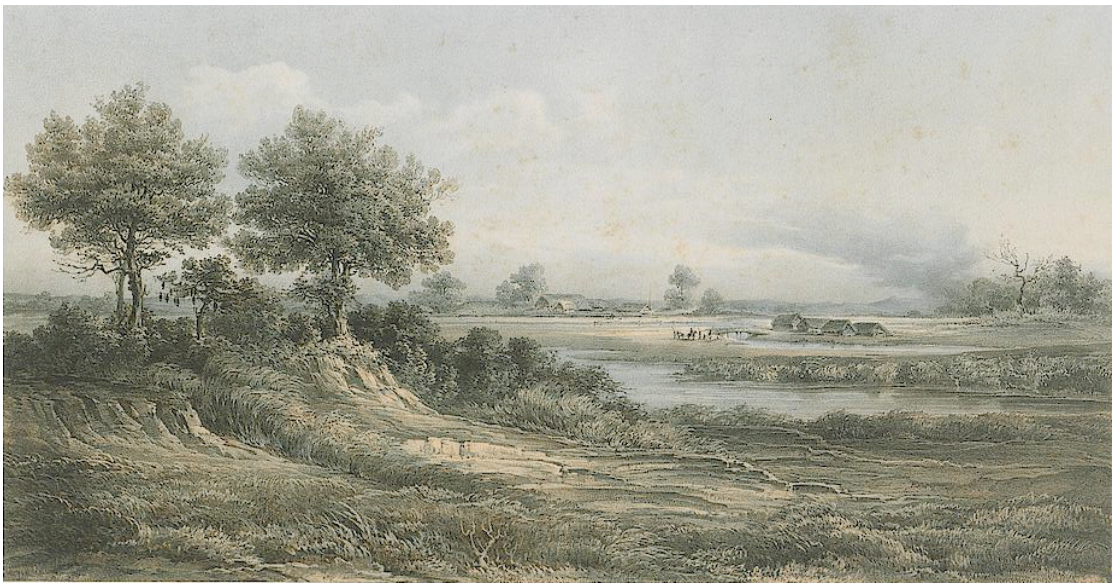

Fig. 1.2 Watercolour by Hermann Schlagintweit, January 1856, 'Ford and Lines in Udelgury in the province Darrang, Assam'; Chromo-Lithograph by Storch & Kramer, Berlin; Schlagintweit, *Atlas of panoramas and views, with geographical, physical, and geological maps*, no 11; source and copyright: archive of the DAV.

Figs. 1.3-1.4 Watercolours by Adolph (above) and Hermann (below) Schlagintweit, October 1856. 'I. Northern Aspect: The Gardens of Shalimar and the neighbouring Mountains; II. Southern Aspect: The Fort of Srinagar with the Chain of the Pir Panjal', together forming a 'Panorama of the Lake and the Gardens near Srinagar, Kashmir', Schlagintweit *Atlas* No 18; widely reproduced at the time, e.g. in *The Illustrated London News*, 13.1.1866.

To take an example, the painted views of Kashmir published in the voluminous *Atlas* shown above were accompanied with a description by the brothers that highlighted the alluring qualities of the region to the readers: 'The shores of the lake in the immediate vicinity of the capital of Kashmir have materially contributed to spread the fame of the beauty of this country, not indeed by the forms of grand Alpine

scenery, but by the character of unrivalled loveliness.'[59] Yet, the valley's 'loveliness' and natural riches were not only remarked upon and put on canvas. Rather, both Hermann and Robert Schlagintweit frequently drew attention to the fact that the valley of Kashmir ranked amongst the most suitable and pleasant regions in the world for European settlements.[60] This instance points to the fact that we ought to read their visual and textual sources alongside each other, as, when taken together, they provide important insights into the colonial imagination the brothers developed of the lands they had seen, surveyed, sketched and mapped.[61]

While it has not been my primary concern to analyse to what extent the Schlagintweits' images of the fertile and aesthetically pleasing landscapes of South and 'High Asia' may have spurred colonial longings at home (although it is a question worth asking), I did explore in greater depth the significant yet neglected history of their eastern material collections. Of course, most European travellers in the (early) modern period sought to gather as many valuable and scientifically novel specimens as possible, both living and dead. Their motivations for doing so were manifold, and included an eagerness to gain prestige and power by presiding over rare objects and to be able to barter such goods with like-minded and socially superior amateurs and professionals.[62] Such overseas collecting was also spurred by an international market for natural history specimens and exotica, which could provide an important source of income for any individual scholar-collector. Yet, while all these purposes were certainly at play in the brothers' collecting efforts, their own motives were even more grandiose. As Chapter eight will demonstrate in more depth, the Schlagintweits planned to establish their own 'India Museum' in the heart of Berlin, which was to be directly modelled upon the imperial museum of the East India Company in London. Like its British counterpart, the Schlagintweits' museum was intended for scientific research and popular instruction, yet also aimed to ignite commercial interactions

[59] Schlagintweit, *Atlas*, No 18.
[60] *Results of a scientific mission to India and High Asia: undertaken between the years 1854 and 1858, by order of the court of directors of the hon. East India Company*, Vol. 4: Hermann Schlagintweit, *Meteorology of India: an analysis of the physical conditions of India, the Himálaya, western Tibet, and Turkistan* (Leipzig and London, 1866), p. xi; 507ff.; and Robert Schlagintweit, BSB Munich, Schlagintweitiana V.2.2.2, p. 64.
[61] While historians have problematically tended to analyse their paintings and written evidence separately, it should be noted that the brothers' audiences at the time, for instance during Robert Schlagintweit's public lectures, consumed his gripping accounts of their explorations while being presented with maps, beautiful painted eastern views, and material objects from the travels being passed through the ranks for entertainment and instruction; BSB, Schlagintweitiana V.17, p. 148.
[62] On the interdependent yet often tense relationship between metropolitan scientists and scientific and lay enthusiasts in the colonies see Jim Endersby, *Imperial Nature*, esp. chapter 2.

between the German lands and those countries the brothers felt they had opened up to western trade and political intercourse. My work thus goes beyond mere textual analysis in tracing German overseas ambitions by adding a material dimension to this vibrant field of study.

Sources

The research for this thesis draws upon a variety of hitherto untapped sources, ranging from visual and textual documents to material artefacts. I have consulted sources and objects in over 45 archives in a number of European and overseas countries, yet the bulk of the materials were located at three major sites: Munich, Berlin, and London. At the Staatsbibliothek Munich, over 40 volumes of travel notes and observations lay mostly unexplored, a monumental archive of data collected by the brothers and their indigenous partners in Asia.[63] These volumes are complemented by a wealth of private and public correspondence between the brothers and their scholarly peers, patrons and financiers, and numerous editors and museum directors across Europe and the United States. It is also in Munich that we find the majority of their 750 sketches and images[64], as well as 80 photographs of the original ca. 400 pictures that made up the brothers' photographic series from India and the Himalayas.[65]

The next important set of Schlagintweit sources was unearthed in Berlin, especially in the Staatsbibliothek Preußischer Kulturbesitz, the Political Archives of the Foreign Office, the Bundesarchiv Lichterfelde, and especially the Geheimes Staatsarchiv. Despite the fact that some scholars have previously worked on the Schlagintweits' mission in some of the same holdings, crucial materials – such as those on the projected foundation of an India Museum in Berlin – have surprisingly been entirely ignored.

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[63] The brothers were only able to analyse a portion of these materials themselves, as only four out of the nine planned technical volumes of their *Results of a scientific mission to India and High Asia* were ever published.

[64] The surviving views are held mostly in the archive of the Museum of the German Alpine Society, Munich, where the author is currently co-curating a major Schlagintweit exhibition, to open March 2015, the BSB, and the State Graphic Collection.

[65] Against earlier claims, not all photographs in their collections were made by either Robert or Hermann Schlagintweit; their 'general register' of sketches and images, held in Schlagintweitiana IV.1, contains also a number of coloured photographs of different origins: three views from Lahore, e.g., were provided from a certain 'Mr Mortario', and a view of Shimla was taken by the unspecified photographer 'Reinicke'. Moreover, the provenance of some of the others photographs is unclear, including the topographical photographs of Bombay (Schlagintweitiana IV.3), some or all of which might not actually have been taken by the Schlagintweits. I thank Andrew Jarvis for this information.

What is further striking about the existing scholarship on this Anglo-German expedition, one, to be sure, that could only be carried out through the vital financial, diplomatic, and scientific support of the British colonial establishment in India, is the fact that the vast majority of works have shied away from British and Indian archives. Indeed, scholars such as Gabriel Finkelstein, Philipp Felsch, Maike Trentin-Meyer, and a host of others have relied solely on (and only a fraction of) the materials in German collections, and on the brothers' published travelogues in particular, thus often reproducing those interpretations of the travels the brothers were keen to proffer of themselves.[66] This archival neglect seems all the more problematic since some of the above-mentioned authors have nonetheless felt well equipped to rashly dismiss any connections between the brothers' explorations, route descriptions and intelligence gathering along and beyond the British frontier in north India, and the imperial ambitions of the Company in those region.[67]

By contrast, this work has consulted a wealth of sources in the India Office Records, the National Archives in Kew, and the Archives of the Royal Botanical Garden (also in Kew) to bring to light fresh and important evidence about the interplay between the brothers' scientific objectives and the commercial interests pursued by the EIC in granting their material patronage. As the wealth of new material makes abundantly clear, the Schlagintweits were certainly not sleepwalking into an imperial scheme, but were rather keen to serve the profit-seeking motives of the East India Company, not least to justify their considerable expenses and to renew this crucial British patronage after their return.[68]

Besides redirecting attention to the brothers' conscious support for British imperial designs, another major focus of this work is on their personal communication strategies in front of European audiences, scientific patrons and imperial and royal benefactors. Consulting such a broad range of archives was not an end in itself. Rather, it was the precondition to explore how the brothers used different medias – from private and public letters, royal submissions and printed books to popular

[66] Valuable exceptions to this general shortcoming are G. Armitage, 'The Schlagintweit Collections', *Indian Journal of History of Science*, 24 (1989), pp. 67-83; and Stefan B. Polter, 'Nadelschau in Hochasien: Englische Magnetforschung und die Brüder Schlagintweit', in Müller et al. (eds.), *Der Weg zum Dach der Welt* (Innsbruck, Frankfurt am Main, 1982), pp. 78-80 and 97-98.

[67] This pitfall is best captured in the unconvincing conclusion by Finkelstein, '"Conquerors of the Künlün"? The Schlagintweit Mission to High Asia, 1854–57', *History of Science*, 38 (2000), pp. 179–214.

[68] See especially the subchapter 'Securing a written monument' of this work.

scientific lectures – to negotiate their scholarly reputation vis-à-vis their British peers and competitors, and also in front of scientific communities and national publics on the European continent. Close attention has therefore been paid to examining whom the Schlagintweits addressed with what bits of information to forge their authority, but also which peers and patrons were excluded from their epistolary networks and circles of confidants. Only such a detailed investigation of the practices of inclusion and exclusion on behalf of the brothers can reveal how their position 'in between' opened up opportunities for dealing with their multiple Anglo-German patrons, scholarly mentors and popular audiences to maximum personal advantage. Drawing on a thick layer of correspondence ultimately demonstrates how scientific reputation was not simply attributed to contested scholars by peers or publics, but actively forged through manipulation and acts of deception by those travelling scholars themselves.

A final note on the character of the sources. Harry Liebersohn, in his fine analysis of European voyages to the Pacific, has rightly noted of travellers' published accounts that these were hardly the outcome of works undertaken by single, 'isolated authors with full control over their written words' – and images, we may add.[69] Rather, overseas travellers like the Schlagintweit brothers were 'actors in a [...] system of intellectual production' that involved many intermediaries, who made crucial interventions in the process of constructing their final works, both textual and visual.

Yet, the intrepid travellers themselves also manipulated and transformed their sources over time, including their images, photographs and travel notes, and orchestrated their findings to address specific audiences with specific goals in mind. In the brothers' case, both Hermann's more popular German version of their travel accounts[70], and Robert's popular public lectures were started almost a decade after their return to Europe.[71] Their later, and perhaps most influential, accounts were thus not compiled during the hectic activities in the field, but penned down from a

[69] Harry Liebersohn, *The Travelers' World: Europe to the Pacific* (Cambridge, MA, 2006), pp. 8-9.
[70] See his four volumes of the *Reisen in Indien und Hochasien: eine Darstellung der Landschaft, der Cultur und Sitten der Bewohner, in Verbindung mit klimatischen und geologischen Verhältnissen; basiert auf die Resultate der wissenschaftlichen Mission von Hermann, Adolph und Robert von Schlagintweit ausgeführt in den Jahren 1854-1858* (Jena, 1869-80).
[71] Robert Schlagintweit, 'Vortragsmanuskripte' ['Lecture Manuscripts'] for his 'English lectures on High Asia delivered during the years 1868 and 1869 in various towns of the United States of America', two volumes, BSB Munich, Schlagintweitiana V.2.2. Robert had launched his highly successful lecture tours in 1864, seven years after his repatriation.

considerable spatial and temporal distance from their travels, from the security and comfort of their studies in Europe, and with particular European consumers in mind.

This points to the crucial temporality of our sources and the specific contexts in which they were belatedly produced and modified. In exploring how scientific authority was created, it has been my objective to closely examine this processual character of my sources, as both the published accounts and visual legacy of their travels ought to be read with an awareness of their considerable mutability. While crucial shifts in the representation of their former travel experiences overseas can clearly be traced in all their written accounts, it is also important to note that their paintings too were subject to later interventions.[72] Although many of their landscape views were initially made in the field with scientific goals in mind, aesthetic conventions in Europe and the availability of numerous print techniques led to a process of continuous alteration and commercialisation. After the brothers' return to Europe, no less than seven different landscape painters from Munich, who had never set foot on Asia, were unofficially employed to complete, significantly alter, or even entirely reproduce a significant portion of their earlier sketches and watercolours.[73] Regarding the leading question of how scientific authority was fabricated, it is of great importance that these adaptations were entirely silenced by the brothers, even when such images were sold to prestigious collectors such as the Bavarian monarch, or displayed at international scientific and colonial exhibitions as evidence of the brothers' accomplishments overseas.[74]

Chapter structure

In order to achieve a multifaceted analysis of the brothers' contentious careers, and the role of scientific controversies in shaping reputations within a transnational arena, the work is divided into several interlinking chapters. While the thesis loosely follows a chronological structure that allows an in-depth exploration of changes in the

[72] The existing literature is thus misleading in many regards, see e.g. Bernd Wiese, *WeltAnsichten: Illustrationen von Forschungsreisen deutscher Geographen im 19. und frühen 20. Jahrhundert; Graphik, Malerei, Photographie; Die Wirklichkeit der Illustration?* (Cologne, 2011).

[73] My analysis thus offers a sharp departure from an assumption that the brothers were also obsessed with accuracy in their paintings, formerly believed to have been finished in Asia, on the spot, not thoroughly altered according to aesthetic criteria in Europe; these findings provide a significant qualification of the works by Trentin-Meyer, Felsch, Bernhard Fritscher, Finkelstein, and others.

[74] As in the case of 12 watercolours for the 'k[önigliche] Handzeichnungs-Cabinett' See the report by Hermann Schlagintweit, 'Die Auswahl von 12 Aquarellen für das k. Handzeichnungs-Cabinett im Jahre 1880', *Sitzungsberichte der Ak. München, math. phys. Klasse*, 10 (1880), pp. 517-522.

brothers' perception by peers and publics, each chapter nonetheless addresses highly significant topics in its own right.

First, we turn to the specific historical context that allowed the three Schlagintweits to enter the British scientific service overseas. This entails a thorough analysis of the foundations of such transnational careers: their training and familial background, the building up of their scientific authority, and their entry into transnational patronage networks. The patronage of fellow scientists, diplomats, and monarchs was usually the precondition for any recruitment into metropolitan Britain and the East India Company's establishment overseas. Chapter one thus sets the stage by exploring the rapid upward trajectory of the Schlagintweits' early careers, culminating in their relocation from Bavaria to Berlin in 1849. The Prussian capital then ranked as one of few internationally acclaimed centres for geographical sciences, and also figured as an important nodal point of scholarly networks with global reach.

In the second, closely related chapter, the focus shifts to Britain and its century-long history of exploration towards and beyond the north Indian frontier. Only an acquaintance with the 'thick layer of prior discovery' provides the adequate background against which to assess the achievements and scientific failures of the Schlagintweits' own eastern expedition.[75] The discussion then moves to the broader discourses that accompanied the recruitment of German specialists into British service in the middle decades of the century. The brothers, like many other German scholars before them, stressed their political disinterestedness as an asset that distinguished them from their French colleagues, whose attempts to penetrate British colonial territories were quickly seen as a form of espionage or a potential threat to British hegemony in Asia. The chapter not only demonstrates how British rule and expansion over the complex natural and social worlds of India forced officials to recruit expertise from well beyond the bounds of empire, but also how this practice provoked fierce critique by less well-favoured Company servants and British metropolitan scholars at the time.

Moving from the general to the specific, Chapter three demonstrates that although xenophobic discourses, personal competition and outright jealousy were generally at play in the mid-century reception of German experts in British overseas territories, it was the ambiguous behaviour of the Schlagintweits themselves that

[75] See Gordon Steward, 'The Exploration of Central Asia', in Dane Kennedy (ed.), *Reinterpreting Exploration: The West in the World* (Oxford, 2014), pp. 195-213.

stood at the centre of the emerging conflict over their employment. The self-interested decisions made by the brothers during and also after the execution of their considerably expanded scientific programme will be analysed, especially the numerous 'double games' the brothers engaged in to maximise the benefits from the co-financed Anglo-Prussian-Bavarian expedition (1854-58). This chapter thus sheds new light on the way such 'imperial outsiders' could turn their position between multiple scientific networks and royal and institutional patrons to their own advantage – even though these double games, in turn, attracted significantly more British criticism of the scheme.

Being mostly situated in Asia, Chapters four and five then take a closer look at the Schlagintweits' scientific practices when encountering the unfamiliar human and natural landscapes of India and beyond. Chapter four takes a closer look at the way the Schlagintweit expedition could be realised *in situ*. This entails, in a first section, a thorough analysis of how the brothers' travels and researches were inextricably linked to, and partly only feasible through, the colonial infrastructure of the British rulers in South Asia. Following the analysis of their expedition in its interplay with the Company's colonial institutions and information networks, Chapter five then shifts the focus to the large and diverse group of indigenous helpers, porters, translators and assistants. Such an investigation seems to be particularly important since the assistants' functions within the complex social configuration of the expedition party have until now been largely ignored. The existing literature has thus conveyed a highly misleading picture of the 'inner life' of this exploratory scheme, ignoring such important issues as the degree of dependency that the Schlagintweits developed towards their non-European travel companions, which led to a veritable 'role reversal' between the German explorers and their indigenous assistants.[76]

While it is important to identify and recover biographical information about those influential non-European partners, my analysis seeks to go further. Going beyond a mere appreciation of individual 'contributions' that the non-European helpers are said to have offered to their European 'leaders', the chapter strives to offer a radically different understanding of what this 'European expedition' actually meant for the many different peoples involved in the scheme, and how its execution was shaped by significant conflicts of authority between its members. We therefore have

[76] Felix Driver, 'Hidden histories made visible? Reflections on a geographical exhibition', *Transactions of the Institute of British Geographers*, 38 (2013), pp. 420-35.

to ask if the balance of power between the European travellers and their Asian guides and partners was as clearly defined and inflexible as has previously been assumed. Taking insights from recent works in the dynamic field of European exploration, the chapter seeks to chart the slippery ground that itinerant scientists had to navigate in order to establish, maintain and fabricate personal authority and scientific reputation in and outside the colonial realm.

Chapter six returns to the European stage and traces the unfolding of the 'Schlagintweit controversy' through the responses of different popular and scientific audiences in (mostly) Germany and Britain. Torn between publicity campaigns, ridicule, scientific support and criticism, the two surviving brothers sought to gain further patronage for a megalomaniac publication project, that was, as Joseph Hooker and other metropolitan scientists knew, bound to fail. How they succeeded, somehow, to secure the necessary and considerable funds had much to do with their elaborate communication strategies. The Schlagintweits were talented lobbyists whose secret arrangements, gift exchanges, and strategic use of private correspondence were key to their success. Thus, science management and the role of the popular press come into sharp relief in this chapter and allow us to understand the changing landscape and politics of exploration in a European context.

Chapter seven maps out more closely the legacy of the Schlagintweit expedition in the German lands by exploring the debates surrounding their large collection of objects and the brother's plan to found their own 'India Museum' in Berlin. Questions of ownership, scientific authority, and personal rivalry culminated in a serious conflict between Berlin-based scientists, the Schlagintweits, and the Prussian bureaucracy – leading to the brothers' 'flight' to Bavaria. The focus on the collection throws light on their repeated relocation, the different contexts of display and the ways in which parts of the collection became appropriated by the German state, commodified, and ultimately dispersed.

The last chapter moves forward in time in order to explore the wider repercussions of the Schlagintweit expedition for the formulation of German colonial ambitions at a time when nationalistic debates peaked in the German lands. The legacy and contested achievements of the brothers were soon incorporated into a history of German scientific feats, and led to a grossly asymmetric assessment and remembrance of their role in Germany and Britain, where, after a short and fierce controversy, the brothers soon fell into oblivion. The active role played by the

brothers in addressing middle-class audiences, whose appetite for narratives of scientific adventure and colonial domination was seemingly insatiable from the 1860s to 1880s, was crucial for the changing perception. Yet, it was the existing *knowledge gap* between German and British popular audiences about colonial India and the long history of prior discovery, I argue, that is key in explaining their rise to popular adoration. While France, Russia and the United States also seem to have accepted the authority of the brothers in their claims to have opened up the trans-Himalayan regions to the Western world, by the 1870s we can detect a sharp change in the general assessment of the Schlagintweits' contributions to science in Britain, on the one hand, and Germany, on the other, with important political ramifications of their 'heroic' legacy in a nascent German empire on the rise.

Chapter One

Entering the Company service: Anglo-German networks and the Schlagintweit mission to Asia

Building (a) reputation, building networks: the early careers of the Schlagintweit brothers

On 12 August 1850, the eminent German naturalist and overseas explorer Alexander von Humboldt penned a letter of recommendation for two of his most treasured scientific protégés, the brothers Hermann and Adolph Schlagintweit. Hoping to open the doors and opportunities of the world of Victorian science to his pupils, whom he described as 'very amiable and modest young people', Humboldt addressed one of the leading British naturalists of the time[77]:

> ''Dare I ask for your benevolence in favour of two of my compatriots, Physicists and Naturalists, the two […] Messrs. Schlagintweit, who have long since lived among us and who are currently preparing an excellent work (similar to the one by Saussure) on the Eastern Alps. They have accomplished very interesting research on the geography of Alpine plants, on magnetism and the meteorology of the high strata of the atmosphere.'[78]

The recipient of this letter praising the brothers' mountainous precocious accomplishments was the Director of the Royal Botanical Gardens in Kew, Sir William Hooker, who then resided over one of the most prestigious botanical institutions in the world, and maintained an empire of patronage over aspiring British and continental naturalists. Humboldt knew that Hooker occupied a strategic position and was a highly respected man of science among London's scientific community, whose support – or rejection – could 'make or break' a scholarly career.[79] The 'benevolence' towards these foreign naturalists, for which Humboldt politely begged, could translate into many things for the Schlagintweits: from guided tours through Kew Gardens by the Director himself, to further introductions in London's many

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[77] Humboldt addressed a similarly flattering letter to Michael Faraday, 13.8.1850, in Frank A. J. L. James (ed.), *The Correspondence of Michael Faraday*, Vol. 4 (London, 1999), letter 2313, p. 173..

[78] Humboldt to W. Hooker, 12.8.1850, The Archive of the Royal Botanic Gardens, Kew (=RBGK), Directors Correspondence (=DC) 51, German Letters, letter 254, p. 330, my translation.

[79] On William Hooker's prestige and influence, see Richard Drayton, *Nature's Government: Science, Imperial Britain, and the 'Improvement' of the World* (New Haven, 2000), p. 146; and Harry Liebersohn, *The Travelers' World*, pp. 110-111; on his vital role in training a small legion of German naturalists in Kew at the recommendation of Humboldt and the Prussian Envoy to London, Christian Carl (von) Bunsen, see RBGK, DC 51, e.g. the letters 52, 53, 56, 57, etc.

scientific societies; or even Hooker's support for a potential future employment in Britain.

Nathaniel Wallich, another leading botanist in England at the time, was also aware of the Kew Director's far-reaching influence, when, in early 1854, he discussed with Hooker the Schlagintweit brothers' plans – this time to travel to India. Yet, Wallich approached Hooker with very different intentions from those advanced by his colleague von Humboldt a few years earlier:

> 'Two German arch-puffers, yclept Schlagintweit brothers were recommended in 1852, by Baron Humboldt through the Pruss[ia]n Gov[ernmen]t and Consul Bunsen to [accompany] a surveying party vacant by the sad death of [Captain Elliot]. The case went through the Council of the Royal Soc[iet]y. I put a stop to the Soc[iet]y's direct recommendation. […] As I expected it to happen: the request was granted and I was stated, that in case an efficient officer in the Comp[an]ys Service not being found, or not being to be spared for that peculiar work, the brothers Schlagenze would be employed.'[80]

Clearly enraged by this pending appointment of the German naturalists and seeming impostors to a plum position in British India, and determined to sabotage the scheme through a backdoor intervention, Wallich soon upped the ante by proposing a purportedly more able substitute for the brothers. Seeking support from the Kew Director for his plans, he openly mused: 'Why does not [Thomas] Thomson ask for an interview with the Chairman and offer himself as a candidate for the survey vacated by the death of Captain Elliot?' The latter was the British officer who had formerly been in charge of the survey mission in India. Adding fuel to the fire, Wallich explained that the British naturalist Thomas Thomson was certainly 'better qualified in all respects than ten Schlagintweyts, or 10 similar German puffers, carrying large sails with little ballast.'[81]

In 1854 these 'German arch-puffers' were at the beginning of their scholarly careers, having only recently reached the age of majority; nevertheless, opinions were already deeply divided over their talents, future prospects and personal character.[82] The Bavarian brothers grew up in a respectable social milieu. Their father, Joseph

[80] Wallich to W. Hooker, 28.1.1854, RBGK, DC 55 E. Indian, Chinese & Mauritius & c. Letters 1851-1856.
[81] Wallich to W. Hooker, 31.1.1854, ibid.
[82] Robert Schlagintweit, the third-youngest brothers, had to apply for royal permission to embark on their Indian travels in September 1854, having still not reached the legal age of 21 at the time of departure; request to the Bavarian King, in Bayer. HStA. München Abt. II Geheimes Staatsarchiv, MA 72882, from 16.8.1854.

Schlagintweit (1791-1854), had in some sense already anticipated many of his sons' later traits and passions. He had himself been a keen traveller and self-made 'improver'.[83] Unlike his sons, however, Joseph studied medicine, gaining a doctoral degree from the Ludwig Maximilian University in Munich.[84] His qualification as a surgeon was followed by extensive travels throughout the German lands, where he visited and operated in numerous hospitals. His experiences culminated in a well-received treatise on eye-surgery, complemented with a description of a new medical instrument he himself had invented for operational purposes.[85] His son, Hermann, inherited the same entrepreneurial streak, developing an instrument for measuring curved lines, which became widely used throughout the Government departments of British India.[86]

Following his Central European travels, which brought Joseph Schlagintweit from Vienna to Prague, and from Berlin to Frankfurt am Main, he put down roots in Munich, where he founded a private hospital for eye surgery in 1822. Over time he greatly improved this field, while also writing numerous accounts on childbirth, medical treatments for the poor, and epidemic diseases – including cholera.[87] He assumed the directorship of Munich's Blind Institute (1837), and received not only the title as Royal Councillor in 1839, but also the Order of St. Michael in 1842. Joseph's continuous rise arguably inspired his sons also to seek forms of public acknowledgement.[88] Perhaps nothing better reflects the confidence that the Bavarian monarch Maximilian II placed on his skills than the fact that J. Schlagintweit was entrusted with operating on the king's mistress, Lola Montez.

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[83] The following account is mostly based on Emil Schlagintweit, 'Schlagintweit', *Allgemeine Deutsche Biographie (=ADB), herausgegeben von der Historischen Kommission bei der Bayerischen Akademie der Wissenschaften*, 31 (1890), pp. 336–348; Stefan Schlagintweit, 'Die Brüder Schlagintweit – ein Abriß ihres Lebens', in Claudius C. Müller, Walter Raunig (eds.), *Der Weg zum Dach der Welt* (Innsbruck et al., 1982), pp. 11-13; and Gabriel Finkelstein, 'Headless in Kashgar', *Endeavour: Review of the Progress of Science*, 23 (1999), pp. 5-9; Helmut Mayr, 'Schlagintweit, Emil', *Neue Deutsche Biographie*, 23 (2007), pp. 24-25.

[84] J. Schlagintweit, *De cataractarum origine: Dissertatio inauguralis medica* (Landshut, 1817).

[85] The so-called 'Regenbogenhaut-Häkchen, Iriankistron', for J. Schlagintweit, *Ueber den gegenwärtigen Zustand der künstlichen Pupillenbildung in Deutschland* (München, 1818).

[86] H. Schlagintweit, *Das Scalenrädchen (Revolving scale, Molette métrique)* (Würzburg, 1866); and BAAS, *Report of the 33rd Meeting* (London, 1864), 'Notices and Abstracts', p. 25.

[87] His improving impetus was reflected in works on the medical treatment of the poor (*Entwurf zur neuen Organisation des Medicinal-Armenwesens der Haupt- und Residenzstadt München*, 1828), a work on Cholera (*Praktische Erfahrungen und Beobachtungen über die epidemische Brechruhr in München*, 1837), as well as a guideline for midwives to treat newborns (1852).

[88] Almost thirty years later, in 1871, Robert Schlagintweit likewise received the Order of St. Michael from the Bavarian King; BSB Schlagintweitiana V.1.10, 'Correspondenz über öffentliche, wissenschaftliche Vorträge sowie über Decorationen geführt von Robert von Schlagintweit', Vol 10, 'Schweiz zwischen 11. November 1870 und 4. Februar 1871'.

Besides Joseph Schlagintweit's professional and social advancement, he managed to improve his financial means to such an extent that he could afford an excellent education for all members of his growing family. His marriage to Rosalie Seidl, the daughter of a well-heeled brewer, had brought in an attractive dowry, thus cementing the family's bourgeois status.[89] The young Schlagintweit brothers consequently attended the 'Königliche Alte Gymnasium' (since 1849, the Königliche Wilhelmsgymnasium) in Munich. In a short time, they emerged as outstanding pupils, with first grade marks especially in the field of geographical science, not least when the focus was on Asia.[90] As Cornelia Lüdecke has shown, German teachers at the time sought to provide a deeper understanding of the field of geography, which meant putting an emphasis on the relationship between the earth and its human inhabitants – an anthropocentric approach clearly influenced by the works of the eminent German armchair scholar Carl Ritter.[91] The latter had provided a classical account of this approach in his monumental work on 'Comparative Geography', whose original volumes can still be found in the old library of the brothers' former school, suggesting that they had encountered Ritter's oeuvre at a young age.[92]

In addition to their schooling, the ambitious father further improved his sons' *Bildung* by hiring private tutors, which meant that the young Schlagintweits acquired a privileged training in modern languages and the natural sciences.[93] This thorough education was complemented by an early engagement with the art of painting. While it remains unclear how many authorities may have educated the brothers in the use of colours and the techniques of representing landscapes, Hermann nevertheless did once make special note that the celebrated Munich artist Anton Zwengauer had instructed him in his first studies of nature.[94] Two surviving pencil drawings from the environs

[89] Rosalie Seidl (born 1805) died after a prolonged illness in 1839.
[90] See for the excellent marks of Hermann and Adolph their school certificates in the Archive of the DAV, Munich, and the final school examination of Robert, BSB Schlagintweitiana VI. 8.3.1-11.
[91] See Cornelia Lüdecke, 'Carl Ritters (1779-1859) Einfluß auf die Geographie bis hin zur Geopolitik Karl Haushofers (1869-1946)', *Sudhoffs Archiv*, 88 (2004), pp. 129-52.
[92] Lüdecke, 'Carl Ritters (1779-1859) Einfluß', p. 144. Ritter, *Die Erdkunde im Verhältniß zur Natur und zur Geschichte des Menschen, oder allgemeine, vergleichende Geographie, als sichere Grundlage des Studiums und Unterrichts in physikalischen und historischen Wissenschaften, 2. stark vermehrte und verbesserte Ausgabe, 19 Bände* [Comparative Geography] (Berlin, 1817-1859). Another schoolbook used was *Christ. Gottfr. Dan. Stein's kleine Geographie oder Lehrbuch der Erd- und Länderkunde für Schule und Haus*, a work that went through many editions from the 1840s onwards and was greatly indebted to the works of Ritter and A. v. Humboldt, see the 1855 edn. Leipzig, p. 1.
[93] Emil Schlagintweit, 'Schlagintweit', in *ADB*.
[94] Noted in Hermann, *Reisen*, Vol. 2, pp. 164f. Maike Trentin-Meyer has furthermore suggested that the influences of other landscape painters from Munich can be traced in their views from Asia, yet no proof to substantiate this connection could be found; idem, 'Die Indien- und Hochasienreise der Brüder

of Munich by Hermann and Adolph – of the 'Brunnthal' and the 'Blutenburg' (1846) – suggest that the two had indeed received early training to nurture their talents as landscape painters (figs. 2.1 and 2.2.).[95]

Fig. 2.1. Hermann Schlagintweit, 'Brunnthal'; size: 13.2 x 19 cm; source and copyright: Bamberg Staatsbibliothek, H.V.G. 47/1-200, No. 47/5, Depositum des Historischen Vereins Bamberg.

Schlagintweit', in Christoph Köck (ed.), *Reisebilder. Produktion und Reproduktion touristischer Wahrnehmung* (Münster et. al, 2001), pp. 41-51.

[95] Staatsbibliothek Bamberg, H.V.G. 47/1-200, Nos 47/5 and 47/1. Robert may not have taken part in this training, only one sketch from Asia survives by him; I thank my colleague S. Kleidt for the hint.

Fig. 2.2. Adolph Schlagintweit, 'An der Würm bei Blutenburg', May 1846, source and copyright: Bamberg Staatsbibliothek HVG 47/1, Depositum des Historischen Vereins Bamberg.

Their visual studies *en plein air* point to another crucial aspect of their education: their early impetus to examine nature in situ – further spurred by their reading of Humboldt's *Cosmos*, whose first parts were published in 1845.[96] Their shared 'drive into nature' proved so strong that Adolph became so 'impatient' that he almost did not finish his last years at school.[97] From 1846 to 1847, we thus find the closely attached brothers Hermann and Adolph embark on their first two major Alpine excursions, which resulted in the publication of their first treatises.[98] Crucially, their extensive research trips in the Alps allowed them to acquire a substantial stock of practical knowledge and experience 'in the field'. Yet, their trips also formed part of a thorough physical training (fig. 2.3). Consequently, the two were soon able to achieve some remarkable feats of mountaineering, very nearly accomplishing the first ascent of Monte Rosa (4,634m) in August 1851.

[96] Already in 1842 had the brothers started to make their first Alpine excursions with a guided trek into Austria, during which they saw the Zillertal, later returning via Innsbruck over the Fernpass up to Leutasch and Lermoos, visiting the Partnach Gorge, a spectacular gorge formed by a mountain stream.
[97] Emil, 'Schlagintweit', *ADB*.
[98] Hermann in the supplement No 13 to the *Allgemeinen Zeitung*, 13.1.1848 on 'Die Gletscher des Oetzthales'; for other early works, Emil, 'Schlagintweit', *ADB*.

Fig. 2.3. Portrait of Adolph and Hermann Schlagintweit in the Alps, ca. 1850. source and copyright: Archive of the DAV.

While the itinerant scholars continued their joint explorations of the German, Swiss, and Italian Alps from the mid-1840s for almost a decade, this period of study in nature coincided with the start of their university education in Munich. Hermann (1826-82), first encouraged by his father to follow in his footsteps, started to study medicine yet soon abandoned the subject to follow his passion for the sciences, and completed his geographical studies in July 1848 with a doctoral dissertation on angular measurements.[99] Adolph (1829-57), by contrast, received his PhD in 1849 in the field of geognosy, a branch of geology that investigates rocks and minerals in the study of the layers of mineral matter.[100] The third brother, Robert (1833-85), who joined the Alpine travels of his older brothers only in 1852 with a trip to the Zugspitze, undertook independent excursions in the autumn of 1853; he explored the

[99] Hermann Schlagintweit, 'Über Messinstrumente mit constanten Winkeln (Linsen- und Prismenporrhometer', *Dingler's polytechn. Journal*, 112 (1849), pp. 334–356.
[100] A. Schlagintweit, *Ueber die Ernährung der Pflanzen mit besonderer Rücksicht auf die Bedingungen ihres Gedeihens in verschiedenen Höhen der Alpen* (Munich, 1850). Geognosy as a branch of science was developed by Abraham Gottlob Werner, see his entry in the *Encyclopaedia Britannica* (Online Academic Edition, 2014), accessed July 2014.

mountain mass of the Kaisergebirge, a work that earned him a doctoral degree in geography in 1854.[101]

To be sure, the Schlagintweits were not absolute pioneers in tackling the Alps with scholarly goals in mind, yet they belonged to a new wave of scientific specialists in the mid-nineteenth century who started to take natural historical studies up to the highest regions of the Central European mountain chain. Since the European Middle Ages, there had prevailed a strong belief among peoples in Europe in the existence of supernatural phenomena in the massive mountain system. These beliefs, which included myths about dragons and ghosts, were so forceful that a more thorough exploration of the Alps had been impeded until the late seventeenth century.[102] Only then did naturalists gradually start to dismantle narratives about mountain spirits by carrying a range of scientific equipment (such as barometers, thermometers, and graphometers) higher up. They took measurements and collected natural specimens and species at ever-new altitudes. One of them was the Swiss naturalist Johann Jacob Scheuchzer (1672-1733), who had travelled extensively through the Swiss Alps at the turn of the eighteenth century. His works proved highly influential for future geological, meteorological, historical and cartographical studies of the mountain system, and were also a reference for the Schlagintweits.[103] Scheuchzer had no difficulty in reconciling his empirical approach with the conviction of God's creation of the mountain chain as part of his physico-theological programme, indeed, he also maintained a 'lingering belief in the existence of dragons'.[104]

Nineteenth-century itinerant geographers and geologists like the Schlagintweits, by contrast, sought to portray themselves as rational, scientific investigators of these elevated regions. The images and treatises that they produced on their travels found a ready market, not just in the German-speaking world. Indeed, the mid-century witnessed a European-wide craze for Alpinism, reflected in a nascent tourism industry and the foundation of several Alpine societies throughout the

[101] For his treatise, *Bemerkungen über die physikalische Geographie des Kaisergebirges* (Munich, 1854); the diploma is held at BSB Schlagintweitiana VI. 8.3.1-11.
[102] See Sean Moore Ireton and Caroline Schaumann, 'Introduction: The Meaning of Mountains: Geology, History, Culture', in idem (eds.), *Heights of Reflection: Mountains in the German Imagination from the Middle Ages to the Twenty-First Century* (Rochester, N.Y, 2012), pp. 1-19.
[103] See Johann Jacob Scheuchzer, *Natur-Historie des Schweizerlandes*, III Vols. (Zurich, 1716-18).
[104] Sean Moore Ireton and Caroline Schaumann, 'Introduction: The Meaning of Mountains: Geology, History, Culture', p. 10. See on Scheuchzer's physicotheology also Robert Felfe, *Naturgeschichte als kunstvolle Synthese. Physikotheologie und Bildpraxis bei Johann Jakob Scheuchzer* (Berlin, 2003).

continent and in the British Isles.[105] The brothers undoubtedly fuelled this contemporary interest among mountaineers and scholars alike, who then rightly regarded the Alps as one of the last understudied regions *within* Europe.[106] Indeed, most of the peaks remained unconquered well into the 1850s.

The Schlagintweits' scientific approach was heavily influenced by the work of Alexander von Humboldt (1769-1859), whose writings they had thoroughly studied and to whom they dedicated their first monograph, published in 1850.[107] Humboldt undoubtedly acted as a role model for a whole generation of naturalists during the early decades of the nineteenth century. To take but a few prominent examples, Charles Darwin and the son of Kew Director William Hooker, Joseph Hooker, both acknowledged the influence of Humboldt's overseas expedition on their careers as travelling scholars. Furthermore, Humboldt's *Personal Narrative* – his most famous American travelogue – remained for them both a constant source of inspiration and crucial point of reference.[108]

'Humboldtian science' – understood here as much an aesthetic programme as a scientific one – was based on personal observations 'in the field' and the extensive measuring of the natural world through an array of instruments. However, it is important to note that this was not strictly a 'German' way of conducting empirical science out in the open.[109] Rather, it combined a set of practices and scientific interests with often global reach (as in the fields of plant geography, terrestrial magnetism, and meteorology) that were loosely shared by an international community

[105] Peter H. Hansen, 'Founders of the Alpine Club (act. 1857–1863)', in *Oxford Dictionary of National Biography* (Oxford), online version, accessed 4 June 2014. The Austrian Alpine Club was founded in 1862, the German version in Munich in 1869, with Hermann Schlagintweit being one of its founding members.

[106] Paul Veyne, 'Bergsteigen. Eine bürgerliche Leidenschaft', in Beat Gugger et al. (eds.), *Berge, eine unverständliche Leidenschaft. Buch zur Ausstellung des Alpenverein-Museums in der Hofburg Innsbruck* (Wien et al., 2007), pp. 11-31.

[107] Hermann and Adolph Schlagintweit, *Untersuchungen über die physicalische Geographie der Alpen in Beziehungen zu den Phänomen der Gletscher, zur Geologie, Meteorologie und Pflanzengeographie* (Leipzig, 1850).

[108] Petra Werner, 'Zum Verhältnis Darwins zu Humboldt und Ehrenberg', *Humboldt im Netz*, 10 (2009), pp. 68-95; further examples of what some scholars have described as Humboldtianists, also in Britain, are given in U. Kirchberger, 'German Scientists'; Michael Dettelbach, 'Humboldtian science', in N. Jardine, J. Secord, and E. C. Spary (eds.), *Cultures of Natural History* (Cambridge, 1996), pp. 287-304.

[109] See the two cited works above. By considering also the aesthetic dimension of Humboldt's work and philosophy of science, I diverge from scholars who have tended to neglect this dimension in their definition of Humboldtian science; yet, it certainly formed an integral part of Humboldt's approach, which was pursued by many of his pupils, like the Schlagintweits. The best contextualisation and critique of the concept initially advanced by Susan F. Cannon in 1978 are Dettelbach, 'Humboldtian science'; and Kathryn Olesko, 'Humboldtian Science', in John Heilbron (ed.), *The Oxford Guide to the History of Physics and Astronomy*, 10 (Oxford, 2005), pp. 159-162.

of scholars that cut across national-political boundaries.[110] One aim of Humboldt's rigorously trans-disciplinary approach to physical geography was to capture the 'specific character' of a given landscape by collecting as much detailed data as possible, which could in turn be compared trans-regionally, indeed trans-continentally. In a sense, the scale of Humboldtian science was always local and global at the same time. The overarching concern was to formulate general physical laws out of a wealth of observational data, and thus to detect the 'interaction of forces' in nature that in Humboldt's view formed a 'general equilibrium'.[111] As he famously stated before his American travels, '[m]y single true purpose is to investigate the confluence and interweaving of all physical forces'. He thus sought to combine data collecting and classifying practices of the naturalist in order to achieve a holistic approach to 'terrestrial physics [as] a master-science'.[112] Humboldt's personal conviction that a good naturalist also had to be an inspired physicist was accepted by some, but certainly not all, contributors to natural history at the time.

The process of disciplinary specialisation in the sciences was, by the mid-nineteenth century, well on its way, and there were many scholars of the same generation as the Schlagintweits who would not have appreciated the all-encompassing approach of the brothers towards the study of nature. German universities, especially when compared with their British counterparts, underwent important reforms in the first half of the nineteenth century, and tended to place a stronger emphasis on rather specialised fields of research. This resulted in the foundation of chairs in newly circumscribed fields such as forestry, chemistry, mineralogy, etc., whose holders tended to criticise Humboldtian approaches in works of the field sciences.[113] Hence, despite the long shadow that Humboldt cast upon European science in the first half of the nineteenth century, ideals and scientific

[110] It is in this context also important to note that Humboldt himself wrote the bulk of his *American opus* whilst residing in Paris from 1804-1827, in close exchange and discussion with Parisian scientific communities while he manifested his scientific-aesthetic paradigm in over 20 volumes.

[111] Michael Dettelbach, 'Humboldtian science', p. 289f. The Schlagintweits had indeed formulated some generally accepted theories about the Alps as a natural system, governed by certain natural laws. See e.g. Robert Mayer, 'Die Verbreitung der Kulturflächen in den Ost-Alpen und ihre obere Grenze, geomorphologisch betrachtet', *Geographische Zeitschrift*, 33 (1927), pp. 113-138, 115.

[112] Michael Dettelbach, 'Humboldtian science', p. 290f.

[113] For important changes in the German university system, see Thomas Nipperdey, *Deutsche Geschichte 1800-1866: Bürgerwelt und starker Staat* (Munich, 1993), pp. 470-82; *Eugene Cittadino, Nature as the Laboratory: Darwinian Plant Ecology in the German Empire, 1880-1900* (Cambridge, 1990), pp. 22-25; Hans-Ulrich Wehler, *Deutsche Gesellschaftsgeschichte. Vol. 3: Von der 'Deutschen Doppelrevolution' bis zum Beginn des Ersten Weltkrieges 1849-1914* (Munich, 1995), pp. 417-29; and Harold Dorn and James E. McClellan III, *Science and Technology in World History: An Introduction* (Baltimore, Maryland, 1999), p. 309.

practices were gradually changing, leaving the Schlagintweits exposed to criticism from experts who focused on much smaller questions in their research.

In that sense, the brothers were transitory figures between competing scientific paradigms at the time. That is, while they had to cope with new developments in the sciences and processes of specialisation, their intellectual occupation with Humboldt still left a clear mark on the Schlagintweits' studies: in their first monograph, they focused on the 'physical geography of the Alps and their relation to the phenomena of the glaciers, geology, meteorology and plant geography', a work dedicated to Humboldt.[114] What further related the Schlagintweits' Alpine studies with the works of their role model and later mentor was their eagerness to visualise nature and its inherent forces. Already in the first book, the brothers included a variety of diagrams and lithographed watercolours of beautiful panoramas, yet always with a specific object of study in focus, most often Alpine glaciers. These views were accompanied with a wealth of observations and data, and an explanatory sheet – a visual technique later repeated for their images from Asia (figs. 2.4 and 2.5).[115] Their painted views from the Alpine glaciers had such a quality in the use of colours and contrasts that many depictions even managed to convey a sense of the depth and direction of the slowly moving masses of ice.

[114] For a widely accepted definition of Humboldtian science, see Susan Faye Cannon, *Science in Culture: The Early Victorian Period* (New York, 1978), ch. 3. The link between Humboldtian science and the Schlagintweits' research in the Alps and Asia was first noted in Claudius C. Müller et al. (eds.), *Der Weg zum Dach der Welt* (Innsbruck et al., 1982), and later retraced for the Schlagintweit's visual materials and measurements in the work of Maike Trentin Meyer (2000), Finkelstein and Felsch.

[115] See, e.g., Schlagintweit, *Untersuchungen über die physikalische Geographie*, Illustration No II, 'Der Pasterzengletscher', pp. 52-53; diagrams included, Illustr. V, 'Die Isogeothermen der Alpen', p. 269.

Fig. 2.4 Schlagintweit, 'Der Stock- und Marcellgletscher', source: Schlagintweit, *Untersuchungen über die physikalische Geographie*, p. 76f.

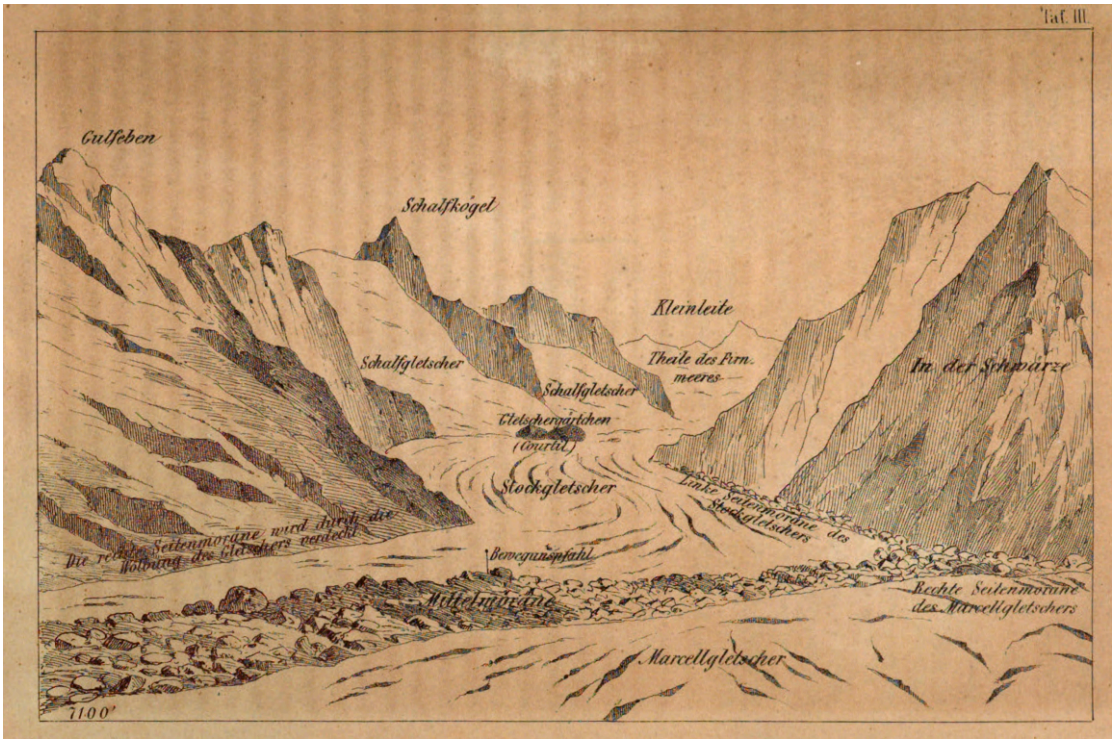

Fig. 2.5 Schlagintweit, explanatory sheet, inscribed with additional information on the painted view above. source: Schlagintweit, *Untersuchungen über die physikalische Geographie*, p. 76f.

Yet, to produce even greater 'Anschauungsmaterial' (illustrative material) of the topographical forms they encountered in the Alps, the Schlagintweits collaborated with a Berlin zinc plaster company to produce three dimensional mountain reliefs. These objects provided a tangible sense of the shapes of mountain ranges and valleys

to the viewers (figs. 2.6 and 2.7). The reliefs or 'galvanized models', which the brothers not only presented as gifts to royal benefactors but also sold to scientific institutions and private collectors, give us a sense of them as science popularisers.[116] Not only could these models be ordered and used for pedagogic purposes. The brothers also provided a cheaper series of stereoscopic photographs of these reliefs for the wider public.[117] The use of new techniques and visual aids indeed became a pillar of their research and scholarly reputation. In their later careers, too, the Schlagintweits never tired of experimenting with the most recent instruments, and new photography and print technologies in order to enhance the appeal of their work, which was otherwise heavily based on columns of data and somewhat dry prose.[118]

[116] In France, they were keen to a gift some of their Alpine treatises, a collection of maps, drawings and two mountain reliefs to the French Emperor in 1854, at the same time asking for a personal audience with Napoleon III. See letter Adolph to an unknown recipient, most likely Mr Feuillet à Paris, GStPK Berlin, 1 HA, Rep. 81, Gesandtschaften und Konsulate nach 1807. In England, in 1853, they spent a whole hour with Queen Victoria and Prince Albert, again using an Alpine relief to smooth the way for the distinguished royal encounter; Philipp Felsch, '14.777 Dinge. Verkehr mit der Sammlung Schlagintweit', in Friedrich Balke et al. (eds.), *Die Wiederkehr der Dinge* (Berlin, 2011), pp. 193-207.

[117] See, *Relief der Gruppe der Zugspitze und des Wettersteines in den bayerischen Alpen; nach aequidistanten Horizontalen. Im Maasstabe von 1:50000. Mit 1 geologischer Karte* (Leipzig, 1855), sold for 20 Thalers. Connected to popularising their findings were their *Stereoscopische Bilder nach Schlagintweit'schen Reliefen, daguerrotypirt im Maasstabe von 1:40000 der Natur*, with four photographs costing 4 Thalers. See on the pedagogic function of their visual materials, Bernhard Fritscher, 'Zwischen "Humboldt'schem Ideal" und ‚kolonialem Blick': Zur Praxis der Physischen Geografie der Gebrüder Schlagintweit', *Wissenschaft und Kolonialismus. Wiener Zeitschrift zur Geschichte der Neuzeit*, 9 (2009), pp. 72-97.

[118] For their later experiments in visualising the natural history of the Himalayas, see the images and tables in the appendix.

Fig. 2.6 Hermann and Adolph Schlagintweit, Relief of the Zugspitze and the Wetterstein in the Bavarian Alps, 'Galvanisierter Zinkguss von M. Geiss in Berlin'; source and copyright: ETH Zürich, Institut für Geochemie und Petrologie, Erdwissenschaftliche Sammlungen.

Fig. 2.7 Hermann and Adolph Schlagintweit, Relief of the Zugspitze and the Wetterstein in the Bavarian Alps, 'landscape view' from the intended angle.

Unlike their later publications on the Indian mission, parts of their Alpine treatises were immediately translated into other European languages.[119] The apparent appreciation of their early works was also reflected by the invitations they received to

[119] Adolph and Hermann Schlagintweit, *Observations sur la hauteur du Mont-Rose et des points principaux de ses environs* (Turin, 1853).

deliver papers at scientific societies and royal courts in Berlin, Paris, London, and elsewhere.[120] Evidently, these initial explorations within Europe, together with the skills they had thus acquired, prepared the ground for more ambitious schemes.[121] Above all, the brothers' early Alpine success led to personal and professional acquaintances that would open up the potential for an overseas employment.

One important stepping-stone for the Schlagintweits' future was to have attracted the attention of a group of eminent scholars in Berlin, then one of the leading scientific hubs of the German lands. Many of them had close ties to its Geographical Society (*Gesellschaft für Erdkunde zu Berlin*), itself founded in 1828 as the second oldest in Europe.[122] Notably the Society's president Dr Carl Ritter (1779-1859), who also held the chair in Geography at the Berlin University, and one of its honorary members, Alexander von Humboldt, acted as significant patrons of German geographical talents and overseas explorers.[123] While scholars have rightly stressed Humboldt's role as a 'science manager' and influential international patron, the less illustrious Carl Ritter was perhaps just as important in promoting transnational scientific collaborations (figs. 2.8 and 2.9). For instance, Ritter had played a crucial role in arranging Heinrich Barth's employment in a British-backed African exploration of 1849 by mobilising his various diplomatic and scientific acquaintances in London and Berlin.[124]

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[120] The Schlagintweits delivered, e.g., two lectures at London's Royal Society in January 1851 during their visit to England, letter from Adolph to William Hooker, London, 10.1.1851, RBGK, (DC), LI, German etc. Letters, 1841-55, p. 549.

[121] 'Note Dr M de la Roquette sur des ouvrages offerts par MM. Schlagintweit et sur leur prochain voyage dans l'Inde; Lue à la séances de la Commission centrale du 20 Octobre 1854', *Bulletin de la Société de géographie*, 7 (Paris, 1854), pp. 229-32.

[122] Karl Lenz, 'The Berlin Geographical Society 1828-1978', *The Geographical Journal*, 144 (1978), pp. 218-223, 218.

[123] For Humboldt as a promoter and organiser of transnational scientific exchange, see Ulrich Päßler, *Ein "Diplomat aus den Wäldern des Orinoko". Alexander von Humboldt als Mittler zwischen Preußen und Frankreich* (Stuttgart, 2009); Christian Suckow, 'Alexander von Humboldt und Rußland', in Ottmar Ette et al. (eds.), *Alexander von Humboldt: Aufbruch in die Moderne* (Berlin, 2001), pp. 247-264.

[124] Naranch, *Beyond the fatherland*, p. 237.

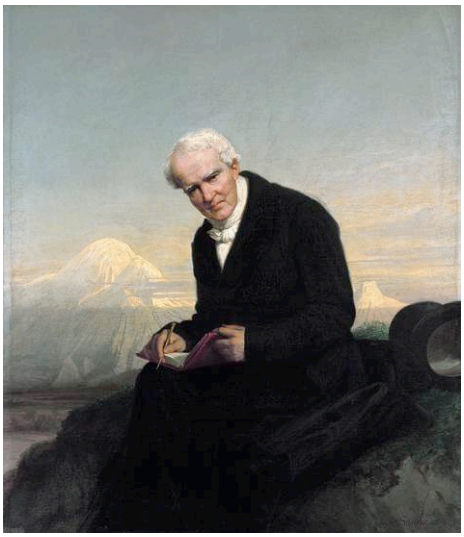

Fig. 2.8 Alexander von Humboldt, oil on canvas, by Julius Schrader (1859); source and copyright: Metropolitan Museum of Art, New York.

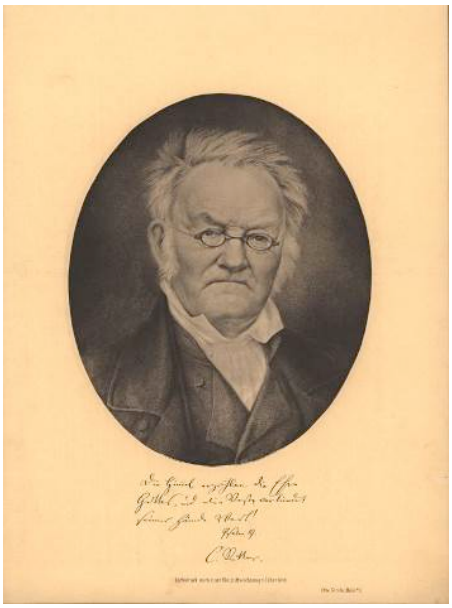

Fig. 2.9 Carl Ritter, portrait from 1859, source and copyright: Humboldt-Universität zu Berlin, University archive, ID 6962.

Crucially both men of science had also developed a strong interest in Asia's geographies and natural histories, and it is certain that the Schlagintweits' life-long engagement with Asia was strongly influenced by the works of these mentors.[125] At the same time, it should be noted that neither Humboldt nor Ritter, nor the geographer-cartographers Heinrich Kiepert, Heinrich Berghaus, and August

[125] Carl Ritter's monumental work, *Vergleichende Erdkunde,* in 19 parts (Berlin 1832-1859). This work almost exclusively treats the continent of Asia, yet begins with a part on Africa, and was originally intended to cover the entire surface of the earth. Also A. v. Humboldt, *Fragments de geólogie et de climatologie asiatique* (1831), and his *Asie Centrale. Recherches sur les chaînes de montagnes et la climatologie comparée* (1843).

Petermann pursued their Asiatic researches in scholarly isolation. On the contrary, a number of German scholars – those mentioned being only the most prominent – were in contact with British Company servants and metropolitan scientists about the Asiatic landmass.[126] These transcontinental networks of scholars engaged not only in a continuous academic dialogue and exchange of publications, but they also launched a number of collaborative works. These projects helped, as we will see, to integrate the German lands into the knowledge networks of British imperialism.[127]

Berlin as a hub of Indian and Central Asian geography

In the first decades of the nineteenth century, a number of systematic accounts on Indian and Central Asian geography, natural history, and mineralogical resources, were compiled and published in Berlin, and in the nearby Saxon town of Gotha near Erfurt. In Gotha was the centre of the publishing house of the Justhus Perthes Anstalt, where August Petermann produced his widely read journal, *Petermanns Geographische Mittheilungen*. Geographic and cartographic works by German scholars drew heavily on the accumulated data, observations and collections made by Russian and French travellers and missionaries, and also by East India Company servants in India, who – in line with the established hierarchies of science at the time – would often provide these materials for further analysis in Europe.[128]

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[126] Even though this travel is still significantly understudied, there was also one member of the Hohenzollern dynasty, Prince Waldemar of Prussia (1817-1849), who – supported by Humboldt – undertook a scientific expedition to India in 1844-46, resulting in a published treatise, Johann Gottlieb Kutzner (ed.), *Die Reise Seiner Königlichen Hoheit des Prinzen Waldemar von Preußen nach Indien in den Jahren 1844 bis 1846: aus dem darüber erschienenen Prachtwerke im Auszuge; mit dem Portrait des Prinzen, vier Karten und vier Schlachtplänen* (Berlin, 1857). During his trip, Prince Waldemar and his assistants collected a considerable specimen collection, among them 108 unknown species. After his early death, two German botanists, Fr. Klotzsch and August Garcke compiled a work, based on his personal notes, *Die Botanischen Ergebnisse der Reise des Prinzen Waldemar von Preussen in den Jahren 1845 und 1846, durch Dr. Werner Hoffmeister ... auf Ceylon, dem Himalaya und an den Grenzen von Tibet gesammelten Pflanzen* (Berlin, 1862).

[127] Ulrike Kirchberger, 'Deutsche Naturwissenschaftler im britischen Empire: die Erforschung der außereuropäischen Welt im Spannungsfeld zwischen deutschem und britischem Imperialismus', *Historische Zeitschrift,* 271 (2000), pp. 621-660.

[128] A useful analysis of the tensions involved in the dependence of metropolitan scholars on the collecting works of lay personnel overseas, and their at times considerable personal scientific ambitions is provided by Jim Endersby, '"From having no Herbarium." Local Knowledge versus Metropolitan Expertise - Joseph Hooker's Australasian Correspondence with William Colenso and Ronald Gunn', *Pacific Science*, 55 (2001), pp. 343-358.

Berlin, and to a lesser extent Gotha, can best be understood as 'peripheral emporia' for scientific knowledge on Asia's geography.[129] Berlin, in particular, was an important node where measurements were analysed and modified by *savants*, who in most cases had no direct subservience to the British East India Company. Their published works were then often re-transmitted into the scientific and imperial establishments of other European states. For instance, Humboldt's treatises on Central Asia's geography were widely consulted among the scholarly and administrative circles in Britain, the Russian Empire and India. The same applied to the armchair scholar and master synthesiser Carl Ritter. Years after the publication of his massive 'Comparative Geography', Ritter's volumes on Asia were still considered important enough that Peter Semenov, Secretary of the Imperial Russian Geographical Society, was sent to Berlin, following the Society's decision to have Ritter's oeuvre translated into Russian.[130] Especially the parts on the Asiatic regions of Russia and their neighbouring countries were to be made accessible and further improved by weaving in the most recent findings of explorations. In the end, Semenov remained in Berlin for three semesters, closely collaborating with Ritter on the translation while also preparing his own journey into Central Asia.[131]

Perhaps the most striking case of a scientific interlocutor between empires, with his seat in Berlin, was Alexander von Humboldt. In view of his unfulfilled desire to travel in the British territories in India and into the Himalayas, Humboldt had found a way to complement his American travels with a mission into parts of Central Asia on behalf of the Russian Empire in 1829. It was, in fact, the second expedition that Humboldt had undertaken within the colonial framework of a foreign state. Similar to his former journey through the Spanish Empire in the Americas, the Russian officials expected that Humboldt would provide useful and commercially applicable knowledge on the regions he traversed. The terms of his employment set out by Tsar Nicholas I and his minister of finance, Georg Cancrin, made clear that the Prussian

[129] And Asian philology: Wilhelm von Humboldt, for instance, also integrated many Asian languages into his linguistic studies, which found wide a reception among European scientific circles. I borrow the term from Hanna Hodacs, who used the term 'peripheral emporium' for an analysis of the importance of Sweden for the inner-European trade (and smuggling activities) of Asian goods in the 18th century.
[130] Ulrich Freitag, 'Ferdinand von Richthofens "Atlas von China" (Idee-Durchführung-Ergebnis)', *Die Erde*, 114 (1983), pp. 119-134, 121.
[131] Ibid.

naturalist was expected to deliver information on 'exploitable resources'; Humboldt ultimately agreed 'to report more on products and institutions than on people'.[132]

Even though Alexander von Humboldt might best be known for his American opus, he was, however, deeply involved in and respected for his engagement with the trans-Himalayan and Central Asian natural histories and geographies, in particular those regions' massive and complex mountain chains.[133] Notwithstanding the impossibility to explore the Himalayas, the Karakorum and the Kunlun Shan himself, Humboldt compiled significant works on their geography, mineralogy, climatology and living kingdoms. In fact, he personally regarded his book on *Asie Centrale*, first published in French in 1843, as 'a work, which has never been translated into English, but which is that in which, I think, I have brought forward more novel information than in any of my other publications.'[134]

To test his own assumptions and interpretations of the physical character of South and Central Asia against the eyewitness accounts of itinerant scholars, Humboldt was indefatigably concerned with securing first-hand observations from Company servants and other European travellers in those regions. One such important, although today largely forgotten, scientific 'informant' was the Prussian-born Leopold von Orlich (1804-1860), a travelling scholar with both geographical interests and military capacities as an officer in the Prussian *Kaiser-Alexander-Regiment*. Apparently 'tired' of the prolonged peacetime in Europe, von Orlich joined the British imperial army during the war against the Sikhs (1842-1843). During the campaign, he reached Kabul[135] where he made geographical and military observations that he forwarded in extended letters to Humboldt and Ritter in Berlin.[136] Prior to his

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[132] Aaron Sachs, *The Humboldt Current: A European Explorer and His American Disciples* (Oxford, 2007), p. 83. Humboldt was accompanied by other German naturalists, among them Gustav Rose (1798-1873), who later published an important study of Russia's mineralogical treasures, idem, *Mineralogisch-geognostische Reise nach dem Ural, dem Altai and dem Kaspische Meere*, II Vols. (Berlin, 1837-42).

[133] For Humboldt's crucial role in '*re*-discovering' South and Central America, see the insightful work by Dane Kennedy, *The Last Blank Spaces. Exploring Africa and Australia* (Cambridge: Mass, 2013), pp. 6ff.; and Mary Louise Pratt, *Imperial Eyes: Travel Writing and Transculturation, 2nd ed.* (New York, 2007).

[134] Humboldt to W. J. Hooker, 11.12.1850, RBGK, DC LI, German etc. Letters, 1841-55, 217, 6 Ha, 4.

[135] For a more thorough account of the Prussian-British negotiations over Orlich's involvement in the military campaign in Afghanistan, Kirchberger, *Aspekte*, pp. 390-391.

[136] Orlich, *Reise in Ostindien in Briefen an A. v. Humboldt und Karl Ritter [Voyage in the East Indies in letters to Humboldt and Ritter]*, II Vols. (Leipzig, 1845), which saw its third edition in 1858.

eastern campaign, von Orlich had attended lectures on geography by Ritter, and had personally befriended Humboldt.[137]

In addition to such German protégés, Humboldt was also acquainted with a number of Anglo-Indian naturalists in the 1840s and '50s. Among them ranked such figures as the British Resident in Darjeeling, Brian Houghton Hodgson, or the eminent Himalayan traveller Joseph Hooker (fig. 2.10).[138]

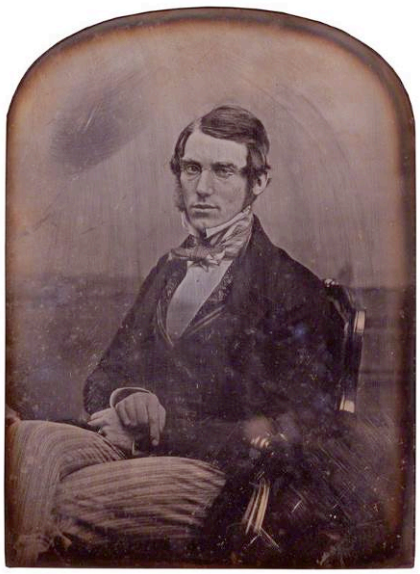

Fig. 2.10 Joseph Dalton Hooker, by William Edward Kilburn, daguerreotype, arched top, circa 1852, source and copyright: Primary Collection NPG P1027, National Portrait Gallery, London.

The detailed correspondence between Hooker and his aged Prussian confrère not only testifies how Humboldt's *Asie Centrale* was a widely read and authoritative source on the region's geography for British scholars and Company servants.[139] It also

[137] Yet, while Orlich's accounts on his Indian journey were based on 'calm and accurate observations', they were nonetheless 'characterised by a lack of originality [...] and did not quite correspond to the intellectual level of the two famous addressees'. Friedrich Ratzel, 'Orlich, Leopold von', *ADB*, 24 (1887), pp. 424-426.

[138] Writing to W. Hooker, Humboldt stressed the importance of having used Hodgson's observations as proof of evidence for his own earlier claims: 'It has given me great pleasure to receive a confirmation [...] of many guesses which I had ventured, on the subject of the soi-disant Table Land [of Tibet], - also on the question whether the Himalaya presents a continuous crest, clad with perpetual Snow [...] also whether my notions upon the limits of Eternal Snow, on the two slopes, and the causes of their apparent irregularity have been confirmed, on the spot, by an impartial and well-informed eye-witness', i.e. Hodgson. Humboldt, Potsdam, 11.12.1850, RBGK, DC LI, German Letters, 217, 6 Ha, 4.

[139] 'Respecting the Physical features of Eastern Thibet [...] Your general account is admirable. Plains, as you say, are but local features, and very limited ones: - the country is one of stupendous rugged mountain chains, & not of Plains or Tableland. I have the pleasant company of my old friend and College companion Dr. [Thomas] Thomson, (on the Scientific Mission to Thibet); he is a man of great enthusiasm and the highest scientific attainments [...] Dr. Thomson has visited the Karakorum Pass, and finds it as laid down in your map to Asie Centrale.' J. Hooker to Humboldt, Khassya, 23.9.1850, RBGK, JDH/1/9; Travel Journals and Correspondence: India, 1842-1911; pp. 482-4.

provides insights into how the Berlin-based scholar subtly influenced ongoing explorations in the East. Humboldt and the British naturalist managed to exchange long and detailed letters even during the latter's travels. Their correspondence dealt with a number of scientific conundrums in fields as diverse as plant geography, Indian topography, meteorology, mineralogy and glaciology. Humboldt, in fact, regularly supplied Hooker with long lists of unresolved questions that he urged the travelling scholar to address whilst still in Asia, thus subtly guiding the occupations and studies of his 'close friend'.[140] Partly flattered, partly stimulated by the expressed interests of this scientific authority, Joseph Hooker was eager to meet Humboldt's demands, and spared no time or effort to send long elaborations, sometimes illustrated with topographical sketches, to the Prussian scholar.[141]

After the publication of his travelogue[142], Hooker wrote to Humboldt about the immense influence the latter had exercised on his scientific pursuits, saying: 'I have felt so much the influence of your career, from my childhood, & owe so much to all you have done for science generally & for myself in particular that I do feel it a great privilege to have been permitted to write a book that has especially interested you.'[143] Humboldt, in turn, regarded some of Hooker's letters 'from the field' as so important that he secured their publication in British journals, relying on his close relations with a number of metropolitan men of science. In doing so, he self-consciously acted as a scientific intermediary between India and Britain.[144]

Another close collaborator of Humboldt, and himself an influential German scholar and editor was Heinrich August Petermann (1822-1878), who also acted as a crucial intermediary between Britain and the German lands (fig. 2.11). Petermann had been a member of the Royal Geographical Society since 1847 and had lived in Britain for many years, before returning to Germany following a dispute over his loyalty with other members of the RGS in 1854.[145] His career is an intriguing example of the role

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[140] Ibid.
[141] The archives in Berlin and London are filled with their correspondence during Hooker's Indian travels, see among many, SBB Berlin, Nachlass Humboldt, gr. K. 12, No. 113, Hooker to Humboldt, 4.12.1847; ibid., Nachlass Humboldt, gr. K. 8, No. 42, Hooker to Humboldt, Darjeeling, 25.7.1848, the letter comprises 18 pp.; Nachlass Humboldt, gr. K. 8. No. 41, J. Hooker to Humboldt, 26.4.1849, Sikkim, 20 pp., Nachlass Humboldt, gr. K. 8, No. 44, Hooker to Humboldt, Edinburgh, 1851, 10 pp.
[142] J. Hooker, *Himalayan Journals. Notes of a Naturalist in Bengal, the Sikkim and Nepal Himalayas, The Khasia Mountains, &c*., in 2 vols. (London, 1854).
[143] J. Hooker to Humboldt, Staatsbibliothek Berlin (SBB), Nachlass Humboldt, gr. K. 11, No. 10, Kew, 21.9.1854, 15 pp.
[144] Humboldt to W. Hooker, Potsdam, 11.12.1850, DC 51, 217, 6 Ha, 4.
[145] Naranch, *Beyond the fatherland*, p. 243.

of personalised knowledge, as his mobility entailed a transfer of skills from the British imperial centre to the European imperial periphery. As Bradley Naranch put it: 'Petermann's relocation to Germany, following years of extensive experiences in Britain with leading scientific societies and research facilities, provided an important impetus for the development of cartography, overseas exploration, and scientific imperialism in German society during the later 1850s.'[146] Humboldt also considered Petermann as a vital source of information from the centre of the British Empire: after Petermann's departure, he wrote to the Prussian envoy in London, Carl Christian (von) Bunsen, that 'it is a great loss for German geography that he did not stay close to the source on the happy island', meaning above all Petermann's information channels into the RGS and other scientific bodies in the British capital.[147]

Fig. 2.11 August Petermann, German cartographer and science promoter, source: *Illustrirte Zeitung*, 51 (1868), p. 7.

The willingness of German experts of Indian and Central Asian geography to collaborate with British scholars – both at home and in the colonies – found a ready expression in a joint publishing project. Preliminarily termed *Traité de géographie, destiné à l'instruction des écoles de l'Indoustan*, this work was supposed to be compiled by the Berlin-based geographer Heinrich Berghaus (1797-1884), another leading cartographer in Europe at the time. Berghaus' main goal with this textbook was to transfer the values and norms of 'western' geographical science to a culture

[146] Idem, *Beyond the fatherland*, p. 244; see for a literary adaptation of Petermann's life, Philipp Felsch, *Wie August Petermann den Nordpol erfand* (Munich, 2010).
[147] Alexander von Humboldt, *Briefe von Alexander von Humboldt an Christian Carl Josias Bunsen,* newly edited by Ingo Schwarz (Berlin, 2006), 30.12.1854, p. 184.

whose religious leanings had led, in his view, to quite different geographical conceptions among the peoples of India.[148] Berghaus thus described the textbook as being intended 'pour la propagation des élémens [sic] des Sciences géographiques parmi la jeunesse d'un peuple, dont l'imagination, en vertu des idées religieuses, est toute une autre, que celle des peuples chrétiens.'[149]

Once Berghaus had finished the first draft, Humboldt reviewed the manuscript and had it sent through Joseph Hooker to the respected botanist and Oriental scholar Brian Houghton Hodgson (1800-1894), then resident in Darjeeling.[150] Hodgson had apparently started a correspondence with Humboldt through the mediation of Joseph Hooker.[151] As David Arnold has shown, this was a blessing to Hodgson, who had tried for years to engage in 'effectual communication' with leading European naturalists – or, as he had put it, with one of the 'real "ministers & interpreters of nature"'.[152] According to Humboldt, it was Hodgson who had initiated the joint geographical work.[153] After having received the manuscript, Hodgson was now supposed to translate the text from French into English, as it was intended for the instruction of Indian pupils in colonial schools.[154]

After a successful start, which saw the completion of the first part and the accompanying 'Atlas' of the *Traité*, this collaborative project came to a standstill. Humboldt, determined to complete it, frequently enquired about the state of the work. In a letter to William Hooker, he once more expressed his hope to finish the book, praising Brian Houghton Hodgson as 'a man for whom I entertain a high respect, because of his generous efforts to promote education and civilization.'[155] In the end, however, the project did not materialise, arguably due to a lack of support by the Indian Government.[156] Yet, the example of the Indian schoolbook is evidence that

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[148] Berghaus to William Hooker, Potsdam, 21.9.1851, RBGK, DC LI, 23.
[149] Ibid., and Berghaus to William Hooker, Potsdam 15.9.1849, same folder.
[150] Ibid.
[151] David M. Waterhouse (ed.), *The Origins of Himalayan Studies: Brian Houghton Hodgson in Nepal and Darjeeling 1820-1858* (Abington et al., 2004).
[152] Hodgson to Alexander Johnston, 20.6.1835, quoted from David Arnold, 'Hodgson, Hooker and the Himalayan Frontier, 1848-50', ibid., pp. 189-205, 194.
[153] Humboldt to William Hooker, 11.12.1850, RBGK, 217, 6 Ha, p. 5: 'Have you heard any more about the work with which Mr. Hodgson empowered me to charge our Geographer Berghaus?'
[154] Anon., 'Science', *The Westminster Review. American edition* (New York, 1863), pp. 117-124, 117-118. Humboldt to W. Hooker, Berlin, 22.4.1849, RBGK, DC 51, p. 327
[155] Humboldt to William Hooker, 11.12.1850, RBGK, 217, 6 Ha, p. 6.
[156] *The Westminster review, American edition* (New York, 1863), p. 117ff. Further details about the affair can be found in the compilation of the correspondence of Humboldt with Berghaus, idem, *Briefwechsel Alexander von Humboldt's mit Heinrich Berghaus aus den Jahren 1825 bis 1858*, edited by Hermann Costenoble, III Vols. (Jena, 1863).

German scholars were respected authorities on Indian geography, and that joint publications created strong bonds between German and British scholars that could be mobilised for shifting purposes.

One such purpose was to secure employment for talented German scholars and explorers. When the Schlagintweit brothers entered the stage and made a name for themselves in the late 1840s and early 1850s, they could readily tap into these dense scholarly networks. Especially Humboldt, Ritter, and the Prussian envoy in London, Bunsen,[157] maintained professional and close ties with a number of leading British men of science who were active in the Royal Society or in various other learned institutions, including the militarily, politically and commercially inclined *Royal Geographical Society*.[158]

It is unclear when precisely the brothers formed the idea to embark on an Indian and Himalayan expedition, yet it is reasonable to assume that the plan emerged between 1849 and 1850. In May 1849, Adolph and Hermann left Munich. To pursue their *Habilitation*, they settled down in the Mecca for geographical science in the German-speaking world: Berlin. Certainly, Humboldt, in his many meetings with the brothers since their first acquaintance in June 1849, made no secret of the vast opportunities awaiting European scholars in the Himalayas, especially those who were experienced mountaineers. As the brothers had already made comparisons between the Alps and the Himalayas in their first book, it now seemed promising to complement their studies in Europe with a major scientific expedition into the trans-Himalayan region – and at best into the imperfectly known mountain stretches of Central Asia.

While Humboldt enthusiastically endorsed the brothers' early pursuits, other German scholars were far more critical about their abilities, especially when set against their extensive ambitions. While the perceived wisdom has it that the

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[157] On Bunsen's life, his standing and connections in England: Wilma Höcker, *Der Gesandte Bunsen als Vermittler zwischen Deutschland und England* (Göttingen, 1951); Klaus D. Gross, *Die deutsch-englischen Beziehungen im Wirken Chr. C. J. von Bunsens* (Diss. Würzburg, 1965); and Frank Foerster, *Christian Carl Josias Bunsen: Diplomat, Mäzen und Vordenker in Wissenschaft, Kirche und Politik* (Bad Arolsen, 2001).

[158] The history of the RGS, by far the wealthiest and most influential geographical society of its time, clearly demonstrates that, over the course of the nineteenth century, institutionalised geography could become directly 'woven into the fabric of state imperial power'. Morag Bell, et al., 'Introduction – Geography and imperialism, 1820-1940', in Morag Bell et al., *Geography and imperialism, 1820-1940* (Manchester, 1995), pp. 1-12, p. 8. For the strong 'military emphasis' of the RGS during the first decades of its existence, D. R. Stoddard, 'The RGS and the "New Geography": Changing Aims and Changing Roles in Nineteenth Century Science', *Geographical Journal*, 146 (1980), pp. 190-202.

Schlagintweits achieved an undisputed international reputation through their Alpine treatises, this chapter shows, by contrast, that opinions greatly differed on this point from the very start of their careers. To prove the claim, it is useful to consider their *first* attempt to embark on an Indian scientific voyage in 1852. This was ultimately an unsuccessful endeavour, whose history has been entirely ignored in the secondary literature. However, with fresh sources at hand, we can reconstruct this early attempt to secure Prussian state allowances for a major scientific mission, and thereby also shed light on the ambiguous perceptions that also German scientists had of the brothers, long before they would become the focus of an international polemic over their Asiatic travels (1854-58). Their initial failure also requires closer investigation, not least because it serves to show that many of the tropes of the later 'Schlagintweit controversy' had already appeared in previous years, albeit on a much smaller scale.

On 12 May 1852, the Prussian monarch Frederick Wilhelm and his government received an 'immediate submission' (*Immediateingabe*) by Adolph Schlagintweit on behalf of himself and his brother Hermann. The purpose of the submission was twofold. First, Adolph sought again to obtain from the Philosophical Faculty of the Berlin University his *Habilitation*, which had been declined to him the year before. He now wanted to make up for the earlier setback by proving to the Prussian Government that his scientific pursuits indeed had considerable value. The second objective was to petition for the Prussian monarch's support for a scientific expedition to the Himalayas, to be carried out by the two brothers 'on public expenses'. Crucially, both dimensions of the petition were inextricably linked, since the king's granting of his financial patronage for the proposed Himalayan travel essentially depended on a positive evaluation of Adolph's qualifications and earlier work. To enquire about these matters, Karl Otto von Raumer, the conservative minister of education in Prussia, requested a formal report to be issued both on Adolph's renewed application for the *Habilitation*, hence the licence to teach at university level, which he had submitted to the Berlin University some weeks earlier, and on the scholar's general competence, not least with a view to completing such a strenuous overseas exploration.[159]

[159] The material cited in the following analysis has, to date, been overlooked, GStaPK Berlin, I. HA Rep. 76 Ve, Sekt. 1 Abt. XV Nr 189, 'Wissenschaftliche Reisen der Gebrüder Schlagintweit nach Indien, Hochasien, sowie die Ausstellung und Benutzung der von denselben mitgebrachten Sammlungen'.

The advisory scholar charged with compiling the official report was Christian Samuel Weiss (1780-1856), a notable German mineralogist born in Leipzig, who had by then become professor in mineralogy at the Berlin University and also director of the Cabinet of Mineralogy. Rather unfortunately for Adolph, Weiss had also sat on the committee that had previously declined his *Habilitation*, and Weiss was now explicitly expected to draw on his previous acquaintance with the young scholar for his evaluation.[160] In particular, von Raumer asked Weiss to 'deliver a report on whether the scientific results of [Adolph] Schlagintweit are in all regards so excellent as to employ him on public expenses with geological and physical researches in the mountain system of the Himalayas [...] and whether his petition can be granted permission with full confidence in his scientific and other capabilities to carry out such a task to a satisfying end.'[161]

In his formal reply to the government, Weiss provided a lengthy assessment of the petition, and of the perceived scientific qualifications of the brothers – or, in some regards, rather a lack thereof:

> 'Concerning the individual aptitude of the two brothers Schlagintweit for such a travel scheme, it has to be fully acknowledged that both are able, enduring and experienced mountaineers, who do not shy away from pains and hardships. [Both] are precise observers in the field of physical geography, whose tediously compiled observations [...] are useful and thankworthy contributions to physical geography, without being able to claim a rank amongst important discoveries.'[162]

In restating the reasons for Adolph's previous failure to obtain his *Habilitation*, Professor Weiss continued by acknowledging time and again the 'physical endurance' of the brothers, which would surpass that of 'many others'; however, he also pointed to the perceived gaps in their scientific competence. That is, 'when [...] their joint work on the physical geography of the Alps was carefully examined last year, it seemed that, despite the fact their talent and their achievements as observers were duly praised, their professional qualifications seemed not to be without fault, and not everywhere thorough enough, [especially] for lecturers at a

[160] Letter to 'Geheimen Bergrath u. ordentl. Professor Herrn Dr. Weiss,' Berlin, 19.6.1852, GStaPK, ibid, all translations are mine.
[161] Ibid.
[162] The report by Weiss to von Raumer, Berlin, 16.8.1852, ibid.

university.'[163] This was a direct critique of a colleague, since Hermann Schlagintweit, who had successfully received his *Habilitation* under Carl Ritter from the Berlin University in 1850, had started to lecture as a *Privatdozent* for 'physical geography' at the Berlin University 1852, giving classes especially on meteorology.[164]

In focusing in particular on Adolph's works in the field of geology, Weiss' report further stated that 'they, too, provide evidence of tedious and meticulous observing; the general description, however, was [...] merely a repetition of the already known conditions. It would thus go too far to consider these results as excellent.'[165] Hence, while the professor stressed above all the Schlagintweits' skills as travelling and observing scholars, he subtly criticised that these empirical results were not adequately used to alter general scientific understandings of, in this instance, Alpine geology. In other words, no higher scientific theories were gained from the mosaic of local observations the brothers had gathered in the field. In hindsight, this was apparently the Achilles' heel of the Schlagintweits in general, as they were to be confronted with the same criticism regarding the results of their future travels to the East.

Finally, Professor Weiss turned to a lecture 'On the geological structure of the Alps' that Adolph had attached to his application. While the mineralogist had judged Adolph's joint publication with Hermann on Alpine 'physical geography' to be rather uninspiring, he continued that 'One could use the term [excellent] even much less with regard to the content of the lecture.' The reason was that Weiss saw it as merely 'an attempt to synthesise foreign accounts of the most recent times', thus indicating that Adolph possessed only 'an ephemeral personal acquaintance with Switzerland' – despite dwelling upon this Alpine region. Even worse, Adolph seemed perfectly unacquainted with, or had failed to acknowledge, the results of leading scholars in the field such as the Zurich-born geologist Johannes Konrad Escher (1767-1823).[166] Here, too, Weiss raised a point of criticism that would later play a significant part in the international controversy over the Schlagintweits' Asiatic expedition, as it relates to

[163] Hermann Schlagintweit, who had successfully received his Habilitation from the Berlin University started to lecture there in 1852.
[164] H. Schlagintweit, *Über die Vertheilung der mittleren Jahrestemperatur in den Alpen. Habilitationsschrift* (Munich, 1850). All the lecture classes of the Berlin University are online accessible; see for Schlagintweit, e.g. http://digi-alt.ub.hu-berlin.de/viewer/image/DE-11-001717204/11/#head.
[165] Ibid.
[166] Ibid.

the lack of *acknowledgement* that many British scholars felt the Schlagintweits had given to their predecessors.

To complete his judgement on the brothers' ineptitude, Professor Weiss finally considered the work Adolph had resubmitted to the Philosophical Faculty at the Berlin University for his 'renewed application for the Habilitation' in the field of geognosy. According to the report, Adolph had failed 'to provide a clear and commanding understanding of the incredibly fragmented mountain range of the Monte Rosa', because he had not become sufficiently familiar with the area itself. According to Weiss, '[i]t would [...] require a considerably longer and more often repeated stay' in situ to gain such a thorough knowledge with the local rock formations, a knowledge 'that was not to be hypothetic, but grounded in actual observation'.[167] If we take this criticism at face value, it would seem that Adolph had from early on a tendency to literally cover too much ground; to spread his scientific investigations over too large an area, leading him to make scientific judgements on regions he was less familiar with, and to attempt more scientific disciplines than his academic education had prepared him to succeed in.

In conclusion, Weiss's report to the Prussian government ended with a negative evaluation of the petition. He even suggested that further scientific training was required by Adolph Schlagintweit in the field of geology 'before he embarks on such an important geognostic voyage such as the one into the Himalayas'.[168] Building on this dissection of their scientific qualities and previous Alpine research, Weiss suggested that while the Schlagintweits would arguably excel in collecting scientific observations and specimens in the Himalayas, their 'analysis in situ, and the scientific opinions [that would be later] grounded in them, would not sufficiently guarantee scientific results worthy of the modern progress in the sciences.'[169] It was thus from early on that the Schlagintweit brothers' personal scientific ambitions would not always match the perceptions held by others of their qualifications.

To be sure, Samuel Christian Weiss was an expert in the field of mineralogy, and his more narrow expertise sat uncomfortably with the much broader aspirations of the brothers and their Humboldtian tendency to engage in holistic studies of a given region. Indeed, the brothers' scientific paradigm stood in growing tension with the

[167] Ibid.
[168] Ibid.
[169] Ibid.

trend for increasingly specialised studies. This tension is reflected in the report that the Ministry of Education compiled for the Prussian king, which copied entire passages of Weiss's statements. Weiss – and the Ministry of Education – stressed that the Schlagintweits' proposed Himalayan exploration lacked a clear scientific objective, and thus should not be carried out at considerable public expense.[170] In the eyes of the professor and the government administrators, the brothers' proposal for a rather loosely defined trans-disciplinary investigation of the enormous mountain chain was not sufficient; rather, a clear-cut geographical 'problem' – an *explicandum* – was needed to justify the large sums of money necessary for such a major undertaking in this age of advancing scientific specialisation, and growing bodies of literature to be mastered in each discipline.[171]

Yet, before Frederick Wilhelm decided to decline the Schlagintweits' petition to receive state support for the scheme, he informed von Raumer that 'I wish first and foremost that you also obtain the opinion of [...] von Humboldt, who is acquainted with the brothers Schlagintweit'.[172] This request reflects the appreciation A. v. Humboldt enjoyed as scientific advisor to the Prussian monarch. Yet, the fact that the brothers had earlier strategically nurtured their relation with the king also played a role. To establish their names with Frederick Wilhelm IV, they had, for instance, used Humboldt as their go-between to present scientific gifts to the monarch, which they hoped would reflect their scholarly achievements and potential.[173]

When Humboldt was consulted on the matter, his formal reply must be regarded as more than only a recommendation for the projected scheme of the Schlagintweits; indeed, it was also a defence of his own scientific paradigm – in view of the specialising ambitions and attacks of his academic contemporaries.[174] Humboldt stated that '[t]he opinions, which I hereby [express?] about these so scientifically excellent and multi-talented young men, are not based on personal contact and impressions acquired through individual conversations', which, of course,

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[170] See the draft of the formal report to the King, GStaPK, Berlin I. HA Rep. 76 Ve, Sekt. 1 Abt. XV Nr 189, Berlin, 24.9.1852.
[171] Report by Professor Weiss, GStaPK, Berlin I. HA Rep. 76 Ve, Sekt. 1 Abt. XV Nr 189, 16.8.1852.
[172] Friedrich Wilhelm IV, 'An den Minister der geistlichen Angelegenheiten' von Raumer, Sans-Souci, 6.10.1852, GStaPK, Berlin I. HA Rep. 76 Ve, Sekt. 1 Abt. XV, No. 189.
[173] Staatsbibliothek zu Berlin, Slg. Darmst. Nachlass A. v. Humboldt, gr. K. 11, No. 50.51, letter Hermann to Humboldt, 19.3.1852, comprising four pages and a printed and coloured geological map, showing the Eastern and the Swiss Alps, a gift for 'His Majesty the King'.
[174] Humboldt was asked for his report on 14.10.1852, GStaPK, Berlin I. HA Rep. 76 Ve, Sekt. 1 Abt. XV, No. 189.

was a blatant lie.[175] Rather, Humboldt claimed to have based his judgement of the brothers only on his 'close acquaintance' with their published Alpine works.

Because Humboldt regarded the brothers as his talented pupils, the report he issued was overly imbued with praise. He purported that the brothers' 'important treatise on "The Physical Geography of the Eastern Alps" encompasses more [findings] than any other recent [work] on a specific mountain range'.[176] He then enumerated those fields in which he claimed the brothers had excelled, which stands in marked contrast to the critical appraisal by Professor Weiss on their supposed lack of specialised knowledge. Humboldt, on the contrary, alluded to the important trans-disciplinary results the brothers had acquired, which related to 'the formation of the soil, geognostic views on the formation of valleys, the distribution of the heat in the earth's interior and in the air, glaciers, the limit of the eternal snow[,] the nature and stratification of rocks, and the limits of vegetation.'[177] Against the charge that the brothers were intellectually overreaching, Humboldt argued that their 'great range of miscellaneous observations gives a satisfying impression of the current state of the sciences' and further praised their 'talent for graphic depiction, [and] a long and proven experience in mountaineering'. These academic qualifications were 'combined with this most important characteristic of a traveller, namely audacity and endurance in the pursuit of such schemes.'[178]

The aged naturalist further backed the idea of a Schlagintweitian Himalayan expedition, one that would necessarily take them partly through British controlled territories, by alluding to the international reputation the brothers had purportedly secured through their Alpine studies. According to him, the brothers had 'acquired not through recommendation, but through published work – the only source of impartial evaluation, an outstanding esteem in a country [Britain], where one is overly parsimonious with praise, especially to foreigners.'[179] In view of their supposed 'industriousness [...] and fondness of thorough research', Humboldt concluded that the brothers had chosen a suitable and promising object of study. 'The Himalayan

[175] Far from being a detached referee, it should be noted that Adolph Schlagintweit, for instance, soon assisted Humboldt in preliminary works for Humboldt's Cosmos. Staatsbibliothek zu Berlin, Slg. Darmst. Nachlass A. v. Humboldt, gr. K 11, No. 53, Berlin, 18.12.1851. Humboldt's formal report, compiled 27.11.1852, survives as a transcript ibid., the translations are all mine.
[176] Humboldt's 'report', 27.11.1852 in Potsdam, GStaPK, I. HA Rep. 76 Ve, Sekt. 1 Abt. XV, Nr. 189.
[177] Ibid.
[178] Ibid.
[179] Originally: 'eine ausgezeichnete Achtung in einem Lande erworben, wo man besonders für Ausländer im Loben überökonomisch ist.'

mountains', he stated, 'will present a stimulating area for scientific investigations for another century. After all that the two brothers have not only promised, but also achieved, and judging by their acquired skills [...] one can expect that their stay in India would prove of *great value* to the sciences.'[180]

The expedition in this format, framed as a Prussian-only initiative, was never to take place.[181] However, the importance of this first attempt was that it had introduced the general idea of such a scheme to the Prussian monarch, and given Humboldt's words of praise, had also established the brothers' names with the king. To be sure, this initial failure did little to quell the Schlagintweits' eagerness to undertake an ambitious Himalayan expedition, for which they had already nurtured ties with the British scientific and political establishment. As the brothers had been acutely aware, no scientific expedition into British India was feasible without the concession of free passage by the Court of Directors in London. The East India Company carefully channelled and restricted access to their colonial possessions, fearing the intrusions of outsiders who may undermine their hegemony in India – the most important British overseas colony at the time. It was even claimed that Humboldt had been denied access to India precisely because of his outspoken critique of colonialism – which the rulers of the EIC feared might stir trouble.[182] To realise a Himalayan expedition under whatever flag in the future, it had thus been crucial from the start that the brothers established a reputation in the British Isles as capable naturalists but politically neutral observers. For this purpose, the long-established networks of their mentors could now be mobilised.

Given the high esteem Carl Ritter had in British academia, the Schlagintweits turned to him prior to their first trip to England in 1850 in order to 'kindly ask you to provide us with some recommendations [...], especially to the directorates of the great ethnographic and other collections'.[183] 'The most perfect admiration' that Ritter

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[180] Ibid., emphasis mine.

[181] This was to the great distress of Humboldt, who complained about Raumer having convinced Frederick Wilhelm IV to refuse his support for this *Prussian* travelling scheme, wrongly contextualised in Finkelstein, 'Conquerors of the Künlün?'. For Humboldt's frustration with Raumer's influence over the king, see *Letters of Alexander von Humboldt written between the years 1827 and 1858 to Varnhagen von Ense. Together with extracts from Varnhagens diaries* (London, 1860), diary entry, 9.9.1853, pp. 214-16.

[182] Kurt-R. Biermann and Ingo Schwarz, 'Der Aachener Kongreß und das Scheitern der indischen Reisepläne Alexander von Humboldts', *HiN*, 2 (2001); article at www.uni-potsdam.de/u/romanistik/humboldt/hin/biermann-schwarz.htm, accessed Aug. 2014; Jean Théoderides, 'Humboldt and England', *The British Journal for the History of Science*, 3 (1966), pp. 39-55.

[183] Hermann to Ritter, 20.7.1850, SBB, Nachlass Ritter: Hermann Schlagintweit, 85-85a.

enjoyed there meant, they assured him, that 'only a few words' would secure them 'with an excellent reception'.[184] Equipped also with letters from Humboldt and Heinrich Wilhem Dove (1803-1879), professor of physics and, since 1849, also director of the Prussian Meteorological Institute, the brothers received a warm welcome from many eminent British scholars during their stay between December 1850 and January 1851. They frequented several scientific institutions in London, but also visited scholars in both Oxford and Cambridge, meeting there such distinguished polymaths as William Whewell, then Master of Trinity College, who had coined the term 'scientist' in 1843 at a meeting of the recently founded (1831) *British Association for the Advancement of Science*.[185]

Crucially, Adolph and Hermann Schlagintweit presented themselves in 1850/51 to many of the same British naturalists and science administrators who would later support their appointment to British India.[186] Yet, they also encountered those who sought to obstruct their scheme. For instance, they were introduced to the renowned Danish-born surgeon-naturalist Nathaniel Wallich (1786-1854). Wallich had made a long and successful career in colonial India himself, above all by clinging to the position as superintendent of the Calcutta Botanic Garden from 1815-46, then one of the most prestigious scientific offices outside of Europe.[187] Following his prolonged stay in the Company service, Wallich had settled down in Britain in 1847 as a respected scholar. His elevated status was cemented in his appointment as Vice-president of the *Linnean Society*, and of the *Royal Society* in 1852 – the same institution that would later officially back the recruitment of the Schlagintweit brothers.[188]

The brothers at first profited from their acquaintance with Wallich, as Adolph lectured in December 1850 'at the request of the President' at the Linnean Society on

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[184] Ibid.

[185] Hermann Schlagintweit to John Couch Adams, St John's Library, Cambridge, Adams papers, 13/32/1, 5.1.1850. Besides the astronomer Couch (1819-1892), the Schlagintweits also met with William Hopkins (1793-1866), a mathematician and geologist.

[186] A meeting with the royal family also proved successful. Adolph Schlagintweit noted that 'Lord Palmerston', the future Prime Minister, 'had the great kindness of offering us to be presented to Prince Albert' in 1850. The latter, husband of Queen Victoria who reigned from 1837-1901, acted as an important patron for German musicians and artists in England, but also supported scholars. Adolph to John E. Gray, 19.12.18[5]0, John Edward Gray papers, 1783-1884, archives of The American Philosophical Society.

[187] Arnold, 'Plant Capitalism'.

[188] Roger de Candolle and Alan Radcliffe-Smith, 'Nathaniel Wallich and the Herbarium of the Honourable East India Company', *Botanical Journal of the Linnean Society*, 83 (1981), pp. 325-48; G. S. Boulger, 'Wallich, Nathaniel (1785–1854)', rev. Andrew Grout, *Oxford Dictionary of National Biography* (2004); online edn, May 2005, accessed 24 April 2012.

his Alpine research. His elaborations were also published in the Society's own journal.[189] Turning into more than a superficial contact, Nathaniel Wallich still offered in 1851 to 'charge himself with making the abstract' for a Schlagintweit publication, destined for *Hooker's Journal of Botany and Kew Garden Miscellany*.[190] In Wallich, the Schlagintweits met a non-British scholar who had successfully seized the opportunities offered to him in the Company's eastern possessions, and who later returned to Britain as a member of the inner circles of its scientific establishment. Wallich demonstrated to them how a former scientific 'outsider' could rise to fame and reputation in the service of a foreign empire, and his respectable career in science may have acted as a blueprint for the Schlagintweits' own scholarly ambitions in British India. Yet, the brothers' acquaintance with Wallich later turned sour, as the latter's harsh judgements on the brothers' lack of ability and social comportment have clearly shown. Wallich's rejection was arguably the result of the brothers' presumptuous and often rude behaviour, which would estrange them from numerous international colleagues over their careers.

Around the mid-nineteenth century, few German naturalists would have travelled to London without paying a visit to the Royal Botanic Gardens in Kew. This important research institution collected and cultivated the botanical treasures and profitable plants of Britain's global empire while being strongly committed to the 'ideology of improvement'.[191] Formerly directed by Joseph Banks, himself a strong promoter of the exchange and cultivation of cash crops throughout the British Empire[192], the Gardens had since 1841 been under the guidance of William Hooker (1785-1865).[193] Given his influential position and botanical knowledge, the Director was another crucial figure the Schlagintweits were keen to meet.

Again, old friendships proved useful. Building on a prolific correspondence that went back several decades, Humboldt paved the way for his pupils to become

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[189] Adolph Schlagintweit, 'Summary of the principal Results of the Investigations of himself and his brother into the Vegetation of the Alps', *Proceedings of the Linnaean Society of London*, 2 (London, 1855), pp. 102-105.
[190] Adolph to W. Hooker, RBGK, (DC), LI, German etc. Letters, 1841-55, London, 10.1.1851, p. 549.
[191] Drayton, *Nature's Government*.
[192] John Gascoigne, *Science in the Service of Empire*: Joseph Banks, the British State and the Uses of Science in the Age of Revolution (Cambridge, 1998).
[193] Londa Schiebinger and Claudia Swan (eds.), *Colonial Botany: Science, Commerce and Politics in the Early Modern World* (Philadelphia, 2005).

acquainted with the Director by providing a flattering letter of support, cited earlier.[194] However, a close reading of his reference shows that some passages were bending the truth in the Schlagintweits' favour. To create the impression of a long and therefore trusted relation between himself and the Schlagintweits, Humboldt alluded to a long stay of them among 'us', the scientific circles of Berlin. In truth, however, the Schlagintweits had moved to the Prussian capital only one and a half years before their trip to England. Humboldt's second flattering gesture in the letter was to compare the studies of the young scholars, then still around the age of twenty, to the acclaimed work by the alleged 'founder' of Alpine studies, Horace-Bénédict de Saussure (1740-1799).[195] To lend scientific authority to the brothers, Humboldt thus placed them into a genealogy of the most important Alpine explorers of the past.

For the Schlagintweits, it proved even more significant to meet those scientific administrators who were directly involved with British surveying projects overseas. First and foremost, it was the physicist and army officer Colonel Edward Sabine (1788-1883) whose acquaintance they had to make (fig. 2.12).[196] Sabine had gradually climbed up the ladder of offices at the prosperous Royal Society, whose elected treasurer and vice president he had become in 1850. His influential role at the Royal Society was complemented by his position as general secretary of the British Association for the Advancement of Science (BAAS).[197] What is more, Sabine also acted as scientific advisor to the Admiralty, and maintained close relations to the War Office.[198]

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[194] Humboldt to W. Hooker, 12.8.1850, RBGK, DC, 51, German Letters, letter 254. Humboldt addressed a similar letter to Faraday, which the brothers also took with them to England. Therein, Humboldt generously praised the wide range of the brother's knowledge, as they are said to be 'armed with the most varied and valuable knowledge of the Physics, Geology and Geography of Plants, [and] have crossed, over several years and with considerable courage, the eastern chain of the Alps, up to the highest summits. They are going to publish a great work, similar to that which Saussure wrote in stages on the west.' *The Correspondence of Michael Faraday,* 4, letter 2313, 13.8. 1850.

[195] John E. Joseph, *Saussure* (Oxford, 2012), p. 16. It was in his famous *Voyages dans les Alpes* (Geneva, 1779-96), that Saussure introduced the term *geology* itself, and laid the intellectual foundations of the emerging discipline, ibid., and 27-28.

[196] They met Sabine during a guided visit to the New Observatory at Kew in January 1851. On Sabine's influence, Gregory A. Good, 'Sabine, Sir Edward (1788–1883)', *Oxford Dictionary of National Biography*, online edn, (2004) [last accessed 23 April 2012]; James Marshall-Cornwall, 'Three Soldier-Geographers', *The Geographical Journal*, 131 (1965), pp. 357-365.

[197] On the rivalry between the *Royal Society* as an elite, traditional scientific club, and the much younger and reform-oriented *BAAS*, which organised public lectures and events across Britain and represented a more dynamic approach with a pronounced interest in applied science, John Cawood, 'The magnetic crusade: Science and politics in early Victorian Britain', *Isis*, 70 (1979), pp. 493-518.

[198] See ibid., 518.

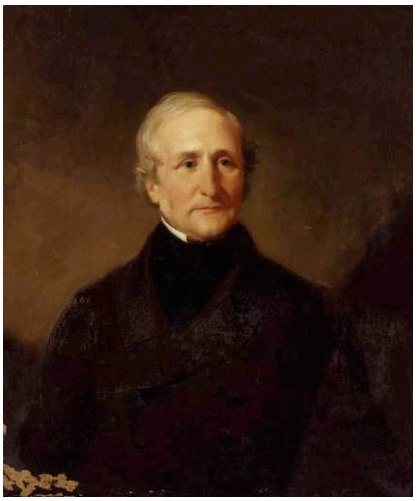

Fig. 2.12 Sir Edward Sabine by Stephen Pearce, oil on millboard, 1850; source and copyright: NPG 907, National Portrait Gallery, London.

Besides his excellent contacts with political and scholarly authorities in Britain, Sabine was also an active member of the scientific networks that linked London to British overseas colonies, and to Berlin. He was a personal friend of Alexander von Humboldt, whom he had known since 1818. The fact that both shared a strong interest in the field of geomagnetism had already led to a number of collaborative projects between them.[199] Elizabeth Juliana Sabine, his wife, had translated Humboldt's epic oeuvre of the *Cosmos* into English. Edward Sabine had annotated her translation with personal notes and instructive explanations that had received high praise from the Prussian scholar.[200] Humboldt, in turn, secured a number of foreign medals and Prussian honorary memberships for the British colonel.[201] For instance, the 'Cosmos medal' was bestowed on Edward Sabine in 1848. Humboldt furthermore secured Sabine's honorary membership to the prestigious *Berlin Academy* in 1855, and paved the way for his friend's admission into the esteemed order *Pour le Mérite* in 1857.

These personal collaborations and mutual favours generated a feeling of obligation between the two men of science. It is therefore not surprising that Humboldt could later count on Sabine's outspoken support for the Schlagintweits to

[199] Humboldt was highly appreciative of Sabine's own studies, and had 25 of Sabine's works in his private library in Potsdam. His fondness of Sabine was also captured by the fact that no other scholar is more often cited in the index of Humboldt's *Cosmos*. Kurt R. Biermann, *Miscellanea Humboldtiana* (Berlin, 1990), pp. 103-105.
[200] Humboldt to Bunsen, 28.9.1846, in Ingo Schwarz, *Briefe von Alexander von Humboldt an Christian Carl Josias Bunsen*, p. 88.
[201] On the 'Cosmos medal' Humboldt to Bunsen, Potsdam, 29.7.1848, in Ingo Schwarz, *Briefe*, pp. 107-113, p. 109; and Biermann, *Miscellanea Humboldtiana* (Berlin, 1990), pp. 103-105.

realise their Himalayan expedition after all – this time through a different and unexpected window of opportunity.[202]

The 'Magnetic Crusade' in Britain

Edward Sabine owed his Prussian and other foreign decorations to his achievements in the field of geomagnetism, and he spent almost a lifetime forcefully promoting its study.[203] It was during the first decades of the nineteenth century that an increasing interest among European scholars had emerged about the earth's magnetic sphere. Whereas European imperial powers undertook topographical surveys of their national and imperial territories as separate state-backed projects, measuring the magnetic field and its variation at specific moments, by contrast, had necessarily to be carried out simultaneously over a wide area, at best on a global scale. It was therefore only feasible through the collaborative effort of several European states and empires.

Partly initiated by Alexander von Humboldt, magnetic observatories were set up in a number of European countries and overseas colonies in the first decades of the nineteenth century.[204] Since Britain lagged considerably behind in this field, Humboldt had specifically addressed the President of the Royal Society in 1836, stating that being 'in possession of the most extensive commerce and the largest navy in the world', it would be crucial for the advancement of the discipline if Britain established magnetic stations in its territorial possessions.[205] At that time, British possessions already spanned the globe. They ranged from Canada, over St. Helena,

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[202] For Sabine's unbroken support of their expedition, also during the unfolding controversy over their appointment esp. after 1857, see *The Athenaeum: journal of literature, science and the fine arts*, No. 1764 (London, 1861), p. 320. The link between their friendship, Sabine's influential position, and the Schlagintweits' career is already captured in a letter by Humboldt to Bunsen, 20.2.1854: 'The king, whose benevolence is always increasing for the Schlagintweits, had instructed me to thank you wholeheartedly for the useful vividness [Lebendigkeit], with which you in a time of tense political conflicts keep on supporting the travel of these young men. It needs your powerful protection to initiate and carry out the scheme'. Humboldt to Bunsen, in Schwarz, *Briefe,* pp. 170-78.

[203] For a good overview of Sabine's career, see Nathan Reingold, 'Edward Sabine', *Dictionary of Scientific Biography*, Vol. XII (New York, 1975), pp. 49-53. On his long-standing interest in the geomagnetic survey, Gregory A. Good writes: 'Sabine's extraordinary dedication to this project continued for thirty years.' Idem, 'Sabine, Sir Edward (1788–1883)'.

[204] Sydney Chapman, 'Alexander von Humboldt and Geomagnetic Science', *Archive for History of Exact Sciences*, 2 (1962), pp. 41-51. Stations then existed in Germany, Italy, Sweden, England, the United States, and Australasia.

[205] Humboldt, eager to promote his own cause, cited his own letter to the President of the RS, the Duke of Sussex, in his *Cosmos: a Sketch of a Physical Description of the Universe*, transl. by E. C. Otté, Vol. I (London, 1849), p. 186.

the Cape of Good Hope and Ceylon to Asia and Australia.[206] Humboldt's proposition received a favourable response by the British Government. Consequently, fixed magnetic observatories were established in a number of British colonial possessions. The accumulated data from those stations were then compiled in Europe, with the view of formulating scientific theories in terrestrial physics.[207]

There was, to be sure, only a narrow dividing line between the 'pure' and 'applied' aspects of the study of terrestrial magnetism. It was for this reason that the British War Office, the Admiralty and the East India Company soon heavily financed the systematic study of the earth's magnetic field. In fact, only shortly after Britain had launched what was called her global 'magnetic crusade' in the 1830s, it had become 'a scientific enterprise [...] of a magnitude never obtained before' in that country.[208]

Above all, a more comprehensive understanding of the factors that caused the variation of the magnetic north had wider implications for the art of navigation. First, it was hoped that a more thorough knowledge of geomagnetic forces and their troublesome variations could help to improve navigational skills in case of bad-weather conditions at sea. Second, there was a growing need in the nineteenth century to handle the problems that the construction of iron-hulled ships caused for reading a compass bearing.[209] Here too, an enhanced understanding of the geomagnetic forces promised to yield most useful knowledge for any seafaring nation – or so the British supporters of the 'Crusade' argued to secure renewed financial support.[210]

Closely related to these practical gains, the British promotion of large-scale geomagnetic studies was also bound up with national-imperial rivalries and notions of scientific prestige. Even though collaborative efforts were quintessential in its pursuit, Anglo-French antagonisms nonetheless played out in this field of science. In the eyes of government officials and scholars too, the results were always expected to serve

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[206] Chapman, 'Alexander von Humboldt and Geomagnetic Science', p. 44. The full enumeration of countries can also be found here.

[207] Beside Sabine and Humboldt, a leading theorist in the field was the German mathematician Karl Friedrich Gauss (1777-1855). In 1838, Gauss published his path-breaking treatise 'General Theory of Geomagnetism'. According to recent evaluations, Gauss' pioneering study 'remains to this day one of the pillars of the mathematical treatment of the geomagnetic field.' Wilfried Schröder and Karl-Heinrich Wiederkehr, 'Geomagnetic research in the 19th century: a case study of the German contribution', *Journal of Atmospheric and Solar-Terrestrial Physics*, 63 (2001), pp. 1649-1660, 1651.

[208] Cawood, 'The magnetic crusade', p. 517

[209] See on the relation between technological breakthroughs in shipbuilding and new possibilities of imperial advancement in the nineteenth century, Daniel Headrick, *The Tentacles of Progress. Technology Transfer in the Age of Imperialism, 1850-1940* (New York and Oxford, 1988), pp. 18-24.

[210] Cawood, 'The magnetic crusade'.

the cause of the British nation. This was well captured in a statement by John Herschel, a leading lobbyist for the crusade. Shortly after its start, he claimed that: 'Great physical theories, with their chains of practical consequences, are pre-eminently national objects, whether for glory or utility.'[211]

To overcome the established French dominance in this science, British administrators integrated geomagnetic measurements into the wide range of already existing surveying projects at home and overseas.[212] In 1846, the Court of Directors of the EIC launched a major 'Magnetic Survey of the Eastern Archipelago' under the leadership of Captain Charles M. Elliot.[213] This survey was important, as it extended the area of research from the oceans and coastlines deep into the interior of British India.[214] Crucially, it was Edward Sabine, Humboldt's long-term intimate, who had by then assumed effective control of the magnetic mission. This meant that Sabine personally presided over the resources through which the Company and the Royal Society financed the magnetic survey in South Asia.[215]

However, this project soon came to an abrupt halt in 1852 with the unexpected death of Captain Elliot, who had 'but just commenced the operations of the Survey', having formerly completed his survey of the Indian seas.[216] In the aftermath of Elliot's demise, the EIC apparently let the survey lie, until the project was reinvigorated by a Prussian initiative.[217] Humboldt, who wrongly flattered himself 'to have transplanted the interest in geomagnetism to England', could now benefit from his close relations with influential British scholars and administrators, through which he was well informed about the *status quo* of various scientific projects in the British empire. It was, however, the Prussian envoy in London, Bunsen, who on this occasion

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[211] John Herschel, *Report of the Ninth Meeting of the British Association* for the Advancement of Science, Birmingham 1839 (London, 1840), p. 38.
[212] In fact, the forcefulness of the magnetic project pursued by an influential group of British scholars was partly a reaction to the supremacy of the Paris Observatory as a hub for geomagnetic studies in the early nineteenth century. John Cawood, 'The magnetic crusade'.
[213] Captain C. M. Elliot, 'Magnetic Survey of the Eastern Archipelago', *Philosophical Transactions of the Royal Society*, 141 (London, 1851), pp. 287-331.
[214] In the mid-1840s, a magnetic survey 'of the Indian seas in connexion with the Magnetic Observatory at Singapore' had been launched and completed by the same Captain Elliot; see Edward Sabine, 'A Memorandum regarding Magnetic Surveys which have originated, or been promoted by the British Association for the Advancement of Science', *Report of the twenty-ninth meeting of the British Association for the Advancement of Science* (London, 1860), pp. xxxvii-xxxix, p. xxxviii
[215] John Cawood, 'The magnetic crusade', p. 515; on Sabine's position see also Biermann, *Miscellanea Humboldtiana*, pp. 103-105.
[216] Sabine, 'A Memorandum regarding Magnetic Surveys'.
[217] Polter, 'Nadelschau in Hochasien', pp. 78-80 and 97-98.

seemed to have informed Humboldt on the willingness of the Company and the Royal Society to conclude the eastern magnetic survey.[218]

What followed was a masterwork of scientific diplomacy that underlined the importance of scientific networks and transnational systems of patronage. Eager to send his close acquaintances to India, who like Joseph Hooker could provide him with crucial observations for his treatises on Asia's natural world, Humboldt seized the moment. The right timing was crucial for filling the suddenly vacant position with his loyal protégés. Humboldt thus arranged a meeting between the Prussian King and the Schlagintweit brothers, whose careers he had already supported in various ways.[219] The royal audience was successful and convinced Frederick Wilhelm IV to support a *different* Indian expedition of the Bavarian brothers (fig. 2.13).

Fig. 2.13 King Frederick Wilhelm IV of Prussia (after 1846), in his office in the Chateau de Berlin, by Franz Krüger (1797-1857), source and copyright: DHM, Berlin 1988/437.

Since the consent, and considerable financial support, of the EIC were the *sine qua non* for this undertaking, a concerted effort had to be made. Access to the Indian territories was severely restricted by the EIC, and such a scheme was only realisable if

[218] Jean Baptiste Marie Alexandre de la Roquette, 'Rapport sur le Prix Annuel, pour la découverte la plus Importante en Géographie pendant le cours de l'année 1856', in *Bulletin de la Société de géographie*, 17 (Paris, 1859), pp. 226-245.

[219] Among other things, Humboldt had advised the brothers on several occasions on how best to publish their Alpine researches (in French) in order to achieve the highest international attention. The Schlagintweits eagerly transmitted this advice to their personal editor Barth in Leipzig. Adolph to Ambrosius Barth, Berlin, 10.4.1852, Staatsbibliothek Berlin, DS, Asien 1855 (5), pp. 1-2.

it met the interests of the colonial rulers and the scientific institutions such as the BAAS and the Royal Society that were centrally involved in the 'Magnetic Crusade'. Frederick Wilhelm IV therefore dispatched a letter to Bunsen, on 27 February 1853 (fig. 2.14). Therein, the envoy was informed that the King would commit himself to subsidise an Indian expedition of the Schlagintweits on the condition that the East India Company would grant their permission, but also share the burden of the expenses.[220]

Fig. 2.14 Christian Karl Josias Bunsen, by John Henry Robinson, after a stipple engraving by George Richmond (1847); source and copyright: Reference Collection, D32387, National Portrait Gallery, London.

Bunsen, in office since 1841, was a man of considerable qualities both in political and scientific terms[221] – as well as being another close ally of Humboldt with excellent contacts to the British scientific community. The British appreciation of the liberal Bunsen went so far that Joseph Hooker wrote to Humboldt after the envoy's resignation in 1854: 'We all feel the departure of Mr Bunsen as a national loss.'[222] As the work of Ulrike Kirchberger has shown, for numerous German travelling scholars that were seeking employment in Britain or her colonies, Bunsen's embassy at

[220] Polter, 'Nadelschau in Hochasien', p. 79.
[221] At the beginning of his career, Bunsen had toyed with the idea of an Indian journey himself; instead, he now used his prominent position to advance the scientific schemes of other itinerary scholars, among them several famous German African explorers like Heinrich Barth and Eduard Vogel, who undertook notable expeditions into Africa's interior. For a valuable treatment of Bunsen both as a political and scientific interlocutor between Britain and Germany, Kirchberger, *Aspekte*, ch. 6.
[222] Joseph Hooker to Humboldt, Kew, 21.9.1854, Staatsbibliothek Berlin, Nachlass Humboldt, gr. K. 11, No. 10, p. 16.

'Carlton Terrace' in London was the first calling point.[223] The Prussian diplomat was himself a respected Orientalist scholar, who had mastered Persian and Arabic and had long held the wish to travel to India, always expressing his great interest in Indian scholarship.[224]

Crucially, Bunsen maintained excellent relations with some of the Directors of the EIC, with most of whom he was personally acquainted. This was an important asset that he could use to support scientific projects by German friends and recommended scholars.[225] Once informed by the Prussian monarch, he set up a meeting with Edward Sabine in April 1853. Soon, the two had worked out an initial agreement on the scheme. As later reported by Sabine, the Prussian envoy then addressed a formal proposal to William Parsons (the Earl of Rosse), an Irish astronomer and President of the *Royal Society* from 1848-54. [226] In the communication, he mentioned that the Schlagintweits should be employed 'for the purpose of exploring the Himalayan range on behalf of a more complete knowledge of telluric magnetism, and many other branches of terrestrial physics, for the purpose of which the King of Prussia proposed to grant them pecuniary allowances.'[227]

The President of the Royal Society approved of the scheme and had it transmitted to the Company's powerful Court of Directors.[228] Among them was Colonel William Henry Sykes (1790-1872), a former army officer of the EIC in India and himself a keen naturalist. During his colonial service, Sykes had completed a number of statistical and natural history surveys in India.[229] Given his own scientific leanings, Sykes eagerly supported the cause within Company circles. Backed by a phalanx of international authorities in magnetic studies, the EIC subsequently approved to continue the magnetic survey in India. But even now, the Company had

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[223] Kirchberger, *Aspekte*.

[224] For instance, Bunsen was well informed about Joseph Hooker's Himalayan travels. In a letter to William Hooker, London, 4.12.1849, he wrote that 'I hope we shall soon have further accounts about [J. Hooker's] progress and return into civilized, alth' less interesting lands for botanical discoveries, and I hope you will think of me when they arrive.' RBGK, (DC), LI, German etc. Letters, p. 64.

[225] See the introduction to Friedrich Max Müller's three-volume work *Essays: Erster Band. Beiträge zur vergleichenden Religionswissenschaft*, German translation of the second English edition (Leipzig, 1869). p. iii, emphasis mine.

[226] Edward Sabine to Roderick Murchison, *The Athenaeums*, No. 1764, p. 320.

[227] Ibid.

[228] This version of events is backed by surviving evidence, such as in the work *The British Association for the Advancement of Science: a retrospect 1831-1921* (London, 1922), written by its secretary Osbert John Radcliffe Howarth, p. 182.

[229] Among them, Sykes had worked as 'statistical reporter to the Bombay Government' and had carried out a population census of the Deccan, see B. B. Woodward, 'Sykes, William Henry (1790–1872)', rev. M. G. M. Jones, *Oxford Dictionary of National Biography*, 2004, accessed 26 April 2012.

still not decided to employ 'foreigners' such as the Schlagintweit brothers for the mission.

In the resolution taken on 18 May 1853, it specifically said that 'the East India Company regard all such missions with great satisfaction'. Therefore, 'the Court of Directors propose to instruct the Government of India, *in the event of their having no officer available* for carrying out the objects left unfinished by Capt. Elliot, to apply to the Messrs. de Schlagintweit to ascertain if *one* of those gentlemen would undertake the duty; and if so to place the instruments at his disposal, and to grant him a suitable allowance for the purpose.'[230] The reasons for the Company's initial willingness to appoint a British officer in India are evident. First, there was the general expectation by British scholars and officers that they, not foreigners, were entitled to the position. Second, it was more expensive to employ a scholar from the continent for the scheme because he had to be specifically trained in London and then brought over to India, still a costly voyage. Indeed, the Court of Directors had already enlisted a large number of skilled British officers, naturalists and surgeons stationed on the Indian subcontinent, whom they considered equally capable for finishing the scheme, and who often longed for properly paid Company employment.[231]

High Aspirations

For the Schlagintweits to turn British India into their promised land, they thus depended on the efficiency of old patronage networks, as well as on their own initiative. Not only were they regarded as the second-best option, but the Company was also willing to pay only one of the brothers, and this merely for completing the magnetic survey. However, their personal ambitions went much further than this limited scheme. Accordingly, it was first necessary to secure the employment of more than just one of them. They succeeded in this only in 1854 when Lord Dalhousie, the current governor-general of India, informed the Court of Directors that 'no officer competent to such an undertaking could, in the [...] circumstances of India, be spared from military duty'. Consequently, an 'application was made by the Court to the

[230] Edward Sabine to Roderick Murchison, *The Athenaeum,* No. 1764 (1861), p. 320, my emphasis.
[231] Imperial surveys in India were regularly carried out by army officers like Colonel Sykes, or by the numerous Company surgeons. In the early nineteenth century, there were hardly any Company servants who were solely employed by the Company in the function of 'scholars', see David Arnold, *The tropics and the traveling gaze: India, landscape, and science, 1800-1856* (Seattle, 2006).

Messrs. de Schlagintweit [to] undertake the completion of the duty left unfinished by Capt. Elliot'.[232]

However, in order to shape the Indian expedition according to their *own* aspirations, the Schlagintweits subsequently took great pains to introduce a number of changes to the mission's plan. This applied both to its scientific objectives and its financial grounding. Whereas the Prussian monarch had initially agreed in 1853 to grant £200 per annum for three years, the Schlagintweits and their advocates succeeded in having the King more than double the amount.[233] By order of 8 July 1854, Frederick Wilhelm IV now committed himself to pay 'two of the young scholars' (Adolph and Hermann) £350 per year for 'the exploration of the Himalayan mountains'. What is more, each should receive an additional £100 for the purchase of books and instruments.[234] It was furthermore 'upon the highest order of His Majesty' that the King issued travel passes to the Bavarian scholars (fig. 2.15).[235] Therein, he asked any foreign military or civil authorities, but formally 'ordered' any Prussian subject and servant, to provide full support to the brothers. Hence, the brothers could draw on the networks of Prussian Consuls in India, an important asset that provided them with space for manoeuvring between their British and German benefactors.[236]

[232] The events are recounted in *The Athenaeum*, No 1764, p. 320.
[233] Polter, 'Nadelschau in Hochasien', p. 79.
[234] See the correspondence leading up to the order of 8 July 1854, Berlin GStaPK, 1 HA, Rep 162, Verwaltung des Staatschatzes Nr. 107, Section, 1, Pars. 4, No 17, 'Acta betreffend: der den Gelehrten, Gebrüdern Adolph, und Hermann Schlagintweit Allerhöchstgewährter Reisezuschuß, 1854'.
[235] 'Auf Seiner Königlichen Majestät Allerhöchsten Special-Befehl'. Original passports at BSB Munich, Schlagintweitiana IV, 6, 2.
[236] Ibid. See for their 'double games' the section 'Science management from afar'.


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Wir Friedrich Wilhelm

von Gottes Gnaden König von Preußen ꝛc. ꝛc.

Ersuchen hiermit, unter dem Versprechen einer vollkommenen Erwiederung, alle Militair- und Civil-Behörden auswärtiger Staaten, Unsern sämmtlichen Militair- und Civil-Bedienten aber befehlen Wir ausdrücklich, auf Vorzeigung dieses, den Doctor phil. Herrmann Schlagintweit,

frei und ungehindert reisen, auch nöthigenfalls ihm Schutz und Beistand angedeihen zu lassen.

Gegeben Berlin den zweiten Juli 1854. Mit dem Insiegel.

Auf Seiner Königlichen Majestät allerhöchsten Special-Befehl.

Der Minister der auswärtigen Angelegenheiten.

Reise-Paß

gültig auf

Fig. 2.15 Travel pass (front side) of Hermann Schlagintweit, issued by King Frederick Wilhelm IV of Prussia in Berlin, 15 July 1854; source and copyright: BSB Schlagintweitiana, IV.6.2.

Apart from the increased financial commitment by the Prussian king, the very scope of the scheme was also to be significantly altered. The Court of the EIC had

underlined in the appointment letter to Adolph the more confined task of completing above all the suspended magnetic researches. This was a task, as they stressed, that a British servant could also have undertaken.[237] Yet, the EIC could not simply impose on the brothers what their scientific mission to India and Central Asia was to be about – including its scale, spatial range, and scientific breadth. On the contrary, the very nature of their expedition was to be the result of a complex process of negotiation between the Schlagintweits, the Court of Directors, senior metropolitan scholars, and the Imperial Government of India. While of course the precise itineraries of European scientific explorations would need to adapt to local political circumstances, weather conditions, and other impacting factors of overseas travels, it was, from the very beginning of the employment, through negotiations that the *ambitions* of the Schlagintweits essentially re-shaped the outlook of the entire scheme. This highlights once again that the brothers themselves actively moulded their own 'empire of opportunity'.

There is no better evidence for the crucial role of their own agency than a document called 'Operations proposed to the India House'. It survives as a copy with annotations by Edward Sabine in Kew Gardens.[238] Adolph submitted this 'list of operations' on behalf of (at first) two Schlagintweit brothers to the Court of Directors on 28 March 1854.[239] The objective of the submission was evident, namely to secure not only their appointment for the geomagnetic survey, but also to secure permission to complement this limited objective with much further reaching scientific pursuits while in Asia. This objective is clear from the ambitious numeration of the Schlagintweits' projected activities in the document. They appeared extremely eager to transform their initially minor employment into a major scientific investigation of South and High Asia. A more detailed analysis of the list of activities is mandatory if we are to fully understand how this transformation took place.

The brothers first laid out a plan of the routes they would take in India and Central Asia in 1854-57. The Court was informed that the brothers intended to proceed 'from Bombay to Madras, if possible on two different routes' after their landing in the second half of 1854. The summer of 1855 would be spent exploring the

[237] See statement at The British Library, India Office Records (IOR), E/1/300, (General Correspondence) anno 1854, entry number: 1715, 'Advising the terms of his engagement for the continuance of the Magnetical Survey of India', J.D. Dickinson (Secretary of the East India House) to Adolph Schlagintweit (16 Leicester Street), 10 June 1854.
[238] The surviving copy is at: NA (Kew), BJ 3/53.
[239] Ibid.

region of Darjeeling and the 'eastern Himalaya, perhaps if under favourable circumstances with a journey to Nepal'.[240] Nepal, to be sure, was then hardly accessible to Europeans, and was jealously guarded by the Chinese.[241] While the following winter would again force the Schlagintweits to descend into northern India (through Batar to Agra), they proposed to spend the summer of 1856 venturing into the central regions of the Himalayas, with travels through Kumaon, Almorak, Tibet, and Simlak.[242] After a renewed separation of the brothers on different routes during the winter months, they would finish their researches in the summer of 1857 in the 'Western Himalaya'. This last mountain stay would encompass separate journeys through the 'valley of the Indus at Ladak' and, crucially, would lead them to the rich valley of Kashmir. From there, the plan was to proceed from the mountain chain to the Indian coast, and to return via steamship from Bombay to Europe.[243]

In short, the Schlagintweits hoped to combine their surveying project in Company-controlled territories with extensive travels in regions that lay *beyond* British sovereignty. For acquiring access to such sensitive regions, it was evident that the explorers would have to draw on the diplomatic prowess of the Government of India in order to negotiate the terms with a number of Asian rulers, eager to keep Europeans out of their dominions. Their dependency on colonial support was cloaked in a diplomatic phrase ('under favourable circumstances'), but it proved their awareness of the inextricable links between British political power and the sometimes-forced cooperation of Asian rulers for the study of hitherto little known regions.[244]

Through the proposal to the Court of Directors, the brothers also managed to reinterpret the scientific nature of their mission: 'With the magnetical observations in different parts of India we propose ourselves to unite [a] Regular Series of Observations on [...] the Physical Geography of the country'. Adolph added that 'I myself will direct my particular attention to collect as complete a series as possible of

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[240] Ibid.
[241] Joseph Hooker, the Schlagintweits' predecessor as Himalayan explorer, had himself experienced great troubles regarding a planned journey into Nepal. See his letter to Nathaniel Wallich, 30 March 1850: RBGK, JDH/1/9/1: Indian Journal 1848, pp. 489-492.
[242] Unlike Finkelstein has earlier claimed in 'Conquerors of the Künlün?', p. 191, the Schlagintweits thus intended to penetrate into the forbidden country of Tibet from the outset, giving proof of their eagerness to visit almost unknown regions that attracted much attention from British colonial officials at the time.
[243] Adolph Schlagintweit, 'Proposed operations on the Magnetic Survey in India'.
[244] Ibid.

observations on the Geology of India and of the Himalaya.'[245] To be sure, such a comprehensive geological survey of the vast natural landscapes of India and the mountain chain at its northern border would have been an undertaking of several years in itself. The fact that Adolph hoped to achieve such an objective literally *en passant* reflects the high aspirations of the brothers, but it equally points to their delusion about what was actually achievable. This impression of over-ambition is confirmed throughout the document, as the brothers declared that they hoped to complement these geological, geographical and geomagnetic studies over those vast regions with additional scientific investigations. These included pursuits in the fields of meteorology, hydrology, potamology, botany, mineralogy, palaeontology, and zoology. To carry out extensive (in their words sometimes '*as complete as possible'*) studies in all of these various disciplines, and this over such vast and diverse landscapes as the brothers proposed in the document, was the opposite of their initially narrow magnetic mission.

In the end, this extensive lobbying to the Court of Directors proved successful, as the Company officially granted permission to the Schlagintweits 'to undertake this [geomagnetic] duty in connection with the other objects mentioned' in the submitted list. To maintain control over the expedition, and to ensure that the Schlagintweits' scientific pursuits would meet the interests of the empire, the Court, however, established that 'your proposed plan of operations will be communicated to the Government of India, and will be subject to such modifications as from time to time may seem to the Government desirable or requisite.'[246]

The reinterpretation of the entire employment was, however, not only confined to the analytical scope of the mission, but also included the numbers of brothers that were actually formally enlisted. While initially only Adolph Schlagintweit was to be employed for the geomagnetic mission, ultimately, due to tenacious self-promotion and negotiating with the Company, the Court allowed first Hermann, and then also Robert, to join the scheme.[247] Like Adolph, Hermann was also enlisted in paid employment for the duration of four years for the eastern

[245] Ibid.
[246] IOR, E/1/300, entry number: 1715, J.D. Dickinson to Adolph Schlagintweit, 10.6.1854.
[247] The initial decision to employ only Adolph was made in May 1854; see IOR, Court Minutes, B/228, 13.4.1854-11 Oct. 1854, p. 189: '17th May, 1854, To Adolph Schlagintweit, Esq.re, stating, with reference to his letter of the 28th March 1854, that the Court will instruct the Government of India to employ *him* in completing the Magnetical Survey upon which the late Captain Elliot was engaged, and stating the Salary and other allowances to which he will be entitled.' Emphasis mine.

mission. Robert, by contrast, was only permitted to accompany his brothers without a salary from British pockets. Yet, by mobilising their patrons in Berlin, Robert ultimately secured a 'pension' from the Bavarian King Maximilian II.[248] This considerable enlargement of the originally narrow survey reflected the brothers' high ambitions; whereas the Company had sought only a single scholar to replace the late Captain Elliot, who had managed to pursue the magnetic survey alone, the brothers had from the outset greater plans than that, and thus sought to triple their manpower.

The Schlagintweits' eagerness to go beyond the limited geomagnetic mission might be seen as a clash of different scientific cultures. Whereas the agenda of Company science would have meant a restricted, specialised study only of Asia's geomagnetic field, the Schlagintweits, by contrast, were proponents of an increasingly disputed scientific culture that stressed the importance of interdisciplinary studies in order to achieve a more holistic understanding of an otherwise unfamiliar environment. As was already clear from the government reports on their first attempt to embark on a Prussian expedition to Asia, the brothers' whole scientific approach stood in an uneasy tension with the current processes of the ever-deeper specialisation and professionalisation of scientists in only one field of expertise.

What is more, however, the Schlagintweits' great personal determination was simply not compatible with their initial employment only in the rank of rather lowly *surveyors*. That is, they sought from the outset to become decisively more than merely a footnote in the century-long history of British surveying of India and the Himalayas. To be sure, the multiple surveying projects in the Indian Empire of the first half of the nineteenth century went largely unnoticed by the general public, and very little was known about the precise activities of the legions of Company servants engaged in measuring and classifying India's natural landscapes. This situation triggered, in fact, a request by the House of Commons to Colonel Waugh, then Surveyor General of the colony, to compile a report on the status of the Great Trigonometrical Survey. As was noted in a review of Waugh's report in *The Calcutta Review*, such imperial surveys, despite their massive scales, nonetheless had an obscure existence:

> 'We believe that there are very few persons, even in India, who have any notion whatever of what the Trigonometrical Survey really is, or what it does

[248] *Alexander von Humboldt – Carl Ritter. Briefwechsel*, ed. by Ulrich Päßler (Berlin, 2010), pp. 172-3, Humboldt to Ritter, 11.3.1856.

> for geography or science: or who can comprehend what has been already done, and why it has not long since been brought to a conclusion. We have even heard of men, who believed and argued that India might be trigonometrically covered in five years!'[249]

In direct contrast to surveying jobs that were held in little esteem, the Schlagintweits sought to become great explorers, who longed for scientific breakthroughs and exploratory feats. Their (self)-promotion as 'heroic travellers' into the supposed unknown was soon launched and promised a very different public recognition and career opportunities in Europe.[250] As this example of imperial recruitment shows, undertaking scientific expeditions in foreign overseas empires was not simply a readily tailored 'career' option for European travelling scholars; rather, these 'empires of opportunity' had to be constantly shaped and moulded according to the personal aspirations of the itinerary scholars involved.

[249] John Walker, 'The Great Trigonometrical Survey of India', *The Calcutta Review*, 16 (1851), pp. 514-540, 514-15.

[250] Robert Schlagintweit, for instance, was well aware of the fact that the workings of the GTS were hardly known in Germany. He thus spoke of the '...von den englischen Officieren Walker und Thuilliern geleiteten indischen Vermessung, deren großartige Thätigkeit in Deutschland nicht in dem Maße bekannt ist, wie es zu sein verdiente'; idem, 'Ein Besteigungs-Versuch des Ibi Gamin Gipfels in Hochasien', *Gaea, Natur und Leben*, 4 (1868), p. 314. On the hierarchical organisation of British surveying efforts in northern India and Central Asia, which in most cases did not lead to great personal fame, see the work of Kapil Raj, who compared Asian surveyors with Victorian 'heroic' travellers into Africa, idem, 'When Human Travellers Become Instruments. The Indo-British Exploration of Central Asia in the Nineteenth Century', in Marie-Noëlle Bourget et al. (eds.), *Instruments, Travel and Science. Itineraries of Precision from the 17th the 20th Century* (London, 2002), pp. 156-188.

Chapter Two

Imperial recruitment and transnational science in India

In order to achieve a multifaceted analysis of the various ingredients that came together in the 'Schlagintweit controversy', and to understand how the brothers negotiated their reputation within the context of transnational scholarly collaboration and competition, the following chapter is divided into several inter-linking parts. First, the Schlagintweits' own scientific mission is set against a longer chronology of British and European explorations towards and beyond the north Indian frontier. It demonstrates that the British already looked back on a century of scientific surveys and exploratory missions when the brothers entered the stage with their ambition to essentially reshape scholarly understandings of this world region.

The discussion then shifts to the discourses that accompanied the recruitment of German specialists in the middle decades of the nineteenth century, a period in which Germans were not yet seen as agents of any state-driven imperial ambition and were thus deemed suitable for employment in the British territories. The chapter thus reveals how British rule and expansion in India – and other parts of the empire – required a greater store of scientific experts than the home population could provide. Indeed, several German scientists in British service not only helped to fill positions within the imperial establishment, but they also shaped the very practices of colonial governmentality in fields such as forestry, agricultural chemistry, or settlement policies in India. However, this need for foreign expertise was harshly criticised by a number of young British scientists whose scholarly achievements may have been acknowledged but were scarcely rewarded by the East India Company with paid employment.

British exploration and the north Indian frontier

The English East India Company had been founded in 1600, when a group of London merchants sought to compete with the Portuguese in the lucrative spice trade in Asia, and had thus successfully acquired a monopoly charter from the English Queen Elizabeth I. As part of the global conflict between the English and the French in the Seven Years War, it was in the wake of the battle of Plassey, in 1757, that the

English had assumed territorial control of Bengal, then among the richest provinces of the Mughal Empire. This conquest, achieved as much by military might as by 'intrigue', instigated a new phase of British commercial and political engagement with the subcontinent. William Pitt's India Act of 1784 only marked the formal transition of the EIC 'from a mercantile corporation to a major territorial power' in India.[251]

In the decades after the battle of Plassey, and during the first half of the nineteenth century, British military power and administrative control spread across South Asia, forcing the East India Company time and again to negotiate and establish clearly marked frontiers and well-regulated political and economic relationships with a number of indigenous rulers (see maps 0.1-0.2). In the aftermath of these territorial conquests, which soon extended British possessions to the foothills of the Himalayas, colonial officials became increasingly troubled over their lack of knowledge about the geographical, political, and military situation in those regions that lay within and beyond the mountain frontier north of the Indian empire.[252] British fears of a French-Russian invasion of India during the Revolutionary Wars equally heightened the sense of urgency not only to master the sea but also the land routes into India. Although Napoleon's (and some Russian Tsarists') ambition of conquering this most precious British colony were never realised, knowledge of the *plans* of invasion by the arch-enemy France nonetheless triggered Company efforts to explore and map out potential routes for such an inroad.[253]

Yet, increased knowledge of the trans-Himalayan regions was also important for the Company because it was greatly interested, both strategically and commercially, in these largely unknown territories.[254] In 1826, Nathaniel Wallich, then superintendent of the Calcutta Botanic Garden (itself a hotspot for colonial

[251] See for a more thorough treatment of this shift, Matthew H. Edney, *Mapping An Empire. The Geographical Construction of British India, 1765-1843* (Chicago et al., 1997), pp. 4-8.
[252] Waller, *The Pundits*, p. 1.
[253] To be sure, also the ill-fated French Egyptian Campaign (1798-1801) had been rightly perceived as a threat to British hegemony in India, and so were the plans for a coalition between Napoleon and Tsar Alexander I in 1807 for a land invasion of the plum colony; Frances Wood, *The Silk Road. Two thousand years in the heart of Asia* (London, 2002), p. 149; Hopkirk, *The Great Game: On Secret Service in High Asia* (Oxford, 2001), p. 3; Withers, 'On Enlightenment's margins', pp. 10-14; on the unlikelihood of a Russian invasion of India, see, however, the work of Alexander Morrison, e.g., his reflections on the impossibility of the logistics of such a manoeuvre, idem, 'Camels and Colonial Armies: The Logistics of Warfare in Central Asia in the Early 19th Century', *Journal of the Economic and Social History of the Orient*, 57 (2014), pp. 443-485.
[254] Especially the prospects of trade with Tibet captivated British officials in India, leading to various attempts to establish commercial relations with the hardly accessible state under Chinese suzerainty, Waller, *The Pundits*, pp. 7-13.

science[255]), waxed lyrical about the 'glorious' Himalaya chain, and the 'general desire to become nearer acquainted with the vegetable treasures of those hitherto so little known, and yet so immensely interesting regions.'[256]

In order to remedy their geographical ignorance, the British intensified and institutionalised earlier efforts to traverse and map the subcontinent by launching one of the most ambitious mapping projects of this period. In 1802, the Great Trigonometrical Survey (GTS) was initiated in the presidency of Madras, quickly gaining momentum and extending its sphere of operation. The colonial government of India took charge of the GTS in 1818 – at a time when British territorial gains (e. g. in Assam) were constantly opening up further areas for systematic study. Tellingly, the GTS was organised by the Military Department of the Government in India.[257] This major surveying project was still running – then under the orders of Major General Sir Andrew Scott Waugh (1810-1878) – when the Schlagintweit brothers were appointed to lead their scientific mission from 1854-58. The GTS had by then covered much of British India and parts of the Himalayan frontier region.[258] Hence, in 1850, the Surveyor General of India, A. S. Waugh, could speak in a self-congratulatory manner of '[t]his magnificent geodetic understanding, which at the present time extends from Cape Comorin to Tibet, and from the meridian of Calcutta to that of Cashmere'.[259]

In addition to the systematic northward expansion of British knowledge of the subcontinent, a number of British scientific travellers, some of whom would be personally involved in the Schlagintweit controversy, also set their sights on exploring the trans-Himalayan region. Besides Nathaniel Wallich and his forays into Nepal, these scholars included the veterinary surgeon and Himalayan traveller

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[255] Since its foundation, the Directory of the EIC 'had never ceased to view it as a horticultural establishment [...] Its scientific function was limited to the domestication of profitable plants and the collection of samples which could be studied by scientists in Europe.' Marika Vicziany, 'Imperialism, Botany and Statistics in Early Nineteenth-Century India: the Surveys of Francis Buchanan (1762-1829)', *Modern Asian Studies*, 20 (1986), pp. 625-61, 641-42.

[256] Arnold, 'Plant Capitalism', p. 923.

[257] See Derek J. Waller, *The Pundits*, p. 17.

[258] After the initiation of the GTS by Colonel Lambton, Colonel George Everest took over and became the Superintendant of the project in 1823, and Surveyor General of India in 1830. George Everest extended the surveys of his predecessor to the Himalayas, also introducing the famous 'gridiron' system. Waugh, taking charge in 1846, was equally active at the Himalayan front. His surveys covered the north-eastern parts of the mountain range, and he also determined the heights of almost 80 Himalayan peaks, naming the highest among them after his predecessor George Everest; Rama Deb Roy, 'The Great Trigonometrical Survey of India in a historical perspective', *Indian Journal of History of Science*, 21 (1986), pp. 22-32.

[259] A. S. Waugh, 'The Great Trigonometrical Survey of India. By Lieut.-Colonel A. S. Waugh', *Professional Papers on Indian Engineering*, 2 (Calcutta et al., 1865), pp. 285-300, 285.

William Moorcroft, who crossed the mountain range and reached Tibet in 1812, keenly observing both scientific and commercial matters as well as noting Russian ambitions in the region.[260] Moorcroft resumed his travelling activities in 1819, and in 1820 he had reached Leh, the capital of Ladakh, as the first European to do so for over a century; he would also spend some months in Kashmir, at the end of 1822. Subsequently, he set off for his original destination, Bukhara, in Afghanistan, which he sought to reach via the Hindu Kush. Along the way, the British traveller accumulated, in addition to his scientific observations, critical political and trade knowledge, which he hoped would increase the British influence in and facilitate the commercial penetration of Central Asia. However, Moorcroft's journey came to an unplanned end in August 1825. While passing through Afghanistan, exhausted from the considerable exertions of travel, he either died from a fever or was, as others claim, murdered by a travelling companion. In any case, to many contemporaries his death symbolised the dangers and personal sacrifices involved in British exploratory missions beyond the British frontier.[261]

In the wake of Moorcroft's death, other British scholars, officers, and surgeons took an active interest in the trans-Himalayan region, including Sir Richard Strachey (1817-1908), who carried out scientific investigations of the western Himalayan areas in the mid-1840s and joined the botanist J. E. Winterbottom on a trip into the hardly accessible Tibet in 1848. While amassing a considerable botanical collection of more than 2,000 samples, Captain Strachey and his companion also focused on a number of other scientific fields, which resulted in well-received scholarly treatises marked by the trans-disciplinary thrust of Humboldtian studies.[262]

What is more, some British Residents such as Brian Houghton Hodgson became scientific collectors and prolific authors in their own right.[263] Hodgson, who

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[260] In Tibet, Moorcroft was especially concerned with the trading possibilities of the shawl wool (*pashm*), used in the production of the highly lucrative Kashmir shawls; Waller, *The Pundits*, p. 11. See on other British officials wary of Russian geographical advances in Central Asia, Withers, 'On Enlightenment's margins', pp. 10-11.

[261] To be sure, throughout the first half of the nineteenth century, other British travellers, surveyors and officers exploring the trans-Himalayas lost their lives during such ventures, either due to the hardships of travel, or at the hands of Central Asian rulers such as the British Captain Arthur Conolly and Colonel Charles Stoddard, executed in Bokhara in 1842 by the Emir. However, Moorcroft's fate was among the most cited and remembered in the history of Central Asian explorations.

[262] Richard Strachey, 'The Physical Geography of the Provinces of Kumáon and Garhwál in the Himalayan Mountains, and of the Adjoining Parts of Tibet', *Journal of the RGS*, 21 (1851), pp. 57-85.

[263] See on the breadth of Hodgson's scientific and political interests, David Waterhouse, 'Brian Hodgson - a biographical Sketch', in *The Origin of Himalayan Studies: Brian Hodgson in Kathmandu and Darjeeling, 1820-1858*, pp. 1-24, 7.

was first stationed in Nepal, was despatched to Darjeeling in 1845, ten years after the British had seized the region. Despite a lack of any formal scientific training, the self-taught Hodgson drew on his vital first-hand observations and continuous exchanges with local peoples to become arguably the greatest British authority on the natural history of the Himalayas in the 1840s – although he was more acknowledged as such in India than in Europe. He further combined his naturalist activities with notable ethnographic studies as an orientalist. Yet, despite his credentials, he struggled to receive due acknowledgement and material patronage from metropolitan scholars and institutions.[264]

As a result of the advancing surveys of the GTS, and the pioneering excursions by individual British travellers, most of northern India and parts of the trans-Himalayan region had ceased to be *terra incognita* for the British by the mid-nineteenth century. Rather, itinerant naturalists and Company surveyors pushed the empire's knowledge frontier ever further, which was seen by some of them (and Moorcroft in particular) as a crucial response to Russian expansionist ambitions in Central Asia and into the Himalayas. Generally, however, it was scientific interests and the commercial prospects of the partly untapped markets and natural resources of 'High Asia'[265] – and, before the Opium Wars, the search for an alternative entry into the Chinese markets beyond the restricted bottleneck of Canton – that mainly drove these British expeditions, especially into Tibet.[266]

As these few examples chosen from a range of many more scientifically inclined travellers already show, British interests and modern explorations in the Himalayas certainly did not start with the Schlagintweit brothers' expedition. Rather, British scientific and commercial engagement with the mountain regions beyond India's northern colonial frontier looked back on almost a century-long history of increasing exploration and ever-more systematic knowledge production. Consequently, in the 1850s, 'the Himalayas were [...] no longer unknown territory, nor was British understanding of this mountain region fragmented and

[264] See Arnold, 'Hodgson, Hooker and the Himalayan Frontier, 1848-50', pp. 189-205.
[265] The Schlagintweit coined the term 'High Asia' with the publication of their travelogue entitled *Results of a scientific mission to India and High Asia*; while its precise meaning and geographical scope was never clearly defined, Robert Schlagintweit gave a rough description of this 'extended' region to encompass 'the Himalayas, the Karakorum and the Kuenlun'. Idem, 'Ein Besteigungs-Versuch des Ibi Gamin Gipfels in Hochasien', pp. 313-21, 314, my translation.
[266] Waller, *The Pundits*; Hopkirk, *The Great Game*.

unsystematic'.[267] Viewed from the British side, the Schlagintweit brothers were seen as merely contributing to this tradition of research. Yet, as the following chapters will show, the brothers themselves were keen to fashion an image of themselves in front of popular audiences that suggested that they were the only – and pioneering – modern scientific explorers of these areas.[268]

To be sure, it was not only British Company servants who pursued scientific ends in the Himalayas. Quite the contrary, as, in addition to the on-going French interests in the region (embodied in the scientific travels of the Frenchman Victor Jacquemont, 1801-1832), there were also German missionaries with scientific leanings who were active in the western Himalayas. These missionaries included several members of the Moravian religious order 'Herrnhuter Gemeinde', whom the Schlagintweit brothers later met and exchanged information with. Later, it was tellingly claimed by one of the missionaries that even though the brothers had received help for taking measurements and collections in their area, the Schlagintweits had later 'boastfully taken all the glory for themselves', without acknowledging their scientific predecessors. Therefore, the missionaries suggested that the 'Schlagintweit are bearing the wrong name; one should rather call them "Schlagaufsmaul".'[269] In other words, the brothers were hardly the first German scholars to reside in parts of the Himalayas.

Nor, indeed, were they the first German-speaking 'scientific travellers' in those regions: in the second half of the eighteenth century, the Austrian-born Jesuit Joseph Tieffenthaler (1710-1785) had not only travelled through the subcontinent and into Northern India, but also published his observations.[270] Another German-speaking traveller of the first half of the nineteenth century was the Austrian geographer Carl von Hügel (1796-1870), who explored Asia and Oceania extensively between 1830

[267] Peter Bishop, *The Myth of Shangri-La: Tibet, Travel Writing, and the Western Creation of Sacred Landscapes* (Berkeley et. al, 1989), p. 98.
[268] See the analysis of the much-criticised 'Memorandum' that the brothers offered to the Court of Directors, in Sept. 1857, trying to justify their follow-up employment for compiling a multi-volume scientific treatise on their previous travels, treated in the part 'Securing a written monument'.
[269] A play on the German idiom 'jemandem eins auf das Maul schlagen ('to slap somebody in the face'). Calling the brothers the 'Schlagaufsmaul' can be read as an encouragement to rebuke the brothers for their presumptuous behaviour. Quoted from Wolfgang Friedl, 'Europäische Forscher und Reisende in den Berichten der Herrnhuter Mission. Kontakte und Ergebisse - ein Überblick', in L. Icke-Schwalbe and G. Meier (eds.), *Wissenschaftsgeschichte und gegenwärtige Forschungen in Nordwest-Indien* (Dresden, 1990), pp. 80-85, translation mine.
[270] On the Tyrol-born Jesuit traveller, see still Severin Noti, *Joseph Tieffentaller S. J. - A Forgotten Geographer of India* (Bombay, 1906); see for other Jesuits in Central Asia the useful overview by Cornélius Wessels, *Early Jesuit Travellers in Central Asia: 1603-1721* (The Hague, 1924; repr. New Delhi, 1992).

and 1836. Hügel also investigated parts of the north Indian and Central Asian mountain chains, producing some well-received erudite works, parts of which were then translated into English on behalf of the East India Company.[271] Testifying to the authoritative knowledge that especially the British and the French had by then gathered and stored about South and 'High Asia', Hügel decided to complement his own travel experiences and observations by studying materials located in London and Parisian archives.[272]

Building on these previous investigations, in the mid-nineteenth century British knowledge of Indian and Himalayan natural history reached new heights through the travels of Joseph Dalton Hooker (1817-1911), arguably the most influential predecessor of the Schlagintweits to undertake an imperially backed expedition beyond India's northern frontier. Crucially, Hooker was also to become the German naturalists' most ferocious critic; hence, a closer understanding of his initially troubled trajectory and difficult relationship with the Company contributes to a better understanding of the unfolding polemic.

Before Hooker embarked on his Asian travels (1847-1851), he had already had a noteworthy, though not unhindered, career as a naturalist. As the younger son of the eminent botanist William Hooker (whose office as Director of the Royal Botanical Gardens at Kew he would take up in 1865), Joseph 'did not so much learn botany as grow up in it'.[273] The fact that his father was a respected man of science himself, who first held the chair as Regius Professor of Botany in Glasgow before moving to Kew in 1841, and who maintained an extensive network with scholars and colonial collectors from various corners of the globe, undoubtedly paved the way for Joseph Hooker's own scientific career within both metropolitan and colonial circles.[274]

Having trained as a surgeon and received his Doctor of Medicine in Glasgow, Joseph Hooker was eager to make his name as a naturalist, and for this purpose sought to emulate his role model Charles Darwin. Consequently, in the capacity of assistant surgeon and on-board botanist on the ship MHS *Erebus*, he embarked on a

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[271] See Carl von Hügel, *Kaschmir und das Reich der Siek*, 4 Vols. (Stuttgart, 1840-1848); parts of this work were translated (London, 1845); idem, *Das Kabul-Becken und die Gebirge zwischen dem Hindu-Kosch und der Sutlej* (Vienna, 1851-1852).
[272] Hügel, 'Introduction' in *Das Kabul-Becken und die Gebirge zwischen dem Hindu-Kosch und der Sutlej*, reprinted in *Denkschriften der Kaiserl. Akademie der Wissenschaften, Phil.-Hist. Classe*, Vol. II (Vienna, 1851), pp. 119-188, 119.
[273] Leonard Huxley, *Life and Letters of Sir Joseph Dalton Hooker*, II Vols., I (London, 1918), p. 37.
[274] Arnold, 'Hodgson, Hooker and the Himalayan Frontier', pp. 190-191.

'voyage of discovery and research in the southern and Antarctic regions during the years 1839-43' under Captain James Clark Ross.[275] Such extended overseas expeditions were then regarded as a formidable rite of passage for young and aspiring naturalists.[276] Despite Hooker's qualifications, Ross did not, however, regard the then 22-year-old to be on par with Charles Darwin, and had thus enlisted him only in the inferior rank of a botanist, not as the expedition's more prestigious official naturalist.[277] On hearing of this disappointing demotion, Hooker grumbled in a personal note to his father that 'what was Mr. D[arwin] before he went out? he, I daresay, knew his subject better than I now do, but did the world know him? the voyage with FitzRoy was the making of him (as I hoped this exped. would me).'[278]

Hooker had indeed very strong interests in establishing himself as a respectable naturalist through the voyage, which owed much to his personal financial status.[279] In the course of the southern expedition, he tellingly wrote to his father that 'I am not independent, and must not be too proud; if I cannot be a naturalist with a fortune, I must not be too vain to take honourable compensation for my trouble'.[280] As Jim Endersby has shown, Hooker would thus have much preferred to be able to work as an independent naturalist with a private fortune, than to be enlisted as a scholar for financial remuneration. The reason was that during much of the nineteenth century in Britain, 'men of science remained uncertain as to the respectability of being paid to do science'.[281]

Going back to a long tradition associated with the Royal Society, it was still widely presumed in Victorian Britain that the practitioners of the different branches of science ought to be gentlemen in the first place, in other words they should possess a personal wealth that was regarded as the guarantee of one's scientific 'disinterestedness and thus [...] truthfulness'.[282] And although the very notion of a 'gentleman' shifted during Joseph Hooker's lifetime, as the rising middling ranks of

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[275] So the title of Ross's travel account (London, 1847). This Antarctic expedition was closely linked to the launching of Britain's 'Magnetic Crusade'.
[276] Nigel Leaks, 'Darwin's Second Sun. Alexander von Humboldt and the Genesis of the Voyage of the Beagle', in Trudi Tait and Helen Small (eds.), *Literature, Science and Psychoanalysis, 1830-1970* (Oxford, 2003), pp. 13-36, 13-14.
[277] Endersby, *Imperial Nature*, p. 33.
[278] J. D. Hooker to his father, 27.4.1839, quoted from Leonard Huxley, *Life and Letters*, Vol. I, p. 41. FitzRoy was the captain of Darwin's ship *The Beagle*.
[279] Endersby, 'Local knowledge versus metropolitan expertise'.
[280] Idem, *Imperial Nature*, p. 20.
[281] Idem, 'Joseph Hooker: a philosophical botanist', *Journal of Biosciences*, Vol. 33, (2008), pp. 163–169, 163
[282] Ibid.

society increasingly challenged the established power of the landed aristocracy, still the notion persisted that science should above all be pursued out of disinterested motives, not out of necessity as a paid service to either the state or industry. Both the wealthy Prussian Baron Alexander von Humboldt, whose personal riches were spent on his American travels and the immensely costly publication of his *American opus*, and the eminent Joseph Banks, who (as scientific advisor to the British monarch) never received a salary, embodied this idealistic notion. (Humboldt, probably unaware of touching on a nerve, once personally explained this circumstance to Hooker, stating that his American expedition 'has cost me between 9 and 10,000£ St., and has absorbed almost my whole fortune'[283]). This social ideal of the gentlemanly scholar posed great difficulties for non-independent men of science, such as Joseph Hooker, who lived and worked under considerable material constraints, but nonetheless sought to live up to the established notion and to be accepted by their peers as scientific equals.[284]

This meant that Hooker in fact pursued two different, albeit closely related, objectives during his southern expedition, and throughout much of his subsequent career. That is, besides making a name for himself, Hooker also strove to raise the prestige of the very discipline he was engaged in, namely professional botany.[285] To be sure, botanical pursuits were then highly popular with amateurs, including a good many women, and were practised by lay personnel in both the British metropole and overseas colonies. Hence, to distinguish himself from this army of well-intentioned amateurs, Hooker strove to turn botany into a 'true' science that was to stand above the mere collecting and classifying exercises – as it was regarded, and practiced, by many at the time – while *de facto* relying heavily on the constant supply of specimens from the very same amateur collectors.[286] Of course, what 'proper science' actually involved was a perpetual bone of contention. However, at least in the views of many British scholars at the time, 'true sciences were concerned with mathematics,

[283] Archives of the Royal Botanic Gardens, Kew (RBGK), JDH/2/1/12, Letter Humboldt to Joseph Dalton Hooker, Potsdam, 16.7.1851, my translation.
[284] See Rudwick, *The Great Devonian Controversy*.
[285] See Philip F. Rehbock, *The philosophical naturalists: Themes in early nineteenth-century British biology* (Madison, 1983).
[286] A thorough analysis of the low status of botany as a science in the early 19th century is provided in Endersby, *Imperial Nature*.

experimentation, accuracy, precision, and – most of all – with discovering causal laws.'[287]

Becoming a 'philosophical botanist' thus meant to draw on empirical observations and the scrupulous classification of gathered specimens from around the globe, but with a view to formulating higher theories about the geographical distribution of plants on the earth's surface, and to find natural 'laws' about such vexing questions as to why new species were created in nature, and why a certain crop would thrive in one climate, but not in others.[288] Far from being only of scientific interest, these questions had tangible commercial implications, as the profits of maintaining and extending the British Empire depended in this period to a significant degree 'on plant-based commodities, from tea to timber, and cotton to cinchona.'[289]

With Kew Gardens acting as principal advisory institution to the British Government for such cultivation schemes[290], finding broader patterns that would, for example, allow crop transplantation was of much importance to men such as Hooker, not least to secure formal employment and to justify their paid services. Moreover, on a semantic level, being a 'philosophical botanist' had the further advantage that one was judged by the 'quality of [one's] work, *not* by the way' in which a practitioner of botany earned his or her living.[291] Hooker's double-edged ambition on his first major expedition and thereafter was thus to raise the status of botany as a science, and thereby to elevate his own reputation to secure a future career.

Ultimately, Hooker's southern expedition (spanning Australia, New Zealand, and Tasmania) did secure him a growing international standing, and he soon became both personally acquainted with Darwin, and a close correspondent of the renowned naturalist Alexander von Humboldt. However, despite his father's support and Joseph's rising reputation, which resulted from the publication of his treatises on the Antarctic flora, the aspiring naturalist struggled to secure sufficient patronage to pursue a successful scholarly career in Britain. Consequently, despite his best efforts

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[287] Idem, 'Local knowledge versus metropolitan expertise', p. 345.
[288] On the fragile status of botany as a science in the 19th century and the discipline's internal dispute over taxonomical practices, Christophe Bonneuil, 'The manufacture of species. Kew Gardens, the Empire and the Standardisation of Taxonomic Practices in Late Nineteenth-Century Botany', in Marie-Noëlle Bourget et al. (eds.), *Instruments, Travel and Science,* pp. 189-215.
[289] Endersby, 'Joseph Hooker: a philosophical botanist', p. 165.
[290] Caroline Cornish, *Curating Science in an Age of Empire: Kew's Museum of Economic Botany* (unpubl. PhD thesis, Royal Holloway, University of London, 2013); and Drayton, *Nature's Government*.
[291] Endersby, 'Joseph Hooker: a philosophical botanist', p. 164.

to become an intrinsic part of the British scientific establishment, he was forced to turn to other schemes. In a letter to Joseph Hooker in 1847, Humboldt therefore not only expressed his regret about the 'injustice [...] afflicted upon you for not having given you the chair [of botany] at Edinburgh' University, a position Hooker was denied – much to Humboldt's astonishment. The Prussian scholar also wrote encouragingly: 'I like this noble ardour that makes you undertake a new risky expedition, after having partaken in the one to the Australian Pole, which was so gloriously executed', adding that he regarded Hooker as being 'destined to render immense services to descriptive botany and to the geography of plants, but also to all the branches of meteorology and the geology of formations'.[292]

Indeed, Hooker was now, *faute de mieux*, keen to complement his extensive study of the botany of the southern hemisphere with a 'tropical' expedition, intended to explore the flora of the equinoctial zone at the northern fringes of the British possessions in South Asia. In a letter to Captain J. Ross, he expressed his ambition 'of going to India [...] under the auspices of the Garden [in Calcutta], who want to take advantage of the communication now opening up with Thibet and the rich passes of the Himalaya, which promise an extraordinary harvest of novelty.'[293] However, the benefit of the scheme was not to be limited to Calcutta's Botanical Gardens, as Hooker saw his travels as 'a project which is to open a direct botanical communication between Kew and Calcutta in the first place and to explore a new country in the second.'[294]

Although his planned itinerary would still frequently change, Hooker's original intention was to explore the frontier region between the British possessions and the Chinese controlled Tibet, above all the region of Sikkim at India's snowy north-eastern border. Still cautiously optimistic that he would receive not only Humboldt's scientific backing and some financial support from his father, Hooker also noted in a private communication that 'The E.I.C. too have promised me every facility and recommendation.'[295] Yet, while recommendations and logistical support were all well and good, Hooker needed to find more substantial patronage. For this purpose, he addressed among others Lord Auckland, then the First Lord of the Admiralty and a former Governor General of India, to whom he applied for a

[292] Humboldt, Berlin 30.9.1847, RBGK, JDH/2/1/12, my translation.
[293] Hooker to Sir J. Ross, 27.8.1847. RBGK, JDH 2/4/4, pp. 42-44.
[294] Ibid.
[295] Ibid.

'continuation of my Asst. Surgeon's pay' during his time of leave – in anticipation of the meagre salary he would receive from the 'Geolog[ical] Survey' of Britain. If all of the considerable travel expenses in India were to be secured, he added that 'I should be content with £200 a year from the Gardens' as an additional salary.[296] But even this travelling project, with its several sources of meagre payments pieced together, might be built on sand, as Joseph was well aware that only three months before his actual departure, 'So much may happen to frustrate these views that I cannot yet speak with confidence of the future'.[297]

The absence of a secured professional career was to accompany Hooker for a number of further years, which crucially overlapped with the generous employment of the Schlagintweit brothers by British imperial institutions. Although in November 1847 Hooker was finally able to embark on his Indian and Himalayan travels, during which he also found local scientific support from the governor general and a range of other British scholars and administrators, his mission nonetheless lacked the decisive material support of the East India Company. (And this despite the fact that Hooker's exploration of the north-east Himalayas provided more than 7,000 new botanical species to the Kew collection). In fact, although the scientific gains of Hooker's tropical expedition were considerable, they proved costly to the traveller himself, signifying the still fragile state of professional scientists in British society at the time.

To begin with, Hooker struggled to recuperate the comparatively minor travel expenses he had incurred in India, which again led Humboldt to state that the fact that 'your so powerful Government hesitates to reimburse the whole, forcing your father to add 800£ St [...] greatly puzzles me'.[298] But what was more, after his return in 1851, Hooker found himself in a delicate position similar to that before his Indian journey: as he stated in a private letter, 'At present I have no permanent employment, nor other sources of income but my Navy pay [...] The Govt. may employ me to arrange my Indian collections, but they tell me that even if they do this, it will not be

[296] Ibid.
[297] Ibid.
[298] This was more than a third of the entire travel expenses, as Hooker admitted to Humboldt in a private note, see RBGK, JDH/2/1/12, Letter Humboldt to Hooker, Potsdam, 16.7.1851, p. 22. Crucially, unlike Darwin's father, William Hooker possessed no personal fortune of his own, and his move to the position of Director of the Botanical Gardens at Kew had almost halved his income when compared with his previous allowances as professor of botany. Joseph Hooker was consequently most eager not to put further financial burden onto his family; see J. Hooker's letters to various family members in his Director's Correspondence at RBGK; also Endersby, 'Local knowledge versus metropolitan expertise', p. 347.

upon any definite or permanent salary.'[299] However, concluding an immediate contract with the Company to arrange and publish his Indian collection seemed to be more urgent, as Humboldt specifically reminded Hooker that it was best 'to draft and publish' his Indian observations 'in all the freshness' of his memory, rubbing salt into wounds as Joseph was struggling to find the means to do precisely that. For Hooker, who sought the standing of a gentlemanly scholar, the great personal distress implied in such an unsecured future becomes further evident if his private situation is considered. After his return from India, Hooker revealed in a private letter to a fellow scholar that 'Except they do give me some temporary employ I cannot even marry, for I have not the means' – despite his engagement to his fiancée, which increased his dismay about the uncertain prospects of his career.[300]

Hooker spent the years after his Indian travels introducing a more strict classificatory system into Kew's inflated stock of botanical species, which was intended as the preparatory work for a more 'philosophical' treatise on plant distribution in India and of the Himalayas – his projected *Flora Indica*. Not without slight exaggeration, he wrote of his endeavours: 'I am a *rara avis*, a man who makes his bread by specific Botany, and I feel the obstacles to my progress as obstacles on my way to the butcher's and baker's. What is all very pretty play to amateur Botanists is death to me.'[301] Given the enduring lack of Company patronage, the first volume of Hooker's Indian flora, which he published conjointly with his Indian travel companion Dr Thomas Thomson in 1855, had to be financed through the private inheritance of Thomson himself, and was meant to secure material support for the remaining portions of the work. However, convincing the Company of the prestige and commercial value attached to the patronage of their *Flora Indica* was not an easy task, and required a number of strategic moves on the part of the disregarded scholars.

The first step was to put considerable pressure on the Court, as Hooker and Thomson engaged in 'fairly public efforts to embarrass the Company into supporting their flora'.[302] For that purpose, they wrote in both private and public statements about the double-edged policies of the EIC, which refused to support 'scientific' works on Indian botany, albeit being more than happy to harvest the practical results once these accounts had been otherwise realised. Hence, in the introduction to the first (and

[299] RBGK, JDH/2/4/4, Letters to William Wilson, No. 35, Kew, 23.5.1851, pp. 101-104, 103.
[300] Ibid., p. 104.
[301] Bonneuil, 'The manufacture of species', p. 199.
[302] Endersby, 'Philosophical botanist', p. 168.

ultimately only) volume of their Indian flora, the two authors referred to the encouragement they had received from the British Association for the Advancement of Science, which on their behalf had appealed to the Court of Directors to provide financial backing for the project. However, as they remarked sarcastically, '[i]n reply to this recommendation, the Court declined promoting the object, but expressed a willingness to take its merits into consideration on its completion.'[303]

What is more, in an anonymous treatise most likely written by Hooker himself, preserved among his private papers at Kew, the author elaborated on the perceived failures by the Court, and their exaggerated interest in supporting predominantly those works that promised return on investment: 'The encouragement which the study of Botany has received from the Court of Directors of the East India Company has been extremely limited; though, from various causes, chiefly beyond their control, its results have proved of the very highest interest and value.'[304] In drawing a sharp and polemical distinction between the Court in London and 'local Governments in India', the 'anonymous critic' (Hooker) continued that:

> 'The Botanical Collections of Falconer, Roxbourgh, Griffith, Thomson, Strachey, Wight, Stocks, Hamilton, Wallich, and a host of others, to whose indefatigable exertions we owe all that is known of Indian botany, are distinctly due to the patronage of enlightened men, in India itself; - whilst the Court of Directors has almost invariably declined to aid the publication of these collections in England, or even to afford to the officers who make them (on their return home) the means of rendering them useful to Science.'[305]

Rather, the plainly commercial interests of the Company seemed to determine their patterns of patronage, because 'the keeping up of the various Seminaries, Horticultural Gardens and other Establishments, which promise return, more or less profitable, cannot be regarded as a patronage of the Science.'[306] It is noteworthy how Hooker, whose name does not even appear in the above list of eminent British-Indian naturalists, used this critique to position himself within a group of metropolitan scholars who thought of themselves as pursuing botany for the sake of scientific progress, rather than only for commercial gain. The attack on Company science in

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[303] Hooker and Thomson, *Flora Indica: Being a Systematic Account of the Plants of British India* (London, 1855), p. 7; see also Endersby, 'Philosophical botanist', p. 166ff. for more private letters to secure the Company's compensation, RBGK, JDH 2/9, Miscellaneous Letters c.1850-1922, Folder #1.
[304] RBGK, JDH 2/9, Miscellaneous Letters c.1850-1922, Folder #1, without pages.
[305] Ibid.
[306] Ibid.

general and 'plant capitalism' (as David Arnold terms it) in particular was thus intended to stress the almost 'moral' obligation that the EIC had – at least in Hooker's opinion – to promote scientific work that did not solely promise financial profit. In order to convince the Company of its supposed responsibility towards 'philosophical' botany, Hooker further used the very positive reviews that appeared in botanical journals about their first volume of the 'Indian Flora' as a personal asset to subtly criticise the Company's lack of support for this oeuvre. He thus wrote to one of the Directors: 'If you happen to have taken up Gardener's Chronicle at the Athenaeum', the leading scientific gentlemen's club in London at the time, 'you will see a review of the Flora Indica as a leader, & an allusion to the Court's not having promoted it'.[307]

This strategy of 'pressuring' the Company officials into increasing their sponsorship to British 'philosophical botanists', born out of years of personal frustration, was, however, complemented by more appealing attempts to secure rewards and future patronage. To this end, Hooker and Thomson presented half of the printed exemplars of the first volume as gifts to influential men, such as the Company director Colonel William Henry Sykes, hoping to ignite the interest of such powerful benefactors. What Hooker offered to the Court of Directors by way of targeting powerful individuals such as Sykes was indeed a great 'synthesising work' that would build on, and finally put to systematic use, the neglected results of a long history of Indian plant collecting. In doing so, his goal was to achieve a philosophical account of the colony's floras, not least with a view to improving the cultivation of natural products in the Indian colony. Consequently, Hooker wrote to Sykes that:

> '[T]he materials for the Completion of the work are now under examination & arrangement; they consist of selections from the numerous Herbaria formed under the orders of the Hon.able Company, & by their own officers, at an enormous expenditure of money & of not a few valuable lives; together with many large collections made by private individuals, missionaries, amateurs & travellers: these materials have occupied nearly a century to amass.'[308]

Hooker thus offered not *another* botanical account of Indian nature; rather, he presented his labours as the culmination of a century of British presence and Company science in India, drawing attention to the considerable expenses and private sacrifices involved in the accumulation of the collections that he hoped to analyse for

[307] RBGK, DC 102, English Letters SME-SYM 1855-1900, J. Hooker to Sykes, 4.11.1855, p. 305.
[308] Ibid., Hooker to Sykes, Kew, 3.11.1855, p. 303.

this *magnum opus*. To that end, Hooker placed himself into a genealogy of Indian botanical collectors, seeking to use the names of his well-known predecessors to add significance to his projected task, while also acknowledging their pioneering exertions – an expected practice from any respectable scholar at the time.

However, it seemed that by then his patience with the unwilling Company patrons was exhausted. He thus informed the Court of Directors via Sykes that 'I am no longer able to give my services gratuitously to the completion of the work; & though we would gladly place our materials in the hands of any competent botanist, there is no one able & willing to undertake it. Under these circumstances all we can do is to offer to the Court to complete the work, provided they will pay for the time expended upon it.'[309] In other words, Hooker not only proffered (seemingly against his will) to undertake this 'so laborious an undertaking'. Rather, he further argued that there existed no other men of science who were eager, or capable, to finish the monumental task, a rhetorical move that lent higher legitimacy and urgency to his proposal. At the same time, he was keen to uphold the ideals of the gentlemanly scholar, therefore stressing his supposed disinterestedness in suggesting the continuance of the project. Thus, Hooker subtly alluded to the fact that he had earlier that year (1855) secured the position of deputy director of Kew – which decreased, though by no means obliterated, his urgency to find financial sponsorship:

> 'I need not assure you that I have but one object in view in making the proposal, viz., the advance of science. I am in no want of remunerative employment, & therefore I have no occasion to ask as a favour to myself that the Court would pay for the time employed on the work, - if they think a Flora of India is worth having. After all I have done for Indian Science gratuitously, I have no fear of being accused of a selfish motive.'[310]

But with his recent formal attachment to the Gardens, Hooker conveyed that 'my private circumstances do not permit me to offer [my workforce] gratuitously for 10 years to come'.[311] Detailing the road to the completion of the *Indian flora* (whose first volume alone can be regarded as among Hooker's most important contributions to the botanical studies of the Himalayas), he further remarked that 'it might be concluded in 20 years, be comprised in 8 volumes, and would not cost the Company

[309] Ibid., p. 304.
[310] J. Hooker to Sykes, RBGK, DC 102, English Letters SME-SYM 1855-1900, 4.11.1855, p. 305.
[311] Ibid.

more than £3000 during that time.'[312] Ultimately, this proposal did not meet with any success, although Hooker would later write another multi-volume account of India's flora. But his personal struggles to find employment and attain recognition for his botanical endeavours encapsulates the fragile situation of many metropolitan scholars at the time, who, when lacking a private fortune, found that even the best recommendations and credentials did not always guarantee a materially secure existence.

Crucially, it was in the same letter in 1855, which was supposed to secure the Court's patronage for two decades to come, that Hooker introduced for the first time the previous employment of the three Schlagintweit brothers in British India as a rhetorical tool to gently pressure the Company into supporting his own – and those of other *British* fellows – scholarly pursuits. Hooker thus openly alluded to 'the liberality of the Court to the Schlagintweits', adding that 'no one rejoices at it more than I do, for the sake of science & their own, as I am personally attached to them'. However, despite his supposed close ties to his German colleagues, he continued that 'it is not a little mortifying to those who have worked hard and well, & spent hundreds of pounds in the service of the Company, to be denied any countenance, whilst comparative strangers are travelling with a carte blanche for unlimited credit on the local treasuries.'[313] As we shall see, this description of the German naturalists captures a number of tropes that played a crucial role in the controversy over the Schlagintweits' employment – above all their frequently emphasised foreignness, their grasping, greedy characters, and the overly generous allocation of Company means to 'strangers', whose support seemed to be carried out to the disadvantage of long-standing, and equally deserving, British subjects.

Transnational imperial recruiting

Whereas Hooker, Thomson, and a host of other British men of science maintained a somewhat troubled relationship with the Company, this 'state within a state' acted, at the same time, as an important employer and patron for a range of

[312] Ibid., p. 304.
[313] Ibid., Hooker to Sykes, 4.11.1855, p. 306.

scholars, and other professional groups, from the European mainland.[314] This eagerness to recruit foreign experts to scientific and administrative positions within the colonial establishment of the British Empire was certainly not confined to India. However, the vast social and natural landscapes of this most important British colony created a heightened demand for employing trained personnel from beyond the bounds of the national empire. It thus provides a useful starting point for reflections on the (to a degree) transnational nature of British imperialism around the mid-nineteenth century.

The pattern of drawing on foreign expertise had occurred throughout the entire period of Company rule, yet to a lesser extent and less systematically than at the time of the Schlagintweit brothers. Early figures encapsulating this trend included the German-born Benjamin Heyne/Heine (1770-1819), who was first educated in Dresden, Saxony, only to become a surgeon with the Moravian Mission at Tranquebar in south India.[315] Heyne subsequently found employment with the East India Company, owing his appointment to the proposal of William Roxburgh that he 'attend to the plantation at Samulcottah' in 1793. When the British botanist Roxburgh moved up to Bengal, Heyne took his place, acting from 1784 'as the Company's Botanist during the absence of Dr Roxburgh.'[316] Later, the German botanist rose to the position of the Assistant surgeon on the Madras Medical Establishment in 1796, becoming a full surgeon in 1807, and subsequently holding the office of the EIC's 'Surgeon and Naturalist on the Establishment of Fort St. George'.[317] Another eighteenth-century naturalist taken into Company service was the Baltic German Johan König (1728-1885), who had first similarly been involved in the Danish Tranquebar mission before entering the service of the EIC as a surgeon and naturalist. In fact, Roxburgh 'was the friend and pupil of the celebrated naturalist Koenig'.[318]

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[314] On British scholars in India and their harsh critique of the Company's insufficient support for purely scientific studies, see e.g. the private papers by George Buist at the Royal Geographical Society, London, CB4/279, 1854-1860. K. N. Chaudhuri, *The Trading World of Asia and the English East India Company: 1660-1760* (Cambridge, 1978), p. 20.

[315] See on Heyne and early forms of 'industrial espionage' by European travellers in India, Maxine Berg, 'Useful knowledge, "industrial enlightenment", and the place of India', *Journal of Global History*, 8 (2013), pp. 117-141.

[316] Tamil Nadu Archives, (Madras Records Office), *Madras Public Consultations*, March 1794; Public letter from Madras, 25 July 25, 1794; quoted from 'Heyne (or Heine), Benjamin', *National Herbarium Nederland*, www.nationaalherbarium.nl/fmcollectors/H/HeyneB.htm#3a, last access, March 2014.

[317] Ibid., and John Watkins, and Frederick Shoberl, *A Biographical Dictionary of the Living Authors of Great Britain and Ireland* (London, 1816), p. 436.

[318] Ibid., p. 446.

Yet the influx of foreign labour continued, and to some extent even increased, after the Great Indian Mutiny and Rebellion when the Crown took power over British India in 1858 – a political development that led to the actual enlargement of the administrative structure of the colony. That is, several new Government Departments were created only after the demise of the East India Company; among them were the Indian Forestry Department in 1864, the Indian Meteorological Department in 1875, and the Botanical Survey of India in 1890. For the establishment or operation of the first two, German scholars played facilitating or indeed essential roles.[319]

During the mid-nineteenth century, foreign experts were to be found in a wide range of positions at every level of the hierarchy in colonial India. They included those individuals who held long-term and authoritative positions in British India, such as the Danish-born Nathaniel Wallich, who significantly shaped British colonial botany in India during the first half of the nineteenth century.[320] The figure of Wallich also signified that in the late-eighteenth and early-nineteenth centuries, the British often turned to Scandinavian countries to recruit scientific personnel for the empire to satisfy a demand that Britain alone could not meet.[321]

Partly overlapping with the influx of scientific expertise from Scandinavia to the British Empire in the early 1800s, new academic developments in other European countries changed the patterns of such imperial recruitments for the rest of the nineteenth century. Above all, new and innovative forms of university teaching and research evolved within the politically fragmented and scientifically competing landscape of the German states.[322] Crucially, these modernising agendas of many German universities included a heightened focus on scientific research, which found its widely perceived and emulated expression in the establishment of the modern teaching laboratory by the chemist Justus von Liebig at the University of Giessen in 1826. Regarding this new organisational basis for the pursuit of the sciences, scholars have thus noted that '[n]ineteenth-century German universities became secular state

[319] For the case of forestry and Dietrich Brandis, see the later parts of this chapter; for the foundation of the Indian Meteorological Department and the role of the Schlagintweit brothers, see the subchapter 'Asymmetric reputations'. Another Government survey with considerable German participation was the Linguistic Survey of India, set up in 1894.
[320] Arnold, 'Plant Capitalism'.
[321] Idem, 'The Imperial and the Global: Re-Thinking "British" India', key note lecture at the EUI Conference, *Colonial Careers*, May 2012; forthcoming as idem, 'Imperial Recruitment and Transnational Science: The Case of British India', *The EUI Working Papers*.
[322] See Andreas W. Daum, '*Wissenschaft* and Knowledge', in Jonathan Sperber (ed.), *Germany 1800-1870* (Oxford, 2004), pp. 137-161, 146; and Harold Dorn and James E. McClellan III, *Science and Technology in World History: An Introduction* (Baltimore, Maryland, 1999), p. 309.

institutions, and science instruction fulfilled a service function for the state in helping to train secondary-school teachers, physicians, pharmacists, bureaucrats, and other professionals.'[323]

Hence, these newly founded or reformed universities in Germany, with their particular scientific curricula, trained a new generation of highly proficient scientific experts, who then sought adequate positions in which they could apply their skills. A considerable number of them readily found employment within the nascent technological industries in Germany in the second half of the nineteenth century, especially in fields such as chemical industry, electrical engineering, and precision optics.[324] Others, by contrast, looked for opportunities abroad. And given that no formal German overseas possessions existed until 1884 to absorb parts of this scientific workforce, it is not surprising that some of these experts would turn to the established overseas dominions of other European states. At the same time, the innovative and, in certain fields such as scientific forestry or agricultural chemistry, indeed pioneering achievements of German scientists did not go unnoticed. In fact, as David Arnold noted, 'there was sometimes a feeling, in India or in London, that empirically minded British scientists were not the equal of their more illustrious and philosophical Continental counterparts'.[325]

This shift of perception regarding German expertise, and its increased value in the eyes of British scholars and administrators, had at least two important consequences. First, a growing number of British scholars and doctors were actually educated at German universities in the nineteenth century, a good many of whom later pursued scientific or medical careers in the Indian Empire.[326] Second, and crucial for our analysis of the Schlagintweit controversy in the 1850s, this improved international standing of German scholars was also reflected in their growing recruitment by the imperial Company. This cooptation of foreign (and especially German) expertise was already noted at the time. That is, many contemporaries within and outside Britain assumed that some of the leading scientific experts in India, and other parts of the

[323] Ibid.
[324] Ibid., p. 310.
[325] Arnold, 'Imperial Recruitment and Transnational Science: The Case of British India'.
[326] Biographical information on several British scholars with a German educational background can be found in C.E. Buckland's, *Dictionary of Indian biography* (London, 1906). The prestige of German education at the time is further reflected in the fact that ca. 10,000 Americans earned their PhDs at nineteenth-century German universities, David Blackbourn, 'Germany and the Birth of the Modern World, 1780-1820', *GHI Bulletin*, 51 (2012), pp. 9-21.

British Empire, came from the German lands. For instance, the French scholar Alfred Maury wrote in the *Bulletin de la Société de géographie* in 1859 that:

> 'Les Anglais ne sont pas les seuls à explorer l'Inde. La savante Allemagne, qui s'approprie, pour les féconder, les découvertes de la France et de l'Angleterre, fournit aussi son contingent de voyageurs, et leurs explorations sont marquées de ce même cachet de profondeur et de sagacité qui est empreint sur toutes ses oeuvres. Quand il s'agit de résoudre quelque grand problème géographique et d'embrasser dans une même exploration toutes les branches de la science, c'est aux Allemands qu'on s'addresse.'[327]

Regarding this recruitment of foreign expertise, there was yet another crucial dimension to the German case in the mid-nineteenth century. That is, in many cases of German scholars enlisted in British service at the time, their supposedly detached political stance was often considered an important precondition for their potential employment. The history of African explorers like Heinrich Barth and Adolf Overweg is a strong case in point. In the negotiations leading up to their appointment to a British-led expedition into Central Africa in 1849, German officials stressed that the German scholars would not act as political agents with any 'national' or political agenda of their own.[328] On the contrary, German diplomats and mediators regularly assured the British side that the enlisted 'foreigners' would perform their studies only as disinterested men of science.[329] As Bradley Naranch has rightly noted, 'the rhetoric of scholarly expertise and the disavowal of direct political ambitions were part of a tactical arsenal that enabled individual explorers to pursue their own personal ambitions of discovery' within the established overseas infrastructure of other powers.[330]

Seen against this background, the lack of any formal German colonial ambition in Asia at the time was crucial for the decision to appoint a range of German naturalists, forestry experts, explorers, and other professional groups to scientific and surveying projects in British India. The importance of these specific British perceptions of German scientists becomes even more evident when it is compared to

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[327] Alfred Maury, 'Rapport sur les travaux de la Société de Géographie, et sur les progrès des sciences géographiques pendant l'année 1858', *Bulletin de la Société de Géographie*, 17 (Paris, 1859), pp. 5-110, 58.

[328] Naranch, *Beyond the Fatherland,* states: 'Their lack of political ambitions was not a hindrance to personal careers advancement. It was, in fact, its precondition', p. 240.

[329] For the case of German African explorers in the mid-nineteenth century, see ibid, ch. 5, esp. pp. 238-40, and Kirchberger, *Aspekte*.

[330] Naranch, *Beyond the Fatherland*, p. 226.

their perceptions of French scholars, and their on-going national imperial aspirations on the subcontinent. Unlike their French counterparts, German scientists were decisively not seen as agents of an imperial competitor, as a geopolitical threat to the established British dominance in this world region. Consequently, while solitary French scholars such as the Himalayan traveller Victor Jacquemont might have passed through British territories, there was not a single Frenchman who occupied a comparable high office in the colonial establishment, as did Nathaniel Wallich or Dietrich Brandis. It was also highly improbable that a French itinerary scholar would be appointed to lead a major scientific expedition of the British Empire, as Heinrich Barth did into Central Africa, or the Schlagintweits across South and into Central Asia. In addition to the scientific expertise German scholars were believed to bring to the empire, the specific perceptions of them as mainly non-political actors are thus crucial to explain why Germany provided a primary recruitment pool of scientific experts for the British imperial system in the mid-nineteenth century.

It is essential to note that some of these German experts went on to take up important offices in India, and thus had an impact on the very practices of colonial governmentality. They left their mark, for instance, on the way the Indian Empire was administered, and how its vast natural resources were to be managed and exploited. As Ravi Rajan and others have shown, German experts were at the forefront especially in the field of Indian scientific forestry.[331] Being among the most influential government departments in the realm of colonial science, as the management of forests impacted on the life conditions of millions of wood-using peoples in the colony, the Indian Forestry Department was for almost four decades under the leadership of German experts. This pattern started with Dietrich Brandis, who served from 1864 onwards[332] until Wilhelm Schlich took over in 1881 as Inspector-General of Forests, only to give way in 1885 to Berthold Ribbentrop, who retired after fifteen years in that eminent position.[333] The significant effect Brandis had on colonial governance is captured in the decisive role he played in bringing about the 1878 Indian Forest Act, which entailed a considerable increase in forest

[331] To be sure, this was not restricted to the British Indian Empire; the Dutch colonial establishment in Java, for instance, also recruited the expertise of German *Forstwissenschaftler*, see e.g. J. S. Furnivall, *Netherlands India: A Study of Plural Economy* (Cambridge, 1939), p. 201.
[332] Brandis had earlier been employed as Commissioner of Woods and Forests in Burma in 1856.
[333] Both Brandis and Schlich were knighted for their services by Queen Victoria. Kirchberger, 'Deutsche Naturwissenschaftler im britischen Empire'.

areas that were protected and monopolised by the imperial government.[334] Raymond L. Bryant underlined the wide implications of state forest control in the empire, stating that 'the issues that [the different Forest Acts of the 1870s and 1880s] addressed were crucial to the millions of people in the British-Indian empire who were reliant on the forests'.[335]

The long-standing German leadership of the Forestry Department was, however, only the tip of the iceberg, as many more *Forstwissenschaftler* also filled middle-rank positions in that vital government department. This long-standing influence of German migrating experts in India is notable, since it overlapped with the formal establishment of German national overseas colonies in 1884. However, despite the expansion of Imperial Germany and the supposed growing antagonism between Britain and the *Kaiserreich*, there was no formal end to the influx of scientific experts into other overseas powers, which should lead us to rethink our assumptions of European empires 'as internally homogenous, as well as externally competitive, entities'.[336] Rather, the nature of European empires seemed to change in the second half of the nineteenth and the early twentieth centuries, when a highly mobile and professional group of experts came to play an increasingly important role in the formulation and implementation of imperial policies in the fields of science, technology and medicine in a number of different European imperial systems.[337] As David Arnold succinctly put it, while it is true that 'the extent of this reliance on external expertise and agency does not undermine the political and military dominance of the ruling power, it does suggest that empire could be more than a single, national undertaking'.[338] What is more, the impact of German forestry on the colonial practices in India also shows that it was not only scientific personnel that migrated from European countries to other empires, or from empire to empire; rather,

[334] On the many regulatory interventions of Brandis' work in Indian forestry management, see also Arupjyoti Saikia, *Forests and Ecological History of Assam, 1826–2000* (Oxford, 2011).
[335] Raymond L. Bryant, *The Political Ecology of Forestry in Burma 1824-1994* (London, 1997), p. 56. On the negative impact of implementing new forest laws and restricting access to the natural forests of South Asia, see Stephen Mosley, *The Environment in World History* (London, 2010), pp. 50-51.
[336] Arnold, 'Imperial Recruitment and Transnational Science: The Case of British India'.
[337] This was the subject of the EUI-based conference *Colonial Careers*, May 2012; see, e.g., the key note by Ulrike Lindner 'Co-operation and knowledge transfer between colonial empires in Africa'; and the contribution by Samuël Coghe, published as 'Inter-imperial Learning and African Health Care in Portuguese Angola in the Interwar Period', *Social History of Medicine* (2014), 21 pp., first published online: September 28, 2014, doi:10.1093/shm/hku063..
[338] Arnold, 'Imperial Recruitment and Transnational Science: The Case of British India'. An insightful analysis of the cooperation and mutual exchanges of colonial practices between German and British colonies in Africa is offered by Ulrike Lindner, *Koloniale Begegnungen. Deutschland und Grossbritannien als Imperialmächte in Afrika 1880-1914* (Frankfurt am Main, 2011).

'embodied knowledge' also wandered with these scholars, decisively shaping the managing of colonial resources by the employing empire in the new professional environment.[339]

In contrast to these long-standing non-British office-holders within India's colonial establishment, there were also a number of sojourning foreign scholars and experts. For many of them, the empire's temporary employment was only a short chapter in a prolonged scientific career. However, the limited period of their Indian service could in many cases prove crucial for future trajectories; and while some of these mobile scholars may not have directly managed the cultivation and modification of colonial natural resources, many still collected information and 'useful knowledge' on these subjects for the growing British colonial archive on India's natural riches.[340] Scientists of this kind included the Munich-born naturalist Wilhelm Heinrich Waagen (1841-1900), who was struggling to secure a permanent university post in Munich; he subsequently accepted the offer to serve as palaeontologist to the Geological Survey of India in 1870. Leaving the imperial service after five years, Waagen had by then accumulated a precious stock of first-hand knowledge and experiences of Indian natural history, which he used to considerable success for his subsequent university career in Prague and Vienna.[341] Another German scientist who used British India as a stepping stone in his career was Georg von Liebig, son of the eminent German chemist and pioneer in agricultural chemistry, Justus von Liebig (1803-1873). Liebig junior had trained as a medical doctor in Giessen and London, and entered the East India's Company service in 1853. He soon became professor of natural history at the Hindu College at Calcutta from 1856 to 1858, before he returned after a five year Indian service to pursue his medical-scientific career in the German lands.[342]

It is noteworthy that the Schlagintweits could profit from these more long-serving German scholars in India, as they met with a number of them while they travelled throughout different parts of the Indian Empire. In 1856, for instance, the

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[339] Rajan, *Modernizing Nature*.

[340] See on the importance, real and imagined, of vast stores of empirical data for British colonial officials in British India, Arjun Appadurai, esp. his chapter on 'Number in the Colonial Imagination', in idem, *Modernity at large: cultural dimensions of globalization* (Minneapolis, 1996).

[341] For an appraisal of Waagen's scientific achievements and career, see anon., 'Obituary of Wilhelm Heinrich Waagen', *Geological Magazine*, 7 (Cambridge, 1900), p. 432. Especially his lectures on Indian geology in Vienna were frequented by many young and also established geologists. See Friedrich Steininger and Erich Thenius, *100 Jahre Paläontologisches Institut der Universität Wien, 1873-1973* (Paläontolog. Inst. d. Univ. Wien, 1973), p. 17.

[342] On Liebig in India, see e.g. Mark Harrison, 'Tropical Medicine in Nineteenth-Century India', *The British Journal for the History of Science*, 25 (1992), pp. 299-318, 305.

brothers met Liebig who then served as 'Assay Master of the Mint at Calcutta', who provided them with scientific instruments, and also helped the brothers to take scientific observations in the area.[343] The fact that these itinerant scholars could rely on scholarly and logistical networks maintained by fellow countrymen in India is further demonstrated by the fact that the Schlagintweits relied on a Hamburg merchant and Consul in Bombay, August Heinrich Huschke, for shipping their vast accumulated collections from India to Europe.[344] The significance of these informal German networks across the British possessions in South Asia was that they provided mobile scholars like the Schlagintweits with an alternative personal infrastructure. This included a number of personal contacts and channels for private communication, not least for the exchange of information and goods with people in the German lands, which often bypassed the official British networks of communication. As we will see later, far from being marginal to the Schlagintweit controversy, the German brothers would use this alternative infrastructure to engage in 'double games' with their British and German financiers.

While Liebig and Brandis were directly recruited from the German lands into the imperial establishment in India, other men of science first held offices either in the British metropole, or were engaged in scholarly projects in other corners of the empire overseas. One such mobile colonial career was followed by the distinguished German naturalist Gustav Mann (1836-1916), who in 1859 became a gardener under the leadership of William Hooker at the Royal Botanic Gardens, Kew. Sent as a botanist to West Africa to replace the British naturalist Charles Barter as botanist on the ill-fated Niger Expedition under the leadership of Captain Baikie (which ended in shipwreck and later Barter's death in 1859), Mann made frequent stopovers that he used to collect specimens from the Canary Islands and Sierra Leone. He then reached the Gulf of Guinea, a large inlet of the Atlantic on the southern coast of West Africa, where he further amassed specimens that were sent back on naval ships to the British

[343] See Schlagintweit, *Results of a scientific Mission to India and High Asia*, Vol I, *Astronomical Determinations of Latitudes and Longitudes and Magnetic Observations* (London and Leipzig, 1861), p, 147; and Vol. II, *General Hypsometry of India, the Himalaya, and Western Tibet* (1862), p. 25.
[344] *No. 1. Report on the Proceedings of the Officers Engaged in the Magnetic Survey of India, by Adolph, Hermann and Robert Schlagentweit* (Madras, 1855), p. 2: 'One box containing the geological collections of Bombay, Poonah and Mahbelashwar, has been sent by a vessel round the Cape by Messrs. Huschke and Co., Bombay'.

metropolis.[345] Through regular reports and new supplies that Mann sent to Kew, he inspired a number of scientific treatises by William Hooker himself.

However, Mann's scientific zeal went further, as he subsequently joined the Indian Forest Service in 1864, soon becoming 'Assistant Conservator for British Sikkim'[346], then the first Conservator of the Forest of Assam in 1868, and later Deputy Conservator of Forests.[347] In these influential positions, Gustav Mann put his botanical expertise into practice amidst the tea and cinchona plantations at Darjeeling and Assam, with his activities always aimed at improving the commercial cultivation of cash crops in northern India. Among other things, Mann was one of the first to predict that the natural rubber resources in Assam would soon be exhausted. Through his authority as Conservator of Assam, he ordered the large-scale plantation of rubber trees in 1873, which ten years later already encompassed an area of some 900 acres, and would increase still further in the following years. The significance of this scheme was that it was one of the first 'attempts at plantation of a commercially useful tree' of the British scientific forestry.[348]

John August Voelcker excelled in another field of imperial recruitment in which many German experts took the lead in the late nineteenth and early twentieth centuries in British India, agricultural chemistry.[349] In assessing the impact of Voelcker, who toured India between 1889-91, and later compiled the highly influential *Report on the Improvement of Indian Agriculture* (1893) for the Government of India, the Indian historian Prakash Kumar concluded that: '[t]his report suggested the adoption of new uses of chemistry for the betterment of the agricultural production of India', which 'became the basis of colonial policy for a few decades to come, and thus the impact of his particular interpretation of new chemistry and its relevance for India cannot be overestimated.'[350] As these and many other possible examples make clear, the Schlagintweit brothers were not exceptional cases

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[345] Martin Cheek, 'Gustav Mann', online article by the Royal Botanical Gardens, Kew, at http://apps.kew.org/herbcat/gotoMann.do, accessed April 2013.
[346] Gustav Mann to William Hooker, Darjeeling, India, 17.1.1865, RBGK, DC, 57/107.
[347] Mann combined the holding of these offices with a prolific output of natural historical treatises, as he wrote the yearly *Progress Report of Forest Administration in the Province of Assam* (Shillong, 1874-88). The compiling of the reports was hindered through the lack of precise maps and topographical data on the region, which in turn triggered renewed British surveying efforts, see Shrutidev Goswami, *Aspects of Revenue Administration in Assam,* 1826-1874 (Delhi, 1987), p. 120.
[348] Rajib Handique, *British Forest Policy in Assam* (New Delhi, 2004), p. 137.
[349] Ulbe Bosma, *The Sugar Plantation in India and Indonesia: Industrial Production, 1770–2010* (Cambridge, 2013), p. 146.
[350] Prakash Kumar, *Indigo Plantations and Science in Colonial India* (Cambridge, 2012), pp. 124-26.

– but were rather part of a broader migratory movement of German scholars to the British Empire. However, an important difference existed between certain experts, which relates to the question of their substitutability.

Crucially, whereas scholars such as Dietrich Brandis or Wilhelm Schlich brought a specific expertise with them to the empire that British scholars did not possess at the time, and which made them very difficult to replace with British subjects, other scholars from Scandinavia or the German lands were, by contrast, recruited to simply fill in vacant positions in the Indian Empire. However, they did so without necessarily mastering certain technical or scientific skills that British servants in the ranks of the EIC could not also offer.[351] It was rather a matter of the sheer demand for trained scholars that the British Empire needed to survey and administer its vast overseas possessions at a time of ongoing colonial advancement on several continents. However, although this transnational recruitment of experts for the Indian service by the British imperial state was thus a relatively common practice throughout the nineteenth century, it nonetheless led to resentment and *personal* competition between a number of British subjects and such 'foreigners'. As the analysis of Joseph Hooker's fragile professional position has shown, this rivalry was fought out over the limited means of the Company to either staff high scientific offices, to finance scientific ventures in India and other British territories in Asia, and to subsequently pay for their costly analysis and publication in Europe. This competition led to more general debates over the justice of employing non-British subjects for scientific offices. Such debates often assumed xenophobic undertones, and set the tone for the more peculiar Schlagintweit controversy.

National discourses and senses of entitlement

One such case of a foreigner's high-ranking employment was extensively discussed in one of Britain's leading cultural-scientific journals, *The Athenaeum*, in 1857-58. After an initial criticism of the employment of a German naturalist, who had been placed in charge of Burma's forests, was anonymously launched in a letter to the editor in late 1857, an unknown reader replied at length in defence of this individual,

[351] An example is Wilhelm Heinrich Waagen (1841-1900), who accepted the offer to serve as palaeontologist to the Geological Survey of India in 1870. Crucially, he was appointed to join the geological survey only on the death of another British scholar, Mr Oldham in 1869, to fill in the vacant position, *Records of the Geological Survey of India*, Part 1, (Calcutta, 1871), p. 1.

highlighting the specific expertise and experiences he possessed. I argue that it is most likely that the replying author was the German naturalist himself, namely the German forest expert Dietrich Brandis, who had been appointed Commissioner of the Woods and Forests of the Pegu division in Burma in 1856.[352] Crucially, the editors of *The Athenaeum* directly linked the anonymously fought polemic with the Schlagintweit controversy, which had started to become a public issue around the same time, and this captures many of the tropes that were to be repeated regarding the brothers.[353] At first, the anonymous author (arguably Brandis himself) re-stated the initial and slightly polemical criticism against this case of imperial recruitment, saying that 'I notice in your [earlier] issue [...] the following questions from a Correspondent: - '"Are there no botanists in the Indian service or in England? and further, if it be true that a German gentleman has recently been appointed a sort of Commissioner of Woods and Forests in Burmah?"'[354] Against this background, he continued by arguing and providing a rather elaborate (self-)defence that stressed the importance of the work of versatile and experienced 'experts':

> 'To this I reply, no doubt there are many accomplished botanists in the Indian service and in England. But is a knowledge of botany all that is required for a Commissioner of Woods and Forests? Certainly not. *If forests are to be worked so as to be profitable*, a knowledge of the best method of girdling, felling, and dragging the timber to market; of dealing with foresters and lumberers; of controlling men of that wild class, in tracts remote from civilized haunts, and, finally, a knowledge of all the intricacies of *forest management, which are only to be acquired by experience*, are quite as necessary for a real working Commissioner of Woods and Forests as a knowledge of botany.'[355]

In this description of the various capacities and skills required by a Commissioner of Woods and Forests, many tropes of the 'rule of the expert' were echoed. Far more than only an acquaintance with the science of botany alone, a real 'forest management' that was to be *sustainable* and *commercially successful* demanded an individual who possessed this vital 'embodied knowledge' of how to administer these natural resources over longer periods of time. Yet, as the author argued, his skills were not only to be limited to the profitable cultivation and

[352] I arrive at this conclusion as the reply to the initial letter was sent by *The Athenaeum's* 'correspondent' from 'Rangoon' in Burma, *The Athenaeum*, 1591, 24.4.1858, p. 531.
[353] Ibid.
[354] Ibid.
[355] Ibid., emphasis mine.

preservation of timber resources, but also needed to include a 'knowledge of all the intricacies' of how to establish a commercial infrastructure that would ease the insertion of this bulky commodity into the marketplace of the British colony. Lastly, to implement policies for such a long-term 'forest management', a high degree of state authority over these resources had to be established by the Commissioner of Woods and Forests in Burma to prevent the ruthless exploitation of timber by private traders.[356] Hence, the ability to assert one's claims in dealings with the colonial authorities in order 'to codify scientific forestry in law' were further crucial requirements.[357] In view of this combined need for scientific and managerial capacities of, what might be called, a ruling expert, the author further claimed that:

> 'I believe I may say, without disparagement to the many eminent botanists in the Indian service, that not one of them has had the opportunity of acquiring such knowledge as referred to. I doubt if any one in England has [...]. In the mean time, a German gentleman of high attainments has been appointed to the charge of the forests in Burmah, because he was not only a man of eminence as a botanist, but thoroughly acquainted with the working and management of forests in Europe. I trust the editor of the *Athenaeum* is not, under these circumstances, disposed to object to the 'right man' being put in 'the right place' in a British possession, even though the right man be a foreigner.'[358]

To justify his appointment, Brandis thus stressed the benefits of appropriating foreign expertise for British commercial interests ('if forests are to be worked so as to be profitable'). The reply that his letter provoked, however, was just as telling in its own right. The replying (also anonymous) author, who had started the argument in the first place, nonetheless adopted the 'we-form'. This was intended to suggest that his individual position would represent those of all 'Englishmen', a supposedly homogenous national community to which he frequently referred, and as whose 'defender' he pretended to speak. This juxtaposition between 'we' and 'the foreigner' was further reinforced, as the replying critic made it clear that he suspected Brandis of having composed the anonymous defence.[359] The strong national sense of entitlement

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[356] These 'foresters and lumberers [...] men of that wild class, in tracts remote from civilized haunts' were the private merchants with whom Brandis had to engage in long-standing conflicts over the use of the Burma forests. Gifford Pinchot, 'Sir Dietrich Brandis', *Indian Forester* 35 (1909), pp. 468-80. On British attempts to stop the unscrupulous depletion of valuable teak forests by private traders in the region, John McCormick, *The global environmental movement* (London, 1989; repr. 1995), p. 8.
[357] Bryant, *The Political Ecology of Forestry in Burma*, p. 44.
[358] *The Athenaeum*, 1591, p. 531.
[359] *The Athenaeum*, 1592, May 1, p. 564.

he felt British scholars had was reflected in the highly sarcastic, and at times openly racist, language he used to make his point.

> 'It will be new to some hundred of land stewards and English country gentlemen to learn that there is no one in England who understands the best methods of girdling, felling, and dealing with timber; - new, also, to Anglo-Indians to find that only in the forests of Germany can be acquired the power of controlling men of the wild class.'[360]

This polemic reply was, if anything, rather revealing about the critic himself. Despite the earlier elaborations of his opponent on the variety of activities involved in scientific forestry management, the latter still equated the wide range of works of a Government appointed Commissioner of Woods only with more practical botanical pursuits. He further glossed over how this office was, among other things, inextricably linked to the formulation of 'forward-thinking' exploitative policies that channelled and limited the very use of and access to this prime natural resource in colonial Burma.

Rather, as he was driven by xenophobic sentiments, the critic again focused mainly on the national origin of the recently appointed Commissioner, and used a rhetoric that seemed to imply such foreign appointments were somehow criminal, or a corruption which needed to be 'exposed' and brought to public attention. He thus concluded that:

> 'Thanks to the *Athenaeum*, such appointments [of foreigners] are not likely to be repeated, and if they be, are sure to be exposed. *We* do not object to see the right man in the right place, even if he is a foreigner. But *Englishmen* have a right to complain when they see foreigners of no higher qualifications than their own appointed to *offices, which are their birthright as Englishmen*, and should be their rewards as men of science.'[361]

Whereas some British contemporaries might have regarded the cooptation of expertise from beyond the realms of the national population as justified, especially when it increased the profitability of the empire's possessions, others were adamant that it was not and used a language of exclusion in their criticisms that reinforced a supposed *natural right* of English subjects to hold offices in the empire, at least as

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[360] Ibid.
[361] *The Athenaeum*, 1592, p. 564.

long as they possessed similar qualifications.[362] In other words, the anonymous critic did not question that the German forestry expert would bring about the wished-for results in colonial Burma, and no such later accusation of failure could be found in the journal; the complaint was linked to his status as a 'foreigner'.

As has been suggested earlier, the non-British expert at the heart of this public debate was none other than Dietrich Brandis, who first proved his worth in Burma, only to become the most influential scientific forester in South Asia in the second half of the nineteenth century. However, in the existing literature on Brandis' internationally significant career as a scientist, this initial hostility has been entirely overlooked.[363] Yet, for better understanding the Schlagintweit controversy (and its very different nature and trajectory from this slightly earlier and more short-lived polemic), it is important to note that Brandis' employment was attacked solely on the grounds of his nationality. Once his contributions were considered for the management of Burma's and subsequently British India's forest resources, the hitherto outspoken critic in Britain became silent. Despite the fact that Brandis had at times needed to overcome considerable difficulties in politically implementing his forestry policies in British India, his achievements were widely acknowledged.[364] In fact, given the ultimate value of his work, at least from an imperial perspective, precisely in the realm for which he had been initially appointed – scientific forestry, Brandis was later elevated into the highest echelons of the symbolic hierarchies of the British Empire. In 1875, he was elected Fellow of the Royal Society, and received 'The Most Eminent Order of the Indian Empire', first as CIE in 1878, and later as KCIE in 1887.[365]

In sum, I argue that when we view the fleeting 'Brandis controversy' against the background of the many other German scholars recruited into British service in mid-century, who usually served without provoking such strong public disputes, certain patterns arise that seemed to have generally shaped those debates over the

[362] On this more pragmatic stance, see the position of the influential science administrator Sir Roderick Murchison later in this chapter.
[363] Generally, the focus in the historiography is predominantly on his impact on shaping scientific forestry practices literally around the globe, from Asia to Europe, to the United States of America; on Brandis' casting a great shadow over scientific forestry in the latter country, see e.g. Carl Alwin Schenck, *The birth of forestry in America: Biltmore Forest School, 1898-1913* (Santa Cruz: CA, 1974).
[364] See on the challenges posed for Brandis in his conflicts with private timber merchants in Burma, and also regarding the Government of India to introduce a 'homogenous system' of forest management throughout the different administrative units of the Indian Empire, Gifford Pinchot, 'Sir Dietrich Brandis'.
[365] Ibid., p. 471.

employment of foreign expertise at the time. First, a great number of foreign scholars were appointed to serve in rather inconspicuous positions, as captured in the many middle-rank positions filled by German naturalists in ongoing and narrowly defined Indian surveys and Government Departments. As these offices were not highly regarded, and did not promise lucrative salaries or social prestige, many of those foreign, often temporary, employments went largely unnoticed by the British public. In other words, while a degree of personal rivalry was ubiquitous among British scholars, but also with those of other national backgrounds, it becomes evident that relatively rarely was the recruitment of a foreigner followed by controversy.

Second, there nonetheless existed a widely shared nationalist discourse in Britain and the Indian Empire that seemed *generally* to object to the favouring of non-British personnel over national subjects. Third, this criticism of appointing foreign experts seemed to emerge especially with regard to more prestigious offices. This is unsurprising, as such positions promised both a greater amount of public authority, cultural capital, and – crucially at a time of the still fragile positions of scientists in British society – an increased remuneration, and hence a more secure existence. Fourth, however passionately this resentment against foreign employment was expressed, both privately and publicly, it was often in a rather depersonalised form. The forest expert Dietrich Brandis was, for instance, not directly named or attacked as an *individual*; rather, his case only served to oppose the *general* cooptation of foreign 'botanists' to such exalted positions as Brandis had assumed. Lastly, despite the early criticism about the latter's appointment to such an elevated post, his subsequent career secured Brandis with an international standing, and his practices were acknowledged and actively emulated by British, European, Australian and American scholars in the decades to come.[366]

In the case of the Schlagintweits, we are, however, faced with a particularly ferocious critique not so much of their initial *employment*, but especially with regard their personal comportment as scholars, and the ultimate scientific *results* they

[366] Gifford Pinchot wrote of Brandis in his autobiography: '[H]e had done great work as a forest pioneer, had made Forestry to be where there was none before. In a word, he had accomplished on the other side of the world what I might hope to have a hand in doing in America'. Pinchot, *Breaking New Ground* (New York, 1947), p. 9. Pinchot claimed that Brandis had also influenced and inspired the careers of many other prominent American foresters of the late nineteenth and early twentieth centuries, including Henry S. Graves, Frederick E. Olmsted, and Thomas H. Sherrard, 'whose fortune it became afterwards to shape the general policy of forestry in the United States', 'Sir Dietrich Brandis', p. 471.

proffered to the employing empire, which went far beyond the single voicing of complaint over the appointment of non-British experts. Their case can thus provide us with more than the basic finding that strong patriotic feelings and heightened senses of entitlement existed in Britain and the Indian Empire around the mid-nineteenth century – and, allegedly, especially so after the Anglo-German antagonism in the Crimean War.[367] Even though the fact of their non-British background and the responding nationalist discourses certainly played a role, an analytical perspective that would exclusively focus on their 'foreignness' would, however, greatly reduce the historical complexity of the polemic. I thus contend that the various elements of the conflict, and the actual unfolding of the Schlagintweit controversy, were not the simple outcome of British xenophobic tendencies – even though contemporaries including Alexander von Humboldt himself assumed this to be the case.[368] Rather, the controversy must be regarded as a long and complicated process, whose various layers require a careful reconstruction that includes attention to a variety of actors, and which needs to be grounded in a much wider source base than scholars have hitherto used in trying to explain the polemic.[369]

[367] As Gabriel Finkelstein argued in 'Conquerors of the Künlün?'.
[368] Humboldt to Bunsen, Potsdam, 19.8.1855, in Schwarz, *Briefe*, pp. 191. See also Päßler (ed.), *Alexander von Humboldt – Carl Ritter*, 'introduction', p. 23.
[369] Finkelstein, for instance, took only a single, though certainly important, review of the brothers' work as his basis of evidence to explain the British critique of the brothers' published '*Results'*, and only alluded to their works' supposedly overly-technical character. See idem, 'Conquerors of the Künlün?'. With new and revealing sources at hand, a very different and more complex understanding of the controversy will be proposed.

Chapter Three:

The contested careers of imperial outsiders

The Schlagintweit controversy was both a personal and a professional controversy, in which issues surrounding the professionalisation of the sciences in British society played a significant role, as did established notions of the appropriate conduct of gentlemen scholars. Hence, although the intellectual climate in Britain did not facilitate the integration of foreigners at the time, the core of the conflict seemed to have been a debate about the value of the ultimate scientific *results* of the Schlagintweit expedition to Asia, especially when compared with the scale of public expenses spent on the scheme. The debate was at the same time linked with a critique of the brothers' *social* behaviour as scholars, and their failure to conduct science according to the respectable norms of gentlemanly scholarship of the time. However, as much as the controversy must be placed within these cultural contexts of Victorian science in the mid-nineteenth century, the individual agency of the Schlagintweit brothers was just as important a factor. To gain a better understanding of why the brothers' scientific results were so ambiguously received across Europe, we need a more nuanced understanding of the plurality of expectations diverse groups developed before and during their Asian mission – expectations that were to a considerable extent spurred on by the brothers themselves.

Great Expectations

Even before the three brothers had set foot on Asian territories in October 1854, the expectations about the scientific outcome of their journey were considerable – especially from the scientific community in the German lands. Some scholars have perhaps overemphasised the role of Alexander von Humboldt in shaping the careers and scientific activities of the brothers; as we have seen, the impetus and negotiations to embark not on a narrow survey, but rather on a major scientific exploration owed a great deal to their own initiative. Nonetheless, Humboldt's active encouragement and heightened belief in the abilities of his young protégés certainly played a part in the Schlagintweits' decision to greatly enlarge the scope of their expedition. In view of Humboldt's own failed attempts to complement his American travels with an

extended Indian and Himalayan exploration – arguably the most important German expedition into South Asia to *never* take place –, the Prussian geographer had given all his active support to enable at least his wiry pupils to explore those regions.[370] In return for his constant encouragement and intercession, it was quite clear that the brothers would embark on the Asiatic mission carrying with them Humboldt's recommendations, scientific instructions, and – above all – high expectations.

As the most influential patron of aspiring German geographers and naturalists in the first half of the century, from early on Humboldt shared his appreciation of the Schlagintweit brothers' work with a number of German, French, and British men of science. The tropes of his recommendations, which had started in 1850, were repeated in letters to several eminent scholars and benefactors, ranging from the Bavarian king Maximilian II to Carl Ritter, the British scientist Michael Faraday, and the Scottish statesmen, historian, and Governor of Bombay, Mountstuart Elphinstone. Crucially, the nature of such letters of introduction was both private and professional, as these notes also acted as academic recommendations for the brothers. By always comparing the Schlagintweits' work in the Alps with the earlier achievements of internationally known European natural philosophers, Humboldt actively raised the esteem and expectations about the brothers' abilities among British men of science and colonial administrators. Seen in this light, Humboldt's claim, in his supporting report on their failed Prussian expedition from 1852, that the brothers' reputation in Britain was grounded only in the ingenuity of their published work, and *not* at all based on 'recommendation', is highly questionable.

To thrive under the patronage of Alexander von Humboldt, one of the most eminent natural philosophers of his age, was arguably both a blessing and a curse. Humboldt's personal expectations would always prove difficult to fulfil: the ambitious naturalist hoped that the Schlagintweits would succeed in a delicate balancing act between a wide-ranging engagement with Asia's natural world, grounded in studies in a number of disciplines, and, at the same time, the achievement of a rigid scientific thoroughness. Humboldt expressed these somewhat contradictory expectations to the Prussian scholar and envoy Bunsen, only a few months before the brothers' departure: 'Since Saussure, no scientific work has appeared that so

[370] In a letter of introduction provided to the brothers for the Indian voyage, Humboldt in 1854 still openly stated: 'Le rève [sic] qui m'a poursuivi depuis mon retour de Mexique, avant l'expedition de Sibérie a été aussi helas! le rêve d'un voyage à l'Himalaya et une partie de Tibet.' Reprinted in *Journal of the Asiatic Society of Bengal*, XXIV (1856), p. 184.

generally reflected the progress in all the sciences. Much *thorough work* is to be expected from these industrious, well-educated, and modest young scientific travellers, to whom you have given your patronage' for the impending Asiatic voyage.[371] Hence, in projecting his own hopes, and his earlier praise of the Schlagintweits' trans-disciplinary Alpine achievements onto the upcoming Indian and Himalayan expedition, Humboldt made it clear that nothing less should now be accomplished in the study of this fantastically complex Asian mountain chain.

Nothing proves better that Humboldt drew close parallels between his own earlier overseas expeditions, to which he owed his international reputation, and the impending Schlagintweit voyage to Asia than a personal letter, sent two weeks before their ultimate departure in September 1854. Therein, Humboldt addressed the brothers for one last time, and his letter made clear that while he did not expect to see them again, he still regarded their scientific mission as one of the greatest projects he had ever helped to initiate in his long career. By symbolically passing down the 'torch' of German overseas exploration to his disciples, he concluded:

> 'I did not have time this night, during which I wrote 4 warm and ingenious letters for you, my dear, amicable friends, to give you a word of love, of remembrance, of inner regard, and of eternal farewell. Of all things, to which I have contributed, it is your expedition that has remained one of the most important. The latter will still delight me when I will die. You will enjoy what between the return from Mexico and the Siberian travel constantly also occupied my own imagination. May you fare well.'[372]

Since Humboldt anticipated his own demise before their return, his enduring support of their Asian mission appeared as a parting gift, as a once-in-a-lifetime opportunity he himself had helped to forge. Comparing their upcoming Asian scheme with the opportunities his American travels had offered him, it becomes clear that Humboldt considered the former as the Schlagintweits' great chance to secure their own standing among the next generation of great German overseas travellers.

Apart from Humboldt and Carl Ritter, whose works on Asia the Schlagintweits expressly set out to both verify and complement, other German

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[371] A. v. Humboldt to Bunsen, Berlin, 26.2.1854, GStaPK, Rep 92, Dep. K. J. v. Bunsen, B. No. 59, my translation and emphasis.

[372] These 'listige Briefe' were further letters of recommendation to the brothers, which opened many doors in India's imperial and scientific establishment. Humboldt to Hermann and Adolph, Berlin 4.9.1854, Stiftung Stadtmuseum, Berlin, Humboldt-Slg. Hein, HU 99/62 QA, my translation.

scholars placed similarly high hopes in the brothers' upcoming travels.[373] With Berlin and Gotha acting as leading centres for the production of maps at the time, a number of cartographic experts expressed their desire to receive scientific findings of precision and quality that would contribute to greatly improving their maps of this world region. Among them was Heinrich Kiepert (1818-1899), one of the 'most distinguished' geographers of his age, who worked in Berlin and collaborated with Carl Ritter and Humboldt as a cartographer, before taking up the chair in geography at the University of Berlin in 1859.[374] Due to his personal networks, Kiepert could draw on all sorts of geographic data for his work that was supplied by his scholarly friends across the European empires, and also by 'the British, Russian, and French War Offices'.[375]

Being continuously provided with the most recent 'materials at his disposal', gained from surveying projects and voyages of exploration in different regions of the globe, Kiepert put these stores of knowledge to systematic use in his oeuvre, which regularly reached international audiences. Among his numerous and positively received works was the *New Hand-Atlas of all Parts of the Globe* (published between 1855-1860), which included some of the most precise maps of Europe, Africa, Australia, Russia, Asia Minor, and Central Asia that could be produced at the time.[376] The international standing of Kiepert as a mapmaker serves to show that German cartographers were extremely well integrated into trans-imperial knowledge networks and could, despite (or because of) the absence of any 'national' colonial possessions, draw on the most recent topographical data which other European empires amassed overseas.[377]

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[373] In a letter to Ritter, Munich, 26.11.1853, Adolph wrote: 'In recent times, I had frequently the occasion to search for advice and instruction in your comprehensive and excellent work on Asia. The longer one studies it, the more it commands one's sincere admiration. If our Indian travel should actually come about, thanks to the benevolent mediation and undeserved intervention of Alex. von Humboldt, we will enjoy the priceless gift of having in your work a firm (though unattainable) model for our own researches.' Staatsbibliothek Berlin, Nachlass Ritter, p. 1, translation mine.

[374] Kiepert was since 1862 honorary Corresponding Member of the RGS; see the admiring 'Obituary for Heinrich Kiepert', *The Geographical Journal*, 13 (1899), pp. 667-668.

[375] Ibid. 667-668.

[376] Originally idem, *Neuer Handatlas über alle Teile der Erde. Entworfen und Bearbeitet von Dr. Heinrich Kiepert* (Berlin, 1855-1860). This work was soon translated into other languages, and went through several editions. On the English version, it was noted that 'the second edition of Kiepert's "New Hand-Atlas of all Parts of the World", in forty-five sheets, is worthy of mention, on account of its accuracy, clearness, fullness, and cheapness.' See 'Chronicles of Science', *The Quarterly Journal of Science*, Vol. IV 1867), p. 407.

[377] This influx of stores of data and intelligence from different imperial knowledge networks captures the notion that Berlin and Gotha were important 'centres of accumulation' for geographical knowledge about Asia at the time, as further discussed in other parts of this thesis.

Yet, western geographical knowledge was still patchy about the interiors of many non-European continents.[378] In Kiepert's explanatory section detailing the sources of his map of Central Asia, the cartographer complained about the highly confusing spelling of many topographical names provided by British travellers. He further pointed to the fact that itinerary scholars had only recently begun to pay closer attention to indigenous names, and the correct labelling of geographical phenomena and human settlements in those regions.[379] In this important cartographic work, which was circulated internationally and went through several editions, Kiepert's passage on Asia concluded with a reference to the three Schlagintweit brothers, testifying to the high expectations of their mission held by metropolitan men of science. Kiepert prominently stated in the main body of his text that 'Further advancements on this matter [of Indian terminology], as well as regarding the more precise descriptions [*Darstellung*] of physical-geographical facts, both for Tibetan and Indian territories [...] are soon expected from the publications of the brothers Schlagintweit'.[380] The brothers would indeed devote considerable attention to these terminological questions during their mission in Asia.[381] The eminent Gotha-based cartographer August Petermann similarly anticipated important results by the brothers, whom he regarded as great scientific explorers, not mere surveyors in the service of the Company. In a letter to the Company Director Sykes, he thus stated in 1856:

> 'These travellers have already, in so short a time, overlaid your Indian Empire with a net of their routes and lines of manifold observations, which will afford a new and more complete view of that country than we have hitherto possessed. I only hope that they may yet be enabled to push their investigations into that great and so little visited and known Central Region of the Himalayas of Nipal [sic!], or the equally unknown Eastern wing […] It would indeed be a pity if they were to return without having had the opportunity of visiting one of these interesting "terra incognitae", particularly after [what] the survey and exploration of that little bit, Sikkim, has

[378] See for Africa and especially Australia in the 19th century, Dane Kennedy, *The Last Blank Spaces*.
[379] Kiepert, *Handatlas*, p. 13.
[380] Ibid., p. 14. For the expectation of German geographers about 'a range of great new facts and images' to be provided by the brothers, see also anon., 'Himalaya', in Hermann Meyer (ed.), *Neues Konversations-Lexikon, ein Wörterbuch des allgemeinen Wissens*, 8 (Hildburghausen, 1864), pp. 1016-21, 1021.
[381] *Geographical glossary from the languages of India and Tibet including the phonetic transcriptions and interpretation ... edited by Hermann Schlagintweit*, in *Results*, 3 (Leipzig and London, 1863), pp. 133-293.

> demonstrated to us; [that] interesting grand world East and West from [Sikkim] is as yet almost a sealed book to us.'[382]

In sum, European cartographers, who through their works visualised these non-European spaces for western audiences, relied both heavily on the precise local designations for geographical features, and also on accurate measurements, both of which the Schlagintweits had offered in their preceding Alpine treatises. Only the most detailed observations and coordinates of topographical features allowed such cartographers, who rarely visited those overseas regions themselves, to authoritatively construct those landscapes through the medium of the map. A belief in the thoroughness, and hence trustworthiness, of the data provided by individual itinerary scholars was therefore crucial in the constant decision-making of sedentary mapmakers, not least for the question of what sources to consider as erroneous and what as reliable.[383] The fact that Kiepert hoped that their work would provide the basis for improved European geographical understandings and cartographic depictions of the imperfectly known region of the trans-Himalayas thus reflected the high opinion and expectations he (and other cartographers) had about the Schlagintweits' scientific results.

To be sure, the far-reaching expectations of German men of science about the Schlagintweit mission were in many cases matched by those of French scholars, as the brothers had established both a reputation and considerable interest in their eastern travels among scientific circles in Paris. Owing to a number of previous visits to the *Académie des sciences*, the frequent delivery of scientific lectures, and the maintenance of professional and personal ties with a number of French geographers, the Schlagintweits were, by 1854, well known in the capital's academic establishment.[384] At least one of the brothers also frequented Paris before their departure in order to decide upon the best observational practices to be adopted in

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[382] Petermann to Sykes, Gotha, 9.4.1856, Sammlung Perthes Archiv, (=SPA), ARCH PGM 353/1. 'Schlagintweit, Adolf / Schlagintweit, Hermann v., Schlagintweit, Robert v.' P 48.

[383] See for an interesting reflection on the (imaginary) work of European map-makers the study by E. Tammiksaar et al., 'Hypothesis versus Fact: August Petermann and Polar Research', *Arctic*, 52 (1999), pp. 237-243.

[384] Adolph and Hermann Schlagintweit gave lectures at the *Académie* on their hypsometrical researches, and presented 'une Note sur la hauteur des diverses sommités du mont Rose' in 1852. See the highly acknowledging note on their researches by members of the *Académie*, 'Mémoires Présentés', *Comptes rendus hebdomadaires des séances de l'Académie des Sciences*, 35 (Paris, 1852), pp. 17 and 102.

Asia, and to procure additional apparatuses or further refine their own instruments.[385] These visits were supplemented with meetings with eminent scholars and administrators about their upcoming expedition, which also included the French Emperor Napoleon III, whom the brothers personally informed of their voyage.[386]

The lofty expectations of French metropolitan scholars is captured in a notification given by the geographer Alexandre Dezos de la Roquette to the Geographical Society of Paris in 1854, 'On the works offered by Mr Schlagintweit and on their forthcoming travels through India'.[387] After recounting the great value of Adolph and Hermann's Alpine investigations, the author then announced the upcoming eastern journey, stating that 'the society learns not without a lively interest that, on the pressing recommendation of our ancient and illustrious president, Mr Baron Alexander von Humboldt, patriarch of the geographical sciences, these two German savants have recently been appointed, together with their third brother Robert, on a scientific mission to the Oriental [East] Indies, and particularly into the Himalayas.'[388]

In detailing their equipment, the financial arrangements, and the ultimate scientific objectives of the expedition, de la Roquette continued that the Schlagintweits were believed 'to stay for three or four years in India, and, since we know the talent and active zeal, of which these skilful explorers have already given so much evidence, French academics would now expect significant results in 'the geological, meteorological and geographical sciences.' The reason de la Roquette could make these grandiose statements had to do with the fact that the brothers had informed their French peers about the impending voyage seemingly only after their propositions for greatly expanded scientific pursuits had been granted by the Company. In other words, the brothers had kept quiet about their Asiatic mission

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[385] In August 1854, Adolph Schlagintweit left London for a trip to Paris 'in order to discuss with the members of the Academy different aspects of our observations, and to have made some instruments for our travel.' Adolph to an unknown recipient, most likely Mr Feuillet, 'Introducteur des ambassadeurs et Long-Directeur aux Ministère des Affaires Etrangères à Paris', GStaPK Berlin, 1 HA, Rep. 81, Gesandtschaften und Konsulate nach 1807.

[386] In another letter, the full range of objects presented as gifts to Napoleon III were enumerated, which included: 'La lettre adressée [à] S. M. l'Empereur par M.M. Schlagintweit', 'Un livre grand format, Geographie des Alpes', 'Un grand Atlas rouge', 'Deux petits Atlas un jaune et un rouge', 'Deux caisses en bois avec des modèles en relief du mt Rose et du Zugspitze'.

[387] This notification 'Note Dr M de la Roquette sur des ouvrages offerts par MM. Schlagintweit et sur leur prochain voyage dans l'Inde' was read out at a meeting of the *Commission centrale* of the Geographical Society of Paris, and later printed in the *Bulletin de la Société de géographie*, 8 (Paris, 1854), pp. 229-32, all translations are my own.

[388] Ibid.

when they were only likely to be appointed as rather humble surveyors, but once they had turned their minor employment into a significant expedition after negotiations with the Court, they could fashion an image of themselves as great scientific travellers in front of their French audiences. The timing of the announcement of their Asiatic mission to the Parisian scientific establishment was thus closely linked with the public image they sought to fashion for themselves.

Finally, de la Roquette listed the prestigious patrons of this scheme, which (besides Humboldt) would include '[t]he directors of the powerful [British East India] Company, which, on many occasions, has shown itself the enlightened protector and patron of scientific enterprises.' The EIC, so it was claimed, 'seems to attach a great importance to the works of the Messrs. Schlagintweit'. In fact, as the author recounted, the Company had relied on one of its most (scientifically) eminent directors, 'Mr. Colonel William Sykes [...] who is vividly interested in the progress of the sciences, especially when their object of study is India', who had offered the brothers 'his devoted assistance'.[389] In view of the considerable financial, logistic, and scientific support provided to the brothers by the Court and a host of international scholars, the report concluded that '[w]e must also place high hopes in the success of this enterprise, when we see by whom it will be executed, and who are acting as patrons and guides of the expedition.'[390] By carefully controlling what information about their employment reached whom, and when, the brothers were thus able to ignite considerable curiosity and anticipation about their Himalayan travels.

With hindsight, it seems that the expectations of the French scientific community were undiminished, indeed they appeared to increase during the course of the Schlagintweit expedition. Alfred Maury, who spoke in front of the Parisian geographical society in 1858, was certain that the Schlagintweits' work would surpass the achievements of many of their British and French predecessors in this world region:

> 'L'Angleterre, qui a reçu d'eux [les Allemands] plusieurs de ses meilleurs ethnologistes, leur a demandé Barth, Overweg, Vogel. Trois autres Allemands, les frères Schlagintweit, se sont partagé les contrées les moins explorées de l'Hindoustan et de la haute Asie. Leur mission produira certainement une des œuvres les plus achevées dont cette région du monde ait fourni la matière.[391]

[389] Ibid.
[390] Ibid.
[391] Alfred Maury, 'Rapport sur les travaux de la Société de Géographie', p. 59.

Yet, while many German and French metropolitan scholars considered the Schlagintweit brothers as 'the right men in the right place', some of their British peers were, for more than one reason, rather sceptical about the appointment. What becomes apparent through the examination of letters, reports and newspaper articles from Germany, France and Britain prior to the beginning of the expedition is that, from at least 1853, there was a substantial tension between the *British* perceptions of the Schlagintweits' task, and their general abilities as men of science, and the brother's image on the continent. Especially the perceptions of some of the most influential British scientists, hence *not* of Company men, seemed to greatly differ from the brothers' self-identification as scientific polymaths. These competing understandings of what their Asian mission should consist of, and what academic qualifications the brothers actually possessed, were crucial for the unfolding of the later controversy over the value of the results they brought back from Asia. The divergent views of the brothers' credentials (and hence of the scope of their mission) thus deserve much closer attention than they have hitherto received.[392] Especially the great naturalist Joseph Hooker, the Schlagintweits' most eminent predecessor as itinerary scholar in the Himalayas and a central figure in the controversy, seemed to have been wary about their qualifications, and by inference about the expected outcome of the entire mission. Even though the surviving evidence is fragmentary, as early as the beginning of 1854 Hooker seems to have been concerned about their scientific abilities – especially when they were held up against their lofty ambitions.

Arguably to avert the potential failure of the whole expedition, and to prevent a considerable sum of Company grants from being misspent, the British naturalist sought to obtain more precise information about the exact terms of their employment. For this purpose Hooker addressed Sir Roderick Murchison, then one of Britain's leading geologists and among the most powerful science administrators in the British Isles. In his letter, Hooker seemed to have made explicit that at least one additional and more capable naturalist and/or geologist should be appointed to accompany the

[392] In their similar accounts of the Schlagintweit controversy, neither Stefan B. Polter in his 'Nadelschau in Hochasien', Finkelstein in 'Conquerors of the Künlün?', nor Philipp Felsch, 'Humboldts Söhne. Das paradigmatische / epigonale Leben der Brüder Schlagintweit', in Michael Neumann (ed.), *Magie der Geschichten. Schreiben, Forschen und Reisen in der zweiten Hälfte des 19. Jahrhunderts* (Konstanz, 2011), pp. 113-129, paid any attention to the early British perceptions of the Schlagintweits.

brothers during the Indian mission.[393] Murchison replied on January 19th 1854, and obviously shared Hooker's opinion about the supposedly limited qualifications of the Schlagintweits – despite the fact that Adolph *was*, in fact, a university-trained geologist. Murchison agreed with the recommendation that Hooker seemed to have given in his earlier letter, and stated that '[n]ow neither of the Schlagintweits (*clever physicists* as they are), are Naturalists or geologists & such a companion would be desirable [?]' during their stay in Asia.[394]

To compensate for their perceived lack of natural historical and geological prowess, Murchison recommended a personal acquaintance, 'Dr. Rutimeyer, Professor of Cpt. Anatomy[395] in Berne, whom I cite so much in my "Alps Apennines &c". He is a very clever, methodical good palaeontologist & a capital observer of rocks & stratification: in short of geological phenomena – moreover he is young and strong'.[396] In other words, Rütimeyer, a Swiss-born naturalist, was put forward as the most suitable candidate to accompany the Schlagintweits on the physically demanding Indian and Himalayan expedition.[397] However, given the fact that Rütimeyer was also of German-speaking origin, Murchison further stated that: '[o]n the other hand I find a feeling beginning to prevail against employing Germans in which I do not participate, provided we have not better & fitter men ready.'[398] This last statement encapsulates the pragmatism of British administrators to co-opt foreign expertise when demands could not be satisfied from among British society – with experts from the German lands ranking among the most sought after. At the same time, it offers further proof for the existence of a national discourse that generally objected to the employment of foreign scientific expertise.

Why exactly Hooker and Murchison questioned the Schlagintweits' scientific qualifications as geologists and naturalists remains unclear. This shift of opinion especially by Murchison is all the more striking, since his earlier assessment of the

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[393] Although Hooker's letter is lost, we can reconstruct its content using the immediate detailed reply by Murchison.
[394] Letter Murchison to Hooker, Jan. 19, 1854, RBGK, (DC) vol 96, emphasis mine.
[395] I.e. Ludwig Rütimeyer; comparative anatomy.
[396] Murchison to Hooker, 19.1.1854, RBGK, (DC) vol 96; see on Murchison's own interest in stratification, over which he himself engaged in a geological controversy lasting 60(!) years, Secord, *Controversy in Victorian Geology*.
[397] G. Meyer von Knonau, 'Rütimeyer, Karl Ludwig', *ADB*, 53 (1907), pp. 654-657.
[398] Murchison to Hooker, 19.1.1854, RBGK; this letter has often been misquoted, as in Robert A. Stafford, *Scientist of empire: Sir Roderick Murchison, scientific exploration and Victorian imperialism* (Cambridge, 1989), p. 119.

brothers' Alpine studies had been predominantly positive. In Murchison's 'Address at the Anniversary Meeting' of the RGS in 1852, he had claimed that:

> 'The brothers Schlagintweit, who, belonging to the active and stirring school of Prussian geographers, are worthy pupils of Humboldt and Ritter, and have already distinguished themselves by their observations on the heights, climate, springs and glaciers of the Alps, have been again at work in that region. Dr. Adolph Schlagintweit has sent us a short memoir on the physical geography and geology of Monte Rosa, extracted from a work about to be published by himself and his brother [...]. The work justifies the expectation of much additional information respecting the complicated structure of this giant of our European chains.'[399]

This 'work to be published' on Monte Rosa was, to be sure, the same scientific account that the mineralogist Samuel Christian Weiss had found, scientifically speaking, to be rather lacking. Indeed, he had used its shortcomings, as we have seen, to decline his support for Adolph and Hermann being employed by the Prussian state for an expedition into the Himalayas. However, it seems unlikely that a single publication could turn Murchison's opinions so decisively against the brothers. Rather, it seems plausible to explain this striking sense of equivocality in Murchison's private versus public judgements about the Schlagintweits in the context of the 'polite' scientific culture of the time. Whereas he confidentially questioned their abilities in several fields (as expressed in the private letter to Hooker), his public position at the RGS required from him an open statement about Adolph's current Alpine investigations, which had been sent as a gift to the society over which Murchison was presiding. What is more, Murchison, who knew that Humboldt acted as their academic mentor, had long been engaged in a close personal and scientific correspondence with the eminent Prussian naturalist.[400] Be that as it may, the fact that Murchison (and, arguably, Hooker too) only perceived of them as 'clever physicists' proves that some of Britain's leading scientists regarded the Schlagintweits only as

[399] See his 'Address at the Anniversary Meeting, 24th May, 1852', *The Journal of the RGS*, 23 (London, 1853), pp. lxii-cxxxviii, xcviii.

[400] Murchison had become acquainted with Humboldt during a trip to Paris in 1830. Humboldt followed Murchison's public statements about his protégés, e.g. writing to him in 1853: 'Je me réjouis aussi de l'intérêt dont Vous honorez les courageux Schlagintweit et l'intelligent Géographe Petermann.' Humboldt to Murchison, 16.8.1853, Edinburgh University Library, Gen. 523/4. On the mutual apprehension between Murchison and Humboldt, Stafford, *Sir Roderick Murchison, scientific exploration and Victorian imperialism*.

capable of conducting, in a professional manner, the geomagnetic survey of the eastern empire.

Ultimately, Murchison and Hooker's scheme to secure a fellow scientific traveller to join the Schlagintweits did not materialise – though the brothers would be frequently aided and accompanied by a number of European scholars and officers during their expedition. However, Hooker, in an attempt at damage control, sought other means to shape the brothers' scientific pursuits in Asia before their departure and agreed to oversee the Schlagintweits' travel preparations in an official capacity. That is, he sat on a 'sub-committee', formed by the Council of the Royal Society, 'consisting of Col. [Edward] Sabine, Dr. [Joseph] Hooker, and Mr. Charles Darwin, [...] to whom the consideration of Mr. de Schlagintweit's proposed operations [had been] referred.'[401] In the wake of the Schlagintweits' considerable re-interpretation of their imperial employment, the Royal Society had set up this committee on 30 March 1854, which the Schlagintweits could address when seeking scientific instructions on any of the 'departments of physical science' whilst they organised their travels in the spring and summer of that year.[402]

When Hooker was provided with the already scrutinised list of 'proposed operations' by the Schlagintweits and asked by Sabine to comment on the feasibility of the entire scheme, his reaction was unambiguous: 'I have carefully gone over [Adolph] Schlagintweit's paper which contains a programme of at least 8 years work for himself, his brother & a staff of assistants, & which will require a much greater outlay than the E.I. Company will probably be prepared to allow, both for instruments & travelling schemes'.[403] Hooker, however, was not only critical about the ambitious interdisciplinary scope of the brother's programme, but also cautioned against their planned itinerary, as he noted that the Schlagintweits 'could no more than [wander?] over the country route checked out, had they no encumbrances of any kind.'[404] In Hooker's view, at least, the difficulties of realising such a grand scheme 'would I should think require a camp of at least 300 persons'. Drawing on the expertise of his scientific friends, Hooker then quoted Thomas Thomson 'who has had 12 years Indian experience', saying that the latter would 'entirely [agree] with me, in

[401] Edward Sabine, *The Athenaeum*, No 1767, pp. 319-20, 320.
[402] Ibid. To be sure, only Adolph had relocated to London in February 1854 to prepare the mission, he was joined by his brothers only a few weeks before departure.
[403] J. Hooker to Sabine, NA Kew, BJ 3/53, unknown date, but before 24 May 1854, see the letter by Colonel Sykes of the same date, ibid.
[404] Ibid.

considering the whole scheme much too comprehensive & costly to approve even provisionally, without much consideration.' To prevent an ill-devised spending spree, Hooker lastly suggested to 'see Schlagintweit at any rate as soon as possible', arguably to convince Adolph to greatly reduce the brothers' overall ambitions.[405]

Revealingly, the Schlagintweits seem not to have taken up this opportunity to be more thoroughly trained and advised by their British peers in the different scientific fields in which they hoped to engage. There is no evidence that Joseph Hooker's advice was sought in the realm of botany as regards, for instance, the correct preparation of botanical collections in Asia – or, indeed, on the potential pitfalls of an overly ambitious scheme. While Hooker was eager to discuss their upcoming travels, the Schlagintweits rather impolitely snubbed his invitation to meet with them shortly before their departure, claiming that 'it was quite impossible for us to spare an hour for the last days'.[406] In the same letter, to be sure, Hermann nonetheless did not refrain from informing the rebuffed Hooker that 'I should be very much obliged to you if you might have the great kindness of sending us a few lines for Dr Campbell and for Mr Hodgson at Darjeeling'. It certainly did not testify to their politeness to both reject Hooker's invitation and ask for introductory letters to Campbell and Hodgson in order to secure the vital support of these British naturalists in India. While still in London, the brothers also chose not to seek the guidance of the more experienced overseas traveller and naturalist, Charles Darwin, on the careful amassing of natural historical specimens. Far from being only a matter of mechanical collecting, such natural historical samples had to be adequately prepared *in situ*, and framed by explanatory data to make them useful for later analysis in Europe. This was especially the case when such collections were to be used for inductive theorising.[407]

Only with regard to the projected geomagnetic surveying did the Schlagintweits accept the offered British expertise. Consequently, they were 'supplied with the necessary instruments, in the use of which they were specially instructed at

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[405] Ibid.

[406] Joseph Hooker Collection, Hargrett Library, Special Collections Libraries of University of Georgia, Ms2153, Box 11, Folder 13, Hermann to Hooker, 16.9.1854, India House, London.

[407] Charles Darwin only asked the brothers to make observations on the Yaks in India and Central Asia. Later, he would be bitterly disappointed by the observations the brothers ultimately provided; Robert Schlagintweit to Darwin, London, 25.9.1857, Darwin Correspondence Project, Letter 2142 (www.darwinproject.ac.uk/entry-2142). Consequently, Darwin wrote to Charles Lyell, 3.10.1860: 'Do not trust Sclangenweit [sic!] (the Indian Brothers or some such name) about Yaks, if you come across their statement.' Darwin Correspondence Project, Letter 2935.

the Kew Observatory.'[408] It was particularly Edward Sabine, Fellow of the Royal Society, who personally trained the brothers in September 1854: 'I was glad to be able, on my part, to render them the same assistance in the preparation of their magnetical instruments that I had previously given to Capt. Elliot; and to assist in discussing with them the observations most important to be made.'[409] For this purpose, Elliot's former instruments were sent from India back to Britain and 'to be tuned up and compared for the purpose.'[410] Evidently, British metropolitan scholars strove to ensure that at least their core magnetic survey would be carried out correctly and conclusively.

The reason why Joseph Hooker would be critical about the Schlagintweits' appointment from the very start becomes evident when his objection is seen in the light of Hooker's own professional status at the time. Still having in the early 1850s a precarious position as 'philosophical botanist', and being engaged in ongoing struggles with the Company to secure patronage, Hooker's own scientific standing depended, as we have seen, on distinguishing his own works and aspirations from the pursuits of mere botanical amateurs, as the Schlagintweits appeared to be. The fact that they, as foreign scholars with questionable credentials, received considerable material support from the Company, which he had time and again been denied, not only cast a slight upon him as a man of science: Hooker was also acutely aware, and thus considerably anxious about the outcome of their scheme, that all the sums consumed by the brothers, provided by the Court's coffers, would be lost to his own scientific schemes, and those of his British friends with similar scholarly aspirations and personal dependence on the Company's largesse to be able to realise them.

When taking all the above private and public statements into account, and setting the evaluations of the brothers' allegedly lacking qualifications by Professor Weiss, Murchison and Hooker against the great appraisal of their wide-ranging scientific credentials by other French and German scholars, the emerging

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[408] Edward Sabine, 'A Memorandum regarding Magnetic Surveys', p. xxxviii-xxxix. Besides Sabine, John Welsh (1824-1859), a FRS, and Superintendent of Kew Observatory, (1852-1859) also prepared the brothers for their upcoming expedition at Kew, see BSB, Schlagintweitiana, II 1, 5 'Kew Observatory, before Departure': John Welsh to Hermann, Richmond, 12.9.1854.

[409] Sabine, 'Scientific Mission of MM. de Schlagintweit', p. 320. Besides Sabine, the Schlagintweits also, as they put it, had 'the advantage of profiting repeatedly by the personal advice of […] Lloyd, and Lamont, so well known from their theoretical and practical labours in the science of terrestrial magnetism.' American Philosophical Society, AMPHIL PMP, v.1196, no. 5, p. 8.

[410] Reginald Henry Phillimore, *Historical Records of the Survey of India*, Vol. 4*, 1830-43 George Everest* (Dehra Dun, 1958), p. 119.

contradictory opinions ultimately serve to show just how contested the Schlagintweits' scientific authority was even *before* they embarked for India. While Humboldt and other German scholars, as well as Company men such as Colonel Henry Sykes, were confident of their broad academic potential, British experts within one particular academic discipline, like Hooker in the realm of 'professional botany', harboured a good deal of mistrust about the brothers' holistic scientific ambitions. For them, the Humboldtian programme the brothers set out to realise in India and High Asia was not a laudable attempt to grasp their natural worlds from an interdisciplinary point of view; rather, it seemed to be a harbinger of failure.

Science management from afar

As much as the Schlagintweits' multiple patrons and financiers had from the outset somewhat different and not easily reconciled expectations of the mission, their position 'in between', with affiliations both to the British imperial establishment of the Company and with their Prussian benefactors, also opened up unexpected opportunities. In other words, their otherwise fragile position as 'imperial outsiders' within the colonial establishment of British India, with a foreign background and multiple loyalties, could also be effectively turned to the brothers' advantage. In the following, it will be shown how the three brothers managed to play both sides of the fence, both during and after their stay in Asia from October 1854 to the summer of 1857.[411] The aim is to unpeel yet another layer of the controversy that originated in the Schlagintweits' ability to profit from the lack of direct communication between their multiple patrons. The absence of direct contact between the Prussian king and East India House effectively increased their space for manoeuvring, especially when they asked both parties to increase their allowance to cover the costs of a greatly expanded mission. In this section, closer attention will therefore be given to the communication strategies that evolved around the Schlagintweits' employment. It is argued that the intensity of the controversy can partly be explained by the systematic exclusion of British metropolitan scientists from the brothers' private correspondence networks.

[411] To be sure, the expedition itself only ended in March 1858, when the last indigenous and British assistants of the brothers ceased to receive payments from the Government of India to complete the data and material collections of artefacts of the 'Schlagintweit mission'; see Chapters.four and five..

Adolph and Hermann maintained close contacts with a small number of powerful advocates within the Company who could be mobilised to act on their behalf in financial and organisational matters. In comparison, the lack of communication with their scientific peers, and especially fellow travellers of South Asia, is remarkable. Much of their correspondence during and after their travels – particularly concerning financial agreements – was only privately addressed to Company officials, intended to keep critical voices out of the conversation. The quest for Company assistance in matters of funding, career planning, and collecting was almost exclusively arranged through such private channels. It is thus crucial to distinguish between those personal statements that often reminded the addressee(s) of the secrecy of the content from those that were addressed to a broader audience. However, while the brothers sought to orchestrate precisely what information should be kept confidential by the recipient, and what was to be shared with the wider public, the final decision of what information could be shared with others ultimately lay in the hands of the recipients. Indeed, in some instances, the secret plans and negotiations of the Schlagintweits were deliberately revealed by British correspondents, much against the brothers' intentions, which in turn led to frictions in their relationships with the scientific establishment in London.

Nonetheless, it is worthwhile to ask how the brothers used their epistolary webs to achieve specific aims, and doing so helps to shed fresh light on the social practices of science in this period. The large set of personal letters that has survived to the present day is indicative of who was, or became, excluded from the inner circle of correspondents to which the Schlagintweits communicated their changing plans and concerns. Joseph Hooker, for instance, prime opponent of the brothers in London, was gradually excluded from their circle and therefore only learnt about their publication schemes and financial allowances second hand. Perhaps much against Hooker's understanding of the code of honour in science, the brothers never asked for his advice on matters relating to their findings in Asia.[412]

Among several metropolitan scientists in Britain, the Schlagintweits soon acquired the unflattering reputation of being obtrusive, greedy and ungentlemanly scholars. This almost collective animosity certainly had something to do with the brothers' behaviour and cannot only be explained by nationalistic tendencies. The art

[412] This can be fruitfully contrasted with the brothers' earlier eagerness to discuss their *Alpine* findings with him, as at that time no competition over British means or prestige existed between the two parties.

of communication (or a lack thereof) played a much greater role in the Schlagintweit controversy than even contemporary commentators realised. Letter writing was an important tool of self-fashioning for any scholar, and a crucial medium for the formation of alliances within and across the boundaries of national scientific communities. It was an art certainly mastered by the Schlagintweits' mentor von Humboldt, who relied on his correspondence skills to build up and use a wide-ranging system of patronage and informants while still being considered an archetype of the gentleman scholar. The pragmatism with which the Schlagintweits often broke the conventions of this polite 'republic of letters' was, by contrast, not at all well received.[413] Instead of consulting and acknowledging those travellers who had crossed Indian and Central Asian territories before them, they often addressed their British peers only if letters of recommendation or similarly mundane necessities were needed. What emerges from the analysis of their correspondence, especially with British scholars, is thus a dysfunctional system of communication that was in many cases not based on mutual interest and trust, but on one-sided convenience.

Even though there is an increasingly rich historiography about the role and functioning of imperial information networks, very little attention has been given to the inherent fractures between private and public channels of communication, and how knowledge transmission was often stunted by mechanisms of exclusion within and across scholarly communities.[414] This section critically addresses these issues, by taking seriously the holes and obstacles in the transfer of knowledge. This discussion will equally shed light on the ambivalent neutrality of the Schlagintweits in privileging German over British scholars in arranging for their publication and the ways in which these strategic moves impacted on the unfolding of the controversy. It is to this 'science management from afar' that we turn next.

Although German scientific institutions, such as geographical societies with their own means of funding, became increasingly important as employing bodies in later decades, the mid-nineteenth century was a period when royal patronage relations could still decisively shape the trajectories of individual scholars. The Berlin Geographical Society, the second oldest in the western world, neatly embodies this

[413] On the social conventions of this 'republic', see Laurence Brockliss, *Calvet's* Web. *Enlightenment and the Republic of Letters in Eighteenth-Century France* (Oxford, 2002).
[414] A prime reference for communication channels (and their potential vulnerability) in a colonial context is C. A. Bayly, *Empire and Information: Intelligence Gathering and Social Communication in India, 1780-1870* (Cambridge, 1996).

shift from essentially a receiving institution, which first digested the travel accounts by foreign scholars, only to become an active funding body itself that could sponsor 'German' overseas expeditions from the 1850s onwards. As the Schlagintweits' case demonstrates, in view of a lack of sufficient means by the Berlin society, and in addition to the significant contributions made by the EIC, a Prussian royal sponsorship was still essential to the realisation of their scheme. It was therefore evident to the brothers that the careful fostering of close ties with the German aristocracy and leading bureaucrats was of the utmost importance. In order to ignite, and later to maintain, a high level of royal and public interests in their explorations, it was imperative to continuously promote their current and forthcoming researches by regularly presenting accounts of their feats to a German readership. While the Schlagintweits were formally requested to compile reports for the British imperial authorities, all of which were later printed in the *Journal of the Asiatic Society of Bengal*[415], the brothers took great pains to present more personalised accounts to their German mentors and patrons.[416]

These included especially their scientific confrères, the envoy Bunsen, Carl Ritter and the towering figure of Alexander von Humboldt.[417] These men of science were crucial in making their findings available to further groups of scholars, including the cartographic circle around August Petermann – and through the latter to a wider audience. To be sure, the close ties that connected this small group of Berlin-based scholars with the brothers in India were not matched with similar contacts in Britain, even though the logistics of travel meant that the brothers were in regular contact with the Company Director William Henry Sykes.[418] In fact, they expressed their gratitude to Sykes for helping to plan their itinerary in India, but the brothers' gentle tone and reports to Sykes were nonetheless clearly self-interested. Above all, they needed to enlist Sykes' crucial support to get the Court of Directors to sanction their financial arrangements with the Indian Government.[419]

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[415] There were ten reports in total, always entitled 'Report upon the Progress of the Magnetic Survey of India and the Researches Connected with It', followed by the name of the respective region covered in the treatise.

[416] BSB, Schlagintweitiana, II.1.43, Adolph and Hermann Schlagintweit to Frederick Wilhelm IV, 'on board the steamer Indus, Southampton, 2.9.1854'; Bombay, 14.11.1854; Calcutta, 4.4.1855, ibid., etc.

[417] E.g. Hermann to Humboldt, 21.4.1855 Darjeeling, Schlagintweitiana, II.1.43.

[418] See for the frequent communications by the brothers to Sykes, Gotha, SPA ARCH PGM 353/1. Schlagintweit, Adolf / Schlagintweit, Hermann v., Schlagintweit, Robert v.

[419] See the copy of a letter by Hermann to Sykes, Calcutta, 31.3.1855, 'The government of India [has] kindly granted the same pay and […] allowances for myself as for Adolph, and we think we can make

At the same time, the Schlagintweits had sought to sustain the Prussian king's material support from the outset of their mission. On several occasions, they thus sent gifts from India that reflected their current studies on the spot and helped to keep the king interested. For instance, soon after the brothers had set foot in Bombay in late October 1854, an account of their previous passage from England was penned down and addressed to the Prussian monarch, which also included their first impressions of the colonial port city. In the same letter, the brothers informed their royal patron that '[w]e have tried to make different ethnographic photographs with our beautiful camera, and shall have the honour to present copies of those [photographs] with the next mail.'[420] The Prussian King was thus chosen to receive the first parcel of images for his private amusement. Photographs of the peoples of India were then still a novelty in Prussia and thus added considerable value to their gesture.

The itinerary scholars also offered the Prussian King a selection of their sketches and watercolour views that they had made during their trip from England through the Mediterranean Sea, Egypt, the Red Sea, and the Indian Gulf, as well as some painted views of little known mountain ranges in 'High Asia'.[421] This personalised orchestration of texts, photographs, and drawings for specific individuals was an important element of the Schlagintweits' attempt to secure and strengthen their ties to important patrons well into the future, and the visual appeal of their proffered materials never failed to impress. Humboldt later confirmed the success of these carefully selected offerings in a letter to Bunsen, noting that '[t]he views of the Karakorum pass […] [of] cloisters [as] the old cradle of the Buddhist Civilisation, of Ladakh and Cashmere, have greatly delighted the king, and this to such a degree that he on many occasions praised himself to have initially entrusted them with this travelling project.'[422] It is not without symbolic significance that the brothers never sent any paintings or photographs from India as gifts to patrons or administrators in Britain – unless a direct request for a favour was attached.[423]

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no better use of this liberal allowance, which we hope the Court of Directors will sanction, than by extending as much as possible the field of our works.' Ibid; also Adolph sent kind letters to Sykes, but equally wishing the latter to support the financial agreements the brothers had reached with the Indian Government, see Adolph to Sykes, Nainy Tal in Kumaon, 17.5.1855, SPA, Gotha.

[420] Robert, Herrmann and Adolph to the Prussian King, 14.11.1854, ibid.

[421] For the first views sent to Germany, see anon., 'Ostindien', *Allgemeine Zeitung München*, 258, 15.9.1855, pp. 4118-19.

[422] Letter to Bunsen, 11.3.1857, GStA PK Rep 92 Dep. K. J. v. Bunsen, B I d 59 [B No 59].

[423] See, e.g., their correspondence with Henry H. Montgomery, London, 9.11.1860, Schlagintweitiana IV.6.1. The brothers only send samples of 'seawater for chemical analysis from different localities and

On one level, the production of customised reports reflected the Schlagintweits' gratitude to, and ongoing material dependence on, Frederick Wilhelm IV. On another level, however, these reports were also intended to spread the news of their scientific achievements to a broader public, and were therefore a crucial tool of self-promotion. In many instances, the recipients of personalised accounts were expected and specifically instructed by Hermann and Adolph to take steps to publish the findings mentioned in their letters. The regular communication with patrons thus ensured full coverage of their travels in scientific journals and popular newspapers whilst the brothers were still on the move. Again, Humboldt and Carl Ritter (then president of Berlin's Geographical Society) were the crucial mediating figures in this process of knowledge transmission and self-fashioning.

A letter the Schlagintweits sent to Humboldt in 1855 well reflects the overlapping mechanisms of royal reporting and the reliance on scholarly networks in their search for public recognition. Therein, the travelling scholars informed their mentor: 'We have allowed ourselves to transmit a report about our travels to the king', suggesting that the same account would, in fact, 'be adequate for the geogr[aphical] society, maybe with the exception of the first and last sentence'.[424] In addition, the brothers instructed Humboldt to also make use of parts of their 'official report to the Indian Government', which they likewise had earlier sent to the Prussian king. After stating that 'short accounts' of this formal report should also be 'presented to the Akademie [der Wissenschaften in Berlin], we would strongly urge you (please forgive this rapid succession of nearly too presumptuous wishes) to present the first [part] to Professor Poggendorf for the *Annalen*, the second to the Geological Society.'[425] The process of re-cycling and translation of their official reports thus allowed for a much greater coverage of their works in German journals. Their patrons were crucial in the process of fitting and refitting their findings to suit different formats and audiences in Germany.

[…] a little collection of rocks and fossils' to William H. Sykes, and also deposited their 'drawings etc.' at the Court in London, where they remained until the brothers' return. However, these were never intended, or understood, as personalised gifts to individual directors, see SPA ARCH PGM 353/1, Adolph to Sykes, 4.10.1854; and IOR/E/4/845, p. 987.

[424] Hermann, 21.4.1855 Darjeeling, Schlagintweitiana II.1.43.

[425] Emphasis mine. The *Annals of Physics* (or *Annalen der Physik*) was a highly prestigious journal in the field of physics (then printed in Leipzig), which had appeared since 1799. In the same letter, the Schlagintweit also named those scholars the brothers hoped would revise their Asiatic reports, including Gerhard vom Rath (1830-1888), a German mineralogist and geologist. See Hermann to Humboldt, Pages 64,69,2 Hermann, 21.4.1855 Darjeeling, Schlagintweitiana II.1.43.

The Schlagintweits' overseas expedition had by 1856, two years into the mission, indeed generated such a wide public interest that German scientific journals sought to provide a comprehensive account of their individual itineraries in Asia, almost down to the day. Important bits of information were brought together and edited by Carl Ritter for publication in the Geographical Society's own organ.[426] At the same time, the detail of the brothers' travel routes enabled August Petermann, one of the most influential European mapmakers at the time, to produce fairly up-to-date cartographic depictions of their movements (fig. 3.1).

[426] In one instance, the editors stated that their accounts were based on 'three reports addressed to Lieut.-Colonel Sykes, kindly transmitted to us'. Petermann, 'Die Erforschung des Himalaya. Durch Adolph, Hermann und Robert Schlagintweit', *PGM*, 1 (1855), pp. 142-145.

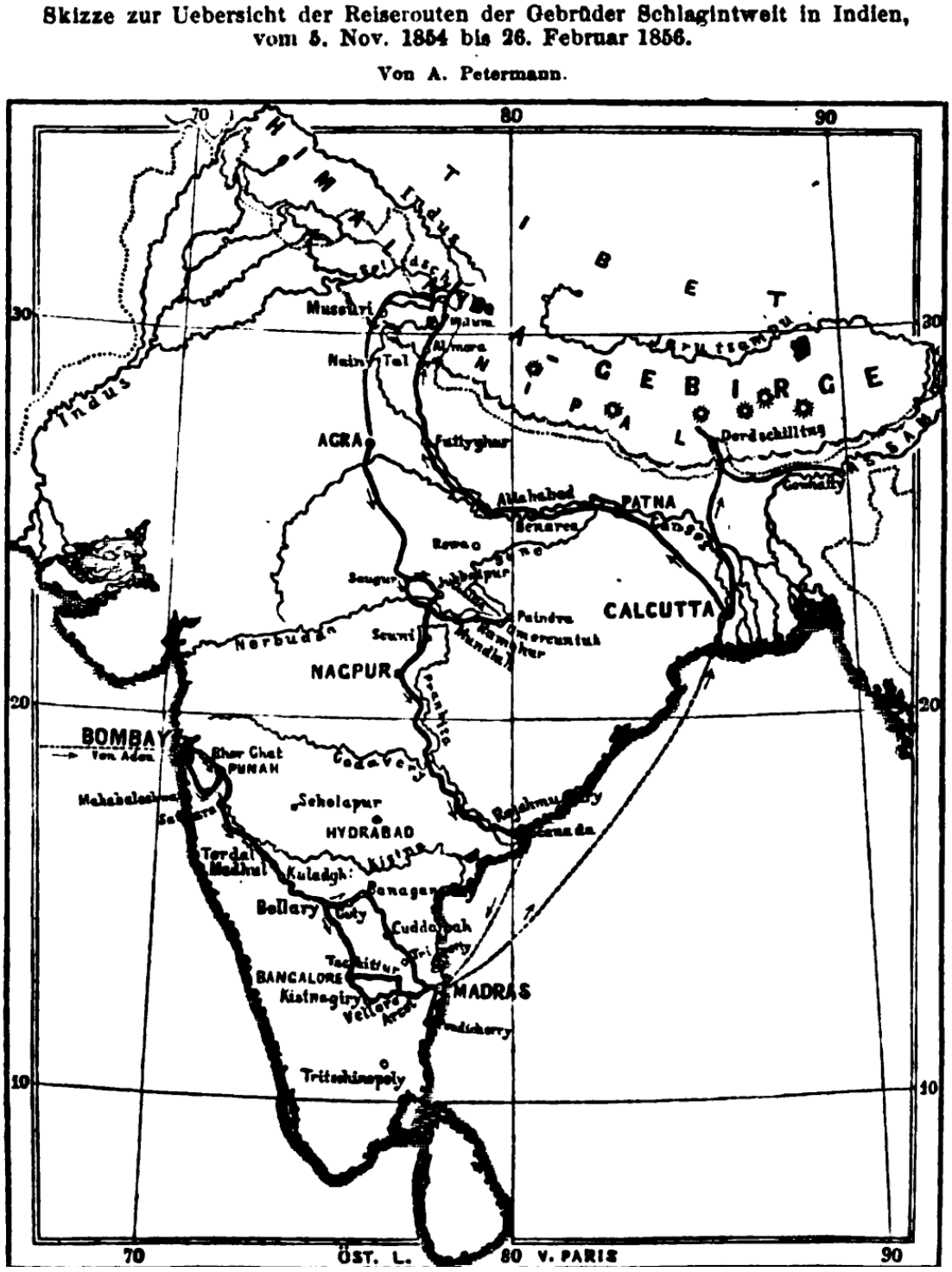

Fig. 3.1 August Petermann, 'Skizze zur Uebersicht der Reiserouten der Gebrüder Schlagintweit in Indien', vom 5. Nov. 1854 bis 26. Februar 1856, in idem, 'Die Reisen der Gebrüder Schlagintweit in Indien bis zum 26. Febr. 1856', *Petermanns Geographische Mitteilungen* (*PGM*), 2 (Gotha, 1856), pp. 104-108, 104.

Petermann's sketch above depicts Ceylon, India, the Himalayas, and parts of Central Asia, and it traces the itineraries of the brothers throughout the colonial territories, but also beyond the north-Indian frontier, by inserting directional arrows

onto the map. The editor's decision to leave large blank spaces where the Schlagintweits had not yet travelled, openly stressed, and greatly exaggerated, the 'pioneering' character of their journey. By adding only their travel routes instead of those of British, French, and Russian travellers who had preceded them in many of the covered regions, the image of the Schlagintweits as solitary 'heroic travellers' was thus subtly reinforced. While it was Petermann's main purpose to depict the many regions the brothers had by then already crossed, it is important to remember just how deceptive such a 'simple' visual device was in forging a public image of the Schlagintweits as ostensibly self-sufficient travellers, supposedly opening up unknown regions to western science.

With the help of the printing press in Germany, the Schlagintweits thus became celebrated explorers well before the extent of their achievements was known in any detail. Based on the various bits and pieces of information that were available during their mission, a Munich-based newspaper proudly concluded: 'The scientific voyage of exploration of the three brothers in Asia and Africa will most probably have far-reaching consequences, and will add fresh glory to the old reputation of the German spirit of research' ('*dem deutschen Forschergeiste zum alten Ruhme neuen fügen*').[427]

As this, and a host of other commentaries in newspapers and journals suggests, the Schlagintweits' pursuits not only appealed to the members of Germany's scientific establishment. Rather, the brothers travels attracted also a more general readership hungry for stories about 'exotic' peoples and places, and accounts of human adventure and suffering, which the brothers' forays into the supposed 'unknown' beyond the trans-Himalayan region provided in abundance.[428] The wide coverage of the their scheme in hundreds of German learned journals, daily newspapers, popular magazines and papers serves to show how overseas expeditions were much more than just the movement of individual travellers to the far corners of the globe. In the booming printing culture of mid-nineteenth century Germany, the opening up of supposedly 'uncharted' territory in northern India and 'High Asia' was

[427] Carl Ritter's report on their travel from the *Zeitschrift für allgemeine Erdkunde* was reprinted as 'Ostindien', *Allgemeine Zeitung München*, 258, 15 Sept. 1855, pp. 4118-19.
[428] The explorations of the Schlagintweits were often presented in a way that over-exaggerated their novelty, such as when German newspapers wrote about, e.g., 'the almost entirely unknown mountains of Nepal', Beilage zu No. 204, 23.7.1855, *Allgemeine Zeitung* (München), pp. 3259-60.

staged, and avidly consumed by the public, as a 'media event'.[429] As Felix Driver, and other historians of exploration have shown, 'from the point of view of metropolitan science and culture, exploration without writing and publication was' indeed 'no exploration at all.'[430]

At the same time, the fact that eminent men of science such as Humboldt, Ritter, and Petermann were involved in the publication of their reports sent from the field also helped the brothers establish their authority for their own travel accounts. Especially the cartographer's own Journal, *Petermanns Geographische Mitteilungen*, had by then achieved a wide circulation. As the editor Petermann proudly noted in a letter to Sykes: 'my Monthly Journal […] has attained a new large circulation in and out of Europe (5000 copies every month)', and thus served as an important forum in which new exploratory feats could be claimed, and scientific reputations forged.[431]

However, while such an immediate publication of the brothers' travel experiences was not uncommon in the booming printing industry of Germany and Britain at the time, the question of what national journal could publish their scientific findings *first* was nonetheless a sensitive issue. The announcement of new exploratory feats was often intended to 'mirror' a country's scientific achievements on the international stage. At the same time, and of great significance in the case of British exploration in the nineteenth century, such announcements would also often have geopolitical implications. An imperial sense of entitlement regarding a newly 'discovered' region usually accompanied the publication of reports about British scientific exploration overseas.

While the brothers formally complied with British expectations, and regularly sent reports to imperial officials, there was nonetheless a tendency to undermine the rules of the game by releasing their 'first discoveries' in German journals. To take an example, extracts from their first report to the Prussian king were printed in the *Zeitschrift der Gesellschaft für Erdkunde zu Berlin* as early as 1854.[432] A second and

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[429] Dirk van Laak, *Über alles in der Welt: Deutscher Imperialismus im 19. und 20. Jahrhundert* (Munich, 2005), p. 31.
[430] Felix Driver, 'Missionary Travels: Livingstone, Africa and the Book', *Scottish Geographical Journal*, 129 (2013), pp. 164-178.
[431] Petermann to Sykes, 31.3.1860, Gotha; Sykes in turn acknowledged the importance of the *Mittheilungen*, writing to Petermann that this journal was, indeed, 'very instructive & gives an excellent summary of passing Geographical Knowledge.' Sykes, 2.7.1860, at SPA, Gotha.
[432] Adolph Schlagintweit, 'Schreiben des Herrn A. Schlagintweit an Herrn A. v. Humboldt. Bombay, den 10. November 1854', *Zeitschrift der Gesellschaft für Erdkunde zu Berlin*, 3 (Berlin, 1854), pp. 338-340.

longer treatise was published in the same journal only a few months later – whilst no English journal had such detailed information to hand at the time.[433] In fact, the British version of the same account of their passage to India, together with their scientific results, was only printed in *The Proceedings of the Royal Society of London* in 1856, almost two years after is first appearance in a German medium.[434] This loyalty of the Schlagintweits to German publishing houses and scientific circles was certainly noted and criticised by British scholars, who, like Joseph Hooker spoke of the wilful 'withholding of their Scientific results from our Societies.'[435]

To be sure, this particular line of criticism had already been articulated in the case of other German scholars appointed to scientific offices in the British Empire in the mid-century. A telling example is the case of the African traveller Heinrich Barth, who in conjunction with the Hamburg-born Adolf Overweg had joined a British expedition in 1849 into Central Africa under the leadership of James Richardson. When the latter died *en route* in 1851, Barth took over as the head of the mission, which was of utmost political and commercial interest to the British nation, as commercial treatises were to be signed. Soon, '[s]ome members of the RGS [...] expressed concern that the German scientists were providing some confidential reports from the expedition directly to Petermann and Bunsen instead of submitting them directly through British channels.'[436]

Bunsen and Petermann, at that time still based in London, suddenly found themselves in the position of having to defend their role within the scheme. As Bradley Naranch put it, 'Petermann, himself under fire from his British RGS colleagues for allegedly withholding important information about the expedition and perhaps passing it on to German state officials, struggled to defend the roles of Overweg [and] Barth [...] by accusing their detractors of discrimination against them for being German.'[437] Yet, even the recently appointed director of the RGS, Sir Roderick Murchison, expressed his disapproval of the fact that printed accounts of the

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[433] Carl Ritter, 'Ueber die wissenschaftliche Reise der drei Gebrüder Schlagintweit in Indien. Nach Original-Documente und Briefen im Auszuge mitgetheilt (Mitte Juli)', *Zeitschrift für allgemeine Erdkunde*, 5 (1855), pp. 148-171.
[434] See 'On the Temperature and Density of the Seas between Southampton and Bombay *via* the Mediterranean and Red Seas, communicated by the Court of Directors of the Honourable East India Company, Presented by Professor Stokes, RS, Received 11 January, 1855', *Proceedings of the Royal Society of London: 1854-55*, 7 (London, 1856), pp. 242-245.
[435] RBGK, DC, vol 96 English letters Moo-Myl, 1847-1900 (ff 391-429), Kew, 19.7.1859.
[436] Naranch, *Beyond the fatherland*, p. 243.
[437] Ibid.

expedition's progress would first appear in the German press, thus denying his own society's journal the distinction of being the prime source of information on its achievements.[438]

As the case of Barth and Overweg makes clear, the Schlagintweits' privileging of German newspapers and journals with scientific accounts must be placed within a larger context of earlier British objections to such double dealing of information. Just as British scholars, frustrated that the scientific posts they eagerly sought were going to foreign scholars, had developed a national sense of entitlement over such positions, so did British government officials, scholars, and the editors of leading journals claim a right of ownership over information and scholarly findings. As the next section will show, the suspicion even prevailed that the Schlagintweits were providing information to the perceived rival of the British in Central Asia: the Russian Empire. Such public rumours reached the brothers whilst they were still travelling, and give us an indication of the difficulties that the German scholars would face upon their return.

The debt of exploration

Another important source of criticism emerged from the considerable amount of British resources being spent in the course of this ambitious expedition. Since the brothers had considerably widened the scope of their mission, Hooker's earlier fears became reality as the reorientation of their employment entailed indeed much higher travel expenses than were initially envisioned. To properly equip them for engaging with the multiple scientific fields the Schlagintweits proposed to cover, the Company provided them with more than 200 of some of the most developed and hence expensive scientific instruments available at the time.[439] Humboldt, indefatigably acting as the brothers' intercessor, was aware of the high costs for their procurement, and the potential criticism this could draw in British circles. He therefore thanked Sykes proactively for his unceasing support, but also noted that the progress of the sciences would now require scientific travellers to be equipped with such a wide range of precious apparatuses.[440] These included for the brothers such delicate and

[438] Ibid.
[439] For a full listing of their scientific instruments see the appendix, as provided in BSB, Schlagintweitiana II.1.5.
[440] Humboldt to Sykes, 18.11.1854: 'C'est sans doute une audace d'oser Vous addresser de nouvelles prières, Monsieur, au lieu de me borner à Vous reiterer le respectueux hommage de ma vive

valuable instruments as an ‘absolute electroscope’ produced by M. Leyser in Leipzig, a ‘Fortin type mercurial barometer’ from Adie, London, and a precious ‘gold leaf electroscope pair’, on the reverse side of which the name ‘Schlagintweit’ was especially engraved (see a sample of their instruments, figs. 3.2-3.7).

Figs. 3.2-3.3 Schlagintweit, ‘gold leaf electroscope pair’, Material: brass, glass, gold, leather, metal, sheet metal, wood, dimensions: 11.5 x 5.5 x 4.2 cm; source and copyright: History of Science Department, University of Harvard, Inventory Number, DW0780.

reconnaissance de la Protection que Vous aveu daigné accorder aux Drs Schlagintweit plus largement munis d’instruments et de moyens d’executions que ne l’ont jamais été de voyageurs. C’est cependant cette indulgente bienveillance que Vous avez marguée jusque dans les moindre details en favour d’aimable jeunes savans qui suivent la même carriere que moi dan des tem où les sciences sont beaucoup plus avancées, sur laquelle je fonde l’espoir d’un genereux pardon.’ Copy of the letter at the Alexander von Humboldt Research Centre, BBAW.

Fig. 3.4 Wooden box for transporting their pair of electroscopes; source and copyright: History of Science Department, University of Harvard, DW0779a, ca. 1850.

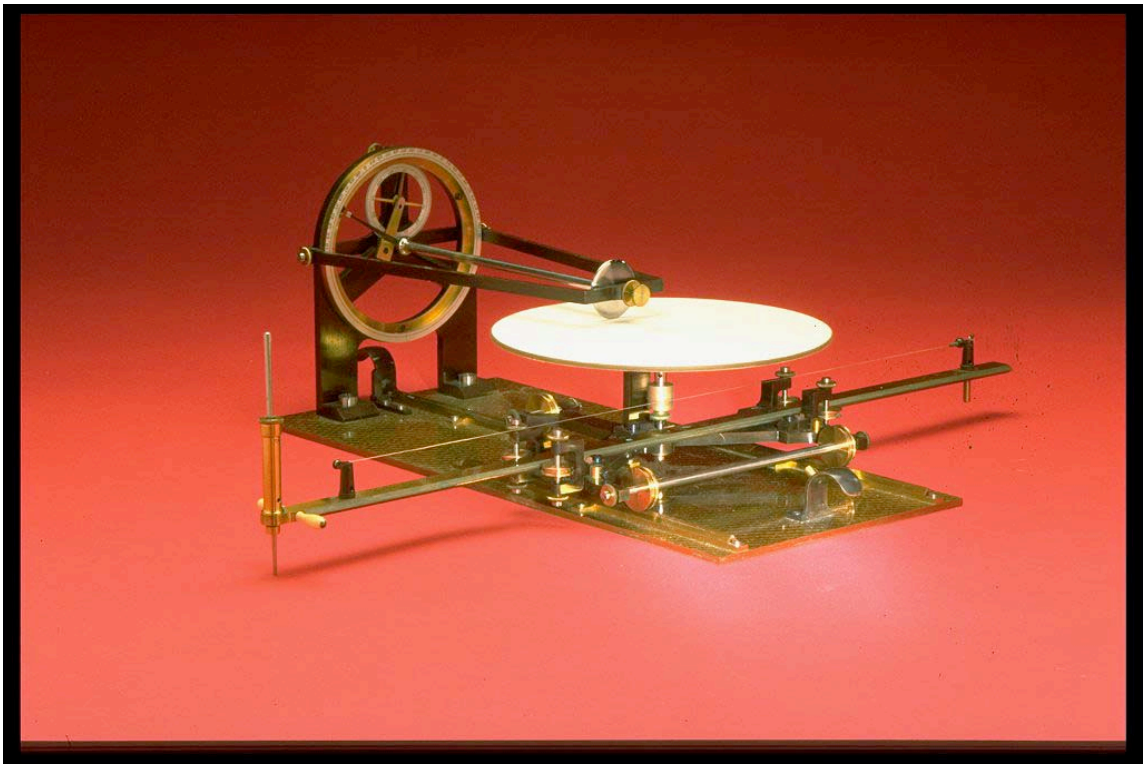

Fig. 3.5 Schlagintweits' planimeter, 'an instrument for mechanically measuring the area of a plane figure' (Oxford Dictionary of English); source and copyright: National Museum of American History (NMAH), No. 87-4849.

Fig. 3.6. Schlagintweits' electroscope; source and copyright: History of Science Department, University of Harvard, DW0779a. This instrument is used for detecting and measuring electricity.[441]

Fig. 3.7 Schlagintweits' 'pith ball electroscope'; source and copyright: History of Science Department, University of Harvard, DW0781; Function: 'This electroscope measures the amount of electric charge on an object. One would touch the object with the brass ball, which would communicate part of the charge to the pith balls inside. The pith balls would then repel each other in proportion to the charge, and this could be quantified by the scales on the wall of the jar. As this particular electroscope is from the Schlagintweit Expedition, it was most likely used for meteorological purposes.'[442]

[441] There are altogether 19 Schlagintweit instruments at Harvard; only a few remain in German holdings, as in the Deutsche Museum, Munich. Further explanations of this instrument can be found at: http://dssmhi1.fas.harvard.edu/emuseumdev/code/emuseum.asp?emu_action=searchrequest&newsearch=1&moduleid=1&profile=objects&currentrecord=1&searchdesc=absolute%20electroscope&style=single&rawsearch=id/,/is/,/13418/,/false/,/true, last accessed 22 August 2014.

[442] http://dssmhi1.fas.harvard.edu/emuseumdev/code/emuseum.asp?style=text&currentrecord=1&page=seealso&profile=objects&searchdesc=Related%20to%20Schlagintweit%20Br...&searchstring=seealsoid/,/is/,/6385/,/false/,/true&sessionid=63DEE26C-5260-467E-9B14-F77B9D74454E&action=searchrequest&style=single&currentrecord=14.

In addition to the increased expenses for the acquisition and climate-induced adjustment of these instruments in Europe, similarly high allowances became necessary for transporting the scientific equipment *en route*. A small army of indigenous porters was employed to carry these bulky, yet fragile, instruments. The extent of the brothers' demand for such manpower can be understood by considering their photographic apparatus. One of their two cameras and its accompanying equipment alone weighed some 200 kilogrammes. The brothers had purchased the photographical camera, made by Ross (then among the leading producers of photographic lenses), in London, which they took with them as among the first European photographers on a scientific mission to India and Central Asia – tellingly, without having said a word on their use of this novel technology in their list of 'proposed operations'. This testifies again to their considerable ingenuity in constantly re-shaping the nature of the expedition. The notable size of their technical equipment meant that from the very start of their scheme the brothers required the services of '20 camels (dromedaries) and six servants for the transport of our tents, collections, and our heavy luggage in general'. In addition, '[a]ll the delicate instruments were carried by kúlis on long bamboo sticks', and these 'kúlis were changed every three or four marches.'[443] Once the brothers started to pursue separate itineraries in order to 'spread our observations over a larger area', the size of the indigenous establishments of assistants multiplied accordingly.[444] The transportation logistics thus became a considerable part of their expenditure.[445]

During their travels, the Schlagintweits organised the repair and replacement of their equipment where necessary and repeatedly asked to be provided with up-to-date instruments from Europe. Despite the official agreement between the Court and the Prussian king that only the Company would pay for the scientific equipment, the brothers also secured such provisions from their Prussian benefactors. While the sums were not considerable in this particular instance, the way the brothers proposed and carried out such schemes illustrates their sense of initiative and precaution in handling their multiple sponsors. At the end of 1855, Adolph addressed their intermediary

[443] Review of 'Results of a Scientific Mission to India and High Asia', *The Athenaeum*, No. 1764 (London, 1861), pp. 215-16, by Berthold Carl Seemann. For the question of authorship, see the useful site, http://athenaeum.soi.city.ac.uk/athall.html; I would like to thank Ulrich Päßler for the information.
[444] Schlagintweitiana, II.1.43, Hermann's 'Report' to the King of Prussia, Calcutta, 4.4.1855, p. 41.
[445] For the considerable logistical complexity of their travels, see the following two chapters.

Alexander von Humboldt from the region of Jharkhand, stating: 'It would be of great value, especially for our observations in the Himalayas in Tibet, if we could be provided with three little [...] Theodolites from Berlin.' Adolph drew on the informal networks that German expatriates had established in India in order to realise this scheme, urging Humboldt to send the objects to 'A. Huschke & Cp. The Consul for Hamburgh, at Bombay Fort.'[446] The traveller openly stated the reasons for this double dealing, claiming that 'the smaller English theodolites [...] are really of poor quality'. Although the brothers always sought to improve on their equipment, they were acutely aware that no further demands could be addressed to the Court for that purpose. As Adolph further explained, 'as we have recently learned, it is impossible for us to be provided with new smaller theodolites by the East India Company, after the great expenditures it had accumulated for our [original set of] instruments.'[447]

Setting and accepting limits to their ambition was not easy for the brothers. To be sure, their great travel expenses resulted not only from the increased fields of enquiry, but were also the outcome of their overly ambitious travel agenda. Since they frequently took separate paths on their journey, they required duplicates of instruments and many more assistants than their agreed budget allowed for.[448] Yet again, the driving force behind this increase was above all the insatiable scientific ambition of the Schlagintweits that, in turn, raised ever-greater expectations from their European benefactors and metropolitan scholars.

The German travellers were certainly aware of British fears about their expectedly high expenses.[449] But instead of tightening the purse strings in view of these expressed concerns, they opted to pursue a very different strategy; namely, to engage in secret financial negotiations with their German patrons. For the purpose of increasing their funds, the brothers ingeniously used their intermediate position between the Court of Directors, and the Prussian monarch Frederick Wilhelm IV. This was made possible by the fact that these two main financiers were never in *direct* contact with one another during their expedition; rather, the brothers sat at the centre of two largely unconnected supporting networks, one with British scholars and science administrators in India and Britain, the other with their German benefactors.

[446] Schlagintweitiana II.1.43, letter Adolph to Humboldt, Sangor 15.12.1855, pp. 209-214, 210.
[447] Ibid.
[448] Hermann Schlagintweit to Bunsen, GStaPK, VI. HA, FA Bunsen, A, No. 23, fifth folder 'Reise der beiden Schlagintweit, 1854', 11.12.1856, Punjab, p. 275; Schlagintweit, *Results of a Scientific Mission to India and High Asia*, I, p. 41.
[449] NA (Kew), BJ 3/53, letter J. Hooker to Sabine.

Owing to the presence of a great number of German scholars, missionaries, merchants, a Prussian Consul at Calcutta, and a Hamburg merchant-consul at Bombay, the brothers could effectively draw on an alternative communication network *within* the British colony. This was the *sine qua non* for allowing them to turn their relatively marginal position within the imperial establishment of British India to their own benefit.

Thus, in 1856, two years into the expedition, the Schlagintweits asked Frederick Wilhelm IV to authorise the Prussian Consul in Calcutta to greatly increase the monarch's financial support, by doubling the amount Frederick had originally agreed to commit. To ensure that the king would be convinced to meet these considerably higher demands, the Schlagintweits' addressed their proposal to the former Prussian envoy Bunsen, and also to Humboldt, who were both asked to act as their intercessors.[450] The Schlagintweits were clear that the remittance of additional funds had to be arranged in a secret:

> 'Our proposal, which we urge you to present to H[is] M[ajesty], would be the following. Namely, that through a letter of the ministry of commerce or the ministry of foreign affairs, Mr Kilbourn, the Prussian Consul at Calcutta, shall be authorised to pay a sum of 18,000 to 20,000 Thalers (which, of course, includes the yearly 3,000 Thalers already granted by HM) in order to pay for the expenses of our travels. We very much wish that the Prussian Consul shall be informed through direct communication from Berlin to Calcutta, and should not be notified through the [...] India House in London'.[451]

According to the brothers, special precautions had to be taken for arrangements of this kind, because earlier money transfers from the Prussian government had been viewed critically by the British. In their own words: 'The Indian Government seems to be highly sensitive on this point, which we could see in the case of the £80 for instruments that had been sent to us by Mr Hebeler', then the Prussian General Consul in London, on an earlier occasion.[452] As Hermann Schlagintweit

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[450] The almost identically worded letter to Bunsen can be found at GStaPK, VI. HA, No. 23, fifth folder, 11.12.1856, Punjab, p. 275-6.

[451] Ibid. Frederick Wilhelm IV had originally agreed to subsidise their travels for three years with a yearly grant of £350; the amount of 18,000-20,000 Thalers was more than twice the original sum, see 'royal order' 8.7.1854, Berlin GStaPK, 1 HA, Rep 162, Verwaltung des Staatschatzes Nr. 107, Section, 1, Pars. 4, No 17, 'Acta betreffend: der den Gelehrten, Gebrüdern Adolph, und Hermann Schlagintweit Allerhöchstgewährter Reisezuschuß, 1854'.

[452] Hebeler had also been involved in the Schlagintweit expedition on other occasions, see for his communicative role, BL, IOR, E/1/306, Jan-July 1857, entry number 2435, 'A Circular to the

further noted in the same letter, British perceptions of the brothers had recently deteriorated to such a degree that open speculations had been made in Britain about their being engaged in acts of betrayal against the British Empire: 'it has often been stressed in newspapers that we are not Englishmen. Only very recently, there was a lot of nonsense in *all newspapers* about "our supposed meetings with Russian agents in Turkistan."'[453] To be sure, such allegations continued to flourish even after their departure; in 1858, William Howard Russell, a journalist of *The Times* sent to India in 1858 to cover the great Indian uprising, noted in his diary: 'There is a "sentiment" here that the Russians are pressing us dangerously close, and are moving down every year more surely towards India. One eccentric gentleman in Simla maintains poor [Adolph] Schlagintweit was a Russian spy.'[454]

Given the brothers' substantial expenses, which had already sullied their image among British circles, they concluded their secret proposal to the Prussian king by noting that '[e]specially now, cash remittances from Prussia through the Indian Government would cause us great difficulties.'[455] As these quotations make clear, the fact that the British perceived the Schlagintweits as *foreigners* could swiftly lead to rumours and accusations of treachery, especially regarding Russia – Britain's perceived imperial rival in Central Asia. Yet what is also striking is that the Schlagintweits immediately turned this suspicion to their own benefit, and used it to propose and justify covert financial arrangements with the Prussian monarch.

However, as the same letter, written in December 1856, made clear, the brothers saw their requests for additional money as righteous since circumstances forced them to guarantee their personal liquidity, and thus to be able to complete their expedition at all. As they informed their German confrères in December 1856, 'we are writing only now, because we were only now capable to compile a general list of our expenses'. Those expenses, they confessed, 'averaged until now for each of us 1000 Rupees (1 Rupee = 2/3 Thaler) per month, [or] from October 1854 until the beginning of 1857 for all three a little more than 70,000 Rupees in total.' In other words, they had by then reached a sum of 52,500 Thaler.[456] Two years into the mission, the

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Company's agents'. The brothers, in this case, had used the mentioned £80 to purchase some theodolites.

[453] Hermann to Humboldt, Punjab, 11.12.1856, BSB, Schlagintweitiana, II.1.43, p. 369, emphasis mine.

[454] Sir William Howard Russell, *My diary in India, in the year 1858-9*, Vol. 2 (London, 1860), p. 136.

[455] Hermann to Humboldt, Punjab, 11.12.1856, BSB, Schlagintweitiana, II.1.43, p. 369, emphasis mine.

[456] Originally, the British side had only granted them 'für die dreijährige Reise 1200 Strl.', letter Illaire to von Raumer, 1858.

accumulation of their previous travelling costs came as a rude awakening. Their lofty scientific objectives had led them to greatly exceed their allowance. They had, in fact, overspent to such a degree that they were too embarrassed to even present these sums to the Indian Government, instead choosing to call on the Prussian king to come to their rescue by more than doubling his promised support. By explaining the circumstances of their accumulated debts, they could only hope for sympathy and support from Berlin.

As they noted, not without a trace of pride, their covered distances had already amounted to '15,000 English miles', as if distance itself was a signifier of achievement in such a scientific expedition.[457] Also parts of their collections had travelled over vast distances throughout parts of the Himalayas and India, often sent in separate caravans from the interior to the coast for shipment to Europe. At one point, one hundred camels took more than two hundred boxes full of collectibles from the foot of the Himalayas to Calcutta, a small expedition in itself, whose costs the brothers also had to meet. In the same letter, the Schlagintweits also specified those '*fortunate circumstances*, which allowed us to almost always pursue separate routes' during the expedition:

> 'The only thing that will delay our departure is the settling of the accounts with the Government [of India]. We have made it possible through private arrangements with our agents in Bombay and Calcutta, then through the *Government's official advancing of money* against later repayment, to be able to travel without time loss through all parts of India, and to temporarily defray all the necessary expenses for the collections. What is more, the biggest share of [the costs] for the inland transport [of the collections] has not as yet been paid to our agent in Calcutta.'[458]

In other words, their own initiatives with private merchant-consuls and later the colonial government had made it possible for them to travel for years on unsecured and *infinite credit*. Their arrangement with the authorities had allowed them to travel without the need to engage in frequent negotiations about planned expenses with the Court in London or the Prussian king in Potsdam. However, this borrowing scheme was tied to the legal obligation to repay these sums through the grants received from their Anglo-German financiers – even though their spending

[457] Hermann to Bunsen, 11.12.1856, GStA PK, VI. HA Familienarchive und Nachlässe, FA Bunsen, Karl Josias von, A, Nr. 23, folder 'Reise der beiden Schlagintweit, 1854'.
[458] Hermann to Humboldt, 11.12.1856, BSB, Schlagintweitiana, II.1.43, emphasis mine.

greatly exceeded their income. The accumulation of debts testifies to the fact that the Indian authorities apparently never consulted the Court in London on the question of up to what sum the brothers' financial demands were actually secured.

At the same time, these arrangements also reflected the great confidence the Indian Government seemed to place in the brothers' trustworthiness as reliable gentlemen scholars – a questionable assumption that the brothers, however, were able to skilfully use to their advantage. While it is unclear from the surviving sources how Joseph Hooker, then based in London, could have learnt about the brothers' skyrocketing expenses, it seems that these liberal arrangements – first with their Prussian agents, then formally with the Indian authorities – were precisely what Hooker had implied by their 'carte blanche', allowing the brothers to travel on 'unlimited credit'.[459] Given Hooker's earlier and ongoing troubles to secure sufficient means for his own Indian and Himalayan travels (1847-51), his sharp criticism of this generosity towards the German scholars is understandable.

One can thus only be struck by the fact that in the same letter to Bunsen and Humboldt, with which the Schlagintweits intended to increase the Prussian grants, and in which the brothers had to acknowledge that they had effectively lost control of their spending, the travelling scholars were still not prepared to make any compromises on the ambitious scale of their expedition.[460] That is, their pressing financial troubles did not lead the brothers to moderate their ambitions for their remaining stay in South and High Asia. On the contrary, writing about their future travel plans for the coming winter of 1856-57, Hermann explained that: '[o]ur plans for the cold season are that Adolph will travel to Peshawar, and then to follow the Indus to Kurachee [Karachi] and Bombay, Robert [by contrast, will travel] on a more northern route [...] to Bombay. I myself will go to Lahore and Patra, and from there, which can now finally be arranged [with the help of the Indian Governor-General], I will visit Kathmandu. After a short stay in Nepal, I will come to Calcutta.'[461] For only then, the brothers insisted, 'will we have completed our observations in India.'[462]

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[459] Joseph Hooker to Sykes, 4.11.1855, RBGK, DC 102 English Letters SME-SYM 1855-1900. It is likely that a befriended Company servant in India had informed Hooker about such a deal, and given the many cases of neglect of British scholars in the colony, it stands to reason that this information was not passed on to Hooker without some critical remarks.

[460] At one point, they noted that '[w]e did not believe [...] that our overall costs would so tangibly increase.'

[461] Hermann to Humboldt, 11.12.1856.

[462] Ibid.

Later, Adolph also made the fatal decision to return again to the great mountain systems of the Karakorum and the Kuenlun in Central Asia. Their projected final itineraries thus meant again three separate routes, and hence three times the cost of an indigenous establishment. The enormous audacity with which the Schlagintweits seized on the situation and refused to adjust their explorations to very real monetary constraints only serves to show how high their scholarly goals were. Nothing should stand in the way of finishing their major scientific investigation of this world region, which in its vast scope was aimed at elevating European knowledge of India and High Asia to new heights.

In order to increase the likelihood of success, the brothers cleverly linked their secret financial proposal to the Prussian king with yet another double game they played with their two different benefactors. This concerned the complex question of ownership over their vast collection of artefacts. As they informed Bunsen, and via him the Prussian monarch:

> 'Another fact that might be alluded to in order to excuse the sum named by us [i.e. the 20,000 Thaler] is, that it will be much easier for us to obtain a large part of our collections for Berlin, if not all of the expenses have to presented to the Indian Government.'[463]

While the issue of ownership of their collectibles will be treated in more detail in a separate chapter, which will also deal with the remarkable plans the brothers had for their display, it is important to note that the brothers introduced this matter already in the context of their financial negotiations with the Prussian state. And as will be shown, their promise to secure considerable chunks of it for Prussian state collections was taken to heart by officials and diplomats in Berlin, and would cause further tensions in the course of the controversy.[464]

Judging by the surviving evidence, the brothers' secret proposal for the 20,000 Thaler never seemed to have materialised in the proposed format. However, through the mediation of their younger brother, Emil Schlagintweit (1835-1904), the brothers soon settled on another scheme.[465] Shortly before their return to Europe, Emil

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[463] Ibid.
[464] See the subchapter 'Conflicts of collecting: a projected India Museum in Berlin'.
[465] Emil Schlagintweit to Bunsen, Berlin, 11.3.1857, GStA PK, VI. HA Familienarchive und Nachlässe, FA Bunsen, Karl Josias von, A, Nr. 23, fifth folder, 'Reise der beiden Schlagintweit, 1854', fol. 273.

addressed the former Prussian ambassador Bunsen yet again. After reminding Bunsen of his earlier petition 'that the agreed Prussian grant shall be raised to more than double the amount', Emil suddenly claimed that the Prussian king and his advisor (*wirklicher Geheimer-Cabinets-Rath*) E. E. Illaire had, in fact, confounded the amount of the promised royal contributions.[466] Emil thus maintained that his brothers, and Humboldt, too, assumed that the Prussian grant was actually noticeably higher than Illaire and the king purported it to be. While the latter assumed only £350, Humboldt and the brothers claimed that the yearly grant would amount to 3,000 Thalers, or £445.[467] Consequently, Emil Schlagintweit proposed to Bunsen (and via him, Frederick Wilhelm) that 'it would be sufficient, according to Mr v. Humboldt' when, in addition to receiving the outstanding Prussian sums, the brothers would also receive 'a further subsidy for a fourth year'.[468]

This was an extraordinary suggestion, since the brothers were by this time (March 1857) set to return to Europe in the very near future, and never planned to stay for another full year in India.[469] In any case, if this demand were to be authorised by His Majesty, Emil stated that the additional sum 'should then immediately be sent to Mr Kilbourne', the Prussian Consul at Calcutta.[470] The urgency behind this petition was further reflected in the fact that Emil informed Bunsen that 'I will have the honour at the beginning of next week to be presented to H[is] M[ajesty] and I intend to personally bring forward the wishes of my brothers'. He also stressed that he was acting in the name of Humboldt as well as in the interest of his brothers in India. In the end, Frederick Wilhelm did agree to provide funding for a fourth year of an expedition that, for the brothers at least, lasted only three.[471]

As this instance makes clear, Humboldt acted not only as the Schlagintweits' potent patron, but his name could also be used as a tool to lend higher legitimacy to their self-interested demands; and self-interested they were. In stark contrast to other scholars at the time, the brothers were never willing to draw upon their own fortunes or salaries to manage the considerable debts they accumulated. On the contrary,

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[466] Originally: 'dass der bewilligte Zuschuss preußischerseits auf mehr als das Doppelte erhöht werde'.
[467] These (incorrect) figures were also stated by Humboldt in a letter to Bunsen, 11.3.1857.
[468] Emil to Bunsen, 11.3.1857, GStAPK, NL Bunsen.
[469] Hermann to Bunsen, 11.12.1856. Adolph intended to complement their observations in the western Himalaya and Central Asia, but did not plan to stay for a whole additional year; Adolph to W. Sykes, 25.4.1857, Gotha, SPA ARCH PGM 353/1.
[470] Emil to Bunsen, 11.3.1857, GStAPK, NL Bunsen.
[471] Illaire to Manteuffel, Potsdam, 6.9.1857. For the continuation of researches for the brothers' expedition by Anglo-Indian officers, and indigenous assistants, Chapters 4 and 5.

according to their own statements, they had even managed to make a considerable financial gain *whilst* travelling in India. As they informed the Bavarian king: 'In India, the three of us had a monthly salary of 1200 Rupees and 300 Rupees travelling allowances [...] Of this sum, we could put aside 21,000 fl. [*Gulden*] between the years 1854-57, which was made even easier for us, since the acquisition and the transport of the collections were officially paid for by England.'[472]

Upon return to Europe, Robert and Hermann Schlagintweit also claimed supposedly outstanding sums from the Court of Directors, which were eventually granted on the grounds of trust, since there was no further documentation about such sums in the Company ledgers. The secretary of the India House, Melville, remarked that the only references to the mentioned sums are 'in their letters on the subject, in which the Court from the high character of those Gentlemen have every reason to place entire confidence.'[473] This statement shows that in the early autumn of 1857, at least the Court of Directors still maintained a high opinion of the Schlagintweits as gentlemen scholars, whose financial requests were to be met in consideration of their assumed trustworthiness. The Court's view of the brothers thus stood in marked contrast to the widely shared suspicion about the Schlagintweits in scientific circles and, increasingly, even among the wider public in Britain.

As we shall see in later chapters, this still positive evaluation of the German scholars by *Company officials* in London played a crucial role in the aftermath of their expedition – especially for the burning question of how the brothers would capitalise on their travel experiences, mountains of data, and literally tonnes of artefacts. It is therefore important to note that the brothers sought to make their German financiers pay for the accumulated expenses at the end of their travels. This was not done out of a feeling of appropriateness. Rather, it was yet another strategic move on the Schlagintweits' behalf, as an unclouded relationship with the Company officials in the wake of the expedition was crucial to strike a renewed contract with the Court. The new contract was intended to allow the brothers to embark on the last, and not necessarily any less expensive, stage of such an overseas expedition: the time-consuming analysis of their gathered materials in Europe, and the costly publication of their written accounts, scientific illustrations, and paintings. The brothers were well

[472] Originally: 'da uns der Ankauf und Transport der Sammlungen von England aus officiell bezahlt wurde.'
[473] IOR, E/2/25 'Letters to the Board. June 1857 to Nov. 1857', 'unadjusted amount of salary of H & R Schlagintweit', East India House, 1.10.1857, C. Melville.

aware that their grand scientific scheme would only be accomplished once an adequate *magnum opus* that testified to their achievements had been compiled and disseminated to European and colonial readerships – a printed monument to the size and ambitions behind the brothers' Asian expedition.

Before we turn to the legacies the brothers left behind from their eastern travels, it is first important to look at how the brothers actually realised their large-scale expedition, what sources of knowledge – both European and indigenous – they tapped, and how their scientific practices shaped their perception of both the unfamiliar natural world, and the indigenous peoples they encountered.

Chapter Four

A society of strangers: a Eurasian expedition on the move

> A European, who understands travelling in the H[imalayas], whose preliminary arrangements and preparations necessary for his journey have been made with the requisite care and discretion, who surrounds himself with young attendants, [...] may be likened by no means inaptly to *a thoroughly independent sovereign, who governs absolutely over an immense kingdom adorned with the rarest charms of nature*, which he can traverse in every direction, just as his humour and will may lead him. [...] *Every European, whom he may meet is a friend, every other person an obedient subject*.[474]

In retrospectively describing the personal experiences he and his brothers had gained as travelling scholars in the mountain systems of Central Asia in 1855-57, these were the words that Robert Schlagintweit used in the 1860s and '70s to capture his seemingly unbounded sense of independence – a feeling he seeks to convince his audience any European could enjoy in those regions. One of the many striking aspects of this passage is that it testifies to a curious shift of perception on the part of the German traveller. His actual role as a former surveyor in the service of the East India Company seemed transformed by the powerful idea that he could turn into a 'thoroughly independent sovereign' of the land *himself*. His reign, so the author suggests, would not only encompass High Asia's natural kingdom. Rather, it would also extend to the rule over indigenous peoples and the native assistants that made such exploratory travels possible in the first place. The quote is a highly subjective and imaginary statement that formed part of the personal 'colonial fantasies' the German Schlagintweit brothers came to develop *after* they had travelled in and beyond British possessions in India during one of the largest surveying projects of the British eastern empire in this period. At the same time, the opening quotation is also characterised by a number of striking 'omissions' about the realities of such trans-cultural overseas explorations, including the fact that their voyage was carried out under the directions and in line with the tangible interests of the imperial Government of India.

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[474] Robert Schlagintweit, BSB, Schlagintweitiana V.2.2.1. 'Lecture manuscripts' ['Vortragsmanuskripte'], 'English lectures on High Asia delivered during the years 1868 and 1869 in various towns of the United States of America', p. 50, emphasis mine.

The fantasies of the German scholars were precisely not only linked to British national-imperial interests. Their purpose was not simply to imagine how Britain could eventually conquer, 'improve' and profit from the lands the brothers had studied in its service. Rather, the Schlagintweits developed a colonial imagination that transcended their subservience to the empire's cause, and in which *they* are the main protagonists of the 'conquest' and 'rule' of those Himalayan regions and their inhabitants. It is precisely this intriguing self-perception, but also the blatant contradictions of this colonial imaginary inherent in their own writings, that stand at the heart of two following interlinked chapters. The actual conditions of travel, the fear, dependence and often ignorance on the part of the European travellers are juxtaposed with the ideas, practices, and circumstances that later fuelled their feeling of 'mastery' towards the lands they had crossed, explored and measured. The unravelling of colonial tropes is therefore one purpose of the chapter. The other, however, is to zoom in on the careers and perspectives of those who accompanied the brothers during their journey, the many forgotten and silenced indigenous helpers and explorers whose function in the Schlagintweits' travel narrative became that of 'an obedient subject' instead of what they actually were – collaborators following their own agendas and ambitions.

The Schlagintweits in Asia – an unexplored field?

After the Schlagintweits had prepared their Indian mission in the scientific hubs of Berlin, London, and Paris, they embarked upon the steamship 'Indus' (fig. 4.1) for the port of Alexandria, from whence they traversed a stretch of desert before arriving at Suez. From there, the three brothers continued by steamer via Aden to Bombay, where, on 26 October 1854, they touched Indian ground for the first time.[475]

[475] The brothers had even pursued their research intensely during the journey; for instance, some of their first water samples were sent to the Court of Directors for chemical analysis, and the brothers measured sea currents and began their series of watercolours with coastal views.

Fig. 4.1 'The Peninsular and Oriental Steam Navigation Company's Ships, Indus [left] and Ripon', Lithographic print, source and copyright: No. PAH8932, National Maritime Museum, Greenwich, London.

During the following two and a half years, and in the case of Adolph until late August 1857, the brothers then travelled partly together, but mostly separated, on meandering routes through the south, central and north of India. They also undertook various excursions into different parts of the Himalayas, which demarcated the northern frontier of the Company Raj. The brothers, moreover, accomplished a few important explorations in those countries that lay beyond this partially explored mountain chain. In doing so, they experienced the crossing of these borderlands into the unknown in Central Asia as an almost magical moment, later glorifying this moment in front of their European readerships. Such crossings gripped the imagination of metropolitan audiences since, as Mary Louise Pratt reminds us, 'the frontier is a frontier only with respect to Europe' – it is ultimately 'grounded within a European expansionist perspective'.[476]

During the expedition, in which the Schlagintweits and their indigenous carriers and assistants covered over 29,000km, including long stretches of difficult

[476] Robert Schlagintweit' lectures: 'The passage across the Karakorum pass [on the 9th Aug. 1856] belongs to the most shining and most brilliant recollections of my life.' BSB, Schlagintweitiana V.2.2.2, 'English lectures on High Asia', pp. 93-5. Pratt, *Imperial Eyes*, p. 8. For an overview of their itineraries, Finkelstein, '"Conquerors of the Künlün"?'.

terrain in high-mountain regions, the travelling party made a number of pioneering achievements. Among them was the first crossing of the Karakorum chain from north to south, and the journey over the Kunlun range in Central Asia by Hermann and Robert in 1855 – as the first European scholars to have accomplished this feat. Due to these achievements, the brothers were able to develop new geographical concepts, which lastingly shaped western understandings of the mountain systems north of India. That is, they introduced the concept of 'High Asia' into the literature, which meant the geographical region that was (supposedly) 'formed by the chains of the Himalayas, the Karakorum and the Kunlun in a constant mutual connection.'[477] During their high mountain ascents, Adolph and Robert also set a new altitude record of 6,785 metres on Kamet (Ibi Gamin) August 1855, which electrified their mentor Humboldt, who was subsequently eager to spread the news among influential German and British peers.[478] The brothers also ranked among the first scholars to employ the still rather novel technology of photography for the purpose of overseas exploration, experimenting with the medium in high mountain areas, as well as badly lit caves – such as on the island of Elephanta.[479]

This enumeration of the brother's 'heroic' achievements still dominates the popular, and to some extent also the scholarly perception of the Schlagintweits and their travels in Asia. The particular focus on the 'heroic' attainments of these geographical 'trailblazers' is further reinforced by the fact that their expedition is often depicted as a single-minded, scientific undertaking in the tradition of the European enlightenment.[480] In the self-perception of European states at the time and,

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[477] Defined in Hermann, 'Bericht über Anlage des Herbariums während der Reisen nebst Erläuterung der topographischen Angaben', *Abhandlungen d. H Cl. d. k. Akad. d. Wiss. XII, 3 Abth*., 12 (Munich, 1876), pp. 133-197, 137; and *Reisen*, 2, pp. 3-18 ('den Ketten des Himalaja, [des] Karakorúm und des Künlun in stetigem gegenseitigen Anschlusse gebildet ist'). The assumption was wrong, since they rather presented unconnected mountain ranges, running parallel, which did not directly join each other. Nonetheless, the brothers' claim was often repeated by fellow travellers.

[478] Humboldt to Murchison, Berlin, 19.5.1856, Edinburgh University Library, Murchison Papers, Gen. 523/4f.53.

[479] Adolph and Robert Schlagintweit, 'Notices of Journeys in the Himalayas of Kemaon (communicated by Col. Sykes, F.R.S)', *Report of the 25th Meeting of the BAAS* (London, 1856), 'Notices and Abstracts of Miscellaneous Communications to the Sections', pp. 152-155: 'We remained in Milum till the 16th, occupied with magnetic observations and photographic experiments. Our photographic apparatus, which acted very well, produced a marvellous effect among the Bhotias', ibid. p. 153; see also *Reisen* 2, p. 271 for photographs taken in Darjeeling; and Hans Körner, 'Photographien auf Forschungsreisen. Robert Schlagintweit und seine Brüder erforschen die Alpen, Indien und Hochasien (1850-1857', in Bodo von Dewitz et al. (eds.), *Silber und Salz: Zur Frühzeit der Photographie im deutschen Sprachraum (1839-1860)* (Heidelberg et al., 1989), pp. 310-20. 314.

[480] See for this glorifiying topos, anon., 'Neue englische Expedition nach Inner-Asien', *Globus: Illustrierte Zeitschrift für Länder- und Völkerkunde*, 1 (1862), p. 94.

later, some historians too, the age of enlightenment had inaugurated a new 'age of exploration', in which state-backed, colossal undertakings had cast light into the dark interiors of foreign, unknown continents. Seen from this perspective, exploration was more than just matter of advancing scientific knowledge: it came to symbolise the cultural superiority of exploring western nations in their encounter with extra-European societies.[481]

However, as a critical scholarship on the culture of European exploration and its popular perception has shown, European 'discoverers' not only destroyed myths about foreign lands, but also created new ones.[482] A striking example is the association of Africa as the 'Dark Continent', which increasingly influenced European imaginings of this continent in the nineteenth century. Yet, as Patrick Brantlinger has argued, 'Africa grew "dark"', the more 'Victorian explorers, missionaries and scientists flooded it with light'.[483] The published works of European overseas travellers were also able to create new myths, which often stood in sharp contrast to the actually gained experiences on the ground during an expedition.[484] The popular image of the Schlagintweit expedition, which presents the brothers as heroic 'solitary travellers', who despite all obstacles lifted the veil of ignorance from countries in High and Central Asia, is ironically less a result of the brothers' own publications. Rather, the popular account of their exploits is just as much the result of a strikingly selective and glorifying reception history, which was set in motion already during their stay abroad, but continues into the present.[485]

The following exploration of the 'inner life' of the Schlagintweit expedition seeks to offer a corrective to such enduring myths. That is, the analysis is concerned with exploring this undertaking not merely from the perspective of the European explorers, but also to enquire about the personal motives and interests of the

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[481] This 'Second Age of Exploration' is sometimes juxtaposed against an earlier 'age of discovery' in the wake of Columbian exploits, see Dane Kennedy, 'Introduction: Reinterpreting Exploration', in idem (ed.), *Reinterpreting Exploration: The West in the World* (Oxford, 2014), pp. 1-20; ibid., Michael F. Robinson, 'Science and Exploration', pp. 21-37.
[482] Felix Driver, 'Missionary Travels', p. 166.
[483] Patrick Brantlinger, 'Victorians and Africans: the genealogy of the myth of the Dark Continent', *Critical Inquiry*, 12 (1985), S. 166–203, 166.
[484] See the groundbreaking analysis by Johannes Fabian, *Out of Our Minds: Reason and Madness in the Exploration of Central Africa* (Berkeley, 2000).
[485] In 2012, Bavaria's main broadcasting service, *Der Bayerische Rundfunk*, based a feature on their explorations entitled: 'The incredible story of the brothers Schlagintweit. In 1854, the three Munich [travellers] embark…to the Himalayas. They are the very first scholars to go there at all', www.br.de/fernsehen/bayerisches-fernsehen/sendungen/capriccio/gebrueder-schlagintweit-100.html, accessed Oct. 2013.

numerous indigenous helpers and assistants. Only they, this chapter argues, made possible the realisation of this large-scale undertaking in its ultimate form. Since the Schlagintweits themselves acknowledged their at times complete dependence upon their assistants in their writings, it is all the more striking that so little attention has as yet been devoted to their extensive establishment, which certainly did not only encompass local 'native' helpers. As will be shown, the very category of 'native' is problematic, since a number of indigenous leaders of the expedition turned into veritable explorers themselves. This was especially the case when they led the moving party through territories that were also unknown to them, and indeed the category of the 'native' carries a misleadingly static, local connotation.[486] In acknowledging this vital role of Indian scholars, the Schlagintweits thus differed in their publication strategies from the literary-scientific conventions adopted by many contemporary travellers who repeatedly whitewashed the contributions of the hired guides and assistants in their publications.[487] However, the brothers were at the same time also eager to constantly establish hierarchies in their writings between these indigenous assistants and themselves, arguably to safeguard their own supposedly superior scientific credentials and authority in front of European audiences. This literary strategy should, however, be read as a direct response to the unsettling experiences the German travellers had during their expedition, when the position of power could considerably shift from the Schlagintweits to their guides and partners.

In order to better understand the brothers' concrete experiences in Asia, the previously neglected interactions between them and their assistants, but also the Schlagintweits' at times complete reliance upon the latter, are pulled into focus. By means of hitherto untapped sources, a number of Indian and Central Asian assistants can now be identified, and we can recover the appreciation that the German scholars held for (in Hermann's words) the 'actual leaders' of some of their most important

[486] See Felix Driver, 'Hidden histories made visible? Reflections on a geographical exhibition', *Transactions of the Institute of British Geographers*, 38 (2013), pp. 420-35, 428.

[487] Also the American journey by Alexander von Humboldt (1799-1804) has been revisited with the explicit question of to what extent the Prussian traveller profited from indigenous knowledge in the 'New World', and what hitherto little explored roles (besides Emile Bonpland) his many non-Europeans assistants played; see Jorge Cañizares-Esguerra, 'How Derivative Was Humboldt? Microcosmic Nature Narratives in Early Modern Spanish America and the (Other) Origins of Humboldt's Ecological Sensibilities', in Londa Schiebinger and Claudia Swan (eds.), *Colonial Botany: Science, Commerce, and Politics in the Early Modern World* (Philadelphia, 2005), pp. 148-65. Felix Driver und Lowri Jones, *Hidden Histories of Exploration* (London, 2009), p. 11.

advances into and beyond the frontier regions of British India.[488] Of course, the relationship between the brothers and their numerous guides, porters, interpreters and protectors was not without its tensions, misunderstandings, or mistrust. We therefore need to be careful to strike a balance between presenting the collaborative aspects of this encounter without silencing the asymmetric power relations between the brothers and their native establishment. These power relations were not only visible in real-life encounters in Asia – though in more complex ways than might first be assumed. The problem of the unexpected power relations, which had emerged during travel, also had to be addressed by the brothers in the retrospective framing of these encounters in their writings. Often it is the considerable time lag between event and narrative that helped transform existing hierarchies into imagined ones. This is true for the realms of knowledge production as much as for the representation of the role and authority of individuals. What should thus become apparent is how misleading it is to regard the Schlagintweit expedition as simply a 'European' undertaking. In fact, it entailed an ongoing intercultural collaboration, in which the Indian and Central Asian travel companions exercised a decisive influence on the routes, the scientific results, and the pioneering achievements of this expedition – all of which historians have hitherto credited to the brothers alone.

In the following analysis, the different parts of the two following chapters will be less concerned with a description of the various Asian regions traversed by the diverse party. Rather, a number of previously understudied aspects of an important question will be addressed: *how* could such a complex expedition into politically sensitive and, from a European perspective at least, essentially unchartered territories be executed? First, the kind of logistical, political, and financial support the brothers received through various channels from the British colonial administration will be outlined. This will reveal to what considerable extent only the colonial infrastructure of the British Empire made their travels, anthropological research, and collecting practices ultimately feasible. In the next part, the analysis moves on to explore the unanticipated dependencies that emerged during their excursions, especially those beyond British administered areas. In other words, it will try to establish precisely how and thanks to whom the Schlagintweits would accomplish 'their' most celebrated and internationally acclaimed mountaineering and exploratory achievements.

[488] *Reisen*, 2, p. 329 for Tibet; *Reisen*, 4, p. 22 for Turkistan.

By grace of the Company: the Schlagintweit expedition in the context of British rule in India

During their travels on the subcontinent, the brothers were able to make extensive and intensive use of the colonial infrastructure that the British had established in their South Asian territories. Over time, the Schlagintweits carried out a number of surveys in fields as diverse as medical topography, geography, meteorology, botany, geology, and numerous other disciplines with potential implications for British rule and expansion – especially when they concerned issues of settlements and agricultural developments.[489] Upon their arrival in Bombay, the brothers mainly dealt in 'official matters' with the 'Military Office', as the latter was involved with the geomagnetic survey of India.[490] In order to carry out their research efficiently, different branches and institutions of the Government of India subsequently became involved, frequently providing them with additional scientific instruments. The Schlagintweits, furthermore, always received the latest maps and statistics, which they obtained directly from the bureau of the Surveyor General of India in Dehra Dun and Calcutta (fig. 4.2).[491] At the time, the Surveyor General was Colonel Sir Andrew Waugh and the Schlagintweits became acquainted with, and were advised by, Waugh and his predecessor, George Everest, during their stay among the ruling circles of India.[492]

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[489] House of Commons, *Fourth Report from the Select Committee on Colonization and Settlement (India), together with the Proceedings of the Committee, Minutes of Evidence, and Appendix* (London, 1858), see esp. the Schlagintweits' testimony in the 'Minutes of Evidence, 6 July 1858', pp. 1-10.

[490] *Reisen*, 1, pp. 47-48.

[491] For instance, some 'large-scale facsimiles, copied by hand, of the first sketches' of little known areas were especially produced for the brothers. They likewise received some otherwise difficult to procure 'writing and sketching materials' from the offices of the Survey of India, *Reisen*, 1, pp. 231-2. ['mit der Hand copirte Facsimiles erster Aufnahmen in sehr großen Maaßstäben'; 'Schreib- und Zeichnungsmaterialien'].

[492] In Calcutta, the brothers also personally met with the Deputy Surveyor General, and leader of the Revenue Survey, Major Thuillier, who advised them on their planned itineraries and research programme, *Reisen*, 1, p. 231.

Fig. 4.2 'Map of Kumaon and British Gurhwal. Compiled in the Office of the Surveyor General of India with the latest additions from the Researches of Captn. H. Strachey in 1846 & Lt. Rich. Strachey Engineers in 1849'; Calcutta, Surveyor General's Office, 29 April 1850 [1:506880]; printed map with annotations and additions by the brothers, esp. in the bottom left-hand corner. Source and copyright: BSB Munich, Schlagintweitiana IV.5.50.

Yet, the brothers also knew how to actively involve different government departments in their extensive data collecting. They thus installed a range of observatories for taking meteorological measurements, which were to complement their own corresponding data sets registered on alternative routes at the same time. Either British officers, or members of the brothers' group of trained scientific assistants supervised these observatories during prolonged periods, which ranged up to a few years.[493] Throughout and also after the expedition, a number of government branches – including the officers of the 'Medical Department' – supplied the brothers with a comprehensive and most valuable set of climate recordings, which supplemented the brothers' own observations and significantly shaped the scientific results of the whole undertaking in the field of Indian meteorology.[494]

[493] E.g. *Reisen*, 2, p. 334.

[494] Received especially through the support of Dr. J. Macpherson, 'first secretary of the Medical Department of the Indian Army', *Reisen*, Bd 1, S. 234-35 ['erster Secretär des Medicinalwesens im indischen Heere']. Hermann later refused to return these unique records, bound together in 39 volumes, to the Indian Government. This meant that the famous climate expert, H. F. Blanford, first director of the Indian Meteorology Department, had to personally consult them in Munich in 1878. Those 39 books became the cornerstone of Vol. 4 of the brothers' *Results*: 'Meteorology of India: an analysis of

Few examples better reflect the power structures that enabled a number of studies undertaken by the brothers than the fact that the Schlagintweits received permission to make facial masks of Indian prisoners for their ethnographical research. As Hermann noted, some of those prisoners belonged to otherwise difficult to access ethnic groups: '[a]mong the doctors of a higher rank', he therefore especially thanked a certain Dr Mouatt, 'since he, as Inspector of Jails […] offered me the opportunity to measure individuals of those Indian races, which otherwise would not have been approachable. I thereby managed, on several occasions, to even induce some members of the wildest tribes to have their facial structures copied by applying plaster directly [to their faces]'.[495] For these living 'objects of study', the procedure – which lasted at least 30 minutes – was highly unpleasant and could result, depending on the quality of the plaster, in the irritation or even serious burning of the skin. In all cases, however, the men, women, and children being cast had to endure the discomfort of breathing through moistened paper cones inserted into their nostrils. The European scholars were permitted to carry out such activities because of the power asymmetries that existed between them and the convicts in the jails of British India, whose infrastructure the brothers thus knew how to exploit for their own aims (figs. 4.3-4.4)

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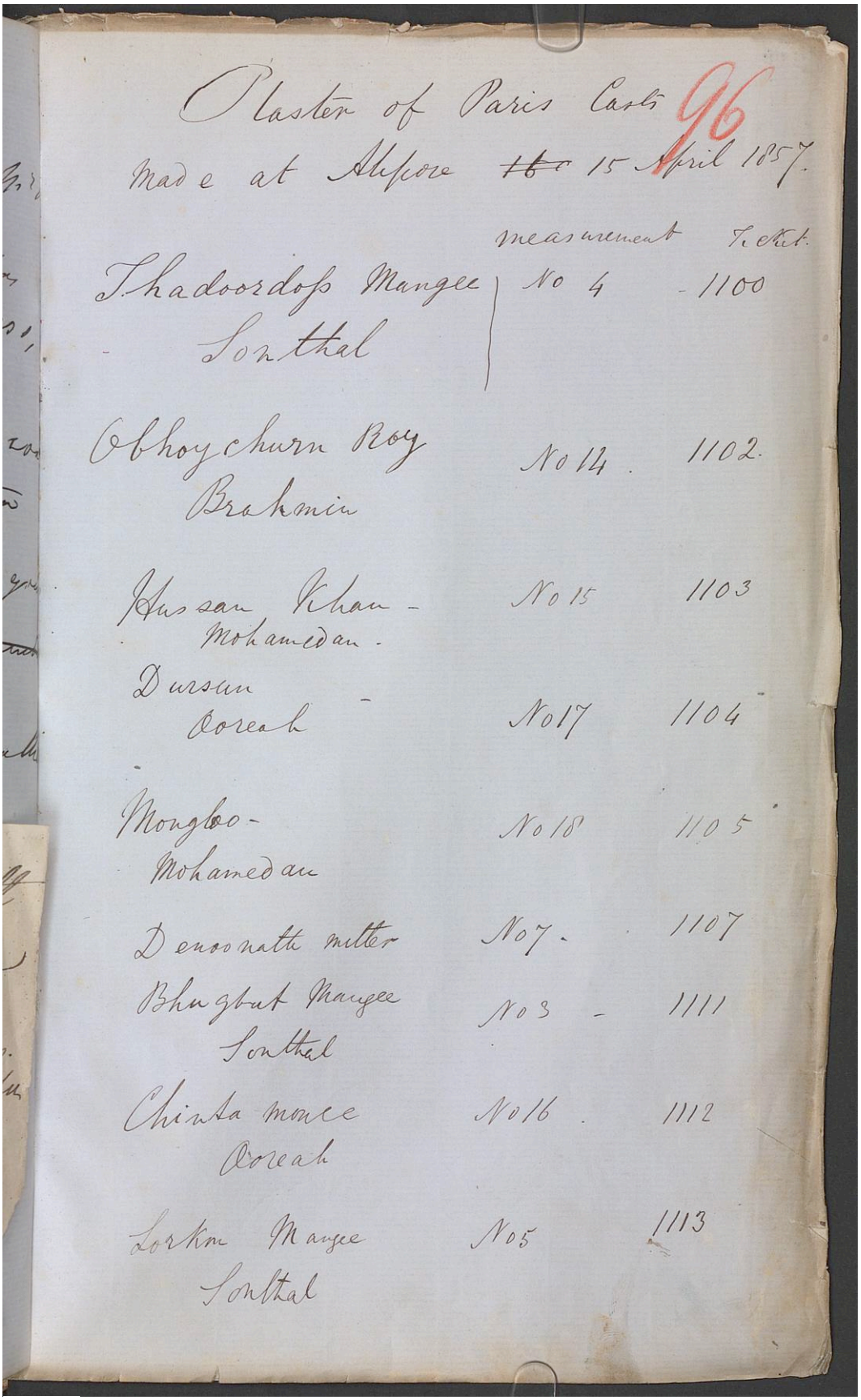
the physical conditions of India, the Himálaya, western Tibet, and Turkistan' (Leipzig and London, 1866).

[495] *Reisen*, 1, p. 236 ['Unter den Aerzten höherer Stellung […]Dr. Mouatt, da er mir, als Inspector of Jails (oder Staatsgefängnisse), Gelegenheit bot, Individuen solcher indischer Racen, die sonst nicht wohl zugänglich gewesen wären, zu messen, wobei es mir auch mehrmals gelang, selbst von den wildesten Stämmen welche zu bewegen, ihre Gesichtsformen plastisch durch unmittelbares Auflegen von Gips copiren zu lassen'].

4.3. Example of a Schlagintweit facial cast of brown plaster, taken from a female called 'Hagi' of the ethnic group of the Lepchas in Sikkim. The cast is fixed on an oval metal sheet, and mounted within an oval wooden frame. The dimensions are: height: 35.5 cm; width: 27.5 cm; depth: 8 cm; weight: 1.42 kg. Source: British Museum, London.[496] Precisely such masks were produced in the above-mentioned jails.

[496] www.britishmuseum.org/research/collection_online/collection_object_details.aspx?objectId=553105&partId=1, accessed July 2014.



Plaster of Paris Casts 96

Made at Alipore ~~16~~ 15 April 1857.

	measurement	Ticket
Thadoordoss Mangee Sonthal	No 4	1100
Obhoychurn Roy Brahmin	No 14	1102
Hussan Khan - Mohamedan	No 15	1103
Dursun Doreah	No 17	1104
Mongloo - Mohamedan	No 18	1105
Denoonath mitter	No 7	1107
Bhugbut Mangee Sonthal	No 3	1111
Chinta mance Doreah	No 16	1112
Lorkn Mangee Sonthal	No 5	1113

Fig. 4.4 Enumeration, with personal descriptions, of the 'Plaster of Paris Casts made at Alipore', 15 April 1857, source and copyright: Schlagintweitiana II.1.38.

The Schlagintweits' use of prisons also allowed them to complement their anthropometric studies of different 'Indian races' in two other ways. First, they made photographic records of partly bound or shackled prisoners (figs. 4.5-4.6).[497] Second, the brothers also took extensive anthropological measurements of the entire bodies of these convicts, and had the data carefully noted down on handwritten or previously printed forms (figs. 4.7-4.10). It seems that a member of the prison staff (or perhaps one of the brothers' aides) had assisted in this process, since the written measurements do not correspond with either of the Schlagintweits' own handwriting. In the Alipore Jail in Calcutta alone, some 25 individuals were thus methodically measured and their heads copied in plaster.

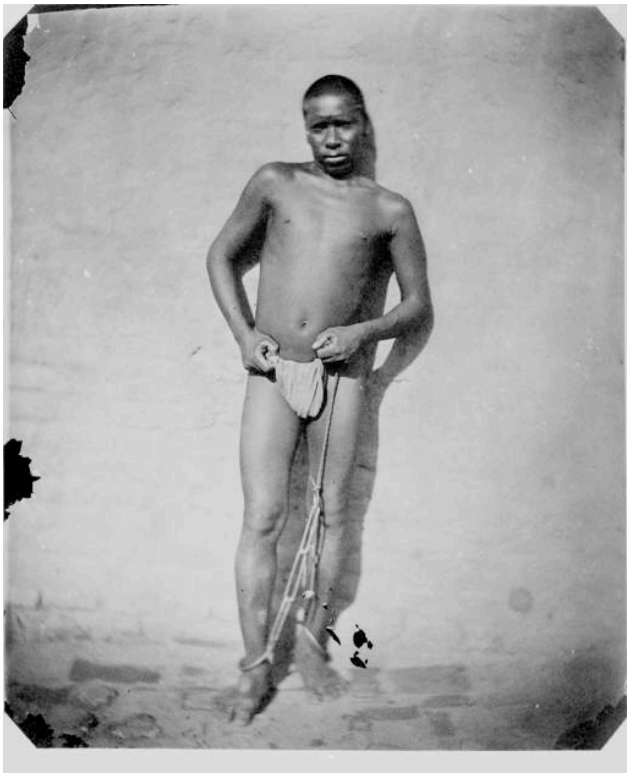


Fig. 4.5 Enchained prisoner, 'Nitu, God, 26 y[ears], Amarkantak, 'Prisoner in the Jablur Jail'", taken by Robert Schlagintweit, Schlagintweitiana, IV.2.53.

[497] Indeed, in the 1870s the prison made it compulsory for the convicts to comply with such activities: 'Power would have to be given [to the prison guards] to make it a jail offence on the part of the convict to refuse to be photographed, and authority might be required to detain an obstinate prisoner in the Alipore Jail until his photograph had been taken.' National Archives of India, Home Department Port Blair A, Dec. 1874, Nrs. 52-7, 'Proposal for photographing convicts', quoted in Christopher Pinney, *The Coming of Photography in India* (London, 2008), p. 68.

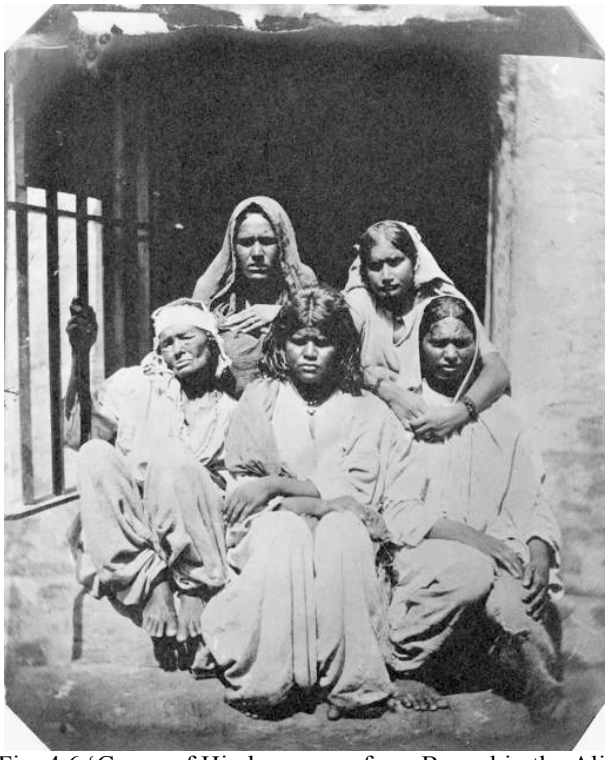


Fig. 4.6 ‘Group of Hindu-women from Bengal in the Alipur-Jail. 1 and 4 Brahmans, 2 Rajputs, 2 and 5 Sudras’, taken by Robert Schlagintweit; Schlagintweitiana IV.2.2. The prison bars can be seen on the left side of the photograph .

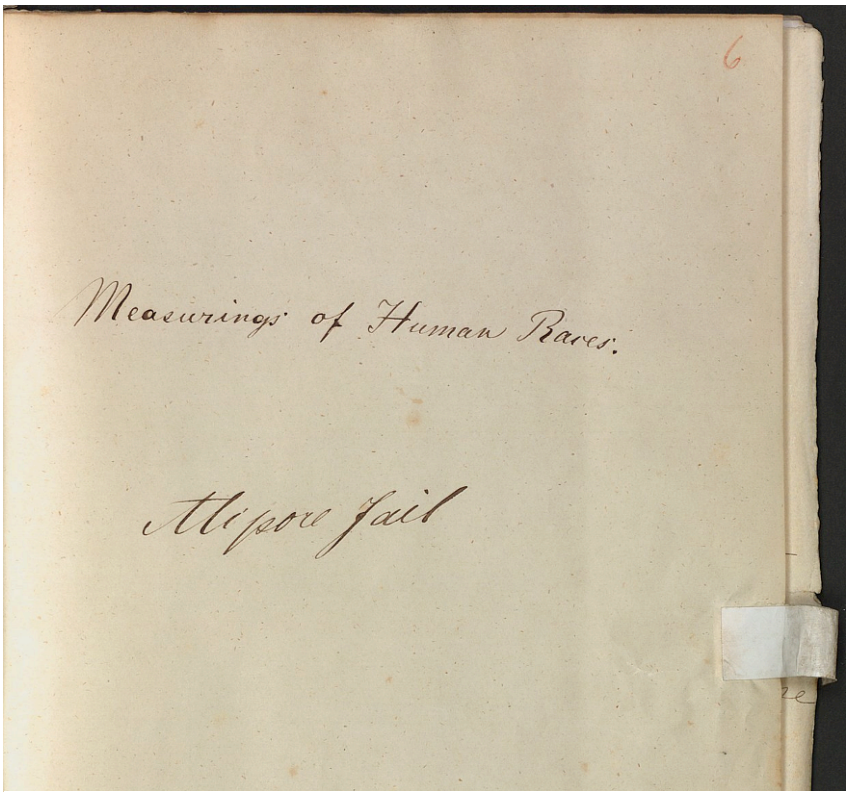


Fig. 4.7 Cover of the volume with ‘Measurings of Human Races. Alipore Jail’, Schlagintweitiana II.1.37.

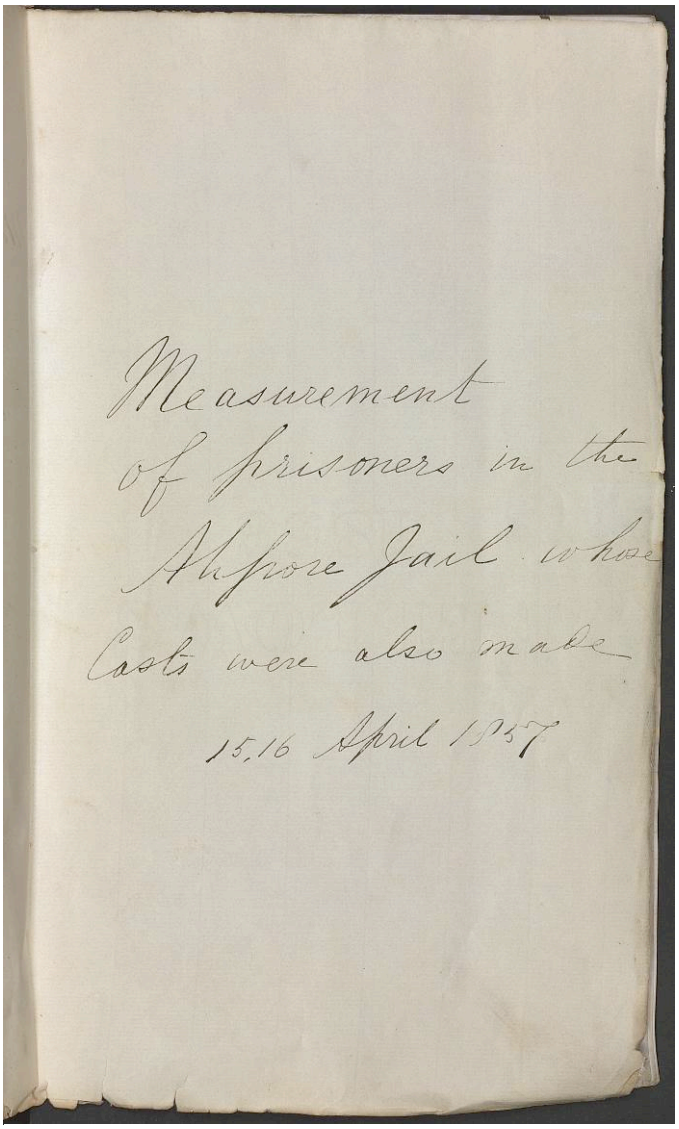
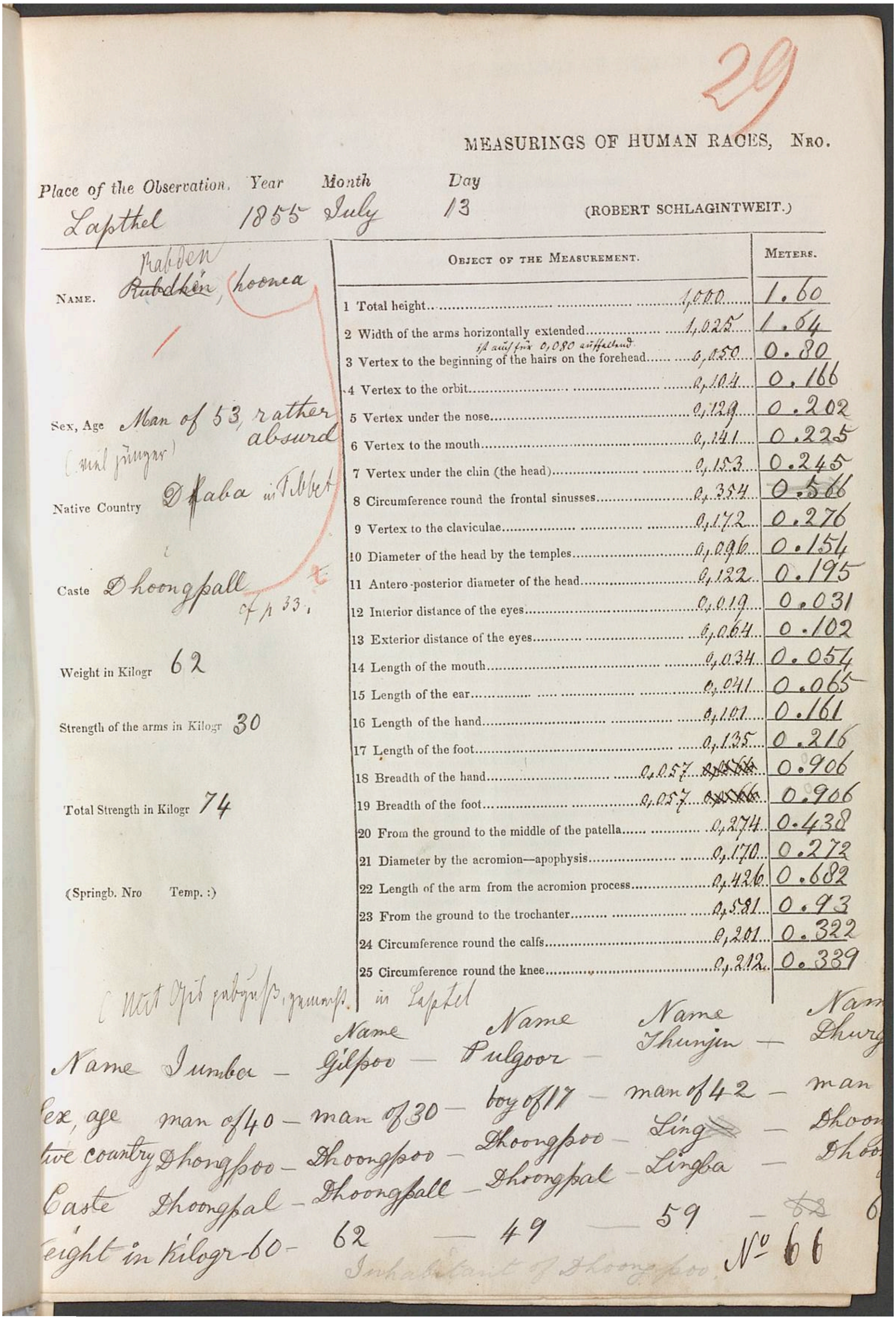


Fig. 4.8 Cover page No 2: 'Measurement of prisoners in the Alipore Jail whose Casts were also made, 15,16 April 1857', Schlagintweitiana II.1.37.



29

MEASURINGS OF HUMAN RACES, Nro.

Place of the Observation. Year Month Day

Lapthel 1855 July 13

(ROBERT SCHLAGINTWEIT.)

Name. ~~Rubdkin~~ Rabden, Choonea

Sex, Age Man of 53, rather absurd

Native Country Dfaba in Tibbet

Caste Dhoongpall

Weight in Kilogr 62

Strength of the arms in Kilogr 30

Total Strength in Kilogr 74

(Springb. Nro Temp. :)

Object of the Measurement.		Meters.
1 Total height	1,000	1.60
2 Width of the arms horizontally extended	1,025	1.64
3 Vertex to the beginning of the hairs on the forehead	0,050	0.80
4 Vertex to the orbit	0,104	0.166
5 Vertex under the nose	0,129	0.202
6 Vertex to the mouth	0,141	0.225
7 Vertex under the chin (the head)	0,153	0.245
8 Circumference round the frontal sinusses	0,354	0.566
9 Vertex to the claviculae	0,172	0.276
10 Diameter of the head by the temples	0,096	0.154
11 Antero-posterior diameter of the head	0,122	0.195
12 Interior distance of the eyes	0,019	0.031
13 Exterior distance of the eyes	0,064	0.102
14 Length of the mouth	0,034	0.054
15 Length of the ear	0,041	0.065
16 Length of the hand	0,101	0.161
17 Length of the foot	0,135	0.216
18 Breadth of the hand	0,057	0.906
19 Breadth of the foot	0,057	0.906
20 From the ground to the middle of the patella	0,274	0.438
21 Diameter by the acromion—apophysis	0,170	0.272
22 Length of the arm from the acromion process	0,426	0.682
23 From the ground to the trochanter	0,581	0.93
24 Circumference round the calfs	0,201	0.322
25 Circumference round the knee	0,212	0.339

in Lapthel

Name Iumber — Name Gilpoo — Name Pulgoor — Name Thunjin — Name Dhurg

Sex, age man of 40 — man of 30 — boy of 17 — man of 42 — man

Native country Dhongpoo — Dhoongpoo — Dhoongpoo — Ling — Dhoo

Caste Dhoongpal — Dhoongpall — Dhoongpal — Lingba — Dho

Weight in Kilogr 60 — 62 — 49 — 59 —

Inhabitant of Dhoongpoo. No 66

Fig. 4.9 Example of a pre-printed and completed list by Robert Schlagintweit for racial studies of a ‘man of 53’ years, 13 July 1855 in Lapthel; Schlagweitiana II.1.38. Note beside the external features of his body also the recorded physical data, especially the ‘strength of the arms in Kilogr.’, measured by using a spring scale.

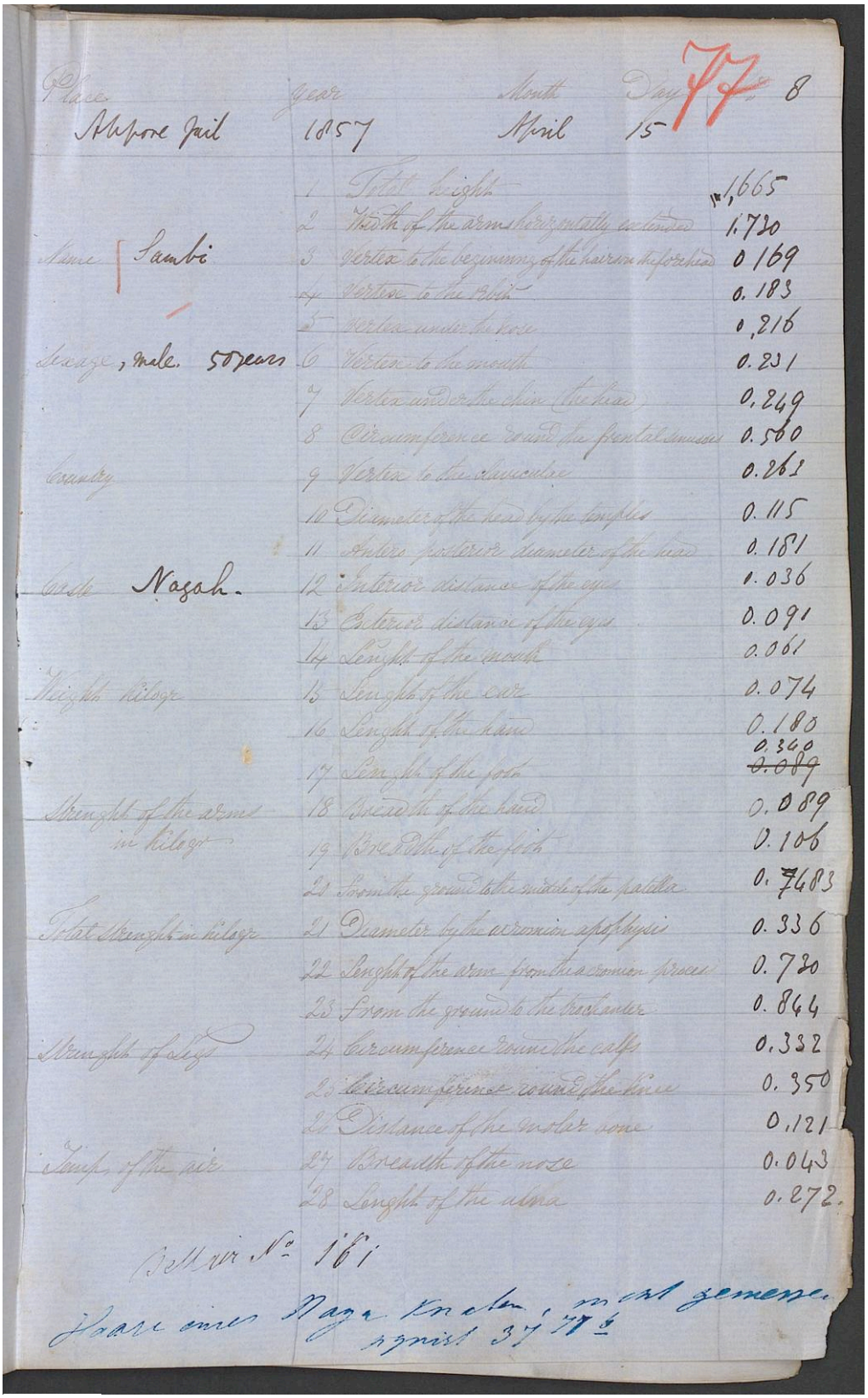


Fig. 4.10 Example of a handwritten list of the Schlagintweits with anthropometric data from the Alipore Jail, 16 April 1857. An assistant of the brothers copied this list after the original, pre-printed form, Schlagweitiana II.1.38.

Besides their access to the prisons, the brothers were also able to procure skulls or even entire skeletons from hospitals, provided to them through their contacts with Indian and European doctors at these institutions.[498] These complemented those human remains that the Schlagintweits obtained by single-handedly plundering tombs.[499]

It was furthermore important for the execution of this expedition that the political influence of the Government of India sometimes reached further than their possessions formally extended. A number of British political *Residents* (Company diplomats) were often well informed about the political conditions and local conflicts that might affect the brothers' proposed itineraries – even in lands beyond formal British rule in High and Central Asia. Since the accurate securing of useful information was a fundamental pillar of the colonial power itself, the brothers could therefore profit immensely from the established information channels of British officials, who were stationed at the borders of, or even within, the at least formally still independent Indian princely states.[500]

Among these political informants – who proved important not only for the Schlagintweits' endeavours – were Colonel Ramsay, British Resident in Kathmándu, Brian Houghton Hodgson in Darjeeling (fig. 4.11), and Lord William Hay in Shimla, the elevated 'summer capital' of British India.[501] Many of these residents personally engaged in scientific pursuits throughout their respective region. They thus presented precious sources of local and regional knowledge for the travelling Schlagintweits. Hodgson alone compiled several hundred scientific papers, and ranked as the greatest connoisseur of the natural history of the Himalayas among all Europeans in India when Hermann met him during his stay in Darjeeling:

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[498] 'I furthermore received from Dr Webb, another Presidency Surgeon, and manager of the Native Hospital in Calcutta, a very precious series of skeletons from the anatomical museum of the hospital', ['Ferner erhielt ich von Dr. Webb, ebenfalls Presidency Surgeon, und Vorstand des Native-Hospitals zu Calcutta, eine sehr werthvolle Reihe von Skeletten aus dem anatomischen Museum des Hospitals […] Hinduracen'], *Reisen*, 1, p. 235.

[499] 'In the territories of those nations which bury, such as the Mussulmen and the Buddhists in Tibet, it was possible to find, by opening not too old tombs, well-preserved skeleton.' ['Im Gebiete von Nationen, welche begraben, wie die Mussalmans und in Tibet die Buddhisten, war es eher möglich durch Oeffnen nicht zu alter Gräber noch gut conservirte Skelette sich zu verschaffen.'] *Reisen*, 1, pp. 235-6.

[500] On the crucial role of information gathering for the establishment, expansion, maintenance, and ultimately the demise of East India Company rule in South Asia, see C. A. Bayly, *Empire and Information*.

[501] For Ramsay, *Reisen*, 2, p. 235; for Hay, ibid., p. 393.

> ‘In view of Hodgson’s wide-ranging scientific investigations, it was highly beneficial for me during my first visit of the Himalaya to meet with him, the more so since he informed me with the greatest liberality of all his important experiences.’[502]

Fig. 4.11 Brian Houghton Hodgson, British Resident in Darjeeling and at the Court of Nepal; photography (1871); source: William Wilson Hunter, *Life of Brian Houghton Hodgson: British Resident at the Court of Nepal* (London 1896).

[502] On Hodgson’s far-ranging expertise, see Waterhouse, ‘Brian Hodgson - a biographical Sketch’, p. 7; Arnold, ‘Hodgson, Hooker and the Himalayan Frontier’. [Originally: ‘Bei Hodgson’s vielseitigen Forschungen war es mir ungemein förderlich, schon bei meinem ersten Besuche des Himalya mit ihm zusammenzutreffen, um so mehr, da er mir mit größter Bereitwilligkeit seine wichtigen Erfahrungen mittheilte’], *Reisen*, 2, p. 271.

Fig. 4.12 Mountstuart Elphinstone (1779–1859), by Charles Turner (after Sir Thomas Lawrence, begun 1829) source and copyright: Ashmolean Museum, Oxford.

Former 'diplomat-geographers', that is British travellers with official political assignments such as Mountstuart Elphinstone – as the past leader of a diplomatic mission of the EIC to Afghanistan in 1808 – also possessed valuable travel experiences and insights into the countries beyond the north Indian frontier region (fig. 4.12). The German brothers unsurprisingly sought to make use of this store of acquired knowledge and to tap Elphinstone's expertise.[503]

In order for the brothers to become introduced and accepted within the political and scientific circles of British India, they once again made ample use of Alexander von Humboldt's 'cunning letters'. In many cases, Humboldt's flattering addresses to eminent personalities in India secured the brothers further important letters of reference.[504] At one point, Hermann Schlagintweit received introductions to influential residents, such as Dr. A. Campbell in Darjeeling, from the hands of the President of the *Royal Society of Bengal*, Sir James William Colville (1848-59). Yet this was only achieved because Humboldt had praised the brothers' scientific credentials in the highest tones in a long letter to the *Society*. Humboldt's own

[503] 'Lord Elphinstone, der uns erlaubte ganze Tage mehrmals bei ihm zuzubringen, hat uns über die Details innerer Routen in seiner Präsidentschaft, so wie auch in Verbindung mit seinen eigenen früheren Reisen in verschiedenen Theilen des Himalaya und in Tibet wichtige Mittheilungen gemacht.' *Reisen*, 1, p. 45.

[504] Before the brothers set sail in September 1854, Humboldt had compiled four 'cunning letters' for the upcoming mission; Humboldt to Hermann and Adolph, Berlin 4.9.1854, Stiftung Stadtmuseum, Berlin, Humboldt-Slg. Hein, HU 99/62 QA.

reputation among the learned in India meant that his initial recommendations had a snowball effect, unlocking government and personal support across the British colony.[505]

While the Schlagintweit brothers became thus perfectly integrated into British imperial knowledge networks, they could also profit from the political pressure that the colonial government could exert on indigenous rulers. That is, even before the Schlagintweits' travels, the Indian Government had developed a particular diplomatic parlance in its interaction with other Indian or Himalayan rulers, in which the right of access into non-British territories could, ostensibly politely, be demanded. Yet, through the evocation of specific terms, the Indian government could at the same time exert unmistakable diplomatic pressure. Such strategies are epitomised in the expedition of the British naturalist Joseph Hooker. When Hooker, in 1849, sought to penetrate into Sikkim – a small, poor, state flanked by Nepal and Bhutan with borders to the Chinese-controlled Tibet in the north and the Company-territories in the south – the Rajah of Sikkim, Chomphoe Namgye, was 'understandably anxious not to annoy any of his powerful neighbours so he and his chief minister, the Dewan, were suspicious of travellers like Hooker who surveyed and made maps.'[506] Consequently, the Rajah placed a number of restrictions and hurdles in the path of the small party of British scientific travellers.[507]

To resolve matters, the 'political superintendent' of the British in Darjeeling, Archibald Campbell, weighed in and reminded the Rajah of 'the duties of friendship' that he was supposed to fulfil in his relations with the British hegemonic power. The subtext of this reminder was clear, and Campbell's aim was effectively to blackmail the indigenous ruler into granting Hooker's party with free passage.[508] In Campbell's report to the secretary of the Governor General of British India, he stated explicitly in reference to this incident: 'It has always appeared to me that we owe it to the

[505] See parts of Humboldt's letter reprinted in Rajendralal Mitra, 'Proceedings of the Asiatic Society, for March 1855', *The Journal of the Asiatic Society of Bengal*, 24 (1855), pp. 183-189, 183-4; Colville's response to Humboldt, Calcutta, 16.3.1855, Schlagintweitiana, 43, pp. 71-72; and *Reisen*, 2, p. 171.
[506] Endersby, 'Joseph Hooker and India', online article, www.kew.org/science-conservation/collections/joseph-hooker/india/travels; accessed July 2014.
[507] Nandini Bhattacharya, *Contagion and Enclaves: Tropical Medicine in Colonial India* (Liverpool, 2012), p. 24.
[508] See a number of letters, including the reply of the Sikkim Raja, in the RBGK, JDH/1/11, pp. 236ff.

maintenance of our proper position towards the Raja to claim the privilege of free resort into Sikkim for all European and Indian British subjects.'[509]

The Sikkim Raja, in turn, responded to British pressure by trying to marshal not political, but rather religious reasons in order to keep the intruders at bay. Yet, since he was eager to avoid any diplomatic conflict with the Governor General, he thus proposed the following compromise:

> 'British Gentlemen are prohibited from travelling in my territories [...]. With the exception of this […] I can do anything else in virtue of my friendship. I have consulted the Lamas, as to whether it is good and proper that British Gentlemen should examine the Trees and Plants of my Country, the result is that it will not be proper. I cannot however quite refuse the requisitions from Calcutta; [will] [...] the Governor General [...] therefore be so good as let me know what Trees and Plants are required, and I shall send them by my own people.'[510]

Since this proposal was, perhaps unsurprisingly, refused by the British, the travellers Hooker and Campbell ultimately forced their way into Sikkim. The political escalation following the imprisonment of the two British subjects by the Sikkim officials entailed first a diplomatic, and then nearly a military confrontation. In the end, the Indian Government emerged victorious in the conflict, as they annexed parts of Sikkim, and stopped a yearly pension to the Raja.[511] This episode, which occurred only shortly before the Schlagintweits' explorations, demonstrates how local power relations between the empire and its neighbours were subtly negotiated through the right of passage and of unrestricted scientific scrutiny of (semi-) autonomous states.

Even though no comparable sources survive for the Schlagintweits' travels, it stands to reason that a similar pressure by the British was exerted to secure their access into Nepal and other sovereign states. Since the brothers were aware of the seclusion of this little-explored country, it was no surprise to them that it 'was only after two years' of 'diplomatic negotiations, very kindly entered into upon our behalf by the Governor General and Colonel Ramsay, British Resident in Kathmándu, that the Court of Nepal allowed' at least Hermann 'to visit a portion of its territories.'[512]

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[509] A. Campbell, Superintendant of Darjeeling, to H. M. Elliott Esquire, Sec. to Govt of India, with the Governor General, Darjeeling, 15.3.1849, ibid.
[510] 'From the Sikim Raja to the Superint, at Darjeeling', ibid., Campbell's translation.
[511] *Reisen*, 2, p. 180. The conflict resulted in an area of 640 square miles being added to the British possessions, Bhattacharya, *Contagion and Enclaves*, p. 24.
[512] *Results*, 1, p. 29.

Alarmed by the experience of the still ongoing British northward expansion, many indigenous rulers rightly perceived the brothers as vanguards of a potential military conquest of their territories.[513] Therefore, upon arriving at the frontier, Hermann 'had quite an official reception, and a guard of sepoys constituted themselves my constant companions, partly in the capacity of guides, but more especially for keeping watch upon my operations.'[514] The fact that the German scholars were always equipped with travel passes and official letters of protection by the Government of India further reinforced the perception that they were colonial agents. In some cases, these documents indeed secured the Schlagintweits and their attendants the unhindered passage into non-British territories, or at least saved them from persecution or harassment by the officials of local rulers. The brothers therefore gratefully acknowledged this important political support openly in their writings:

> '[...] *every official assistance* was most kindly given to us, and we found ourselves liberally provided with the necessary orders to the respective civil and military authorities, and with *diplomatic introductions* to the Courts of the Native States. These documents were of the most essential importance in enabling us to extend our mission into countries, which, otherwise, we could never have hoped to reach, and which, indeed, were far beyond the limits of our original intention.'[515]

Several excursions by the Schlagintweits into the kingdom of Kashmir reflect this indirect influence that the British had beyond formally ruled territories. During their first visit to the Raja Gulab Singh (fig. 4.13), then reigning over Jammu and Kashmir, the brothers were successfully 'introduced […] through a letter by the Governor General during an official handing over of our papers'.[516] The formality of the occasion eased the way for later negotiations with Gulab Singh's officials, when the Schlagintweit had to rely on their hospitality once more.

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[513] This perception of the German travellers as potential harbingers of a future colonisation by the British questions Marchand's claim that 'the German states in this era [the mid-19th century] were insufficiently powerful for local leaders to see German travelers as either particularly useful or particularly threatening': when formally enlisted in foreign imperial service, extra-European rulers as in the trans-Himalayan region certainly made no distinction between the perceived threat posed to their lands by either 'German' or 'British' travellers; idem, *German Orientalism*, p. 145.
[514] *Results*, 1, p. 29.
[515] *Results*, 1, p. 6, emphasis mine.
[516] *Reisen*, 2, pp. 427-28.

Fig. 4.13 'Maharádza Guláb Singh, King of Kashmir' by an unknown artist. This painting was acquired by the brothers whilst they were travelling in Asia, and was later hung on the wall of their private museum in the Jägersburg; source and copyright: Ethnological Museum, Munich.

For instance, when Hermann and Robert travelled with their indigenous guides through the Chinese-controlled Turkistan,[517] the brothers left the bulk of their equipment behind in the city of Leh, situated in western Tibet, but formally under the rule of the Raja of Kashmir. The purpose was to enable a number of their assistants to take measurements in their absence.[518] During this time, Basti Ram, who, while acting as the governor of Leh, was loyal to the cause of the Chinese, left 'our people unmolested […] despite his [earlier] effort to stop our travel.'[519] As the brothers noted in their published travel accounts, 'the influence of English power upon Kashmir was

[517] Historical Turkistan is now defined as 'the regions of Central Asia lying between Siberia on the north; Tibet, India, Afghanistan, and Iran on the south; the Gobi (desert) on the east; and the Caspian Sea on the west. The mountain systems of Pamirs and Tien Shan divided the total area of more than 1,000,000 square miles (2,600,000 square km) between West Turkistan (Russian) – covering present-day Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, and the southern part of Kazakhstan.' *Encyclopaedia Britannica*, 'Turkistan', (Online Academic Edition, 2014), last retrieved 26.4.2014.
[518] *Reisen*, 2, p. 23; also vol. 3, pp. 277-79.
[519] Ibid., vol. 4, p. 201 ['ungeachtet seines Versuches, gegen unsere Reise einzuschreiten, [waren] unsere Leute ganz unbelästigt geblieben.'].

tangible enough' by the mid-1850s to ensure that their researches in Leh could thus not be forcefully prevented.[520]

However, how unwelcome the European travellers were in Kashmir was illustrated well by the fact that the brothers, like Hermann later in Nepal, were presented with an unsolicited 'guard of honour': a group of men ordered to accompany them and watch their every step. Spying on these foreign scholars was surely a serious assignment: when the brothers managed through deception to get rid of the soldiers in order to secretly penetrate into Turkistan, Basti Ram, being 'highly exasperated with the members of our guards of honour' had the entire group of soldiers punished and thrown into prison.[521] He also 'immediately sent another group of soldiers after us with the strictest orders to bring us back again, even by force if it were necessary.'[522]

Basti Ram, the governor of Leh, was under pressure to hinder the Schlagintweits from entering forbidden Chinese territories, as he could be held accountable for such intrusions. The reason was that the Qing Empire regarded the brothers essentially as British spies, which in many regards they were. During their expedition, the brothers collected much 'useful' knowledge on behalf of their main employer, the profit-oriented East India Company. They studied thoroughly the supply and demand for a number of natural and manufactured goods across the different frontier regions they traversed in north India, the Himalayas and Turkistan. They explored, measured and mapped with highly refined western instruments numerous high mountain passes, and noted the suitability of different regions within and beyond Company territory for future agricultural or settlement colonisation.[523] They brothers participated readily in imperial knowledge gathering, in a manner that was also aimed at justifying the high expenses accumulated during their endeavours. Perhaps unsurprisingly, the brothers noted themselves that their extensive observations and measurements were perceived by non-Europeans as hostile acts, and

[520] Ibid. At the time of the Schlagintweit expedition, the large-scale survey of Kashmir under Captain Montgomery (from spring 1855 until 1864) was also launched, which determined the high peaks of the Karakorum range (K1, K2, etc.). Hence, also Jammu, Kashmir and Ladakh were hardly 'untrodden' regions, but were then rather systematically explored and mapped out – even if the brothers were to give a different impression in their writings; Waller, *The Pundits*, pp. 18-20.
[521] Robert's Lectures, Schlagintweitiana, V.2.2.2, pp. 156-57.
[522] Ibid. 157.
[523] See the brothers' wealth of colonial knowledge being offered to the British Parliaments in the period of the Crown takeover, *House of Commons, Fourth Report from the Select Committee on Colonization and Settlement (India)*, pp. 1-10; and Robert von Schlagintweit, Schlagintweitiana V.2.2.1; 'English lectures on High Asia', p. 106.

spurred rival powers with their own interests in High and Central Asia to come up with countermeasures in order to keep those intrusive British agents at bay.

Robert Schlagintweit even claimed that some rulers and their officials and border guards – especially from the Chinese Empire – engaged in a sort of counter-espionage. Surely Robert dramatized this element of their journey some years later, as he spoke about it in front of popular audiences in Central Europe and the United States, whose appetite for adventure stories are likely to have shaped his narrative in certain ways. Yet, he insisted on the point that every step they took along or across the borders of Chinese-controlled territory was closely registered in Peking. The Schlagintweits' penetration into the 'Chinese province of Gnari Khorsum' in the year 1855 had – in Robert's words – 'not a little disturbed the Chinese authorities, and had first directed their attention to us.'[524] The result was that '[b]undles of official papers, in which we are not spoken of in the most flattering terms are to be met with in [...] the capital of China.'[525] Since their first intrusion into regions under the suzerainty of Peking, the 'Chinese government, with whom we were now on anything but good terms […] did not lose sight of us.'[526] It therefore did not take long until the brothers knew precisely what the purpose of the above-mentioned 'guards of honour' really was: 'namely faithful watchers over all our acts and proceedings, official spies in fact.'[527] Whether this account of Anglo-Chinese espionage was true or partly fabricated for later audiences is difficult to tell, since the evidence comes largely from the brothers themselves, who used the stories in their popular travel account that was written some ten years after the event. What remains beyond doubt, however, is the fact that the brothers were seen as and behaved like British agents in regions outside of India, and clearly profited from the nascent yet tangible power that their employer exercised on various local rulers in its borderlands.[528]

[524] Schlagintweitiana V.2.2.2, 'English lectures on High Asia', pp. 19-20.
[525] Ibid.
[526] Ibid.
[527] Since the phrase 'official spies' is not without its irony, it demonstrates that the guard of honour was supposed to have an intimidating effect upon the brothers – so as to prevent any attempt to even *think* about setting foot on Chinese soil.
[528] This is demonstrated by the fact that, as we have seen, different border guards were established to control their activities and movements, with the soldiers at times already awaiting the arrival of the moving party, thus giving credence to the idea of counter-espionage.

'Voyage of discovery' or Indian tourism? Mobility in South Asia

The brothers' reliance on the colonial infrastructure was, of course, even more prevalent within British India itself and did not only affect their collecting practices and ethnographic studies, but also the very means of travel. In contrast to the popular perception of their travels as being marked by solitary travel and a certain heroism against unbounded nature, much of their travel on the subcontinent appears rather surprisingly tame and sociable, as they followed in the footsteps of numerous predecessors: tourists, merchants, and Company officials. The different transport technologies used by the Schlagintweits and their establishment within India – and partly also in the Himalayas – makes clear to what great extent the brothers were travelling on well-trodden paths, for which they could rely on a convenient system of carriers stationed along major routes at fixed intervals. These could even be pre-booked by travelling scholars or merchants through the Indian postal system.[529]

What was more, the brothers made use of a wide range of modern and traditional means of transport available in India at the time – from steamer and railway to elephant and palanquin. The brothers thus employed the means of the 'Camel caravan' and the 'Bhylie', a type of ox cart, to transport their luggage and scientific collections.[530] The same applied both to the 'Charry dawk' (a stagecoach) and the 'bullock train', which was utilised 'along the main line of communication between Calcutta and the Punjab'.[531] For their personal transport, the Schlagintweits – but none of their assistants – also made occasional use of trained elephants to ride through difficult to access jungles in north India and parts of the Himalayas. As a gesture of inclusion into their social circles, it was generally British colonial officials who personally provided these elephants – only – to the brothers.[532] Regionally specific means of transport such as the Nepalese 'Dari, a type of portable hammock, which allows all kinds of observations of the traversed region' – were used and praised by the brothers for their comfort and efficiency.[533]At least within Company territory, the brothers thus usually travelled in an ostensibly more privileged manner than most of their helpers. While they were carried or drawn by Indians, the great

[529] 'Palki oder einer horizontalen Sänfte [...]. Die Palki [...] von den Europäern gewöhnlich Palankin genannt' Hermann, *Reisen*, 1, pp. 239-40.
[530] *Reisen*, 1, p. 79. Note that the brothers' collections included entire tree trunks, heavy plates of Indian marble, and the corpses of large animals, such as Bengal Tigers.
[531] *Reisen*, ibid. p. 243.
[532] E.g. in Sikkim and Assam, *Reisen*, 1, p. 245.
[533] *Reisen*, 2, p. 171.

majority of their porters had to travel by foot; and even their personal assistants or ‘butlers’ were confined to use simple palanquins. Most of the forms of travel the brothers enjoyed are summoned together in an image printed in the *Illustrated London News*, under the title ‘Modes of travelling in India’ (fig. 4.13).

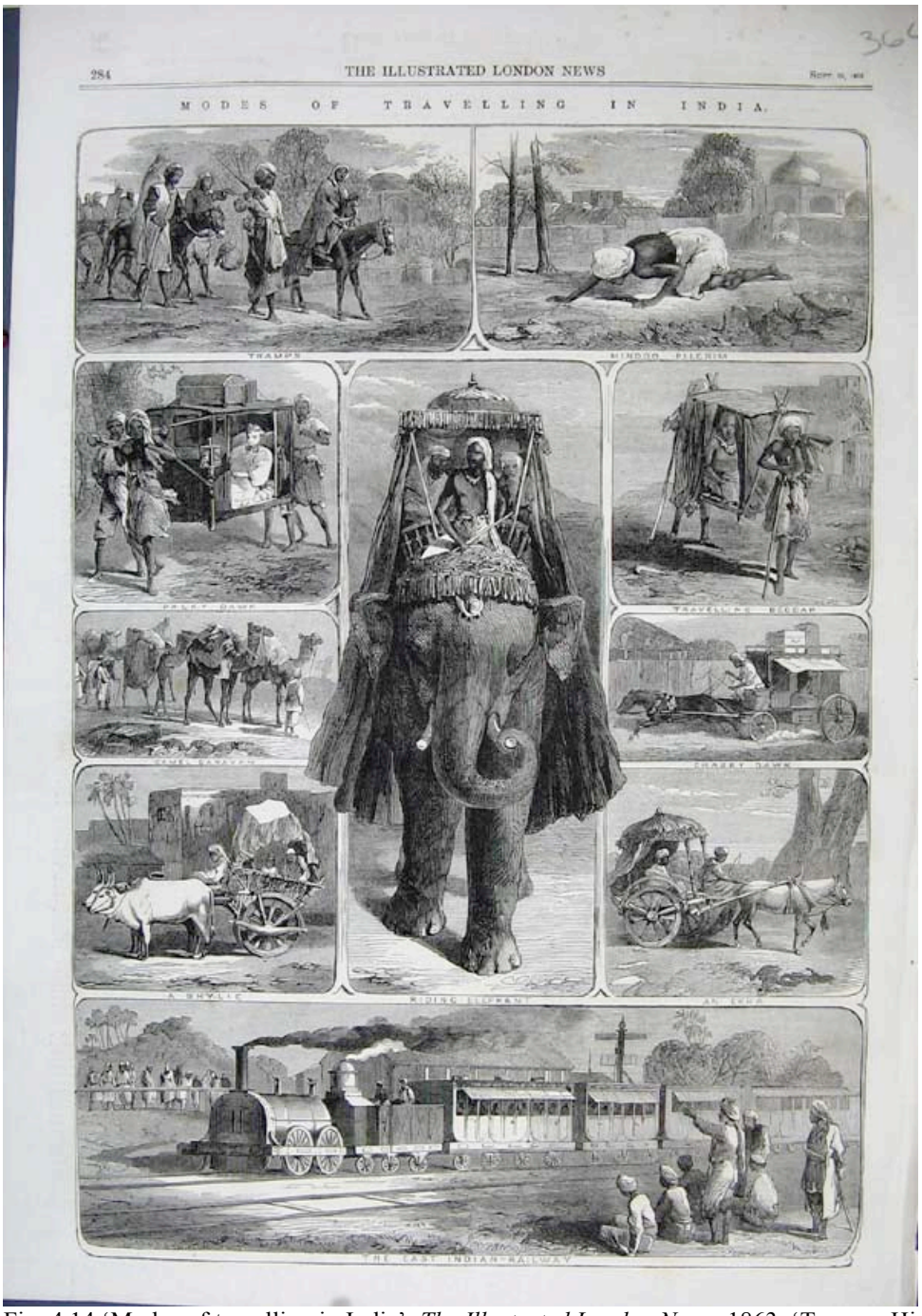

Fig. 4.14 ‘Modes of travelling in India’, *The Illustrated London News*, 1863. ‘Tramps, Hindoo pilgrim, Palky dawk, Camel caravan, Bhylie, Elephant, Charry dawk, Ekha, and the last East Indian Railway.’ Source: Archive of the DAV.

As well as being instructive, the above image is at the same time an illustration that glorifies British rule in India as a story of technological progress.

Starting in the upper left-hand corner, the most 'primitive' forms of travel are depicted, embodied by Indian subjects: the 'tramp', and the 'Hindoo pilgrim'. The composition then moves on to portray more 'civilised' forms of locomotion. The bottom image shows 'the last East Indian Railway', thus portraying the most recent, and purportedly highest and most civilised stage of development in Indian transport history, an open celebration of Britain's modernising and 'civilising' impact on South Asian society.[534]

Another factor that suggests the Schlagintweit expedition was not exactly a pioneering 'voyage of discovery' within India was the fact that the brothers hardly ever slept in tent camps, but could rather enjoy much more comfortable accommodation. This was possible because since the early nineteenth century, British India had developed the rudiments of a veritable tourism industry, with fixed routes for curious British travellers, whose sightseeing trips certainly did not qualify as exploratory expeditions.[535] By mid-century, 'middle-class Europeans, women as well as men, continental Europeans as well as Britons, generally found few political obstacles to journeying from one part of India to another.'[536] In fact, the flood of European tourists since the early decades of the century had led to the publication 'of hundreds, if not thousands' of works concerned with the colony: 'histories, biographies, political commentaries, economic analyses, evangelical tracts, chronicles of military campaigns, and tales of sport and hunting, and, above all, travel narratives.'[537] While these works were prime transmitters of knowledge about India for metropolitan audiences, the sheer quantity of *Indiana* meant that England's reading classes soon showed 'expressions of exasperation' and 'tedium' with the topic – although this did not mean that the influx of visitors to India dwindled – indeed it increased over the following decades.[538]

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[534] Marian Aguiar, *Tracking Modernity: India's Railway and the Culture of Mobility* (Minneapolis, 2011), p. 13; the only mode of travelling missing in the depictions of Indian transport was the revolutionary technology of the steamship, which the brothers could likewise enjoy during inland river travels and along the sea coast to Ceylon.

[535] Natasha Eaton has argued that since the eighteenth century, the experiences of British travellers while visiting, often sacred, sites and landmarks in India were dominated 'by a concern with déjà vu, not so much a journey into the unknown as a confirmation of what was known about or desired from England thanks to travel capitalism.' Idem, 'Tourism, Occupancy, and Visuality in North India, ca. 1750-1858', in Dana Leibsohn (ed.), *Seeing Across Cultures in the Early Modern World* (Farnham, 2012), pp. 213-238, 218.

[536] Arnold, *The tropics and the traveling gaze*, p. 15.

[537] Ibid. p. 26.

[538] Ibid.

This meant that besides a functioning porterage system along many roads, there also existed chains of 'bungalows' (even some 'Hôtels'), which had been explicitly 'erected for travellers', including merchants, sightseers, and itinerant scholars and officers.[539] The Schlagintweits frequently used such facilities, but also found suitable accommodation in British military or 'sanitary stations'. These stations on elevated ground were designed for the needs of government officials and troops who sought to recover from the heat, tropical humidity and malignant miasmas of the Indian plains that seemingly evaporated from every jungle, swamp or graveyard.[540] Yet, such 'hill stations' ultimately fulfilled symbolic functions within the Company's system of rule in India. One of these functions, as Dane Kennedy has convincingly shown, was to serve as little 'home-from-home', where English norms of civility played an important part of quotidian life.

This meant that the children of the colonial elites could attend 'boarding schools' at hill stations, while the Anglican Church played a central part in the social life of these settlements. English visitors took part in social and cultural practices that echoed their former lives at home, such as attending balls, concerts, and hunting parties. In a way, those mountain idylls represented an attempt to create a physical and ideological space for segregation between the white rulers and their Indian subjects through retreating from the supposedly corrupting influences of the plains. Here, it is significant to note that the dichotomy of both physical and moral corruption associated with the Indian plains, and a greater purity of the air and the mores of mountain dwellers, is also clearly present in the Schlagintweits' concept of 'High Asia' and its inhabitants.[541] The exclusion of Indian subjects from hill stations was, of

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[539] *Reisen*, 1, p. 98. Such 'Hôtels' already existed in Bombay and Calcutta (*Reisen*, 1, p. 44; 222), in Nainital (*Reisen*, 4, p. 439), and in Darjeeling (2, p. 170).

[540] Dane Kennedy, *The Magic Mountains*, p. 1; *Reisen*, 2, p. 433; 468.

[541] See, e.g., Robert Schlagintweit's description of first leaving the Indian plains: 'the entry from the plains into the mountains is […] enormously surprising. There everything appears to change at once, the temperature, the vegetation, the animal world, the current and flow of the rivers, yes, even the Indian dress. It is a splendid, dazzling, and magnificent contrast. We deemed ourselves fortunate in having exchanged the hazy air, as damp as it was hot, which we had hitherto breathed in the burning Indian plains and in the fever-generating Tarai, for the pure, clear, refreshing, invigorating atmosphere of the H[imalayas].' Schlagintweitiana, V.2.2.1, p. 29-30, ibid. 48f. and 55: on the moral virtues of 'all races of the H[imalaya]': 'the inhabitants of the H. know nothing of a number of barbarous, abominable customs, which up to recent times survived in India. Widow-burning, the Satis, which – it is incredibly to say – took place openly in India as late as 1829 –, Infanticide, the killing and sacrificing of human victims, have never found an entrance into the H[imalaya]', and so forth. It was due to these glorifications of the greater 'purity' of the mountain range and its inhabitants that the Schlagintweits recommended to their imperial employers above all the 'colonisation and settlement of Europeans in the H[imalaya]'. V.2.2.1, p. 106.

course, never feasible, as their running essentially relied on an Indian workforce. Nonetheless, many hill stations sought a strict hierarchy of spatial differentiations that reflected the colonial order as a whole. In Shimla, arguably the most prominent of those sites, the finest houses on the ridge were owned by senior British officials and the slopes below reserved for English and Anglo-Indian clerks, while the Indian population was confined to the lowest elevations – 'out of sight and out of mind' – with these habitation patterns reflecting 'the symbolic significance of altitude'.[542]

The brothers frequently enjoyed the hospitality of high colonial officials at such hill stations, and thus it becomes rather apparent that the Schlagintweits did not dwell for long as 'solitary travellers' in supposedly unknown and unexplored territory. Hence, while Maike Trentin-Meyer argues that the Schlagintweits 'forged their ways independently in regions never before trodden or observed', such generalisations certainly do not apply for the brothers' extended sojourns within British India.[543] It is an equally misleading claim for other parts of their journey. While the majority of frontier regions in High and Central Asia crossed by the brothers may have been little frequented by western scholars, they were nonetheless sites of extensive cross-cultural traffic. The caravan trade and a steady flow of migrants, pilgrims, and other travellers connected the human settlements in the mountain regions of High Asia with those of the plains.[544] What was more, even in the early nineteenth century, a few indigenous surveyors had, in a sense, anticipated parts of the routes later taken by the German brothers. For instance, the explorer Mir Izzet Ullah had crossed the Karakorum-Pass in the service of the Company agent William Moorcroft in 1813. The indigenous surveyor had then reached Yarkand and Kashgar, only to return to India via Bokhara and Kabul while collecting a wealth of useful commercial information along the way. To describe these frontier regions as entirely unknown and – before the Schlagintweits' excursions – never visited places

[542] Ibid. p. 197.
[543] See Trentin-Meyer, 'Die Indien- und Hochasienreise der Brüder Schlagintweit', in Christoph Köck (ed.), *Reisebilder. Produktion und Reproduktion touristischer Wahrnehmung* (Münster et. al, 2001), pp. 41-51. ['[…]. Expedition war das Gegenteil einer touristischen Reise. Sie bahnten sich eigenständig Wege in nie zuvor betretene und beachtete Gebiete']. Hans B. Körner also draws the wrong conclusion that during their time in Asia the brothers would have traversed 'to a large extent unexplored regions', p. 313.
[544] A good introduction, which considers Russian, British and Chinese trade and colonial interests in Inner Asia is Frances Wood, *The Silk Road*.

simply ignores the history and knowledge contributions of indigenous travellers in the service of the East India Company.[545]

Instead, we come much closer to the brothers' actual experiences during their explorations if we acknowledge that the Schlagintweits were fully integrated members of the colonial establishment in India, even regularly participating in events of 'European sociability' among the colonial elites. Hermann Schlagintweits' description of his social activities at the 'hill station' in Shimla, which served as the official summer capital of British India during the hot months, captures well how the brothers yield freely to the pleasures of the ruling classes:

> 'From March until September […] a circle of socially active Europeans is united in this place. […] Balls and concerts, picnics and theatre for connoisseurs rapidly follow each other […] Since we encountered such a lively intercourse here for the first time since we had left Europe, we were able to judge it more impartially than if one indulges it continuously. I admit I rather welcomed it. Especially after a long deprivation of European sociability, one appreciates her provocative charms: the small chains of fashion and etiquette hardly constrain.'[546]

The German traveller only complained about the high costs of fashionable clothing of the *dernier cri* from the metropole: 'all European articles for housekeeping and attire' were said to be 'highly expensive, here as everywhere in case of a great distance to the port cities.'[547] Such remarks on the social life of exploration are significant, not least because they provide insights into the identification of the Schlagintweits as *Europeans* within the imperial establishment of British India. While their national affiliation with the German lands certainly played a role for the unfolding controversy over the employment of these 'foreigners' among metropolitan circles in Europe, in the colonial realm the brothers could more easily move 'within and between multiple identities and networks in a seamless, almost effortless way'. Beyond doubt, they fully identified with British colonialism as a force

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[545] Waller, *Pundits*, p. 22.

[546] ['von März bis September ist [...] ein in Geselligkeit sehr lebhafter Kreis von Europäern hier vereint [...] Bälle und Concerte, Pikniks und Liebhaber-Theater sieht man rasch sich folgen [...] da uns solch lebhafter geselliger Verkehr seit unserer Abwesenheit von Europa hier das erstemal wieder entgegentrat, waren wir in der Lage, unbefangener als bei fortgesetztem Genusse desselben darüber zu urtheilen. Ich gestehe, dass ich es wieder ganz willkommen fand. Gerade nach langer Entbehrung europäischer Geselligkeit schätzt man ihre anregenden Reize; die kleinen Fesseln der Mode und der Etiquette drücken doch sehr wenig']; and *Reisen*, 1, p. 364.

[547] Ibid., p. 365.

of progress, as a 'civilising mission' spreading cultural and judicial norms among supposedly less-cultivated and at times 'barbaric' peoples.[548]

That the Schlagintweits could perceive of themselves as full members of the British imperial establishment was further reified by the fact that they enjoyed far-reaching privileges and rights, otherwise only held by colonial elites. An example of this status was the right to force individual helpers of their establishment into working: that is, 'we had received the necessary empowerment […] to officially press [helpers] into service, like in the case of military marches'.[549] From the point of view of those helpers who had been forcibly recruited, the brothers certainly did not travel as representatives of the Prussian Crown, or as detached scientific observers in accidently British-administered territories. Rather, they travelled and recruited in India *as* colonial rulers.

The fact that the imperial government would grant them such far-reaching support can, however, hardly surprise. After all, the brothers were officially 'under the orders' of the EIC, and had already during their travels provided useful information and materials to the Surveyor General of the Company's empire. Among other things, Hermann Schlagintweit sent a series of '100 to 120' views of a hitherto imperfectly known mountain range in Sikkim to the Calcutta bureaux of the *Great Trigonometrical Survey*. Hermann described the particular value of the thus gained 'panorama of 360°' at some length: 'The views of one and the same mountain range, taken from different and precisely measured-out points, therefore complement each other, like stereoscopic images.'[550] Such a view of a mountain chain in the politically still sensitive area was undoubtedly of great strategic value.[551] It is thus highly probable that to this day, a number of copies and originals of Schlagintweit photographs, landscapes views and maps are still stored among the colonial archives of the Survey of India. By these and other means, the brothers Schlagintweit certainly contributed to the 'empire of knowledge' of the British in India, while making full use

[548] On a number of occasions, the brothers used the collective noun 'Europeans' when talking about their own travel experiences in Asia. On their belief in English rule as a civilising force, based on 'justice' and 'appropriate' norms that were said to stand in contrast to indigenous barbaric practices such as a 'raw slave trade', *sati*, etc., see among many passages *Reisen*, 1, p. 424; 3, pp. 357-58.
[549] *Reisen*, 1, p. 82.
[550] 'Hermann Schlagintweits Reise nach Sikkim und Assam, April bis Dezember 1855', *Mittheilungen aus Justus Perthes' geographischer Anstalt*, 2 (1856), pp. 272-277, 272-3.
[551] See for copies of Schlagintweit sketches made by the General Surveyor's Office, ibid., p. 273.

in their own researches of the established information networks and state institutions of the foreign power.[552]

[552] Tony Ballantyne, 'Rereading the Archive and Opening Up the Nation-State: Colonial Knowledge in South Asia (and Beyond)', Antoinette Burton (ed.), *After the Imperial Turn: Thinking with and through the Nation* (Duke, 2003), pp. 102-121.

Chapter Five

The inner life of a 'European' expedition: cultural encounters and multiple hierarchies

Even if the brothers had carefully planned their itinerary and scientific goals before they arrived at Bombay in 1854, the actual experience of travel soon altered the scope of their mission. While the previous chapter has looked at the concrete realisation of the expedition in terms of its reliance on the colonial infrastructure in British territories, the following analysis is concerned with the large group of travellers that accompanied the Schlagintweits on their expedition from northern India into High and Central Asia. While the diverse group of Indian servants, assistants and semi-independent followers performed a number of important functions within the configuration of the expedition party, it has not, as yet, been explored in its striking complexity.[553] Instead of imagining the 'moving colony' of the expedition party as a hierarchically organised group under the guidance of the European scholars as their leaders, we can more fully appreciate the actual internal dynamics of the expedition if we acknowledge that in the course of travel, different and partly contradictory hierarchies emerged within – what the Schlagintweits themselves called – their 'establishment'. It is shown that the existence of such multiple hierarchies significantly shaped both the dynamics of exploration and the scientific results of the mission as a whole. Ultimately, it is this lack of a firm hierarchy that stands in stark contrast to the popular perceptions of how an expedition was organised, and it prompts us to ask how 'European' this undertaking actually was – both on the ground, and later in its literary representation?

Questions of precedence within the travelling party itself were, and could not be, established once and for all at the outset, but rather remained in constant flux in the course of travel. By focusing on a greater number of actors, their characters, mutual relationships and individual trajectories, it is possible to recover the contingencies of scientific exploration and the crucial agency of those non-Europeans who facilitated the advancement of the party through difficult and unfamiliar terrain. Although many works on the Schlagintweits' travels mention the existence of

[553] Certain individual indigenous members of the brothers' entourage are mentioned, yet not fully explored, in Stefan B. Polter, 'Nadelschau in Hochasien', p. 92; Driver und Jones, *Hidden Histories*, p. 45; Waller, *The Pundits*, p. 34, 40.

indigenous companions *en passant*, they often seem to be 'second class' travellers, pushed into the background and thus into oblivion, literally remaining in the shadow of the three German brothers.

The reasons for this misrepresentation are manifold. For one thing, the manner in which overseas experiences were recorded and archived retrospectively certainly played a major part in fabricating an image – however inaccurate – of European self-sufficiency. Travel writings, both scientific and popular, were long-established literary genres by the nineteenth century, and carried with them a weight of conventions that successfully perpetuated the tale of the heroic, single-minded and solitary explorer. These conventions, in turn, evoked a set of specific images closely associated with the term 'expedition' itself: above all, the image of the 'heroic' European, who leads his expedition against all kinds of human and natural obstacles while risking his own life to fill in the last blank spaces on western geographical maps.

In this vision, all travel companions are merely the means to this higher end, 'servants' to help accomplish the great cause determined by the Europeans. By drawing on the aesthetics of military experience and colonial portraiture, metropolitan painters and engravers helped sustain these tropes in their own way. As Johannes Fabian noted about African exploration, it was often in the illustrations of European travel accounts that 'those verbal flourishes' of the 'intrepid, heroic, courageous explorer […] parallel pictorial ones: the traveller's quasi military garb, his faraway gaze, his proud and determined posture. He rides or walks ahead of his caravan; a few porters and guards are recognisable, while the rest blends into a file that gets smaller and smaller until it disappears in the landscape'.[554] This attention to how popular perceptions of European explorers were fabricated and visually expressed points at the same time to the wider networks of travellers' mediators and agents, who assisted in perpetrating a specific heroic image of the overseas traveller through particular, demand-driven representations for metropolitan audiences.[555]

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[554] Johannes Fabian, *Out of Our Minds*, p. 5.

[555] On the increasingly important role of sensational journalism, newspapers, and exploratory heroes in the second half of the 19th century in Africa and the Arctic, see the critical analysis of Beau Riffenburgh, *The Myth of the Explorer: The Press, Sensationalism, and Geographical Discovery* (London, 1993). It is important to note that while the Schlagintweits themselves, at least in the surviving photographs and paintings of their expedition, did not evoke such visual depictions of their 'leadership' in front of their establishment, the reception of their travels was nonetheless framed precisely through such pre-existing images in the minds of their European readerships; see, Dane Kennedy, 'Introduction', in idem, *Reinterpreting Exploration*.

To recover the histories and voices of those who were crowded together in the background of travel narratives is notoriously difficult, as the structure of European and colonial archives usually reflect the ideological focus on the European individual. As a result, relatively few 'ego documents' have survived of those indigenous assistants who partook in the exploration of the Himalayas and Central Asia as doctors, translators, guides and plant-hunters.[556] Yet the piecing together of information contained in private correspondence, official reports, field notes, surviving sketches, photographs, lists of expenditure, and published accounts does provide us with an eclectic mix of sources that allow for more than a 'deconstructive literary analysis' of European published travelogues that still formed the basis for Fabian's *oeuvre*.[557] The Schlagintweit case in particular provides a great stock of anecdotes and unique sources, in which the views of non-European travellers, scholars, collectors, and merchants involved in the scheme become strikingly visible.

In pursuing an actor-centred approach that includes many of the Indian companions of the brothers, this chapter intends to contribute to a growing literature on the history and culture of European overseas exploration, which significantly shifts the focus away from the 'heroic' explorer – for long the sole focus of attention. Rather, as the works of Felix Driver, Kapil Raj, Lowri Jones, D. Graham Burnett, Harry Liebersohn, and others have shown, the history of scientific exploration can, and indeed ought to be written from multiple points of view.[558] Only by doing so are we able to discern the diverging interests and motives that different groups of actors – both European and non-European – pursued during such undertakings.[559]

We may begin by asking what different groupings made up the Schlagintweit 'establishment', how large was it in numbers, and what were its specific functions? To start with, the composition of the travelling party was changing constantly, with

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[556] In the case of Indo-British exploration of Central Asia see, for instance, the self-portrait of the Indian *Pundit* Sarat Chandra Das in Kapil Raj, *Relocating Modern Science*, p. 200.

[557] The 'reading against the grain' method is certainly useful if a sufficient number of travelogues are consulted. Relying solely on discourse analysis, however, somewhat limits the historian as he or she learns more about the European subject and author of a travelogue than about the natives he is writing about; Fabian's investigation solely draws on published travelogues, while this thesis purposefully endorses a much wider range of source material.

[558] Harry Liebersohn, 'A Half Century of Shifting Narrative Perspectives on Encounters', in Kennedy (ed.), *Reinterpreting Exploration*, pp. 38-53.

[559] D. Graham Burnett, '"It Is Impossible to Make a Step without the Indians": Nineteenth-Century Geographical Exploration and the Amerindians of British Guiana'; Fabian, *Out of our minds*; Lowri Jones, *Local knowledge and indigenous agency in the history of exploration: studies from the RGS-IBG collections* (unpublished PhD thesis, Royal Holloway, University of London, 2010); idem and F. Driver, *Hidden Histories of Exploration*.

some regulars remaining most of the time with one of the brothers, while others only joined the party for certain legs of the journey. Porters made up the single largest group of the entourage. Arguably reflecting what little respect the brothers showed for this group, these porters have left the smallest trace in the archives and remained mostly anonymous in their travel accounts. Depending on the number of instruments, tents, food supplies and, above all, scientific collectibles taken along a specific route, the size of the group of carriers could swell enormously. Usually, there were between ten and fifty carriers and servants *per* European traveller.

The reason why so many people were needed for rather mundane tasks greatly vexed the German travellers. Most of their companions were Hindus and followed a strict division of labour according to the caste system. [560] The long-established and seemingly immutable social hierarchies among their domestic servants, carriers, and assistants entailed, to the great personal annoyance of the brothers, a considerable extension of the necessary 'personnel'. This, in turn, involved skyrocketing expenses. Hermann summed up the enormous logistics behind the scheme in pointing out that:

> 'Despite all constraint, the Indian way of travelling made it impossible for any of us to proceed without 8 or ten people. To start with, one needs a main butler, Khansaman, and a number of personal butlers, Hammmals, and also a Bavarchi or cook […]. Also a number of other servants are added, of which one wouldn't immediately think in Europe, and are only rarely dispensable depending on the province and route on which the travellers move.'[561]

The complete list of necessary 'servants' further encompassed 'the khalasis or laskars for supervising the tents […] the bihishit for fetching water, the mashalchi or torchbearer […] the dhobi or washer. When erecting greater camps, also […] chaprasis[562] become necessary, moreover chaukedars or watchmen &c. And despite the number and variety, this enumeration applies only to the companions of marches in southern India'; it arguably further increased in regions where no colonial infrastructure readily existed.[563]

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[560] 'We made many attempts, with but partial success, to get our servants to do a greater amount and variety of work for a higher rate of wages, and thus reduce their number.' Ibid, p. 41.
[561] *Reisen*, 1, p. 85.
[562] *Chaprasis* were government messengers in the British Raj, and according to the brothers included various private servants and messengers; Hermann and Robert Schlagintweit, *Officielle Berichte über die letzten Reisen und den Tod von Adolph Schlagintweit* (Berlin, 1859), p. 5.
[563] Ibid.

For procuring natural historical objects for the Schlagintweit collections, which after the travels would amount to over 20,000 objects, a large group of plant collectors and huntsmen was engaged.[564] Although there were a few people who were permanently employed to work on and accumulate artefacts, time and again, the workforce was temporarily enlarged if an area was particularly rich in wildlife, or particular skills were required. In such cases a number of additional paid 'hands' would be taken on, sometimes even the populace of an entire village. The brothers were keen to recruit experienced men who, 'having been drilled to the work of collecting and preserving animals and plants', each received 'a salary of 9 rupees a Month'.[565]

The assistants' technical skills were of paramount importance for later assessments of the Schlagintweit collection, and required an ability to stuff quadrupeds and birds, to preserve insects, fishes, and other species in bottles of alcohol, but also to prepare fragile botanic samples for their transport to Europe. The hired companions also categorised collectibles in the different branches of science.[566] In addition, the brothers formally enlisted the services of a 'woodcutter', and '18 men at 4 Anna[567] a day' to procure those valuable and polished tree sections that later adorned the rooms of the Company's East India Museum in London.[568]

Only thanks to these diverse helpers could the Schlagintweit collections be of importance for a great range of scientific disciplines, encompassing such diverse fields as botany, geology, zoology, and mineralogy. A particularly striking branch of collecting was the taking of samples of waters and different qualities of soils from various regions and heights. Even if the existing literature has utterly ignored the imperial dimension of their collections of apparently useless soils, such material artefacts could be of high value to the brothers' main financial patrons in London. In

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[564] While the number of collected objects is often wrongly stated as 14,777, this number emerged after the brothers had sorted through their collections, and had disposed of the many rotten or broken specimens; GStaPK 1. HA Rep. 89 Geh. Zivilkabinett, jüngere Periode Nr. 19767 'Acta des Kgl. Geh. Cabinets', fol. 110, Illaire to von Raumer, 16.12.1857.

[565] Hermann Schlagintweit to Capt. Atkinson, Secretary to the Military Department, Government of India, 2.12.1855, Bengal Military Letters and Enclosures, 1856, BL, IOR, L/Mil/3/587.

[566] On the intricacies of scientific taxonomy in the 19th century, see Christophe Bonneuil, 'The manufacture of species'; Drayton, 'Knowledge and Empire', in P.J. Marshall (et al.) *The Oxford History of the British Empire: Volume II: The Eighteenth Century* (Oxford, 1998), p. 238.

[567] 'Anna' was a monetary unit of India and Pakistan, with one anna equalling one sixteenth of a rupee, according to the *Oxford Dictionary of English*.

[568] Ibid. The enlistment of those, and other, temporary collectors was sanctioned by the Governor General in Council, see the letter by the Secretary to the Government of India in the Military Department, Council Chamber, Fort William, Mr Birch to Hermann S., 14.1.1856, IOR, L/Mil/3/587.

the case of soil samples, for instance, scientists in Britain, under the guidance of the director of the East India Museum, subsequently tested 1,200 different samples with regard to their agricultural potential. The aim was to gain useful insights into the potential expansion of flax, rice, wheat, indigo, tea and cotton cultures in British India, and the Museum Director Forbes Watson received high decorations for his analysis, which carried important insights into economic imperialism.[569] In the brothers' case, such a massive effort of collecting natural specimens was evidently only feasible through a small legion of non-European collectors – even if their efforts in procuring these raw materials for British agricultural interests were never acknowledged in the metropole.[570]

A smaller cohort of well-trained, often multilingual assistants represented the next group of companions that decisively shaped the inner workings of the expedition. They included indigenous cartographers, scribes, teachers of native languages (*munshis*), merchants, numerous translators for the different local languages, and also a 'Native Doctor'.[571] Many of the assistants were widely travelled and learned men, who either joined the venture only for short intervals, or remained in the company of the brothers for several years; some indeed accompanied the brothers on every step of their journey. What was particularly decisive for the size of the establishment was, however, the question of whether the party moved through safe terrain – or, rather, in disguise through politically sensitive areas. Especially during their secret excursions into Chinese Turkistan, the number of attendants was reduced to a minimum. Partly out of fear of encountering shortages of supply in the barren mountain regions, but partly also because a smaller travelling party had a greater chance to escape from Chinese border guards and soldiers in case the intruders were discovered. It thus becomes clear that the establishment was not a fixed group of people, but rather a social configuration that was profoundly and continuously shaped by its almost constant state of mobility through regions that greatly varied in their 'natural treasures' and political sensitivity.

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[569] See *A classified and descriptive catalogue of the Indian Department, by J. Forbes Watson, Reporter on the Products of India; Director &c Indian Department, International Exhibition*, Vol. 2 (London, 1862).

[570] See on this, Drayton, 'Knowledge and Empire', p. 238; Simon Schaffer et al. 'Introduction', in idem (eds.), *The brokered world*, pp. ix-xxxviii, xxxiii.

[571] 'Munshi was a term, used to describe a teacher of native languages or, more generally, any educated Indian', Waller, *Pundits*, p. 33.

When the specific contexts of their exploration are acknowledged, it is not surprising to find that the expedition resorted to a way of travelling that greatly resembled the caravan trade that had crisscrossed High and Central Asia for thousands of years.[572] For long stretches of the way, foreign pilgrims and merchants joined the exploratory party, who were arguably ignorant about the scientific agenda of the group, and yet appreciated the protection yielded by becoming a temporary member of this 'caravan'. The brothers employed similar methods for protecting themselves and their entourage. At various points they had to travel through Central Asia covertly, often assuming a false identity, and the most convenient way to do so was to join a larger caravan, dressed as Indian merchants (see figs. 5.1-5.2). In doing so the brothers always stocked up on fine samples of textiles as potential trade goods for supplies.[573]

Fig. 5.1 Watercolour by Hermann Schlagintweit, August 1856, 'The Chain of the Kuenluen, from Sumgal in Turkistan', also showing the travelling party in Chinese territory; lithographed by Sabatier, printed in oil colours by Lemercier, *Atlas* view, 29; Robert was a member of this camp, his complete disguise, however, does not allow his identification, source and copyright: Archive of the DAV.

[572] Robert Schlagintweit himself, V.2.2.2, pp. 78-79; *Reisen*, 4, p. 224.
[573] V.2.2.2. p. 128. The caravan leaders sometimes also took charge of the financial arrangements for the expedition beyond British territory: *Reisen*, 1, pp. 92-3.

Fig. 5.2 Robert Schlagintweit, in 'native disguise' during their High Asian exploration (ca. 1855); source and copyright: BSB, Schlagintweitiana IV.2.90.

The ethnic, social, and religious diversity of the travelling party was also striking. It appeared as a conglomerate of individuals from highly distinct social ranks, different belief systems, places of origin, and divergent levels of literacy and education. The mixing of all these diverse people was a cultural encounter for every member of the establishment, not just for the Schlagintweits. In reflecting upon the sheer diversity of people present, the Schlagintweits noted that: '[o]n one occasion our camp presented a most interesting variety of tribes and creeds, and for the time being might be almost said to form an ethnographical museum of living specimens.'[574] The camp then included members from six different religions. And no less than twelve languages were in use at the same time: besides the brothers' native tongue, 'the languages spoken by these natives were, Hindostani, Bengali, Gujarati, Maharati, Panjabi, Kashmiri, Persian, Tibetan, Turkish, Portuguese and English.'[575]

[574] *Results*, 1, p. 42. For the importance of the establishment as a 'human laboratory' for the ethnographic studies of the brothers, see the later parts of this chapter.
[575] Ibid.

At first glance, the establishment fulfilled a number of obvious roles. It managed, as we have seen, the mobility of the travellers and guaranteed the safe transport of their fragile instruments and scientific collections. Yet, the changing internal composition also served as a rich source of information regarding such important matters as the availability of local food supplies, knowledge about violent conflicts and recent robberies in specific areas, and the course of regional routes and mountain passes. Some members of the establishment also had a deeper understanding of those lands that the Schlagintweits themselves could only study in passing, as the former had often lived in particular areas for decades. This treasure trove of experience could effectively be used by the brothers with a view to addressing a number of scientific issues – including questions about climatic patterns in a long, comparative perspective, such as the amount of annual rain and snowfall in previous periods.[576]

It was thus only through the locally gained knowledge of their assistants and other informants they met that the brothers could formulate theories about then much-discussed topics among European geographers – such as the conundrum of the line of perpetual snow in the highest mountain chain of the world, or the causes of the frequent floods that endangered the harvests in the Indian plains. Particularly the latter were of great importance to the East India Company, as a series of Indus floods in the course of the nineteenth century had taken many lives, devastated wide areas of agricultural land, and even led to the destruction of entire Company armies.[577]

The changing composition of the establishment also offered the required linguistic expertise for the different regions that were traversed. This expertise was not only important in the intercourse with the inhabitants of various countries to secure news, geographical information and supplies, but it also enabled the brothers' philological researches, for instance about the distribution of languages and dialects in the Himalayas. Equally importantly for the Schlagintweits and their imperial employers were the recording of indigenous denominations of plants and

[576] See for a wealth of such 'native testimony' see vol. 4 of the brothers' *Results* on Indian meteorology (1866), compiled by Hermann Schlagintweit.

[577] I thank Hermann Kreutzmann for this information. This problem was already discussed by nineteenth-century writers, e.g. Frederic Drew, *The Jummoo and Kashmir Territories* (London, 1875; (re-print: Graz 1976, Karachi 1980), chapter 'Indus Floods', pp. 414-21; also with a historical perspective on the issue of river floods: Hermann Kreutzmann, 'Habitat conditions and settlement processes in the Hindukush-Karakoram', *Petermanns Geographische Mitteilungen*, 138 (1994), pp. 337–356.

topographical landmarks, such as rivers, mountain peaks or valleys. To take one example, the Schlagintweits' vast collection of seeds of useful and beautiful plants was accompanied with a comprehensive index for the names of well over 400 specimens, featuring the local denominations besides their botanical and vulgar equivalents in several languages (fig. 5.4). A set of specific information on the seeds of rhododendrons, flax, cotton, wheat, tea, opium and a host of other plants was given in small books, entitled *Index to Messrs. Schlagintweit's Collections: Seeds, Sent to the India House Museum December 1858* (fig. 5.3), which sometimes also contained original seed samples in small pouches, which gives these books almost the impression of botanical inventories.

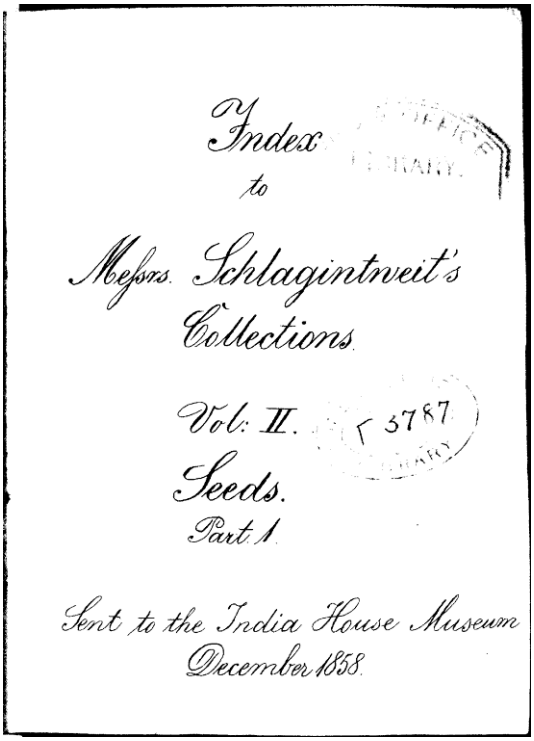

Fig. 5.3 Index to Messrs. Schlagintweit's Collections: Seeds, Sent to the India House Museum December 1858, IOR, British Library, T3787; source and copyright: Geoff Armitage, 'The Schlagintweit Collections', *Indian Journal of History of Science*, 24 (1989), pp. 67-83, 78.

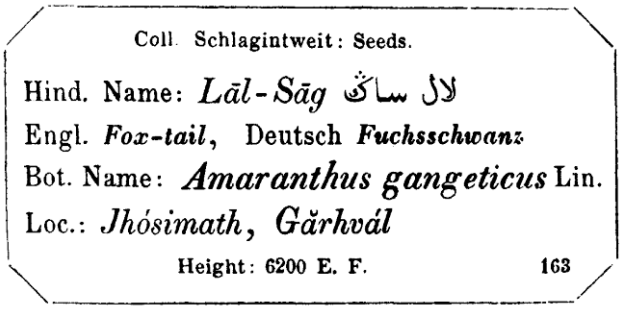
Coll. Schlagintweit: Seeds.
Hind. Name: *Lāl-Sāg* لال ساگ
Engl. ***Fox-tail***, Deutsch ***Fuchsschwanz***
Bot. Name: ***Amaranthus gangeticus*** Lin.
Loc.: *Jhósimath*, *Gărhvál*
Height: 6200 E. F. 163

Fig. 5.4 Information about the seed of the amaranthus (Fuchsschwanz), a type of wheat; from the *Index to Messrs Schlagintweit's Collections*, Vol. 2, 'Seeds', part 1, Nr 163, BL, IOR, T3787; source and copyright: Armitage, 'The Schlagintweit Collections', p. 79.

Lastly, the linguistic skills of the brothers' assistants proved essential in negotiations with indigenous rulers and officials about the right of access into their territories.[578] Despite the later idealisation by Robert Schlagintweit that he had crossed the Himalayas like 'a thoroughly independent sovereign, who governs absolutely over an immense kingdom adorned with the rarest charms of nature, which he can traverse in every direction, just as his humour and will may lead him', in truth the brothers frequently needed to embark on diplomatic talks with the actual rulers of those regions.[579] While the Schlagintweits might well have consulted with British colonial authorities about the prospects of entering certain parts of High and Central Asia, the actual negotiations and encounters with local authorities were often mediated by their own assistants. They not only had the necessary language skills, but also the right contacts with influential merchants and officials in the trans-Himalayan regions to facilitate the advancement of the expedition party. In so doing, the assistants took considerable personal risks to help their European companions reach their aims.

A significant episode that captures this important linguistic help by their companions – and other vital functions of the establishment as a whole – is offered with regard to Tibet. During the time of travel, Tibet was already under the suzerainty of the Chinese Empire. At first, Robert and Adolph Schlagintweit had tried in 1855 'under the guidance of Mani [Singh], the Patvari or head man' of the city of Johar in the central Himalayas, to secretly penetrate into Tibet. Mani Singh was not inexperienced in accompanying imperial explorations. Only a few years earlier he (and his cousin Nain Singh) had already assisted the Company servants Richard and

[578] *Results*, 1, p. 38.
[579] Robert's lectures, V.2.2.1, p. 50.

Henry Strachey during their excursions into the Himalayas, earning open praise for their services.[580] Mani came from a wealthy and respected family, from which the Schlagintweits would recruit several members over the course of their expedition.

In order to guarantee the success of their intrusion into Tibet, Adolph and Robert had left behind the majority of their establishment in Milum, and were now 'accompanied by only 10, all well-armed Buthias'.[581] After safely crossing the Kiungar pass (fig. 5.5), the small group ran into a Tibetan 'border guard of eight Hunias', who were under strict orders to impede the advancement of the foreign travellers. Here again the fact that the brothers were regarded as agents of the British was significant; as they were informed by the leader of the Hunias guard, their further advancement was to be impeded by any means, 'since it was feared that we could be plundered or killed by the Nepalese, for which then the Tibetans would be brought to justice by the English government.'[582] Since the brothers hardly mastered any Tibetan themselves, it was their interpreter who informed the guards that they had no intention to travel into Tibet itself, and that the expedition would rather proceed from here to Niti, in a north-western direction.[583] This proposal seemingly appeased the guards. Now 'Mani, who was charged with the planning and execution of our Tibetan journey, suggested, in order to mislead the guard, to proceed a little in the direction towards Niti, and only then to further penetrate into Tibet by crossing one of the small passes […] by night'.[584]

[580] Writing about Mani and his Cousin Nain Singh, Henry Strachey noted that he was 'indebted chiefly to the Jwari Bhotias (particularly to the family of the Patwari of Milam).' Mani and Nain Singh's own observations on specific regions were furthermore said to have been so accurate and hence trustworthy that 'these parts of my map are perhaps as correct as they could be made without personal exploration.' Henry Strachey, 'Note on the construction of the map of the British Himalayan frontier in Kumaon and Garhwal', *Journal of the Asiat. Soc. Bengal*, 17 (1848), pp. 532-538, 536.
[581] *Reisen*, 3, p. 65.
[582] Ibid. 67.
[583] Ibid., p. 65.
[584] Ibid.

Fig. 5.5 ‘Kiungar Pass at the border of Tibet’ (on the route to Gnari Khorsum), Adolph Schlagintweit, painted 12 July 1855, gen. No. 471, source and copyright: archive of the DAV; note how precisely the authorities of the Great Trigonometrical Survey could follow the route over the pass through the carefully chosen viewpoint.

Following this suggestion by their indigenous leader, the expedition group, at first escorted by the still ‘suspicious’ guards, proceeded in the seemingly innocuous direction of ‘Shelchell, west of Laptel’. Thence, the Schlagintweits and their companions attempted to secretly cross the border into Tibet once more, this time via the ‘Sakh pass.’[585] For better camouflage, the brothers ‘were entirely dressed as Buthias and were wearing long skirts made of white sheep wool, and also trousers and caps of the same material.’[586]

The secret group had pushed their horses forward throughout the night, and the following day – having reached the Sutlej river and starting to feel at ease – they were suddenly joined by their guards again. The precarious encounter was later described in Hermann Schlagintweit’s published travelogue and Robert’s lectures,

[585] Ibid., p. 66.
[586] Ibid.

and the apparent bravery (or rather the recklessness) of the brothers' actions should therefore be taken with a pinch of salt. According to their matching narratives, the border guards surrounded the expedition party and when they attempted to capture them and their horses, the brothers suddenly hit them hard in the faces with 'long English riding crops.'[587] The brothers were even on the brink of firing their revolvers at the approaching guards, who would have returned fire using their own rifles. In the end, it was only Mani's astute intervention between both groups that apparently prevented a deadly escalation.[588]

Since the brothers were now taken into custody by the border guards as 'Chinese state prisoners'[589], Mani Singh became once more the crucial intermediary who sent for a nearby-stationed 'Dzongpon' in Daba, (i.e. the governor of a fort) to open negotiations between the brothers and the Chinese authorities. The latter only sent forth 'as his proxy an assistant (Dúik)', who enjoyed far-reaching authority for the upcoming talks.[590] After an 'endless negotiation with the Dúik, who gradually had to be made obedient by means of Rupís, Brandy, Sherry, etc.', the brothers secured a written agreement on 19 July 1855. According to the surviving copy of the treaty (fig. 5.6), the brothers received 'permission to travel up to the Sutlej, [and] to remain there for three days.' At the same time, they 'committed' themselves 'to pay 600 Rupees as a penalty, if they were to cross the Satlej'.[591] The brothers thus obtained their own relative freedom, even though they were to be accompanied by a group of watchful soldiers for their remaining time in Tibet.[592] Since the Tibetan official requested, besides their signature, also an imprint of their family seal – which the brothers did not have at all – 'we quickly determined upon using the many ribbed butt-end of our whip, represented this as our seal, and made the impression.'[593] Yet, the exclusive mention of the name of the Tibetan official and the brothers' signatures belie the

[587] Ibid.
[588] Robert, Lectures: V.2.2.1, p. 133: 'we [...] drew our revolvers, and declared ourselves ready to shoot any one who should dare to lay hands on us. The Hunias had certainly not expected such an unfriendly reception. Quick as lightening they took down their guns from behind their shoulders, and we were on the point of firing, when Mani who saw the situation far more clearly than we did [...] implored us not to make use of our weapons. After he had addressed the Hunias in a friendly manner, they dismounted from their horses [...]'.
[589] Ibid.
[590] *Reisen*, 3, p. 69; Lectures, V.2.2.1, p. 137.
[591] *Reisen*, 3, p. 72.
[592] Ibid. I thank Christoph Cüppers, Director of the Lumbini International Research Institute in Nepal, for translating the treaty.
[593] '[…] but we quickly determined upon using the many ribbed butt-end of our whip, represented this as our seal, and made the impression in such a way, as left nothing further to be desired', Schlagintweitiana, V.2.2.2, p. 139.

actual genesis of the document, which could not have been concluded without the crucial diplomatic and linguistic intercession of the indigenous *pundit* Mani Singh.[594]

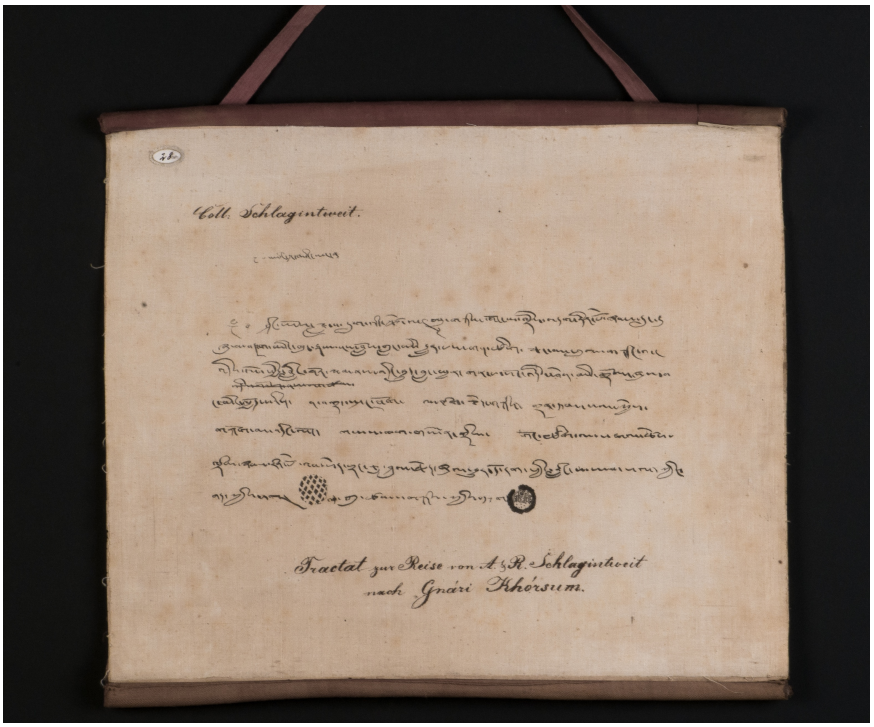

Fig. 5.6 Copy of a Tibetan treaty between Adolph and Robert Schlagintweit with Tibetan officials in July 1855. 'Tractat zur Reise von A. & R. Schlagintweit nach Gnari Khórsum', source and copyright: Ethnological Museum (Munich), signature: Schl. 841, height: 37 cm, width: 41.5 cm. For a full Tibetan transcription and translation see the appendix.

Yet, the brothers never regarded such treaties as actually binding. This is exemplified by the fact that they soon went well beyond the agreed end point of their excursion – a specific bridge over the Sutlej. After arriving at the Sutlej, where the Schlagintweits 'were for two days engaged with astronomical and geological observation and also some topographical sketches, a relative of Mani, their expedition leader, came to them, since he had heard that they [the brothers] were in some difficulty with regard to the continuation of their journey.'[595] This ability to draw on the kinship networks of their assistants represents another crucial element of collaboration between the brothers and their establishment, which usually goes unnoticed.

Mani Singh's relative was called 'Bara Mani', or 'the great Mani', and is introduced by the Schlagintweits as 'the wealthiest and most respected among the inhabitants of Johar. Due to his extensive trade and financial transactions' he had

[594] Ibid., p. 138.
[595] *Reisen*, 3, p. 72-3.

'really a lot of influence even in Tibet.'[596] This powerful merchant now became a confidant of the brothers, with whom they shared their ambition to travel deeper into 'the forbidden land'.[597] Consequently, Bara Mani took it upon himself to 'negotiate on our behalf with the Dzongpon'. According to some later accounts, 'there must have been a lot of noise and shouting, [and] after seven hours the wished-for agreement was reached.'[598] Thanks to the decisive intervention of this go-between, the previous terms of the written contract were nullified, and the rights of travel for the brothers greatly expanded. Now, the Schlagintweits had forced their access up to the 'Chakola pass': 'This is one of the few points of passage over the high mountain ridge, which here separates the Sutlej region from the Indus region.' The pass was therefore – also in the view of their employer – a strategic route, which could now be measured and mapped for the first time (figs. 5.7-5.9).

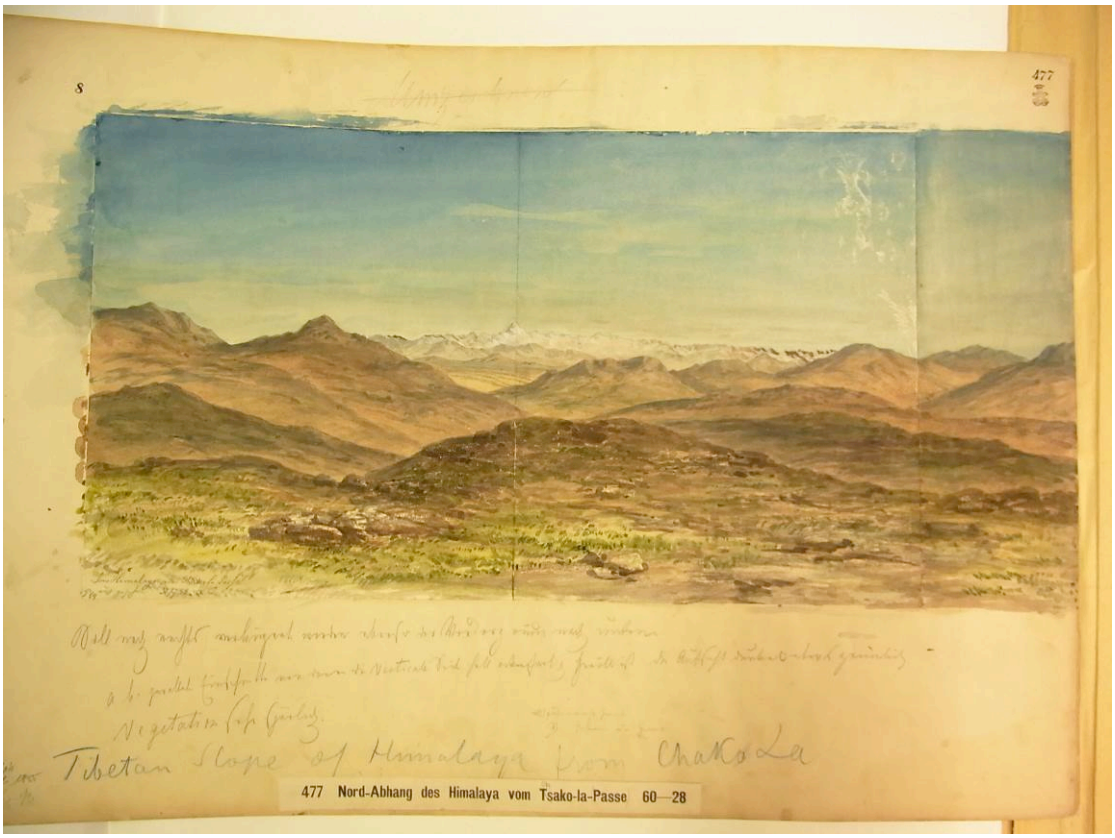

Fig. 5.7 'Northern slope of the Himalayas from the Tsako-la [Chakola] pass', No. 477 of the 'general register' of Schlagintweits' views from India and High Asia, source and copyright: archive of the DAV.

[596] *Reisen*, 3, p. 72.
[597] I borrow the phrase from Arnold Henry Savage Landor, *In the forbidden land: an account of a journey in Tibet, capture by the Tibetan authorities, imprisonment, torture, and ultimate release* (London, 1899).
[598] *Reisen*, 3, p. 73.

Fig. 5.8 ‘Mountains from Chakola to Indus’; by Adolph Schlagintweit, 26 July 1855, gen. No. 485; source and copyright: archive of the DAV. As becomes clear from the pencil annotations on the paperboard to which the watercolours were usually glued, this view was later presented to the famous Munich photographer Joseph Albert. The purpose was to get one 120 specifically selected views reproduced as photographs, which could subsequently be coloured in accordance with the original painting.[599]

[599] A list of views handed over to Albert in February and April 1859 is held in BSB, Schlagintweitiana VI.5.11.1, folder one. The greatest number of coloured photographs are held in the State library Bamberg, H.V.G. 47/19–182. I thank Stephanie Kleidt for this information; others are held in the Oberrheinische Bibliothek; Joseph Victor von Scheffel-Archiv; and the Wellcome Library (London), e.g. nr 21740i.

Fig. 5.9 'Chako la Valley' in central Tibet, by Adolph Schlagintweit, painted on 25 July 1855, gen No. 488, source and copyright: archive of the DAV.

With regard to the currently much-discussed 'ethics of exploration', it is noteworthy that the brothers also had no scruples about subsequently breaking the terms of the second formal agreement.[600] While they used their acquired rights of passage in specifically demarcated territories, they ultimately widened the extent of their exploration by making secret excursions towards Gartok, the main city in western Tibet. Once they had managed to evade their official guards (except one who had already been bribed), the Schlagintweits immediately pushed forward into the valley of the Gartong River. Ultimately, the brothers had 'to deny themselves' entrance into the city of Gartok, although the glory of such a visit was tempting. Only once before had Gartok, the capital of the region of Gnari Khorsum, been visited by a European scientific traveller: in 1812 by the British explorer William Moorcroft.[601]

In the course of their remaining stay in Tibet, the brothers used Mani Singh's mediation, and candid bribery, to gain the 'confidence' of their Tibetan guards, who now allowed the foreign party to visit a number of other locations that again lay beyond the terms of their contract. For instance, the brothers and their assistants were accompanied to the monastery of Mangnang (see fig. 5.10), an important destination

[600] For instance, Driver, *Hidden Histories of Exploration*, pp. 46-7.
[601] *Reisen*, 3, pp. 80-81; V.2.2.1, p. 140.

for acquiring substantial parts of their collections: indeed, the Schlagintweits purchased almost the entire interior of the monastery.[602]

Fig. 5.10 'Interior of the Buddhistic Temple of the Monastery Mangnang, in Gnari Khorsum', painting by A. Schlagintweit, August 1855, reproduced as a lithographic print, in Schlagintweit, *Atlas*, Part II, No 12; source and copyright: archive of the DAV. Several of the objects painted were then purchased by the brothers, including prayer flags and praying mills, carpets, Buddhist manuscripts, statues of the Buddha, etc.

Mani Singh and his wider family remained at the heart of many of the more risky ventures undertaken by the brothers in the course of their journeys in Central Asia. Mani even acted as a 'headhunter' for the brothers, who were on the lookout for a knowledgeable and trustworthy leader for another difficult leg of the journey. From Leh, the capital of Ladakh, the brothers were determined to reach Chinese Turkistan, with the added complication that they were strictly forbidden from doing so. To find someone who could guide them without attracting the attention of the Chinese border

[602] *Reisen*, 3, p. 83; Robert described the image of the temple's interior as such: '[…] on the side [?] is the library, composed of sacred Tibetan books, some very rare specimens hanging down from the ceiling; the walls are hung with large pictures, partly painted on paper, partly on cloth, and are encircled by strips of silk of various colours […] the man, prostrate before the altar, did not the least hesitate to persuade the Lamas to give us for money whatever we wanted; in fact, we emptied the temple almost completely.' V.2.2.1, p. 146.

guards was crucial, but complicated. The Schlagintweits were by no means equipped to seek out a suitable candidate themselves, and therefore had to rely entirely on the choice made by their assistant Mani Singh for this important task.[603]

The responsibility placed upon the prospective leader could not have been greater, since the brothers knew the content of 'a very peculiar command', which the Chinese Government had issued to all of its officials in Turkistan: 'Should a European enter the district ruled over by you, his goods and chattels belong to you, but his head to Pekin.'[604] The martial rhetoric of this order reflects the geopolitical conflict between major powers in Central Asia at the time – the Chinese Empire, Tsarist Russia, and the British Empire. The latter, in whose service the brothers formally stood, used its base in British India to slowly extend its sphere of influence in this world region. At the same time, the Tsarist Empire had also launched an expansive movement, a territorial expansion in a south-eastern direction cloaked in the terms of a civilising mission. The third power, China, also demonstrated its claim to supremacy in Central Asia, not least through the above-quoted martial rhetoric of exclusive sovereignty over Turkistan, which was aimed at defending their claims against foreign intruders and local oppositions by rebelling subjects.[605]

In view of these political tensions playing out in Central Asia, the members of the Schlagintweits' travelling party from Leh into Turkistan formed a veritable community of fate. Yet only the indigenous leader of the undertaking had to assume the entire responsibility: as Robert Schlagintweit described it, 'one of the greatest difficulties' was 'to find a man whom one could empower with the general execution and conduct of our dangerous expedition. When such a man has been found, one must entrust one's self unreservedly to him, yield one's self unconditionally to him, and give effect to his arrangements, even when these appear singular, peculiar, and surprising.'[606]

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[603] A further case of such headhunting of a 'leader and translator' was a man called 'Davang Dorje, whom my [Hermann's] main Parsi butler [...] brought to me in Assam.' The subsequently employed assistant, 'one of the leaders of caravans, which are responsible for the communication and traffic from Tibet to the border of Assam', hence possessed important topographical and political insights into the different regions of Bhutan, which were to be crossed by the party, *Reisen*, 2, p. 102.
[604] Robert's Lectures, Schlagintweitiana, V.2.2.2, p. 59.
[605] Ian Blanchard, 'The "Great Silk Road", ca. 1650/70-ca. 1855', in Markus A. Denzel et al. (eds.), *Small is Beautiful? Interlopers and Smaller Trading Nations in the Pre-Industrial Period: Proceedings of the XVth World Economic History Congress* (Stuttgart, 2011), pp. 253-275.
[606] Robert's Lectures, Schlagintweitiana, V.2.2.2, p. 42.

When Mani Singh returned with a potential candidate, the brothers arranged a meeting at night, concealed from the other members of their establishment. They had the man led into their tent. Two candles lit up the gloom, 'before one of them lay a purse, heavily filled with gold, before the other was a six-barrelled revolver, loaded with ball, in the middle between them was placed the Koran. The whole presented a serious and deeply solemn aspect.' After the brothers had convinced themselves that his 'frank, open demeanour inspired confidence' in the Turkistani, called Mohammad Amin, they let him swear 'that he would guide us faithfully, would never forsake us, would never betray us.' In return, they swore 'naturally likewise on the Koran […] that if he kept his promise he should receive the purse filled with gold, but if he broke it, we would shoot him like a dog, with the revolver lying before us.'[607]

The brothers' direct threat on Mohammad Amin's life reflected their own insecurity and fear, namely to become dependent upon the guidance of a complete stranger during the upcoming voyage into forbidden territory.[608] But how might the situation have shifted in their imagination and later through narration? Indeed, the way the episode was conveyed to European audiences suggests a curious transformation in the balance of power. Looking back at this crucial moment of the expedition and on their relationship with Amin, the brothers effectively turned their own position of vulnerability into a supposedly dominant one. By externalising and transforming their own anxiety into a direct warning against *Amin*'s life, they seemed to become again the 'master', and the Muslim merchant and guide their supposed 'obedient subject'.[609] At least this is the impression given through the account that was written several years later – from the safe spatial and temporal distance of their European studies.

However, we should not be misled by mere rhetoric in retrospectively describing this delicate situation. Even after the brothers had made a threat of vengeance against their guide, nothing had changed, in fact, about the internal hierarchies: the Schlagintweits' were entirely reliant upon Amin's truthfulness, and

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[607] Ibid., p. 46.

[608] This links up with Rachel Standfield's notion of 'intimate violence' in idem, 'Violence and the Intimacy of Imperial Ethnography. The Endeavour in the Pacific', in Ballantyne and Burton (eds.), *Moving Subjects: Gender, Mobility, and Intimacy in an Age of Global Empire* (Chicago et al., 2009), pp. 31-48, 35: The editors sum up: 'for all the vulnerability Europeans may have experienced in the face of such intimate encounters of empire, such vulnerability was productive rather than inhibiting of violence.' Ballantyne and Burton, 'Introduction', ibid., pp. 1-28, 13.

[609] As they framed their relations within their own narratives: V.2.2.1, p. 50.

his decisions regarding routes and food supplies. In case the latter would have wanted to betray or rob them, to leave the brothers without orientation in parts of Chinese Turkistan for which not even roughly precise European maps existed at the time, the Muslim merchant could still have done so, without any real threat to his life. It was beyond doubt that even the Government of India could and would not have been able to prosecute and punish Amin; it possessed hardly any power to protect even British subjects in Turkistan, and would have certainly not risked any conflict with the Chinese over the fate of these German travellers.[610]

While the subsequent intrusion into Turkistan shall be treated in the following in more depth, it is important to note that, with Amin, one of the most influential guides of the entire Schlagintweit expedition was recruited (fig. 5.11).[611] The fruitful collaboration that arose between Amin and the brothers was, however, only feasible through the mediation of Mani Singh, another much valued companion. Thus, in a sense, the establishment recruited *itself* along the way.

[610] Consider the tangible helplessness of British colonial officials in dealing with Adolph Schlagintweit's later fate, and for avenging his demise.
[611] See anon., 'Review of H., A. and R. Schlagintweit, Results of a Scientific Mission to India and High Asia', *The Athenaeum*, 1764, 17.8.1861, pp. 215-6.

Fig. 5.11 Mohammad Amin, a merchant of Turkish background from Yarkand in Central Asia, photograph in the Schlagintweit Collection, BSB, Schlagintweitiana, IV.2.94. It is unclear who took this image as a number of portraits of Indian women, as well as photographs of some of their assistants, but also of views of landmark buildings, seem to have been taken by professional photographers – either out in the open or in their commercial studios. Noteworthy are the later modifications to this portrait. The addition of a column, a backrest and the blackening of his pupils were artistic interventions, aiming to show the portrayed individual as a civilised individual, not as a 'racial type', thus achieving a considerable degree of sympathy in the depiction.

The Schlagintweits' assistants played further roles during their secret penetration of lands beyond Company control. For their excursion into Turkistan, the brothers were, as we have seen, forced to travel in disguise. With the help of Amin, they had adopted the appearance of Muslim traders from South Asia, wearing traditional gowns in the manner of the country that Amin had concealed in his own baggage for their use.[612] What was more, the fact that some of their assistants did actually originate from India, and spoke Hindustani fluently, now provided the

[612] V.2.2.2, p. 26.

brothers with greater protection against discovery. They thus noted that the 'company of Makshut', a 'Mussalman from Delhi', was highly 'beneficial for us'.[613] The Schlagintweits, who mastered only a few phrases in Hindustani, could nonetheless demonstratively engage in conversations with the Delhi merchant, which increased their prospect of success to pass as natives of India themselves. This was particularly the case in front of those inhabitants of Turkistan, who 'did not know the language [Hindustani] at all.'[614]

Ultimately, it is also possible to look at the movements of the establishment from the perspective of a military campaign. Many contemporary observers compared British expeditions into Africa's interior with veritable campaigns of conquest.[615] In our case, the Schlagintweits used their establishment at times as an inert mass of 'foot soldiers' to carry out strategic feints. This applied especially to their interaction with indigenous border guards and 'official spies', which frequently became attached to their own party – representing 'the enemy within'. It is therefore not surprising that the brothers developed a great mistrust against most members of their own entourage. This general distrust meant that only a small circle of assistants were informed about their most important – and at the same time most secret – travel plans. Indeed, at several points of the expedition, the majority of their partners were left entirely ignorant about their actual goals. To illustrate the point, the travels by Hermann and Robert into Chinese territory are particularly significant.

After Mohammad Amin, the leader of the upcoming Turkistan mission, had secretly been recruited, the brothers at first pretended to leave the city of Leh with a huge entourage in the direction of Kashmir. At the end of July 1856, the brothers left 'with 30 servants, 20 horses, and 50 men carrying luggage, together with a number of tents, and as our people thought, a quantity of useless baggage of every kind.'[616] As the Schlagintweits knew only too well, it would have been 'sheer madness […] to attempt to penetrate into China and Turkistan with all these people and this motley

[613] Also Makshut had accompanied the British Company traveller William Moorcroft (1767?-1825) some decades earlier during the latter's extensive travels; he was taken into service by the brothers 'on the way to Ladakh', *Reisen*, 4, pp. 22-3.
[614] *Reisen*, 4, p. 131.
[615] See on such 'exploratory campaigns': Driver, 'Exploration by Warfare: Henry Morton Stanley and His Critics', in idem, *Geography Militant: Cultures of Exploration and Empire*, ch. 6, pp. 117-145; on the role of violence in Stanley's travels also Kennedy, *Last Blank Spaces*. An obituary alluded to the military character of Stanley's undertakings and publications: 'his pen moved over the paper like an army across the battle field', *The Times*, 25.5.1904.
[616] This and the following from V.2.2.2, pp. 53ff.

caravan.' And yet, this seeming immobility of the slow-moving camp was part of the calculation. As they noted: 'Had there ever occurred to the Governor of Leh, whose duty and task it was, to keep a watch over us, even the slightest suspicion that we wished to cross the frontiers, it certainly vanished entirely, when he saw us march off with such an immensely large retinue.' It was precisely through demonstrating the inertia of the masses that served the brothers for their deceptive manoeuvre. The number of people who accompanied them 'afforded a surer guarantee [to the governor of Leh] that we could not get across the [Chinese] frontiers, than a whole company of soldiers, which he perhaps might have posted there for our expulsion.'[617] At the same time as the brothers and their entourage slowly moved ahead, Amin, of whose existence only Mani and the brothers knew, was busy planning a trick that would free the brothers from the opponents in their own establishment: the 'guard of honour' that was monitoring their movements and could have prevented any of their attempts to enter forbidden territory.

What followed was a manoeuvre so complex that it cannot be described here in full. At its core, however, was the plan to lead the entire travelling party up onto the highly elevated Sasser Pass of almost 18,000ft., and to remain there for several days under the conditions of a constant shortage of supplies and icy temperatures, until a good part of the establishment would suffer from severe bodily symptoms (fig. 5.12). Indeed, as one of the brothers noted in hindsight, '[o]ur entire encampment very soon became like a lazaretto; sighs and groans resounded from every tent and filled the air.'[618]

[617] V.2.2.2., pp. 55f.
[618] Ibid.

Fig. 5.12 ‘The Peaks and Glaciers of the Sásser Pass in Núbra, Tíbet’, where the deceit of the guards took place; watercolour by Hermann Schlagintweit, August 1856; Schlagintweit, *Atlas of Panoramas and Views, With Geographical, Physical, and Geological Maps* (Leipzig and London, 1861), 7; source and copyright: archive of the DAV.

Meanwhile, Mohammad Amin, the chosen leader for the secret intrusion across the Chinese border, waited nearby and, after a secret sign by their trusted assistant Mani, ‘accidentally’ happened upon the utterly exhausted group on the high pass with fresh supplies, servants and horses.[619] The brothers now struck a deal with their worn-out travel companions. It was agreed that the majority of the latter, including the watchful guards, should return to Leh, while the brothers would complete their observations on the pass with a small group of remaining assistants, before re-joining the main party. The fear of the Schlagintweits that members of their own entourage could expose their plan for a surreptitious intrusion into Turkistan went so far that only Mani Singh – ‘the only one of our establishment whom we trusted enough’ – was informed about their true motives. Except for him, it was only the servants of Mohammad Amin who made up the travelling party – while the vast majority of the Schlagintweits’ own people were kept in the dark.

This episode captures well how the brothers consciously used members of the establishment as pawns in the game of misleading indigenous rulers and spies. In so doing, however, the brothers created internal frictions among their entourage, which now consisted of ‘foe and friend’. Instead of perpetuating the myth that the Schlagintweits were marching at the head of a sworn-in establishment, whose members were all devoted to them and their ‘higher goal’ of scientific and exploratory advancement, it seems more accurate to conceive of the expedition party as a ‘society of strangers’. Therein, internal discords and shifting hierarchies between different

[619] The following is based on Robert’s lectures, V.2.2.2., pp. 66ff.

groups and individuals was something the brothers could only partly control. To be sure, at times they themselves manipulated the entourage. Yet, while the perceived wisdom of western exploration may invoke the impression of the European travellers as omnipotent, larger-than-life-figures and unchallenged expedition leaders, the Schlagintweits were, in other cases, kept apart from most of their fellow travellers. This was, as will be shown, due to insurmountable cultural and linguistic barriers, personal fears and mistrust, meaning that the brothers often remained estranged from the majority of their entourage – whose members they both feared and yet 'entirely depended' upon.[620]

Multiple hierarchies and unexpected dependencies

The complicated internal dynamics of the expedition party had a great impact on the real and imagined hierarchies that coexisted – sometimes happily, sometimes fraught with tension – in the minds of the Schlagintweits. The large amount of texts, objects and visual sources they produced for posterity about the expedition's unfolding present a maze of conflicting facts and judgements about the members of their travelling party, as well as about their own role as 'leaders'. To neatly disentangle the realities of travel from the imprint of the imagination is neither a simple nor a particularly rewarding task. In the end, many irresolvable contradictions remain. Nevertheless, it is worthwhile to enquire into the representation of power relations, as they reveal most clearly the fragile nature of authority that the Schlagintweits possessed, struggled to keep, or rather sought to construct retrospectively.

Hierarchies changed not only over time and with distance to the events – through the active intervention on the part of the explorer attempting to write a 'heroic' narrative – but also with the political context in which their excursions were executed. It is reasonable to assume that the brothers were in a relatively dominant position as far as *British* administered territories were concerned. Equipped with a broad range of privileges by the local colonial power, they certainly perceived of themselves as the true leaders of the scheme. Here, they set down the itineraries, and also secured the provisions, accommodation and salaries of their entourage.

[620] V.2.2.1, p. 46; 80.

Moreover, as we have seen, several members of the establishment were formally assigned to join them by different colonial institutions and governors. Those official draughtsmen joined the expedition by presenting their 'service record book' (*Dienstbuch*), thus formally executing an act of submission under the brothers' orders. Equally important for the brothers' relatively unchallenged authority within British India was the fact that those, already colonised, areas did not present much unfamiliar territory. On the contrary, the expedition usually steered through charted terrain while its members were pursuing their scientific researches.

By contrast, we are faced with a starkly different situation in those regions that were held to be 'terra incognita' by Europeans. In addition to the dependence upon indigenous geographical knowledge, other factors were crucial too with regard to the shifting relations of power, with their assistants assuming ever-greater authority. To start with, any *forced* recruitment of helpers and porters beyond the northern borders of the Company-Raj was unthinkable. This meant that the brothers were forced to offer such lucrative terms of employment to their companions that the latter were willing to accept the hardships and personal risks that excursions into politically unstable regions also entailed for them.[621] And while the brothers were able to freely communicate in English with officials in colonised territories, they became – outside of British India – extreme linguistic 'outsiders': only their assistants and guides were able to converse with the villagers of the Tibetan and Central Asian regions they passed through.

This lack of cultural and linguistic skills represented a significant impediment for the brothers to exercise any authority, as the Schlagintweits' became utterly dependent on the help of others – including mere strangers. For the sake of their security, the brothers learned a set of formal Muslim salutations in word and gesture from their main expedition leader Mohammad Amin. The latter also taught them specific phrases to be used in the case that the brothers were to be interviewed by Chinese authorities.[622] Since the Schlagintweits were furthermore entirely reliant upon the Muslim merchant's decisions regarding routes and supplies, it was inevitable

[621] *Reisen*, 1, p. 156; see also the frequent increase of salary during high mountain ascents, for which the brothers had to receive the sanction of the Court of Directors in London; e.g. BL, IOR/E/4/835, p. 48: one answer of the Court to such a request read: 'The allowances which it has been found necessary to give to the Assistants to the Messrs. Schlagintweit consequent on the extra expenses of travelling on the Hills, are sanctioned as temporary measures, and will cease on the descent of the Observers to the plains.'

[622] V.2.2.2, p. 113; 150.

that their initially dominant position was subsequently undermined whilst travelling beyond the frontier regions of north India. Even making the smallest arrangements with Amin was problematic, as they had to rely on what Hermann called a 'double translation' in conversations with their main guide, hence with two intermediary translators.[623]

While the brothers later maintained that they were able to freely command over their establishment, this was only half the truth. In reality, the Schlagintweits struggled a great deal with the religious hierarchies, practices and beliefs held by the members of their establishment, which undermined their own position within the group. Their orders to discipline were disregarded in many instances, giving us an impression of how contested their position as 'leaders' of the expedition actually was. In the course of exploration, the German travellers developed a particular dislike for the religious practices and beliefs of their Hindu companions, of which the brothers conceived of as great impediments to the 'advancement of science'. [624] They were particularly irritated by the fact that in Hinduism, the mountains of 'High Asia' were not conceived as inanimate objects of study, but were feared and respected as embodiments of their deities. The rules of worship entailed that during numerous mountain excursions, sacrifices in the form of food had to be offered to appease the respective deity – which the Schlagintweits denounced as an irrational waste of precious time and material supplies.[625] As Robert dolefully noted:

> 'Every mountain, rock, wood, and spring, has its own peculiar genius, mostly a demon, to whom sacrifices must be offered with many time-consuming ceremonies, and to whom a multitude of small chapels, sacrificing places, oratories, and the like are consecrated, the number of which increases with every year.'[626]

In fact, the Schlagintweits paint a picture of their explorations of mountain systems as if they had to fight as much against indigenous devotion to nature as against factors such as extremes of weather, lack of proper infrastructure and reliable information, or shortness of supplies. For instance, in their record of Adolph's first

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[623] *Reisen*, 4, p. 121.
[624] *Reisen*, 2, p. 323.
[625] Lectures, V.2.2.1, p. 57: 'Every mountain, rock, wood, and spring, has its own peculiar genius, mostly a demon, to whom sacrifices must be offered with many time-consuming ceremonies'; *Results*, 3, p. 17.
[626] Lectures, V.2.2.1, p. 56.

crossing over the Traill's Pass in the Himalayas (el. over 5,000m) it was noted that: 'It offered great difficulties, as well from the enormous quantities of snow, which still covered its flanks at this season, as from the religious superstitions with which it is regarded by the Hindus, to whom these stupendous mountains are objects of a particular worship.'[627] Time and again, so the brothers recounted, they were forced to interrupt their progress due to, as they pejoratively put it, the 'inventive, excitable, and busy imagination, of the pious and credulous Hindoos.'[628]

However, even if the brothers had nothing but contempt for these 'superstitious' acts, it is telling that their companions performed their religious rites during all mountain ascents nonetheless. This meant that the authority of the brothers, whose presence during those sacrificial ceremonies was strictly forbidden, was subordinate to the position of the religious leaders of the Brahmans amongst the establishment, whose rules and demands were strictly followed despite the Schlagintweits' outspoken disapproval. These conflicting hierarchies were captured during a critical moment of a mountain ascent, when Adolph Schlagintweit was about to take a number of measurements on a high pass of the Nanda Devi in the Himalayas.

> 'I was at once quite frightened by seeing three of my men, one after another, getting suddenly quite epileptic, they threw themselves down in the snow, turning their eyes and beating about with their arms and legs, evidently quite out of their senses, and all my people began to cry out 'Nanda Devi Aya' – 'Nanda Devi Aya'.[629] I was indeed rather a little frightened, since I feared that this nonsense might become contagious […]. I therefore took aside my two […] Brahmins and told them, that this was mere nonsense, that I had given to the Nanda Devi everything they had asked for […] and that this stupid state of things was merely the result of their constantly talking of the Nanda Devi on the road, crying out her name and making her salams of no end at every difficult place. I ordered them to calm the people at once, which they effected by Mantra, and snow applied to their temples.'[630]

The critical episode is here recounted from the perspective of the brothers, and yet it offers some important insights into the multiple hierarchies within the travelling party. For one thing, the situation revealed that the German travellers were always

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[627] *Results*, 1, p. 17.
[628] Lectures, V.2.2.1, p. 98.
[629] Translated by Hermann Schlagintweit as: 'The Nanda Devi has come', *Reisen*, 1, p. 326.
[630] The following is based on 'Report of Adolph Schlagintweit and Robert Schlagintweit upon their journeys in the Himalayas of Kumaon in May and June 1855. Communicated by Colonel Sykes', Gotha Forschungszentrum, SPA ARCH PGM 353/1. Schlagintweit, Adolf / Schlagintweit, Hermann v., Schlagintweit, Robert v.

forced to comply with the religious requirements of sacrifices by their assistants. However, when a part of the group suffered from fits, which threatened to soon affect the rest, Adolph effectively lost control over the situation and his own establishment. Since the latter perceived of the fits as a punishment by the deity Nanda Devi, believed to be enraged by their intrusion, the entourage may well have violently revolted against Adolph's marching orders. As the European traveller was now unable to personally mitigate the tense situation, he had to rely on the mediation and authority of the accompanying religious leaders. Only the Brahmans were able, by singing mantras and holding snow against the suffering men's heads, to end their inner turmoil. Tellingly, the passage on Adolph's loss of control was taken out in official reports on the expedition printed by British patrons of the scheme, above all the Company Director William Henry Sykes – even though it was described in full in the original report submitted by the brothers.[631] While the authority of the Brahmans over their religious followers had to be accepted, not least to realise high mountain ascents, it led the brothers to develop a pronounced dislike of these spiritual leaders and their power over considerable portions of their entourage.

Robert Schlagintweit, in particular, nurtured contempt – if not hatred – against all Brahmans, whom he charged with cold-bloodedly exploiting the 'credulity' of their followers:

> 'The Brahmans, unlike the pilgrims, are neither bigoted nor credulous, but with hypocritical cunning they care only for their own self-interest, and in order to become as hard and cold as stone towards the lot of their fellow men, they have accustomed themselves to the delusive error of doing nothing but serving the Deity alone, and are thus as truly frightful objects as are the pitiable Fakirs themselves. These Brahmans smile if not publicly, yet certainly in secret, at the folly of this credulity, and assuredly doubt the accomplishment of the miracles solicited from them.'[632]

Even if Robert was apparently mostly angered by the self-important behaviour of the spiritual authorities, said to profit greatly from the believing masses, it is not unreasonable to assume that this contempt originated in the Brahman's superiority in commanding the numerous Hindu helpers and assistants in 'his' entourage. Although

[631] See Adolph and Robert Schlagintweit, 'Notices of Journeys in the Himalayas of Kemaon (communicated by Col. Sykes, F.R.S)', *Report of the 25th Meeting of the British Association for the Advancement of Science*, (London, 1856), 'Notices and Abstracts of Miscellaneous Communications to the Sections', pp. 152-155, 152.
[632] Lectures, V.2.2.1, p. 58.

the authority that the Schlagintweits later claimed to have had was at best precarious, and sometimes non-existent, during their travels through 'High Asia', the brothers nonetheless managed to turn the situation around for their European readers. They simply interpreted the behaviour of their establishment in the light of their supposed backwardness and childish superstition. The pejorative description of large parts of their companions as 'irrational' offered the brothers the occasion to portray themselves, by contrast, as the purportedly enlightened, rational counterpart: as modern scholars in conflict with primitive fanaticism, which had previously hindered a 'real' comprehension of those frontier countries and high mountain regions in the Himalayas and Central Asia.[633]

Attesting to the contradictory nature of their writings, the works of the Schlagintweits often contained such scornful passages about their establishment; and yet many of the individuals they employed as collectors, and especially their servants and scientific assistants, were held in the highest esteem. Hermann, for instance, remarked on the services of his butler Dhamji that he 'tried successfully to maintain peace and friendship among my people', hence to settle amicably any erupting conflicts within the establishment. The loyalty of some of their companions loomed so large in other parts of the brothers' writings that it was later used as cannon fodder by the British press in their critical campaigns against the German scholars. In the former's view, such extensive praise of 'natives', including their fine personal characters and vital support, was not appropriate conduct of a true European explorer.[634]

By piecing together the available information, we can get a good sense of the institutional and military contexts in which many of their indigenous helpers had been trained in British India. In the following analysis of a few notable if not outstanding assistants, particular attention is given to recovering information about their earlier lives, as it provides us with a better understanding of their skills, local influence, and

[633] A similar pejorative judgement can be found in Robert Schlagintweit's treatise on 'Physikalisch-geographische Schilderung von Hochasien', *Petermanns Geographische Mittheilungen*, 11 (1865), pp. 361-377: 'In des Himalaya schneebedeckte Gipfel, in seine wild tosenden zahlreichen Flüsse hat die reichhaltige indische Mythologie den Wohnsitz einer Anzahl von Gottheiten verlegt; die erfinderische, erregbare Phantasie der fromm-gläubigen Hindus trug wesentlich dazu bei, dass nur wenige es wagten, die dunklen, tiefen Geheimnisse des göttlich verehrten, unnahbaren Gebirges enthüllen zu wollen', p. 361.

[634] This critique targeted an extensive passage in their first volume of the *Results* that was dedicated solely to their assistants; see Felix Driver and Lowri Jones, *Hidden Histories of Exploration*, p. 45. For the full review, see *The Athenaeum*, 1764 (London, 1861), pp. 215-16.

alternative channels of information that significantly shaped the conduct of the expedition as a whole. An important example were the trans-regional commercial networks of travelling merchants, whose personal contacts with other traders at bazars and different nodal points along the Silk Roads decisively shaped the brothers' itineraries in the Himalayas and Turkistan. Therefore, the following section turns to those individuals, about whom we possess specific information, also about their divergent motivations in joining the Schlagintweits' scheme. As will become evident, such an expedition meant very different things for different people involved; only if we consider the motives and later trajectories of additional members of the party can we gain a fuller understanding of the important legacies that this undertaking would have in multiple contexts. It profoundly shaped not only the brothers' own biographies, but was also the starting point for a number of other imperial careers within British India, pursued by their former assistants in most remarkable ways.

One of the central sites for recruiting scientifically trained assistants was Calcutta, then the capital of the Bengal Presidency.[635] There, during March and April 1855, the Schlagintweits secured the services of the 'Indo-Portuguese Mr Monteiro', who became involved in the 'preparation and accurate packing of our collected items' to be sent to London. Monteiro, however, quickly distinguished himself to such a degree that he soon rose to a position of authority within the establishment, becoming the 'general superintendent of the collectors' of the entire expedition.[636]

In carrying out his duties, Monteiro erected several temporary 'laboratories' along the travel routes, which he oversaw and managed for extended periods, whilst the expedition party moved on to new sites.[637] The 'Schlagintweit expedition' thus combined, in a sense, the ideal of Humboldtian studies outside in the field with the provisional use of closed-off workshops. Such a temporary station for taking scientific series was, for instance, erected at the 'hill station' in Darjeeling, where Monteiro also coordinated the collecting practices of a number of helpers – again out in the field (fig. 5.13).[638]

[635] British India consisted mainly of the three presidencies of Bengal, Madras, and Bombay, each maintaining its own colonial administration and army.
[636] The 'general superintendent of the collectors', *Results*, 1, p. 40.
[637] *Reisen*, 1, p. 239.
[638] *Reisen*, 2, p. 186.

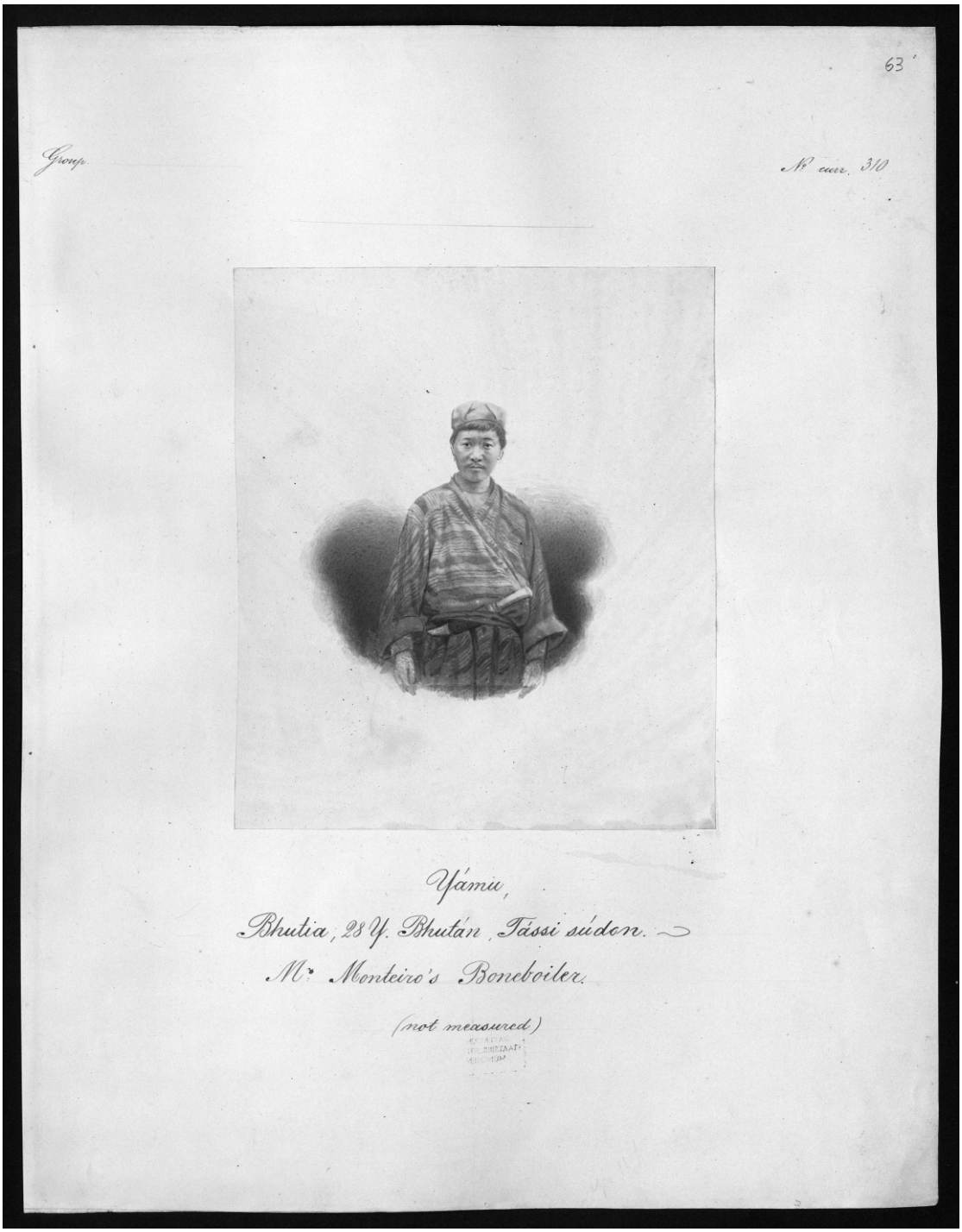

Fig. 5.13 Modified photograph of 'Yamu', a Bhutia of 28 years of age from Buthan, introduced by the brothers as 'Mr Monteiro's "Boneboiler"' for the collections of animal and human skeletons; Schlagintweitiana IV.2.63.

During Monteiro's sojourn in Darjeeling, Hermann Schlagintweit had trained him in the 'use' of a 'photographic apparatus', and both men produced a number of 'daguerreotypes on metal plates' (fig. 5.14).[639]

[639] *Reisen* 2, p. 271; compare with Körner, 'Photographieren auf Forschungsreisen', p. 314.

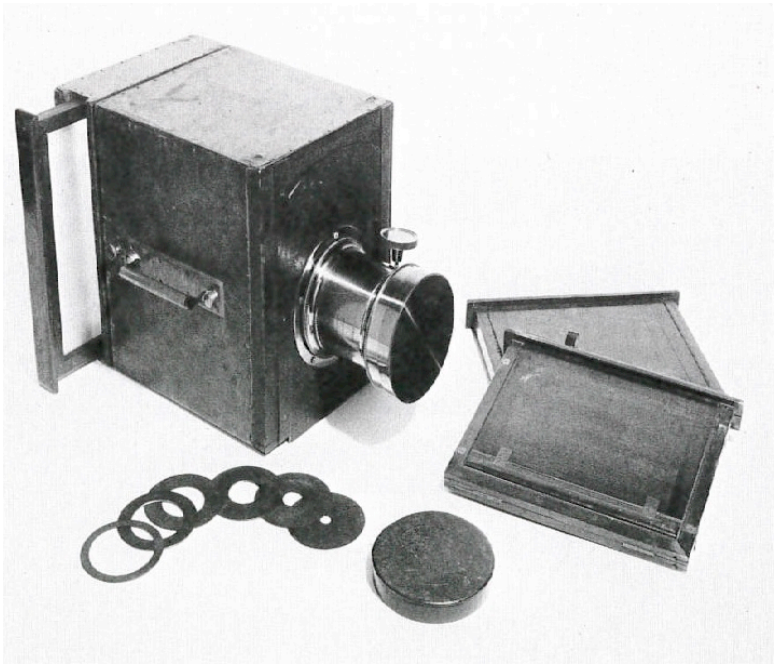

Fig. 5.14 Schlagintweit Daguerreotype camera, by Horne & Thornethwaite, ca. 1847; Source and copyright: Christie's New York, *Fine Watches, Clocks, Scientific Instruments and Related Books*, *Christie's Sale Catalogue, FASCIA-6172* (New York, 1986), p. 20.

Monteiro's important position within the expedition party led him to develop great commitment for the cause of amassing scientific objects for the brothers. His recklessness in the pursuit of that aim is well reflected in an episode in Kashmir in 1856.

> 'Even before one of us had arrived at Srinagar, […] Monteiro had obtained a cadaver for our collections in an unfitting manner. During the night, he had cut down a man who had been hanged a long time ago, who was displayed as a warning to the people and as a plunder to the animals. Then, since Monteiro quickly aroused general suspicion, his belongings were searched. He only knew to help himself by hiding the anyway [dried-out corpse] in his own bed, where [the missing body] was certainly the least expected.'[640]

To prevent his cover from being blown thereafter, Monteiro conceived of the plan to hide the cadaver within the already searched boxes of his baggage so 'that he did not have to fear a renewed inspection.'[641] In other words, Monteiro independently developed a way for smuggling human remains out of Kashmir.[642] Even if, in the end,

[640] The following is based on, *Reisen*, 2, p. 428.
[641] Ibid.
[642] The episode thus stands in marked contrast to the brothers' claim that their assistants were only able to carry out prescribed tasks, but were incapable to develop new research questions or solutions independent of their guidance: 'Im östlichen Tibet, zum theil schon in Nepal, hatten selbst die Pandits, wie auch ihre Berichte zeigen, nicht geringe Schwierigkeit so große Strecken unbemerkt zu bereisen;

the brothers were unable to take this skeleton with them to Europe, the episode showed that their helpers took great personal risk in providing the material artefacts of the scheme. After all, Monteiro's discovery would have led to a long prison sentence. His drive to operate independently from the brothers was further demonstrated by the fact that Monteiro 'continued his works for another year, after we had already left India.' Numerous observations and sets of data were accumulated by the assistant between 1857-58, and sent to Europe to be added to the store of information and objects from this expedition.[643]

Other assistants, too, had close ties with British colonial institutions before they were co-opted. A Muslim 'writer and draughtsmen' called Abdul, from Madras, was also recruited, and from February 1855 onwards temporarily abandoned his service 'as draughtsman and assistant surveyor in the office of the Quarter Master General' of Madras.[644] His previous military training was to become highly beneficial for the brother's imperial exploration. This applied to Abdul's talent for quickly grasping the main features of an unknown landscape and fixing his impressions on paper.[645] He put these talents to great use during several independently executed excursions, which could last up to six months.[646]

Abdul's independent explorations not only provided the Schlagintweits with topographical sketches, which enriched the stock of data of the expedition as a whole. Hermann also integrated long passages into his travelogues that were entirely based upon the scientific observations and testimony of his assistant: regarding the Tista river in the Himalayas, he thus noted that '[m]y draughtsman Abdul sketched a detailed plan of the river along its entire course, which was highly important to me for determining erosion conditions, the more recent changes of the riverbank, &c.'[647] Abdul also managed to tap into the local knowledge of inhabitants of various regions, with whom the brothers could not personally converse. Hermann noted on this point in his 'Travels to India and High Asia' (*Reisen nach Indien und Hochasien*) that

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überdies lassen ihre Tagebücher so manche Lücke, wo der Gegenstand, der vorlag, ein solcher war, auf den sie nicht "vorbereitet" waren. Wo neue Fragen sich bieten, bleiben sie nur zu leicht von Eingebornen ganz unberücksichtigt, sobald sie von europäischer Leitung ferne sind.' *Reisen*, 3, p. 21.

[643] *Reisen*, 1. p. 239.

[644] *Results*, 1, p. 21, also p. 37.

[645] Military campaigns were from early on accompanied by the production of landscape views in British India. On this phenomenon see, for instance, Rosie Dias, 'Memory and the Aesthetics of Military Experience: Viewing the Landscape of the Anglo-Mysore Wars', *Tate Papers*, 19 (2013).

[646] *Results*, 1. p. 21, also p. 37.

[647] See Abdul's Beobachtungen, *Reisen*, 2, pp. 152-3.

'Abdul was told about the Atri river that, circa fifty years ago (or perhaps periodically?), the latter had possessed a greater quantity of water than the Teesta' river.[648]

Such treasure troves of experience helped the brothers to develop their hydrographical theories about 'High Asia'.[649] At the same time, Abdul also delivered information that was essential from a colonial perspective, such as insights into the accessibility and use of local river systems. To take but one example, Abdul's report led to the conclusion that 'for the inhabitants of Sikkim, also for those of Bhutan […], the Teesta is of high importance as regards the transport of tree trunks, intended for ship construction in Bengal.'[650] Using their assistants as 'satellites' in this venture, the brothers managed to garner information for later publications from villagers and ethnic communities they never personally encountered.[651] On one occasion, for instance, the military draughtsman was able, 'while being disguised as a Lepcha and provided with merchandise […], to travel within the territories of the Raja of Sikkim [at the border to Nepal], and to take a number of observations according to previously carefully supplied instructions'.[652] In providing this data, Abdul took great personal risks, 'since even natives of India are excluded from Sikkim during the entire summer' out of fear of spies. In case of his discovery, these activities would undoubtedly have led to a severe punishment.[653]

Thanks to his varied and proven skills, Abdul was soon promoted to act as Hermann's 'second assistant', working alongside the British Lieutenant Adams. He remained in that position until almost the end of the scheme in the spring of 1857. His personal commitment to the expedition could not have been greater, as he died in Calcutta,, following several months of lingering illness and exhausted from his

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[648] Ibid.
[649] See also *Reisen*, 2, p. 401.
[650] Ibid.
[651] The debate of whether Europeans could or should trust 'native testimony', or if only the personal scrutiny of natural historical phenomena by Europeans themselves was to be regarded as authoritative sources of knowledge, goes back to at least the 16th century. Yet, it became again fervent during the late 18th and throughout the entire 19th century, see e.g. Charles W. J. Withers, Mapping the Niger, 1798–1832: Trust, Testimony and 'Ocular Demonstration' in the Late Enlightenment', *Imago Mundi: The International Journal for the History of Cartography*, 56 (2004), pp. 170-193.
[652] *Reisen*, 2, pp. 218-19; ['als Lepcha gekleidet und mit Handelsgegenständen versehen, im Gebiete des Raja von Sikkim [an der Grenze zu Nepal] [...] reisen und nach sorgfältig entworfenen Instructionen eine Reihe von Beobachtungen ... machen'].
[653] Ibid. Here it should be remembered that the European travellers J. Hooker and A. Campbell were almost put to death after their capture in Sikkim.

extensive travels both with, and independent from, the brothers.[654] While his early death was deeply regretted by the brothers, he was, to be sure, not the only casualty within the establishment.[655] Besides Abdul, a Tibetan helper of Adolph died during an accident in the high mountains, when the man went late at night – 'to avoid detection' in forbidden territory – to fetch water and firewood for the camp, and fell to his death.[656] Lastly, during Adolph's final ill-fated journey, a number of accompanying assistants were either sold into slavery or lost their lives.[657]

The degree of independence that some assistants maintained throughout the expedition is also apparent in the case of 'a coloured Jew from India' called Eleazar, who was entrusted 'with the superintendence of the transport or our instruments and collections', but was also successfully sent on independent surveys, during which he took valuable observations with different European instruments (see fig. 5.15).[658] From the autumn of 1854 until May 1857, hence during the entire period of travel, he additionally served the brothers as an 'excellent guide' and 'private secretary'. Demonstrating once more the importance of the colonial infrastructure for the recruitment of skilled assistants, Eleazar was formally 'ordered to join us at the commencement of our journeys.'[659] He had previously worked as 'a guide in the Quarter Master General's Department, of Bombay'.

[654] *Reisen*, 1, p. 84; ['er starb zu Calcutta, nachdem er bereits mehrere Monate an Fieber und bisweilen an heftiger Dysenterie gelitten hatte'].
[655] Ibid., 1, p. 37.
[656] *Reisen*, 3, p. 87; *Results*, 3, p. 14.
[657] *Results*, 4; Schlagintweit, Hermann and Robert, 'Official Reports on the last Journeys and the death of Adolphe Schlagintweit in Turkistàn', *The Madras journal of literature and science*, IV (1859), pp. 304-32.
[658] *Results*, 1, p. 37.
[659] Ibid.

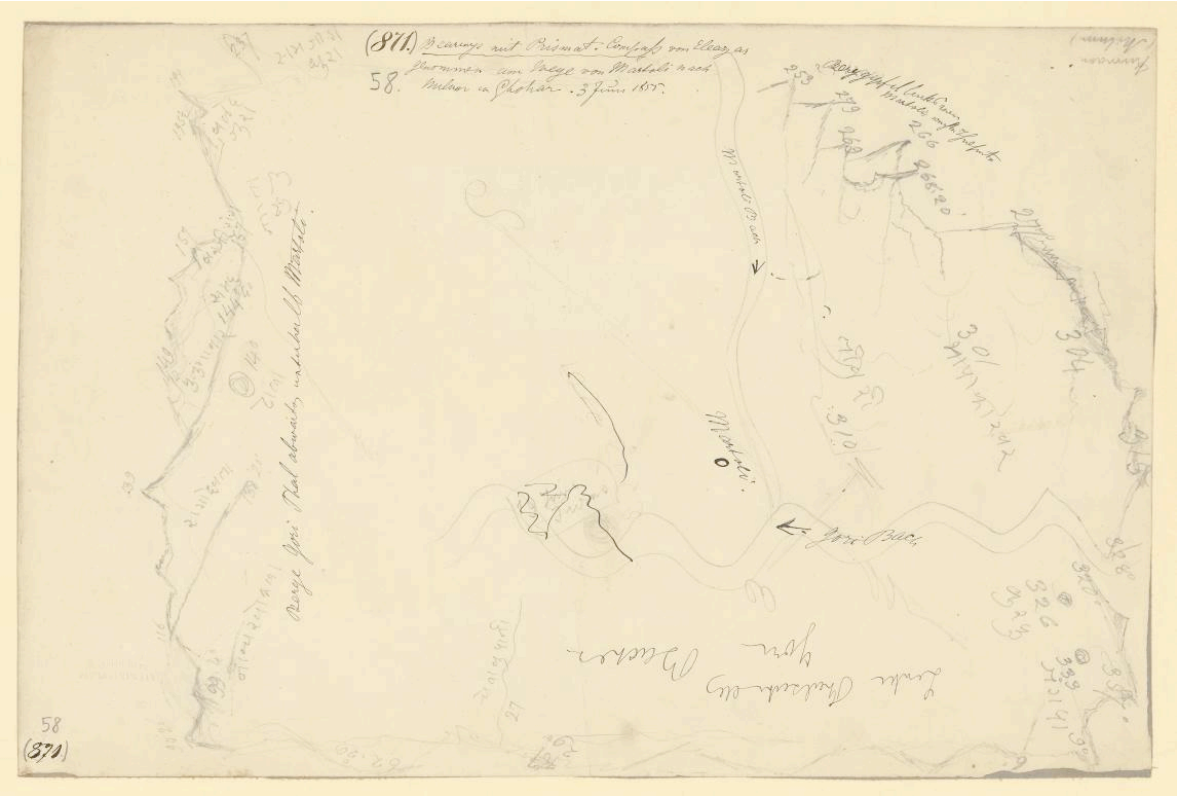

Fig. 5.15 ‘Bearings with prismat compaß by Eleazar, taken on the route from Martoli to Milum in Ghobar’ Kumaon (Milum), 3 Juni 1855, pencil and feather, Schlagintweitiana IV.5.58.

The fact that several of the assistants undertook independent yet complimentary excursions is crucial for understanding that the ‘Schlagintweit expedition’ was, in fact, not a single, continuous journey. Rather, the undertaking must be understood as *cluster* of various major and minor expeditions, which crisscrossed India and ‘High Asia’ with a web of itineraries undertaken by different people with different agendas and functions. The brothers visualised the overlaps between these related and yet autonomously undertaken explorations in their maps by marking the independent routes of their assistants through dotted lines (see fig. 5.16).[660] The activities of the indigenous surveyors and collectors continued independently at least until March 1858, when the colonial government stopped their payment. The fact that a number of the assistants continued their researches well beyond the departure of the brothers is at odds with the narrow and Eurocentric reading of the ‘Schlagintweit mission’ that is still prevalent in the most recent literature on the subject.[661] We also know of one assistant who continued his work

[660] *Reisen*, 1, p. 84.
[661] Entirely glossing over the role of their essential guides and assistants, Ulrike Kirchberger framed this scheme as an essentialised, ‘spectacular *German expedition* in India’ from 1854-57: idem, ‘German Scientists in the Indian Forest Service’, p. 25, emphasis mine.

with the Schlagintweits in Europe for a while, assisting the brothers with their philological studies. Sayad Mohammad Said, an erudite *munshi* from Calcutta, who was fluent in Hindustani, Persian and Arabic, accompanied the brothers to Berlin, where he was presented to a number of philological and anatomical scholars from Central Europe. Paid for his services by the brothers, Sayad Mohammad Said was actively involved in compiling the philological sections of the brothers' travels accounts.[662] For all these reasons of continued collaboration from near and afar, the brothers perceived of 1858 as the terminal year of the expedition. [663]

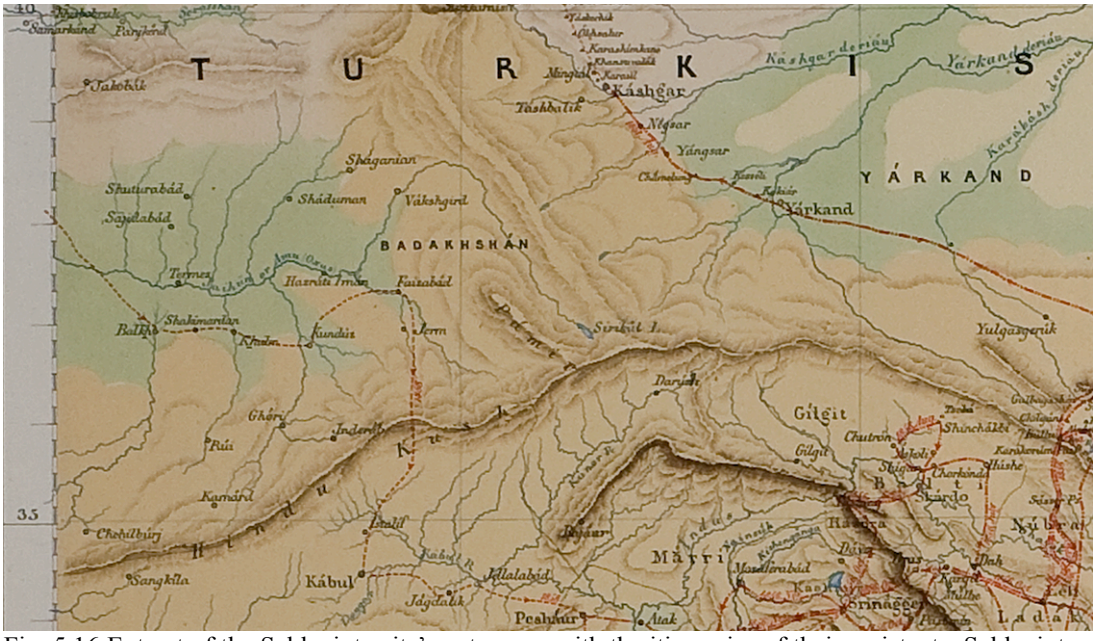

Fig. 5.16 Extract of the Schlagintweits' route map, with the itineraries of their assistants; Schlagintweit *Atlas* (1861), source and copyright: DAV.[664]

[662] On 10.07.1858, the Orientalist Theodor Nöldeke (1836–1930) wrote to his colleague Michael Jan de Goeje about his acquaintance with the Calcutta Munshi during a soirée at the home of the political economist and statistician Dieterici in Berlin: 'Gestern habe ich eine interessante Bekanntschaft gemacht. Die Gebrüder Schlagintweit haben von ihren ihrer Indischen Reise aus Calcutta einen sehr gelehrten Munshi...mitgebracht, der ihnen bei der Ausarbeitung ihres grossen Werks helfen muss. Diesen lernte ich gestern bei Dietrici kennen. Seine Muttersprache ist Hindustâni, aber mit ganz gleicher Fertigkeit spricht er Persisch und Arabisch und zwar nicht ein Vulgär- sondern das feinste Schriftarabisch.' Papers of Michael Jan de Goeje, Leiden University Library, BPL 2389.

[663] Note that both the four volumes of the *Results of a Scientific Mission to India and High Asia* and also Hermann's *Reisen in Indien und Hochasien* carry the years '1854-58' directly in their titles.

[664] After the death of Adolph in Kashgar in August 1857, his then enslaved companion Abdul was first forced to travel northward to Kokand, where he could buy his own freedom from his master. Subsequently, he took the long way back by travelling first through Khuchand and Samarkand to Bokhara, then to Balkh, Faizabad (the capital of Badakhstan), and then to Kabul in Afghanistan to Peshawar, which he reached on 15.12.1858. After his return, his extensive travel impressions in regions of increasing importance in the context of the smouldering Great Game were recorded by British colonial officials though a series of interview. See *Reisen*, 4, pp. 282-4.

Intrepid scholars – European or native-born – faced serious health risks during the expedition, which often led the groups through extremely inhospitable terrains. High altitudes, freezing temperatures and malnutrition characterised long stretches of their itineraries in 'High Asia'. The Indian plains, instead, caused problems of a different sort for the travellers who suffered from tropical diseases, heat, humidity and physical exhaustion. While the brothers enjoyed access to British hospitals and sanitary stations within EIC territory, such advantages of a colonial infrastructure were not available in the Himalayas and Turkistan. Yet, to secure a permanent attendance to those travellers who suffered from the distressing symptoms of altitude sickness, and for those who needed surgeries in the case of accidents in the mountains, the brothers formally engaged a 'Native Doctor' from the region of Kumaon in the central Himalayas who served the British in India in the rank of a sergeant.[665] Hence, besides the Christian assistant Lieutenant Adams, the Muslim Abdul, and the Jew Eleazar, the entourage now also welcomed a Brahman called Harkishen. Before Harkishen joined the Schlagintweits in April 1855, he was employed at a colonial hospital in Almora. John Russell Colvin, lieutenant-governor of the North-Western Provinces, personally recommended Harkishen to them, and temporarily released him from his position to join the expedition.[666] His presence was to be of great use to the advancing party, as he took over a number of crucial tasks in addition to those for which he was initially hired.[667] Harkishen's medical skills qualified him to oversee the various – and potentially poisonous – foodstuffs gathered along the way, while the members of the establishment duly followed *his* 'orders' with regard to all things nutrition.[668]

As the 'chief assistant' to Adolph and Robert, Harkishen was temporarily employed 'as superintendent of our plant-collectors'. What was more, since he 'could write, but not speak, English, [he] labelled, in Hindostani and English, our ethnographical collections' – which included at least a few thousand objects in the

[665] *Reisen*, I, p. 236 ('*Unteroffizier'*).
[666] *Reisen*, 2, p. 359, Colvin was here confused by the brothers with Sir James Colvile, since 1855 chief justice of British India, with whom the brothers were also in contact whilst in Asia..
[667] Arguably, it was Harkishen who saved Hermann's life during the exploration by undertaking a successful yet 'dangerous operation' to cut deep into his back to remove an abscess, which left untreated could have proved lethal to the German traveller; *Reisen*, 1, p. 256-57.
[668] *Reisen*, 2, p. 359 ('Vorschriften'). Indeed, the brothers stated in their 'practical hints' to travellers that the 'tindal, or patvari (the headmen of the kulis), should be made responsible' for overseeing the food supplies of the porters: 'natives, even those of Tibet, not being disposed to allow a European to inspect and examine their victuals'. This apparently marginal detail, however, proves again how cultural and social norms cemented the Schlagintweits' outsider status within their own establishment.

course of exploration from numerous regions.[669] At the same time, the physician was charged with managing a number of magnetic and meteorological observatories, which the brothers had installed along the way. One of them was erected in the city of Leh in 1856.[670] During his stay there, Harkishen also accomplished other tasks of some technical complexity, which clearly demanded a thorough scientific education. That is, Hermann mentioned the fact 'that our Native Doctor […] following my instructions, has produced a map of the city with a sextant and a prismatic compass on a scale of 1:1000.'[671] Known and praised by the brothers for 'his zeal and diligence in general, as well as by the accuracy of his observations', he soon became a key member of the entire operation.[672] Like several other assistants, he also continued his surveys after the departure of Hermann and Robert. He spent nine months, from June 1857 to March 1858, travelling on a separate route from that of Adolph through Tibet and the Himalaya where he made a series of observations 'deserving of all praise.'[673] It seems that for Harkishen, the expedition was only an intermezzo in his medical career: after the completion of his independent travels in the Himalayas, he returned to his former position at the hospital in Almora.[674] It is ultimately an unresolvable contradiction in the Schlagintweits' writings that the Brahman Harkishen received, on the one hand, frequent and open praise as an individual, while on the other hand they starkly condemned the moral corruption of the ruling caste of the 'Hindoo priests'.[675]

As we have seen, many of the assistants employed during the exploration had had previous experience of working in a colonial and administrative setting. Yet, none of these men were experts in a sense that they were employed to do a single circumscribed task. Instead, the considerable breadth of responsibilities that assistants such as Harkishen, Abdul or Eleazar took on was remarkable and testifies to their curiosity and special aptitude regarding all things scientific. Even though the Schlagintweits were keen to highlight their role as leaders and instructors, it is crucial to note the degree of independence and initiative demonstrated by their companions.

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[669] *Results*, 1, p. 37.
[670] Ibid.
[671] *Reisen*, 3, p. 278.
[672] *Results*, 1, p. 37.
[673] Ibid.
[674] 'Dr Harkishen, a Brahman now employed at the hospital at Almora, is a native doctor; he was, alternating with others, attached to our establishment during 2 years, traveling now with the one, then with the other of us three.' *Official Reports on the last Journeys and the Death of Adolphe Schlagintweit*, p. 3
[675] Robert Schlagintweit's lectures, Schlagintweitiana, V.2.2.1, pp. 57-58.

They were decisively more than simple 'human instruments', whose pace was calibrated for the purposes of providing accurate measurements for the Great Trigonometrical Survey and other large-scale colonial surveying projects.[676] In fact, there is little evidence that suggests that the Schlagintweits 'rigorously drilled' their assistants in the use of their bodies and certain instruments, so as to leave no space at all for their own creativity. Instead, it is the freedom and spontaneity with which the assistants contributed to the various fields of enquiry, which is perhaps the most striking characteristic about this expedition, and sets it apart from later examples of the use of *pundits* discussed by Kapil Raj and others.[677] The nature of the expedition required all those involved to broaden their horizons, learn new techniques and develop a wide range of methods previously unfamiliar to them. Not only the assistants, but also the brothers developed new skills and objectives during their voyage, as we will see regarding their ethnographic studies.

As regards the great diversity of peoples recruited during the course of the scheme, the Schlagintweits were also keen to tap into the expertise that merchants involved in the Central Asian caravan trade had to offer. Some of their closest companions and most valuable guides made a living as itinerant traders, and their intimate knowledge of the geography and commercial dynamism of the trans-Himalayan regions significantly shaped the routes and experiences of the whole undertaking. Jewish and Muslim traders belonged to separate trading communities and together were able to draw on a vast number of local helpers, informants, and suppliers to which the Schlagintweits as 'outsiders' in this world region would never have had access.

Among this group of guides was a Jewish merchant called Murad from Bokhara (in today's Uzbekistan), whom the brothers first encountered in Ladakh in 1856 (see fig. 5.17). Mutual trust seems to have been established fairly quickly between the travellers. In Ladakh, Murad provided the foreign travellers with 'many good instructions about routes in Central Asia', and 'proved to be a very credible and dependable man.'[678] After this initial encounter, Murad offered his services for Adolph's final excursion into Turkistan in 1857, and was subsequently enlisted as the 'second caravan leader' for the undertaking. The brothers were acutely aware of the

[676] The training of Indian *Pundits* for the comprehensive charting of Central Asia in the decades following the Schlagintweit mission is described in Raj, *Relocating Modern Science*, pp. 181-222.
[677] Ibid.
[678] *Reisen*, 4, p. 222.

precious topographical knowledge that Murad possessed, since 'he had in his role as caravan leader, and as a fur and silk merchant, already crossed this region [of Chinese Turkistan] a couple of times.'[679]

Fig. 5.17 Murad, a Jewish caravan trader in Turkistan, was one of the companions of Adolph's last journey; source and copyright: State Graphic Collection, Munich.

Given the importance of his support and the particular dangers he faced in accompanying European travellers, Murad was in a strong position for negotiating his salary.[680] As was clear to all parties involved, the brothers needed the support and guidance of men like this Jewish merchant much more than the other way around.[681] Yet, even more than from Murad, the brothers also profited immensely from the expertise and contacts of another caravan trader in Central Asia, who above all other persons was mostly responsible for the most important 'discoveries' of the

[679] Ibid.
[680] E.g. *Reisen*, 2, p. 322.
[681] See esp. *Results*, 3, p. 17, on the fact that the leaders of strictly 'secret' expeditions were rightly 'entitled to a high reward; for the personal risks and danger they incur in such expeditions is very great.' This was also argued by Hugh Raffles in his work on the role of indigenous assistants for Amazonian exploration, *In Amazonia: A Natural History* (Princeton, 2002); on the changing roles, see Driver, 'Hidden histories made visible', p. 9.

Schlagintweits: the already introduced Muslim merchant from Yarkand, Mohammad Amin (fig. 5.18).

Fig. 5.18 Mohammad Amin, Muslim merchant and main leader of all three Schlagintweits into Turkistan. Painted by one of the assistants of the brothers (anonymous); source and copyright: State Graphic Collection (Munich).

The brothers' initial mistrust – we may recall their first night-time encounter – soon gave way to 'a greater liking of our chief guide'.[682] To their delight and reassurance, '[i]t constantly became more distinctly apparent that he had travelled about in Central Asia more and oftener than perhaps any other individual'. He knew

[682] This and the following from Schlagintweitiana, V.2.2.2., p. 113f.

about many abandoned roads 'the existence of which probably only few persons were aware, for this knowledge is handed down from father to son as a family secret.'

This orally transmitted knowledge about the trade arteries and alternative paths through Central Asia proved to be the key to the brothers' success. During joint expeditions into Turkistan, the Schlagintweits noted that they initially proceeded on 'the great and much frequented caravan road between Leh and Yarkand', which was plastered with 'skeletons of beasts of burden' (see fig. 5.19). Because the moving party sought to avoid any encounters with caravans in the Chinese-controlled country, they soon, however, left the main road, and 'Amin conducted us along a road running east-south-eastwards, and which was only known to smugglers.'[683]

Fig. 5.19 'The Valley of Yarkand river downwards from Dera Bullu, in Turkistan', watercolour by Hermann Schlagintweit, August 1856; elevation of the painted river: 16,883 Engl. ft., *Atlas*, No. 17. The view is taken after the crossing of the Karakorum Pass.

Even though the circumstances of his earlier life remain somewhat obscure, it is certain that Amin had previously frequented the Chinese territories in Central Asia as an itinerant merchant. However, his smuggling activities, which extended up to the Russian borders in the north, and apparently a range of smaller offences he had committed over the past decades, had incurred the disapproval of the Chinese authorities. During an interview with British colonial officials, the 'Native Doctor' Harkishen even claimed that Mohammed Amin was imprisoned when the brothers

[683] Schlagintweitiana, V.2.2.2., p. 99.

first took him into their service.[684] For Harkishen it was clear that Amin had been a criminal, 'a person of questionable antecedents', who had 'acted in the capacity of a gangrobber' on the road between Yarkand and Leh.[685] According to Harkishen, the fact that Amin had accumulated personal debts had led to his temporary imprisonment.[686] Of course, we do not know to what extent Harkishen's account might have been driven by personal animosities between the two men. It is certainly possible. The Schlagintweits themselves stressed that a 'cordial reception [was] everywhere given' to Amin, which 'plainly showed that amongst his countrymen he was a well known personage, and considered as a man of great respectability and influence.'[687]

Whatever his past offenses, Amin's future was certainly altered in the summer of 1856 when he had deceived the guard of honour of the governor in Leh, and had secretly guided two of the brothers into Turkistan. According to a fellow traveller, who had spent several months in the company of Amin:

> 'Some say that the Agents of the Chinese Government in Yarkand having heard of his bringing European travellers across their frontier (which is high treason in their Code) offered a reward of 1000 Rupis for his apprehension […]. Gulab Singh […] ordered his arrest and threatened to hang him soon after the Schlagintweit's [...] departure.' [688]

Since there was now a price on Amin's head and he was regarded as an enemy by the Chinese, he 'fled from Ladak into Kulu, where Adolph S. found him, at Sultanupur, in April 1857.'[689] Previously, both travellers had come to an agreement in writing, with which Adolph had secured the services of Amin as his official 'translator, leader, and baggage supervisor' for his ambitious route across the Karakorum and Kunlun mountain chains to Yarkand.[690] Amin's importance in this scheme was reflected in his high salary, since 'he was to have a monthly salary of 2000 Rupis whilst traveling with A. S., and a monthly pension of 1000 Rupis after he

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[684] *Official Reports on the last Journeys*, pp. 3-4.
[685] Ibid., p. 3.
[686] Ibid.; also Robert Johnson, *Spying for empire: the Great Game in Central and South Asia, 1757-1947* (London, 2006), p. 102.
[687] *Results*, 1, p. 39. Since Hermann felt a close affinity to M. Amin, he later tried to downplay the defamatory statements made by other travel companions about the Yarkandi merchant; see *Reisen*, 4, p. 222.
[688] *Official Reports on the last Journeys*, p. 3.
[689] Ibid.
[690] Ibid.

had brought him back safe to India.'[691] This generous remuneration must, however, be seen in relation to the great dangers that he took upon himself in guiding them once more into Chinese Turkistan.

In the end, this journey proved fatal for Adolph Schlagintweit and a number of his companions, as the expedition became entangled in the turmoil of a local rebellion in Kashgar, led by the Muslim warlord Wali Khan in the summer of 1857. Their explorations also coincided with the outbreak of the great Indian Uprising in May of that year, which shook the Company rule in the northern Indian provinces to its core. It seems that at first Adolph had only planned to complement his brothers' observations in Central Asia, and to cross the Kunlun again taking a different route. The plan was then to return, like his two brothers had done before him, via steamer from Calcutta to Europe.[692]

Perhaps the news of the violent conflict in northern India had reached Adolph's travelling party, leading to their decision to travel via Kashgar further on in a northern direction into Russian territories, from where they could hope to travel overland to Europe. It is also possible that the independent revolts that took place in Chinese Turkistan at the time were responsible for their change of plans.[693] In any case, the outcome was disastrous. The town of Kashgar was an important nodal point for the trans-regional trade in Central Asia on the ancient Silk Roads[694], which for centuries had linked the Chinese Empire in the east to the Levant in the West.[695] Given Kashgar's geostrategic importance, violent conflicts regularly flared up in the region between Muslim clans with old claims to the city and the now-ruling Chinese military. When Adolph and his entourage pushed forward into the region, Kashgar had already been conquered, and Wali Khan had established a short-lived but brutal reign.

Since the German scholar was travelling with official letters of protection issued by the Indian colonial government and a number of instruments and scientific

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[691] These figures were given by the doctor Harkishen, who was present during the journey, see ibid.
[692] See Schlagintweit, 'Aperçu sommaire des résultats de la Mission scientifique dans l'Inde et la Asie', *Extrait des Comptes rendus des séances de l'Académie des sciences*, 45 (Paris), 12.10.1857, pp. 1-7.
[693] This was usually assumed, see Hermann Wagener, 'Schlagintweit', in idem (ed.), *Staats- und Gesellschafts-Lexikon: neues Conversations-Lexikon*, 18 (Berlin, 1865), pp. 260-4, 263.
[694] This term was coined by the German traveller to China, Ferdinand von Richthofen, later president of the Berlin Geographical Society, and an influential administrator of international geographical collaboration.
[695] Wood, *The Silk Road*.

notes in European languages, he was quickly identified as a British spy.[696] Without trial, Adolph was sentenced to death and beheaded in front of the gates to the city. Many of his assistants did not fare much better, even if only his death is usually remembered. A Tibetan companion, who was considered Chinese by Khan's followers, was murdered immediately – arguably because of the charge of high treason, while three other companions were thrown into dark prison holes.[697]

The fate of the entire establishment was now desperately precarious. A few days after Adolph's murder, 'Murad, the Israelite, converted to Islam, to save his life'. Thereupon he spent the following weeks as Mohammad Amin's cellmate.[698] Another of Adolph's assistants, Abdul, 'was kept apart, "because he was of Indian origin", and was sold into slavery on the first occasion' for 25 rupees to a Yarkandi. After more than 30 days in prison, during which two of Amin's servants died, the few survivors of the group were released, and managed to escape the city amidst the turmoil during the Chinese re-conquest of Kashgar.[699] However, instead of immediately leaving the embattled area for good, Amin hid himself for eight months in places between Kashgar and Kokand. While doing so, he expressed his motivation and reflections during this dangerous situation in over twenty letters that he addressed with an increasingly accusatory tone to the British colonial authorities.

What Amin was after were 'some written instructions' on the issue of how he should react to the death of his 'master' – and the multiple deaths that had affected the travelling party. Amin angrily noted that 'he has sent twenty two reports up until now addressed to the honourable government but has not had the honour of having a response to even one of them', and thus openly reproached the British officials for their perceived apathy in pursuing the matter:

> 'I am unsure as to […] why the circumstances of the death of the victim [A. Schlagintweit] are being ignored and not being enquired about. Even if I am not trusted any longer or my services are not useful, that man was killed and was a patriot who wholeheartedly sacrificed his life for the good of his

[696] Emil Schlagintweit, 'Bericht über das Denkmal', p. 465.
[697] This and the following quoted from, *Reisen*, 4, pp. 282-84.
[698] Ibid. ['[…] war Murad, der Israelite, um das Leben sich zu sichern, zum Islam übergetreten, und man ließ ihn dann für die nächste Zeit Mohammad Amin's Gefährte im Kerker sein'].
[699] Hermann refers to '35 days' spent in prison; *Reisen*, 4, p. 283.

> government and compatriots […] so why are they ignoring him? In return for his sacrifice the least that can be done is to ask about him.'[700]

In his pursuit of the matter, Mohammed Amin had traded his last possessions for information about the whereabouts of Adolph's human remains and notes. Now, completely impoverished, he also had to master his own destiny. As he wrote in 'pain and sadness', Adolph's death represented more than the loss of an intimate friend; he was now also without 'a patron and without any work.'[701] While he had previously traded in goods, Amin's greatest capital was now his valuable knowledge: knowledge about the circumstances of the foreign traveller's assassination, but also his invaluable insights into numerous unknown trading and marching routes in Central Asia, from Afghanistan up to the Russian border – unknown routes at least for the British. However precarious Amin's personal lot seemed to be, he could nonetheless hope to play his cards to his own benefit, making effective use of his position in-between different and rivalling empires in this contested world region.[702]

Amin's decision to lead the Schlagintweits' into Turkistan had been a far-reaching one, which made it impossible for him ever to return to his former life as a caravan trader. He therefore sought an alternative source of income, and after the Indian Mutiny and Rebellion had been crushed by force, he enlisted himself as an informant into the services of the British Empire. This move meant more than turning knowledge into income, because he thus also obtained protection from persecution by the Chinese authorities, which still sought to hold him accountable for his betrayal.[703]

Amin sought protection from Lord William Hay, the British Resident in Shimla, who later sent out – probably following Amin's advice – a number of search expeditions to investigate the details of Adolph's fate. The concerted efforts by colonial officials and Adolph's former travel companion ultimately led to the recovery of the traveller's last notes and sketches. From Amin's perspective, his

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[700] The Persian letter by Amin, 11.9.1860, is reprinted in Arthur Grote, 'Minutes of Proceedings, December 1860', *Journal of Asiatic Society of Bengal*, 29 (1861), pp. 440-53, 444–446; I thank Ali Khan, Cambridge, for the translation.

[701] Ibid.

[702] See for the opportunities awaiting such Muslim 'outcasts' caught between various great powers in Asia the fascinating work by Seema Alavi, 'Fugitive Mullahs and Outlawed Fanatics': Indian Muslims in nineteenth century trans-Asiatic Imperial Rivalries', *Modern Asian Studies*, 45 (2011), pp. 1337-1382.

[703]: 'Mohammad Amin was obliged to go for protection to Lord William Hay to be safe from Gulab Singhs [sic] prosecution'; 'Verbal statement given by the Kashmiri Abdullah [Abdul] an attendant on Mr Adolphe Schlagintweit', in *Official Reports on the last Journeys,* p. 11.

participation in the Schlagintweit expedition had thus been both a curse and a blessing: after open threats to his life, he ultimately settled in the Punjab, and received 'the rank of a "station agent"' in the colonial service. 'As such, he had to provide accounts about the transport conditions and about the social and political circumstances of the inhabitants in the north-western Indian provinces and the neighbouring countries' in Central Asia.[704]

How valuable Amin's services were for British interests was reflected in a flood of reports and cartographic works based entirely on information he had gathered, which provided useful knowledge on those regions in which the so-called Great Game between India, Afghanistan, Kashgaria and Russia was played out. An important example is the widely-quoted *Punjab Trade Report*, which was published by the colonial official R. H. Davies under the supervision of the famous Sir Robert Montgomery, Lieutenant Governor of the Punjab. The report's explicit goal was:

> '[T]o bring into one view the principal facts which have been recorded by former travellers, or are now derivable from other sources, concerning the trade and resources of the countries beyond the north-western boundary of British India, with the object of furnishing information auxiliary to the future improvement of the existing intercourse between them and our own territories.'[705]

As was stated in its preface, '[t]he aid rendered in the compilation of the report […] by *Mahomed Amin*, a native of Yarkand, deserves to be prominently acknowledged.'[706] The reason was that Amin's insider knowledge greatly enriched the British colonial archives. Amin meticulously described the accessibility of different high mountain passes in Central Asia – and this during different seasons (see map 5.1).

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[704] *Reisen*, 4, p. 284; ['Er hatte als solcher Bericht zu erstatten über die Verhältnisse des Verkehres und über die social-politische Stimmung der Bewohner in den nordindischen Provinzen und ihren Nachbarländern'].
[705] Davies, *Punjab Trade Report*, 1862, 'Preface'.
[706] Ibid. The Schlagintweits also printed a number of route descriptions by Amin, which were then entirely unknown in Europe: 'For completing the routes in Central Asia, we annex a very interesting route which was traversed by Mohammad Amin (our chief guide during our travels in Turkistan) in the summer of 1855, from Osh to Tashkent, the most northern military frontier post of Kokand, on the Russian frontier.' *Results*, 1, p. 35.

Map 5.1 'Rough sketch of caravan routes through the Pamir steppes and Yarkund / from information collected from Mahomed Ameen Yarkundi, late guide to Messrs. De Schlagintweit', source: Robert Montgomery, *Maps accompanying report on the trade and resources of the countries on the north western boundary of British India* (Lahore, Government Press, 1862), No IV; copyright: Cambridge University Library, OP.3282.382.1-2.

To be sure, the information Amin submitted to his new masters greatly extended the limited experiences gained during his former travels with the Schlagintweits: they were rather the result of a lifetime spent as a travelling merchant in those areas. This also accounts for the fact that Mohammed Amin was so intimately acquainted with the political organisation of the Chinese rule in Turkistan. He was able to enumerate the precise number of Chinese guards at specific nodal points, and even knew the extent of the troop force in the re-conquered Kashgar.[707] His expertise was also expressed in detailed accounts on a broad array of trade products and natural resources and their levels of demand in different regions – ranging from silk to jade, wheat, opium, salt and tea.[708] It is highly likely that the brothers gleaned a significant amount of their colonial knowledge from their interaction with Amin; in many cases, the latter's proposals overlapped with those colonising and settlement schemes the

[707] This and the following account is based on Davies, *Punjab Trade Report.*
[708] Ibid.

brothers were eager to present to a special 'Select Committee on Colonisation and Settlement in India' of the British Parliament in 1858 – for which they gained widespread recognition, while Amin was never credited by metropolitan authorities for his important service to the empire's cause.[709]

To complement his earlier journeys, under British orders Amin undertook a number of further excursions into the frontier regions of colonial India, where the inter-imperial rivalries attracted ever more international attention in the second half of the nineteenth century.[710] It is perhaps of symbolic importance about the even further-reaching and arguably more important travels of some of the Schlagintweits' assistants – when compared with the brothers' own itineraries – that Mohammed Amin died in the Himalayas 'in the spring of 1870, when he returned from Leh to the Punjab', losing 'his life because of an avalanche, not far away from the milder regions of the foothills'. He had literally explored the border regions of the British Empire in South Asia until his last step.[711]

In view of this multitude of different actors, it would be absurd to assume that all members of the 'Schlagintweit expedition' shared the same motivation. Instead of buying into illusions about a purportedly common purpose of all expedition members, we can better understand the complexity of such a scheme if we account for the fact that the undertaking meant very different things for those involved. While some joined the scheme to support their relatives back home[712], others only used it as a paid opportunity to relocate from one place to another, to escape from food shortages or regional conflicts in their homeland. Others, again, sought to satisfy their own intellectual curiosity to travel, measure, and explore. Finally, a few assistants used

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[709] Numerous British and Indian newspapers and journals reprinted their imperial schemes, some of which were later pursued; see e.g. *The Economist*, 24, 14.5.1859, p. 539, on the Schlagintweit's testimony to the British Parliament: 'Before the Colonisation Committee, they [the Brothers Schlagintweit and Dr Hooker] stated unhesitantly that tea could be grown all along the lower range of the Himalayas from the Indus to the Bramakoond, a distance of more than 1,300 miles, and that the tea was of an excellent quality.' Also anon., 'The Resources of India and its Colonization', *The Universal Review*, 1 (London, 1859), pp. 343-62, esp. 357-59: 'When we reflect upon the vast consumption of tea in our own country and in America [...] we shall be able to make a just estimate of the value and importance of our Indian territories, which, as time advances, will be able to supply the increasing wants of the world', citing explicitly the Schlagintweits' account as evidence; as in Edward Balfour, *The Second Supplement, with Index, to the Cyclopaedia of India and of Southern Asia, Commercial, Industrial and Scientific: Products of the Mineral, Vegetable and Animal Kingdoms, Useful Arts and Manufactures* (Madras, 1862), 'Himalaya', pp. 254-57. Against Finkelstein, '"Conquerors of the Künlün"?', p. 200.

[710] *Reisen*, 4, p. 284; also Schlagintweitiana, V.2.2.2, pp. 55-56.

[711] *Reisen*, 4, p. 284.

[712] *Reisen*, 1, p. 91.

(and perhaps anticipated) the 'Schlagintweit expedition' as a veritable training ground to acquire precious skills and expertise, which they could subsequently put to use for making a career within the British imperial establishment. In doing so, some would ultimately outperform the brothers in every regard: the importance of their discoveries, the length of their service for the empire's cause, and the degree of fame they achieved in both the British Raj and in front of Britain's public sphere.

A fragile 'information order'

As Mohammad Amin's imperial career demonstrated, knowledge was a key resource in the struggle over markets, natural treasures, and political might in Central Asia.[713] Knowledge was also one of the most capricious commodities to handle for statesmen, bureaucrats, colonial officials, travellers and others whose decisions were based on their access to up-to-date political, social and military intelligence. Indigenous intermediaries provided Europeans with an opportunity to tap into India's 'autonomous networks of social communicators', who spread news, gossip and rumours from one region to another.[714] Yet, the knowledge gained in this way was open to much interpretation and misinterpretation, making it a vulnerable asset for those who had to rely on it.

Basic knowledge about the conditions of roads, the languages spoken, and the patterns of trade in a particular Indian region was impossible to obtain without access to reliable informants and some first-hand experience. In the early stages of British explorations in Central Asia since the late eighteenth century, officers and intrepid diplomats were understandably keen to obtain a better grasp of the directions of rivers, routes and mountain chains in that area. Indigenous rulers, in return, had become increasingly eager to impede and cloud western knowledge of their territories, often seeking to limit the freedom to travel for Europeans, or simply by providing false statements on the physical geography of their possessions themselves.[715]

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[713] A classical theme in the colonial historiography. See, inter alia, Richard D. Brown, *Knowledge is Power: The Diffusion of Information in America, 1700-1865* (New York, 1989); Richard Drayton, *Nature's Government: Science, Imperial Britain, and the 'Improvement' of the World* (New Haven, 2000); idem, 'Knowledge and Empire'.
[714] Bayly, *Empire and Information*, p. 2.
[715] Withers provides some telling examples on this point, 'On Enlightenment's Margins'.

This tension between the 'opening up' and the closing down of channels of information was also a major concern for the Schlagintweits. The brothers' mostly relied on contacts and communications with members of their own establishment, since their fleeting interaction with Europeans and non-Europeans along the course of exploration set limits on their direct access to information. They were mostly confronted with rumours and ideas that reached them via a chain of intermediaries. Thus, the need for distinguishing between reliable and misguided information became imperative to their work and safety. Their personal scientific reputation in British India and in Europe would also depend on this distinction, in no small measure.

In the following, we will therefore explore the difficult circumstances under which the brothers tried to accumulate and produce new knowledge about the regions they traversed – especially beyond the borders of British India. The concept that seems most suitable for bringing together their attempts to access, control and use indigenous knowledge as well as the barriers and failures that accompanied this process, is that of a fragile 'information order'. The term 'information order' was originally developed in the work of the sociologist Manuel Castells, but has since been adopted for historical studies by Christopher Bayly in his important study on *Empire and Information* in South Asia. Therein, Bayly showed that colonial state building in South Asia in the long nineteenth century was inextricably linked to the possession of intelligence gained through intimate relations and strategic alliances with influential knowledge brokers.[716] In his reading, early modern India was characterised by a decentralised information order 'consisting of many overlapping groups of knowledge-rich communities'.[717] The key challenge of the ruling elite was to secure access to the highly diverse knowledge of those communities and to learn about local opposition and transgressions of norms: accessing the information order was recognised by the Mughals and later the British as a 'vital dimension of the science of kingship'.[718]

What is particularly useful about Bayly's work is that he demonstrates clearly how British expansion in South Asia was dependent upon the appropriation of indigenous communication networks. EIC officials were at pains to win over the

[716] Manuel Castells, *The Informational City: Information Technology, Economic Restructuring, and the Urban-Regional Process* (Oxford, 1989). The concept of an 'information' or 'knowledge order' has recently been taken up in other works, too, see e.g. Tony Ballantyne, *Webs of Empire*: *Locating New Zealand's Colonial Past* (Vancouver, 2014).
[717] Bayly, *Empire and Information,* p. 5.
[718] Ibid., p. 10.

services of those Indian knowledge brokers (*munshis*, messengers, news-writers, spies, postal runners, and informal agents including mystics, astrologers, midwives, physicians, and barbers) whose services had been indispensable already in earlier times.[719] Bayly convincingly argues that the retreat of the British in the nineteenth century from those intimate relations with Indians, 'as well as the stricter policing of sexual relationships between East India Company officials and local women increasingly cut British administrators off from Indian social life.'[720] This shift in policy resulted in the loss of crucial sources of 'information about commercial developments, strategic priorities, and the dispositions of influential local magnates and moneymen' – leading ultimately to the catastrophe of the unforeseen Indian Uprising in 1857.[721]

Here, I seek to develop this framework further by looking not at the 'information order' of British India as such, but rather more modestly by using it to understand the flow of information within the social configuration of the Schlagintweit 'establishment'. The concept can also help to throw light on the fragile structures and strategies that the brothers used to relate to the unfamiliar world around them.[722] As we have seen earlier on in this chapter, the knowledge gathering of the expedition party heavily depended on the information channels and private and professional networks of their hired porters, guards, guides and translators. This, in turn, made the European travellers vulnerable and often reliant upon mere strangers – within and outside of their own entourage – with whom they could furthermore not even communicate in a shared language about the countries they traversed. Despite these obvious constraints, it is argued that it was the establishment that formed the most important frame of reference for the brothers' experiences, scientific results and understanding of the regions they travelled through.

In a sense, 'the moving colony' of the expedition party formed a – surely incomplete – 'microcosm' of different Asian regions, due to the constant influx of a

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[719] Ibid., p. 54.
[720] Tony Ballantyne, 'Strategic Intimacies: Knowledge and Colonization in Southern New Zealand', *Journal of New Zealand Studies*, 14 (2013), pp. 4-18, pp. 4-5.
[721] Scrutator (pseudonym), *The Indian Mutiny* (London, 1857): 'Sudden as the lightning, unexpected as the thunderbolt, this disaster came upon the nation', p. 6; Tony Ballantyne, 'Strategic intimacies', p. 5; Bayly, *Empire and Information*.
[722] Another crucial parallel between the emerging East India Company's information order and the one that shaped the travels of the European travellers is that in both cases, acquired information through personal observation or external testimony was not always adequately processed, but could be misunderstood, leading to false conclusions.

number of local helpers and assistants. Crucially, the latter were not only important sources of indigenous knowledge for the brothers: they gradually turned into 'objects of study' themselves. This is precisely what was captured in Hermann's description of their entourage as resembling 'an ethnographic museum of living specimens'. In this 'museum', the brothers sought to be integrated parts *and* external observers at the same time. Their aim in studying the behaviour, worldview, and social and religious practices of the heterogeneous group of companions was ultimately to gain insights into the highly complex and diverse societies and 'races' of Asia. In other words, the Schlagintweits' perceptions of the ethnographic diversity and socio-cultural traditions of the inhabitants of the many traversed regions were based to a significant extent on their actual experiences with the servants, collectors and assistants who attended them. Yet, as a number of significant misunderstandings and crude statements demonstrate, the brothers pursued their ethnological and cultural historical studies on a strikingly thin empirical basis – signifying how fragile their access to reliable information turned out to be.

While almost incessantly 'on the move', the brothers hardly ever had the opportunity gain a deeper familiarity with the multiple Indian cultures they encountered. That limitation, to be sure, did not prevent them from writing about ethnographic questions. In short, they had no access to what Bayly called 'affective knowledge', that is 'knowledge gained through participation in communities of belief and marriage, through religious affiliation and association', which all required longstanding intimacy and contact with the same community.[723] This deficiency of the intrepid travellers in their cultural contacts may go a long way in explaining their 'cultural blindness'. In fact, the ethnographic theories that the three brothers came to develop were poorly received and none of them had any lasting impact on Asian ethnology. Rather, the scholars – equipped with their notebooks, photographic cameras, rulers and plaster for facial masks – were merely able to provide data which sedentary specialists in Europe treated as mere raw materials for their own synthesising analyses.[724]

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[723] Bayly, *Empire and Information*, p. 17.

[724] Schlagintweit data was used, for instance, in Oscar Peschels, *Völkerkunde*, 2. Aufl. (Leipzig, 1875; 1885 in its 6th ed.); Friedrich Ratzel, *The History of Mankind*, transl. by A. J. Butler, Vol. III (London, 1898), p. 364; 518; Armand de Quatrefages and Ernest T. Hamy, *Les crânes des races humaines*, II Vols. (Paris, 1876-82). To be sure, Emil Schlagintweit who did compile significant treaties on High Asian religions and cultures was only able to do so by working extensively with translations of the Tibetan manuscripts that his brothers had acquired without being able to analyse their own material.

The validation of information was one of the brothers' biggest challenges and a major weakness of their work. Contemporaries such as Brian Houghton Hodgson, who worked and lived in Darjeeling for many years, warned their travelling colleagues that studying a region only in passing carried with it the risk of dilettantism.[725] Given their ambitious itinerary, the brothers were caught in a dilemma: on the one hand, while they were already distrustful of their own establishment, fearing deserters and treason 'from within', they were even more suspicious of strangers with whom they frequently crossed paths.[726] On the other hand, in order to widen their knowledge base they were obliged to draw on often unverified accounts by a series of strangers, whose oral testimony (for want of a better alternative) had to be accepted as an important, complementary source of information – however great their distrust was of the authority of such 'native' accounts. Perhaps to offset the lack of 'rational tools' to test the information provided, the Schlagintweits sought to establish strategic, even affective ties with their entourage, as well as persons encountered by chance.[727] 'Strategic intimacy', to borrow a concept advanced by the historian Tony Ballantyne, is a vital element of knowledge production in the context of exploration and cultural encounters more generally, but it might also be understood as a psychological device that helped travellers to cope with their anxieties by choosing a number of people whom they would trust without reserve.[728]

A telling example for how affective bonds could be established regards the 'political agent and representative' of the Rajah of Sikkim, Chibu Lama, whom Hermann Schlagintweit learnt to appreciate as a trustworthy informant during several stays in the kingdom. Chibu Lame lived in Tumlong near the Chogyal's palace and he clearly, recognising the future implications of the imprisonment of the travellers

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[725] Hodgson prevented J. D. Hooker from drawing flawed scientific conclusions based on only a superficial knowledge of ethnographic matters, which would have lastingly shaped Hooker's reputation; see Arnold, 'Hodgson, Hooker and the Himalayan frontier'. For his essential advice on scientific matters, Hooker in turned named a flower in honour of his friend, the *Hodgsonia heteroclite.*

[726] To be sure, the figure of the treacherous deserter was also a literary trope in 19th-century expedition accounts, adding further nuance to the cast of characters of a gripping (hi-)story of exploration. Yet, the brothers *did* maintain an uneasy relation, often fraught with distrust, with many of their non-European associates; see e.g. the case of Shahzada, who was said have abandoned Adolph during his darkest times in Turkistan, shortly before disaster struck, *Reisen*, 4, pp. 220-24.

[727] At the same time, it should be noted that ties that were initially strategic could turn into genuine bonds, as was the case with Mohammad Amin and Chibu Lama; both types of relationships were thus not mutually exclusive.

[728] Ballantyne developed this concept for his studies on the cultural encounters between Maori princes and British travellers in New Zealand, idem, 'Strategic intimacies'.

Joseph Hooker and Archibald Campbell, made a personal decision to align himself with the British by befriending them and playing a critical role in their rescue.[729] As a result, he was given a valuable estate by the British and was recommended to the brothers by Hodgson and Campbell.[730] He is still considered a traitor by some Sikkimese today for his service to the British cause, capturing the precarious situation in which some of the brothers' informants found themselves.[731] Hermann, at least, clearly profited from his intelligence:

> 'Among the natives of Darjeeling, Chibu Lama emerged as an important contact for me […] I must gratefully acknowledge the fact that […] he was always willing to engage in conversations about religious and ethnographic matters, but also about mountain designations and topographical details.'[732]

[729] See his entry in the *Dictionary of Indian Biography*, p. 81. Hooker called Chibu ('Tchebu') Lama their 'ally', see his letters in Leonard Huxley, *Life and Letters of Sir Joseph Dalton Hooker*, Vol. I (London, 1918), ch. XV: 'Captivity and release', pp. 306ff.
[730] *Results*, 3, p. 138.
[731] I thank Emma Martin, Liverpool, for this information.
[732] *Reisen*, 2, pp. 187-88.

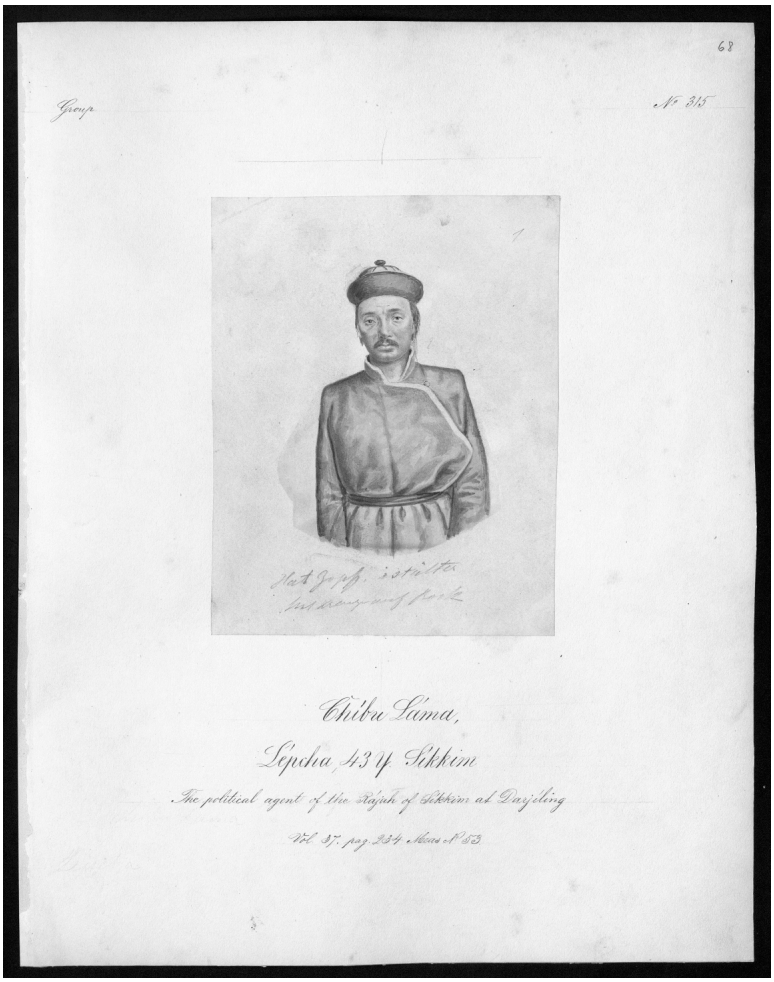

Fig. 5.20 Chibu Lama, Lepcha, 43 years, Sikkim, 'The political agent of the Rajah of Sikkim at Darjeling', modified photograph, source and copyright: BSB Schlagintweitiana IV.2.68.

Chibu Lama's social rank, scientific curiosity, and learning qualified him for a closer exchange and, perhaps more importantly, the trust of the brothers (fig. 5.20). Hermann noted that his 'permanent stay in the huge mountainous country' had led the political agent to carefully study 'stones, geological layers and mountain shapes', allowing the German travellers to discuss finer scientific 'distinctions with him'. In a passage that clearly sought to convince his European readers of Chibu Lama's expertise, Herman maintained that by means of 'comparative studies' he was able to establish that his information 'proved true'.[733] While he thus indirectly acknowledged the Sikkimese's superior knowledge of the area, Hermann even stated that he came to enjoy ever more 'instructive conversations' with the indigenous diplomat-scholar, 'the more *I was able* to judge specific issues with any detail myself.'[734] Perhaps in response to this unsettling experience of inferiority, Hermann was yet immediately

[733] Ibid, pp. 177-178.
[734] Ibid. p. 189, emphasis mine.

eager in his writings to ridicule some of Chibu Lama's views of physical phenomena, not least to re-establish his own authority in front of his readerships.[735]

An important pillar for establishing and maintaining strategic intimacies was the exchange of material objects.[736] While Chibu Lama was responsible for acquiring a set of otherwise inaccessible religious artefacts and manuscripts from Tibet, he received, in return, an acknowledgement of these good services and was given a choice between different objects of European provenance that Hermann had brought on purpose.'[737] 'Among other things, [Chibu Lama] chose a sun-watch, a compass, and a drawing set, with which I was well equipped in terms of quantity and quality for similar cases.'[738]

While the literature on strategic intimacies is certainly useful for discussing the complexity of social relations that emerged in the 'field', there has been a problematic tendency of late that undermines the laudable aim of the concept to break free from simplistic confrontations between the coloniser and the colonised. Because what has not been abandoned is the basic assumption that only the itinerant Europeans were eager to form such ties, and that non-Europeans represented manipulated and to some degree powerless actors in the encounter. In the brothers' case, this was certainly not true. It is significant to remember that the Schlagintweits were travelling as agents of the British Empire, and were perceived precisely as such by their companions and also by indigenous rulers. This fact led non-European actors to establish strategic ties with the foreign travellers themselves. In doing so, the brothers' informants, and also a number of fleeting acquaintances pursued their own distinct interests. To take perhaps the most striking example of the expedition, some indigenous *savants* actively sought to nurture their ties with the brothers in order to confuse European stores of knowledge about their home countries – and this to such an extent that future plans of invasion by western powers were to be defeated.

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[735] See on the relationship between European identity, memories of explorations and the construction of alterity, Johannes Fabian, 'Remembering the Other: Knowledge and Recognition in the Exploration of Central Africa', *Critical Inquiry*, 26 (1999), pp. 49-69.

[736] See on the multiple functions of the exchange of material objects, including both scientific artefacts and in establishing relationships: Nicholas Thomas, *Entangled Objects: Exchange, Material Culture, and Colonialism in the Pacific* (Cambridge, Mass., 1991).

[737] *Reisen*, 2, p. 189. On Emil Schlagintweit's acknowledgement of Chibu Lama as an important informant for his work, idem, *Buddhism in Tibet* (Leipzig and London, 1863), pp. viii-ix.

[738] The brothers occasionally also gifted other precious items, such as their 'double-barrelled gun', when they, for instance, 'had to make donations to several official persons' in Leh, *Results*, 3, p. 20.

Such an episode occurred with Robert Schlagintweit during his stay in Leh. Amongst the numerous strangers Robert met, there 'was one distinguished personage, whom nobody ventured to approach but with awe and reverence, and only with the observation of great ceremony' – a high Chinese Buddhist priest. His superior, the Dalai Lama, had sent the Lama to examine Buddhist monasteries in Western Tibet, and to compile reports concerning their condition. The odd couple of the European traveller and the Lama became closer acquainted in a series of meetings, until the spiritual leader invited Robert into his quarters. There, he received him with an exquisite dinner served on the finest porcelain, and entertained him with insightful conversation.[739] The European traveller, in turn, could not withstand the temptation to enquire about the (then still imperfectly known) route from Leh to Peking, the seat of the Chinese Government. After the Opium Wars, led by a coalition of western powers, had violently opened the Chinese coast and pockets of its hinterland to international trade, the greatest parts of China's interior remained still unknown to them. Now, after a long discussion of 'the social life and many of the most remarkable manners and customs of the Chinese', their conversation shifted to more sensitive terrain:

> '[W]e very soon came to speak upon political affairs, upon China's greatness and extent, upon her magnificent trade, and upon the manifold variety and inexhaustibleness of her countless products. In the course of conversation I could not repress my astonishment that to us Europeans, China Proper herself was kept so closed and made so inaccessible. Then *the Lama offered*, and I accepted his offer with most sincere thankfulness, to give me in writing the whole route from Pekin to Leh; a route, which up to the present time was, as regards its details, as good as unknown, and concerning which, information had decidedly a high value.'[740]

A few weeks later, Robert did receive a 'bulky manuscript written' in the Lama's own hand.[741] Yet, when Hermann and Robert started to decipher the text and the route it described, it became clear to the traveller that, in his view at least, 'the Lama, deeply penetrated by the justice of the perfidious policy of his government had intentionally attempted to deceive me.' As it turned out, the entire 'itinerary, from beginning to end, proved to be a fabrication, that was certainly contrived with

[739] On the episode, Schlagintweitiana, V.2.2.2, pp. 29ff.
[740] Ibid., emphasis mine.
[741] Ibid., pp. 33-34.

sufficient cunning.'[742] In other words, the Lama had invented a route from the place of their meeting to the seat of the Chinese government. He had been so ingenious as to use real names of places from within China to make his attempted deception more convincing. For the same purpose, the first three days of the proposed itinerary were given accurately, as the first legs of the route were much easier to verify by the foreign agents. The rest of the route described was nonsense, 'as if someone would describe the road from [...] Madrid to Moscow in such a manner, that the three first days' journeys [sic] were indeed correctly given with all particulars [...] but that then he represented Vienna as the fourth day's march, London as the fifth, and Berlin as the sixth, and also placed Vienna somewhere on the Thames […] and Berlin on the Wolga [sic].'[743]

What is significant about the episode is not only the craftiness of the Chinese informant, but also the reaction of the intrepid scholar to the deceit. Namely, Robert's reflections about the *reasons* for the Lama's behaviour provide important insights into how he understood his own role in British service:

> 'The Lama had deceived me only because he was just as convinced of the truth of the following sentence, as was also his government. *Only with the greatest trouble can China be visited by foreigners, and only with the greatest impossibility will it ever be conquered by Europeans, if its geographical and topographical conditions remain unknown to everybody in consequence of entirely misrepresented facts* [...]. This is one example out of many showing how uncommonly cautious a European traveller in Central Asia must be, and how mistrustful in regard to statements, and assertions, of the correctness of which he finds no opportunity of convincing himself by ocular demonstration.'[744]

From the Lama's point of view, western ignorance perpetuated through deliberate misinformation could be an effective protection in coming conflicts between his native government and the expansive western powers in Asia. The analysis of this episode leads us to challenge a (perhaps unintentional) impression that arises from a number of works on the history of exploration: the impression that indigenous informants were somewhat naïve, easily manipulated sources of information, who unconsciously gave away their knowledge to the effect of their own destruction. Richard Drayton, for instance, makes the observation that '[t]he story of

[742] Ibid.
[743] Ibid.
[744] Ibid.

such appropriations' appears as a tragic phenomenon, since 'so many cultures were destroyed by the civilizations to which they gave their knowledge.'[745] While this may have been the case in numerous overseas settings across a vast time span, I want to argue that we nonetheless ought to take indigenous initiatives of protecting their knowledge seriously, not least because they demonstrate how fragile the information order of a moving expedition really was. Instead of assuming a pre-established hierarchy in cross-cultural encounters between supposedly more cunning – and thus ultimately superior – European actors, and an innocent, trusting and in the end hoodwinked indigenous side, the brothers' experiences force us to acknowledge the agency and distinct intentions that indigenous actors also pursued in such contexts.

The quotation above, as well as other statements made immediately in the wake of the expedition, clearly demonstrates that the brothers were aware of the causal nexus between geographic exploration, acquired intelligence, and its potential use in military campaigns.[746] Robert therefore easily integrated their excursions into a long, colonially motivated history of exploration of the Himalayan mountain chain:

> '100 years ago, no one troubled himself about the height [of the Himalayas]; no measurements were taken; in no one was there found the least scientific impulse to ascertain and fix the close connection of the mountain chain, its form, its direction, and its general situation. A few decades later, in one portion of the H[imalayas], namely in Nepal, political events, in which the English were mixed up, suddenly stepped upon the scene; then the necessity at once presented itself of knowing the country not merely superficially but thoroughly; maps, based on scientific data, were indispensable [...]. [A] long period of peace is to be regarded as one of the most important causes of a slightly extended geographical literature, whilst wars in countries hitherto inaccessible and unknown unquestionably speedily promote geographical knowledge.'[747]

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[745] Drayton, 'Knowledge and Empire', pp. 231-52, 236.

[746] See, on the brothers' awareness of the military importance of their survey, their book proposal submitted to the East India House in London in September 1857: 'Practical Objects connected with the Researches of the MM. Schlagintweit, under the Orders of the Hon. Court of Directors'. Therein, the brothers stressed without any ambiguity the colonial thrust of many of their investigations, underlining the implications of their studies for British rule and exploitation. This document is partly reprinted in 'Messrs. Schlagintweits' Indian Mission', *The Athenaeum*, No. 1580, Feb. 8, 1858, pp. 178-79; see also their statement about their published 'route-book', which 'may be regarded as having a practical bearing upon questions of a more general nature, especially when it is taken into consideration that many provinces of High Asia are of great importance for India, in a commercial, as well as in a military point of view.' Schlagintweit, *Results*, Vol. III, Route-Book (1863), p. 4.

[747] Schlagintweitiana, V.2.2.1, p. 103.

However, what is silenced here is the considerable dependence upon indigenous information that European travellers had to accept – while they were both eager to advance and consolidate western knowledge about such embattled frontier regions. Adolph Schlagintweit's demise is a striking case in point. The fatal outcome of his final excursion beyond the contested frontier of British India can be, and indeed was, explained by the failure of the expedition's information order. In spring 1857, Adolph, under the guidance of Amin, had opted for an unfrequented route into Chinese Turkistan that avoided another stay at the city of Leh – a central hub for the exchange of international goods and gossip.

The decision to travel on untrodden tracks was the main reason the entourage did not hear about the emerging crisis in Kashgar.[748] Rumours and warnings would soon have reached Leh, as the city sat at the junction of several trans-Himalayan trading routes. According to the Schlagintweits, it was here that the 'meeting of caravans' brought together 'two to three thousand strangers' at the same time. In later explaining the catastrophe, Hermann thus concluded: 'News of the rebellion [in Kashgar] may not have been inaccessible in the bazars of Leh in direct communication with people from Yarkand, and [knowledge of it] would then have ruled out any attempt to push forward into Turkistan.'[749] The Schlagintweits' dependence upon indigenous information, especially for Chinese territories, was thus both boon and bane: while only the guidance of their expedition by experienced caravan leaders had allowed the brothers to explore Turkistan at all, a shortage of indigenous information was ultimately responsible for the death of one brother.

The Schlagintweits' information order was also vulnerable in another regard. This concerned the observations they took to formulate scientific theories on the various ethnic groups of the countries they visited. To be sure, the Schlagintweits possessed a broad university education and practical experiences in the field sciences, such as physical geography, geology, and physics. What they lacked, however, was an intellectual background in the human sciences, such as 'ethnography' or 'anthropology'.[750] It is true that, once in India, British scientists taught them a number

[748] Ibid., p. 27.
[749] *Reisen*, 4, pp. 25-26 ['Kunde des Aufstandes wäre vielleicht in den Bazars von Le in directem Verkehre mit Yarkandis nicht ganz unerreichbar gewesen und hätte dann allerdings jeden Versuch eines Vordringens nach Turkistan ausgeschlossen'].
[750] A word on terminology: in the mid-19th century, 'anthropology' had yet to become a university discipline. Even the men who studied foreign cultures, and were considered experts, tended to study the classics or come from medical studies. Those who took an interest in foreign peoples and cultures

of techniques that can be subsumed under the label of 'physical anthropology' as it was practised in the later nineteenth century – including the measuring of the bodies of indigenous peoples, and the taking of plaster casts of their faces, hands, and feet. They had learned the latter process from Dr George Buist (1804-1860), a British scientist and influential newspaper editor, shortly after their arrival in Bombay in 1854.[751]

Yet, in the course of their travels, the ethnographic ambitions of the brothers significantly expanded beyond physical anthropology. In fact, the constant interaction with non-Europeans prompted them to adopt many new techniques, ideas and scientific practices, without having had any formal training in them in Europe or the colonies.[752] Not a single hint at ethnographic studies can be found in their pre-travel 'list of proposed operations.' And yet, the Schlagintweits did become keen to also develop theories about the 'character' of the different 'races' they encountered in Asia.[753]

What they lacked, however, was a method or critical reflection to approach such issues. There was surely no time to immerse themselves into the life of a community – like later generations of ethnographers would have done.[754] Instead, the fleeting observations of their travel companions and the strangers they met along the way became their 'field' of investigation. Despite the constant linguistic and cultural barriers between the brothers and their changing establishment, their approach was to use observations on sometimes a single 'representative' of a whole ethnic community in order to extrapolate *general* insights into the 'character' and worldview of his

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tended to be working in museums, especially ethnological ones. The brothers, to be sure, later referred to themselves as 'ethnographers', and sought to entitle Volume VIII of their *Results* to 'Ethnography', yet lacked any practical experiences in the field; it is, however, likely that they were inspired to study and collect artefacts from foreign cultures by their repeated visits to the EIC's London 'India Museum'.

[751] 'When the brothers Schlagentweit visited Bombay in November 1854, they were unacquainted with the art of plaster-casting. I taught them. They seemed struck with the facilities it afforded for ethnographical enquiries, and wished me to provide them with stucco enough for their journey.' Dr Buist and Dr Birdwood, 'To the editor of the "Bombay Times"', Innsbruck, Alpenverein-Museum, R. und H. Schlagintweit, 'Collectanea critica, 1848-65', PERS 26.1/5.

[752] This dimension of the altering of scientific practices through contact with non-European go-betweens such as the brothers' assistants is emphasised in Simon Schaffer et al., 'Introduction' to *The Brokered World*, p. xiv.

[753] The brothers used contemporary racial denominations including 'tribes', 'races', 'hordes', etc.

[754] Even if there were precursors in the field (Cushing, et al.), this method came to be closely associated with Bronislaw Malinowski (1884–1942); see his landmark work *Argonauts of the Western Pacific* (1922), in which he effectively proposed a paradigm shift of anthropological practice towards 'participant observation'. Its aim was 'to grasp the native's point of view, his relation to life, to realise his vision of his world', ibid., p. 25; see also John Vam Maanen, *Tales from the field: on writing ethnography* (Chicago, 1988), p. 10.

entire 'tribe'. It is here significant to note also that their establishment was apparently an entirely male community, hence allowing close encounters with 'representatives' of only one of the sexes. What further undermined the reliability of their ethnographic observations was the fact that while their travelling party did create spaces for encounters, none of the indigenous members of the expedition party could be studied within his original social environment. All assistants became, in a sense, itinerant scholars, and the, at times, extremely difficult conditions of the expedition – especially beyond British India – threw all members into unfamiliar constellations that distorted any attempt to study their 'traditional' ways of living. In that sense, the establishment was, *faute de mieux*, the brothers' human observatory, and yet yielded results whose reliability was strongly contested.

Lastly, as the following example demonstrates, plain ignorance on behalf of the brothers could lead to grossly biased results in their ethnographic studies. The collaboration between the Schlagintweits and Mani's Cousin, the learned *pundit* Nain Singh, provides a striking case to understand how the brothers became trapped by their own misleading assumptions.[755] Nain Singh (fig. 5.21) was recruited into the brothers' establishment in the summer of 1855, fulfilling different functions for the expedition until 1857. [756] Over time, he continuously rose in the brothers' estimation. They described him as 'a very clever young man, who learned from us to read instruments, to sketch basic maps, and to write a little in English.' [757] After he had acquired the necessary skill set, Nain Singh was employed to take 'corresponding observations on different stations' along independent routes.[758] He was also placed in charge, for several months, of an observatory established in Leh, where he was said to have 'diligently and carefully' taken a series of useful magnetic observations.[759] In return, Nain Singh taught the brothers some Tibetan, and was also an important informant about this country.

[755] The Singh family from Kumaon also provided other personnel, among them Dolpa Singh – who was initially employed as a low-ranking helper, but became Adolph's 'interpreter and chief guide for Balit'. Moreover, Mani's father, Dévi Singh, who was still alive during the brothers' travels, had accompanied Moorcroft in Tibet in 1812; *Results*, 1, p. 39.
[756] Hermann Schlagintweit, 'Ueber die Bor-Verbindungen in Tibet', p. 513.
[757] *Dehra Dun Series of the Survey of India Records*, Bd. 8, 1860-1870, No. 102, National Archives of India (New Delhi).
[758] Hermann Schlagintweit, 'Bericht über Anlage des Herbariums', 165.
[759] *Reisen*, 4, p. 201.

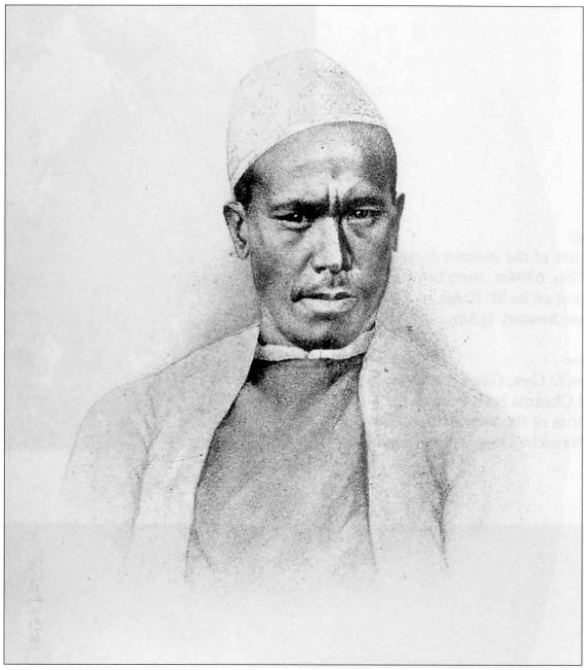

Fig. 5.21 Nain Singh, Photogravure. Original title: 'Pandit Nain Singh C. I. E. Survey of India. The first of the pandits of Tibetan Exploration. 1865-75.' Printed opposite title page of *Records of the Survey of India*, Volume VIII (in two parts): part I. *Exploration in Tibet and Neighbouring Regions 1865-1879, prepared under the direction of Colonel Sir S. G. Burrard, K. C. S. I., R. E., F. R. S. Surveyor General of India* (Dehra Dun, 1915); Source and Copyright: Royal Geographical Society London, Image number: S0013206.

How, then, did this mutually beneficial collaboration with Nain Singh shape the ethnographic theories of the brothers, and why is his case illustrative of the fact that their scientific assumptions were often without reliable foundation? To begin with, it is striking that the brothers' descriptions of Nain Singh appear highly contradictory. His accomplishments during extended travels well beyond his native region, for instance to Ladakh in 1856, were highly praised by the brothers. Indeed it was stressed how Nain Singh 'took a great interest in our operations, and though at first unacquainted with instruments was soon taught their use, as he showed a very great desire to be able to read off the scales and write the reading in English numbers.'[760] According to the brothers, his curiosity and eagerness to travel and explore went so far that he 'himself, even though he could only speak Hindostani and Tibetan, for a while reiterated his wish to go with us to Europe'![761] Since the brothers were dependent upon the philological expertise of a learned 'native' for completing their planned travelogues, they proposed to Nain Singh, 'and with apparent

[760] *Results*, 1, p. 39.
[761] Hermann Schlagintweit, 'Bericht über die Anlage des Herbariums', p. 165 ['selbst, obwohl er nur hindostani und tibetisch sprach, eine Zeit lang den Wunsch geäussert, nach Europa mit uns zu gehen'].

acquiescence on his part, to take him with us'.[762] During three years in Europe, Nain Singh should receive 100 Rupees per month for his linguistic services, and further 1000 Rupees as advancement for his family in Kumaon.[763]

Yet, this planned cooperation with the assistant came to an abrupt end. According to the brothers' version of what transpired, Nain Singh 'unexpectedly went away from us at Raulpindi', leaving behind 'an interminable letter full of apologies and glowing with love of home.'[764] With the letter, Nain Singh had also reimbursed 'a pretty large sum of money' he had formerly received, and 'then fled to the high and lonely mountains, where he hided [sic] himself until after our departure, in order to avoid being made to keep his word.'[765]

The Schlagintweits, in turn, used this unexpected turn of events as an occasion to formulate far-reaching theories about the distinctions between 'mountain dwellers' and the inhabitants of the Indian plains: 'like *all hill men*', they confidently explained to a European readership, also Nain Singh 'was too much attached to his native mountains to bring himself to leave them.'[766] By contrast, it was claimed that 'it cost us very little trouble to persuade a highly accomplished Mohammedan, living in the hot low-lying plains of Bengal, to accompany us to Europe for half a year.'[767] The brothers thus took only *two* individuals from their establishment as *pars pro toto* for millions of Indians in the plains and for the diverse ethnic groups living in the Himalayas. Even worse, they relied upon a single episode with Nain Singh to capture the supposedly unchangeable 'character' of 'all hill men'. Evidently, this crude assumption stood in direct contrast to their previous experiences with Nain Singh, who had been a long-serving and flexible scientific companion during two years of travels well beyond his place of origin.

The case of Nain Singh is thus a revealing example of how their personal encounters with Indian subjects shaped the brothers' anthropological theories, if not racial imaginings, about the peoples of northern India and Central Asia. Yet, one could also argue that many of the depictions the brothers provided of non-Europeans in Asia were inextricably linked to their sense of self. It was through the retrospective

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[762] *Results*, 1, S. 39.
[763] The figures are gained from Shekhar Pathak and Uma Bhatt's (eds.), *Asia Ki Peeth Par: Life, Explorations and Writings of Pundit Nain Singh Rawat* [*in Hindi*], vol. 2 (Nainital, 2006), pp. 249-51.
[764] Ibid., and Schlagintweitiana, V.2.2.1, p. 53.
[765] Ibid.
[766] *Results*, 1, p. 39.
[767] Ibid. This was the already introduced Sayad Mohammad Said.

account of their experiences with Indians that the Schlagintweits could fashion themselves in a specific light in front of their western readerships.[768] Evidently, to generalise that 'all hill men' are so intimately connected to their homeland that they were unable to leave and become overseas travellers, was a normative statement; it creates the impression of a native weakness – a lack of courage on behalf of the 'natives'. This is further reinforced by the report that Nain Singh secretly, hence cowardly, 'fled' from the Schlagintweits, apparently unable to face the personal challenge and risks of accompanying the explorers back to Europe. The German travellers, by contrast, implicitly present themselves as the opposite, thus inscribing a hierarchy between them and their assistant into their travelogues. They assumed themselves as the dynamic, entrepreneurial side in this cross-cultural encounter, and pejoratively depicted the indigenous scholar as lacking in curiosity and zeal, as an almost pitiable and childlike person bound to his local surroundings by insurmountable fear.

Of course, what actually motivated Nain Singh's decision not to travel to Europe was beyond the brothers' imagining. His reasons are explained in a rare document, a surviving diary written in his own hand, in Hindi, which today is held in the National Archives of India (New Delhi). According to the diary, Nain Singh was initially willing to embark upon the projected journey to Europe. He accepted the Schlagintweits' financial offer for three years of service, and informed his cousin Mani Singh about his decision. Yet, as the document also reveals, there existed a personal rivalry and a biting jealousy between Mani and Nain Singh: while (the older) Mani had first been enlisted in a superior position during the expedition, and had treated Nain Singh almost as his personal servant, the latter had excelled to such a degree that the brothers were keen to take him, and not Mani, as their assistant to Europe. Mani, feeling perhaps understandably slighted, effectively blackmailed his cousin by stating that if Nain Singh would go to England, he would be 'dead for us' – his family.[769] According to his biographer, the Indian historian Shekhar Pathak, Nain Singh was then still unable to openly rise against Mani, and therefore bowed to the family pressure and declined the offer, without ever conveying to the foreign travellers his real reasons. In a sense, these family relations and conflicts reflected yet

[768] On 'the role of remembrance in the production of knowledge about other cultures and societies' and notions of identity, I have been influenced by the work of J. Fabian on 'Remembering the Other', p. 50.
[769] I am most grateful to Shekhar Pathak, editor of the diary and author of Nain Singh's biography, for the information and quotation; see for further details his and Uma Bhatt's, *Asia Ki Peeth Par*.

another hierarchy within the establishment that the brothers could not influence, indeed whose existence was entirely unknown to them.

The case of Nain Singh is thus perhaps an extreme example of the pitfalls of the racial imaginings that European explorers developed through cross-cultural encounters. The absurdity of their ethnographic claim is highlighted by the fact that, far from being 'chained' to his hill site, Nain Singh later became the most famous and widely travelled explorer of the trans-Himalayan region, outperforming any western traveller in the geographical exploration of this vast area. Instead of honouring the Schlagintweits, British imperial authorities later lavished medals and praise on Nain Singh for his outstanding exploratory achievements – even though the identity and real name of this particular 'imperial hero' had to be kept a secret for fear of his discovery.[770]

Nain Singh's portrait as the greatest of the Indian *pundits* employed by the empire for numerous spying missions into High Asia after the Indian Mutiny is still hanging on the wall of London's Royal Geographical Society today.[771] The secret explorations over thousands of miles of uncharted territories by Nain and Mani Singh, and a host of other *pundits* under the guidance of Captain Thomas George Montgomerie, demonstrate clearly that we ought not to think of their acquired stores of knowledge merely as 'local' knowledge. Here, the 'natives' turned into veritable explorers in their own rights, whose accomplishments, at least in the field of geographical discovery, far exceeded the brothers' own deeds.[772]

In sum, the circumstances under which the Schlagintweits tried to produce new knowledge and tap into the information networks of native informants reveal the weakness and often powerlessness of the explorer to distinguish between reliable testimony and mere fantasy. The disorientation, unfamiliarity, and ignorance that the Schlagintweits no doubt frequently experienced during their journey, however, faded

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[770] The *pundits* (see following footnote) thus travelled and published their scientific reports under false names. Nonetheless, in 1877, Nain Singh – alias 'Chief Pundit' or simply 'No. 1' – received the gold medal from the London Royal Geographical Society for his exploratory achievements.

[771] The pundits were Indian surveyors, who had been trained in the headquarters of the great Indian Trigonometrical Survey in Dehra Dun to be able to use the 'corporeal technique' of pacing to map out vast regions in Central Asia, Ladakh, and Tibet (in disguise!). See Raj, 'When Human Travellers Become Instruments', pp. 156-188; Waller, *The Pundits*.

[772] During the ceremony in 1877, it was stated in his laudatio: 'He is not a topographical automaton, or merely one of a great multitude of native employés with an average qualification. His observations have added a larger amount of important knowledge to the map of Asia than those of any other living man.' Quoted in Henry Yule et al. (eds.), *Hobson-Jobson: A Glossary of Colloquial Anglo-Indian Words and Phrases, and of Kindred Terms, Etymological, Historical, Geographical, and Discursive* (London, 1903), p. 741.

once they had returned to Europe. The more time that passed between their actual journey and subsequent attempts to talk about, show, and publish their results, the more we are confronted with the integration of familial tropes of European supremacy. The next section will therefore turn to the curious shifts in perception that enabled the brothers to build up a neat hierarchy within the establishment and promote the idea of an intact 'information order'.

Reinstating a 'hierarchy of knowledge'

'Enlightened science' in the form of empirical and critical observations assumed a critical role in the Schlagintweits' understanding on how to overcome what they saw as the 'frantic' idolatry and 'superstitious' worldviews of their former assistants. '[T]he rich mythology of India' had, at least in the Schlagintweits' perception, led to a state of great obscurity about India's and Central Asia's geography and natural characteristics. Religiously informed descriptions of those lands therefore often became 'ethnographic anecdotes' in the subsequent accounts of the German naturalists, whose works were explicitly compiled in the name of modern 'science', with the attending claims to a superior authority. This claim to superior knowledge by the German scholars formed part of a longer process during which European naturalists claimed ever-greater authority on Indian geography, especially in comparison with indigenous accounts. That is, especially in the 1770s and 1780s, British Company officials had still greatly depended on native informers for intelligence about the interior and geographical characteristics of Indian states. It had subsequently been a major goal of the Company to overcome this dependence on native knowledge, often provided to them by Brahmins. Once the nature of the Company had gradually shifted from a conquering to a ruling agency in South Asia, these (now) 'secondhand', 'hearsay', and 'traditionary' indigenous accounts became increasingly repudiated and replaced by direct (and supposedly superior) observations and measurements by British scholars in India.[773]

Two examples might suffice to prove this point. Whereas the Schlagintweits and their partners alike had devoted much attention to taking water samples,

[773] David Ludden, 'Orientalist Empiricism: Transformations of Colonial Knowledge', in Carol A. Breckenridge (eds.), *Orientalism and the Postcolonial Predicament* (Philadelphia, 1993), pp. 250-278, 254.

delineating the precise course and exact origins of India's vast rivers such as the Ganges, the brothers subsequently juxtaposed their own empirical observations with indigenous ideas about the river, and why it would originate in the high mountains of the Himalayas. At the end of a longer recapitulation of indigenous 'tales' about earlier locations of the *Deity* of the Ganges, Robert thus concluded one of his lectures with the following account:

> 'In the third and still further debased period, she [the Deity of the Ganges] retreated yet more deeply into the mountains, and in the fourth age of the world, which is characterised by the present great and universal deterioration and wickedness, she has found it necessary in order to preserve her purity, to withdraw herself into the eternal snow fields, white and glittering, and into the inaccessible wilderness of the mountains [...]. But I have now said enough about these sad and mournful errors of the human mind.'[774]

As this and other passages demonstrate, at least Robert Schlagintweit thought that the religious views and the understanding of worldly phenomena by his former Hindu assistants were inextricably linked, and both hopelessly flawed. This is captured in the fact that in his lectures, he often switched from describing their religious beliefs and practices of worship to giving accounts of how they supposedly saw and explained the geographical formations of India, like the source of the Ganges.

Another set of the Schlagintweits' ideas of native knowledge and religious beliefs was derived from material artefacts that indigenous scholars and assistants produced for the European travellers. The transmission of knowledge about particular routes, for instance, was facilitated (or in some cases impeded) by the unfamiliar visual representations of heights and landmarks in Asian maps. This is well captured with regard to a Tibetan map that was later integrated into the monumental volumes of maps and panoramic views of the expedition (fig. 5.22).[775]

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[774] Lectures, V.2.2.1.

[775] The map had, in a first version, been drawn by Hermann's assistant Davang Dorje ('one of the caravan leaders which control the traffic from Tibet across the boundaries of Assam') during Hermann's visit to Buthan. Yet, 'in Narigun, we found a rather able Tibetan [...] and it was he who ultimately brought some order into the different elements of the map, which he also significantly expanded.' *Reisen*, 2, pp. 102-104.

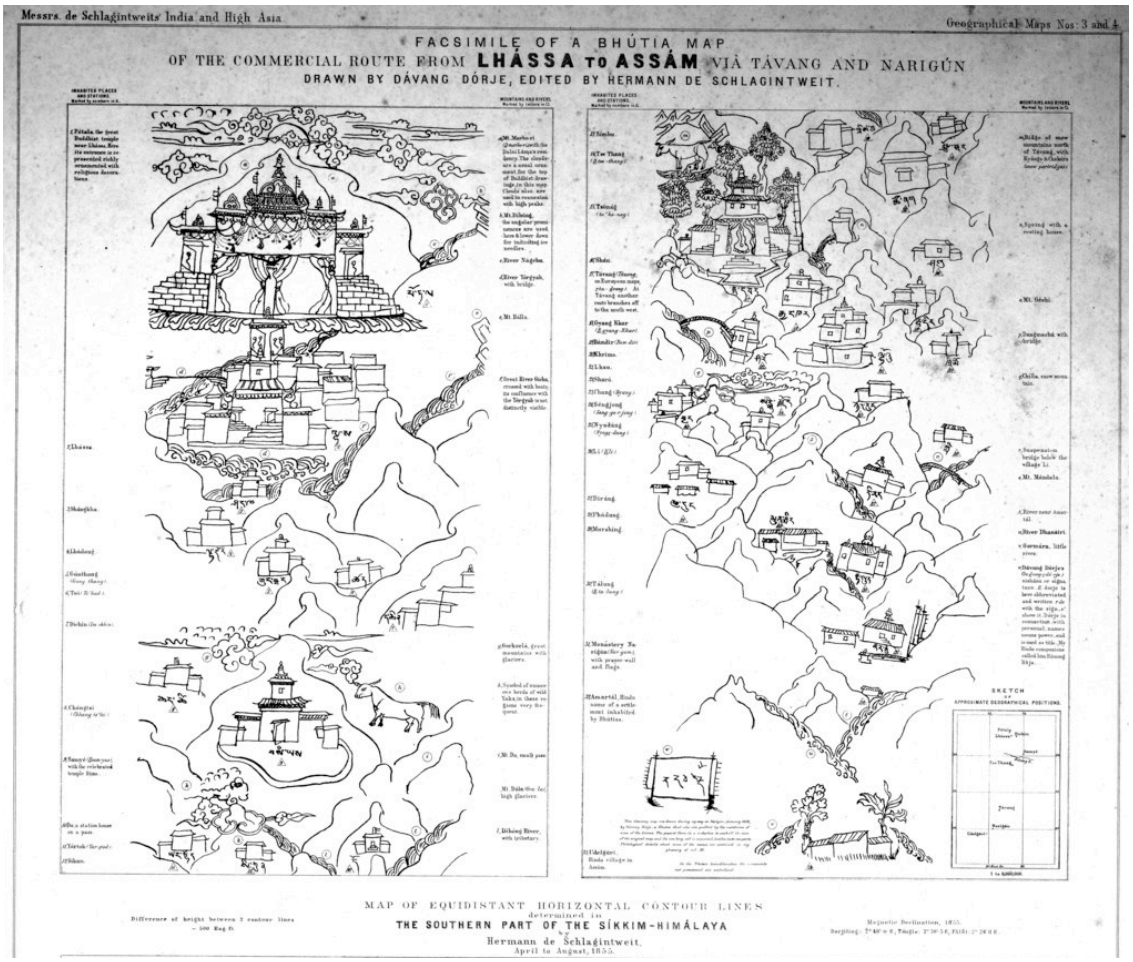

Fig. 5.22 'Facsimile of a Bhútia Map of the Commercial Route from Lhássa to Assám vià Távang and Narigún. Drawn by Dàvang Dórje; Edited by Hermann de Schlagintweit.'

The Tibetan map was, however, not only printed in the official publications. Rather, the indigenous source was complemented with 'objective' European data that provided – among other things – the exact geographical position of the mountains and rivers depicted on it. The accompanying data was given in the lower right-hand corner of the 'native map', pointing to fixed stations the brothers had taken themselves (in a diagram, entitled 'Sketch of approximate geographical positions' with a scale of '1 to 8.000.000'). Hence, the supposedly 'primitive' map was transformed in their publication into a 'curious object' of indigenous learning, which had, however, to be made comprehensible to European audiences by inserting empirical co-ordinates taken by the European scholars.[776] While inserting a strong hierarchy between their own, and native systems of (not only topographical) knowledge, a wealth of other information about the political and religious landscapes of the depicted regions was,

[776] See the indigenous map alongside the very technical geographical maps and diagrams of the Schlagintweits, *Atlas of Panoramas and Views, With Geographical, Physical, and Geological Maps* (Leipzig and London, 1861).

however, lost on the brothers. This information was contained in visual codes across the native map, which was decisively more than a tool to depict the commercial route from one place to another.[777] Given the 'metaphorical blindness' of the brothers for indigenous cultural codes, the 'rudely executed' map seemed, in the eyes of the brothers, only to exemplify the superiority of their own modes of representing and capturing nature.[778]

In giving this account of how the Schlagintweits perceived the indigenous, religiously informed, views of Asia's natural worlds, it becomes clear what significant role their European scientific approach played in their perception of self, especially when contrasted with what they later presented as the 'superstitious' and erroneous 'beliefs' of their assistants. This denigration of non-European systems of ordering the natural world was directly linked to the brothers' assertion of scientific authority, especially in front of metropolitan scholars in Europe, which were undoubtedly their prime audience.

The denegation of indigenous cosmologies is thus a story of loss, of missed chances for a true trans-cultural understanding between the explorers and the native peoples they had encountered throughout their journey. Instead of using, quite literally, a western measuring stick to (d-)evaluate the 'correctness' of indigenous ways of seeing, the indigenous tales on India's natural world could otherwise have been an entrance into a rich universe of moral values and different, non-European, conceptions of time. Humboldt's fascination with the Aztec zodiacs in South America might have been a starting point for the brothers.[779] Yet, the scholarly interests and ethnographic expertise of the brothers clearly had their limits, as the Schlagintweits presented these examples of indigenous cosmologies only as the mirror of the supposed scientific inferiority of the peoples of India and 'High Asia'. It was

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[777] A thorough examination of this map, and the wealth of information on natural resources, weather patterns, etc. that was 'hidden' from the understanding of the brothers is provided in Joseph E. Schwartzberg, 'Maps of Greater Tibet', in J. B. Harley and David Woodward (eds.), *Cartography in the Traditional East and Southeast Asian Society*. Vol 2, Book 2, *The History of Cartography* (Chicago, 1994), pp. 607-81, pp. 660-1.

[778] See Dana Leibsohn, 'Introduction: Geographies of Sight' in Dana Leibsohn et al. (eds.), *Seeing Across Cultures in the Early Modern World*, pp. 1-22, 13.

[779] Humboldt's studies on 'New World' zodiacs had been widely received, not least by scholars attempting to compare 'the computation of time and zodiacal signs' of indigenous peoples in South America and northern Asia, see e.g. Edward Upham, *The history and doctrine of Budhism, popularly illustrated; with notices of the Kappooism, or Demon Worship, and of the Bali, or Planetary Incantations, of Ceylon* (London, 1829), pp. 87-88. Gordon Brotherston, 'Dream and Number in Humboldt's America', unpublished paper at the conference 'Alexander von Humboldt and America', 27 November 2009, British Academy, London.

precisely in this sense that indigenous ways of seeing contributed to the way in which the travelling scholars – equipped with European taxonomies and measuring instruments – came to develop a belated feeling of mastery over India's nature, as well as over the indigenous inhabitants of those lands.

Chapter Six

A fateful year: 1857

In many regards, 1857 was a watershed year for the Schlagintweit brothers. When Hermann and Robert returned to Europe in June, their prospects were wide open as they faced a seemingly endless list of unsettled questions relating to how they could shape their future careers, make a living and carve out a lasting reputation from their travels. If their India experience was to be an important stepping stone in their professional lives, what was their ultimate goal and how were the Indian exploits to be wielded towards its attainment?

To be sure, the brothers had given up seemingly secure positions in Germany to embark on their journey to India: Hermann had become a lecturer at the prestigious Berlin University in geography in 1852, and signed his letters as 'Professor Schlagintweit';[780] and it was only due to Hermann's departure in 1854 that the eminent cartographer Heinrich Berghaus inherited his post.[781] Adolph, on the other hand, had failed his Habilitation thesis in the Prussian capital, but had succeeded with the same work at Munich University, where he also briefly taught as a *Privatdozent*. In 1853, Robert was still enlisted as a student in Munich, though he ultimately received his PhD in 1854 from the University of Jena.[782] Apparently, he too was eager to pursue a university career. Hence, unlike Joseph Hooker, the three Schlagintweits had left Europe not for want of a better alternative. But they had done so, nonetheless, because the Indian and High Asian explorations promised to pave the way for becoming 'great explorers' on a par with the leading Victorian heroes of exploration, such as David Livingstone. This offered them a faint chance to imitate the remarkable life, career, and fame that their own mentor Alexander von Humboldt had achieved for his American and Asian work. Now, in the summer of 1857, with two of the brothers having returned with the greatest part of their collections, 750 sketches paintings and a few hundred photographs, manuscript books, and still fresh memories

[780] Hermann Schlagintweit to Professor Silliman, Berlin, 18.2.1852, Yale University Library, Manuscripts and Archives, Dana Family Papers, MS 164, Box 3, folder 110.
[781] Max Lenz, *Geschichte der Königlichen Friedrich-Wilhelms-Universität zu Berlin*, Vol. II (Halle a.d.S., 1918), p. 306.
[782] Robert's diploma was issued on 1 July 1854 in Jena, and is held in the BSB Munich, Schlagintweitiana.

of their travels, the stakes were high to secure a lasting reputation for their Asiatic mission that could catapult them to the professional heights they aspired.

However, as 'foreigners' employed in British service, with a bi-national payment arrangement and often competing claims over the ownership of their collectibles and 'discoveries' by the British and German publics, the way forward was hardly set in stone. Rather, the brothers had to forge their own opportunities over and over again, playing once more – if possible – one side against the other. In the fateful year of 1857, the two brothers had to find solutions to such vexing issues as to what precise form their narratives of exploration should take, and how could it be financed? Being a transnational venture, in what language(s) should their travel accounts appear, and where first? Would, or indeed could, the projected publication fulfil the various expectations they themselves had raised in front of so many different audiences – from Company men to scientific experts and the wider public? In which national community were they ultimately to settle – Germany or Britain? As we shall see, it is of crucial importance to understand which audiences the Schlagintweits had in mind when they embarked on the project of publishing their results. And, related to their publication strategies, what would happen to their massive collections? Who would claim ownership over their artefacts, but also how could the brothers use these (at least partly) valuable collections as assets to forge new social and professional standings? To be sure, the issue of what national community they were to settle in was inextricably linked with other questions about the nature and targeted audience(s) of their intended publication, and the ultimate ownership of their huge collections, which was to play a significant role in how the travellers imagined their publications and future institutional careers.

While these issues needed urgently to be decided, other unexpected events intervened – putting their future careers at risk. As the year 1857 progressed, increasing incertitude arose regarding Adolph's fate during his late trip into Central Asia. What were the consequences, personally, but especially professionally, if he – arguably the central figure behind the whole Indian scheme – had fallen victim to his scientific zeal and had been killed during his final explorations? Then, in the summer of 1857, news of a severe colonial crisis arrived in Britain: the Indian Uprising that shook Company rule in India to its very foundations. With the brothers formerly enlisted by the EIC's Court of Directors, the outbreak of this major crisis also initiated the end of the Company era – and hence the dissolution of the Schlagintweits'

employer and patron. The impending demise of the EIC had important repercussions for their careers, but exactly how that played out requires more a detailed enquiry than has previously been offered. From the summer of 1857 to the summer of 1858, it was make or break point for the brothers. It was a period of considerable insecurity and the kinds of strategies the brothers adopted to deal with the emerging problems and opportunities of their situation were to have considerable repercussions for the smouldering controversy over their employment, with the until now largely private polemic taking a decisive public turn.

Negotiating a reputation

Overseas expeditions such as the one the Schlagintweits undertook to British India always entailed the mobilisation of considerable resources, provided by both European and non-European actors.[783] As the constant negotiating during their time 'in the field' has highlighted, finance was essential. Their extravagant equipment, huge establishments, and the acquisition and transport of the brothers' collection required a truly prodigious expenditure. To be sure, the need for keeping their material patronage intact would not cease after the scholars' return from Asia. Yet, while financial backing for an expedition of the size of the Schlagintweit mission was crucial, it alone could not guarantee 'stardom' for the brothers. Non-material resources were necessary to secure the social and academic recognition by the broader public, metropolitan scientists and learned societies. Publicity and authority were precious 'resources' in mid-nineteenth-century Europe because they could only be acquired through the mobilisation of support from a number of advocates and scientific peers.[784] Thus, paying close attention to the subtle communication strategies of the brothers and their committed intercessors promises to yield fresh insights into how the private and public battle for recognition was fought within, and across, national boundaries.

Since the brothers' appointment in the spring of 1854, the nature of their contacts in England had dramatically changed. Most importantly, the much-admired Prussian Consul in London, Christian Karl (von) Bunsen, had been forced to resign during the second year of the Crimean War (1853-56), due to an unsanctioned pro-

[783] See Driver, 'Missionary Travels'.
[784] Ibid.

British diplomatic intervention in the conflict.[785] Bunsen's resignation had occurred at an unfortunate moment. During the Crimean War, Prussian-British relations became particularly strained. The Prussian government's decision to remain neutral during the conflict (against Bunsen's proposal) not only infuriated the British Government, but also led 'to fierce anti-Prussian reactions in English newspapers.'[786] While Bunsen, the most potent advocate of the Schlagintweits, had now left the island, his successor, Albrecht Graf von Bernstorff (1809-1873), was hardly a match for the learned and scientific enthusiast Bunsen, and would never reach the public acclaim his predecessor had found among Britain's scholarly establishment.[787]

Hence, in order to procure vital recognition for the brothers' exploratory feats in London, their German patrons had to intervene from afar. This seemed a matter of some urgency as their most illustrious supporter, Alexander von Humboldt, sensed a lack of British appreciation for their achievements. The Prussian eminence even felt that the brothers had fallen victim to a veritable defamation campaign in England. Writing to the RGS president Sir Roderick Murchison in March 1857, Humboldt thus stated that the president's recent letters 'have saddened me, they have proven to me that my compatriots have become calumniated in the eyes of Sir Roderick Murchison'.[788] As a stern supporter of the Schlagintweits – and arguably among the most respected cosmopolitans of his age – Humboldt now sought to overcome those 'poor national rivalries', which he felt had denied his protégés of their well-deserved acclaim.[789]

In the mid-1850s, there was hardly a better stage to present the individual achievements of exploratory travellers than the *Annual Address* of the president of the Royal Geographical Society in London. The *Address* marked a yearly 'day of

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[785] Fervently pro-British in attitude, during the Crimean War Bunsen sought to forge, without official backing, a Prussian-British alliance against Russia. As his initiative failed, and Prussia declared her 'benevolent neutrality', he offered to resign in April 1854. See 'Christian Karl Josias, Baron von Bunsen', *Encyclopaedia Britannica* (Online Academic Edition), last access: 29 Jan. 2014.

[786] Claudia Reichel, 'German Responses: Theodor Fontance, Edgar Bauer, Wilhelm Liebknecht', in Shaswati Mazumdar (ed.), *Insurgent Sepoys: Europe Views the Revolt of 1857* (Abingdon and New Delhi, 2011), pp. 19-42, 19.

[787] See Humboldt's private letter to Bunsen after his departure from England, in which Humboldt urged the former Consul in London, now replaced by the 'invisible' and in terms of scientific diplomacy apparently rather maladroit Graf Bernstorff, to continue working as the brothers' supporter and intercessor with the Prussian King, 30 May 1854, in *Briefe von A. von Humboldt an C. C. J. Freiherr von Bunsen* (Leipzig, 1869), pp. 185-6.

[788] Originally, 'Quelque lignes aimables que Vous avez récemment addressé au Professeur Ritter m'ont affligé, elles m'ont prouvé que mes compatriots ont été calomniés auprès de Sir Roderick Murchison.' Humboldt to Murchison, Berlin, 31.3.1857, Edinburgh University Library, Gen. 523/4.

[789] Ibid, 'des pauvres rivalités nationales'.

celebration for Geography' (as Humboldt put it), where the recent advances in the science were publicly lauded – and this not only in front of the society's own members. The praise of any individual scholar by the president was crucial, since the *Address* was printed in the RGS Journal, and thus circulated widely in Britain, its overseas empire, and on the European and American continents.[790] Indeed, as some of his colleagues reminded Murchison, such a speech inherently meant walking a tightrope. Himself an Indian traveller with no small ambitions and self-esteem, Joseph Hooker, for instance, once rather enviously 'complained that the attention shown the Stracheys' in the 1852 speech (which Hooker felt was undeserved) 'would raise jealousies in India because of the "immense [...] importance" of Murchison's address, which would "be reprinted in every Indian paper, within a few weeks, & duly canvassed."'[791]

This was now precisely the platform Humboldt sought to 'conquer' for the Schlagintweits. In an exchange that clearly shows how affective ties, mutual admiration, but also a sense of obligation overlapped in the Prussian's old relationship with Murchison, the latter sought Humboldt's advice for his upcoming *Address* at the annual meeting, scheduled for 25 May 1857. Six days before the *Address*, Humboldt sent Murchison his commentary on the lecture manuscript. At first, the Prussian naturalist assured the president of his undisputed authority, with him being 'right at the sources' of geographical news and undertakings, leading Humboldt to even ask rhetorically 'who could instruct you' on any geographical issues? Yet, Humboldt then went on to do precisely that. He kindly requested from Murchison to 'grant your praises to the most brilliant success of the travellers, which the brothers Schlagintweit, while defying all dangers, have obtained during their stay at Ladak and in [...] Tibet.' But more than that, since Murchison was told that 'Hermann and Robert had the good fortune, in August 1856, to cross the chain of the Kuenlun and to reach [...] the province of Khotan', located in today's western China.[792] To underline the pioneering character of this crossing, Humboldt then adroitly cited a famous British Indian scholar and former Himalayan traveller, who now acted as superintendent of Calcutta's Botanic Gardens:

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[790] In fact, several continental European and North American scientific magazines reprinted articles from the RGS's own journal, or gave lengthy summaries.
[791] Quotations from Stafford, *Scientist of Empire,* p. 118, original emphasis.
[792] Humboldt to Murchison, Berlin, 19.5.1856, Edinburgh University Library, Murchison Papers, Gen. 523/4f.53, copy consulted in BBAW, Humboldt Research Centre.

> 'A botanist of the highest merit, Dr Thomas Thomson, who has published with my excellent friend Joseph Hooker the *Flora indica* in 1855, writes in the Introductory essay [...] "The chain of the Kouenlun [...] has not been *crossed* by any European traveller. […"]'[793]

Drawing on this British testimony on the hitherto unaccomplished feat to traverse the Central Asian mountain range of the Kuenlun, Humboldt was thus confident to write Murchison that '[t]his statement proves to you the importance of the success by the Schlagintweit brothers'. However, while this 'conquest' of the mountain chain by the German travellers proved, at least in Humboldt's eyes, already their mission's overall success, he further alluded to the fact that they, in August 1855, had taken observations on the mountain 'Ibi Gamin [...] at the height of 22,260 feet.' 'This is not only a higher point than I reached on the Chimborazo [...] in 1802 and Boussingault [...] in 1831, but is also higher than the peak of Chimborazo itself.' In stressing the significance of the undertaking, Humboldt thus first drew attention to the brothers' *bodily* achievements, both as the first crossers of the Kuenlun, and, second, as having set a new altitude record for any European traveller in modern times.

Yet, the brothers' mission was, within its imperial context, a *scientific* venture, and only 'physical triumphs' were therefore insufficient to prove the success of the scheme. Humboldt thus further enumerated a whole list of other feats made during the journey, not least the 'very important geological excursions into Tibet', which included their pioneering glacial studies on Mount Kamet. The range of activities highlighted to the RGS president further included the brothers' magnetic researches, especially the study of the effect of great heights on 'the variations of the magnetic intensity' – a little developed aspect of the science.[794] While these activities made up the Schlagintweits' more personal attainments, Humboldt concluded his letter by alluding to the fact that British scientific institutions would also be greatly enriched, since the brothers 'will bring some fine geological collections to England, maybe already this autumn.'[795] In other words, their expedition, only made possible 'by the munificence of the East India Company and the generous benevolence of Colonel Sykes', was to provide also a lasting enrichment to Britain's scientific collections. To

[793] Ibid., emphasis mine.
[794] Ibid.
[795] Ibid.

be sure, since Humboldt knew about Murchison's private passion for geological research, he cleverly underlined this branch of their numerous acquired artefacts from Asia. Yet, the promise to bring rich collections to British institutions likewise applied to many other fields of science. Lastly, to make clear that Murchison should consider this mainly as a British-backed expedition, Humboldt reminded his British confrère that 'the brothers Schlagintweit received from the Indian Company yearly almost three times as much [financial support] than my king has initially granted them'. Especially in view of these considerable British investments, Humboldt thus subtly argued that it was in Murchison's very own interest to stress the scholarly achievements and material gains of the scheme – which would ultimately throw a good light on *British* generosity for scientific patronage.

What seemed to be merely a polite suggestion to include the brothers in Murchison's *Annual Address* was, in fact, a long-planned and orchestrated publicity campaign.[796] One year earlier, in 1856, Humboldt had lamented in a private letter to Carl Ritter: 'Is it not disgraceful that, owing to an old hatred of Germans, the great speech by Admiral Beechey [to the RGS in May that year] does not mention with a single word the Schlagintweits and the crossing of the Kuenlun!!'[797] When Humboldt then saw Murchison's manuscript for the 1857 *Address*, he noted bitterly, again to Ritter: 'Murchison gives his geographical lecture […] asks for advice and does not mention the Schlagintweits – as if they did not exist.'[798] He therefore rushed to get all published accounts of the brothers sent to Murchison, and even suggested making 'an abstract of the content' of 'the most important one', which described the Kuenlun episode. As his private communication made clear, the quoting of Thomson in his letter to Murchison (see above) was above all 'designed to abash the Geographical Society' by inserting the 'confession of the learned botanist Dr Thomson, who had long been in Ladak and had himself failed in trying to go across the Karakorum pass' – another mountaineering achievement the brothers had made, as Humboldt knew

[796] In fact, Humboldt had for long been greatly frustrated with an English neglect of what he considered great deeds by his fellow countrymen – including by the African travellers Heinrich Barth, Vogel, and Overweg. A useful selection of letters on this issue is printed in, Päßler et. al. (eds.), *Alexander von Humboldt – Carl Ritter*.

[797] Ibid., letter No. 155, pp. 196-197, my translation. Humboldt here referred to Frederick William Beechey, 'Address to the RGS of London; Delivered at the Anniversary Meeting on the 26th May, 1856', *Journal of the RGS*, 26 (1856), pp. clxxi-ccxxxiv. Presumably, Richard Brydges Beechey (1808–1895), marine painter and naval officer.

[798] Humboldt to Ritter, 18.5.1857, Päßler, *Alexander von Humboldt – Carl Ritter*, pp. 199-201.

perfectly well.[799] While Humboldt adhered to the conventions of gentlemanly conduct in his correspondence to Murchison, the intentions behind his communication were markedly differed from their outward appearance.

Though Murchison, in his 1857 lecture, actually gave a long elaboration of the brothers' activities and successes (citing entire pages from Humboldt's letter), we should be careful not to take such praise at face value.[800] Rather, we should consider it as the outcome of a long process of negotiation, in which subtle pressure was exerted to secure an acknowledgement of the Schlagintweits' work in front of London's scientific circles.[801] When Humboldt, some weeks later, feigned innocence and 'thanked' Murchison 'in the name of the King for your active and benevolent interest for the laborious Schlagintweits', we see how some of the few positive voices that were heard in England about the brothers were actually manufactured by transnational negotiations, and cannot be seen as an independent appreciation of these foreigners' achievements in British scientific service.

While such 'pressured' acknowledgement of the brothers' endeavours by president Murchison was important,[802] the prime means to establish one's scientific achievements in the field, and secure a lasting legacy at home, was the printed word. The contemporary culture of exploration entailed that any European journey of discovery had to be described by a personal narrative of travel. The need to 'go public' with one's own experiences, hardships, and (if achieved) scientific breakthroughs as an itinerant scholar was such an established practice in Victorian Britain that, 'from the point of view of metropolitan science and culture, exploration without writing and publication was no exploration at all.'[803]

Following Humboldt's general advice to travellers to write and publish 'with all the freshness of memory', the brothers, too, lost no time in taking the first steps

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[799] Originally, 'zur Beschämung der Geographischen Gesellschaft'.
[800] Roderick Murchison, 'Address to the Royal Geographical Society of London, 25th May, 1857', *in Journal of the RGS*, 27 (1857), pp. xciv-cxcviii, cl-clviii.
[801] To be sure, Humboldt had already written to Murchison some weeks earlier on the brothers' success of having crossed the Kuenlun, etc., which Murchison had thus first chosen to ignore in his manuscript. Humboldt to Murchison, Berlin, 31.3.1857, Murchison Papers, Edinburgh, Gen. 523/4.
[802] This was especially so since members of the RGS had from early on sought to quash their scheme precisely because the Schlagintweits were not British subjects. Already in 1855, Humboldt had written about the hostile reception of the brothers' initial appointment: 'In India prevails a more liberal spirit, nothing of the xenophobia of the [Royal] Geographical Society.' Humboldt to Bunsen, Potsdam, 19.8.1855, in Schwarz, *Briefe*, p. 191.
[803] Driver, 'Missionary Travels'.

towards publication.[804] Relying once again on their web of intermediaries linking them to British circles of power and patronage, the former Prussian Consul in London, Bunsen, addressed a note to the Company Director William Henry Sykes in July 1857, informing the latter that the 'Messrs. Schlagintweit have sketched out a prospectus of the work which is destined to make known to the world the results of their expedition. They want to have your advice before working it out & will take no steps without your sanction.'[805] This was mere rhetoric to flatter Sykes, who at this point was their most important remaining supporter in British circles. In fact, whilst still in Asia, the brothers had already sketched out the general shape of their future publication. It was to be divided into nine separate volumes, each dedicated to a different scientific discipline, and accompanied with a number of maps, charts, and lithographic prints.[806] The Schlagintweits had by then already made a firm decision on the highly ambitious scope of their projected work, but realising this project would prove far more difficult than any one could imagine at this point.

Yet, while the brothers seemed to proceed as they pleased with their publication scheme, the crucial question of who would finance the whole undertaking was still largely unresolved, although during a private audience, in June '54, they had managed to convince the Prussian king to support their publication – albeit only to the sum of 3,000 Thalers, which was far from sufficient. Sykes replied to Bunsen in mid-July that he fully acknowledged the brothers' 'well deserved success' during their travels, which he claimed owed above all to 'their zeal and perseverance'. Since Sykes had been a committed supporter from the mission's inception, he also agreed that 'We must now try to get the results of their Scientific labours published'.[807] Using his influential position within the EIC's Court of Directors, where he had been chairman since 1856, Sykes further promised to use all his political weight to realise the intended work, adding: 'I trust I may not meet with difficulties in the Court of Directors on the subject and particularly with Mr Vernon Smith President of the Board of Control on the ground of expence [sic]'.[808]

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[804] RBGK, JDH/2/1/12, Humboldt to Hooker, Potsdam, 16.7.1851, p. 22.
[805] Bunsen to Sykes, Heidelberg, 19.7.1857, GStAPK.
[806] Hermann Schlagintweit, *Reisen in Indien und Hochasien*, Vol. I (Jena, 1869), p. vii.
[807] Letter Bunsen to Sykes, Heidelberg, 19.7.1857, GStaPK.
[808] Ibid. Robert Vernon Smith, later 1st Baron Lyveden, served as president of the Board of Control during Palmerston's leadership, and held a seat in the cabinet (February 1855 until March 1858). See W. R. Williams, 'Vernon, Robert, first Baron Lyveden (1800–1873)', rev. H. C. G. Matthew, *Oxford Dictionary of National Biography*, 2004; online edn, Jan 2008, access 29.1.2014.

While drawing on private communication with Company patrons, the signs thus seemed favourable in the summer of 1857 that the Schlagintweits could successfully pull the right strings to secure further, long-term employment on British grants. Yet, while the first hurdles towards this goal were taken in Europe, unexpected events in India brought negotiations to an abrupt halt. The unfolding of a major imperial crisis in Britain's most important colony, and its repercussions in the metropole, would frustrate some of the brothers' efforts to secure further British patronage, and would ultimately play a crucial role in the further development of the Schlagintweit controversy.

The Great Indian Uprising

The Schlagintweit brothers' plea for renewed employment by the East India Company coincided with one of the worst crises of the British Empire. Their loyal Company Director William Henry Sykes therefore cautioned the brothers against holding any high expectations, stating in the summer of 1857 that: due to 'the present confusion in our provinces owing to the unhappy military mutiny [...] objections may be raised in the Court and at the Board to engage at present in a scientific work the expense of which cannot be calculated.'[809] Indeed, at this moment, the Court faced considerably more urgent concerns than securing another treatise on India when the very existence of this vital colony was under threat following the outbreak of the Sepoy 'rebellion' in northern parts of India in the spring of 1857.[810] Despite a long British presence in South Asia, and eager attempts to co-opt indigenous information networks for the upholding of Company rule, the violent outbreak against British rule and military control had taken the imperial authorities by surprise.[811]

While much nineteenth- and early twentieth-century scholarship on the Indian 'mutiny' has sought to underplay its significance and anti-colonial character, the literature produced after Indian independence and after the end of the British Empire as a whole has provided strikingly different interpretations of the cataclysmic events of 1857-59. Scholars such as Christopher Bayly and Shaswati Mazumdar argue that

[809] Bunsen to Sykes, Heidelberg, 19.7.1857, GStA PK, VI. HA Familienarchive und Nachlässe, FA Bunsen, Karl Josias von, A, Nr. 23 folder 5, 'Reise der beiden Schlagintweit, 1854', p. 269..
[810] On the causes for its inception, Jürgen Osterhammel, *Die Verwandlung der Welt*, pp. 788-93.
[811] Bayly on the failure of British intelligence gathering prior to the revolt, which he sees at the core of the outbreak and the ensuing imperial crisis, in *Empire and Information*.

the spirit of revolt was not limited to the ranks of the British Indian army, but rather found wider approval 'in significant sections of the civilian population', and that this support was to be found not only 'in and around the most active sites of the "mutinying" sepoys in northern India but also in other more distant parts.'[812] When details about the scale of the imperial crisis in India gradually became known in Britain, especially news that the revolt was gaining momentum in different provinces, and thus threatening British rule on the subcontinent, the East India House in London was quickly thrown into an existential political crisis. Indeed, the Company's authority as the 'legitimate ruler' of the Indian Empire was severely, and ultimately irreparably, damaged. In such troubling times, the fact that Sykes was nonetheless willing to give the Schlagintweits' scheme his personal protection speaks volumes about the sense of obligation he felt towards the brothers, but also towards his old acquaintance, Alexander von Humboldt.[813]

While the outbreak of the Indian Uprising greatly complicated the sealing of a renewed contract with the Company, I argue that the imperial crisis of 1857-58 affected the Schlagintweits' career in another, more fundamental, regard. That is, while ever-more details on British military defeats, such as the fall of Delhi, and news of the war atrocities committed on both sides slowly reached the European publics, the revolt soon assumed a different meaning for British and continental contemporaries. That is, more than being discussed only in military regards, the imperial crisis quickly prompted a more general discussion on British rule in South Asia, especially on its supposed failures or contested 'achievements'. In Britain, regardless of certain critical, anti-colonial voices, public opinion saw a wave of patriotic sentiment sweeping across newspapers and journals during this critical period. Countless articles glorified, as *The Times* had it, 'the unconquerable fortitude

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[812] Shaswati Mazumdar, 'Introduction', in idem (ed.), *Insurgent Sepoys: Europe Views the Revolt of 1857* (2012), pp 1-15, 1. Bayly emphasised that: 'In the north Indian towns, impoverished artisan communities, suffering from the competition of British imported manufactures, played a role' in the rebellion, as did a great range of peasant movements, and also armed protests by deprived Indian rulers. Idem, *The Birth of the Modern World*, pp. 151; 154.

[813] Humboldt, in turn, showed such a degree of gratitude towards Sykes that he hoped to secure him an honour by the Prussian King (Roten Adler-Orden 2. Klasse), which would have inferred upon Sykes an Ordensadel (a specific form of 'Personaladel'), a 'civil knighthood' for his support to the brothers. Sykes to Humboldt, London 27.6.1857, original at Matica Slovenská, Literárny archiv, Martin; copy at BBAW; see also, GStA PK, 1. HA Rep. 89 Geh. Zivilkabinett, jüngere Periode Nr. 19767, fol. 77f. Bernstorff to Illaire, London, 3.9.1857. While Sykes was flattered to receive the Prussian medal (and a large Porcelain vase with a depiction of Sans Souci personally selected by Frederick Wilhelm IV), Britons were, however, not allowed to wear foreign medals, and hence the idea formed to propose Sykes to Queen Victoria for a knighthood.

of our isolated countrymen', who seemed to defend the national empire against the vicious, 'mutinous spirit' of the 'natives'.[814]

Yet, when it became clear that the British hopes for a quick suppression of the 'mutiny' were overly optimistic, and the prospect of a more prolonged war campaign had finally sunk in among the British imperial authorities and European publics, a number of continental newspaper editors and writers began to question the very legitimacy of British colonial rule in India. Even the question of Britain's future power and influence in Europe became an issue of discussion – much to the scorn of the British press. From early on, it was noted in the British Isles that: 'Such an affair as the Indian mutiny was not likely to pass without some malicious comments from our ill-wishers abroad.'[815] Foreign criticisms appeared especially spiteful, as again *The Times* asserted: 'Our opponents cannot openly and straightforwardly pray that we shall be beaten in India, because this would be simply siding with barbarism against civilisation.'[816] As a response, perhaps, the Indian 'mutiny' marked a moment when patriotism and xenophobic tendencies towards 'ill-meaning' foreigners became more pronounced in Britain than before.

This outburst of patriotic sentiment did not leave the Schlagintweits untouched, but in fact contributed a great deal to the public debate that evolved around their mission. After the return of Hermann and Robert Schlagintweit to Europe, the brothers had seemingly kept a low profile, and had only given three papers on their Indian travels to a meeting of the *British Association for the Advancement of Science* in Dublin, in August of '57. There, the brothers' first reports on their Indian travels had been well received, and even occasioned the conferral of an honorary degree from Trinity College Dublin to Hermann Schlagintweit.[817]

However, the initial appreciation of their mission took suddenly a decisive turn. In October 1857, the leading scientific-artistic journal of London, *The Athenaeum*, published a lengthy, caustic commentary on the brothers' journey through the endangered British colony in India, and on their recent initiative to secure further patronage for their planned publication. The article set out by acerbically stating that: 'These German gentlemen were sent [...] on a mission which, as no

[814] *The Times*, 26.10.1857, quoted in Shaswati Mazumdar, 'Introduction', p. 3-4.
[815] *The Times*, 4.7.1857, quoted in Shaswati Mazumdar, 'Introduction', p. 3.
[816] *The Times,* 10.10.1857; quoted in Shaswati Mazumdar, 'Introduction', p. 3.
[817] Anon., 'Gossip of the Week', *The Literary Gazette: A Weekly Journal of Literature, Science, and the Fine Arts*; 5.9.1857, pp. 857-59.

Englishman could understand any reason for it, was mysteriously – and, we have no doubt, very erroneously referred to an occult influence.'[818] By this was implied that their generous employment in 1854 had been secured behind closed doors, through the silent efficiency of patronage networks that were argued to 'deprive' British subjects from 'those lucrative and honourable employments.'[819] While their initial nomination was thus depicted as a shady affair, it was above all the brothers' claim to scientific 'discovery' that drew the mockery of the journal:

> 'Well, the Messrs. Schlagintweit have come back, and have told the world their secret. They have been, it seems, on a voyage of discovery; and if we comprehend their Report, they claim to have found a range of mountains in Upper India called the Himalaya, and to have crossed the country between Bombay and Madras. Their travels in well-worn roads are styled "a careful exploration of Asia" [...] The Prussian gentlemen, we find, have opened up Thibet, and are about to make India known to Europe. We in England fancied that we knew a little about India, and that we had done something towards laying open its physical and geographical features [...] But we were labouring, it would now appear, under strange illusions. Doubtless the two Gerards, Vigne, Moorcroft, Thomson, the two Cunninghams, Hooker, and the two Stracheys – all the men that *we* fancy opened up Thibet – were all myths!'[820]

This public critique in the *Athenaeum* was prompted by a 'summary report' the brothers had delivered to the Parisian *Académie des sciences* only two weeks earlier, and their report was soon printed in newspapers and the Academy's journal.[821] What is indeed striking is the fact that not a single British scientific traveller was mentioned in the seven-page report on their' own explorations, routes, and 'discoveries'. In the report, the fact that considerable parts of the Himalayas had *already* been measured by British surveyors is only acknowledged between the lines, as the brothers supported the claim of Colonel Waugh (then Surveyor General of India) that Mount Everest was indeed the highest peak then measured in the world. This, to be sure, necessitated that also a number of other Himalayan regions and mountains had been measured before. Indeed, this had been achieved under the orders of Colonel Waugh (also the leader of the Great Trigonometrical Survey), who had

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[818] 'The latest Indian Mission', *The Athenaeum*, 1566, 31.10.1857, pp. 1358-9.
[819] Ibid.
[820] Ibid., p. 1358.
[821] Hermann and Robert Schlagintweit, 'Aperçu sommaire des résultats de la Mission scientifique dans l'Inde et la Asie', pp. 1-7.

named the highest peak in memory of his predecessor, George Everest.[822] It is true that if one reads the 'report' given to the Parisian *Académie* of the Schlagintweits' scientific achievements in India and High Asia, the brothers indeed wrongly give the impression that almost every aspect of their researches and the itineraries taken were of a pioneering character. The fact that the brothers received substantial amounts of corresponding data and observations, e.g. from British officers in India's Medical Department, not to mention significant personal support from other European travellers and knowledgeable residents throughout the expedition, is silenced. In their 'report', which subsequently became widely copied in other European newspapers, nearly all the traces of the British scientific engagement with the natural history of the subcontinent and the Himalayas were literally effaced.[823]

Suddenly shifting the gear from biting sarcasm to scornful review, the *Athenaeum* article on their 'report' continued that 'we have no hesitation in saying that the facts claimed as discoveries by [the Schlagintweits] were *all* known to English scientific men', with their mission having thus 'terminated in pretensions which are ridiculous and disgraceful.'[824] While it would be easy to dismiss such a critique as immature, given that the brothers had not even published their official account, it is nonetheless worth considering why the British paper displayed such ferocious aggressiveness when rejecting all the claimed achievements of these 'foreigners'.

To understand the critique, we have to place the article thoroughly into the context of contemporary British fears about the current and future state of the Indian Empire. As the *Athenaeum* continued, '[o]ur scientific corps in India consists of men unequalled in their own studies and their own work [...]. Their Trigonometrical Survey is one of the noblest scientific labours of our generation'. Why, then, would the British imperial authorities adopt 'the policy of engaging foreigners to do what they could have done so well? Is this the way in which Leadenhall Street hopes to gain affection for the service [in India]?'[825] Yet, more importantly, the appointment of non-British subjects seemed even more flawed, indeed dangerous, as the article

[822] Harold William Tilman, *Nepal Himalaya* (Cambridge, 1952), pp. 17-18.
[823] First, other French newspapers printed their 'summary report' (e.g. Galignani's messenger), which in turn was re-issued in British papers; *The Literary Gazette* (London), 24.10.1857, p. 1023.
[824] 'The latest Indian Mission', *The Athenaeum*, 1566, 31.10.1857, pp. 1359.
[825] Ibid., p. 1359. The EIC's headquarter, the India House, stood in 'Leadenhall Street' in the City of London.

rhetorically asks: 'Is this the way to impress the native mind with the superiority of *English intellect* and with the justice of *English rule*?'[826]

With the present insecurity over British sovereignty in South Asia, the nature of the Schlagintweit controversy thus underwent a fundamental shift. To be sure, the article still captured the (already known) patriotic sense of entitlement in Britain that proclaimed an unwritten duty of the EIC to enlist primarily national subjects. The article still condemned the favouring of such well-connected strangers, which resulted in the 'cruel neglect of unfriended genius[es]' among British men of science. But science now seemed to matter not only as a career opportunity that should above all be reserved to fellow citizens, rather, in the context of the current crisis, the pursuit of science in the Indian Empire was portrayed as a way of establishing, and maintaining, British 'superiority' over indigenous peoples. Science, in this reading, was more than just a tool of empire to better control indigenous populations, implement European health regimes for the sake of Anglo-Indians, and maximise the Company's profit by improved exploitation of the land and its resources. For contemporaries, while 'British science' in India certainly had this more utilitarian dimension, it had also assumed an equally important *symbolic* meaning and function. Scientific activity in the colony was portrayed as a form of rule, as a continuous demonstration to 'the native mind' how British dominion over the empire's more 'primitive' Indian subjects was indeed of a justified nature.

British contributions to European knowledge of India, and the empire's achievement in the 'laying open' of new countries to western science, thus became an important pillar for the British imperial identity and public claims over the righteous nature of British rule in South Asia. By alluding to the results of the GTS, which included the measuring of the highest peaks in the world by Colonel Waugh (hence *not* by any 'foreigners'), the journal sought to give ample proof of how the British imperial project in South and High Asia was a beneficial, enlightened undertaking. While it is a familiar trope that wars often reinforce nationalistic sentiments, much less scholarly attention has been devoted to the importance of science as a rhetorical battlefield, on which the virtues of a nation's empire project had to be 'defended' against the imposturous claims of 'outsiders'. The supposed neglect of British

[826] 'The latest Indian Mission', p. 1359, emphasis mine. Already earlier, in 1854, an anonymous author noted in *The Athenaeum*: 'The emplyoment of these young Prussians will scarcely tend towards the maintenance of that belief in our superiority on which the Government of India by Great Britain is said to hang.' Ibid., 'Our Weekly Gossip', 1379 1.4.1854, p. 408.

scientific accomplishments by the German brothers was thus portrayed not so much as a break with the conventions of gentlemanly science; much worse, it now appeared as 'a gross insult to the labours, merits and memories of the scientific men of India, living and dead.'[827]

Not only the actual colony, but also the historical place of British science in India seemed suddenly challenged. In response, the *Athenaeum* urged that 'In days like these Englishmen should hold together'.[828] They thus reassured their readers that: 'The civil servants of the East India company, labouring at their work seven thousand miles from London, may be deprived by occult influences of some of those lucrative and honourable employments [...] but they may rest assured that a watchful press and a generous public will not suffer them to be defrauded of their well-won reputation at home.'[829] Securing British achievements in the realm of science was now seen as an 'act of piety' towards those serving, fighting, and already deceased Britons in India. To commemorate their achievements against the pretentious claims of 'foreigners' thus became a self-assumed duty at the 'home front' during a time when the empire was at war.

Knowledge gaps

The colonial uprising impacted on the brothers' lives in another fundamental way. Whilst Hermann and Robert ended their active involvement in the expedition shortly after the outbreak of violence, Adolph remained in northern India, the western Himalayas and the Kuenlun range to complete their observations. In April and May 1857, he was crossing the Punjab, reaching Lahore and Sultanpur. In response to the turmoil in the northern provinces, Adolph was suddenly forced to abandon his plan to return to Europe via Bombay.[830] His diary entries in the summer of '57 indicate his increased awareness of the unstable position he was in. He was travelling with a small establishment of servants again over the Karakorum and Kunlun chains through Chinese Turkistan, spending sleepless nights with a loaded gun in his hand as he feared assaults by the peoples of 'dubious character' he frequently encountered.[831] His

[827] 'The latest Indian Mission', *The Athenaeum*, p. 1359.
[828] Ibid.
[829] Ibid.
[830] Schlagintweit, 'Aperçu sommaire', p. 1.
[831] Anon., 'Zeitungs-Nachrichten', *Bonplandia: Zeitschrift für die gesammte Botanik*, 9 (1862), p. 160.

plan was to continue on a northern route through the politically volatile Turkistan, to complete their data and eventually reach the Russian territories in Central Asia. From there, the land route to Europe was again considered safe.[832]

Yet, even after almost a year from the other Schlagintweit brothers' return to Europe, no further sign of life had been received from Adolph – his last letter dated from late June 1857.[833] That letter had reached Germany through a communication by German missionaries in Lahól (in the Himalayas) from late July 1857. Therein, Adolph was quoted as saying that he had spent the last few weeks re-crossing the Kuenlun chain in different directions and now planned to visit Tibet. Yet, in alluding to the geopolitical conflicts in this area, he also stated: 'My itinerary nonetheless depends […] very much on the events in Yarkand; there, a war has been waged for three months, and a large part of the country has been temporarily taken away from the Chinese.'[834]

The initial excuse for Adolph's long silence after the summer 1857 was that he was indeed exploring regions that the arm and communication lines of the Imperial Government did not easily reach.[835] Yet, international concern soon set in and led to the preparation of a first search expedition by the British authorities under the orders of Sir John Lawrence and Lord William Hay. A search party was sent off from the hill-station of Shimla in mid-July 1858.[836] The great interest of Leadenhall Street in the whereabouts of this German scholar was hardly shared by the popular press in Britain. In line with the lingering controversy over the brothers contested 'achievements', the widely-read newspaper, *Allen's Indian mail*, sourly noted: 'The British Government have shown more interest in the scientific German than in their *own* officers, Connolly, Stoddart, and Wyband' – all of whom had fallen victim to their excursions into Central Asia.[837]

Adolph's disappearance into the 'unknown' beyond the empire's northern frontier was alluded to in the most successful literary work that ever appeared on the

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[832] Hermann Wagener, 'Schlagintweit', p. 263.
[833] Carl Ritter, 'Sitzung der geographischen Gesellschaft zu Berlin, vom 9.1.1858', *Zeitschrift für allgemeine Erdkunde*, 4 (Berlin, 1858), pp. 87-88.
[834] Anon., 'Mannigfaltiges', *Erheiterungen, Beiblatt zur Aschaffenburger Zeitung*, Nr 43. 19.2.1858, pp. 171-2, my translation.
[835] *The Moreton Bay Courier* (Brisbane, Australia), 30.3.1861, p. 5, on Adolph's fate: 'It is a pity our [the British empire's] arms are not long enough to touch those distant barbarians. We can readily pounce upon Sikkim, but Kokan[d] is beyond our reach'.
[836] Anon., 'Deutschland', *Laibacher Zeitung,* 194, 25.8.1858, p. 777.
[837] Quoted from anonymous, *Allen's Indian mail and register of intelligence for British and foreign India, China and all parts of the East* (London), 28.5.1859, p. 456, emphasis mine.

Indian 'mutiny' in Germany, *Nena Sahib, or the Uprising in India: Historical-political Novel of the Present Times*, published by the German writer Hermann Goedsche. It immediately became 'a runaway best-seller'.[838] In the novel, a fictitious Prussian doctor encounters a Muslim 'warrior', Fattih Murad Khan, in the 'deserts of [northern] India'. In the ensuing dialogue, the Prussian, a doctor who had been pressed into the British Navy, tells the Muslim prince: 'I have heard that three of my countrymen are presently engaged in a scientific expedition through northern India and Thibet.' When the Khan inquired about the name of these travellers, the Prussian doctor responds: 'The itinerant scholars are the brothers Schlagintweit.' Thereupon, the Muslim warlord 'recognises' their name, and replies: 'Two of the three brothers have returned to Calcutta. I guided the third one into the mountains of Thibet' – and here, the narrative on Adolph ends, thus capturing the German concern for the vanishing of the scholar. The literary reference to the brothers makes clear that the Schlagintweits had by then become household names in the German lands. It also demonstrates how their fate gripped the nationalistic segment of the German public imagination – at a time when their scientific achievements were still unclear and contested by British opinion.

In the spring of 1858, news of Adolph's potential murder and some details about the last leg of his journey finally reached Europe. The task fell to Hermann and Robert to compile an account of the events that had led to Adolph's capture and eventual killing in Chinese Turkistan, based on the scattered information that came to light in the aftermath of the journey. According to their report, Adolph 'was recognised as a European after having passed the Karakorúm and Küenlüen, in disguise, where before us no European had ever travelled; he had taken a route more westerly than ours, and had succeeded in penetrating far into Central Asia.' The two brothers further declared that 'the political condition of these countries', and the fact that Adolph had been identified 'as an officer of the Indian Government […]

[838] Published under the pseudonym, Sir John Retcliffe, *Nena Sahib oder Die Empörung in Indien. Historisch-politischer Roman aus der Gegenwart (Nena Sahib or the Uprising in India: Historical-political Novel of the Present Times),* 3 Vols. (Berlin, 1858-59); on this novel see, Shaswati Mazumdar, 'The Jew, the Turk, and the Indian: Figurations of the Oriental in the German-Speaking World', in James Hodkinson et al. (eds.), *Deploying Orientalism in Culture and History: From Germany to Central and Eastern Europe* (New York, 2013), pp. 99-116, 110.

essentially contributed to his tragic end', as he was executed on suspicion of being a British agent.[839]

The death of the German explorer at the geographical extremes of empire was a cruel twist of fate. It meant not only a great personal loss to the surviving brothers, but it also endangered the whole scientific legacy of their expedition. From the very start of the Indian scheme, it was Adolph who had been the leading spirit behind the mission. Humboldt himself confirmed this when he wrote in 1858 that 'Adolph was, also in the eyes of Leopold von Buch, the most distinguished of the three brothers.'[840] With him, the trio lost their best mind, and his demise left a void – a knowledge gap – that the two surviving brothers could not fill. Given the assumed importance of Adolph's pioneering excursions, British colonial officials invested considerable time and energy into recovering his last notes and sketches. Roderick Murchison declared that 'it is most distressing to have to record that he of the three brothers who pushed his adventure the farthest should have been cut off at a time when his note-books and observations must have been of the highest value.'[841]

This loss in experience, knowledge, and brainpower would have important ramifications for the future twists and turns of the Schlagintweit controversy. Of all the brothers, Adolph had undertaken the longest and most thorough preparation for the Indian mission. He had already settled in London in February 1854, more than half a year before the brothers' departure, to be trained in the use of instruments and to peruse British scholarship on the geographical features of the subcontinent in the East India House library.[842] To be sure, specialised British literature on scientific developments in India was difficult to access in the German lands. August Petermann, one of the leading continental geographers, regularly had to beg his British contacts to

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[839] Also Russian explorers at the time identified Adolph as an 'English agent', Capt. [Chokan] Valikhanof and M. Veniukof, *The Russians in Central Asia: their occupation of the Kirghiz steppe and the line of the Syr-Daria: their political relations with Khiva, Bokhara, and Kokan: also descriptions of Chinese Turkestan and Dzungaria* (London, 1865), p. 228. On the brothers being equipped with official letters of the 'superior government' of British India, e.g. by the Governor of Bombay, Lord Elphinstone, to enter Nepal, see Schlagintweitiana II.1.43, Hermann Schlagintweit to unknown recipient, 31.1.1855.

[840] Humboldt to Illaire, 15.4.1858, GStA PK 1. HA Rep. 89 Geh. Zivilkabinett, jüngere Periode Nr. 19767, fol. 126, my translation.

[841] Murchison, 'Address to the Royal Geographical Society of London, 23rd May 1859', p. 260. Also the Russian imperial government commanded his officers in Central Asia to enquire into Adolph's fate, see "Die Gebrüder Schlagintweit', *Die Gartenlaube*, unknown vol. (1858), in Alpenverein-Museum, Österreichischer Alpenverein, Dokumenten-Kiste: R. und H. Schlagintweit / PERS 26.1/5, p. 29.

[842] Humboldt to Bunsen, 20.2.1854, *Briefe von A. von Humboldt an C. C. J. Freiherr von Bunsen* (Leipzig, 1869), p. 178.

send him recent publications, complaining that 'it is exceedingly difficult for me to obtain such works'.[843]

During the period that Adolph Schlagintweit spent in London to catch up on Anglo-Indian scholarship in preparation for their mission, his brothers Hermann and Robert were, by contrast, still busy finishing the second Schlagintweit treatise on their previous Alpine exploration. This task was only completed in June 1854 – just three months before they left.[844] Hermann only left Berlin for London to prepare for their travels in mid-July.[845] Robert, too, had very little time for preparation as it was decided only weeks before they embarked on the scheme that he could join his brothers in India.[846] Thus it was only Adolph who had possessed a thorough acquaintance with the substantial amount of extant British knowledge on Indian natural history and Central Asia's history of exploration. This is well captured in one of Adolph's scientific reports from India sent to Sykes in London, in 1856, wherein he thankfully acknowledged 'the opportunity to be guided during my investigation' of a hill site 'by a topographical note furnished to me by Mr Walter Elliot, who, as you are aware, is very well acquainted with the geology and geography of this district.'[847] The thick layer of previously accumulated expertise ultimately led Adolph to state that 'my feeble exertions to add to the scientific knowledge of so interesting a country as India have met in Madras with much more attention than they deserve.'[848] By contrast, Hermann and Robert went to India only as experts of the European Alps. And their constant movement during the Eastern expedition did not allow them to develop into experts of the rich and highly specialised British scholarship that had been accumulated, over the course of a century, on India and 'High Asia'.

This stood in a marked contrast to many British scholars who were resident in India as Company surgeons, officers, or political agents – often for a long period of time. This gave them the chance to develop a more specialised knowledge through regular trips in the same corner of the empire. As we have seen, Brian Houghton

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[843] See Petermann's endless book requests to Company men in London, in SPA ARCH PGM 353/2, folder Sykes, William Henry, quoted letter Petermann to Sykes, 31.3.1860.
[844] Published as Hermann and Adolph Schlagintweit, *Neue Untersuchungen*, p. ix.
[845] Humboldt to J. Hooker, 16.7.1854, Ms2153, Joseph Hooker Collection, Hargrett Library, Special Collections Libraries of University of Georgia, box 11, folder 14.
[846] Robert apparently never went to the British capital to prepare for the mission; Humboldt to Illaire, 11.6.1854; in GStAPK, 1. HA Rep. 89 Geh. Zivilkabinett, jüngere Periode Nr. 19767'.
[847] Copy of a letter by Adolph to Sykes, Pondicherry, 26.2.1856, Sammlung Perthes Gotha, Forschungsbibliothek Gotha, SPA ARCH PGM 353/1, p. 18.
[848] Ibid.

Hodgson, the government agent in Kathmandu, was the epitome of the colonial scholar with considerable local expertise. He spent half a lifetime in Darjeeling, turning himself into an acknowledged expert in such diverse fields as Buddhism, Tibeto-Burman languages, and Himalayan natural history.[849] His advice to Joseph Hooker, whom he had hosted during the latter's Indian travels, was taken to heart. As Hooker wrote to his father: 'Hodgson dwells strongly on the simple fact that it is better to explore one district well than to wander.'[850] This led Hooker to greatly extend his stay with Hodgson, from whose expertise in the area his published *Himalayan Journals* greatly profited.

In fact, Hooker, similar to the two brothers, had left Britain without a profound knowledge of Indian natural history or ethnography. However, he successfully compensated for his ignorance through extended scientific exchange with people like Hodgson, whose observations and expertise found their way, sometimes unacknowledged, into Hooker's publication, and also prevented the British naturalist from making broad claims that were marked by inexperience. In a sense, Hooker's scientific authority was protected from damage precisely because he *limited* his field of expertise, and refrained from advancing speculative theories on Himalayan ethnography grounded only on superficial impressions.[851]

By contrast, the Schlagintweit brothers covered considerably more regions than Hooker had done, and often failed to engage in such prolonged, thorough conversations with local specialists. Driven by their ambition to scrutinise large parts of India and High Asia, they frequently only wandered through vast regions; and, by seeing so much more, in a sense, understood much less.[852] Moreover, while many Anglo-Indian residents sought to fill existing knowledge gaps in specific disciplines (or areas), the brothers, by contrast, did not have a specific 'problem' or field that they sought to advance. Their ambition was on an entirely different scale, as they, at least in the eyes of British experts, sought to re-invent the wheel, and to re-write the entire natural history of India and the complex mountains systems to its north – mostly based on their own, sometimes only fleeting observations.

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[849] Only in recent years has Hodgson has been 're-discovered' as a scientific polymath, *The Origins of Himalayan Studies*, edited by David M. Waterhouse.
[850] Arnold, 'Hodgson, Hooker and the Himalayan Frontier', p. 194.
[851] Ibid.
[852] David Arnold speaks of South Asia's 'almost continental proportions' alone, *Science, Technology and Medicine in Colonial India*, p. 7.

To a degree, their journey was a voyage of discovery – but, owing to their insufficient knowledge in many of the disciplines they engaged in, it appeared to be one of self-discovery, as was noted time and again by metropolitan scholars as well as the erudite and satirical papers. As could be shown, certain British commentators scoffed that while many of the Schlagintweits' 'results' may have been a revelation for them, they were certainly not new to science. This view was subsequently taken up by satirical magazines on the continent. Especially in *Kladderadatsch*, the Berlin counterpart to the famous British *Punch*, the brothers' ridicule in the *Athenaeum* served as the template for its own derision. While giving it a further twist by alluding to the great expenses the brothers' 'discoveries' had by now incurred, the *Kladderadatsch* noted in 1857:

> 'It is indeed outrageous to read how the three poor Schlagintweit brothers are now torn to pieces by British papers. Ten thousand pounds sterling for three poor travellers is certainly not too much if one considers the thoroughness with which the learned savants have embarked upon their duty, and have always been anxious to include only those findings in their reports, whose reliability had already been proven by the most trustworthy testimonies of other, more important, scientific authorities.'[853]

Following this first skit, the brothers made something of a second career appearing in this Prussian satirical paper, which now changed and ridiculed their name to 'Schnabelweit' – a euphemistic variation of what in German would be understood as 'plapperhaftes Großmaul', literally a big mouth.[854] Making several appearances in the *Kladderadatsch*, the magazine's most witty critique of the brothers' grand claims was a 'fictional paper' that the Schlagintweits were said to have given at the (imaginary) 'Academy of science at Disteldingen'.[855]

In the totally fictional account that was published in the satirical paper, the brothers 'stated' that their academic lecture took place after 'our great travels to the Himalayas, which, as you will know from different newspapers and advertisements,

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[853] *Kladderadatsch; Das deutsche Magazin für Unpolitische*, 51, Berlin, 8.11.1857, p. 206. As in English, 'poor' [*arm*] has the same double meaning in German – being deprived of financial means, but also being a poor devil [*armer Kerl*] and thus deserving to be an object of empathy.

[854] The made-up name wittily played on two German sayings at the same time: 'nicht sein Schnabel halten können' [talking incessantly, and not necessarily with great substance], and 'sein Mund/Maul zu weit aufreißen' [to talk boastfully or overconfidently].

[855] 'Bericht der berühmten Reisenden, Gebrüder Schnabelweit, über ihre berühmte wissenschaftliche Reise nach dem Himalaya, erstattet in der Akademie der Wissenschaften zu Disteldingen', *Kladderadatsch*, 37, 9.8. 1857, p. 146. A selection of the best satirical pieces are fully transcribed in the appendix.

we have undertaken as much for the sake of science as for our very own interest.'[856] In the ensuing farce, almost every single aspect of their research – as described by the reports the brothers had sent home – was sneered at. The biting mockery touched on the Schlagintweits' scientific custom of continually taking measurements of the most apparently insignificant details already *during* their passage to India, and to use elaborate instruments to detect such banal circumstances as the fact that it was 'raining'. It also parodied their wide interests in 'racial varieties' – which, as the article had it, had started already in Brandenburg in the one-horse town of 'Erkner' just outside of Berlin. In the mock lecture, the Schlagintweits also applauded the neutral stance of the 'Austrian Government, one of the few which was not at all complicit in the considerable increase of costs for our scientific expedition' – hence, a jibe at the Prussian, British, and Indian governments to have been fooled by the brothers into accepting such spiralling expenses.[857] Yet, the most biting passage came at the very end of 'their' account:

> 'We thus arrived in Asia and went on the shortest way to the top of the Himalayas. There, during an extended stay of several years, we found all the information given in Brockhaus' and Pierer's Encyclopaedias so thoroughly confirmed that we avoid any useless repetitions […] and confine ourselves to refer you to the respective articles in both [oeuvres] as regards the details of our travels and our scientific results. Dixi et salvavi animam!'[858]

The Latin saying stands for a symbolic act of catharsis, meaning: 'I have spoken; and by so doing have delivered my soul from all responsibility, which I might have incurred by silence.' The pun, of course, was that the brothers did exactly the opposite: in the eyes of the satirists, the Schlagintweits seemed to claim as 'scientific discoveries' what others considered to be received wisdom. It was precisely because the brothers seemed to consciously silence the achievements of their scientific predecessors that they became 'guilty' not only of ungentlemanly behaviour, but also of fraud.

That such a poignant satire would appear in Berlin, and be read by government officials as well as by the brothers' scientific patrons, adds further nuance to the

[856] 'Zurückgekehrt von der großen Reise nach dem Himalaya, die wir, wie Sie aus verschiedenen Zeitungs- und andern Reclamen wissen werden, sowohl im Interesse der Wissenschaft als in unserem eigenen unternommen haben', ibid.
[857] '[…] da die Oesterreichische Regierung eine der wenigen ist, welche sich von jeder Mitschuld an den bedeutenden Kosten unserer wissenschaftlichen Expedition völlig rein zu halten gewußt', ibid.
[858] Ibid.

controversy. It reminds us that, at least in the beginning, there was no black-or-white reception of their works, with the fault lines running along the national boundaries of Britain and Germany. Rather, the parody showed that German papers also, if only very few, equally ridiculed and thus criticised the lavish patronage by their many sponsors, and highlighted that the Indian mission was not least intended to fill their own purse, and nourish their personal vanity.[859] What is more, the Prussian satirists' reference to the body of knowledge that existed in German learned works and encyclopaedias proved that India and the Himalayas were, at least for specialist audiences, not the 'blank spots' that the brothers seemed to portray them to be for some of their French and German audiences.

Yet, the *Kladderadatsch* article was important in another way as well. It clearly showed that in the (by that time) *public* Schlagintweit controversy, German newspapers and satirical magazines were consciously following the reputation and press coverage the German brothers received in England. This instance of mutual observation of the British and German press points to the fact that this work seeks to demonstrate, namely, that the scientific authority of an individual scholar was not universal. On the contrary, it was forged within a landscape of multiple public spheres. Yet the boundaries between those spheres were porous and open to outside influences – as we have seen with the *Kladderadatsch*, a paper that looked to English satirical papers for ideas on how to report on the German scholars. During the most heated points of the controversy, the majority of magazines and newspapers in Germany were in some way responding to the hostile reactions to the Schlagintweits in Britain. Apart from their recurring ridicule in Prussian satires, the popular press and scientific community in Germany generally sought to defend the merits of the then famous brothers, and thus to justify their contested publication scheme.[860] The following analysis of how the brothers faced formidable hurdles to secure their publications, and how they became defamed in Britain, thus sets the background against which their later glorification in the German lands can be fully understood.

[859] Ibid.
[860] See the later chapter on 'Asymmetric reputations' for a thorough analysis of this point.

Securing a written monument

On 6 February 1858, another 'scandalous discovery' about the Schlagintweits was published in the London *Athenaeum* that gave rise to a new wave of dispute over the value of their mission in general and their unscholarly behaviour in particular. A document written by Hermann Schlagintweit and circulated among the members of the Court of Directors fell into their hands. The paper was entitled 'Practical Objects connected with the Researches of the MM. Schlagintweit, under the Orders of the Hon. Court of Directors'. As the stakes were high, Hermann had travelled to London in person to submit the document to the East India House in September 1857. The intention of his visit and written proposal was to secure a new secret contract with the Company for the publication of the brothers' scientific results. The brothers wanted to secure the necessary funds in London, and then disappear to Berlin for some years to get the work done without there being any public record of the financial and publication arrangements. For this purpose, the Schlagintweits had already taken their notes and the greatest part of their collection to Prussia, on the basis of which they wanted to compose their scientific oeuvre.[861] Only then, so they hoped, could they silence their critics and show the world the great achievements of their journey.

However, this time the Schlagintweits' negotiation strategies failed dismally. Against the brothers' intention, someone had leaked this confidential document to the press. While the name of the informant is unknown, it is plausible that one Company director was responsible for handing the document over to critical journals in London. The brothers knew themselves that a faction within the East India House opposed some of their plans, especially their eagerness to take the entire collections to Berlin. Hence, they informed the Prussian Minister of Culture that while they had succeeded in shipping most of their artefacts to the Prussian capital, this was done 'even though many members of the Court of Directors […] were against this', and were said to have induced 'some public organs' to dismiss their plans.[862] This instance showed that also the brothers' opponents tried to use the press to build up support for their position in negotiations with the Schlagintweits over their new contract. Now, with the content of their 'memorandum' made known, the brothers were not able to present the already

[861] For details on the arrangements made for their collection, see Chapter seven of this work.
[862] Hermann and Robert Schlagintweit, Berlin, 19 February 1858, report to von Raumer, in GStA PK, 1. HA Rep. 76 Kultusministerium Ve Sekt. 1 Abt. XV, Nr. 189 Beiheft 'Acta Commissionis des Geh. Oberregierungsraths Lehnert betreffend den Erwerb der Sammlungen der Gebrüder Schlagintweit', translation mine.

agitated British public with a *fait accompli* of a renewed employment. Rather, delicate details about how they ingratiated themselves with the Company directors, and specifics about their extensive financial claims, suddenly became public and the subject of gossip.

For the *Athenaeum* editors, who acted as some of the most outspoken critics of foreign recruitments on British grants, the leaked proposal was grist to their mill. The editors transcribed long passages of the original 'petition these gentlemen prefer to the India Company for more money, patronage, and power.'[863] Since, to my knowledge, the original manuscript has been lost, it is difficult to establish how much of the document was cut out for the print version. However, the structure of the text suggests that some parts are missing. For instance, the printed memorandum does not begin with a formal address to the Court of Directors. Rather, the Schlagintweits jump directly to enumerating those many 'Practical Objects connected with' their researches, which they sought to demonstrate to the Company in order to secure approval and material support. The printed memorandum thus consists of several paragraphs, each dedicated to one scientific discipline they hoped to cover in their projected publication. When taken together, all those 'practical' schemes the brothers proposed in each scientific field amounted to no less than a holistic imperial vision of how certain Indian and High Asian territories could become the object of colonial improvement and massive exploitation schemes of their natural resources.

Yet, the printed memorandum only refers to natural historical studies and cartographic projects. It thus leaves out the considerable ethnographic and anthropological observations the brothers had also pursued in Asia, including the production of a widely acclaimed series of plaster casts of 275 individuals from different Asian 'races'. These ranked among the most precious parts of their collection. What is more, while the printed memorandum alluded to the brothers' eagerness to produce a number of useful maps, it also did not mention their series of photographs and remarkable painted views from India and High Asia. Since their sketches and paintings promised to depict unknown landscapes in a highly appealing manner, and also provide crucial topographical information to the Company, it is unlikely that the original manuscript had not included a reference to these valuable visual sources.

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[863] Anon., 'Messrs. Schlagintweits' Indian Mission', *The Athenaeum*, No. 1580, Feb. 8, 1858, pp. 178-9.

While it is difficult to draw any firm conclusion from these omissions, it is probable that these parts were consciously removed by the *Athenaeum*'s editors. The reason was that it was by then already known among British scientific circles that their ethnographic heads and the hundreds of photographs and watercolours were indeed of high value to science. Their description in the printed memorandum would thus have undermined the *Athenaeum*'s attack on the overall significance of their researches and proposed oeuvre. In other words, the Schlagintweits' critics were also carefully orchestrating what pieces of information should be exposed to the general readers to maximise the brothers' defamation.

Despite these omissions, it is important to take a closer look at the actual content of the Schlagintweits' proposal. Particular attention is paid to the precise language and promises the travellers made in their petition in trying to address the Company's commercial concerns. The title already set the tone: their memorandum was all about '*Practical Objects*'. In applying for vast allowances from the EIC, which was undergoing one of its greatest crisis, it is thus striking how the brothers significantly downplayed any 'philosophical' aspects of their scientific mission. On the contrary, they stressed *only* the many 'useful' implications of their researches, as if merely colonial interests, and not also Humboldtian interests, had driven their exploration. With the memorandum, intended to secure their income for years to come, the Schlagintweits therefore did not appeal to the Company as an 'enlightened patron of the sciences' – a role in which the EIC sometimes sought to portray itself, 'if only to advance its commercial interests and protect its privileged political position'.[864] Rather, the German scholars assumed that only financially rewarding research would find the blessing and hence material support of the Directors. Yet, this is not to say that the brothers by this point did not also approve of such colonial 'interventions' and exploitations of the natural worlds of India and High Asia. On the contrary, the memorandum captured many elements of the imperial imagination the brothers had by then developed.

The eagerness of the brothers to constantly stress the imperial value of their data, observations, and collections meant – at least on paper – a second major 'reinvention' of their research scheme. The first shift had taken place when the

[864] Arnold, 'Imperial Recruitment and Transnational Science: The Case of British India', EUI Working Papers, forthcoming; see also Pushpa Sundar, *Patrons and Philistines: arts and the state in British India, 1773-1947* (Oxford and Delhi, 1995), p. 115.

brothers submitted their 'proposed plan of operations' to East India House in March 1854, thus successfully transforming their initial employment as leaders of the Indian geomagnetic survey into an interdisciplinary study of Indian and trans-Himalayan natural history. Whereas their initial 'proposed operations' had still been committed to the idea of writing a philosophical treatise about their travels, their later plan for publication suggested a marked change of ambition. Now, the brothers only emphasised the practicality of their services to the Company in providing a set of nine volumes that promised to be geared entirely towards colonial science, material development and Company profits. It is therefore worth exploring some themes that emerge from the printed memorandum, as they provide ample evidence of the strategic shift in representation that was undertaken by the Schlagintweits to stress the importance of their findings.

Under the first heading 'Magnetism, Meteorology, Physical Geography', the Schlagintweits summarised the results that were to feature in volume one of their publication. Here, they stated that while 'the more accurate determination of the magnetic elements in general, their relation to the magnetic laws in Europe, and the declination of the needle' were significant findings, 'the most important practical result' of their mission was 'the well-defined characterisation of the climate of India, in general'. To be sure, their prime subject of investigation should have been geomagnetism. Yet, in their proposed work, the magnetic survey should form only a small part of the content. Instead, the Schlagintweits decided to emphasise the imperial usefulness of their meteorological and geographical observations. These were portrayed as the sine qua non for 'the selection of [British military or settlement] stations and the cultivation of certain crops'. Due to its economic importance for Britain's manufacturing industry, the brothers stressed that '[c]otton had been particularly kept in view in reference to places inhabitable by European colonists.'[865]

The Schlagintweits further propagated the '[f]ixing of hill stations […] for sanitary or colonial' purposes. Their researches, it was promised, would reveal the most convenient spots for the founding of such settlements 'in proximity to the rich treasures of mineral and hot waters in the Himalayas'.[866] Lastly, while the existing literature on the Schlagintweit mission could not make much sense of the vast

[865] 'Messrs. Schlagintweits' Indian Mission', p. 178.
[866] Ibid. They had not only visited a number of hitherto unknown hot and cold springs, but had also incessantly taken 'water samples' of inland rivers, lakes and springs in bottles.

amounts of soil and water samples the brothers took with them to Europe, they maintained that the 'chemical analysis [of these substances] is inseparable from the allowance of an establishment' in Indian or High Asian territory, either for 'European colonists' or military garrisons.[867]

The next set of disciplines to which the Schlagintweits saw themselves contributing to was 'Topography, Hypsometrical Observations, [and] Maps'. As they promised, this part of their work would 'contain a detailed account of heights, – on which the choosing of roads, as well as agriculture, equally depend.'[868] The Schlagintweits' most direct claim to pioneering topographical results was linked to their proposed compilation of a 'Route Book' – which was to have both 'Military and Commercial' significance:

> 'We can complete [the Route Book] for parts where nothing similar has been tried, over Central India, the Himalayas, and the important country adjoining India to the north-east and north-west, viz., Burmah, Assam, Tibet, Kashmir, and the Turkistan Provinces, in Central [Asia].'[869]

The brothers thus claimed to facilitate the opening up of these vast regions to British military and commercial interaction by providing a detailed description of existing passes, bridges, and roads. This physical description of routes was to be complemented by more detailed intelligence. That is, as a European military journal later noted on their route-book:

> 'The general information on these travel routes are partly based on personal observations, partly on inquiries made with merchants and caravan leaders. The information touches on the physical conditions of the paths, the nature of the passes, the availability or absence of foodstuffs and the like, and is therefore of importance for war operations, and also for the critical assessment of military events in these regions.'[870]

Complementing this detailed description of innumerable roads within and beyond the British spheres of influence, the brothers also offered to the Court of

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[867] 'Messrs. Schlagintweits' Indian Mission', p. 179. As could be shown, these soil samples were indeed thoroughly analysed with a view to improving colonial agricultural schemes by Forbes Watson for the International Colonial Exhibition in London in 1862.
[868] 'Messrs. Schlagintweits' Indian Mission', p. 179.
[869] Ibid.
[870] Review of 'Route Book', *Results*, Vol. III, *Österreichische militärische Zeitschrift*, 3 (Vienna, 1864), p. 101.

Directors to produce '[t]wo large maps […] viz., a General Physical Map of India Proper and a General Map of High Asia'. These, as the Schlagintweits immediately added, would 'includ[e] the politically most important neighbouring provinces as well as the territories chiefly adapted for European colonization.' In addition, they were ready to compile 'a most detailed account of the discharge of rivers, their motive powers, and the questions of their navigability and irrigation properties.' The characteristics of rivers were obviously important for the transport of civilians as well as troops, but especially for engaging in a flourishing inland trade. Indeed, the possibility to transport commercial goods via rivers (and the barely accessible Himalayan timber resources in particular) was here, as elsewhere, one of the Schlagintweits' core concerns.[871] Likewise, a better understanding of the problem of the 'discharge' and floods of rivers was important for new settlement and agricultural schemes in 'High Asia'.[872]

The entire memorandum was indeed marked by a striking contrast between those more 'philosophical' concerns of metropolitan scholars, who were eager to detect the general laws of nature, and the mantra-like allusion to specific material gains that could be derived from the Schlagintweits' investigations. When they had set out in 1854 to transform their modest Company appointment into a great scientific enterprise, these more speculative, natural philosophical concerns held centre stage. To take but one example from the field of geology, a discipline that they planned to address in yet another volume of their publication, the brothers had still noted in 1854: 'We shall endeavour as much as possible to collect fossils, for the accurate determination of the comparative age of the different sedimentary strata, and to ascertain their order of superposition.'[873] Here shone through a natural philosophical curiosity about the age of the earth, and about the interior workings of continent masses. It is striking to read how this earlier, more natural philosophical interest in geology was now scaled down to mere issues of agricultural 'improvement', colonial infrastructure, and profit:

[871] 'Messrs. Schlagintweits' Indian Mission', p. 178.
[872] See H. Kreutzmann, 'Habitat conditions and settlement processes in the Hindukush-Karakoram'.
[873] Schlagintweitiana, II.1.43; see also NA Kew, Records of the Meteorological Office, 1849-1854 (Indian Subcontinent), BJ 3/53.

> 'The general practical results, everywhere indispensable, from geological researches, allow particularly brilliant hopes for India, where the riches of ores in the Himalayas, long expected, could be confirmed in numerous instances [...]. Besides ores and coals, the examination of the soils and the determination of the best materials for roads and buildings may be mentioned. Examination of soils is also very important for all questions of cultivation and manuring.'[874]

The one-sided emphasis on the exploitative dimensions of their researches seemed to indicate that the brothers believed that any aspect of their studies could only be justified when it could be aligned with the profit-seeking motives that unquestionably 'guided the policies of the East India Company'.[875] However, in subjecting their entire proposed oeuvre to the material interests of the EIC, the brothers also pursued a clever strategy. That is, by persistently repeating what commercial gains were awaiting the Directors if their publication was properly executed, the brothers ensured that their vast collections and notes would actually be thoroughly analysed. Such a prolonged analysis was, as they knew too well, a costly undertaking. Hence, in stressing the precious colonial information that could be derived from their acquired materials for the sake of British overseas expansion, the brothers guaranteed that the masses of natural artefacts and manuscripts would not share the fate of so many Indian collections made by their British predecessors. As the *Athenaeum* indeed criticised in their 'review' of the memorandum, 'the greater part' of collections made by British travellers 'are deposited in the library and vaults of the India House and elsewhere', a rotting symbol of the neglect by the Company of its many deserving servants. Indeed, as the editors scornfully added, 'many' of the Company servants, for want of patronage, had to publish 'their observations and collections at their own expense' – not an option for the lavishly spending brothers.[876]

The Schlagintweits thus concluded the content of their proposed publication by discussing their contribution to the field of 'botanical geography'. Again, while the study of 'plant geography' was a hallmark of Humboldtian philosophical science, all the brothers did was to assure the colonial authorities that this field, too, 'is, in all its

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[874] This, to be sure, was the whole quotation on the section of 'geology' in their proposal as reprinted in the *Athenaeum*, 'Messrs. Schlagintweits' Indian Mission', p. 178.
[875] Ray Desmond, *The European Discovery of the Indian Flora* (Oxford, 1992), p. v. However, Desmond also argued that some aspects of the Company's support to science were driven by a more general, enlightened idea of patronage. See for a qualification of this point, David Arnold, *Science, Technology and Medicine in Colonial India*, p. 21.
[876] 'Messrs. Schlagintweits' Indian Mission'.

details, most directly connected with practical questions.' Of course, it was no secret to the brothers that the British Empire derived most of its profits from the trade in an extensive range of natural products.[877] In the first sections of their proposal, the brothers had therefore already signalled numerous improvement schemes for India's agricultural output (e.g. through manuring with natural fertilisers), and the possibilities for extracting precious stones and minerals within and beyond British territories. In this last part on botany, the travellers made further reference to the many precious timber resources they had collected, and from which they suggested the EIC could profit considerably.

Considering 'the value of our own labours', the Schlagintweits thus concluded that '[t]his large work, when completed in the manner proposed, will not fail to be most important, by attracting general scientific and practical attention to India.' This, to be sure, was the brothers' honest conviction; their work was to be scientific by any means, but the experience of travel had also infused them with a sense of imperial duty to 'make use' and profit from those natural resources to which a considerable amount of their research in the field had been devoted. However, many of their colonial 'improvement' schemes were not so new, after all. On the contrary, the brothers had often drawn on Anglo-Indian ruling circles to hear about the most recent ideas floating around the imperial establishment in South Asia.[878] It is therefore noteworthy that in the entire memorandum, not a single British scholar was named. It is as if the Schlagintweits sought to capitalise on the lack of knowledge many Company directors may have had about such colonial schemes. Just as much as their previous 'report' to the French Academy of sciences had done, this 'private' memorandum projected an image of India as a vast and unfamiliar landmass, whose almost infinite scientific and utilitarian possibilities the brothers alone seemed to have unveiled for European enterprise.

Fearing that their own researches would fare no better than those of previous Indian travellers, the Schlagintweits thus adopted a specific communication strategy in masterfully orchestrating their findings according to the commercial implications

[877] Endersby, 'Joseph Hooker: a philosophical botanist', p. 165.
[878] This applied, for instance, to their reference to the vast but unexploited timber resources of the Himalayas, which Anglo-Indian scholars had noticed earlier. Joseph Hooker thus wrote to his father already in 1848, 'I have also memorialized his Lordship [the Governor General] on the advantages that would accrue from an investigation of the Timber-trees & capabilities of the Lower Himalaya, & of this district where there are thousands of woods, in danger of being ruined.' RBGK, JDH/1/10: Indian Letters 1847-1851, Joseph.to William Hooker, 'Banghalpore, S. bank of Ganges', Assam, July 1848.

for the Directors. This instance demonstrates the remarkable versatility of these 'imperial outsiders' to target specific groups with carefully arranged pieces of information. Except for the unintended leaking of the proposal, this strategy was successful: in the surviving records on their careers, there exists not a single statement on behalf of the EIC that would suggest that their allusions to material gains ever provoked criticism or ridicule. Rather, being fully conscious of the colonial context in which their expedition had taken place, and of the ongoing commercial aspirations of the Court, the brothers seemed to have struck a chord with the imperial Directory.

Yet, while this communication was well received by the Court, the London *Athenaeum* did not accept a single word of it. Instead of leaving the judgement on the Schlagintweits' proposal to their readers, the editors therefore framed the leaked document with a long commentary that sought to discredit the brothers on several levels. To begin with, the editors reminded their readership of 'the audacity with which these gentlemen had taken the credit of having opened up the length and breadth of *our* Indian territories', mocking their expedition as a wasteful re-examination of 'countries familiar to every tyro in geography.'[879] To underscore the apparent absurdity of the Schlagintweits' claims of 'discovery', the *Athenaeum* listed the names of fourteen British explorers, who above all seemed to deserve the credit for the scientific scrutiny of this world region. To be sure, the fact that the brothers 'had ignored the labours of their predecessors', and hence the long history of British scientific achievements and 'sacrifices' was more than an affront against scholarly conventions: it was understood as an attack on Britain's colonial legacy.[880]

The *Athenaeum* article took particular offense at the fact that the brothers seemed to treat the Indian territories as 'blank screens', as 'virgin' lands still to be explored. As is well known, nineteenth-century geography was obsessed with filling supposedly blank spaces on the map, yet if this rhetoric was used in the context of already studied areas, it could cause quite a stir. In this case, the British felt that these Indian and trans-Himalayan regions should be considered their own possessions – in a political, and also a moral sense –, filled with stories of British 'sacrifice' and scientific achievements. While the reality may have been different, there was also a sense that British scientific and technological interventions and agricultural improvement schemes had indeed been beneficial acts. The metropolitan public could

[879] 'Messrs. Schlagintweits' Indian Mission', my emphasis.
[880] Ibid.

derive a reassuring sense of entitlement over South Asia from these British feats – especially during the ongoing Indian Uprising. The insult to this British imperial imaginary of India's belonging was precisely that the Schlagintweits claimed to have opened up already known lands and, in a sense, thus to 'colonise' the British territories for themselves by claiming ownership over scientific findings and these numerous 'improvement' schemes, which were pillars of Britain's self-assumed 'civilising mission'.[881]

To further reinforce the us-them dichotomy, and expose the 'effrontery' of the Schlagintweits' proposal, the article went on to note that:

> 'We need scarcely say that the Messrs. Schlagintweit are Germans, living in Germany […] that their expedition has cost England as many thousand pounds as it has cost His Majesty of Prussia hundreds, – and that the whole of their collections, said to be contained in 300 cases, have been transferred to Germany. His Majesty of Prussia, we are told, no longer allows them one shilling. Messrs. Schlagintweit are therefore craving the further patronage of the Government which has treated them with such mistaken liberality.'[882]

The fact that the brothers were now 'craving' further patronage seemed to prove again that their mission was not a disinterested scientific undertaking – and thus the brothers were no 'gentlemanly' scholars. On the contrary, their expedition on British pay was pejoratively labelled a 'job'.[883] To be sure, since the mid-nineteenth century, the word 'job' has undergone a remarkable semantic, moral, and lexical shift. At that time, it could effectively be used to attack the brothers' self-interestedness, because a 'job' was then defined as 'a piece of work […] whether of more or less importance; a lucrative business, an undertaking with a view to profit', commonly regarded as 'a low, mean […] affair'.[884] Through this careful wording, their whole scheme was thus publicly portrayed as above all motivated by personal gain – the antithesis of respectable, gentlemanly science.

Some of the claims and accusations in the *Athenaeum* were, however, false libels. First, the Prussian monarch had not abandoned the brothers, but had already

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[881] Arnold, 'Plant Capitalism', p. 912.
[882] *Athenaeum,* 'Messrs. Schlagintweits Indian Mission'.
[883] Already in *The Athenaeum*, 1566, 31.10.1857, 'The latest Indian Mission', pp. 1358-9, 1359; again, *The Athenaeum*, 1764, 17.8.1861, p. 215; the same impression is given in *The Athenaeum*, 'Messrs. Schlagintweits' Indian Mission', 1580, 8.2.1858, pp. 178-9; see also the valuable analysis of this point in Finkelstein, 'Conquerors', pp. 199f.
[884] Thomas Wright, *The royal dictionary-cyclopædia, for universal reference*, Vol. III (London and New York, 1862), p. 331.

promised his renewed financial backing for their planned publication.[885] Second, as the Company Director William Henry Sykes informed the Prussian administration, it had been in the Courts' very own interest that the brothers took most of their collections away with them to Prussia. The reason was that 'the costs of renting [and] of the analyses, etc. etc., which are necessary in order to bring the results of the magnetic observations and physical researches ordered by the Directory into a shape worthy of publication, would be four times higher in London than in Berlin.'[886] Lastly, a good number of duplicates and unique objects from the Schlagintweit collection had actually *remained* in Britain, and were prominently displayed in the Company's India Museum in Leadenhall Street in 1857-8. But considering the fervour of the editors, there was no space to acknowledge such facts. The authors rather engaged in slanderous speculations that were aimed to ruin the scholarly reputation of the brothers, and by doing so deny the brothers any legitimacy in seeking further Company support.

Indeed, the British journal was convinced that 'the value' of 'the preparation and publication of these materials […] we might set down at one farthing.' The brothers' claim to have mastered so many different areas of expertise, as they proposed to write about, was one of the greatest issues for the editors. Moreover, it was their merely superficial knowledge of the territories they had crossed during their voyage that was problematised. The editors therefore concluded:

> 'That their three years' scamper from Tibet to Assam, and from Madras to Nepaul, should enable them to construct a map of all India and Central Asia, – determine new lines of roads, military, commercial, and political, – fix new hillsites, sanitary and colonial, – open up new agricultural districts and resources, temperate and tropical, – develop new mines, lodes and seams of coal, iron, and other ores, – and, finally, illustrate the botanical geography of India in "all its details," is the grossest imposture that has ever been laid before any Board or dignified with the name of science.'[887]

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[885] The king had offered 3,000 Thalers, after all – regardless of whether their work should only appear in Britain, which reflected his commitment to the brothers' cause. King to Humboldt, Marienbad, 24.6.1857, GStA PK 1. HA Rep. 89 Geh. Zivilkabinett, jüngere Periode Nr. 19767, after fol. 120; and fol. 55, order of the King to his chamberlain Schöning over 3,000rt. support, 18.7.1857. This also disproves the ill-informed claim by some scholars that the brothers were unable to make any positive impression when giving the King a personal report after their return, as stated in Felsch and Finkelstein, who seemed to have bought in the sometimes-unjustified defamations by the *Athenaeum*.

[886] Sykes to Sabine, 1.3.1858, GStA PK 1. HA Rep. 89 Geh. Zivilkabinett, jüngere Periode Nr. 19767, appendix III.

[887] *The Athenaeum*, 'Messrs. Schlagintweits' Indian Mission', 1580, p. 179; note that the pejorative meaning of 'scamper' clearly contrasted with the brother's thorough scientific engagement in those regions.

Once the legitimacy of their scientific publication had been seemingly destroyed, the editors' showed little discretion in their further revelations. On the contrary, the *Athenaeum* sought to draw the attention of the reader to the delicate financial arrangements 'the two Messrs. Schlagintweit have the effrontery to ask' for. These included a 'salary for each, for an *indefinite period*; the amount to be left to the munificence of the Court of Directors'.[888] Yet, as the brothers knew well, a thorough analysis of their collections of over 20,000 objects required the mobilisation of broader networks of expertise. Therefore, it was reported that they had applied for: '[a]n establishment, *at the rate of* 150*l*. *a month,* for the first year – (with a promise that the sum shall be reduced in future years – for how many is not stated!).'[889] The Schlagintweits' loosely drawn proposal was certainly unusual in other regards, as the brothers wanted the 'money to be paid in advance, and accounted for afterwards!' This would give them considerable freedom in pursuing their future publication without further justification – an arrangement that echoed the exceptional financial liberties they had already secured *during* their expedition.

In order to promote their work to a larger readership they also asked for the 'sum of 800*l*., to pay the expenses of their publications', and the 'assurance that the East India Company shall take a large number of copies', an arrangement that would guarantee their work finding wide circulation. All in all, this was no modest proposal. If the Court were to accept all claims, the arrangement would easily suffice to sustain their researches for years ahead; conversely, from the view of the British public, a significant amount of cash would, again, be lost to many of their own scientific travellers.

This perceived 'threat' to the works of Englishmen now led the *Athenaeum* to go one step further and to openly demand political action. That is, the editors – as the self-appointed voice of the British people – started to put considerable pressure on both the British Government, and the scientific community, to intervene in this scandalous case. Mirroring the many claims made by the brothers, 'we' (the papers' editors now proclaimed in turn), 'most sincerely hope, – and indeed cannot doubt – that the Messrs. Schlagintweit will be forthwith *ordered* to return their collections to

[888] Emphasis mine.
[889] 'Messrs. Schlagintweits' Indian Mission', pp. 178-9.

the country to which they belong.'[890] Following this call for immediate repatriation of their artefacts, it was also strongly hoped 'that no steps whatever will be taken by our Government towards publishing them or the maps until they have been inspected and reported on by competent scientific Englishmen'. But even if English experts were to support their cause, the *Athenaeum* insisted that the foreigners' work should be put off, at least 'until justice shall have been done to the similar and better observations and collections made by some of the illustrious [British] names we have mentioned.'[891]

The *Athenaeum* was not a solitary voice in the wilderness. While it is difficult to determine exactly the public impact of the paper's campaign against the German scholars, some of the consequences can be established. First, there is evidence that the papers' criticism lastingly tarnished the brothers' reputation among British men of science. This was even the case with those scholars who had been perfectly unacquainted, personally and professionally, with the Schlagintweits' previous work. After the first critical piece in the *Athenaeum*, William Henry Harvey (1811–1866), professor of botany at Trinity College (Dublin), wrote to a colleague about his plans to write a new botanical treatise on flowering plants. But he already cautioned that he could not match the magnificent *Flora Indica* by Joseph Hooker and Thomas Thomson, on whose oeuvre he commented: 'What a pity that it is stopped – for want of support – while the [Schlagintweit] humbugs get £10,000 of John Companys money - & are now asking for as much more "to enable them to publish their discoveries"! - See a few words in this week's Athenaeum.'[892]

Moreover, other newspapers picked up the *Athenaeum*'s patriotic mission at the home front, which was that journalists 'cannot admit that English merit and English service ought to be forgotten.'[893] For instance, *The Gardeners' Chronicle*, in February 1858, published a book review of Mary Somerville's *Physical Geography*, therein describing her work as 'an excellent work the utility of which is familiar to the general reader.' As was stated, this work 'now takes its place as the most complete compendium of Physical Geography in any language. We recommend it to the perusal of the Messrs. Schlagintweit, who seem to have returned from India in a state of the

[890] Ibid., 179.
[891] Ibid.
[892] Sophie C. Ducker (ed.), *The contented botanist. Letters of W. H. Harvey about Australia and the Pacific* (Carlton, Victoria, 1989), letter 95, pp. 303-304; Trinity College, Dublin, 3.11.1857, originally 'Slangtenthweil humbugs [sic!]', correction mine.
[893] Published at the height of the Indian rebellion, *Athenaeum*, 30.10.1857, p. 1358.

most happy ignorance of the labours of former travellers.'[894] In other words, the *Athenaeum*'s criticism of the brothers was subsequently reproduced in both private and public statements, making them notorious among the British learned community. Once such a bad reputation had been established, it was difficult to lose it. Rather, the critical stance adopted by London papers from early on would set the tone for future reports on the German travellers' contested 'achievements' – with this initial denunciation still echoing in many later reviews of their work.

It testifies to the influence of the *Athenaeum* that the journal's public pressure on the East India Company was, to a degree, successful. After the second scandalous revelation, the Court saw itself forced to consult English scientific experts and consider their judgement on the value of the Schlagintweits' proposed work. One such expert report has survived. In February 1858, Colonel William Henry Sykes received an answer from the Himalayan traveller Joseph Hooker. While Hooker was uncertain 'whether the letter you have done me the favour to write, accompanied by [the Schlagintweit] Memorandum [...] is to be regarded as a private one; or whether it requires an official answer; addressed to the Court of Directors generally', the leading British botanist was 'in either case […] really glad to have the opportunity of stating my own views.'[895] But as he immediately added, he believed his opinions to be 'quite in accordance with those of the most distinguished scientific Englishmen regarding the labours of the Messr. Schlagintweit in India, & the unbounded liberality' of the Court in supporting 'their journies [sic] & their experimental researches.'[896]

At the outset of his evaluation, Hooker gave the (questionable) impression that he was not prejudiced against the brothers in any way: 'I have the pleasure of a personal acquaintance with 2 of the brothers Schlagentweit.' He even conceded that '[n]o one, who has been in their society, can fail to be struck with their scientific ardour & intelligence.' Yet, in the remaining parts of his report, Hooker used his considerable botanical expertise to confine himself 'mainly to the Plant Department', and there found fault with the brothers – and the Company's system of patronage. Hooker candidly criticised not only the fact that 'there are persons, equally deserving of such encouragement as the Messr. Schlagentweit have received, & who have been overlooked on behalf of them' – which above all included his ally Thomas Thomson,

[894] *The Gardeners' Chronicle*, 27.2.1858, 'Notices of Books', p. 155.
[895] J. Hooker to Sykes, Royal Gardens, Kew, February (unknown date), 1858, RBGK, JDH 2/9, Miscellaneous Letters c.1850-1922.
[896] Ibid.

and himself.[897] But he also followed the same line of criticism as the *Athenaeum*, that the brothers had often explored 'countries well worn by Indian travellers'.[898] He pointed our that in London there already existed 'collections from your Indian Possession […] of the highest value, & [which] were made, too, in those very regions which have been the field of the Messr. Schlagentweit's Exploration.'[899] And yet, while the entire 'Scientific World has, without a dissenting voice, acknowledged the great value of' Thomson and Hooker's joint work on the Indian Flora, Hooker scornfully noted that they have 'met with no favour or encouragement from the India Company.' Evidently, Hooker's chance to evaluate his competitors' collections and results gave him the opportunity to vent years of personal frustration and barely concealed anger.

Yet, Joseph Hooker was fully aware that more than the Schlagintweits' own reputation was now at stake. Indeed, some of his British allies might also become involved in the controversy. In the wake of the *Athenaeum* revelations, William Henry Sykes, with whom Joseph Hooker shared both personal and professional ties, was suddenly afraid of becoming the object of public scandal himself. While Sykes had long served the imperial directorate, he had also been elected as MP for Aberdeen in the summer of 1857.[900] With the East India Company already subjected to intense public scrutiny because of the current war in India, the last thing Sykes, as the main scientific Director of the Court, now needed was the scandal of 'being disgraced in the eyes of Europe, by permitting the matter [the Schlagintweit publication] to drop through, after such an outlay.'[901] As was widely known, Sykes had been among the principal supporters of the German travellers from the start, and he was not only personally, but, even worse, also publicly committed to their cause.

Hooker thus had to walk a tightrope between his personal interest to secure Company grants for British experts, and his attempt to maintain good relations with such influential patrons as Sykes. He therefore dismissed the brothers' findings and collections not straight away, but suggested to 'let them send their Plants, Woods etc. to this country, for inspection & to be reported upon: This is only reasonable; when it

[897] Ibid.
[898] 'Messrs. Schlagintweits' Indian Mission', p. 178.
[899] J. Hooker to Sykes, Royal Gardens, Kew, February (unknown date), 1858.
[900] W. F. B. Laurie, *Distinguished Anglo-Indians* (London, 1887), pp. 104–109, 105.
[901] Sykes quoted in Hooker's 'expert report'.

is considered that public money has been spent upon them.'[902] As the Himalayan expert assured the Court, this was above all a cautionary measure since '[a] public Body may disgrace itself [...] by spending money without a competent adequate object.'[903] However, Hooker had made it clear that he did not expect the great expenses accumulated by the Schlagintweits to justify their meagre botanical results, as the brothers' 'Herbarium' seemed 'neither very extensive, nor well preserved'. This was a cutting scientific insult, as Hooker had portrayed the brothers not as professional colleagues, but more as well-meaning but ultimately useless amateurs.

In view of such shared attacks and ridicule among the British public, one wonders how the Schlagintweits reacted to these waves of criticism? Fighting a battle it seems they had already lost, the brothers tried to de-escalate the public debate about their supposed scientific ineptitude and ungentlemanly conduct largely by remaining silent. While other German scholars publicly defended themselves against similar defamations in the British press, as the earlier example of Dietrich Brandis has shown, the brothers refrained from commenting on such accusations in any public way. By contrast, they once again relied on private channels of communication to position themselves and issued an 'excuse' to influential British scientific administrators – above all to the RGS president Sir Roderick Murchison. This seemed adequate, as Murchison had come under considerable pressure from his peers, following his generous praise of the Schlagintweits in his 1857 *Annual Address* to the Geographical Society; praise encouraged by a particular Prussian friend. In his 1858 *Address*, Murchison was thus forced to qualify his earlier statements on the 'achievements' of the Schlagintweits:

> 'In alluding [...] last year to other labours of these gentlemen, I much regret to have unwittingly attributed to them geographical results [...] which it is well known were mainly accomplished, more than thirty years ago, by the very able British officers of the Trigonometrical Survey of India. [...] Nothing could be farther from my thoughts than not to sustain the hard-won laurels of the many British subjects who have earned great scientific reputation in the Trans-Himalayan regions.'[904]

While Humboldt's intervention had thus purportedly 'fooled' the RGS president to give credit where it was not due, the Schlagintweits' memorandum had

[902] J. Hooker to Sykes, Royal Gardens, Kew, February (unknown date), 1858.
[903] Ibid.
[904] Murchison, 'Address to the Royal Geographical Society', May 24, 1858, p. 302.

added even more fuel to the fire. Murchison, in the same *Address*, bowed to public pressure and stated that 'I have been the more called upon to correct this erratum' about the Schlagintweits' findings, 'and to register the antecedent labours' of several British 'geographers and engineers, in consequence of a document presented by the MM. Schlagintweit (in September last) to the East India Company, in which they specify all their intended publications'. However, they had done so 'without referring to the labours of their numerous predecessors in the regions through which they travelled.'[905] Their bold proposal had indeed, in Murchison's words, 'unluckily found its way into a periodical, and naturally gave umbrage to those who thought that numerous observations of our countrymen were slighted.'[906] Murchison, with his affectionate ties to German eminent scholars, now tried to occupy the middle ground and exculpate the brothers from fraud. He therefore declared that '[i]n justice, however, to MM. Schlagintweit, I must state that they have assured me of their having always intended to enumerate the labours of their predecessors […] and they claim to be not judged by a mere [manuscript] announcement of their own researches', which was 'not intended for publication.'[907] It is of no small irony that their private excuse was – against their own intentions – thus again made public, which caused in turn further private and public criticism of their unscrupulous behaviour.

After this act of public mediation on behalf of the Schlagintweits, Joseph Hooker wrote a scornful letter to Murchison and openly attacked the 'private vs. public' games the brothers constantly played:

> The British-Govt. has spent (I am told) now fully £18000 on these men; they have been 5 years in our service, and what are the results? but a manifesto [the memorandum] […] that is disgraceful to themselves & dishonoring to our countrymen. I can well understand what you imply – that it was not intended for the public eye – and this is its worst feature. It was however intended to procure public money […] – was presented to every member of the India House & Board of Control – was distributed where its pretensions were not expected to be called in question.'[908]

Hooker's critique was spot on. The brothers had precisely sought to circumvent any public or expert evaluation of their memorandum, hoping that the

[905] Ibid.
[906] Ibid.
[907] Ibid.
[908] Joseph Hooker to Murchison, Kew, 19.7.59, RBGK, DC, vol. 96, No. 406.

members of the East India Company would be impressed with their numerous claims to scientific discoveries. In a sense, the Schlagintweits had hoped that the knowledge gap also existing between Company officials and British Indian experts could be used to their advantage – namely that the imperial bureaucrats lacked the scholarly qualifications to question their claims. Unsurprisingly, the unintended exposure of their memorandum and the negative reports that followed left their mark also within the Court and made the sealing of a renewed contract with the Company ever more difficult.

As the new Prussian consul in London, Graf von Bernstorff, informed his home government, the second to last president of the Board of Control (March 1855-February 1858), Robert Vernon Smith, had openly refused to sanction any further expenses on the brothers as a result of 'insinuations that the Schlagintweit[s] were charlatans'.[909] On account of their damaged reputation, the chances of securing further patronage from British administrators still looked rather bleak in the early months of 1858. What was more, the ongoing imperial crisis in India further delayed the decision-making. Commenting on the brothers' pending situation, the Prussian envoy noted that it was due to multiple resignations that 'the Directory of the EIC is not […] capable of acting'.[910] As a matter of fact, the Indian Uprising entailed a major reshuffling of posts and imperial responsibilities causing an administrative nightmare for the British, but also one that seemed to create fresh hope and opportunities for the brothers.

In the midst of the political storm in British India, Edward Law (1790-1871), the new India Board's President (from March-June 1858), 'had the congenial task of legislating the company out of existence.'[911] For this purpose, he penned down an India Bill in March and submitted it to the House of Commons. But Edward Law also commented publicly and critically about the current state of Indian affairs. For instance, he declared about the ongoing colonial resistance in Oudh (northern India), where the Company had dispossessed the king and aristocracy, that 'the hostilities which have been carried on in Oude have rather the character of legitimate war than

[909] GStA PK, fol. 131-140 1. 'Bericht des Gesandten Bernstorff an Illaire', 7.7.1858.
[910] GStA PK, fol. 131-140 1. 'Bericht des Gesandten Bernstorff an Illaire', 7.7.1858, translation mine.
[911] David Steele, 'Law, Edward, first earl of Ellenborough (1790–1871)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, Jan 2011. www.oxforddnb.com.ezproxy.eui.eu/view/article/16143, accessed Feb 2014.

that of rebellion.'[912] This blunt attack on the current Indian Governor-General forced him to resign his post 'as the price of the government's survival.'[913] The instalment of his successor, Lord Stanley, in early June 1858, now created a short window of opportunity for the brothers to conclude a formal agreement with the dying Company (fig. 6.1). Through renewed submissions of proposals, several visits to India House, and William Henry Sykes' unwavering and, as we have seen, self-interested support, the Schlagintweits finally managed to secure a lavish contract on 8 July 1858.[914]

[912] Henry Beveridge, *A comprehensive history of India, civil, military and social: from the first landing of the English, to the suppression of the Sepoy revolt*, Vol. III (London, 1862), p. 692. Likewise remarkable was Law's further declaration that the 'people of Oude should rather be regarded with indulgent consideration than made the objects of a penalty exceeding in extent and in severity almost any which has been recorded in history as inflicted upon a subdued nation', ibid.
[913] David Steele, 'Law, Edward'.
[914] GStA PK, fol. 131-140 1. Bericht des Gesandten Bernstorff an Illaire, 7.7.1858. Copy of secretary Melville's communication, GStaPK, I. HA Rep. 76 Ve, Sekt. 1 Abt. XV Nr 189.

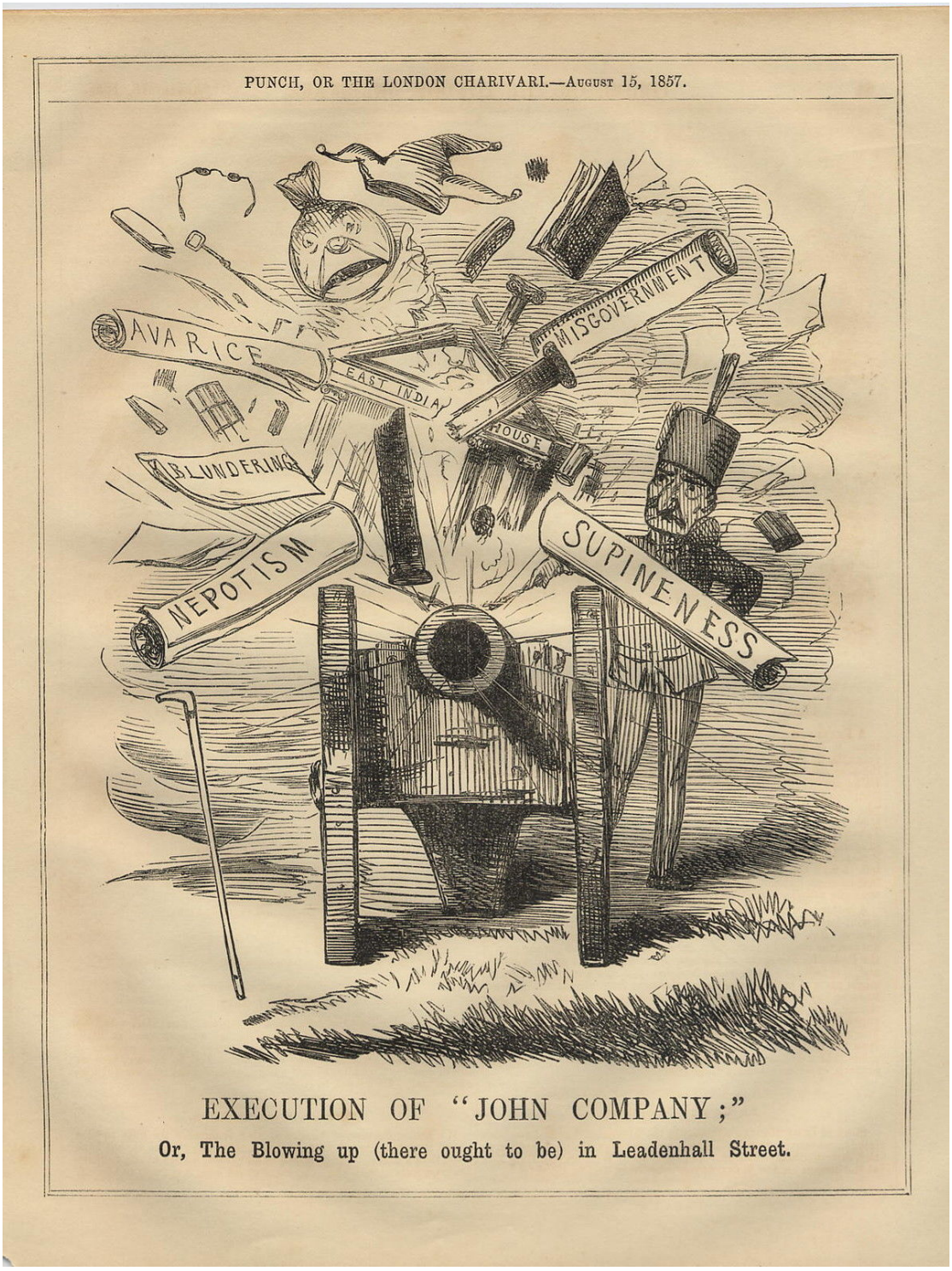

Fig. 6.1 'Execution of "John Company;" Or, the Blowing up (there ought to be) in Leadenhall Street'; *Punch, Or the London Charivari*, 15.8.1857; source and copyright: archive of the DAV.

The exact circumstances that led to this change of favour are somewhat opaque. Yet, the timing of the decision might well have stood in connection to an interview that the Schlagintweit brothers gave in the British Parliament only two days earlier, on 6 July. Robert and Hermann were invited to answer the questions of 'The Select Committee on Colonisation and Settlement in India', which comprised an

illustrious group of British politicians, Anglo-Indian judges, and leading British manufacturers. The interview was printed and published thereafter and contained all the precise colonial information they had promised in their memorandum.[915] The striking details of their proffered intelligence on military, commercial, and political questions now occupying British minds partly restored their damaged authority in front of the committee, and crucially proved to the British parliament and Company directors that they had indeed gathered information of military and political value.[916] The Schlagintweits' elaborations on suitable regions for European settlements, specific trading opportunities in Central Asia, especially to counter Russian advances in the area, and natural resources to be exploited in the future clearly matched the interests of British MPs now preparing themselves to play a more active part in the rule over the Indian Empire.[917] While the existing evidence is not comprehensive, it is at least likely that their performance in front of the 'Committee on Colonisation and Settlement in India' tipped the scales in their favour, and ultimately convinced the Company's Directory to agree to a renewed contract for employment.[918]

It is indicative that despite all public indignation, the brothers' earlier terms were largely met in the formal letter of appointment. As J. D. Dickinson, Secretary of the East India House, informed them, the Court sanctioned their request that 'the Work should be printed in English, and should consist of eight or nine Volumes which you estimate can be completed in three years and that you should be allowed to publish it at Berlin.'[919] As Adolph's death had by then been confirmed[920], the Court granted each of the surviving brothers 'for a time not exceeding three years a personal allowance of £25 per month', together with an 'outlay not exceeding £150 a month' for hiring an 'establishment' of specialists to assist in the production of the work.[921] In addition to the sum of £800 that was 'authorised for engraving & lithographing the

[915] House of Commons, *Fourth Report from the Select Committee on Colonization and Settlement*, pp. 1-10; see a full transcript in the appendix.
[916] The systematic nature of their reporting also proves the fact that the brothers must have directed their attention to such colonial considerations already during the expedition.
[917] Select Committee, pp. 1-10.
[918] BL, IOR, E/1/309 Entry, 3393, J.D. Dickinson to H. & R. Schlagintweit, 8.7.1858.
[919] Ibid.
[920] Ibid.
[921] In the Prussian consuls report from London, the brothers' monthly salary was even put down at £30, see GStA PK, fol. 131-140 1. 'Bericht des Gesandten Bernstorff an Illaire', 7.7.1858. The continuation of their 'establishment' for the whole period was, however, subject to regular re-evaluation, ibid.

Maps and Plates', the Court even 'subscribe[d] for 60 Copies of it', some 540 books in total.[922]

After signing the generous agreement, the Schlagintweits immediately informed Humboldt that 'notwithstanding all political storms […] our arrangements with the India House could be completed just in time [and] in a fortunate manner.'[923] The India Act, which came into effect only a few months later, maintained that not only 'the properties' and material collections of the former EIC had to be transferred into the hands of the British Crown. Rather, '[a]ll treaties made by the said Company shall be binding on Her Majesty', too, 'and all contracts covenants, liabilities, and engagements of the said Company made, incurred, or entered into before the commencement of this Act may be enforced […] in like manner and in the same Courts.'[924] After the formal dissolution of the EIC and its rule over Indian territories in November 1858, the Schlagintweit publication was overseen by a newly created office, the India Office, headed by a 'Secretary of State for India', who in turn was advised by an India Council consisting of fifteen members.[925] The legal arrangements attending the dissolution of Company rule thus meant that while the brothers outlived their former imperial patron, they were not cut off from British means.[926]

For the preparation of their written volumes and *Atlas*, the brothers needed any additional cash they could lay their hands on. The reason was their great ambitions for the publication. As consultations with Humboldt made clear, the Schlagintweits took monumental works as the inspiration for their projected, nine-volume 'Results of a scientific mission to India and High Asia'. As they noted in a letter about the high 'price of 162 Thalers for the whole oeuvre […] with an atlas of 100 lithographs', this

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[922] What a privilege this was might be easily understood by considering Hooker's frustration about the Court's treatment of his own Indian publication: 'I am so disheartened with the *Flora Indica* and the knavish conduct of the Court of Directors […]. You are aware, I think, that after paying all the expenses of the 1st vol. we put a merely nominal price on the 130 copies we put out for sale (after giving away 120), and that John Company, after refusing to subscribe for copies, or promote the work, or repay the authors, on hearing how cheap it was, bought up 100 copies unknown to us, which threw the work out of print, and left us £200 out of pocket, and our object defeated!' Endersby, 'Joseph Hooker: a philosophical botanist', p. 168.

[923] Literaturarchiv Marbach, A. v. Humboldt letters, No. 62.2276, Hermann to Humboldt, 21.7.1858, 117, Jermynstreet, London.

[924] Ramsey Muir, *The Making of British India, 1756-1858* (Manchester, 1915), p. 389.

[925] Singh Hoshiar, *Aspects of Indian administration* (Jaipur, 1994), p. 8; Muir, *The Making of British India,* pp. 381, 389. Yet, the power of the Court, even after its formal dissolution, did not vanish immediately, as nine out of the first fifteen members of the Council had been also members of the 'former Court of Directors. Thus the commercial element continued to influence policy in British India under the Crown.' Donovan Williams, *The India Office, 1858-1869*, (Hoshiarpur, 1983), p. 18.

[926] Muir, *The Making of British India*, p. 339. Confirmed in Hermann, Adolph, and Robert von Schlagintweit, *Prospectus*, p. 4.

'considerable' sum might be excused when compared with 'other, similar works' to their projected one.[927] These 'similar works' that were to be matched included nothing less than the 'description[s] de l'Egypte' – the massive series of publications that not two scholars, but a small army of French savants had produced in the wake of Napoleon's ill-fated Egyptian Campaign (1799-1803). The other model the Schlagintweits had specifically in mind was the 'great work' by Karl Richard Lepsius on Egyptian culture and architectural monuments, consisting of twelve volumes, a classic oeuvre still quoted today.[928] It is crucial to note that the Schlagintweits did not plan to produce a great synthesising work, using the entire breadth of existing scholarship on South and High Asia, and only signalling those contributions they could make to the existing state of knowledge. On the contrary, they planned to build their nine volumes almost entirely on their own observations, measurements and collections, with only incidental allusions to the works of others.

This self-sufficiency is still captured in the official *Prospectus* that in 1860 announced their grand oeuvre to the world.[929] Preceding the description of contents for each of the projected volumes of their *Results* (which remarkably overlapped with those in the earlier 'private' memorandum) was an unsigned preface, which introduced both the German travellers and their upcoming publication. While the question of authorship of this widely circulated *Prospectus* is therefore ambiguous, it is evident that their German publisher and the brothers themselves were involved in its compilation. This preface opened with much fanfare:

> 'The scientific mission to India and High Asia, with which from the year 1854-58, Messrs Hermann, Adolph, and Robert de Schlagintweit were charged, has been universally acknowledged to take a prominent rank amongst those exploring expeditions which have added, within the last twenty or thirty years, so essentially to our knowledge of the distant parts of the globe.'[930]

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[927] Schlagintweit to Humboldt, 20.3.1859, copy at Humboldt Research Centre, BBAW.

[928] Karl Richard Lepsius, *Denkmäler aus Ägypten und Äthiopien. Nach den Zeichnungen der von seiner Majestät dem Könige von Preussen Friedrich Wilhelm IV. nach diesen Ländern Gesendeten und in den Jahren 1842-1845 ausgeführten wissenschaftlichen Expedition*, 12 Vols. (Berlin, 1849-1859); reprint (Geneva, 1972).

[929] To be sure, the brothers had also planned a German version of their oeuvre, to be entitled: *Resultat einer wissenschaftlichen Sendung nach Indien und Hochasien, 1854-58*, and had been in negotiations about a bilingual publication with the editing house F. A. Brockhaus of Leipzig. But the projected costs of '21,720 Thalers' seemed to have frustrated their plans. Hermann and Robert to Humboldt, 24.3.1859, and, 20.3.1859; copies of the letters at BBAW, Humboldt Research Centre.

[930] Hermann and Robert Schlagintweit/F. A. Brockhaus, *Prospectus: Results of a Scientific Mission to India and High Asia* (Leipzig, F. A. Brockhaus, 1860), p. 3; a copy has survived in the American Philosophical Society.

Suggesting both a delusional and witless ignorance of the waves of British criticism, this opening unmistakably makes claims of scientific authority and achievement. Their 'exploring expedition' was held to be on a par with other major overseas travels executed during the previous decades to any foreign continent. The brothers thus sought to insert themselves within a powerful chronology with such famous explorers as David Livingstone, Charles Darwin, Joseph Hooker, and Alexander von Humboldt, whose Siberian expedition had taken place in 1829.

Yet, the Schlagintweits' *Prospectus* to their forthcoming work is also remarkable in other ways. After acknowledging the crucial support from British imperial institutions, and the backing by the British, Prussian, and Bavarian governments for their scheme, the brothers immediately added that their travels had been accomplished 'at the earnest recommendation of Colonel Sykes on the part of the East India Company, and of General Sabine and Sir Roderick Murchison on the part of the Royal Society.'[931] While it is true that German men of science such as Humboldt and Bunsen had indeed 'energetically promoted' their cause, the statement about the full support by important British patrons such as Murchison was partly misleading. Yet, by rhetorically connecting their travels with such illustrious names as Edward Sabine (and with him the Royal Society), Humboldt, and Murchison (as the current president of the Royal Geographical Society), the brothers subtly appropriated the prestige of these leading scientific men and institutions for their own purpose.

Indeed, the brothers claimed that 'the arrangements for this expedition were made on a scale well worthy of the East India Company, that illustrious body, which has, for all ages, enhanced and graced its political importance by furthering the great ends of science and connecting its name with many works of a high artistic character.'[932] The Schlagintweits thus portrayed their *Results* as precisely that: a considerable artistic and scientific milestone in the history of European science in India. This is confirmed by the fact that while they alluded to the many British Indian predecessors, it was yet immediately claimed that 'this large work, when completed, will nevertheless be found an important addition to our knowledge of India and the adjacent countries.'[933] Even in the wake of Adolph Schlagintweit's death, and the

[931] *Prospectus*, p. 4.
[932] Ibid.
[933] Ibid.

vital loss of his experience and precious insights, there was no scaling down of the scope and ambition of their projected written 'monument'. Due to their brother's death in the pursuit of the scheme, and the ferocious public controversy in Britain that had left their reputation in tatters, the completion of the work assumed a higher, existential meaning for the surviving Schlagintweits, who themselves came to 'regard the publication of our travel accounts as the most essential part of our life's work'.[934]

[934] GStA PK, I. HA Rep. 76 Ve, Sekt. 1 Abt. XV Nr 189, letter Hermann and Robert Schlagintweit to 'Pr. Staats-Minister Herrn von Mühler', Jaegersburg, bei Forchheim, 28.4.1862.

Chapter Seven

Conflicts of collecting

Conflicts of collecting: a projected India Museum in Berlin

The legacy of an overseas exploration could take many possible forms. While the Victorian culture of exploration necessitated the publication of a travel account, the Schlagintweits tried to go one step further. In seeking to secure yet another monumental legacy, the brothers pursued the plan to erect an India museum in Berlin. The museum would be devoted entirely to 'their' Asian expedition and they themselves would be the directors. While historians have overlooked this scheme in the past, the plan for a 'Schlagintweit museum' in the Prussian capital weaves together many different layers of conflicts: from personal rivalries, to regional and national frictions and, above all, the ambitious self-advancement of the Schlagintweits that often lay at the heart of the controversy. With the founding of a new institution, the brothers tried once again to reap the benefits of their bi-national constellation of benefactors, who in the past had not directly communicated with each other, thus allowing the brothers to pursue their double games.

After their return from India in June 1857, the two Schlagintweits began trying to alter their social and professional status. The building of a museum that would not only celebrate their scientific achievements, but also secure a paid position for years to come seemed like a suitable move. In placing this emphasis on the brothers as skilful schemers, who were forever seeking new opportunities, the aim is to show that they were certainly not the passive victims of defamation campaigns, but indeed never ceased to pursue underhand plans to maximise their own personal gains, especially now that their name had been lastingly stained in Britain. At the same time, their planned India museum in the Prussian capital demonstrates how British imperial institutions impacted on the brothers' own imagination. The idea for the museum was, as we will see, influenced by the East India Company's Oriental Museum in London, which the brothers had frequented during their preparation for the journey. Their familiarity with the standards of colonial collecting and display in Britain thus shaped the scientific practices and imaginaries of the German itinerary scholars.

Following a short description of the EIC's imperial museum as the brothers' prototype, the analysis then moves on to show that while scholars have previously assumed that the brothers' accumulation of data, samples and collectibles in the field

had ‘exceeded any rational measure’, a new set of source materials suggests that their collecting practices were part of a long-term strategy.[935] Rather than being random in their choice, it is argued that the brothers had envisioned, from very early on, that the German ‘half’ of their collections should form a whole. It is thus crucial to regard their initial preparation and collection diplomacy, the brothers’ acquisition strategies during the expedition, and their later attempts to harvest the results from these earlier efforts as more intimately connected than has formerly been acknowledged.

As has been established, Adolph, and later also Hermann spent time in London to prepare for their upcoming voyage, using the full breadth of specialised libraries and collections in Britain’s imperial capital. Besides trips to the royal botanic gardens in Kew (*the* hub of global networks of economic botany at the time), the Schlagintweits spent time at East India House, the Company’s headquarters on Leadenhall Street, London (fig. 7.1).[936]

Fig. 7.1 Thomas Hosmer Shepherd, ‘View of East India House’, coloured aquatint (1817), from King George III Topographical Collection, BL, London, shelfmark: P1389.

[935] Finkelstein, ‘Conquerors’, p. 183; Harald Uhlig even claimed the brothers were out of their minds, ‘almost inebriated by an eagerness to collect’, idem, ‘Das Neue Schloß als Geographisches Institut: Frühe geographische Vorlesungen. Die Gießener Geographen Robert von Schlagintweit und Wilhelm Sievers’, *Nachrichten der Giessener Hochschulgesellschaft,* 34 (1965), pp. 87-103, 94-5.
[936] Ray Desmond, *The India Museum, 1801-1879* (London, 1982), p. 1.

The East India House not only contained a vast library, but also housed the EIC's own 'India Museum' which surpassed all other contemporary South Asian collections in Europe. Scholars preparing for an overseas voyage to the East could consult the extensive Oriental collections, which included manuscripts, books, maps, war memorabilia, fine art, and many objects of Indian craftsmanship as well as natural history specimens.[937] The selected view (fig. 7.2) shows the shared space of the library and the display of the collected artefacts. Spectacular showpieces such as 'Tipu's Tiger', a life-sized mechanical carved tiger, which the Company had pillaged as a war trophy from the Sultan of Mysore after his defeat in the Fourth Anglo-Mysore War (1798-1799), were displayed in close proximity to the Company's collection of books (fig. 7.3).[938]

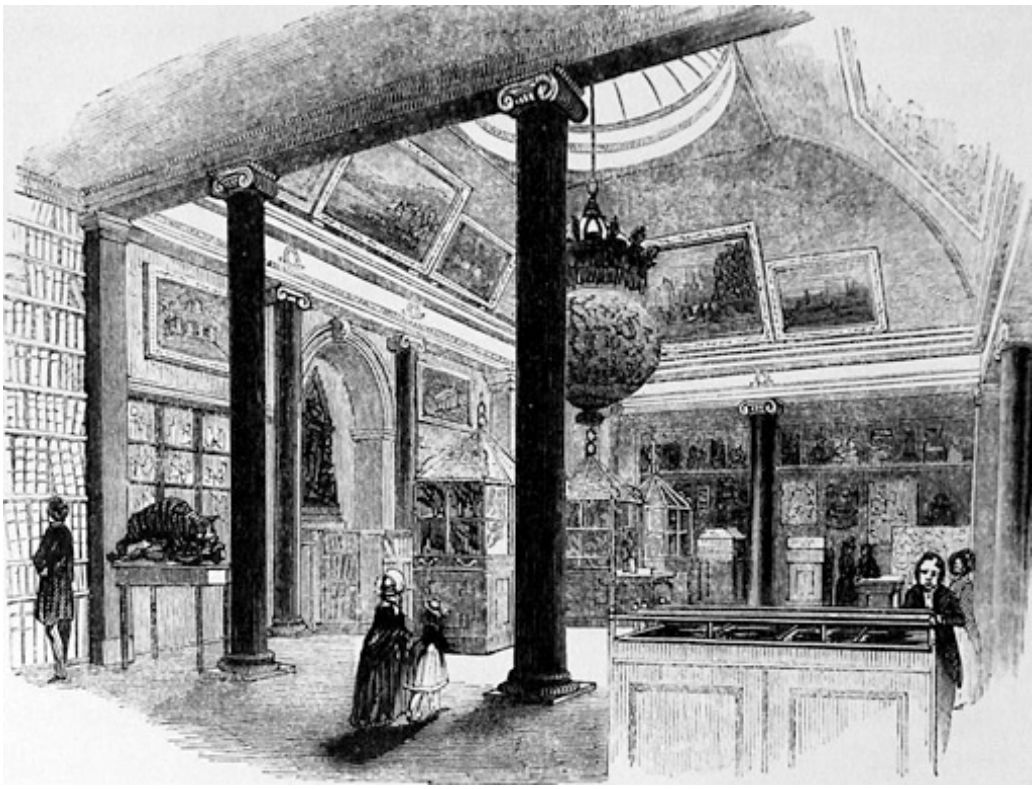

Fig. 7.2 The East India Company Museum, Leadenhall Street, London. Engraving from Charles Knight (ed.), *London*, Vol. 5, (London, 1843), reprinted in Susan Stronge's *Tipu's Tigers* (London, 2009), p. 67.

[937] While the India Museum was only open one day per week for the general public, it could be visited 'on other days by the possessors of tickets, obtainable from members of the Court, or other authorities', whose full support the brothers, of course, enjoyed. Anon., 'A Visit to the East India Museum', *Leisure Hour*, 29.7.1858, pp. 469-73, 469.

[938] The tiger was a musical mechanical object, imitating the sounds of a European soldier being devoured by the creature. "'Tipu's Tiger' is an awesome, life-size beast of carved and painted wood [...]. It has cast a spell over generations of admirers since 1808, when it was first displayed in the East India Company's museum.' Veronica Murphy, 'Tipu's Tiger' (1976), revised and published online, www.vam.ac.uk/content/articles/t/tippoos-tiger/. The most comprehensive account of the war, and the acquisition of numerous war trophies, is Susan Stronge, *Tipu's Tigers* (London, 2009).

Fig. 7.3 ‘View of several compartments of the Museum at the India House’, from ‘A Visit to the East India Museum’, *Leisure Hour*, July 1858, pp. 469-73, 472.

In addition to such striking individual pieces that glorified the imperial expansion and successful military campaigns against the Company's archenemies in South Asia, the London museum also encompassed a bewildering array of natural historical and cultural objects from India. These were complemented by articles from other countries or regions of British overseas trade and influence, including the Middle East, Afghanistan, Burma, Tibet, but also the Dutch East Indies and China.[939] While this testifies to the, at least in part, 'eclectic' composition of the museum's possession, it was 'in essence a living memorial to the British Raj and to those officials of the East India Company and the Indian Civil Service who were attracted by the subcontinent, its history, culture and natural resources.'[940]

The very nature of London's India Museum, and its role for British commercial expansion overseas, had changed over time. In 1801, the directorate of the EIC had agreed to found an Oriental library and an adjacent Oriental Museum.[941] Initially, it was intended to house and display any 'articles of curiosity' that had been gathered by Company servants in the East, hitherto scattered among India House's different departments and the Company's warehouses.[942] Sir Charles Wilkins, the museum's first director, foresaw the scientific and industrial uses of the India Museum, yet his advice to establish 'a new System for ingrafting the knowledge of India on the commercial pursuits of the Company' was only fully realised later on.[943] The gradual shift towards the museum as a prime site for promoting British trade with the East was completed in the 1850s, precisely the decade when the Schlagintweits repeatedly frequented the building and its collections.

A watershed event for this transition was the Great Exhibition of 1851[944], with which the era of the modern world exhibitions was heralded.[945] The significance of

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[939] Ray Desmond, *India Museum*, p. vi.
[940] Ibid.
[941] Several British scholars had previously lamented the absence of 'a public Repository in this Country for Oriental Writings'; the projected one in the India House was also to contain Asian manuscripts, printed books, and 'maps, charts, and views, with coins, medals, statues and inscriptions'. Desmond, *India Museum*, pp. 4-9.
[942] See William Foster, *The East India house, its history and associations* (London, 1924), p. 149. Geoff Armitage, 'The Schlagintweit Collections', *Indian Journal of History of Science*, 24 (1989), pp. 67-83, 67.
[943] Desmond, *India Museum*, p. 8.
[944] To be sure, the massive Indian Court of the Great Exhibition, covering some 30,000 square feet, displayed a wide range of Oriental treasures, and 'was highly significant in popularising Indian design for the British consumer market.' Crucially, it was the East India Company that had organised the large Court; Tim Barringer, 'The South Kensington Museum and the colonial project', in idem (ed.),

the 1851 exhibition, not least for the new more commercial orientation of the Company's India Museum, was that it 'provided a benchmark in changing popular attitudes to Britain's colonial possessions, and its organisers emphasised the commercial importance' of overseas territories, in particular their raw products and manufactures. The increasing trade orientation of the EIC's museum was further captured in the creation of the department of the Company's formal 'Reporter on the Products of India' in 1858. The first office holder was John Forbes Watson (1817-92), a former surgeon in India, with whom the Schlagintweits collaborated for a number of schemes related to making their collections useful to British imperial concerns. Under Watson's leadership, the India Museum ceased to be, in the words of the Under-Secretary of State for India, M. E. Grant Duff, 'a mere museum of curiosity, nor even primarily a museum intended for the advancement of science.' Rather, it became 'the reservoir, so to speak, that supplies the power to a machinery created for the purpose of developing the resources of India, and promoting trade between the Eastern and Western empires of her Majesty, to the great advantage of both.'[946]

The Company's museum housed both *ethnographica* and *naturalia* – including precious stones and timber sections, plants, soil samples, silks, cotton and woollen fabrics, carpets and flags, oriental arms, paintings and many other objects that the Schlagintweits came to amass in Asia. Moreover, as the brothers knew from their prolonged stay in London, such Oriental collections could draw enormous public interest, indeed thousands of visitors each month.[947] Hence, the Schlagintweits' close acquaintance with the Company's imperial treasures demonstrated what professional opportunities awaited the owners of such wide-ranging collections embracing both Asia's natural worlds and the everyday and religious products and manufactures of its human cultures.[948]

Following their stay in London, the Schlagintweit brothers' collecting programme in the field consequently went considerably beyond whatever Prussian

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Colonialism and the Object: Empire, Material Culture and the Museum (New York, 1998), pp. 11-27, 12-13.

[945] *Encyclopædia Britannica Online*, 'world's fair', accessed February 2014, www.britannica.com.ezproxy.eui.eu/EBchecked/topic/649088/worlds-fair.

[946] Quoted from Felix Driver and Sonia Ashmore, 'The Mobile Museum: Collecting and Circulating Indian Textiles in Victorian Britain', *Victorian Studies*, 52 (2010), pp. 353-385, p. 361.

[947] Stronge, *Tipu's Tigers*, p. 66.

[948] To be sure, such vast collecting efforts were not included in their 'list of proposed operations' submitted to the India House, nor was it an assigned task by their second paying patron, the Prussian King – although it met Humboldt's personal interest to enrich Prussian collections.

officials had originally envisaged. Their museum project therefore shows that the Schlagintweits were certainly not only the 'wilful servants' of their patron Alexander von Humboldt, but cleverly used the latter's initiatives, and transformed them according to their own interests. The discrepancy, at least initially, between Humboldt's more moderate vision for their collection, and the brothers' more ambitious plans, is captured in Humboldt's correspondence with the (then still active) Prussian envoy, Bunsen, in London. In February 1854, the Prussian naturalist urged his diplomatic confrère to 'secure […] that the King [of Prussia] provides his promised subsidy to the two Schlagintweit[s] for the geological and botanical specimens, so that the travellers will have the right to collect such artefacts in duplicates, which is exceedingly easy.'[949] Humboldt drew on his own experiences during the American travels in making this suggestion, stating 'I have simultaneously collected rocks for Berlin, Madrid and Paris, even two boxes for Sir Joseph Banks, who provided them to the Brit[ish] Museum.' Humboldt now imagined the brothers should do the same 'in order to complete our mountain collections, which are only rich for America and Northern Asia.'[950] Only three months later, Humboldt renewed his plea for considerable Prussian grants, reminding Bunsen 'how indelicate it would be to leave all costs to the English Government. This is the more true since it would later become anyway public that the travellers did not only enrich the British Museum, but also the collections in Berlin.'[951]

These statements reflect Humboldt's scientific and collecting programme. His plans for their collections, arguably shared by Bunsen, are noteworthy in two regards.[952] First, according to Humboldt, the brothers were prompted to amass *geological* and *botanical* samples especially in elevated regions. Second, he believed that their duplicates were to be added to *existing* collections in Berlin, with the Schlagintweits' artefacts thus becoming scattered throughout the complex museum landscapes of the Prussian capital. Yet, what the Schlagintweit ultimately gathered on

[949] Humboldt to Bunsen, Berlin, 20.2.1854, Schwarz (ed.), *Briefe,* pp. 170-78.
[950] Ibid.
[951] Humboldt to Bunsen, 30.5.1854, in Schwarz, *Briefe*.
[952] Bunsen was always eager to acquire 'Oriental' objects for the collections in Berlin. See his letter to Max Müller, London, 24.9.1853: 'Lord Clarendon has, on my recommendation, attached Loftus to the embassy at Baghdad and Mosul. He leaves on the 1st of October [...]. The plan is secret, but we hope great things from it, I hope to secure the best duplicates for the Berlin Museum.' Müller, *Chips from a German Workshop*, Vol. III, *Essays on literature, biography, and antiquities* (New York, 1871), p. 433.

the spot, and how *they* anticipated their collectibles would be used in Berlin, differed markedly from Humboldt's modest vision.

During their Indian and High Asian travels, the Schlagintweits collected impressive and useful artefacts in bulk – as they would either suit the interests of the India House, or could find a new home in Germany. Impressed with the holistic approach of the London collections, the brothers amassed articles that reflected the diversity of Asia's flora and fauna, human cultures and religious practices, as well as numerous scientific, agricultural and commercial items. These objects were taken from both south and central India, as well as from the mountain ranges of the trans-Himalayan regions, thus (against Humboldt's scheme) considerably increasing the scope of collecting. Since their entire artefacts still formally belonged to the Court of Directors, the brothers were careful to always find at least two examples of the same object, an effort to which they, ultimately successfully, devoted considerable time and energy. As Hermann wrote from India with a sense of excitement in 1856:

> '[O]ur collections […] as regards geology, geographic botany and zoology, but also ethnography are, I think, pretty complete. During March and April 1856, we have sent 210 large boxes to the India House, and recently 109, containing all the collections of this year. Of all [items] always exist duplicates, and we hope that we will manage to receive from the Court of Directors a great portion for Prussia.'[953]

Crucially, the acquisition and transport of several tonnes of artefacts was all realised on British credit and owed much to the Company's material interests – though the Schlagintweits already imagined how they could profit themselves from the acquisition and display of these objects. In fact, these double 'acquisitions' of all objects, that would allow the brothers to enrich both the Company holdings and to create personal opportunities for themselves in Prussia, were according to the Prussian King the main cause for 'exceeding the credit' offered by British authorities during the travel.[954]

While their frequent visits to the India House had inspired the brothers to widen their collecting practices, it is nonetheless difficult to determine when precisely

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[953] Hermann to Humboldt, Rawulpindee in the Punjab, 11.12.1856, Schlagintweitiana II.1.43, p. 369.
[954] GStA PK 1. HA Rep. 89 Geh. Zivilkabinett, jüngere Periode Nr. 19767, Acta des Kgl. Geh. Cabinets betr. die von den Gebrüdern Dr. Hermann Alfred Robert Schlagintweit und Dr. Adolph Hugo Schlagintweit aus München, jetzt in Berlin eingereichten Schriften etc. 1852-1885', fol. 121, Fr. Wilhelm IV to Humboldt, Charlottenburg, 29.3.1857, all translations mine.

the idea for a Prussian India Museum emerged. However, just as the three Schlagintweits had used their last reunion in November of 1856 to determine the future shape of their publication, it is reasonable to assume that by then, having already despatched hundreds of boxes with duplicates they felt entitled to, and which they knew covered numerous branches of the sciences, the brothers had also forged definitive plans for these collections.

Once back in Europe in June 1857, Hermann and Robert immediately set about making arrangements to keep their collections in close proximity to their manuscripts.[955] Humboldt already rejoiced in a letter to the Prussian monarch that 'the collections, which they bring and which are currently stored in the Indian House [in London], but half of which shall be brought hither, will most brilliantly enrich our museums.'[956] It thus seems that at that point Humboldt still did not know about the brothers' altered plans for the promised German 'half', which in the Schlagintweits' scheme should *not* anonymously disappear into already existing museums in the Prussian capital.

In late June '57, the brothers therefore met with the Prussian King Frederick Wilhelm IV to discuss the logistics of how to adequately house their artefacts in Berlin. The monarch, who had favourably received all their scientific reports from Asia (whose value Humboldt had underlined in several notes to the King), immediately promised the Schlagintweits preliminary rooms for setting up and analysing their collections. The importance attributed to their artefacts was reflected in the fact that the King offered them free space in the Palace of Monbijou, and the 'Berliner Börse', both representative buildings in the heart of Berlin. With this asset in hand, the brothers mobilised their German benefactors for the upcoming negotiations with the East India Company on where to take the artefacts for further analysis, and if indeed all the duplicates could be kept in Prussia for good.

In July, Bunsen, by now retired, intervened from afar. On behalf of the travellers, he proposed to Sykes that the brothers should be enabled to compile their publication and study the *entire* collections in Berlin, 'where they have help &

[955] The travel manuscripts and 750 landscape views, which were not officially part of the 'Schlagintweit collection', were kept in a special room in Berlin's *Neues Museum*, under the supervision of Ignaz von Olfers.

[956] Humboldt to Fr. Wilhelm IV, 20.6.1857, GStA PK 1. HA Rep. 89 Geh. Zivilkabinett (ZKab), jüngere Periode Nr. 19767, 'Acta des Kgl. Geh. Cabinets betr. die von den Gebrüdern Dr. Hermann Alfred Robert Schlagintweit und Dr. Adolph Hugo Schlagintweit aus München, jetzt in Berlin eingereichten Schriften etc. 1852-1885', fol. 51f.

assistance more easily at hand and where the King has generously offered them the Palace of Monbijou for putting up provisionally their collections till the work is finished.'[957] However, once accomplished, Bunsen assured the Company director that the brothers would then be 'enabled to present the whole to the Court, to whom their collections of course belong, save such doublettes, as may be spared for the Museum Royal [sic!].'[958]

At this point, the chronology of the brothers' intended India museum accelerates. On 13 August, the Schlagintweits requested from the Company to 'have free permission to receive the Manuscripts, and Collections sent by them from India', to be taken to Berlin.[959] Their request was 'read in Court' on the 19th, and apparently immediately approved. The same day, the brothers started an orchestrated campaign for their own museum, informing many leading Prussian minds about the scheme – including Alexander von Humboldt, the Prussian Privy Councillor Illaire, and the Prussian Prime Minister von Manteuffel. In their despatches from London, the brothers notified these Prussian notables that their negotiations with the Company had been successful, and that their complete collection could be taken to Berlin for analysis. As Bunsen had proposed, once the different parts had been thoroughly worked through, the collection would then be returned to the formal owners in the India House in London.

It was in the same despatches that the brothers, for the first time, formally mentioned the project of an independent India Museum in Berlin. The brothers cleverly introduced the scheme by claiming that they had succeeded in getting the Company to agree they could keep 'half of the collections', namely all the collected duplicates, in Berlin for good. However, as they stated, '[t]he only *condition* the India House made was that the [Prussian half of the] collections will not be broken up, but will rather remain as one whole', 'to be displayed in a distinct Museum.'[960] Hence, the foundation of a new museum was presented as an absolute requirement of the Court of Directors in London. Yet, the British demands on this point were more

[957] Bunsen to Sykes, Heidelberg, 19.7.1857, GStA PK, ZKab, fol. 82
[958] Ibid. See also Humboldt to Illaire, 11.6.1854, ibid., fol. 24.
[959] BL, IOR, B/234, Court Minutes, p. 1628a; p. 1460.
[960] Hermann Schl. an Illaire betr. Arrangement mit der EIC, London 19.8.1857, GStA PK, ZKab,, fol. 61f.:'…die einzige Bedingung die das India House machte, ist dass die Sammlungen nicht zersplittert sondern als ein ganzes vereint werden.' Translation mine; and Schlagintweit an Raumer betr. Transport nach Berlin, London 19.8.1857, ibid., fol. 63-65: 'zur Bearbeitung herüberzunehmen und die Hälfte derselben zur Aufstellung in einem eigenen Museum in Berlin zu behalten'.

ambiguous than the brothers were willing to admit to the Prussian decision-makers. At first, the Company's supposed insistence on a newly founded institution was not doubted or confirmed by the Prussian king or his government. As we shall see, the brothers' risky communication strategies – to present half-truths as unalterable conditions – could, and indeed would, eventually backfire. The negotiations surrounding the Schlagintweit collection provide another good example of how the brothers sought to turn their position 'in between' their British employers and German patrons to their own advantage. But it equally reveals how the brothers would ultimately lose their integrity within Prussian government circles.

First, in the wake of having initiated the museum idea, the brothers created *faits accomplis* by transporting the collections from London to Berlin in September and early October 1857 – some 510 boxes in total. Those 'objects' that could not be stored in-house were given to other Berlin institutions such as the zoo, including a living pair of Tibetan ghorkars (or wild asses), and a pair of horses and camels from Turkistan, which had all survived the shipment via Bremen; trying to invoke an image of themselves as generous benefactors, the horses were presented as a gift to the king.[961] Crucially, the shipment of all objects was not arranged under any orders of the king or his government, but only resulted from the Schlagintweits' own initiative, paid with Prussian credit.[962] Taking up Frederick Wilhelm IV's earlier offer, the two brothers began to unpack their boxes in the spacious rooms of the Monbijou Palace and the Berliner Börse. But more than that: the brothers assembled and went through the over 20,000 Asian natural specimens and ethnographical objects not only in preparation of writing their *Results* – nor, as Harald Uhlig claimed, did they only seek to show the collectibles to their aged mentor Humboldt[963] – rather, the brothers turned the 'Tanzsaal' of the Palace into the core of their own, albeit only temporary, museum (fig. 7.4).

[961] Description of their collections by Robert Schlagintweit, arguably intended as an aide mémoire for Humboldt, GStA PK, ZKab, fol. 53 f. Also: 'Ein Besuch im zoologischen Garten zu Berlin', *Die Gartenlaube*, 48, (1858), p. 687.
[962] 'Entwurf Illaire an Außenminister v. Manteuffel betr. Transportkosten', 5.1.1858, GStA PK, ZKab, fol. 115: 'Jedenfalls aber dürften, so die Gebr. Schlagintweit ihre Sammlungen ohne allen diesseitigen Auftrag hierher geschickt haben, die ferneren Zahlungen für sie zu beanstanden sein.' The credit was taken out of the 'Königliche Legationskasse', see Illaire to P. M. Manteuffel, 8.1.1858, 'Akten des Außenministeriums zu Schlagintweit (Ministerium der auswärtigen Angelegenheiten),' GStA PK, III. HA MdA, III No. 18929, 'Himalaya Expedition der Brüder Schlagintweit, 1853-1889'.
[963] Uhlig, 'Die Gießener Geographen', p. 95.

Fig. 7.4 Schloss Monbijou, 'Tanz- und Festsaal der Königin Friederike Luise (ehemalige Orangerie)', photograph by 'Preuß. Messbildanstalt' between 1900-40, source and copyright: Fotoarchiv Marburg, No. 1.251.966.

For this purpose, the brothers commissioned display cabinets (for 800 Thalers) for the objects, and had some Indian paintings including three large portraits of Indian rulers framed and hung on the walls.[964] They also ordered the Berlin foundry to produce the first series of their 'ethnographical heads in copper', resulting in the considerable personal expense of 2,000 Thalers.[965] In addition, the brothers engaged the service of a taxidermist for their numerous specimens of quadrupeds, including a giant Bengal Tiger, which were (alongside those preserved in spirits) eventually displayed. The animal collection was complemented by a natural historical

[964] The brothers possessed 31 Indian miniatures, and three large portraits of Indian rulers, see Hermann Schlagintweit's report in the 'Sitzung der math.-phys. Klasse der Ak. der Wiss. vom 1. Dezember 1877'; see also Hermann Goetz, 'Indische Miniaturen im Münchener Völkerkunde-Museum', *Münchner Jahrbuch der bildenden Kunst*, 13 (1923), pp. 61-91; 63, 84; I thank Stephanie Kleidt for information on these miniatures. The Schlagintweits paid 500 Thalers for 'Buchbinder und Rahmenmacher', Schlagintweit to Prince Wilhelm of Prussia, surviving as a copy among Humboldt's papers at the Literaturarchiv Marbach, A. v. Humboldt, Zugangsnummer 62.2335, Berlin, 12.3.1858.

[965] The first 40 heads were displayed in early 1858; Hermann and Robert Schlagintweit, 'Menschenracen in Indien und Hochasien', *Monatsberichte der Königl. Preuss. Ak. der Wiss. zu Berlin* (Berlin, 1859), pp. 248-55, 249.

department, as some '600 tree sections', as well as '11,000 plants' amassed during their travels, were prepared to be analysed and exhibited.[966] The tree sections, illustrating the natural treasures of South and High Asia, had one side 'being left in its natural state when sawn', whereas the other was pleasingly 'polished, to show the grain and colour of the timber.'[967] Within only a few months, the brothers had spent over 6,500 Thalers on analysing and bringing growing numbers of their artefacts into presentable shape.

While the display of their first travel treasures was well received by some local scholars and even non-Prussian royals[968], the brothers' goal was to turn this fleeting arrangement into a prolonged formal employment as directors of their own museum. After the Schlagintweit had left their university posts in 1854, the rank of museum directors in Berlin offered several distinct advantages: a secure salary, an enhanced social status, and visible professional authority as curators of a museum filled with their own marvels.

However, not everything went according to plan. In a twist of fate, their long-standing and committed patron Frederick Wilhelm IV suffered a stroke on 23 October 1857. The Schlagintweits had hoped to use their established friendship with the king to surpass any administrative hurdles, and realise their museum in direct communication with his Majesty. As any hopes for Frederick's recovery faded, his brother, Wilhelm Prince of Prussia, became the *de facto* ruler, and eventually King in October 1858. With Frederick's unexpected departure from government affairs, their projected museum – so close to its realisation – suddenly looked ready to collapse like a house of cards.

Contrary to their initial plan, the Schlagintweits now had to take on the Prussian administration. On 10 December 1857, they submitted an '*Immediateingabe*' to 'His Majesty the King' that touched both on their previous expenses and the future realisation of the planned museum.[969] Informing the now cognitively impaired Prussian king that parts of the collection were already on display at Monbijou, the

[966] Together some 2,300 Thalers, see Schlagintweit to the Prince Wilhelm of Prussia, 12.3.1858 Marbach, A. v. Humboldt Zugangsnummer 62.2335
[967] 'The New Museum at the India House', *The Observer*, 23.5.1858.
[968] For instance, Humboldt noted that the Grand Duke of Weimar 'was surprised about the richness of their collections in Monbijou', and bestowed a medal on both brothers. Humboldt to Robert Schlagintweit,, GStA PK, ZKab, fol. 120, 15.3.1858.
[969] 'Immediateingabe' by the Schlagintweits to His Majesty the King, ibid., fol. 149 f., 10.12.1857. With the sums specified in an accompanying letter to Illaire by Robert Schlagintweit, 10.12.1857, in BSB Berlin, Sammlung Darmstaedter, Asien, Robert Schlagintweit, fol. 76f.

brothers now asked for royal funds to cover the costs incurred for both the transport from London to Berlin, and the preparation of their artefacts for exhibition. By then, it seems that they had come into considerable financial difficulties, precisely because they had been the driving force behind the whole museum project, and had to advance all payments. In the submission, the brothers also formally repeated the claim that 'the Court [of Directors] expressed the wish and expectation' that the Prussian 'half' of their collections 'should form an independent geographical Museum.' The reason was that 'the individual objects […] as regards their completeness over such vast, hardly known countries, [being so] distinct from collections of a related character, would form a very good whole.'[970]

Eager to carry out the scheme as quickly as possible, the Schlagintweits informed the monarch that they were now 'awaiting orders' regarding the future 'location of the collections'.[971] To further their cause, they submitted a preliminary 'inventory' of all the branches of their artefacts, amounting to over 25,000 items.[972] This compilation was undoubtedly intended to impress on both the Prussian administration and the King the great significance of their material, with the Schlagintweits appearing somewhat over-confident about its overall value. In concluding their 'inventory', the brothers openly alluded to the 'practical and scientific interest' that their projected India museum would arouse.[973] They argued that 'the ethnographical objects, because of their completeness and extension over a territory of 200 million peoples' would give the new museum a distinct 'accessible character' to capture broader, including mercantile, audiences.[974]

Thus, also in their negotiations in Prussia, the Schlagintweits took great care to stress the practical usefulness of many of their artefacts. That is, they soon published detailed descriptions of their human artefacts that made unmistakably clear that the brothers sought to use their collectibles to encourage European commercial expansion into untapped markets in the trans-Himalayan regions. This is well documented in the

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[970] ZKab, fol. 149 f., 'Immediateingabe' by the brothers concerning royal funds, 10.12.1857; originally: 'wobei jedoch der Court den Wunsch und die Erwartung aussprach, daß dieselben ein für sich bestehendes geographisches Museum bilden sollten, da sowohl die einzelnen Gegenstände selbst, als ihre Vollständigkeit über so große, fast unbekannte Ländergebiete, verschieden von Sammlungen ähnlicher Art, ein sehr gut begrenztes Ganze bildeten.'
[971] Ibid.
[972] Ibid. 'Zusammenstellung der Schlagintweit'schen Sammlungen aus Indien und Hochasien', fol. 110, draft by Illaire to von Raumer regarding the brothers' Immediateingabe, ibid., 16.12.1857.
[973] 'Zusammenstellung der Schlagintweit'schen Sammlungen aus Indien und Hochasien'.
[974] Ibid.

case of their collection of 281 samples of Eastern 'woven manufactures' – in cotton, leather, wool, and silk. These samples of 'native cloth' were soon bound up in eight luxurious volumes entitled 'Technical Objects from India and High Asia'. Each volume was dedicated to a particular region – e.g. 'Cashmere' or 'Tibet', and was complemented with a description of what kind of garment was produced out of the different textile samples (fig. 7.5).[975] The types presented ranged from 'shawls', precious foulards to 'festival-coats' of 'Lamas' dresses', and valuable Alpaca silks 'used by Europeans and rich Natives'.[976] As the brothers stated in the bounded volumes of fabrics, which, written in English, addressed a pan-European readership:

> 'We were particularly anxious to be pretty complete in the half civilized countries surrounding India, since there the manufactures were found more novel in reference to the materials used, and since at the same time the facility of these manufactures being replaced by cheaper foreign ones is even greater than in India properly speaking.'[977]

[975] This hitherto neglected prospectus, printed in 'Berlin, April 1859', survives as a copy in Innsbruck, Schlagintweit, 'Collectanea critica, 1848-65', pp. 283-4.
[976] Ibid.
[977] Ibid. p. 284.

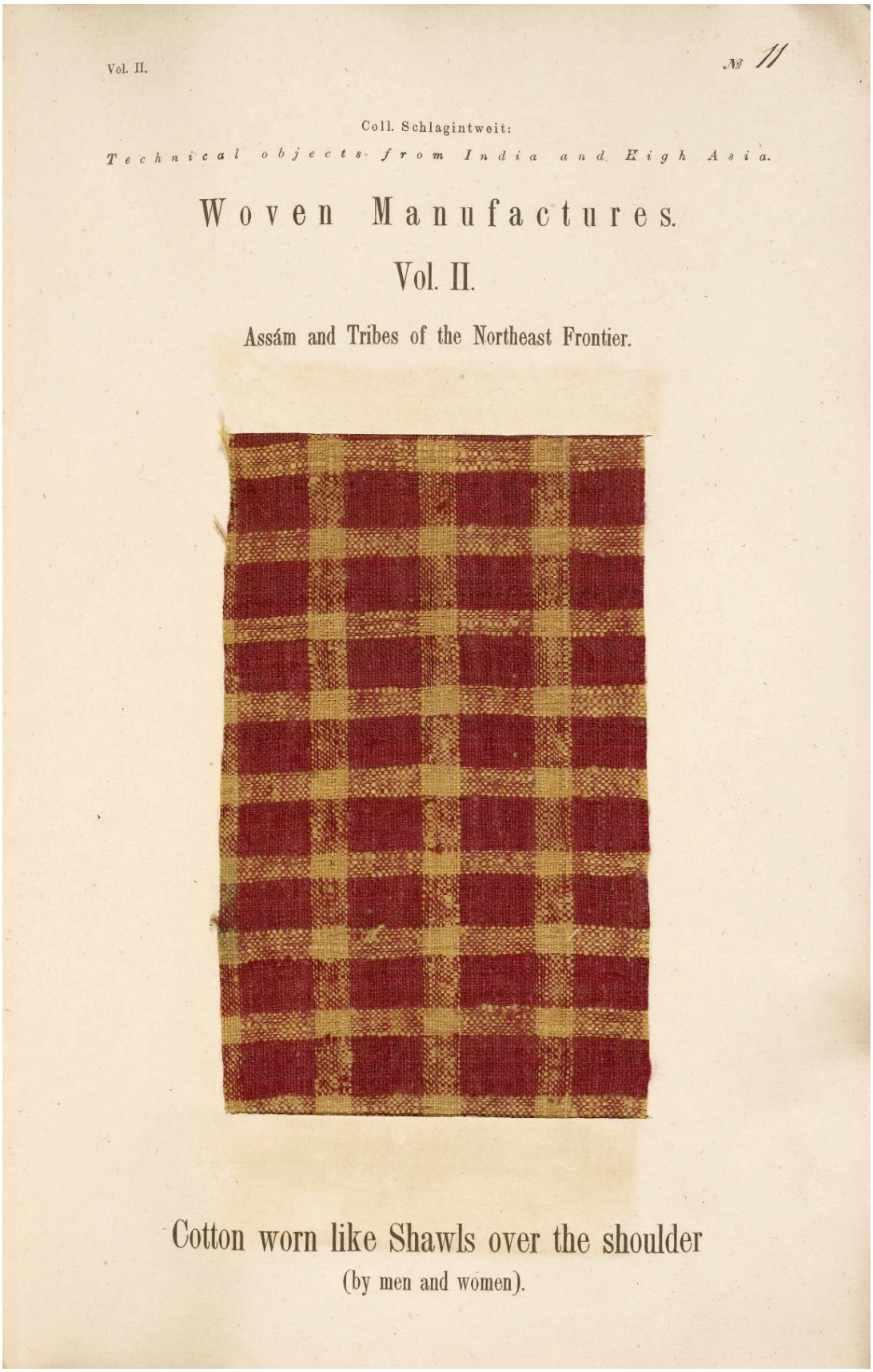

Fig. 7.5 ‘Technical objects from India and High Asia, collected by Hermann, Adolph and Robert Schlagintweit, 1854 to 1858’, Woven Manufactures, volume II, no. 11. Under the sample from Assam, it reads: ‘cotton worn like Shawls over the shoulder (by men and women)’; source and copyright: British Library, X 366.

Echoing the model of the imperial India Museum in London, the travellers claimed that their collection 'not only shows what the different nations do make', but it could further demonstrate to European manufacturers what different indigenous societies 'consider best suited for their climate and taste in reference to strength, texture and colour, and in what forms a cheaper and in consequence more generally used dress might be offered [by European producers] to the little cultivated tribes surrounding the Indian empire'.[978] Indeed, the native textiles – and other 'technical objects' such as different types of paper made of 'animal and vegetable materials' – were considered to be 'not without practical value for extending international trade' into hitherto unexploited markets in the regions the Schlagintweits had explored. While their Berlin museum would, unlike the Company headquarter in London, not display the material cultures of peoples ruled by a German empire, it was nonetheless equally intended to exhibit natural and cultural artefacts from the East 'in a luxurious manner' for the furtherance of direct European – including German – trade with this world region. In a sense, the brothers' *Indisches Museum* was projected as a repository for the encouragement of German overseas trade – without an adjoining empire.[979] What has been argued for economic botany thus applied to the brothers' Asian cultural and natural objects as a whole: with the idea of a 'Schlagintweit museum', the brothers' collections were 'a versatile resource, situated within the "volatile nexus" of science, commerce, and state politics.' Through this process of self-interested collecting and dealing with eastern objects, 'India itself' was 'commodified and marketed' for western scientific and popular audiences.[980]

On the other side of the channel, the Company employed, from May 1858 onwards, when the brothers returned with the first chunk of analysed and prepared objects from Prussia, three different curators – 'Drs. Horsfield, Watson, and Wilson' – to effectively display several key components of the Schlagintweit collection in the

[978] Ibid.
[979] To be sure, it was already noted in newspaper reports on their Monbijou exhibition that the latter contained 'surprisingly many ethnographic objects of technical and cultural historical interest', *Illustrirte Zeitung*, Nr 804, 27.11.1858. By March 1858, the brothers displayed 'in a luxurious manner' Oriental arms, headdresses, masks, but also 'jewellery' and the textile samples, see GStA PK, 1. HA Rep. 76, 'Acta Commissionis', Prod. 10, report by Lehnert to cultural minister von Raumer, 29.3.1858.
[980] Arnold, 'Plant Capitalism', p. 902. See also Londa Schiebinger and Claudia Swan, 'Introduction', in idem (eds.), *Colonial Botany: Science, Commerce, and Politics in the Early Modern World* (Philadelphia, 2005). On the commodification of 'traditional' India in the context of British industrialisation and the *Great Expedition* of 1851, Tim Barringer, *Men at Work: Art and Labour in Victorian Britain* (New Haven, 2006), esp. chapter five on the 'Colonial Gothic', pp. 243-312.

London headquarter.[981] Over time, the display at the India museum included the entire series of 275 ethnographic heads – 'most tastefully arranged in the sculpture room'.[982] Moreover, several hundreds of polished tree sections, plants, flowers, religious objects, and the brothers' commercial items from India and High Asia, among them the entire textile series, went on display by 1859. While the Company trade in India's 'woven manufactures' had a long tradition, the Schlagintweit series added to Western commercial knowledge as it provided glimpses of the taste and fashions, and hence demands, *beyond* the Indian Empire, into markets hitherto only targeted by the Chinese and Russian Empires.[983] As a British paper noted: 'This collection of manufactures [from Thibet and from Central Asia] may prove perhaps soon very important for our trade, which is daily more increasing into these regions. Till now, Russia only supplied and knew the wants of the people of those regions.'[984]

Despite the acclaim by visitors of their collections in London and Berlin, the Schlagintweits' ambition to found their own museum in Prussia proved difficult to realise.[985] With Frederick Wilhelm IV, who like Humboldt had welcomed the project, being out of government, the Schlagintweits' application (*Immediateingabe*) from December 1857 landed in the hands of administrators. There, the scheme caught the attention of some of the brothers' old enemies. The cultural minister Karl Otto von Raumer, with whom Humboldt shared a deep mutual contempt[986], and who had earlier declined any Prussian funding for the Schlagintweits' Himalayan expedition in 1852, also got his hands on the proposal. It testifies to the specific communication strategies of the brothers, who had only involved their closest allies Bunsen,

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[981] *The Illustrated News of the World*, 2.7.1859.
[982] *The Illustrated News of the World*, 23.7.1859.
[983] The great opportunities awaiting British commercial expansion in such diverse markets as for tea, cotton, silks, etc. was also stressed by the brothers during the interview in front of the 'Select Committee for the Settlement and Colonization in India', held in early July 1858, see appendix for transcript.
[984] 'New Contributions to the India House Museum', *Star*, June 1859, in 'Collectanea critica', Innsbruck, p. 109.
[985] The great praise for the Schlagintweit objects, especially the tree sections and ethnographic collections in London were also registered in Prussia: 'In England hat die Sammlung der verschiedenen indischen Holzarten, sowie die auf...plastiblen Wege hergestellten Abdrücke der ihnen unter die Hände gekommenen indischen Menschenrassen, viel Beifall gefunden.' Report by von Reizenstein to Baron Malortie, Berlin, 10.10.1859; 'Acta, betr. Annahme veschiedener ethnographischer Gegenstände, sowie literarischer Sendungen in solchem Betreffe seitens des Herrn von Schlagintweit 1859', Royal Private Archive (Königliches Hausarchiv), Hannover, Depot 103, XX, No. 320. Other German royals visited their collections in Monbijou, e.g. the 'Grand Duke of Mecklenburg' during a two-hour visit; Robert to Humboldt, Berlin, 12.2.1858, copy of letter at Humboldt Research Centre, BBAW.
[986] See, e.g., Humboldt to Bunsen, *Briefe von A. von Humboldt an C. C. J. Freiherr von Bunsen* (Leipzig, 1869), 30.12.1854.

Humboldt, and the King in their scheme, that von Raumer had to make formal enquiries about the museum project, as 'all further negotiations, which have taken place with the brothers Schlagintweit concerning their travel and collections, have until now remained entirely unknown to me.'[987]

In reply, even the Privy Councillor Illaire could not provide satisfying information about the brothers' plans, proving again how much the India museum was a project pursued behind the back of even the Ministry of Culture.[988] In a sense, the brothers had pursued a death-or-glory approach: if they could have reached an official agreement with the King via private communication as they had hoped, the museum creation would have been a stroke of genius. By contrast, once this shortcut had failed, and influential administrators found out that the brothers had them left in the dark for months, the Schlagintweits' prospects of success dramatically faltered.

In the early months of 1858, things became increasingly uncomfortable for the ingenious projectors. For one thing, the brothers, finding themselves in serious financial troubles, were under considerable pressure for failing to defray the considerable costs for the transport of the collections from London, which had temporarily been covered by the 'Königliche Legationskasse'.[989] The negotiation about settling the debts of several thousand Thalers with the 'Speditionshause Phaland & Dietrich' became a small affair of state, entailing numerous private and public interventions from various actors, with the brothers continuously applying for further government grants to come clean of the debts.[990] Being unable to pay the shipping company, the brothers tried once again to play one side against the other, informing the cultural minister that '[if] the bills for the setting and working up [of the artefacts] […] were presented to the Court of Directors of the India House, then they would be reimbursed as had been earlier the case with the acquisition of the collections, and the costs of their inland transport in India and their shipment via sea to London'.[991]

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[987] GStA PK, ZKab, fol. 116, Raumer to Illaire, 11.1.1858.
[988] Ibid., fol. 117, Illaire to Raumer, 17.1.1858.
[989] Together some '2,425 Thalers, 24, 4', 'Legationskasse: Transportkosten für die Sammlungen', 29.12 1857, Akten des Außenministeriums zu Schlagintweit, Ministerium der auswärtigen Angelegenheiten, GStA PK III, HA MdA, III Nr. 18929, 'Himalaya Expedition der Brüder Schlagintweit', 1853-1889.
[990] The affair continued, in fact, for several years, well into the premiership of Count Otto von Bismarck, who in the 1860s still had to deal with the brothers' stubborn unwillingness to refund the Köngliche Legationskasse. The conflict only ended when the Prussian king refused to launch a legal case against the Schlagintweit and paid off the debts out of his *Privatschatulle*.
[991] Declaration of the brothers to von Raumer about their collection, 19.2.1858, GStA PK, Akt. Kultusministerium (Ministerium für Geistl. Angelegenheiten), 1. HA Rep. 76 Ve Sekt. 1 Abt. XV Nr

However, if the Court was to be charged, the brothers claimed 'that the collections would have to be sent back to London in their entirety', thus putting pressure on the Prussian officials to sanction their demands to avoid a public scandal.

Amid their struggles over debts, and the Prussian administration's increasing distrust of the brothers, it was again Alexander von Humboldt who intervened. He rightly sensed that the whole project of their museum, and the securing of their collections for Prussian institutes, had reached a crucial point. First, Humboldt invited influential scholars and Prussian government officials to visit the Schlagintweit collections in Monbijou. In drawing the attention of influential men to the exhibits, his reasoning was to build up a network of supporters now that the planned museum had become such a bone of contention among Prussia's scientific and administrative circles. The invited dignitaries included the General Director of the Prussian Museums, Ignaz von Olfers, as well as the acclaimed travelling naturalist, geologist, and anatomist Christian Gottfried Ehrenberg (1795-1876).[992] Humboldt also directly addressed his archenemy von Raumer. In his letter, he made no attempt to conceal that public disgrace would be brought upon Prussia if the museum project failed, and hence the collections could not be kept within the kingdom – the one supposedly entailing the other.[993] Humboldt thus expressed his 'grave concern' that the Schlagintweits' travel project, 'after the reluctant Company had finally agreed that the greatest natural historical and ethnographical collection, which ever reached Europe from Inner Asia, could here be divided, may now come to an end in a widely perceived, disgraceful manner.'[994]

To be sure, Humboldt acted as much out of personal loyalty to his protégés as he did out of sincere scientific interest in their collections and a long-standing patriotic ambition to improve Prussian scientific collections. His belief in the great value of the Schlagintweit objects was genuine, as he confirmed that the brothers 'have achieved in very distant countries more than […] Professor Ritter and I, judging by your two great works on the western and eastern Alps, could have expected from

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189, 'Wissenschaftliche Reisen der Gebrüder Schlagintweit nach Indien, Hochasien, sowie die Ausstellung und Benutzung der von denselben mitgebrachten Sammlungen, April 1851 bis März 1865'.

[992] GStA PK, ZKab, fol. 118, Humboldt to Illaire (?), Berlin 4.2.1858.

[993] Ibid., fol. 119, Humboldt to Raumer, 8.2.1858. To be sure, Humboldt personally supported the idea of a distinct museum as a memorial to the 'glorious memory' to the Company, which had so liberally supported the brothers and thus the sciences as a whole. Humboldt to Illaire, ibid., fol. 167, 28.8.1858.

[994] Ibid., fol. 119, Humboldt to Raumer: '… auf eine schmachvolle, weit ertönende Weise ihr Ende nehme.'

you.'[995] He specified that 'the glory [*das Rühmliche*] of your great and dangerous expedition is based on the plentiful collections you have brought home'. In addition to their valuable scientific observations in the East, Humboldt stressed above all their considerable 'enrichment of our botanical, zoological, geological and ethnographical' departments. [996] Personally convinced about their (otherwise often contested) achievements, he further urged the Schlagintweits to seek an audience with the reigning Prince Wilhelm, whose goodwill and material patronage now ought to be secured.[997]

Unsurprisingly, the Schlagintweits shared Humboldt's enthusiasm about the value of their collections. Driven by their belief in the necessity of an independent Oriental museum and the significance of their collection, the brothers now went on the offensive. In direct negotiations with von Raumer, the brothers suggested on 19th February 1858 that 'a commission consisting of scientific men [shall] examine the already exhibited objects of our collections […] in order to prove [their] full value.'[998] The Schlagintweits also enlisted their favoured members of the committee: 'die Herren von Humboldt, von Olfers, von Ledebur, und die Herren Professoren Ehrenberg, Rose, Poggendorf, Klotsch und Dove.' This handpicked selection of scientific experts would cover most of their artefacts departments. Crucially, many of these candidates were among Humboldt's close scientific or personal acquaintances. Gustav Rose, a mineralogist, had accompanied the Prussian naturalist on his Siberian expedition in 1828-29. During this expedition, Humboldt had also collaborated with Dove and Poggendorf, who had assisted him in undertaking geomagnetic observations in Saxony 'during his absence' in Russia.[999] Ignaz von Olfers, now General Director of Prussia's museums, was also personally committed to Humboldt, who had openly supported his appointment to the current post in the late 1830s.[1000] Following their bad experience with unknown advisory experts in 1852, the brothers now tried to play

[995] Ibid., after fol. 120, Humboldt to Robert (?) Schlagintweit, 15.3.1858.
[996] Ibid.
[997] Ibid.
[998] Copy of letter by H. and R. Schlagintweit to von Raumer, Berlin, 19.2.1858, GStA PK, 1. HA Rep. 76 Kultusministerium Ve Sekt. 1 Abt. XV zu Nr. 189 Beiheft 'Acta Commissionis des Geh. Oberregierungsraths Lehnert betreffend den Erwerb der Sammlungen der Gebrüder Schlagintweit', prod. 5.
[999] Karl Bruhns, *Life of Alexander Von Humboldt*, Vol. II (London, 1873), p. 147.
[1000] James J. Sheehan, *Museums in the German Art World: From the End of the Old Regime to the Rise of Modernism* (Oxford and New York, 2000), p. 106.

the game of bureaucratic manoeuvring that decisively shaped Prussia's museum policy at the time.[1001]

Evidently, the brothers expected that the commission would provide much-needed scientific backup to their scheme. However, even well-disposed allies of Humboldt may not act as wished. Their own ambitions within Prussia's scientific landscapes may have played a part in the commission's work, too. As was known from the cases of other art museums in nineteenth-century Germany, hired experts often 'delighted in demonstrating their skills', using such commission appointments as a stage for professional self-representation.[1002] What was more, in consequence of the cultural ministry having acquired greater powers in the 1830s-40s, high officials such as the *Kultusminister* von Raumer were confident and eager enough to try to shape the kingdom's museum policies according to their own visions.[1003] The Schlagintweits, as political outsiders in Prussia, may have not been aware of the fact that even the Prussian king, while maintaining influence in shaping the cultural policies of the state, was also hemmed in by a powerful bureaucracy. Thus, contrary to what the brothers may have imagined, even if Frederick Wilhelm IV had still been in office, the king could arguably not have paid for their projected museum out of his private funds, but rather needed the resources of the Prussian state, and the authorisation of the relevant ministry. The museum's anticipated costs – according to the brothers some 19,000 Thalers, though others believed them to be much higher – certainly exceeded the king's personal means for patronage.[1004]

However, even in view of such considerable expenses, the brothers did not tire to present the museum as an excellent opportunity to acquire marvellous and rare eastern collections on the cheap. It was therefore frequently stressed in negotiations with the Prussian administration that the British side had 'entirely paid' for the objects' 'acquisition' and 'transport', while the Prussian king had given such a low salary that the brothers 'had entered no obligations to bring collections of any sort to

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[1001] Ibid.
[1002] Sheehan, *Museums*, p. 92, takes as his prime example Giovanni Morelli, a fervent critic of the practices of attribution used in German museums; see on Morelli the work by Carol Gibson-Wood, *Studies in the Theory of Connoisseurship from Vasari to Morelli* (London and New York, 1988).
[1003] Königliche Museen zu Berlin (ed.), *Zur Geschichte der Königlichen Museen in Berlin. Festschrift zur Feier ihres fünfzigjährigen Bestehens am 3. August 1880* (Berlin, 1880), pp. 50-5.
[1004] See GStA PK, 1. HA Rep. 76, 'Acta Commissionis', Prod. 10, report by Lehnert to von Raumer, 29.3.1858.

Berlin.'[1005] In view of the highly unbalanced funding scheme, with the Prussian state having paid only '1/40 of the costs carried by the India House' for the collections, the brothers thus celebrated their own triumph in having managed to formally secure half of the objects for Berlin.[1006]

Consequently, von Raumer issued the founding of such an expert commission on 4 March 1858. However, he shaped the committee on very different terms than the brothers had hoped for. In order to cast his final judgement on the museum project, the minister authorised the councillor Lehnert 'to form a commission of four professors for the inspection of the collections and for the compilation of expert reports' on their value. Crucially, while the zoologist Wilhelm Peters, the botanist Alexander Braun, the meteorologist Heinrich Wilhelm Dove, and the mineralogist Gustav Rose where formally enlisted, the well-meaning von Olfers was excluded from the body, as was the brothers' most fervent supporter Alexander von Humboldt. Further weakening their position, no report was to be written on their important ethnographic collection, which may have been one of their strongest assets.[1007] This was arguably Raumer's personal decision, as a number of competent scholars could have been appointed for this task, not least Humboldt himself.

Speaking volumes about the supposedly objective stance and evaluations of such expert commissions, von Raumer provided its four members with a set of comments and questions. Therein, the scholars were briefed with Raumer's already cast judgements, which made their involvement somewhat resemble a show trial over the brothers' application. That is to say, while von Raumer raised the question if it was indeed 'advisable to take over the collections' once their real value had been ascertained, he also immediately noted that 'the Company's *purported* condition to form a distinct museum out of the entire collections […] appears inadmissible and ought therefore to be declined.'[1008] Having thus already rejected the independent museum, the next question touched on the issue of what expenses were to be expected each year 'after the integration of the [Schlagintweit] collection into the here already

[1005] GStA PK 1. HA Rep. 76 Kultusministerium Ve Sekt. 1 Abt. XV zu Nr. 189, folder 'Acta Commissionis des Geh. Oberregierungsraths Lehnert betreffend den Erwerb der Sammlungen der Gebrüder Schlagintweit', Prod 5, Schlagintweit to von Raumer, 19.2.1858'.
[1006] ZKab, Prod. 5, Schlagintweits to the 'Geh. Räte Lehnert und Knerk', 25.3.1858.
[1007] 'Acta Commissionis des Geh. Oberregierungsraths Lehnert betreffend den Erwerb der Sammlungen der Gebrüder Schlagintweit', appendix. 7, 6.3.1858, 'Circular an die Professoren der Kommission'.
[1008] Note the subtle challenge to the brothers' trustworthiness, ibid., emphasis mine.

existing institutions'?[1009] In short, the minister's founding document for setting up the commission contained no subtle hints about his own position on the issue. His official document, in a sense, effectively barred any chance that such an *Indisches Museum* was to be established.

Yet, the commission members added insult to injury. Following his appointment, the meteorologist Dove broke the brothers' privileged communication position with their British benefactors, which had thus far sustained their double games with the multiple patrons. Dove wrote to the Company director Sykes (through his befriended colleague Edward Sabine from the Royal Society) stating that the Court's insistence on a new museum – which the brothers had incessantly emphasised – would 'considerably decrease the value' of the offered collections.[1010] The reason was that Dove believed that 'in England, as in the British Museum, heterogeneous objects are united in a common, great whole.' This was contrasted with the Prussian museum policy, where, in echoing Raumer's position,

> '[T]he zoological, mineralogical [...] botanical and ethnographical collections were completely separated, which are again distinct from art museums. This facilitates the scientific engagement with the materials and, therefore, all acquired collections by itinerant scholars have always been incorporated into […] these [established] museums.'[1011]

As the Prussian scholar made explicit, the great 'running costs' for the existing Prussian scientific collections would further hinder 'the creation of a new museum.'[1012] Yet, the most harmful effect of Dove's letter was not his complaint about the unfavourable museum demands; it was the breaking of the Schlagintweits' quasi 'communication monopoly' with the British employers, which had never been threatened by Humboldt or Bunsen as their well-meaning intercessors.

By effectively undermining the brothers' privileged negotiating position, Dove's direct intervention with the British side revealed that the brothers were involved in a swindle about the British terms as regards the collections' ownership and their precise 'conditions' for the Prussian half. That is, William Henry Sykes and Edward Sabine in their respective replies informed Dove, and hence the entire

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[1009] 'Ibid.
[1010] GStA PK 1. HA Rep. 89 Geh. Zivilkabinett, jüngere Periode Nr. 19767, 'Acta des Kgl. Geh. Cabinet', appendix I, Prof. Dove to General Edward Sabine, 12.3.1858.
[1011] Ibid.
[1012] Ibid.

commission, that things were perceived differently on the Isles. Sabine, while slightly contradicting Sykes, saw the supposed insistence on a new museum as a 'misunderstanding', stating that the Prussian king could receive the duplicates as a gift 'without any tedious conditions', to be used for Prussian museums 'at their own discretion'.[1013]

Sykes, by contrast, stated that Dove's letter 'has occasioned me no small surprise, as he was 'not aware that the directory had gifted the collections, or any part of it, to the Prussian King.'[1014] Rather, following the considerable costs for the imperial Court, the director claimed that 'the collections always were, and still are, property' of the EIC.'[1015] In Sykes' understanding, the Schlagintweits had only been allowed to take all the collections to Prussia for greater convenience, and there to be able to analyse the collections more cheaply than in London. Following this liberal arrangement by the Company, the 'results of their labours could [then] be published exclusively in the name of the East India Company.' In other words, the multi-volume *Results* were considered to be a dedication to the Court's patronage of the sciences, and the collection's shipment to Prussia only one stepping stone towards this goal. After this statement, Sykes would soon change his position, and confirmed that a full set of Schlagintweit duplicates were to be gifted to the Prussian monarch. He further stressed that while it was not an absolute condition that an independent India museum was to be erected in Berlin, he made clear that such a memorial to the liberality of the Court was nonetheless 'desirable', indeed it was the Court's 'decided wish', but could not be forced upon the Prussian side.[1016] Yet, whatever concessions William Henry Sykes was soon willing to make, the damage to the brothers' credibility was already done. Dove's first communication in March 1858 had exposed the Schlagintweits as fraudulent schemers.

Once the brothers learned that their half-truths had been revealed, as Sykes had immediately informed them about Dove's request, they themselves felt maliciously betrayed. Consequently, instead of seeking to mediate between the different claims, and opt to claim for a 'misunderstanding', they send a terse note to Prussian

[1013] Ibid., appendix IV, translation of the letters by Sabine and Sykes by Thomas Solly, 26.3.1858.
[1014] Sykes to Sabine, appendix IV, translation of Sykes' letter, 26.3.1858; GStA PK 1. HA Rep. 89 Geh. Zivilkabinett, jüngere Periode Nr. 19767, 'Acta des Kgl. Geh. Cabinets betr. die von den Gebrüdern […]'.
[1015] Sykes, however, did not exclude the possibility that Prussian 'authorised persons' may apply to the Court to receive 'any duplicates' as gifts. All translations mine.
[1016] ZKab, fol. 131-140, report by Bernstorff to Illaire, 7.7.1858.

government officials in charge of the advisory committee. The Schlagintweits first noted with indignation that they, and Humboldt too, were greatly surprised about Dove's unsanctioned enquiry. Exposing to what extent they may not have been aware of the internal workings of the museum administration, the brothers now claimed that they had intended to directly negotiate the whole museum affair only with the king, not with the cultural ministry.[1017]

Frustrated that their communication tactics had so bitterly failed, the brothers now issued an ultimatum. Therein, regardless of the British positions, they first demanded that the creation of a new India museum in Berlin was to be confirmed. Second, if this was accepted, they requested precise information about 'what medals, salaries, and official positions we can expect.' As they rightly stressed, it was only due to their own schemes and fighting, not least against British protest, that 'such a [valuable] collection' could have been taken to Berlin. Their demanding statement thus reflected the fact that by now, seemingly irrespective of legal considerations, the brothers had developed a considerable 'moral' sense of entitlement over the collections. The latter led the Schlagintweits to feel fully justified in claiming both public honours and lucrative state positions in the kingdom of Prussia. In case their bold claims were not met, the brothers openly threatened to send all the duplicates back to Britain, leaving Prussian institutions not only empty-handed, but also publicly ridiculed.[1018]

However, with this ultimatum, the brothers had overplayed their hands. Only four days later, on 29 March 1858, the Prussian councillor Lehnert compiled a dismissive 24-page report for the cultural minister, signed off by all advisory scholarly experts.[1019] This final report contained a scathing review of the brothers' personal conduct as men of science; it also questioned the value of several parts of their collections, and rejected the idea of a separate museum as a whole.[1020] Reflecting von Raumer's personal agenda, the report stated that such '[a]n Indian museum in

[1017] Schlagintweits to Lehnert and Knerk, 25.3.1858, GStA PK, 1. HA Rep. 89 Geh. Zivilkabinett, jüngere Periode', Nr. 19767, appendix 5.
[1018] In fact, the Prussian government's fear that the brothers would portray them in a compromising manner in front of the Company led Prince Wilhelm to request the Prussian Consul von Bernstorff in London to supervise and, if necessary, to correct the Schlagintweits' version of events in future communication with the EIC.
[1019] See GStA PK, 1. HA Rep. 76, 'Acta Commissionis', Prod. 10, report by Lehnert to von Raumer, 29.3.1858, all translations mine.
[1020] Lehnert used the previously compiled value reports by the individual commission members on distinct parts of their collections as his basis.

Berlin would be a mere oddity'. Such an institution, for which even 20,000 Thalers 'would hardly suffice to cover the expenses', would only 'excite the curiosity of the prying masses.'[1021] While expressing an elitist stance regarding the gathering of non-European collections and their displays, the Berlin professors and officials here openly rejected the usefulness of the intended 'practical' applications the brothers sought for their Indian collection. According to the report, all that really mattered with keeping up state collections was the pursuit of 'pure science' [*wissenschaftliche Zwecke*] – hence not commercial encouragement for a direct trade of Prussia with the East. However, the curiosity of 'the prying masses' was certainly not ridiculed by the brothers, but, as we will see later on, actively encouraged.

In further condemning the Schlagintweits' scientific reputation, the commission's final report stated that even if an Indian museum was to be created, its supervision should be placed in the hand of 'excellent scientists, proven scholars, in particular specialists of zoology, botany, meteorology, and geography'.[1022] It was certainly not by chance that these were precisely the fields of expertise of the four advisory professors. By contrast, the Schlagintweit brothers, on the basis of 'the results of our intercourse with them', were not considered by the experts to possess the necessary qualities for such a 'directorship'. Indeed, it was not only their 'presumptuous behaviour' ('anmaßende Benehmen') towards 'several members of the undersigned' that led the commission to plea for abandoning any further negotiations with them.[1023] Rather, while individual reports on their collections had shown that 'some valuable objects' were indeed contained among the duplicates, which undoubtedly would enrich local departments, yet many other *unique* pieces of the collections would have to be sent back to Britain, thus reducing the overall value of the collection. But even worse, other parts were said to have been collected and prepared in an unprofessional manner, echoing Joseph Hooker's report on their botanical specimens.

In consequence, the advisory committee concluded that 'the collectors have thus considerably overestimated the scientific value' of the objects. The brothers' demand to receive a new building to house 'their' India museum that would offer

[1021] Ibid., final report by Lehnert to Raumer, 29.3.1858: 'Soll die Aufstellung in der, allerdings angenehm ins Auge fallenden, aber immerhin etwas luxuriösen Weise, in welcher sie begonnen worden, fortgesetzt und vollendet werden, so würden 20000rt. schwerlich zur Deckung der Kosten ausreichen.'
[1022] Ibid.
[1023] Ibid.

'three times as much space as they currently occupy in Monbijou' was also stated to hinder any chance of success.[1024] Even Humboldt's unwavering support for the museum of their 'East Indian Collection', expressed in numerous government submissions and private letters, in this case failed.[1025]

Faced with this personal and professional quarrel, how can we make sense of the Schlagintweits' far-reaching, uncompromising claims, and their ultimate 'Icarian Fall'? The brothers' achievement of having traversed such vast and often dangerous regions in South and High Asia, and having succeeded in getting their collected treasures to Berlin, had arguably gone to their heads. This may explain their haughty confidence about the value of their collectibles, which was also reflected in their condescending treatment of their critics in Prussia, which ultimately contributed to their fall. However, I want to argue that the desired creation of their own museum also mirrored their own historical consciousness – their willingness to create a lasting legacy to their contested achievements. As has been rightly argued by James J. Sheehan, '[m]useums promised permanence and preservation; they also provided immediate recognition and material rewards' for those who could stage their own works or scientific collections in such 'holy halls'.[1026] The reason was that museums – as the public guardians of precious objects – 'carried the prestige of official, even royal patronage, but at the same time they were instruments of public culture, accessible to everyone.'[1027] A museum that was dedicated to their adventures and accessible to a broader public, remained an ambition the Schlagintweits incessantly sought to realise throughout their lives.

The flight forward: a private museum

In the context of the Schlagintweit controversy, it is crucial to note that the Prussian museum episode, with its many discreditable incidents and revelations, was never made public. Unlike in Britain, where Company officials and scholars had leaked discrediting material to the papers, the brothers were protected from such critical scrutiny by the press. On the contrary, German papers frequently reported

[1024] Ibid.
[1025] Humboldt, even when the project had come to a halt, still pleaded for a new museum in August 1858, and even suggested the brothers should be rewarded with Prussian honours for their service.
[1026] The following reflections are inspired by the excellent analysis by Sheehan, *Museums,* esp. chapter 3: 'The Museum Age, 1830-1880', here p. 95.
[1027] Ibid.

only on the successful (temporary) exhibition of their collections in Monbijou. This held true even if some notables in Berlin came to know about the questioned value of their collections, and even noticed that, especially after Humboldt's demise in 1859, the interest in the Schlagintweits and their travels had 'considerably cooled down'.[1028] Overall, however, in the wake of the most unfavourable museum incident, the brothers' name was not associated with imposture and subterfuge in the German lands.

Yet, the conflict over the failed museum project shaped their trajectories in other unforeseen ways. In keeping with their typically stubborn manner, the brothers did not allow the anonymous fragmentation of 'their' collections into other Berlin holdings. It was therefore only expected that they soon began to look beyond Prussia's borders to realise their project. Having become *personae non grata* among the Prussian administrators and the Prince Regent, the earlier offer of free exhibition space to the Schlagintweits in the Palace of Monbijou ceased in 1860, and was not renewed for another location. Now, instead of 'surrendering' their treasures to Prussian collections, the brothers aspired to find a home for their collections elsewhere, which would serve as a commemorative space to their exploratory feats.

While the Schlagintweits had claimed to be financially unable to rent out exhibition facilities in Berlin, the brothers settled on the purchase of a castle in southern Germany that seemed large enough for the brothers and their entire collection.[1029] They moved out of Monbijou and back to Bavaria in the autumn of 1860, leaving some surplus collectibles behind, while taking the most valuable parts of the Prussian 'half' with them to the Jägersburg (fig. 7.6).[1030] While still refusing to settle their debts with the Prussian administration (and offering, in all seriousness, to grant the abandoned collectibles in Monbijou as a repayment), the Schlagintweits plainly informed Berlin officials in 1861 that, due to monetary concerns, they had to further pursue the preparation of 'our book in the countryside, where we have a small property.'[1031]

[1028] Report by Reizenstein to Baron Malortie, Berlin, 10.10.1859, Königliches Hausarchiv Hannover.
[1029] fol. 204 f. Gebr. Schl. an Illaire, Erklärung zur Immediateingabe, Jägersburg, 14.10.1861.
[1030] fol. 191-193 report by the new cultural minister Bethmann-Hollweg about the question of the Schlagintweits' pending reimbursement 19.3.1861.
[1031] fol. 204 f. Gebr. Schl. an Illaire, Erklärung zur Immediateingabe.

Fig. 7.6, modern photograph of (the unaltered) Schloss Jägersburg close to Forchheim, Franken (Bavaria), (2012), © Benreis, http://alleburgen.de/dispF.php?i=47&t=by&id=2421#prettyPhoto, last accessed August 2014.

Through this move away from the rightful owner (the Prussian King), the Schlagintweits effectively 'privatised' the collections. From now on, they were not placed in any state deposit or royal palace. Rather, the artefacts were stored on private ground and used to decorate their own castle. Soon, Schloss Jägersburg became a (semi-)public museum, which was open by appointment to scientific collectors, scholars, and the wider public from May to October each year. As different hosts narrated the tour through the first two floors of the castle, the exhibition of their Indian landscape views, Oriental arms, models of Indian mausoleums, and with a number of Indian textiles and printed papers decorating entire halls, the arranged objects left a lasting impression on the visitors' minds.[1032] To be sure, although not all eastern objects had been personally discovered or collected by the brothers, they were all silently appropriated under the deceiving label of the 'Schlagintweit collection'; in that sense, the travellers' private museum became an architectural statement that embodied their own personal contribution to the task of natural historical and ethnographic 'reconnaissance' of Indian resources.[1033]

The fact that neither Prussia nor the British side recalled the objects that the Schlagintweits had taken with them to Bavaria was pure luck. After the brothers had published their scientific *Results* between 1861-66, it would have been plausible that the official owners insisted on the return of their respective shares of the collection.

[1032] Emil Schlagintweit, [*anonymously published*], 'Ein Besuch der Jägersburg und der Schlagintweit'schen Sammlungen', *Morgenblatt zur Bayerischen Zeitung*, Nos. 326-7, 23/26 Nov. 1864, pp. 1110-11; 1114-1115.
[1033] As could be shown for the case of Nathaniel Wallich in the field of economic botany, see Arnold, 'Plant Capitalism', p. 921.

Yet, only the most valuable and rare objects found their way back to the India Museum in London.[1034] The bulk of the artefacts remained with the brothers, who treated the collections as their personal property, not least by selling increasing numbers of artefacts – originals and replicas – for their own profit.

While it remains unclear when and why the Prussian king abandoned any direct claims to ownership, there is some evidence that helps to explain why the East India Company, and later the British Crown, dropped at some point their rightful demands to receive half of all the duplicates, and *all* the unique pieces. The reason for this *de facto* change of ownership was that the Company's India Museum was already overcrowded with objects during the late 1850s, and became even less able to house all its collectibles after its move to a new site in Fife House, Whitehall Yard, in 1861.[1035] This lack of space played into the hands of the brothers. Fife House, formerly serving as Lord Liverpool's private residence, had more recently served as an auction room.[1036] In the general perception, it seemed absurdly unsuited to be used as a museum, even though some objects enjoyed pride of place: for instance, the 'large collection of ethnological specimens' by the Schlagintweits was 'arranged in the entrance hall', where their entire set of heads was prominently displayed to all visitors.[1037] Nevertheless, the imperial museum still attracted a flood of visitors, some 175,000 people visited within the first two years at the new site.[1038]

The collection of London's India Museum moved once again in 1867 to the newly constructed India Office in King Charles Street, at Whitehall. However, at the new site, there likewise existed no suitable display space, so that only parts of the former Company's 'treasury of rarities' could be displayed from 1870-75.[1039] The collections from the India Office were ultimately divided up between the South Kensington Museum, built in 1857, and since 1899 the 'Victoria & Albert Museum', the British Museum, and the Royal Botanical Gardens at Kew from 1879-80, when a great number of the Schlagintweits's items were often anonymously subsumed under their holdings. In other words, it was first inadequate locations, and later oblivion by

[1034] This happened in several chunks, mostly in May 1858 and with another shipment of artefacts to Britain in the summer of 1859.
[1035] Digy Wyatt submitted a report to Lord Ellenborough about the insufficient space in Leadenhall Street, see his 'Memoranda', 4.3.1858, BL, IOR, PRO/30/12/22.
[1036] Richard Daniel Altick, *The Shows of London: A Panoramic History of Exhibitions, 1600-1862* (Cambridge, Mass., 1978), p. 509.
[1037] *The Times*, 22.7.1861, (Innsbruck, Collectanea critica).
[1038] Altick, *The Shows of London*, p. 509.
[1039] *The Nation,* 27.7.1865, (Innsbruck, Collectanea critica).

British officials, that added to the fortunate circumstance that the Schlagintweits could secure even many unique items amongst their private possessions – except for those treasures the India Museum in London did not formerly possess but attached great significance to, such as those concerning the promotion of British industries and the future exploitation of India's natural resources.[1040]

While the Company's India Museum, over time, thus lost its interest in the more mundane objects of the Schlagintweit collection, the Prussian King could have insisted that the artefacts belonged to Berlin museums. As Prussian consultations with the Company clearly established, the Schlagintweits had *no right* to dispose of any parts of the objects, either as gifts or sales.[1041] However, while they had no legal ownership over the artefacts, it seems that the brothers simply gambled and used delaying tactics to ultimately reach their goals nonetheless.[1042] In response to initial British and Prussian claims over parts of the collections, the brothers strategically used the artefacts' multiple relocations, and simply the passage of time, to sit it all out and to slowly turn informal arrangements into accepted realities.

Visiting the Jägersburg: between display and commodification

While it was evident that the Schlagintweit objects added to the imperial inventory of the East in London, the practical commercial implications of the brothers' collections were also not lost on German audiences. Take the example of the 'Landwirtschaftliche Verein in Bayern' [*Agricultural society of Bavaria*] that visited and also published on the Schlagintweits' collections.[1043] The society, founded in 1810, was formally a private one, but maintained close personal and financial connections to the Bavarian state.[1044] The proclaimed goal of the influential association was the improvement of the kingdom's agricultural output, which was

[1040] This applied, for instance, to the valuable collection of Indian marbles acquired by the brothers, which were permanently 'deposited at the India Museum, Fife House [...] [and] furnish proof of the varieties [of marbles] to be met with' in South Asia for British exploitation.' *The illustrated catalogue of the industrial department, Vol. III, Colonial and Foreign Divisions* (India), Class I (London 1863), p. 16.
[1041] ZKab., fol. 131-140, report of Bernstorff to Illaire, London, 7.7.1858.
[1042] ZKab., fol. 168-172, second report by Bernstorff to Illaire, 30.7.1858.
[1043] Joseph Zailler, 'Wandersammlung bayerischer Landwirthe zu Forchheim', *Zeitschrift des Landwirthschaftlichen Vereins in Bayern*, 59 (1869), pp. 359-68, the following from 361-2. Probably Dr. Joseph Zailler, a priest who had decidedly worldly interests, and published numerous articles on, e.g., Bavarian horse breeding and agricultural improvements.
[1044] The following account is based on Stefanie Harrecker, *Der landwirtschaftliche Verein in Bayern 1810-1870/71* (Munich, 2006).

pursued – among other things – by popularising new cultivation schemes.[1045] In their *Annual Report* from 1860, its 'central committee' informed its members (over ten thousand) about recent efforts to distribute 'several seed samples and economic plants [*Sämereien und Kulturpflanzen*], provided by the brothers Schlagintweit from the Himalayas' to agricultural producers in the kingdom.[1046] While it has not been possible to ascertain what new species and cash crops were precisely offered from the brothers' treasure chest, it is clear that the Schlagintweits brought back from Asia hundreds of different types of wheat, and numerous samples of cultivable seeds. The seeds included those of opium plants, tobacco, tea, spices, plants for dyestuff (indigo), as well as plants for ornamental purposes, and numerous items of *materia medica*.[1047]

German manufacturers also exploited the brothers' collections, including the 70 rare and valuable indigenous paper samples, which made up the first section of their 'Technical Objects from India and High Asia'. In a report containing a technical analysis of their samples, a German magazine noted that the famous paper-maker Dr. Alwin Rubel possessed the entire set. Rudel was not only among the two factory owners of the 'Papierfabrik Königstein' in Saxony, but also acted as editor and publisher of the *Central-Blatt für die deutsche Papierindustrie*, published in Dresden from 1850 onwards. Given the interest by such industrialists in the 'technical objects', the published analysis of the brothers' paper samples therefore stated that one 'ought to know that they are made out of different plants, whose knowledge […] are of the utmost importance to European manufacturing', due to the 'different character' of the papers they helped to produce.[1048]

Apart from such visits from 'improvement societies' and German manufacturers, the brothers also received both royal and scholarly visitors, which

[1045] The society, by that time, also managed the Munich *Oktoberfest*.
[1046] Anon., 'Jahresbericht pro 1859', *Zeitschrift des Landwirthschaftlichen Vereins in Bayern*, 50 (1860), pp. 9-36, 12. In 1853, the society had 13,140 members, ranging from government officials, priests, schoolteachers, to an increasing number of peasants and agricultural experts. *Regensburger Zeitung*, 323, 23.11.1853, p. 1123.
[1047] The collected seeds further included apricot kernels, beans, ginger, pepper, peas, corns cultivable at different heights, radish, castor beans for oil, cashew nuts, mustard, Indian corn, cranberry, grapevines, Himalayan rhubarb, maize, sesame and dozens of other useful plant seeds. For some, there existed up to 16 different seed samples from various regions or heights at which the plant was cultivated. The whole range can be found Schlagintweitiana II.1.42, 'Pflanzen-Sammlungen, Baumdurchschnitte, Nutzpflanzen', and VI.5.3, 1-4.
[1048] Ibid. p. 375.

were intended to add new lustre to their damaged reputation.[1049] As was widely reported in numerous German newspapers, even the Greek monarch of Bavarian origin (1832-62), King Otto, together with Queen Amalie, visited the castle and perused their collections.[1050] While such visits bestowed an august impression of their museum, the brothers also portrayed it as a site for international scientific collaboration – as a meeting point for scientific experts. Before a well-attended scientific gathering of the 'Deutsche Naturforscher-Versammlung' in Giessen in 1864, the brothers received a number of scientists from other German lands, but also England and Holland.[1051] On other occasions, Oriental scholars from all over Europe, and even India herself, made their way to the castle to study the Schlagintweit collections and manuscripts, and engage in, often prolonged, scientific conversations. Hence, while the Jägersburg also exhibited a few views from their previous Alpine excursions, the Schlagintweits had thoroughly 'Indianised' and assumed a scholarly identity almost exclusively geared towards their South and High Asian expedition, which became the defining episode of their personal and professional lives.

Already before, but especially after the removal of the collections to the Jägersburg, the brothers started to explore potential commercial avenues for their collections. In a sense, the castle functioned also as commercial display and distribution centre, where reproductions of many of the artefacts could be purchased. Amongst the objects for sale were the 275 ethnographic heads that were replicated in plaster or, more exclusively, in copper by European manufacturers. The commodification of their collection also included replicas of religious masks, 'facsimiles' of playing cards, prints from wood-blocks (all collected in Tibet), twenty different human skeletons and skulls in 'papier mache', as well curious objects such as the 'brain of [an] elephant skull in plaster'.[1052] The marketing of their collection provided an important source of income for the brothers, and to promote the sales, the brothers placed numerous advertisements in newspapers and magazines. Through

[1049] See on the paper collection's distribution within Britain, Sita Ramasheshan, 'The History of Paper in India upto 1948', *Indian Journal of History of Science*, 24 (1989), pp. 103-121, which, however, also does not provide an analysis of their potentially industrial uses in Britain.
[1050] Anon., 'Vaterländisches', *Ingolstädter Tagblatt*, 129, 31.5.1864, p. 513; anon., 'Lokal- und Provinzial-Chronik', *Regensburger Anzeiger*, 148, 31.5.1864.
[1051] E. Schlagintweit, 'Besuch der Jägersburg', p. 1115.
[1052] Smithsonian Institution, *Annual Report of the Board of Regents* (Washington, 1863), letter Hermann Schlagintweit, 7.11.1862, pp. 84-85, see also Anon., 'Zehnter Jahresbericht der naturhistorischen Gesellschaft zu Hannover', *Bonplandia: Zeitschr. Für d. Gesammte Botanik; Organ für Botaniker*, 21 (1860), pp. 333-41, 340.

their publisher, Johann Ambrosius Barth, they further printed catalogues, introducing the different artefacts. One of these catalogues, a *Prospectus* on their series of 'heads' went through several editions and provided ethnographic background information on every single plaster cast and the sitter.[1053] Such commercial prospects were also printed for the paper samples, the woven fabrics, the brothers' zoological and botanical collections, as well as their acquired human body parts.[1054] The Schlagintweits' 'entrepreneurship' undoubtedly 'thrived in an age in which the worldwide quest for rare and beautiful plants [and ethnographic objects] was burgeoning and where science and capitalism constantly colluded.'[1055]

Sales catalogues were only one way to attract potential buyers, but the Schlagintweits also used their scientific network to connect with potential buyers internationally. Through personal communications with Italian, French, American and Anglo-Indian museum directors and private collectors, they tried to market their objects abroad, for their own profit and glory. The ethnographic heads proved to be a particular success, with the whole series being exported to London, Paris, St. Petersburg, and other imperial museums in Calcutta and Madras.[1056] Unsurprisingly, the brothers sought to capitalise on any positive remarks about their collection that appeared in private letters or newspaper articles in their quest for social and scientific recognition.

The importance the brothers attached to the international press coverage over their case materialised in a remarkable document: the 'Collectanea critica' (figs. 7.7-7.8). Therein, the Schlagintweits privately amassed a vast amount of printed articles in several languages about their travels and collections. The large folder survives among their private papers, which was maintained by Hermann Schlagintweit and still contains hundreds of newspaper cuttings, capturing the brothers' veritable obsession

[1053] The second edition of the *Prospectus of Messrs. de Schlagintweits' Collection of Ethnographical Heads from India and High Asia* was already printed in Nov. 1859 (Leipzig), and contained 13 pages of enumeration and description, with only five pages of advertisements for the collection, Schlagintweitiana VI.5.6.1.

[1054] *Allgemeiner naturgeschichtlicher Catalog der v. Schlagintweit'schen Sammlungen Schloss Jägersburg*, Juli 1868. This included the possibility to order individual objects or a whole series of up to 3,000 different shells, ca. 1500 'soil samples' for 800 Thalers, stuffed reptiles, mammal skeletons from 'Sikkim, Nepal, Buthan, Assam, Bengal, the Kassia mountains', etc. The brothers highlighted some exceptional objects, including 'two exemplars of a sheep horn monstrosity (great rarity), unicorn-like, à 25 thl.' In the rubric of anthropological specimens, one could purchase also human skeletons or single skulls, for a price of 15 to 20 Thalers, 'according to rarity'.

[1055] As has been more narrowly argued for economic botany, Arnold, 'Plant capitalism', p. 918.

[1056] Other museums purchased at least parts of the series, including the museums in Bombay and Sager (India), Milan, and a few institutions in the United States, see Anon., *Allgemeine Zeitung* (Augsburg), 1.4.1866, p. 1484; and E. Schlagintweit, 'Ein Besuch der Jägersburg', p. 1115.

with the opinions others had of them. Whereas the many collected negative voices about their travels – especially from Britain – were never cited, the Schlagintweits reprinted several of the positive statements, especially about their collectibles, in their catalogues to enhance the perceived value of the duplicates, replicates and originals for sale.[1057]

Fig. 7.7 Schlagintweits' 'Collectanea critica'. This private collection of press reviews, journal articles, and personal statements from correspondents (British, French, German, etc.) survives in Innsbruck at the Alpenverein-Museum, Österreichischer Alpenverein, R. und H. Schlagintweit, 'Collectanea critica, 1848-65', / PERS 26.1/5.

[1057] The Schlagintweits, for instance, quoted Joseph Barnard Davis, a famous British scientist, from a *private* letter in their 'Prospectus of Messrs. de Schlagintweits' Collection of Ethnographical Heads', p. iv: 'After an examination of these casts, I consider them by far the most important contribution ever made to Indian Ethnology. I regard them as of the utmost importance to the British Government and people, who have never before had any adequate means of becoming acquainted with our fellow-subjects in India. Indeed, I may safely say, there never was before such an admirable exemplification of the Ethnology of any people.' Davis had arguably seen the Schlagintweit collection in the East India House, London; he was the co-author with John Thurnam of, *Crania britannica: delineations and descriptions of the skulls of the early inhabitants of the British Isles* (London 1856).

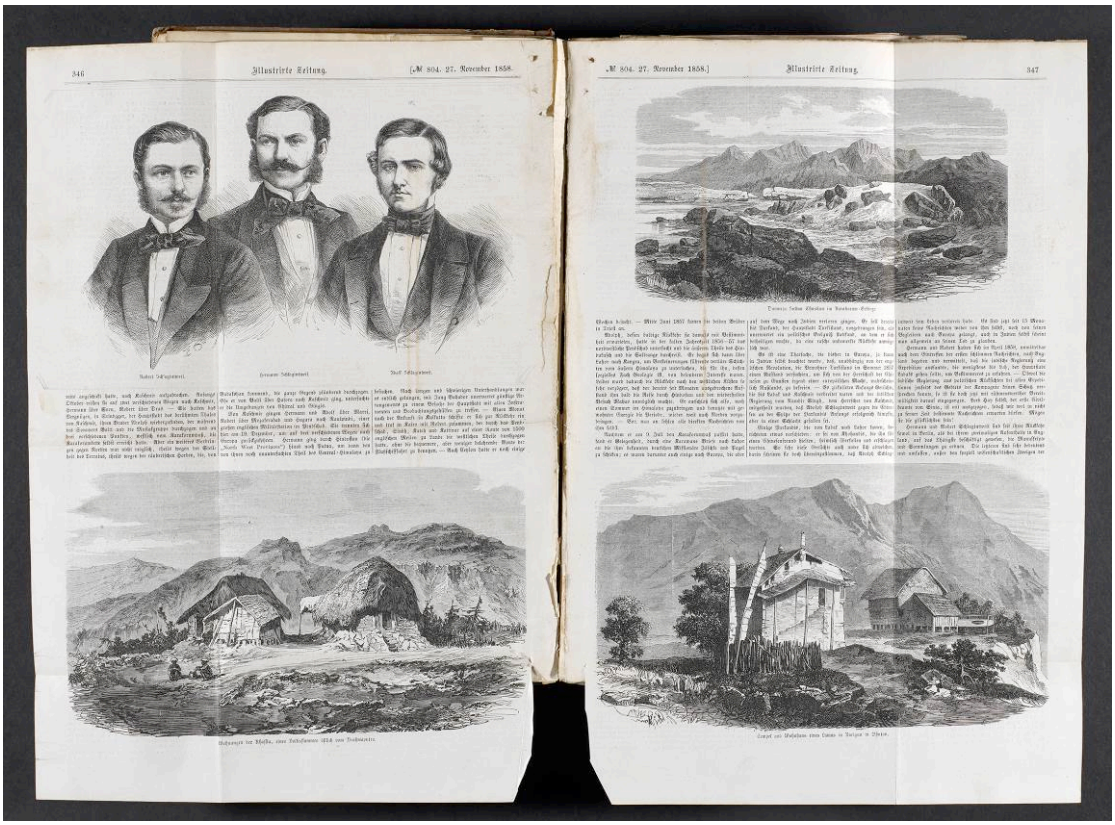

Fig. 7.8 The Schlagintweits' 'Collectanea critica', pp. 68-69; sample page of an article in the *Illustrirte Zeitung,* 804, 27.11.1858. The article shows how much the achievements of the brothers were associated with their painted views from India and High Asia, some of which became iconic depictions of Himalayan landscapes.

While the artefacts were thus used as a source of income, it should not be underestimated to what extent the Schlagintweits' clinging to the Indian treasures was also inextricably linked to their self-representation as 'great explorers' and scientific experts. The sale of their collection was supported by the fact that buyers were convinced about the originality of the objects, since they were able to buy them from the brothers themselves instead of trusting the judgement of dealers and intermediaries in an increasingly crowded market for ethnographic objects and natural history specimens. Even in the case of reproductions, it was generally claimed that the brothers had assured that those could still be considered truthful representations.[1058] The American scientist Theodore Lyman, for instance, introduced the Schlagintweit collection to a potential buyer, the Smithsonian Institution in Washington, with the words that 'the fact that [the specimens] were collected by the Schlagintweits in

[1058] On their ethnographic heads, *The Journal of the Asiatic Society of Bengal*, 28 (1859), noted, for instance: 'The original moulds have been reproduced by making strong metallic casts of zinc the basis, and coating them with a galvanoplastic deposit of copper varied in tint according to the different degrees of colour of the native Tribes. The entire series supplies perhaps the most important contribution, that has yet been made to the study of Indian Ethnology.' Ibid, pp. 266-7.

person gives them a full guarantee.'[1059] All visitors to the Jägersburg were thus confronted with the aura of authority that the brothers generated through the display of 'their' scientific trophies from the east.[1060] Yet, their collections also played an important role in shaping the brothers' social advancement in Germany. They were used to secure different forms of recognition that could communicate their status and achievements to broader publics and international audiences. In the light of the controversy and their bad reputation in Britain, the brothers were keen to receive official acknowledgements for their work – perhaps to counteract the humiliations they had experienced since their return.

The social fabric of science: collecting honours and rejections

Following the public defamations that had appeared in England between 1857-59, the brothers' reputation in the British Isles was undoubtedly on a downward spiral. Even the positive newspaper reports about the display of their collection in London did next to nothing to alter their status among the scientific community. This growing estrangement of British scholars from the German travellers can be seen clearly in Joseph Hooker's private correspondence. Here, a language of exclusion was ever more openly employed to stress the Schlagintweits' lack of respectability. Expressing ever-greater doubts, Hooker wrote to Murchison in 1859:

> 'I do not say that the S[chlagintweit]'s have no results, or that their Geograph[ical] discoveries are not meritorious & useful; but this is not all we have to deal with; look at the cost, at the withholding of their Scientific results from our Societies, to the sending of all their materials to Prussia [...] & I ask you whether such conduct would be tolerated for a moment in an Englishman.'[1061]

Whereas Hooker, at this point, grounds his criticism of the Schlagintweits in the favouring of German scientific institutions with their Asian collections and results, he continued his polemic by arguing that their proposed publication would effectively

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[1059] Hermann to the Smithsonian Institution, Paris, 24.11.1862, in Smithsonian Institution, *Annual Report of the Board of Regents* (Washington, 1863), p. 84.
[1060] For instance, in the staircase hung 'a large elephant tooth from Nepal, marked by Hermann's bullet and an inscription by the Dschangh Bahadur', a Nepalese commander, 'who had then acted as his hunting companion.' E. Schlagintweit, 'Ein Besuch der Jägersburg'.
[1061] Hooker to Murchison, 19.7.1859, RBGK, DC, vol. 96.

betray the works of British scholars.[1062] 'What have our public Scientific Establishments got for this Expenditure of £18000? &, what is worse, what have they not lost by the withdrawal of Every Shilling & Every Sympathy on the part of the Indian' Government from *British* scholars, 'whose results are Either destroyed by neglect, or are now to be placed at the disposal of these men, who have not the feelings of gentlemen in such matters, & far less ability.'[1063] In consequence of the brothers' failure to acknowledge their British predecessors, the Kew botanist concluded that their expedition should be regarded as nothing less than 'the grossest job that was ever perpetrated in this country under the name of Science'.[1064] To secure British funding for British subjects, even well respected and widely travelled scholars such as Joseph Hooker employed a language that had xenophobic overtones. Categories of national belonging and the stressing of cultural difference thus served to reinforce the mechanisms of exclusion of non-nationals.

To be sure, this exclusion was assured not only through rhetoric. Instead of only taking issue with their professional behaviour, the Schlagintweits were increasingly treated as social outcasts. The fact that they were unwelcome in the meeting places and institutions of science in London must have become obvious to the brothers by 1859, when they made an appearance at the prestigious *Athenaeum Club*, 'the resort of almost everyone of note in the literary, scientific, and artistic world' at the time.[1065] After a controversial invitation to this highbrow establishment, it was again Hooker who raised severe criticism in a letter to Murchison.

> 'With regard to the Athenaeum [...] An Englishman is blackballed if known to be personally disagreeable only to members of his own profession, & doubly so if anything having even a taint of dishonour & ticks to his name. Had the S[chlagintweit']s been Englishmen they would have been blackballed a hundred times over.'[1066]

[1062] Ibid. To be sure, Hooker's critique was shared by other British scholars, e.g. Henry D'Oyley Torrens, *Travels in Ladak, Tartary and Kashmir* (London, 1862), p. 212: 'And still stranger is it that the collections, mineral and vegetable, made by the talented trio of Germans should be at this moment in the Museum of *Berlin*, and not in that of the East India House, although the expense incurred by the Indian Government in behalf of these German *savants* has been computed at near 30,000*l*., and that incurred by Prussia *nil*', while Torrens rather blamed the financiers, not the brothers.
[1063] Hooker to Murchison, 19.7.1859, RBGK, DC, vol. 96, emphasis mine.
[1064] Ibid.
[1065] Jon R. Godsall, *The Tangled Web: A Life of Sir Richard Burton* (Leicester, 2008), p. 217.
[1066] Hooker to Murchison, 19.7.1859.

These exclusionary practices testify that the Schlagintweits' authority was challenged not least for social reasons, as their behaviour provoked criticism that was clearly linked to issues of class, and to the supposed lack of an appropriate, gentlemanly conduct.[1067] This criticism was further fuelled (as shown earlier) by the portrayal of their travels and publication schemes as driven by greed for fame and profit – hence the antipode of respectable, disinterested scholarship. To the extent that the two dimensions were inextricably linked in Victorian scientific circles, the social exclusion of the Schlagintweits thus also implied the symbolic denial of a reputation as both honourable scientists and as gentlemen by their British peers.

Indeed, one could argue that while it is adequate to regard the Schlagintweits, at least to a degree, as 'imperial outsiders' even prior to their departure (following the early critique of their foreignness), they were even more so *after* their return.[1068] Their fall from grace in England should not, however, be considered as the inevitable outcome of transnational scientific collaborations, as the successful assimilation of other German scholars and administrators into the high establishment of the British Empire showed at the time.[1069] For better or for worse, it was rather the Schlagintweits' bold conduct and self-interested ways of portraying themselves and their achievements that impacted considerably on their chequered careers.

Yet, not every scheme the brothers devised turned against them. Above all, they believed that their respectability as scholars could be restored through royal acknowledgements – that is, by receiving a series of royal medals, but at best a title of nobility, as if the latter would automatically grant them with an air of dignity that would silence their critics. It was thus precisely in reaction to the public libels and exclusion of their *personae* that the brothers conceived of new ways to counteract

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[1067] Even their supporter Roderick Murchison dismissed their 'obtrusive manners' in a letter to Hooker, 20.7.1859, ibid.

[1068] See for early opposition, the *Athenaeum*, 1378, 25.3.1854, p. 376, where a long article urged for a 're-consideration' of their appointment, and further stated that 'we have a right to protest against foreign diplomatic influence being brought to bear for the purpose of forcing strangers over the heads of Englishmen more distinguished for their attainments than the new comers.' For the perception of the brothers as 'foreigners', see Torrens, '*Travels',* pp. 211-12.

[1069] A prime example is Richard Hermann Schomburgk, who was first appointed for surveying projects by the British Government in Guyana, then becoming first British consul to the Dominican Republic, and British Consul-General of Siam while residing in Bangkok from 1857-64. His brother Richard became director of the Adelaide Botanic Garden (Australia) in 1865; Robert P. Dod*, The Peerage, Baronetage and Knightage, of Great Britain and Ireland, for 1865* (London, 1865) p. 516, Ulrike Kirchberger, *Aspekte*, p. 338; Engelhard Weigl, 'Acclimatization: The Schomburgk brothers in South Australia', *HiN*, IV (2003), pp. 2-13.

their discreditable repute by launching a veritable publicity campaign in their own favour.

After their requests for further Prussian medals had failed over the museum disaster, the Schlagintweits now went full circle in their careers and turned again to the Bavarian monarch in search for support and scientific glory.[1070] To pave the way for royal honours, the brothers first gifted '80 seed samples and 38 ethnographic objects' to King Maximilian II in February 1859, which soon found their way into Munich's Ethnological Museum.[1071] In a formal submission only a few months later, the Schlagintweits then informed the monarch that his sympathy for their cause would render it now a 'special duty during our upcoming visit to England to try to get the permission' to also enrich 'Bavaria's collections' with as many of their artefacts as could be secured.[1072]

In a bold rhetorical move, the Schlagintweits continued their royal submission by requesting 'a favour, which perhaps can only partly be excused on the ground that its granting would […] be of the highest importance for our official relations with England.'[1073] They maintained that 'nothing else could be more supportive' to their future plans than if the King would bestow on them the title of nobility from 'our fatherland Bavaria'. This, it was argued, would decisively improve their negotiating position with their British employers in different regards. Yet, the brothers' request was not unproblematic, since the granting of a title depended on the existence of a considerable private fortune. They thus felt compelled to provide a list of their current possessions to the King. These included '21000 fl.' gained *during* the Indian expedition, hence pocketed from British and Prussian funds, which were further complemented by the inheritances from their deceased parents, including Adolph's share. Altogether, the brothers declared to possess 'total assets […] of 60000 fl.'[1074] All this money, they said, was deposited at a 'Prussian bank, predominantly in the form of Prussian bonds [*Wertpapiere*]'. It is noteworthy in view of their supposed incapacity to repay the Prussian loans that they were sitting on such fortunes, soon

[1070] It should be remembered that Frederick Wilhelm IV had bestowed on Hermann and Adolph (already in 1854) the Eagle of the Red Cross, 4th class, but no further honours were given in the wake of their travels, despite the brothers' outspoken demands.
[1071] See their submission to the king, Munich, 1.6.1859; Bayerisches Hauptstaatsarchiv (=HStA), Adelsmatr. Adelige, S 156, document one. These were the first Schlagintweit objects registered in the Ethnological Museum in Munich.
[1072] Robert and Hermann Schlagintweit to the King, 1.6.1859; HStA, Adelsmatrikel Adelige, S 156.
[1073] Ibid.
[1074] Ibid.

used to purchase the Jägersburg. However, the brothers knew that even these financial reserves were not sufficient according to the 'legal conditions' for a Bavarian knighthood.

Therefore, they maintained that 'especially *this* distinction [of ennoblement] […] will considerably help to improve our pecuniary position in England'.[1075] That is, they believed that a noble rank would help them to increase their current pay, and also prolong their already liberal second employment in England, for both of which the Schlagintweits had applied on several occasions. The brothers indeed used their title of nobility as a tool for negotiating higher salaries. In a letter to the India Office, London, in 1859, Hermann stated for instance: 'We allow ourselves to communicate to you that recently the King of Bavaria, whose subjects we are, has conferred upon us the title of nobility, we especially do so to add, that we request you occasion to mention also to Sir Charles Wood, that we are most gratefully aware how much we owe this distinction indirectly at least, to the liberality with which the Government facilitated the working out of the results of our scientific mission. Perhaps we may be allowed to profit of this occasion for requesting again […] the adjustment of preliminary expenses and increase of pay.'[1076] In their 'noble' request alone several layers of the controversy were bundled together, including the brothers' deep-rooted quest for social recognition, their secretive communication strategies to make multiple sets of promises to different patrons, and their seemingly insatiable appetite to consume even more British means – despite the debate in England over their financial debauchery.[1077]

The Schlagintweits' unusual *personal* application for hereditary ennoblement was soon passed on and sanctioned by Maximilian II on 28 August 1859.[1078] This royal honour impacted on the original design of their family crest (fig. 7.9 for the old crest), as it was altered to incorporate references to the brothers' Indian travels. Crucially, the Schlagintweits did not leave the design of the new crest to the royal

[1075] Robert and Hermann Schlagintweit to Bav. King, 1.6.1859; HStA, Adelige, S 156, emphasis mine.
[1076] Hermann to India Office, Schlagintweitiana IV.6.1, Berlin, Palais Monbijou, 29.9.1859. See dozens of similar requests to the India House, later India Office, among the Schlagintweitiana; and BL, 'Military Department Miscellaneous Letters Out', 1859, IOR, L/Mil/2/1477, e.g. Schlagintweits (Berlin, Palais Monbijou) to James Cosmo Melville Esq. (London), 1.10.1859.
[1077] While different sums had been leaked to the British press, it was soon openly speculated that their schemes had already cost up to £40,000, see *The Athenaeum*, 1768, 14.9.1861, p. 342.
[1078] See the formal submission by the 'Ministerialrath Dr. Rappel' to the King, HStA, Adelsmatrikel Adelige, S 156, document 3, 7.7.1859, 'Antrag an Seine Majestät den Koenig', with a short note on the granting of the title.

court's herald painter. On the contrary, the brothers personally provided specific symbols from their expedition to the painter that helped to lay subtle claims to scientific achievements, and bestowed upon them the distinction as heroic travellers. Their ennoblement, in conjunction with the modified armorial bearing, was precisely the public act of honour the brothers so desperately sought at the time to 'compensate' for the their shattered reputation in Britain, and is a striking incident of scholarly identity politics.

Fig. 7.9 Old Schlagintweit family crest; source and copyright: archive of the Alpine Museum, Munich, NAS 12 SG, 8.4-8.7.

While the old heraldic figures of the sword and the feathered arrow were retained (which represent the name 'Schlagintweit'), other elements were added to the new coat of arms that indicated how their status as knights was firmly grounded in their Asian travels.[1079] That is, the modified shield, now decorated with an upright sword flamant and a more impressive arrow, possessed a specific bordure as the brothers' mark of difference. The inspiration for the design was taken, as the herald painter explained, from 'the seal of the monastery Mangnang in Tibet'. Even 'the typical [Tibetan] colours for ornamental borders, red and silver, were kept.'[1080] During his visit of this inaccessible monastery in Gnari Khorsum in 1855, Adolph purchased numerous Tibetan manuscripts[1081], and immortalised this visit by drawing a striking interior scene of the holy Buddhist temple.[1082] Yet, the Schlagintweit crest contained more allusions to their achievements as eastern travellers. In addition, 'the two supporters [*Schildhalter*] are chosen in commemoration of the stay of the [brothers] in India'. To the left and right of the shield were thus placed two upright majestic animals, collared and chained, which perhaps more than anything else represented India and its wild creatures for the European imagination: two large Bengal tigers (fig. 7.10).

[1079] The new crest is described at length in Adelsmatrikel Adelige, S 156, doc. 15.
[1080] Ibid.
[1081] These manuscripts were purchased in 1885 by the Bodleian Library, University of Oxford; see John E. Stapleton Driver*, A descriptive catalogue of the Tibetan manuscripts held at The Bodleian Library,* revised by David Barrett (Oxford, 1993), e.g. MS.Tibet.c.I, MS.Tibet.c.20, etc.
[1082] The painting, published as 'Interior of the Buddhistic Temple of the Monastery Mangnang, in Gnari Khorsum'. Lithographic print, August 1855, *Atlas*, Part II, No. 12, was widely discussed in British newspapers, and entirely reproduced in *The Illustrated London News*, 1352, 13.1.1866, p. 45.

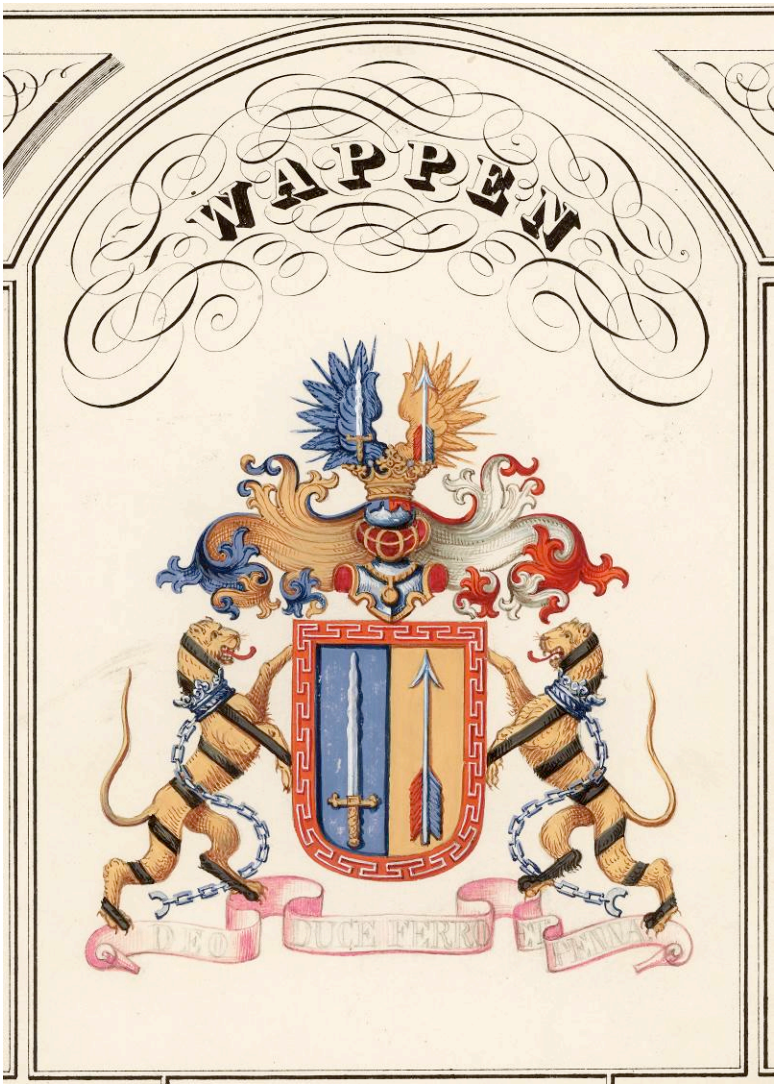

Fig. 7.10 Schlagintweit noble coat of arms. Source and copyright: HStA, Adelsmatrikel Adelige, S 156.

Lastly, the new family motto, 'Deo Duce Ferro Et Penna' [For God and the Duke with Sword and Quill], was described by the painter to contain 'a hint to the said travel, undertaken under the protection of God, with sword and feather in the name of Science.'[1083] The Schlagintweits' double 'conquest' of having opened up unfamiliar territories through their learnedness and scientific equipment, symbolised by the feather, only made possible by their assertive penetration, typified by the sword, was powerfully captured in their modified coat of arms and motto.[1084] The crest thus forcefully captured the way the brothers sought to portray themselves, as

[1083] Originally: 'Der Wahlspruch endlich hat gleichmäßig die Anspielung auf besagte unter dem Schutze Gottes mit Schwert & Feder für die Wissenschaft unternommenen Reisen [...].' Ibid.
[1084] While the brothers were indeed armed during the expedition, they relied less on swords than on 'double and single barrelled guns', provided to them by the imperial Government of India; 'Bengal Military Letters and Enclosures, 1856', IOR, L/Mil/3/587, coll. 26, from letter No. 30, 2.2.1856. Hermann Schlagintweit to Secretary to the Military Department, Government of India, 2.12.1855.

courageous scientific explorers, 'pushing back the frontier of ignorance and resistance' for the sake of the advancement of science into the dangerous unknown.[1085] This was indeed a powerful trope that the brothers helped to initiate, and one they managed to reinforce time and again through different mediums.

There is indeed a striking contrast between the private motives versus the public appearance of the Schlagintweits' road to ennoblement. How the brothers forged a false image of their achievement of the noble rank is well captured in the printed *Prospectus* (1860) for their upcoming publication of the *Results*. The *Prospectus* was undoubtedly intended to raise public excitement about the work; but it did far more than that. Its long introduction also aimed to provide a 'counter image' to the brothers, which essentially contradicted the published defamations of them that emanated from Britain into different European publics. Now, the internal negotiations with the Bavarian monarch that had led to the title were turned upside down. While the brothers had approached the king with strong promises, which in turn encouraged Maximilian II to provide the distinction, their published account gave a noticeably different impression. Silencing the fact that the scholars had been the prime movers of the scheme, it was rather stated that:

> 'The attention of his Majesty the King of Bavaria, was, from his natural predilection for science, soon attracted by the great success of these distinguished travellers, who are his subjects; and he has accordingly been pleased to confer upon them the titles of hereditary nobility; this distinction being awarded to them even before they have been able to make the results of their travels more generally known, by the publication of the present work.'[1086]

In other words, the Schlagintweits strove to re-assert their authority by depicting their ennoblement as supposedly objective proof of their scientific achievements, which seemed to be beyond doubt even *before* the actual publication of their first volume. At the same time, it is hard to escape the impression that the Schlagintweits' *Prospectus* also tried to capitalise on Adolph's death to create a sense of anticipation among the German reading classes. Indeed, the document seemed to appeal directly to their patriotic feelings of sympathy towards the brothers, and the sacrifices they had brought to the 'altar of science'. Its opening page thus stated:

[1085] See on this notion also Driver, 'Missionary Travels', p. 166.
[1086] *Prospectus* (Leipzig, 1860), p. 4.

> 'The public, during their absence, manifested a lively interest in the reports which, from time to time, reached Europe of the successful progress of the mission, but this interest deepened into a painful feeling of universal regret and sympathy, when the long doubtful fact was established, that one of these enterprising travellers, Adolph, had fallen a victim to his zeal by the hands of barbarous tribes in Turkistan (Central Asia).'[1087]

In the mid-nineteenth century, when the false dichotomy of European civilization versus extra-European barbarism still had a strong appeal for the public imagination, the death of Adolph was used to portray their mission as an enlightened undertaking, as the advance of western rationality into barbaric lands, against the resistance of primitive peoples. Through this discursive strategy, the consumption of the surviving brothers' work was almost depicted as an act of piety towards the sacrifices the contested travellers had made for the sake of overseas discovery and exploration. As we shall see in the following chapter, Adolph's demise beyond the frontier regions of the empire would indeed develop a critical significance for German contemporaries over the following decades.

Soon, numerous German, French, and British papers reported on their noble title. Indeed, it did sometimes seem as if their ennoblement proved to be their redemption. For instance, the London *Art Journal* informed its readers 'that, a few months since, we noticed a series of remarkable drawings of the three enterprising German travellers, the brothers Schlagentweit [sic], one of whom fell a victim to the savage disposition of a tribe of natives. We learn that the King of Bavaria has conferred titles of nobility on the survivors, as a mark of his appreciation of the services rendered by them to the science of ethnology.'[1088] The noble rank was thus portrayed as evidence of their scientific feats. Yet, the brothers could hope that it was also taken as proof of their financial independence – that their appointment and publication were precisely not a selfish 'job' (in contemporary parlance), but rather a honourable and altruistic vocation.

News about the Schlagintweits' ennoblement was complemented by reports that announced that they had received a range of other scientific medals and royal honours. In 1859, the brothers received the Gold Medal of the Parisian Geographical Society for their explorations in High Asia, especially Tibet. The British imperial hero David Livingstone had enjoyed the same prestige only two years earlier. While it is

[1087] Ibid., p. 3.
[1088] *The Art Journal*, 1.11.21 (1859), p. 350.

unknown (though not unlikely) that Humboldt had helped to arrange this important honour for his protégés, it is beyond doubt that the brothers themselves engaged in a remarkable effort to secure such foreign honours from numerous German and European rulers. Their active lobbying for rewards soon led to the rumour in Berlin that they were indeed 'medal-hunters' – 'ein bischen Ordensjäger'.[1089]

While the Schlagintweits' efforts to repair their reputation seemed to have been partly successful, some – especially British – scholars remained unconvinced. On the hotly debated question of whether the Schlagintweits should henceforth be entitled to revisit the London *Athenaeum*, British men of science such as Joseph Hooker saw through their carefully orchestrated 'public relations' campaign. While Murchison pleaded for clemency for the two foreigners, stating that 'I really thought that there was a limit to the dislike of them by a few of my friends', adding that 'I did not suppose that the presence of these two Germans could grievously offend' the *Athenaeum* members, his efforts proved futile.[1090] When Murchison even alluded to their having been granted the 'Grand Prix de la Société Geógraphique de Paris'[1091], Hooker only replied:

> 'You observe that the testimony of a Prince of Schleswig Holstein and the gold medal of the Paris Geogr: Soc: are entitled to consideration. I am a thorough respecter of rank & honor, but with me they are less than nothing against the opinion of candid men of Science, and I have mingled enough myself in that upper sphere, & seen too much of how Gold medals are got & given, to attach any importance to such things when unaccompanied by results & the unanimous testimony of Scientific men. These […] baubles may serve their turn in science now & again, but they will be forgotten when the scandal of this Schlagintweit affair will be a familiar episode in the history of British Science.'[1092]

[1089] Report by von Reizenstein to Baron Malortie, Berlin, 10.10.1859; Hannover, Depot 103, XX, Nr. 320. See for their receiving Hannoverian honours, Claudia Kalka, '"Ordensjäger" - Miscellanea zur Sammlung Schlagintweit im Niedersächsischen Landesmuseum Hannover', in Anna Schmid (ed.) *Mit Begeisterung und langem Atem. Ethnologie am Niedersächsischen Landesmuseum Hannover* (Hannover, 2006), pp. 89-95. For a full list of foreign honours, including by South American monarchs, see Bayer. Hauptstaatsarchiv Munich, Ordensakten 9056, (ca. 150pp.), for the period from the 1850s to 1871, during which time Robert, as a consequence of his incessant self-promotion, received some thirteen medals, and Hermann eleven; more on Robert's strategic medal-hunting in Schlagintweitiana V, 'Material zu den Vorträgen Robert von Schlagintweits'.

[1090] Murchison to Hooker, RBGK, DC, vol. 96, 404, 16 Belgrave Square, 13.7.1859.

[1091] See de la Roquette, 'Rapport sur le Prix Annuel', pp. 226-244.

[1092] J. Hooker to Murchison, RBGK, DC, vol. 96, No. 406, Kew, 19.7.1859. In addition to the praise the brothers received from French savants, some German royals in London had also publicly supported the Schlagintweit cause, among them the Prince of Schleswig Holstein, who himself frequented The Athenaeum Club.

However, part of the Schlagintweits' reputation campaign also involved a marked change in strategy – especially as regarded the acknowledgement of their offended British predecessors. They had thus learned their lesson from the scandal following their 'Parisian report', and were now keen to ensure that newspaper articles about them would also give due credit to British scientists. For instance, when writing to the influential US scholar and editor of the *American Journal of Science*, Benjamin Silliman, about a planned review of their first volume of the *Results* in his journal, the brothers not only sent him some hand-picked positive reviews that had already appeared in Bavarian journals, but they also urged Silliman that '[t]he only wish we may add perhaps is that the [names] of the Englishmen, so deservedly mentioned' in the German reviews, 'might be also occasionally quoted in your journal, as at the same time this may, as Mr. Brockhaus duly thinks, much contribute to exclude any provocation of feelings of rival animosity in England.'[1093] It seemed as if the Schlagintweits had finally been chastened by the series of damaging allegations that had poured from British pens. Yet, despite such well-intentioned gestures, this change of strategy was possibly 'too little too late'. Could a scientific reputation once so thoroughly lambasted in Victorian Britain ever be restored?

[1093] Brockhaus was their German publisher; JHU, Special Collections, Papers of Benjamin Silliman (MS 30), Herman de Schlagintweit, Castel Jaegersburg, 6.4.1861, Bavaria.

Chapter Eight

Asymmetric reputations

By focusing exclusively on metropolitan polemics and transnational frictions, one can easily overlook the lasting, albeit inconspicuous, influence that the brothers had on the colonial administration of British India. Government departments and scientific circles on the subcontinent operated with a considerable degree of independence from London's highbrow societies and institutions. Thus, the recognition that the Schlagintweits received from colonial administrators and scientists – even decades after the end of their mission – needs to be taken into account if we are to understand the different contexts of their reception.

During the Asiatic expedition, which had taken the brothers over a distance of 29,000 km, the Schlagintweits had carried out their empirical scientific activities with great vigour. They had also successfully appropriated indigenous knowledge and thus they had indeed acquired unique insights into the geographical characteristics of India and the trans-Himalayan region, including parts of Tibet, Nepal, and Chinese Turkistan. Hermann Schlagintweit's knowledge of these barely accessible territories was such that even many years after his return to Europe, British colonial officers and Government Departments sought his advice on their surveying projects, and asked for the then Munich-based scholar's evaluation of their latest results. For this purpose, Indian administrators provided him with the most recent findings of ongoing imperial surveys. Hermann Schlagintweit then integrated these results into his descriptions of Central Asia's geographical formations, which were in turn consulted by members of the 'Survey Department' of British India.[1094] The fact that colonial officials held the brothers' pioneering work in great esteem is reflected well in a letter from a government surveyor to Hermann in 1880, in which the German traveller was still assured that: 'The valuable contribution to a knowledge of Tibet & the neighbouring

[1094] British surveyors and naturalists in India were equally eager to receive Hermann's judgement on their own latest theories and scientific findings. Thus, Robert Gordon pleaded with him that '[w]hen you have had time to [read] the first + second part of my Report I should esteem [it] a high favor if I could learn your opinion, first on the connection of [two Indian rivers] and, second, on the theory I have tried to develop on the nature of the Asian monsoon.' Robert Gordon to Hermann Schlagintweit, 5.10.1880, Schlagintweitiana IV.6.1.19, p. 2.

countries made by your brothers & yourself are often quoted by our highest authorities'.[1095]

Despite the British critique in Europe, the Schlagintweits shaped the practices of colonial governmentality in India through their publications, data, and correspondence with administrators on the subcontinent. This applied especially to Hermann Schlagintweit's pioneering work in the field of Indian meteorology. This branch of science had evident implications for colonial agriculture, the establishment of health sanitaria and questions of European settlements.[1096] In fact, Hermann was the first scientist to have provided a summary about the weather conditions in both India and High Asia.[1097]

While the brothers and their indigenous assistants had personally collected a vast amount of climatic observations, the empirical grounding of their work was further enriched by meteorological data provided to them by the colonial Medical and Revenue Departments. The latters' own measurements were of high quality, extended further back in time, and were likewise obtained from several Indian regions allowing for comparative insights. Hermann further complemented his analysis of primary data with a thorough examination of dozens of Indian parliament reports and scientific articles that touched upon issues such as the varying patterns of rainfall, radiation and evaporation in different Indian regions, as well as on the conundrum of the position and elevation of the perpetual snow in the Himalayas. This implied a considerable effort since, at the time, hardly any specialist literature existed on meteorology, and no scientific journal was as yet devoted to this discipline.[1098]

The Schlagintweits, in some ways, helped to lay the groundwork for Indian meteorology, providing results that became a central reference point for decades to

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[1095] Ibid.

[1096] D. R. Sikka, 'The Role of the India Meteorological Department, 1875-1947', in Uma Dasgupta (ed.), *Science and Modern India: An Institutional History, C. 1784-1947* (Delhi, 2011), pp. 381-428, 387.

[1097] The following account is based on Hermann, Adolph and Robert Schlagintweit, *Results of a Scientific Mission to India and High Asia*, *Vol. IV [on Meteorology]* (*Leipzig and London, 1866), esp. Hermann's treatise on: '*Meteorology of India. An Analysis of the Physical Conditions of India, the Himalaya, Western Tibet and Turkistan.' I am grateful for the exchange with Cornelia Lüdecke on the Schlagintweits' take on meteorology. See also her upcoming article '"Indian heat and storm to the south, and the deserts of Central Asia to the north": Die meteorologischen Untersuchungen der Schlagintweits im Himalaya (1854-1857)', in Moritz von Brescius et al. (eds.), *Über den Himalaja. Die Expedition der Brüder Schlagintweit nach Indien und Zentralasien 1854 bis 1858* (Vienna et al., 2015).

[1098] E.g. *Symons's Monthly Meteorological Magazine* was first published only in 1866. See on the emergence of this branch of science, Katherine Anderson, *Predicting the Weather. Victorians and the Science of Meteorology* (Chicago, 2005).

come.[1099] Hermann Schlagintweit worked meticulously with his data sets to calculate mean values of the temperature for each Indian month, and compared the results, as well as the length of the different Indian seasons, with those prevailing in Europe. Amongst his important findings was the fact that no Indian region experienced on average such cold temperatures as those in England (Greenwich). He further elaborated that the daily variation of temperatures differed greatly between the western and eastern Himalayas, and also noticed a climatic anomaly over the Tibetan plateau, which experienced an extremely cold winter, and an extremely hot summer. Hermann Schlagintweit explained this through the influence of height, and the considerable extent of the Himalayan mountain range, thus seeking to formulate a holistic theory on the climatic features of this exceedingly complex world region.[1100]

Always taking British colonial preoccupations into account, Hermann's approach also led him to distinguish specific places in the Himalayas that seemed particularly suitable for the recreation of Europeans, away from the tropical heat prevalent in the Indian plains. In such elevated spots, he considered the temperatures to be agreeably moderate, and the air healthy and refreshing; yet such qualities had to be balanced against the dangers that accompanied foggy periods in various mountain areas, which were believed to pose a real threat to the European bodily constitution. In providing a hierarchy of the most appropriate zones for colonial penetration, Hermann judged in particular the large valley of Kashmir as among the best regions on the entire globe for future European settlements. This colonial imagination was shared by Robert Schlagintweit, who described Kashmir as a 'valley, which has been already highly celebrated amongst all educated nations from the oldest times, and Nature has poured out over it an abundance of such charms and gifts in the most lavish manner, as perhaps over scarcely any other landscape in the world. For everything that is delightful to the eye of man, everything that is pleasurable and exciting to his senses, is here found united in the most beautiful harmony.'[1101]

[1099] This instance alone disproves the claim by Dirk van Laak that the 'contribution [of Germans] to the scientific opening up of India was limited to Romantic philology', *Über alles in der Welt*, p. 51.

[1100] *Results of a Scientific Mission to India and High Asia*, *Vol. IV [Meteorology]*. Robert Schlagintweit, too, later took an interest in meteorology and explained the unusual heat of the summer ('a thermal anomaly') in Tibet with the 'scarcity of clouds', and other phenomena, Schlagintweitiana V.2.2.2, p. 49.

[1101] V.2.2.1, p. 64. The two brothers thus decisively helped to establish the notion of the valley of Kashmir as a 'worldly paradise' for the German middle classes; Anon., 'Ein tibetanischer Tempel', *Über Land und Meer: Allgemeine illustrirte Zeitung* (Stuttgart), 17, November 1866, pp. 140-42. On the role of such alluring descriptions of overseas regions for imperial ventures, see Laak:

Lastly, Hermann Schlagintweit's studies of the climatic features of regions both within and beyond British formal rule also led him to propose in volume four of the *Results* the establishment of an Indian Meteorological Service. Following the system then established in England, he recommended the establishment of one or two 'Meteorological Offices' in each Indian province, which should be connected to the lines of the Indian telegraph for quick communication, especially important in the case of threats posed by violent storms. Each office (or station) should furthermore be staffed with scientific personnel trained in the use of modern instruments, who should also be able to make calculations and climatic comparisons with the data they obtained.[1102] These posts would report back to a 'Central Office', ideally located in Ágra or Ambála, hence 'not too close to the sea-shore […] where the marine type of climate predominates too extensively, and where, very high storms excepted, the variation of the barometer is too small to allow of sufficiently recognising disturbances.'[1103] This Central Office was then to pool the regional expertise and turn into a veritable centre of scientific accumulation. Hermann was furthermore convinced that:

> 'Altogether Indian climate is so much more regular than that of Europe, that some twenty to thirty offices would already prove very valuable, if well distributed over the peninsula and gradually including the eastern shores of the Bay of Bengál, some localities from the Islands of the Indian Archipelago to the south-east, Aden, and some of the telegraphic stations recently erected in the west.'[1104]

Since very few meteorological departments existed even in Europe in the 1850s and early 1860s, this was indeed an innovative scheme. Other natural disasters and famines demonstrated the usefulness of such a department, yet its realisation would take some further time.[1105] However, already during the 1860s, the Schlagintweits' meteorological findings were widely cited by Anglo-Indian officials

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'Reiseschriftsteller mit ihren Gemälden, Kosmoramen und später Fotos waren wichtige transkulturelle Agenten für die Produktion kolonialen Interesses und Engagements in den Metropolen sowie für die Vermittlung von "Wissen" über die Peripherie', *Über alles in der Welt*, p. 32.

[1102] *Results*, 4, p. 155.

[1103] Ibid.

[1104] Ibid, pp. 155-56. To be sure, 'British India' extended further than the Indian subcontinent, as the empire's possessions included Aden, a strategic port in Yemen at the mouth of the Red Sea that had come under British rule in 1839. In 1854, it had been the first Company territory on which the brothers had set foot during their passage to India.

[1105] D. R. Sikka, 'The Role of the India Meteorological Department, 1875-1947', however, does not acknowledge the early proposal by Hermann Schlagintweit.

and surveyors.[1106] While the organisation of 'Meteorological Departments was commenced in India in 1867' for a first few regions, a fully-fledged system of stations was only established in 1875.[1107] The fact that the Schlagintweit brothers had been among the prime movers of this scheme, together with Anglo-Indian scholars such as the Stracheys, Blanford and others, was still acknowledged in Indian scholarship well into the twentieth century.[1108] In that regard, it is untenable to claim that German subjects were merely the 'impatient observers' (Hans Fenske) of the colonial expansion by other European overseas powers in the nineteenth century; rather, Germans were at times centrally involved and the driving forces in these processes of 'foreign' imperial advancement.[1109]

No matter how favourably colonial officials in India received their technical findings and geographical discoveries, it did not change the discourse in Britain. Here, the usefulness of their maps, and the acquired scientific, commercial and political information did not secure them a positive reputation. Quite the contrary. In a sense, some of Britain's most influential journals had already reached their verdict about their oeuvre before the evidence was presented. When the first of the nine projected volumes of the *Results* appeared in 1861, the reaction of the London *Athenaeum* was hardly surprising, though it still appears noteworthy as it seemed to have set the tone, once more, for less prestigious papers to join in the critique.[1110]

The first remarkable aspect of the *Athenaeum* review was that Berthold Carl Seemann, a *German* botanist working at the Kew Gardens in London, had submitted this highly critical piece.[1111] Previously, Seemann had been working as a botanist in Hannover, but had moved to Kew in 1844 to receive further training as a plant hunter.

[1106] For instance, James Lancaster Ranking, the 'Sanitary Commissioner for Madras' drew on the Schlagintweits' works in his *Report upon the military and civil station of Trichinopoly* (Madras, 1867), p. 35.

[1107] *Royal Commission on Scientific Instruction and the Advancement of Science, Reports,* Vol. 2*, Minutes of evidence, appendices, and analyses of evidence* (London, 1874), p. 61.

[1108] 'The Meteorological Department [...] resulted from the researches of James Prinsep, T. J. Boileau, Messrs Schlagintweit and H. F. Blanford.' Indian Association for the Cultivation of Science (ed.), *Indian Association for the Cultivation of Science: A century* (Calcutta, 1976), 'Introduction', pp. 1-27, 3.

[1109] Hans Fenske, 'Ungeduldige Zuschauer', pp. 87-124. Fenske's work stands for an earlier generation of imperial historians who treated empires as more neatly separated national endeavours, thereby overlooking the considerable exchange of personnel, ideas, and technologies across imperial boundaries in the modern period.

[1110] H., A., R. Schlagintweit, *Results*, Vol. I.

[1111] Berthold Carl Seemann, Review of 'Results of a Scientific Mission to India and High Asia'; *The Athenaeum*, 1764, 17.8.1861, p. 215-16. For the question of authorship, see the useful site, http://athenaeum.soi.city.ac.uk/athall.html; I thank Ulrich Päßler for this information.

Owing to Sir William Hooker's patronage, he was sent out only two years later as the official naturalist for a British survey mission to the Pacific.[1112] In 1860, Seemann climbed even higher within Britain's imperial establishment, securing an appointment by the Colonial Office 'with Colonel Smythe, to report on the Fiji Islands, before the British government accepted their cession.'[1113] Unlike the Schlagintweits, Seemann had thus thoroughly assimilated into British metropolitan society. By the time he submitted his review, he had become a fellow of the Linnean Society in 1852, acted as vice-president of the Anthropological Society, and enjoyed RGS membership.[1114] His full integration into British circles was later further demonstrated by his marriage to an Englishwoman.[1115]

It remains unclear what precisely motivated the German botanist Seemann to publicly challenge the work of his countrymen. Yet, a close comparison of his review with unpublished letters written by Joseph Hooker reveals a remarkable similarity in the content and style of their critiques. For instance, the published review echoed Hooker's complaints, stating that a 'slight' had been cast upon British scholars and Company servants, since not only 'one, but *all* members of a foreign family' had been appointed for completing the geomagnetic survey of India.[1116] The review also repeated Hooker's catchphrase that the brothers' 'appointment was one of the most gigantic jobs that ever disgraced the annals of science.'[1117] It therefore seems very likely that the unforgiving Hooker junior had briefed his Kew colleague Seemann for his raging polemic against the Schlagintweits in the British press.

Yet it is also likely that Seemann himself felt a personal antipathy towards the brothers, as the scandal over their appointment and bold manners had arguably damaged the cause of many other German scholars working in Britain or her overseas empire at the time. In view of the prolonged and vicious controversy over their Indian

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[1112] During the mission until 1851, Seemann explored the west coast of the American continent and made multiple forays into its interior, later returning via Hong Kong, Singapore, St. Helena, subsequently publishing *The Botany of the Voyage* (1852-1857) with the help of William Hooker. See G. S. Boulger, 'Seemann, Berthold Carl (1825–1871)', rev. Andrew Grout, *Oxford Dictionary of National Biography* (Oxford University Press, 2004), www.oxforddnb.com.ezproxy.eui.eu/view/article/25029, accessed 23 February 2014.
[1113] Quoted from ibid.
[1114] Ibid.
[1115] Ibid.
[1116] Review of 'Results of a Scientific Mission to India and High Asia', original emphasis.
[1117] Hooker had written in a letters to Murchison that 'the scandal of this Schlagintweit affair will be a familiar episode in the history of British Science; for that it is the grossest job that was ever perpetrated in this country under the name of Science I do not hesitate to believe.' RBGK, DC, vol. 96, No. 406, Kew, 19.7.1859.

mission, the Schlagintweits undoubtedly fuelled the anti-German sentiments that already pervaded British papers at the time. To maintain close ties with his London benefactors, it may have been that Seemann thus felt the need or wish to openly distance himself from his blatantly self-important peers. The same intention was probably behind an anonymous letter to the Athenaeum prior to Seemann's review from 'A Professor of the University of Berlin' who was mortified by the audacity of the brothers and thus wanted to make 'the English public […] understand that the Messrs. Schlagintweit are not Prussians, but Bavarians'.[1118]

Regional identity politics aside, the extensive Seemann-Hooker review of only the first volume seemed to have knocked the final nail in the coffin – at least as far as the brothers' scientific standing in England was concerned. The review of the *Results* mainly confirmed the *Athenaeum*'s earlier denunciation of their projected oeuvre, but it also thought to clarify parts of the polemic. While the authors stated that 'our objections to this job [...] were but ill understood in Germany', it was claimed that 'no national demonstration against German talent' in general had been the intention. Yet, the authors were aware that the affair had assumed national importance also within 'Germany', as 'the scientific men of that country, still irritated by the attacks made at the meetings of the Royal Geographical Society against Vogel and Barth […] were easily induced to regard the disfavour with which Messrs. de Schlagintweit were treated by our press, as a continuation of those attacks originating in the same quarter and having its source in national prejudices.'[1119] Even Alexander von Humboldt, so it was recognised on the Isles, 'began to despond, and tried to console his countrymen' by alluding to unjust criticisms he himself had earlier received from British papers. Humboldt had, in fact, brought out 'a long-forgotten article' in the brothers' defence, which had suggested that Britons at an earlier time had claimed that Humboldt had 'not mastered even the first rudiments of chemistry and mineralogy, quotes works he has never read, and is in fact little better than an impostor.'[1120]

While denying any xenophobic tensions in their critique, the *Athenaeum* maintained (albeit wrongly, as we shall see) that the brothers' initial findings 'are now partly before the public, and the Germans have been amongst the first to perceive the disproportion between them and the lavish expenditure of money made to obtain

[1118] The *Athenaeum*, 1593, 8.5.1858, p. 595.
[1119] *Athenaeum* review, 1861. See also anon., *Bonplandia: Zeitschrift für die Gesammte Botanik* (Hannover), 21, 15.11.1858, p. 383.
[1120] Such an article had appeared in the *Quarterly Review* in 1816.

them.'[1121] Hence, while not generally questioning the scientific contributions of 'German talent' to British enterprise, the review's goal was rather to expose the scientific shallowness of the Schlagintweits' scheme.

To be sure, the *Athenaeum* review did acknowledge that the brothers had succeeded in pioneering excursions beyond 'the chains of the Karakorum' in Central Asia. On their magnetic survey, they also conceded that as an 'important fact may be mentioned the particular modification of the lines of intensity where they pass through the interior of India Proper, and all along the northern parts of the Himalayas', which the brothers had been the first scientists to observe. Lastly, and in accordance with many of the British reports on their *Results*, the *Athenaeum* lauded in particular their *Atlas*. It contained 'beautiful maps' and 'different views of the higher districts of Asia', said to be 'beautifully executed', and which 'will be acknowledged to be faithful representations by those who have traversed these charming districts.'[1122]

However, this fleeting praise was largely outweighed by the critical thrust of the article, which left little of their scientific reputation intact. The review thus asserted that while some may hope 'that at least one of the nine large volumes [...] may furnish convincing proofs that the authors really are what they profess to be – scientific travellers of the first order [...] we do not share that belief.'[1123] In the end, the *Athenaeum* went as far as to challenge the idea that the brothers may possess *any* scientific credentials (thus bluntly contradicting the above):

> 'Dry technicalities will never pass off for the results of abstruse science. Always judging from what is already before the public, we hold the Brothers de Schlagintweit quite incapable of taking a comprehensive view of any given subject; and we presume we are stating the general opinion of the scientific world correctly when we say that they can *take* observations, but not *make* observations. Place good instruments in their hands, and they will take astronomical, magnetic and meteorological observations with accuracy; but ask them to furnish a comprehensive account, founded upon their observations [...] and they will [...] thoroughly disappoint you.'[1124]

[1121] *Athenaeum* review, 1861.
[1122] As *The Illustrated News of the World* already noted, 2 July 1859: 'This splendid collection, which is in course of publication, consists of no less than 700 drawings […] extends pretty uniformly over all the parts examined by the Schlagintweits, and so form the largest artistic work illustrating the vast extent of our Indian empire, as well as of the lofty ranges of high Asia to the north of it', p. 99.
[1123] *Athenaeum* review, 1861.
[1124] Ibid., original emphasis. Also quoted in Finkelstein, 'Conquerors', p. 200.

Regardless of the Schlagintweits' achievements as independent Alpine explorers, the authors insisted that '[i]f there had been any necessity for employing them at all, Messrs. de Schlagintweit would have made good subordinates in a larger expedition, but they were remarkably ill-chosen for undertaking the lead of a great scientific mission.'[1125] In other words, it was suggested that they could have only fulfilled those subsidiary tasks that the brothers themselves had ascribed to their indigenous assistants. Faced with hundreds of pages of figures in the first book, the authors claimed that, in view of the 'absolute worthlessness' of much of the data compiled, 'one-half of the volume might [...] have been condensed into a few pages, without the slightest disadvantage to science.'[1126]

At the root of this critique stood the potential clash between the more instrumentalist and exploitative concerns of the colonial investigation of nature, and the more respectable pursuits of metropolitan, 'abstruse science' with its search for natural laws and theories.[1127] To be sure, for contemporaries, abstract or 'abstruse' science described the highest level of natural philosophical research as performed by Britain's most eminent men of science.[1128] The rejection of the Schlagintweits' treatises as 'dry technicalities' by metropolitan experts was grounded in the supposed lack of a higher natural philosophical theory of the Himalayan and Central Asian mountain chains. More precisely, it was argued that they had failed to achieve a higher synthesis of their knowledge of numerous local phenomena. Instead of a philosophical treatise like the one Humboldt had offered on the physical geography of the Andean mountains, the Schlagintweits had failed, at least in the eyes of many of their British peers, to extrapolate any novel theories from their accumulated 'mountains of data'.[1129] This predominant rejection of their work was equally

[1125] *Athenaeum* review, 1861.
[1126] Ibid.
[1127] See on the hierarchies between 'metropolitan' versus 'colonial science', Arnold, *The Tropics and the Traveling Gaze*; idem, 'Plant Capitalism'; Endersby, 'Joseph Hooker: a philosophical botanist'.
[1128] Take the example of Sir William Jackson Hooker, whose achievements in scientific botany were described in Lovell Reeve's, *Portraits of men of eminence in literature, science, and art*, Vol. 1 (London, 1863): 'In the long career of this distinguished naturalist we have a bright example of untiring energy in the pursuit of a comparatively abstruse science, which he has of late made eminently conducive to the instruction and delight of the people', pp. 81-86; see also Johnson, Samuel, 'Abstruse'. *A Dictionary of the English Language: A Digital Edition of the 1755 Classic by Samuel Johnson*. Edited by Brandi Besalke. Last modified: January 30, 2014. http://johnsonsdictionaryonline.com/?p=1144., p. 65, where 'abstruse' is defined as 'hidden', 'difficult', as 'remote from conception or apprehension. It is opposed to obvious and easy'..
[1129] This was even criticised by well-meaning reviews of their *Results*: 'The book of discovery which is now laid before the world is of a very different character from those which have recently attracted so much public attention. There is nothing in it to create excitement [...] nothing popular and taking about

captured in the fact that the *Results* were hardly quoted by them, even in soon-to-be-published histories of British exploration in Central Asia, in which scarcely any mention was made of the brothers.

Yet, the neglect by British scholars of their findings, mirroring the Schlagintweits' own failure to previously acknowledge *them*, may have had other reasons too. For once, some of their topographical data proved unreliable. At times, the brothers had overconfidently sought to correct the results obtained from the long-established and well-staffed *Great Trigonometrical Survey* of India, sometimes rejecting their conclusions on a very thin empirical basis. Perhaps unsurprisingly, this temerity could easily provoke the anger of British officers, surveyors and explorers, whose achievements the brothers tried to refute in broad brushstrokes. In some instances, the German scholars made topographical claims that were well beyond their actual range of operation in Asia. This, in turn, undermined for many the general authority of their oeuvre.

To take an example, many of the coordinates the brothers noted down for Tibet and Turkestan were not obtained from Indian triangulations, but 'were determined from march-routes alone'.[1130] As regards Chinese Turkistan, the Russian geographer Captain Golubief later revisited their topographical specifications and pointed to considerable errors of judgement. The Russian scholar (in accordance with others) concluded that much of the Schlagintweits' geographical data 'bear evident traces of haste', leading to the result that 'the degree of their exactness differs considerably.' In exposing their spatial overstretch, he thus rhetorically asked: 'How is it then possible [...] to accept the [Schlagintweits'] position of Kothan, and with it that of the other towns of Turkestan, […] differing as it does by 130' in longitude from the astronomical determinations' that previous scholars had obtained, 'when neither Herman[n] nor Robert visited Khotan, while the papers of Adolph perished with him in Kashgar?'[1131]

On top of the fateful decision to cover too many Asiatic regions in their *Results*, the brothers fell also victim to their own ambitions as regards the disciplinary

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the results [...] They are, as they stand, little else than a dry list of instrumental readings.' 'Schlagintweit's India and High Asia', *The Saturday Review of Politics, Literature, Science and Art*, 300, 27.7.1861, pp. 97-98.

[1130] Captain Golubief, 'Observations on the Astronomical points determined by the brothers Schlagintweit in Central Asia', *Journal of the Asiatic Society of Bengal*, 35 (1867), pp. 46-50, 46 [reprint from the Journal of the Imperial Russian Geographical Society, 4 (1861)].

[1131] Ibid, pp. 48-49.

breadth of their work. In a sense, less would have been more. Had the brothers focused only on their materials and undisputed expertise in the fields of geomagnetism and Indian meteorology, their entire oeuvre would have been considered more authoritative. Yet, their ambition to address – and to seek to advance – *numerous* scientific disciplines led, perhaps inevitably, to an epistemological overreach.[1132]

Certainly, the loss of Adolph's vital expertise was a crucial factor in their perceived failure to meet the high expectations they themselves had raised. However, even without Adolph, there was no scaling down of the publication project. Rather, following their lament that Adolph's deplorable 'fate increas[es] very considerably our own labours', the two surviving brothers addressed the India Office in 1859 with the 'request' that his salary of £25 a month 'might be divided between us two [...] till the end of our present arrangements.'[1133] The goal was to compensate for Adolph's absence by hiring further assistants to complete their monumental task nonetheless. Hence, driven by their Humboldtian ambitions, the brothers proved incapable to adjust the eventual shape of their work to their time, energy, scientific expertise – and financial means. To be sure, Humboldt had published his *Le voyage aux régions équinoxiales du nouveau continent* over the considerable time span from 1805 to 1839, letting his insights mature into a masterful oeuvre that combined scientific innovation with cultural observations to provide a holistic treatment of South and Central America's human and natural worlds. The Schlagintweits, by contrast, proposed to finish their nine volumes, equally aspiring in scope, within only *three* years – an almost megalomaniac plan.[1134] In both a spatial and epistemological sense, their reach exceeded their grasp.[1135]

A further reason why the brothers failed to secure a lasting legacy in Britain was the specific *genre* they adopted for presenting their results. This clearly frustrated

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[1132] This is also captured in the verdict of another Russian geographer, M. Semenof, on their results: 'The extensive range of the labours, the multiplicity of the [...] observations which devolved on the celebrated travellers, produced the confusion and irregularity in their observations.' Quoted from Golubief, 'Observations on the Astronomical points', p. 49.

[1133] 'Military Department Miscellaneous Letters Out', 1859, IOR L/Mil/2/1477, H. & R. Schlagintweit to Sir Charles Wood, 21.7.1859.

[1134] BL, IOR, E/1/309, 3393, J.D. Dickinson (Secretary of the East India House) to H. & R. Schlagintweit, 8.7.1858.

[1135] Robert Schlagintweit later realised that they had overreached themselves, stating that the 'Baltoro main glacier, thirty-six miles in length and with 14 large tributary glaciers of from 3 to 10 miles in length, [alone] would form a study in itself, and give employment for several summers before it could be properly examined.' Schlagintweitiana V.2.2.2, p. 61.

the expectations that Victorian audiences had for an epic journey of exploration. Out of the *Results'* nine projected parts, none was intended to be a literarily pleasing and more general travel account.[1136] In their attempt to take scientific understandings of India and High Asia to new heights, the Schlagintweits' highly technical treatise thus failed to grip anyone's imagination. Hence, while it failed to impress British scientific experts on the one hand, it certainly also fended off well-meaning amateurs on the other.

Not least in view of the brothers' considerable time constraints, the *Results* were also never intended as a great synthesising work, which would build on the huge piles of existing publications by others whilst situating the new data within this established literature. At its core, the Schlagintweits still tried, to a degree, to re-invent the wheel by treating Northern India, the Himalayas, and Central Asia as if only little was known about these vast territories, and their work would give the first definitive account of its contours and inner lives.[1137] The confusion the brothers must have been in, regarding the form and function of their work, is perhaps best reflected by the role models they had in mind while carrying out the undertaking. In correspondence with their German publisher Brockhaus, they mentioned the monumental 'Description de l'Égypte' as a suitable role model for their oeuvre, a collaborative work (published between 1809-1822) that had involved well over 100 French scholars, engravers, mapmakers, etc. at the time.[1138] Given their unbridled ambitions, it is perhaps unsurprising to find that the brothers conceded to the India House that '[i]t was with great difficulty and chiefly owing to the lively interest of our late friend Baron Humbohlt [sic], that we have been able to find a publisher for this work, which now F. A. Brockhaus is ready to undertake.'[1139]

Unfortunately, the Schlagintweits' work lost further appeal due to its considerable price (£4-4s per volume). This held especially true for the otherwise

[1136] Their oeuvre thus qualifies the general assumptions made by Justin Stagl about nineteenth-century travel accounts, idem, 'Die Apodemik oder 'Reisekunst' als Methodik der Sozialforschung vom Humanismus bis zur Aufklärung', in idem and M. Rassem (eds.), *Statistik und Staatsbeschreibung in der Neuzeit, vornehmlich im 16.-18. Jahrhundert* (Paderborn, 1980), pp. 131-204, 145.
[1137] The Seemann-Hooker review 1861 sarcastically noted, for instance: 'Mark the freshness of the following passage [from the Schlagintweits' *Results*] relating to *that unknown region between Bombay and Madras*…', pp. 215-16, my emphasis; for the impact of this critique, see Rutherford Alcock, 'Address to the Royal Geographical Society' (1877), p. 314.
[1138] H. and R. Schlagintweit to Humboldt, 20.3.1859, copy at BBAW. See on the French military and scientific campaign and resulting publication, Bourguet, 'Science and memory'.
[1139] IOR, L/F/2/230, 'From Messrs H. and R. Schlagintweit to J. C. Melvill, Esq.', India House London, 2 Chapel Str. West Mayfair, 20.6.1859.

well-received *Atlas of panoramas and views*, which undoubtedly had the aesthetic and scientific qualities to become an iconic oeuvre (fig. 8.1).[1140] Yet, its elaborate production entailed spiralling expenses both for the India Office and the brothers themselves.[1141] Initially, the brothers had planned to publish their views in a work that 'will contain […] 700 Views pretty equally distributed over the countries of India and High Asia.' In 1859, the brothers were still optimistic that the 'work will appear in 20 charts (livraisons) each containing on an average 35 coloured drawings, and will be completed in about 15 months', with each view being accompanied by 'an explanatory sheet'.[1142] The price for these twenty volumes, including the cost of the 'printing of the titles, mounting, compression of the central part of the paper, paper for protection of the photographs' was estimated at '2300 to 2500 Thaler = 345 to 375 £ Sterl., or 17 to 18 £ one part'. In seeking a broad audience for the oeuvre, the Schlagintweits stated that in addition to private consumers, three copies of the work 'could be sent out directly to the seats of govt. at Calcutta, Bombay, & Madras. The remaining number may perhaps find its full use in the India House, since it will be a work particularly adapted for presentation in India and in the Colonies.'[1143]

Ultimately, this magnificent work was never realised, and even their more moderate *Atlas* was never completed and included only 43 of the 120 planned views and maps from India and High Asia.[1144] Even the fragmentary *Atlas* was a work well beyond the purchasing power of private consumers. The brothers' were also forced to abandon their idea to produce, *en masse*, a popular, commercially successful, 'luxury volume' [*Prachtband*] with another set of 125 selected views.[1145] Yet, whenever the Schlagintweit views were presented to British popular and scientific audiences including the Royal Institution and the RGS in 1858, the praise was univocal.[1146] Even the British papers noted that their 'splendid collection [...] of no less than 700

[1140] Hermann described the luxury volumes as books of 'photographic colored fac-similes of a great number of my water-color drawings, their number amounting to 125, and including only such objects as are not among the plates published in our atlas. Mr. Brockhaus [...] charges is 70 thalers, or £10, for thirty views, or £40 for the series', an exorbitant price at the time. Hermann to the Smithsonian Institution, *Annual Report*, pp. 84-85.
[1141] This was true for England and the German lands alike; anon. letter to the Perthes publishing house, Sammlung Perthes Gotha, Forschungsbibliothek Gotha, SPA ARCH PGM 353/1, p. 117, without date.
[1142] BL, L/F/2/230, 'From Messrs H. and R. Schlagintweit to J. C. Melvill, 20.6.1859.
[1143] Ibid.
[1144] *Literarisches Centralblatt für Deutschland*, 18, 24.4.1869, p. 513-14.
[1145] An incomplete copy exists, however, in the Schlagintweitiana, IV.1.26. It was entitled *Coloured photographs from India and High Asia* (Munich, 1860).
[1146] *The Illustrated News of the World*, 2.7.1859; 'New Contributions to the India House Museum', *Star*, June 1859, Innsbruck archive, Collectanea critica, p. 109.

drawings […] form the largest artistic work illustrating the vast extent of our Indian empire, as well as of the lofty ranges of high Asia to the north of it.'[1147]

Fig. 8.1 Hermann, Adolph, and Robert Schlagintweit, *Atlas of panoramas and views, with geographical, physical, and geological maps: dedicated to Her Majesty the Queen of England* (Leipzig and London, 1861-1866); source and copyright: archive of the DAV.

Partly as a result of the *Results'* ill-fitted genre, its overconfident scope and public inaccessibility, and certainly because of the almost collective detachment by metropolitan scholars, the Schlagintweits quickly descended into oblivion in Britain after the heated debates that had lasted from 1857 until 1862. Even if positive reports appeared on their later volumes, it seemed that their personal reputation in Britain had already been lastingly destroyed. Hermann Schlagintweit still bitterly noted this lack of acknowledgement from his peers in 1874. Despite this blatant disregard, the by then Munich-based scholar nonetheless claimed to have made lasting contributions to Himalayan exploration in conversations with German geographers:

> 'It may be of a more general interest that the later [British] expeditions […] have confirmed the Karakorum chain as the central watershed, as it appeared to us in 1856 and 1857 [...]. Our precedence as regards scientific results remains [however] often entirely unmentioned among the English, even if

[1147] Ibid.

> Adolph's unhappy fate found a lot of commiseration, but this admittedly due to the political circumstances [in Central Asia].'[1148]

Especially when compared with the situation in Germany, it can, however, ultimately be argued that the Schlagintweits' slide into oblivion can perhaps best be explained by the fact that there simply existed no need for *German* 'scientific heroes' in the British imagination. The brothers' travels and publications overlapped with a wealth of sensationalised stories of *British* overseas exploration and achievements at the time. This unavoidable competition with British 'heroic travellers' in the marketplace, who then received, and still receive, considerable public recognition, was well captured in a letter from Murchison to Humboldt. Writing about the almost unbounded public excitement of the African explorer's recent journeys, Murchison wrote that '[t]he great African Lion Livingstone is likely to be smothered by public ovations. I have strenuously urged him to go to work & make his book which will sell exceedingly well.'[1149] Indeed, when Livingstone published his *Missionary Travels* throughout Southern Africa, its first 12,000 copies sold immediately, leading to nine further editions within only a few years.[1150]

For many British contemporaries, the African traveller and missionary scholar Livingstone personified an assumed set of British cultural qualities, and seemed to exemplify his nation's civilising influence on the 'primitive' world outside of Europe.[1151] Standing against such widely-celebrated competitors, it was exceedingly difficult for the Schlagintweits as 'imperial outsiders' to secure a place within the British national imagination. Indeed, as Tony Hopkins has argued about the relationship between individual scientific heroism and national identity in Victorian Britain:

> '[H]eroic myths are invented for purposes that are specific to the society concerned [...]. The hero personifies the *national ideal* by his exemplary actions. He disappears into remote, primitive lands because the contrast they offer underlines the superiority of *his own* advanced, progressive society. His

[1148] Hermann to unknown recipient, Munich, 22.12.1874, Forschungsbibliothek Gotha, SPA ARCH PGM 353/1, pp. 31-32.
[1149] Murchison to Humboldt, Royal Georg. Soc., 17.1.1857, copy of the letter at BBAW, Humboldt Research Centre.
[1150] On this sensational success and its reasons, see Driver, 'Missionary Travels', p. 164.
[1151] This notion was reinforced at a recent, commemorative, conference at SOAS, London, on 'The Life and Afterlife of David Livingstone', 5.11.2013. Yet, regardless of the existence of valuable, critical Livingstone studies, interventions by the conference audience – which included many British non-academics – evinced that the 'Livingstone myth' is seemingly unbroken and alive among the wider British public.

> exploits create opportunities, through feats of endurance and discovery, to reaffirm and strengthen the values that underpin the greatness of the *motherland*.'[1152]

The Schlagintweits' fate and contested achievements could thus be easily outshone by British exploring heroes and imperial martyrs. David Livingstone and the Arctic explorer Sir John Franklin are just two cases in point. Britons' feats and failures in the opening up of *terrae incognitae* in Africa's interior, but also in Central Asia, the Antipodean colonies[1153], South America and the Arctic drew such interest at home that the resulting travel accounts, and gripping stories of 'rescue expeditions', often found sensational publishing successes.[1154] By contrast, not a single volume of the Schlagintweits' *Results* was ever reprinted. The German brothers' so often-stressed foreignness, and their 'scandalous silencing' of previous British scientific achievements in India, thus further excluded the possibility to create a similar 'heroic' aura around their *personae* in England, both among scientific circles, but especially in front of more popular audiences.[1155]

'True trailblazers': the Schlagintweits as scientific heroes in a pre-colonial land

Regarding the whole controversy and the brothers' perceived scientific failure in British eyes, one can only be struck with the almost antithetical reputation that the same scholars received from peers and the wider publics on the European continent – especially in the German lands. The closing section of this chapter thus turns to the specific historical constellations in which the brothers gradually assumed such an outstanding reputation as scientific 'heroes'[1156] – which still shapes their popular perception in the German-speaking world today.[1157]

[1152] Anthony G. Hopkins, 'Explorers' Tales: Stanley Presumes – Again', *Journal of Imperial and Commonwealth History*, 36 (2008), pp. 669-684, 671, emphasis mine.
[1153] Burke and Wills expedition, 1860-61.
[1154] Likewise, the search expeditions for John Franklin's Arctic exploration scheme went far beyond the public interest in the brothers' journeys, including Adolph's death in Central Asia.
[1155] See on the well-established pattern of European states having their 'own explorers to honor and celebrate', Dane Kennedy, 'Introduction: Reinterpreting Exploration', p. 1; see also the contributions by Jane Samson, Berny Sébe, and Willard Sunderland in this volume.
[1156] In the German language, the word 'Held' still maintained a strong military, chivalric connotation in the 19th century, depicting above all an 'excellent warrior', but it also acknowledged those individuals who had achieved outstanding feats. *Deutsches Wörterbuch von Jacob und Wilhelm Grimm*, 16 Vols. (Leipzig, 1854-1961), Vol. 10, columns 930-35.
[1157] See the already mentioned 2012 feature by *Der Bayerische Rundfunk*: 'The incredible story of the brothers Schlagintweit. In 1854, the three Munich [travellers] embark […] to the Himalayas. They are the very first scholars there at all'.

If there is one unifying interest in recent studies on the culture of European overseas discoveries, it is 'the conviction that explorers and exploration' – and the meanings attached to them – 'cannot be fully understood without identifying and explaining the multiple contexts within which they operated.'[1158] In dissecting the many factors that shaped the brothers' reception in the German lands, my aim is to show that there was not a sense of inevitability about their idealisation in those lands. On the contrary, a close analysis will show how the ways in which the Schlagintweits ultimately came to be regarded as 'exemplary figures' of German national virtue and scientific achievements can tell us much about the manner in which heroes were both manufactured and marketed. Yet, I will also show how those itinerant scholars manipulated this process of increasing public adoration, as they communicated their exploratory feats in specific ways to selected audiences, recounting them in skilfully woven narratives. In doing so, the Schlagintweits actively intervened in the process of myth building in Germany's pre-colonial era.

The first factor that decisively shaped the brothers' diverging reputation was the existence of a substantial *knowledge gap* between popular audiences in Britain and those in the German provinces. We need to recognise that different societies in Europe showed varying degrees of familiarity with specific overseas regions. It is therefore grossly misleading when historians write about a shared 'European knowledge of Asia' (or of any other continent) in the past.[1159] Such homogenising assumptions of a purportedly diffuse knowledge *across* European communities invites us to critically ask who possessed such privileged knowledge, but also what groups may have been excluded from such access? What possibilities did the varying degrees of familiarity with India's history of exploration present for the brothers, and their self-fashioning in front of different audiences?

I argue that the knowledge gap was a central element of the Schlagintweits' own myth making. It is true, individual scholars of a standing like Carl Ritter, A. v. Humboldt, or August Petermann were closely following the recent scientific progress on Indian and High Asian geographies. After all, this was at the heart of their

[1158] Dane Kennedy, 'Introduction', p. 2.
[1159] Peter Whitfield, *New Found Lands: Maps in the History of Exploration* (London, 1998), p. 127; Jack Harrington, *Sir John Malcolm and the Creation of British India* (New York, 2010), p. 2; Frédéric Durand and Richard Curtis, *Maps of Malaysia and Borneo: Discovery, Statehood and Progress* (Kuala Lumpur et al., 2014), p. 35; Kenneth Ballhatchet, 'European Relations with Asia and Africa', in Albert Goodwin (ed.), *New Cambridge Modern History*, 8, *The American and French revolutions 1763-93* (Cambridge, 1965), pp. 218-236.

everyday-work. Likewise, German learned publications such as encyclopaedias, scholarly journals, and great synthesising books in the fields of geography and European exploration all drew upon the insights from different scholarly communities in Europe and were usually kept up-to-date.[1160] However, given their small print runs and exceedingly high prices, such works were largely reserved for a small section of society, comprising more affluent individuals. Hence, while the scientific elite kept abreast of the advancement of geographical knowledge, the wider German reading classes did not.[1161]

One example may capture this general impression, which is confirmed by the bulk of popular newspaper articles at the time. After a talk by Hermann Schlagintweit at the Royal Academy of the Science in Vienna (in 1858), a Munich journalist conceded his ignorance, apologising to his readers that if he was to report on the topographical details of the brothers' Indian expedition, this might be confusing because of the 'Mahomedan' or 'Hindustani' sound of Indian place names, which left him puzzled and incapable of even faintly describing the brothers' itinerary.[1162] If he was to report on the topographical details of the brothers' Indian expedition, 'then we [first] must assume the erudition of an entire geographical society.'[1163] To be sure, even Humboldt and Ritter had sometimes failed to identify names of Indian places the Schlagintweits had mentioned in their reports from the east. Unsurprisingly, this unfamiliarity – and the sense of India as still being a predominantly 'unknown' world – was considerably higher for German *non-specialist* audiences. Another newspaper article, among countless similar pieces on their travels to different regions of 'India', praised, for instance, Hermann's achievements 'in those still almost entirely unknown countries, which our fellow countryman has personally travelled through […] under

[1160] See, e.g., the serial production of articles on Asian geography and ethnology in the rich archive of *Petermann's Geographische Mitteilungen*; see also *Neues Konversations-Lexikon; ein Wörterbuch des allgemeinen Wissens*, 1864, entry 'Himalaya', pp. 1016-21; *Allgemeine Realencÿklopädie oder Conversationslexikon für alle Stände*, Vol. 7 (Regensburg, 1869), 'Himalaja', pp. 601-2; Otto Dammer (ed.), *Meyers Deutsches Jahrbuch* (Hildburghausen, 1872), entry 'Asien', pp. 438-47, and so forth.

[1161] See for how even German experts struggled to secure the latest knowledge on Indian science and explorations; Petermann to Sykes, 31.3.1860, Gotha, SPA ARCH PGM 353/1, p. 55.

[1162] Anon*.,* 'Schlagintweit's Vortrag in der Gesammtsitzung der kaiserlichen Akademie der Wissenschaften zu Wien', *Neue Münchener Zeitung,* 7.1.1858, p. 22.

[1163] The lesser familiarity with overseas geography among the broader German population was also assumed by Murchison, who stated in his 1857 *RGS Annual Address* that regarding 'foreign traveller[s] in the British service' like the Schlagintweits, their 'countrymen […] should feel a just pride whether in perusing or in publishing the writings sent home to them in their vernacular freshness from remote corners of the earth, with which they are necessarily less familiar than the people of a maritime country like our own', p. 429.

great dangers, and [which he] exploited with the highest success for the sciences'. [1164] Hence, the depth of British accumulated knowledge on the east, what Dane Kennedy aptly called the 'thick layer of prior discovery', was indeed lost on German popular readerships.[1165] As the latter were ignorant of the household names of eminent Anglo-Indian scholars like Hodgson, Strachey, Cunningham, or Hooker, there was thus plenty of room in the German imagination for national scientific heroes to emerge for this world region.

The lack of familiarity with the histories of exploration of India and High Asia provided the Schlagintweits with a crucial opportunity to forge a legend of being the first scientific explorers in the Himalayas.[1166] The construction of that myth extended to the brothers' numerous colonial 'improvement' and settlement schemes that they proposed for High Asian mountain regions. Many colonial schemes had already been floating around the colonial society in India, and also among the establishment in Britain. This included, for instance, schemes for increased tea cultivation along the Himalayas, the potential of natural resource exploitation in those elevated regions, and the foundation of further British health stations away from the Indian plains.[1167] Such ideas may thus not have been as pioneering as the brothers portrayed them. Especially Robert Schlagintweit's public lectures (over 1,300 in total), many of them given in the German lands between 1864 and the early 1880s, played a crucial role in popularising these 'opportunities of empire' in the German-speaking world. With Robert again silencing the brothers' British predecessors, the Schlagintweits were thus not seen within a long history of previous explorations in those overseas regions. On the contrary, they were widely believed to be scientific 'pioneers' – 'true trailblazers' – in more regards than was deserved.[1168]

[1164] *Bayerische Zeitung*, 22, 22.1.1863 (München), p. 168.
[1165] Idem, 'Introduction', p. 13.
[1166] This was a long-lasting myth, which sometimes even extended to India proper; see the propagandistic work by Erich Mindt, *Der Erste war ein Deutscher! Kämpfer und Forscher jenseits der Meere* [*The Pioneer was a German! Fighters and Scholars beyond the Seas*] (Berlin, 1942), soon appearing in further editions, which glorified 'Die Erforschung Indiens durch die Brüder Schlagintweit' [*The exploration of India by the brothers Schlagintweit*], 1943 edn., p. 1.; also Helmut de Terra, *Humboldt: The Life and Times of Alexander von Humboldt, 1769-1859* (New York, 1955), p. 129.
[1167] One of these schemes was the foundation of health sanitaria at elevated heights, where the temperatures were moderate, and the Anglo-Indian soldiers, officers, civil servants and scholars, etc. were considered safer from the humidity that prevailed in the plains. On the brothers' portraying themselves as pioneers in many of these matters, see anon., 'Hochasien und sein Handel', *Vorwärts!: Magazin für Kaufleute,* 16 (Stuttgart and Leipzig, 1866) pp. 36-39.
[1168] Anon., 'Neue englische Expedition nach Inner-Asien', *Globus,* p. 94. Alternatively, other German organs did acknowledge the many British predecessors of the brothers but then opted to portray the

What sustained the popular perception of the brothers in Germany was the crucial support by eminent scholars, who acted as their intermediaries and communicated their achievements to broader audiences. As recent studies on the mechanisms that sustained the 'heroic' status of European explorers have shown, exploration and its imprint on the public imagination was truly a collaborative enterprise. It involved numerous different actors and 'a larger network of domestic institutions and interest groups that gave exploration much of its shape and purpose.'[1169] In the Schlagintweits' case, their well-known scientific patrons certainly played a critical role in popularising their works also among broader classes of German society. Humboldt, for one, acknowledged them in his *Cosmos*. In this widely read work, the old patron stressed the Schlagintweits' pioneering explorations as the first Europeans to have crossed the Kuenlun, and also cited the empirical data collected by his long-standing protégés in his sections on the Himalayas.[1170] This accolade, in turn, meant that while the brothers fell into disgrace in England, numerous compilations of geographical discoveries and popular treatises were soon published in the German lands that praised their ground-breaking achievements, with their reputation thus permeating much deeper into German memory.[1171]

The authority of the German explorers was also negotiated and displayed in several learned journals. Yet, it would be wrong to assume that such published mediums provided 'neutral' evaluations by distant, critical observers. On the contrary,

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Schlagintweits as the culmination point of decades of Himalayan exploration, e.g. 'Hochasien und sein Handel', *Vorwärts*, pp. 36-39.

[1169] Kennedy, 'Introduction'; also Antje Flüchter, 'Identität in einer transkulturellen Gemeinschaft? "Deutsche" in der Vereenigde Oost-Indische Compagnie', in Christoph Dartmann and Carla Meyer (eds.), Identität und Krise? Zur Deutung vormoderner Selbst-, Welt- und Fremderfahrungen (Münster, 2007), pp. 155-186, who stressed the role of editors for the 'translation' of overseas experiences into domestically consumable printed accounts, p. 164-65.

[1170] Humboldt, *Cosmos: a sketch of a physical description of the universe*, Vol. V (London, 1858), p. 438. Humboldt also distributed their reports from Asia to be immediately printed in different scientific papers, often providing catchy titles himself in order 'to excite the interest'; Päßler, *Briefwechsel*, No. 144, pp. 184-5, Humboldt to Ritter, Berlin, 18.12.1856.

[1171] Among well over 30 identified works, see W. F. A. Zimmermann, *Malerische Länder- und Völkerkunde […] unter besonderer Berücksichtigung der neuesten Entdeckungensreisen von […] Humboldt, Schlagintweit, Barth, Livingstone, Vogel [et. al]* (Berlin, 1861); Carl von Rotteck, *Allgemeine Geschichte vom Anfang der historischen Kenntniss bis auf unsere Zeiten*, Vol. II, 20th edn. (Braunschweig, 1858), pp. 523-25; Konrad Ganzenmüller, *Tibet: Nach den Resultaten Geographischer Forschungen früherer und neuester Zeit* (Stuttgart, 1877); Bernhard Schwarz, *Die Erschließung der Gebirge* (Leipzig, 1885), p. 360; *Meyers Deutsches Jahrbuch für die politische Geschichte und die Kulturfortschritte der Gegenwart*, 2nd edn. (Hildburghausen, 1872), pp. 442-44; Wilhelm Sievers, *Asien. Eine allgemeine Landeskunde* (Leipzig et al., 1892), pp. 30-33; Anon., 'Turkistan', *Meyers Konversationslexikon*, 4th edn., 15 (Leipzig et al., 1885-92), pp. 933-38, 937; *Spamers Illustrierte Weltgeschichte*, XI Vols., 10 (Leipzig, 1893-1898), p. 252; Hermann Wagner, *Biologische Geographie*, 10th edn. (Hannover, 1923), 'Das letzte Zeitalter der Entdeckungen', p. 1042.

analysed materials on the famous *Petermann's Geographical Observations* provide a note of caution. Among the journal's archive in Gotha, there are traces of numerous personal interventions by the Schlagintweits energetically seeking to mould their representation in this prominent geographical journal of nineteenth-century Europe. On one occasion, Hermann directly informed the editor August Petermann that the Schlagintweits' ethnographic heads had been 'deliberately not mentioned' in a recent British book. While Hermann said to write 'entirely privately' about this English disregard, he nonetheless told the influential editor that 'I leave it entirely to you if you believe to be able to consider' this slight in an upcoming article.[1172]

Once the first volume of the *Results* had appeared, the Schlagintweits again turned to Petermann with their characteristic modesty. While it was an established practice at the time for editors to send drafts of reports or diagrams to authors for correction and verification, the brothers changed the rules. That is, they helpfully highlighted for Petermann their most striking scientific results, stressing that 'they have never been observed' previously. They further alluded to 'congratulatory' reports they claimed to have recently received by the Royal Society, and finally added: 'Perhaps the fact may also be mentioned [in the PGM] that before us, no European has crossed the crest of the Karakorum in a northward direction, and [also] the Kuenluen from north [to south], which even Marco Polo never succeeded to achieve.'[1173] This, above all, underlined their physical, mountaineering achievements.

Yet, influential intermediaries such as Petermann often pursued their own interests when securing public recognition for the German travellers. Above all, Petermann was a highly ambitious editor, always seeking greater print runs for his geographical journal. He eagerly noted the rising copies of his organ that were distributed each month. Such publishing success was demand-driven, and Petermann's serial reports about the ongoing deeds of German overseas explorers drew a considerable readership. It was thus misleading when the Gotha editor denied any personal interests in having sought 'to direct the attention of my numerous readers' to the brothers' 'commendable work'.[1174] Yet, Petermann demanded recognition, not least in the form of 'free copies' of *all* the expensive volumes of the

[1172] Hermann to Petermann, Berlin, 13.4.1859; Forschungsbibliothek Gotha, SPA ARCH PGM 353/1; the work in focus was Gordon Latham's, *Descriptive Ethnology*, 2 Vols. (London, 1859).
[1173] Schlagintweit to Petermann, Schloss Jägersburg, 17.4.1861, Gotha, SPA ARCH PGM 353/1, p. 77.
[1174] Petermann to Hermann Schlagintweit, 9.5.1864, Gotha, SPA ARCH PGM 353/1.

Results[1175], when he stressed his vital role for having popularised the brothers among the German leisure classes: 'Surely, no [other] scientific journal has more persistently discussed your great mission than my journal, which has followed […] with empathy and great interest all your writings for ten years, and could not for a moment be muzzled by English judgements.'[1176]

Petermann's direct allusion to the negative press coverage the Schlagintweits' results received in England points to a crucial fact. That is, the scientific reputation and public recognition of individual scholars were not universal goods. Rather, they were highly fragile cultural constructions, which were often fragmented between different national cultures of remembrance. What thus emerges from the German and British sources is a fascinating dialectic in which national publics judged and re-appraised the reputation of individual scholars in direct response to each other. Traditionally, historians of exploration have focused on 'the mechanisms of hero-making' within distinct national communities of commemoration.[1177]

Yet, there have recently been fruitful attempts to study what may be called 'competitive hero-worship' among different European imperial powers.[1178] In his work on British and French African travellers as 'heroes' of their respective empires in the late nineteenth and early twentieth centuries, Berny Sèbe has shown how the French glorification of Colonel Marchand was spurred by the British elevation of Kitchener to hero-status after the confrontation of the two figures during the Fashoda Crisis in 1898. Yet, given its different focus, his otherwise insightful study did not explore the phenomenon of how the public degradation in one society spurred the furious glorification of the same *personae* in another.[1179] This is thus still an important lacuna, as my work suggests that the *mutual observations* between the British and German presses around the mid-nineteenth century were, in fact, highly influential in shaping the Schlagintweits' path to celebrity-status in their German

[1175] Petermann openly complained to the brothers about not having received all volumes gratuitously, which would be a 'high exception' to his general rules, according to which he always received a sample of 'the most relevant recent publications [...] of geographical literature from all parts of the world.' This implied that Petermann would provide precious publicity only in return for 'donations' to his private library, ibid.

[1176] Petermann to Hermann, 9.5.1864, Gotha, SPA ARCH PGM 353/1.

[1177] See among many, Edward Berenson, *Heroes of Empire: Five Charismatic Men and the Conquest of Africa* (Berkeley, 2010).

[1178] John MacKenzie, 'Introduction', in idem (ed.), *European Empires and the People: Popular Responses to Imperialism in France, Britain, the Netherlands, Belgium, Germany and Italy* (Manchester, 2011), pp. 1-18, 17.

[1179] Berny Sèbe, *Heroic Imperialists in Africa: The promotion of British and French colonial heroes, 1870-1939* (Manchester, 2013).

fatherland – in direct response to their public humiliation in England. By tracing these mutual observations within the landscape of popular print culture in more detail, I hope to open up an important new dimension for studying the transformation of European travellers into 'imperial heroes' – also in formally non-colonial societies.

There existed a distinct pattern and chronology in the way the Schlagintweits were depicted by the German press over the course of the international controversy. At first, numerous articles – sometimes accompanied by maps – appeared in daily papers and scientific magazines during the expedition that made them household names amongst the greater segment of the German reading classes. During this first stage, little notice was given to foreign critique, either stemming from the British Isles or India itself.[1180] After the completion of the mission, when the first harsh reviews appeared in the *Athenaeum* in late 1857, German commentaries changed in that the British criticisms were now openly registered; yet, there still existed more de-escalating voices. The journal *Bonplandia* noted, for instance, that 'since already a few years, some single London papers have sought to debase the merits of German travellers.'[1181] Yet, the paper continued to stress in a conciliatory tone that 'all national feeling should cease in the field of science.'[1182]

In the third stage, however, the rhetoric of German papers sharpened. This mirrored the fact that by the early 1860s, the affair over these 'comparative strangers' had become a politicised issue in England, which, in turn, also pushed the German press to up the ante. Hence, when the *Athenaeum's* campaign against the Schlagintweits had forced even respected British men of science to publicly defend their role in the scheme, after the paper had accused Edward Sabine of jobbery, this shift in tone was closely noted among German papers.[1183] In reaction to the severe British commentaries, parts of Edward Sabine's own published reply in defence of the brothers were reprinted in Munich papers, although in a modified way. Though partly

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[1180] Anon., *The Englishman*, (Calcutta), 3.4.1855, unknown page, in Collectanea critica.
[1181] *Bonplandia,* 15.11.1857, p. 332.
[1182] Ibid.
[1183] The *Athenaeum*, 2201, 1.1.1870. In the 'Review of General Francis Rawdon Chesney, Narrative of the Euphrates Expedition', it was critiqued that the means were lacking to publish 'this most important work' in a respectable format: 'We do not call attention to this matter out of a spirit of fault-finding, but thinking General Chesney's exertions of immense interest to the nation, we regret that he should have somewhat injured his work by presenting it in its present shape. For this he himself is not to blame. The authorities at the Treasury and the India Board ought to have assigned a sum sufficient for the whole expenses of publication […]. Had the same sum been spent upon it that is said to have been expended on several other less important publications, such as those of the Messrs. Schlagintweit', ibid. p. 18. Alcock, 'Address to the Royal Geographical Society', p. 314.

embellished, the *Deutsche Allgemeine Zeitung* claimed, for instance, that the British authority Sabine had praised the Schlagintweits' *Results* as an oeuvre 'that will do credit to [the brothers] themselves and to the Indian Government in all times to come.'[1184] To fight fire with fire, the German papers thus selectively reprinted positive statements from British scholars and papers in order to directly contradict the more critical appraisals.[1185]

In the increasingly vicious fight over the German travellers' reputation, other German papers employed even more manipulative strategies by twisting the words of British papers according to their own interests. When the Schlagintweit mission was 'universally condemned' in England (*Saturday Review*), this was taken as an expression of an ill-informed nationalist frenzy, not a qualitative judgment on their scientific results.[1186] But more than that: when the brothers' met with veritable hails of abuse, the British critique was bluntly reinterpreted in the German press as a symptom of outright 'jealousy' of their achievements.[1187] In this way, foreign defamations could be presented as veiled acknowledgement. Conversely, when a welcoming commentary appeared in Britain papers, such praise was taken literally.

To be sure, the public critique of respective lauded national scholars was not a one-way phenomenon. On the contrary, German journals also openly challenged iconic British travellers such as David Livingstone, and devalued their findings when compared with those achieved by the African explorer Heinrich Barth. Humboldt thus wrote to Carl Ritter that 'Petermann, in his last issue, took some vengeance against the dwarfed Livingstone'.[1188] Earlier, Petermann had set Livingstone's travels against Barth's exploratory feats, claiming that the former's expedition had provided 'only meagre scientific results'.[1189] By contrast, Barth's journeys were said to have significantly expanded the geographical knowledge of Africa, not least by tracing a number of caravan routes, which he had linked on maps to his own itinerary.[1190]

[1184] *Deutsche Allgemeine Zeitung*, 214, 18.9.1861, p. 73.
[1185] Indeed, specific British papers were singled out and lauded for their supposed unbiased reviews of the German travellers' work – which happened to be always positive in approach. This included *The London Review*, *The Illustrated News of the World*, *The Reader*, and others. See *Allgemeine Zeitung München*, 284, 11.10.1863, 'Das Werk der Brüder Schlagintweit', p. 4707.
[1186] Ibid.
[1187] *Illustrirte Zeitung*, 919, 9.2.1861, 'Das grosse Reisewerk der Gebrüder Schlagintweit', 'Collectanea critica', Innsbruck, p. 69.
[1188] Humboldt to Ritter, Berlin 21.3.1857, in Päßler, *Briefwechsel*, letter No. 160, pp. 201-2.
[1189] Ibid., the editor's commentary.
[1190] Petermann, 'Dr. D Livingstone's Reisen in Süd-Afrika, 1841 bis heute', *Mittheilungen aus Justus Perthes' Geographischer Anstalt über wichtige neue Erforschungen auf dem Gesammtgebiete der*

Despite such Teutonic judgements, it is unlikely – and indeed no evidence could be found – that such foreign criticism did much to alter the public veneration Livingstone then received in Britain. Whatever the German attempts to shrink this quintessential British 'heroic traveller' down to human size, his celebrated 16-year long African travels had already catapulted Livingstone to Olympian heights.[1191]

Conversely, the serious British critique of the Schlagintweits provoked substantial reactions among German papers and the wider public. Above all, it led to diametrically opposed reactions among the national press. In fact, only one Prussian satirical paper, the *Kladderadatsch* whose mockery of the Schlagintweits was not taken up by any other printing house, was a single critical voice in what was otherwise an ocean of praise. As the analysis of hundreds of newspaper articles published in the 1860s and 1870s has shown, the Schlagintweits were indeed commonly seen in a positive, if not glorifying, light amongst the reading classes. There was general consensus that the brothers' 'travels […] must be considered among the greatest scientific undertakings of modern times', that their 'name will for all times be [...] a bright meteor in the scientific heaven.'[1192] In view of such frenzied praise, it is worth asking why those German journals, popular magazines, and daily newspapers almost univocally glorified their Indian mission?

In a sense, the Schlagintweits' diverging reputations were forged under almost reversed conditions in Britain and the German lands. In Britain, an expedition to India and into the Himalayas was no outstanding event, whereas in Germany, this had the potential to be perceived as a unique undertaking, the first grand expedition under 'German leadership' into the supposed unknown of High Asia. Moreover, Britain had seen thousands of Company officers and servants die in India, and many also during scientific exploration and political mission beyond its northern frontier. By contrast, Adolph's brutal execution in Central Asia was an event worth commemorating in Germany. The mystery surrounding his death undoubtedly added to the dramatic appeal of the whole episode and soon found its place in numerous pieces of popular

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Geographie, 3 (1857), pp. 91-108. Also, A. Petermann, 'Kartenskizze von Africa zur vergleichenden Übericht der Reisen Dr. Barth's und Dr. Livingstone's', *Mittheilungen*, 3 (1857), 'Tafel 3'.

[1191] A remarkable description of the almost saintly status D. Livingstone assumed in the British mind, and the public frenzy his death created, was delivered by Joanna Lewis in her talk on 'Livingstone, Africa and anti-slavery "at the heart of the nation"', at the 'The Life and Afterlife of David Livingstone' Symposium, SOAS, 2013.

[1192] 'Hochasien und sein Handel', *Vorwärts*, p. 36.

papers. Lastly, in direct contrast to the British public, there existed in the German press a decisive willingness to 'create', in the brothers, new explicitly *German* heroes. In this context, the path-breaking work by Benedict Anderson on modern nations as 'imagined communities' provides important insights. As Anderson has shown, 'print-capitalism', in particular, 'made it possible for rapidly growing numbers of people to think about themselves, and to relate themselves to others, in profoundly new ways.'[1193] Most importantly, through an emerging printed mass media, people came to imagine themselves as part of a larger community – even though 'the members of even the smallest nation will never know most of their fellow-members, meet them, or even hear of them, yet in the minds of each lives the image of their communion.'[1194] In the case of the politically fragmented German lands, this sense of belonging to a shared *cultural* unit beyond such political divisions is particularly striking. As recent works on the German national and colonial movements have shown, the dream of a future German nation-state was a central reference point for German liberals with decisively expansionist agendas since the 1840s.[1195] In the press coverage of the Schlagintweits, an imagined German nation, glued together by supposedly shared cultural, linguistic and scientific practices and *achievements*, was indeed repeatedly evoked.

Language undoubtedly played a significant role in the imaginary bonds between the fragmented German political landscapes. Even before the first volume of the Schlagintweits' *Results* appeared (see fig. 8.2.), the Leipzig-published journal *Deutsches Museum. Zeitschrift für Literatur, Kunst und öffentliches Leben* thus critically noted: 'The fact that this work appears in the English language has indeed something embarrassing for our national feeling [*Nationalgefühl*]; we thought until now that those times are gone when even an Alexander von Humboldt saw himself forced to have his great travel work published in French.'[1196] To be sure, such 'linguistic patriotism' emerged in relation to other 'German' works as well.[1197] The prominent *Petermann's Geographische Mitteilungen* also objected to the fact that

[1193] Benedict Anderson, *Imagined communities. Reflections on the Origin and Spread of Nationalism*, rev. edn. (London, 2006), p. 36.
[1194] Ibid., p. 6.
[1195] Matthew P. Fitzpatrick, *Liberal Imperialism in Germany*.
[1196] Anon., 'Notizen', *Deutsches Museum*, 32, 9.8.1860, p. 214, also *Literarisches Centralblatt für Deutschland*, 18, 24.4.1869, p. 513.
[1197] I borrow the term from Julie Coleman, 'Using dictionaries and thesaurus as Evidence', Terttu Nevalainen and Elizabeth Closs Traugott (eds.), *The Oxford Handbook of the History of English* (Oxford, 2012), pp. 98-110, 99.

'even the report on the Novara expedition, the first scientific voyage around the world sent out by a German state, had first to be published in London in English.'[1198] The journal continued that publishing German scholarly works in foreign tongue 'offends our feeling as Germans, and must throw a curious light on our highly praised scientific genius in the eyes of other countries.'[1199]

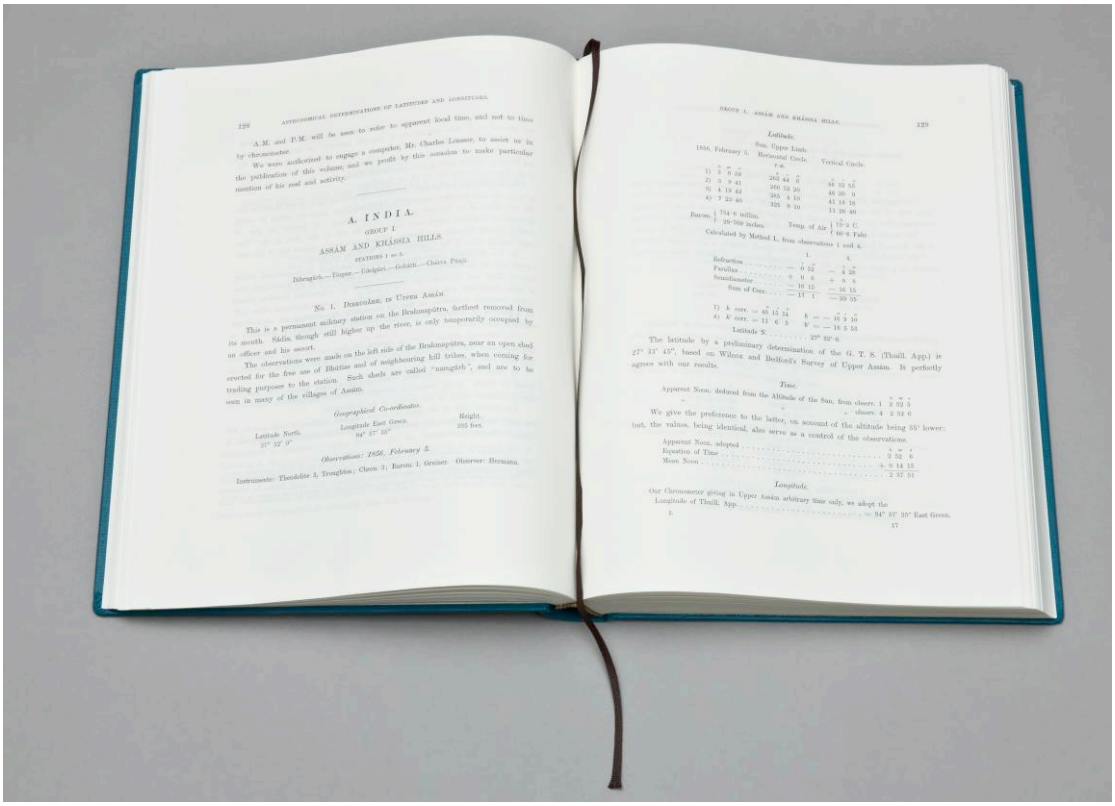

Fig. 8.2 Hermann, Robert, and Adolph Schlagintweit, *Results of a scientific mission to India and High Asia: undertaken between the years 1854 and 1858, by order of the court of directors of the hon. East India Company*; Vol. 1: *Astronomical determinations of latitudes and longitudes and magnetic observations: during a scientific mission to India and High Asia* (Leipzig and London, 1861), pp. 128-29; source and copyright: archive of the DAV.

In direct response to 'abominable' British polemics against their fellow German travellers, regarded as a 'dishonourable game' by German magazines, the latter issued ever-more sharp attacks in reply.[1200] The counterblasts to foreign criticism sought to ridicule those British men of science, who had publicly dared to

[1198] *Petermanns Geographische Mitteilungen*, 7 (1861), pp. 202-203. Crucially, the PGM considered even Austria (which had sent out the Novara expedition) still part of the broader imagined German nation. The work discussed was Karl v. Scherzer, *The Circumnavigation of the Globe by the Austrian frigate Novara. Undertaken by order of the Imperial Government in the years 1857-59,* II Vols. (London, 1861).
[1199] Ibid.
[1200] ['unwürdiges Spiel'], *Globus: Illustrierte Zeitschrift für Länder- und Völkerkunde*, 1 (1861), 'Der Streit über den Gorilla und du Chaillu', p. 121

denigrate the Schlagintweit brothers. As the widely read journal *Globus* stated, 'there are in London a number of scholars, who regard with a narrow-minded jealousy all progresses in the sciences that have not been made by John Bull.'[1201] In singling out the Schlagintweits' long-standing opponent, the journal continued its counter-attack that 'even a man like the botanist Hooker has the effrontery [*entblödet sich nicht]* to claim that he would know English officers, "whose studies and magnetic surveys would be of infinitely higher value than those of the Schlagintweits"'.[1202] By rubbing salt into the wound that many British officers had failed to secure Company grants to do precisely that, the German paper asked why had those English officers that Hooker had praised failed to accomplish the brothers' monumental tasks, and 'rather ceded the glory to three German men'?[1203]

With British papers downplaying or even woefully neglecting the Schlagintweits' 'colossal works', German editors increasingly adopted a chauvinistic stance.[1204] This became especially apparent as regards the notion and claimed grandiose achievements of what was dubbed 'German science'.[1205] The brothers became increasingly portrayed as the very embodiments of this notion, with their mission interpreted as one of the 'laurel wreaths of German science' [*Ruhmeskränze deutscher Wissenschaft*].[1206] In their drive to self-advancement, the brothers eagerly quoted such public accolades in their own works to stress the patriotic reception their work found in the German lands.[1207] What is most important about the trope of 'Deutsche Wissenschaft' was the fact that science was singled out as a realm in which Germans could compete with, and purportedly even outclass, other European nations during the nineteenth century. While many contemporaries lamented Germany's relative backwardness and looked to the industrial achievements and global expansion of the British state and other empires around them with envy, science became a source of unifying pride and identification in the German lands. Indeed, in many press

[1201] Ibid.
[1202] After Murchison and Sabine had been pressured by the *Athenaeum* to explain their role in the Schlagintweit appointment, Hooker, too, spoke out and openly distanced himself from the brothers in a statement printed in the same paper. He stated that the affair and neglect of British talent 'excite my deepest indignation', and that the 'appointment of other than Indian officers to complete the [magnetic survey] was as unjust as it has proved impolitic.' Hooker, 16.9.1861, *The Athenaeum*, 1769, p. 374.
[1203] 'Der Streit über den Gorilla und du Chaillu', p. 121.
[1204] *Illustrirte Zeitung*, 'Das grosse Reisewerk der Gebrüder Schlagintweit'.
[1205] Ibid.
[1206] Ibid.
[1207] *Das Ausland*, 50 (1868), quoted in Hermann Schlagintweit, *Reisen in Indien und Hochasien*, Vol. I (Jena, 1869), p. 593.

reports on expeditions to Africa, the supposed *eminence* of German scholars was frequently assumed, and favourably compared with the British contributions to the scrutiny of the continent's interior. While its claim to German grandeur again implied a reference to the British Empire as the measuring stick, a popular German paper thus proudly noted that '[t]he participation of Germans in overseas explorations has never been greater than during the current times. In Africa, we even outperform the English.'[1208]

To fully understand the significance of such claims, we have to acknowledge that by the nineteenth century, expeditions of discovery 'became bound up with European notions of the modern'.[1209] To present the German lands as a vital participant in the 'unveiling' of the interior of the world's continents, the 'German nation' (beyond its political fragmentation) could explicitly be imagined as a progressive force of humanity. For nineteenth-century contemporaries, the 'higher purpose' of overseas exploration was inextricably linked to western technological and medical advancements[1210], which allowed 'European explorers to circumnavigate the globe and reach its most remote regions', leading them 'to map out the geographical coordinates of their routes as guides to those who followed.'[1211] In the light of this idea of perpetual progress, the Schlagintweits' explorations in Central Asia, unfinished not least due to Adolph's sudden death, became to be perceived as a national 'task' that subsequent German scholars were to realise.[1212] In later years, German papers established a veritable genealogy of German Central Asian exploration. Thus, the travels by people such as Gustav Radde and Ferdinand von Richthofen – who famously coined the term 'silk roads' –, were incorporated into a national history of High Asian exploration, for which the brothers claimed to have laid the path.[1213]

[1208] Anon., 'Neue deutsche Reisende', *Westermanns illustrierte deutsche Monatshefte*, 12 (1862), p. 334.
[1209] Dane Kennedy, 'Introduction', pp. 1-3.
[1210] Headrick, *Tools of Empire.*
[1211] Ibid.
[1212] 'Neue deutsche Reisende', p. 334. See also, Heinz Gollwitzer, '"Für welchen Weltgedanken kämpfen wir?" Bemerkungen zur Dialektik zwischen Identitäts- und Expansionsideologien in der deutschen Geschichte', in von K. Hildebrand and R. Pommerin (eds.), *Deutsche Frage und europäisches Gleichgewicht* (Cologne, 1985), pp. 83-109.
[1213] Ibid. Hermann and Adolph Schlagintweit knew Richthofen personally. While they all had certainly met in Berlin (were Richthofen studied from 1852-56, at the time Hermann was lecturing at the Berlin University), Hermann and Richthofen were also later involved in the 'German section' of the exhibition that accompanied the second international geographic congress in Paris, in 1875. F. v. Richthofen, 'Bericht über den internationalen geographischen Congress in Paris', *Verhandlungen der*

This rhetoric of a specific 'German task' to be completed overseas for the sake of the fatherland's glory applied not only to the Schlagintweit brothers and Central Asia. Petermann argued in 1860 that 'the German nation' was also loudly called upon to act after the disappearance of the German traveller Eduard Vogel in Africa's interior, while he was 'in the service of German science'.[1214] In sending out a search expedition to find the 'relics' of Vogel – 'to save the last notes from his hand, his collections, the results of his strenuous labours [and] the price of his sacrifice' – Petermann urged for public support for further German-led expeditions into those same African regions. Such follow-up expeditions were, as he stated, intended to 'finish his work, to solve [...] the task he had set himself, and thereby to erect an honorific monument not only to his memory, but also to German science and German spirit.'[1215]

Other German papers went beyond Central Asia and Africa, and unfolded a veritable *global panorama* in claiming German achievements for having opened up the interiors of *all* continents. After praising the performance of the Schlagintweits in India and Central Asia, the *Illustrirte Zeitung* (Leipzig), for example, displayed remarkable national hubris in the realm of science:

> 'Again, it is Germans [the Schlagintweits] who enrich the sciences in a magnificent manner. We do not possess one foot of land in foreign continents, but we know those more thoroughly than any other people. Beyond doubt, it is *our* travellers who take the first rank of scholars [and] explorers [...] the shining deeds speak for themselves, and cannot be denied. The Schlagintweits are equals to the greatest names in their field of science, and high posthumous reputation is secured for them for all ages to come.'[1216]

German explorers were thus not considered as *primus inter pares*. Rather, the Schlagintweit brothers and a range of other German itinerant scholars were portrayed as *superior* to those of other western nations. Regardless of the fact that petty 'jealousy' would deny their acknowledgement, the paper claimed that it was indeed

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Gesellschaft für Erdkunde zu Berlin, II (1875), pp. 182-94, 186. See the Schlagintweit objects, including paintings, masks, and maps, centrally displayed at the exhibition in the Palais des Tuileries in the appendix of this work. See also from the author his analysis of the 1875 exhibition in *Über den Himalaja* (2015).

[1214] Petermann, 'Th. v. Heuglin's Expedition nach Wadai', *Petermanns Geographische Mitteilungen*, 6 (1860), p. 318.

[1215] Ibid., my translation.

[1216] *Illustrirte Zeitung*, 'Das grosse Reisewerk der Gebrüder Schlagintweit'.

Germans who had scientifically triumphed in *all* corners of the globe – often in foreign imperial service.[1217]

> 'The English, just as little as the Russians or the Dutch, have no right to lament about the services that German men have afforded them. The best description of *Guyana* we have through Schomburgk; *New Zealand* has been made more thoroughly familiar to us through Dieffenbach, and partly through Hochstetter; Leichhardt lost his life in *Australia*; Barth brought clarity to the geography of *Inner Africa*. The Asiatic part of *Russia* has primarily been, we can indeed say, discovered by Germans […] Kämper and Siebold gave us the best descriptions of *Japan*; for the region of the *Nile*, [the works of] Burckhardt Russeger [and] Werne are classics; Niebuhr opened up the Mahomedan *Orient*; in *America*, there is no region that would not have been travelled through and described by Germans […]. [All of them] aggrandise the glory of the German name in scientific research. Whoever realises what they have achieved, cannot refuse his admiration.'[1218]

In this global panoply of heroic explorations, the 'political resonances of science' are strikingly evident.[1219] National celebrations for the 'discovery' of overseas territories thus became a central part of what could be called the 'constitutive stories' of imagined German nationhood.[1220] Perhaps more than in any other realm, 'German science', with its inherent claim of a specific German predilection for thorough scientific exploration, thus became an important space for German self-fulfilment. The above-quotation on the global achievements of German explorations also clearly demonstrated that the Schlagintweits' history became part of a wider process in nineteenth-century Germany that saw the creation of a pantheon of national

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[1217] This work therefore disproves the conclusion of Ulrike Kirchberger, who argued in her otherwise valuable study *Aspekte*, p. 462: 'Wissenschaftler, die Deutschland verlassen hatten, um im britischen Auftrag überseeische Gebiete zu erschließen, gerieten in ihrer Heimat häufig in Vergessenheit. Während sie an den überseeischen Stätten ihres Wirkens berühmt wurden und in London mit Auszeichnungen für ihre Verdienste bedacht wurden, ignorierte man in Deutschland die Leistungen der deutschen Forscher, die sich um die Erfassung von "terra incognita" bemühten.'

[1218] Ibid., emphasis mine. Also resonating in Hermann M. Richter, *Die leitenden Ideen und der Fortschritt in Deutschland von 1860 bis 1870* (Nördlingen, 1873): 'Jedoch nicht allein die Regierungen, sondern selbst die Privatthätigkeit suchte dem Drange des [deutschen] Volks nach Ruhm und Machtbethätigung. So wurden Asien, Afrika, Amerika, Australien, ja sogar der hohe Norden von deutschen Reisenden durchzogen und durchforscht', the Schlagintweit being singled out, pp. 67-68. This trope still echoed in the early twentieth century, see Sylvia Paletschek, 'Was heißt "Weltgeltung deutscher Wissenschaft"?: Modernisierungsleistungen und -defizite der Universitäten im Kaiserreich', Michael Grüttner et al. (eds.), *Gebrochene Wissenschaftskulturen: Universität und Politik im 20. Jahrhundert* (Göttingen, 2010), pp. 29-54, 49.

[1219] Ludmilla Jordanova, 'Science and nationhood: cultures of imagined communities', in G. Cubitt (ed.), *Imagining nations* (Manchester, 1998), pp. 192-211. Against Laak's claim that in the fields of 'science and technology, nationalisms appeared absurd' in nineteenth-century Europe, *Über alles in der Welt*, p. 44.

[1220] I borrow the term from Linda Colley, *Acts of Union and Disunion* (London, 2014).

'scientific heroes'.[1221] This is well captured, among other symbolic acts, in the integration of Hermann and Robert Schlagintweit into the 'gallery of eminent naturalists of modern times', a series of portraits of 100 of (as was claimed) Europe's most influential scientists (fig. 8.3).[1222]

Fig. 8.3 Hermann Schlagintweit, lithography for the 'Gallerie ausgezeichneter lebender Naturforscher', G. A. Lenoir (1856), source and copyright; HU Berlin, Wissenschaftliche Sammlungen, Porträtsammlung Berliner Hochschullehrer, image 12863.

While this may not have applied to all the German travellers enumerated above, though it certainly did for some of them, this public glorification of the

[1221] I thus argue against the otherwise valuable study by Franziska Torma, *Turkestan-Expeditionen: Zur Kulturgeschichte deutscher Forschunsgreisen nach Mittelasien (1890-1930)* (Bielefeld, 2011), who claimed that later, Sven Hedin's immense popularity in Germany was not least grounded in the fact that he knew how to successfully 'fashion himself, especially in a time [...] when the Germans were lacking their own [exploratory] "heroes".' Ibid., p. 34, translation mine.

[1222] The idea for this pantheon of distinguished scientists had emerged during the 32nd meeting of the 'Versammlung deutscher Naturforscher und Aerzte' in Vienna in 1856. See the advertisement for this 'gallery', which directly appealed to patriotic sentiments, 'Gallerie ausgezeichneter Naturforscher der Neuzeit', *Polytechnische Centralhalle: Zeitschrift für deutsche Industrie und Gewerbe*, 4 (1862), p. 19.

Schlagintweit brothers served clear political ends. At a time when German merchant houses already enjoyed a global presence, quickly reacting to ever-new trading opportunities overseas, the Schlagintweits were openly praised for having identified new avenues for European trade and settlement in Inner Asia.

While the military value of the intelligence the brothers provided was arguably most useful to the British Empire[1223], the information on settlements and trade opportunities, by contrast, appealed directly to the German middle classes. Hermann Schlagintweit's evaluation of the 'possibility of colonisation by Europeans' of 'Assam' and the 'forelands of the Himalayas' was, for instance, eagerly noted and discussed in the German press.[1224] Yet, also commercial journals such as *Vorwärts! Magazin für Kaufleute* – with the expansive thrust of German trade captured in its title – readily picked up the intelligence the travellers provided.[1225] For the Himalayas, the German trade journal emphasised in particular the existence of 'much building materials, fine woodlands, and metals in abundance.'[1226] While extensively citing the Schlagintweits' works, Tibet was said to offer, by contrast, an 'abundance of salt, excellent horses and extensive sheep-farming'. The fact that the products of both regions seemed mutually complimentary reinforced the paper's conviction that there was indeed a 'real need for trade' in those areas, awaiting German intervention. Especially the tiresome transport of the goods by caravans over dangerous mountain passes, and 'rivers without bridges' was remarked upon, leading to a call for action:

> 'It is surely a matter of extraordinary practical importance for Europe to facilitate […] this great trade in High Asia through appropriate infrastructure, so that it will gain in both breadth and size. No expensive railways will serve this trade of High Asia […] but rather, according to the personal observations of Professor Schlagintweit, bridges over the bigger rivers, and of such an extent that they are able to carry heavy beasts of burden.'[1227]

[1223] Anon., 'Der dritte Band des Schlagintweit'schen Werks über Indien und Hochasien', *Beilage der Deutschen Allgemeinen Zeitung,* 365, 8.8.1864, pp. 1551-52, 1551.
[1224] 'Der Krieg der Engländer gegen Bhutan, im östlichen Himalaya', *Bayer. Zeitung* [unknown date], among Schlagintweit's Collectanea critica, Innsbruck.
[1225] *Vorwärts! Magazin für Kaufleute* was edited by the German Eduard Amthor (1820-1884), a studied Orientalist, publisher, and director of a business school [*Handelsschule*], which he opened after travels to England and France in Hildburghausen in 1849. See Hans Lülfing, 'Amthor, Eduard Gottlieb', *Neue Deutsche Biographie*, 1 (1953), p. 264.
[1226] 'Hochasien und sein Handel', *Vorwärts,* p. 37.
[1227] Ibid.

In the author's commercial imagination, such technological interventions were, however, only the first stage of a more thorough future penetration of these regions. Hence, once the 'lines of communication' are realised, and 'perhaps Europeans have settled there, then High Asia can look forward to a bright future.' Indeed, the 'commerce' of this world region 'will flourish up to a hitherto unimaginable level, guaranteed by its abundance of metals, animals and plants.'[1228] By making exclusive references to the brothers' explorations, the journals' call for commercial expansion into High Asia thus aptly demonstrates to what considerable extent the Schlagintweits came to be seen as Germany's commercial vanguards. The Schlagintweits themselves were aware of this keen interest, and directly addressed German merchants and the wider public in articles and numerous lectures.

There has been an increased interest of late in the permeation of imperial ideologies into European domestic societies. Bernard Porter's work on *The Absent-Minded Imperialists* raised important questions on this topic.[1229] Yet, a wave of recent scholarship has predominantly rejected Porter's assumptions that empire had no meaningful impact on British society and culture, even in the nineteenth and twentieth centuries, when it reached its most global scope. Especially scholars aligning themselves with the 'new imperial history' highlight the crucial popular repercussion of empire on domestic debates and cultural imaginations, increasingly argued for both Britain and France.[1230]

While the literature on Germany's colonialism has traditionally focused on the national project of the late nineteenth century, a new and proliferating scholarship has recently turned the attention away from this short period of actual empire. Research inspired by literary and cultural studies has raised new questions about German 'colonial fantasies' since the late eighteenth century.[1231] Recently, Bernhard Gissible has even argued that the careers of German missionaries, mercenaries, scholars and entrepreneurs could be regarded as a form of 'vicarious imperialism' – as if these 'colonial fantasies' in German society could be fulfilled when, e.g., 'experts

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[1228] Ibid.
[1229] Bernard Porter, *The Absent-Minded Imperialists: Empire, Society, and Culture in Britain* (Oxford, 2005).
[1230] Take, as examples, Berenson, *Heroes of Empire*; Sèbe, *Heroic Imperialists in Africa;* MacKenzie (ed.), *European Empires and the People*.
[1231] Susanne Zantop, *Colonial Fantasies*; Birthe Kundrus, *Phantasiereiche*; Matthew P. Fitzpatrick, *Liberal Imperialism in Germany*.

of science' worked for a foreign empire.[1232] However, as the popular reception of the Schlagintweits' achievements in (as was always critically noted) a *non-German* empire makes abundantly clear, the idea of such an 'ersatz empire', is highly misleading. Rather, as we shall see, the brothers' services and sacrifices to the British imperial cause were appropriated to fervently demand a German overseas *Reich*. In this sense, a careful analysis of the specific meanings attached to the Schlagintweits' careers can expand our understanding of the formation of an imperial ideology in Germany before her formal colonial era.

The two surviving brothers achieved the 'popularisation of empire' in the non-colonial German lands above all by adopting more popular forms of science communication. In contrast to the highly technical nature of their *Results*, the explorers indeed found and cleverly exploited a huge market for popular versions of their travel accounts in the German-speaking world. For one, both Robert and Hermann (as well as their younger brother Emil) provided a constant stream of more accessible articles in daily newspapers and bourgeois magazines. In addition, it was Hermann who, after the failed appeal of the *Results*, embarked on another huge publishing effort, and this time finished four volumes of a more popular travelogue in the German language.[1233] His *Travels in India and High Asia* (fig. 8.4) was the only work by the travellers that was re-issued in a further edition, and became acclaimed as a work that had inspired numerous German fellow-travellers and merchant firms to turn to the opportunities opened by the Schlagintweits in the east.[1234]

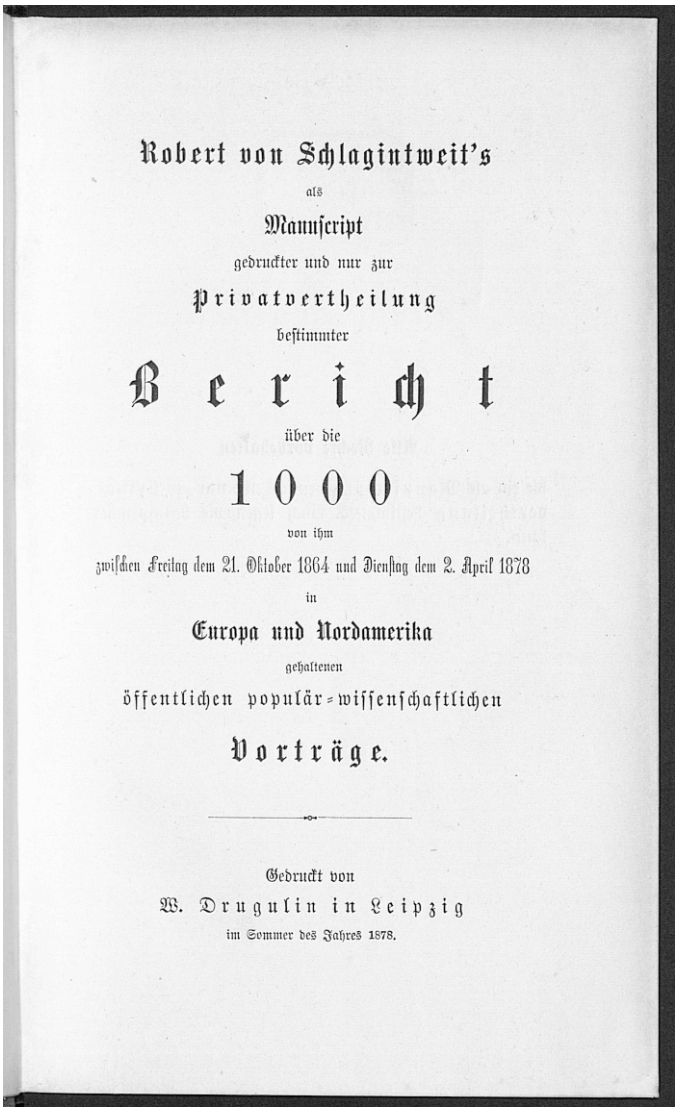
[1232] Bernhard Gissibl, 'Imagination and Beyond: Cultures and Geographies of Imperialism in Germany, 1848–1918', *European Empires and the People*, p. 164.
[1233] Schlagintweit, *Reisen*.
[1234] W. Werner (ed.), *Das Kaisserreich Ostindien und die angrenzenden Gebirgsländer* (Jena, 1884), esp. pp. v-vi.

Fig. 8.4 Hermann von Schlagintweit, *Reisen in Indien und Hochasien: eine Darstellung der Landschaft, der Cultur und Sitten der Bewohner, in Verbindung mit klimatischen und geologischen Verhältnissen; basiert auf die Resultate der wissenschaftlichen Mission von Hermann, Adolph und Robert von Schlagintweit ausgeführt in den Jahren 1854-1858*, IV Vols. (Jena, 1869-1880).

Yet, perhaps more than the printed word, it was especially the hundreds of public lectures that Robert Schlagintweit delivered in front of German middle-class audiences of scientific, amateur, manufacturing, and commercial societies that had the greatest impact on the German imagination. Despite holding a chair in geography and statistics at the University of Giessen since 1864, Robert turned into one of the most celebrated public orators and science popularisers of nineteenth-century Germany. Over time, he delivered his accounts on the Indian mission in every corner of the German lands.[1235] Robert always supplemented his oral presentations by exhibiting appealing visual illustrations of the eastern landscapes he described, including maps,

[1235] To be sure, besides hundreds of lectures in over 190 different villages and cities of the German lands, Robert also lectured in Belgium, France, Switzerland, Austria, the Russian Empire, and the United States. His lecture tour to the US in 1867-68, and again in 1880, when he crossed the entire North America continent from coast to coast via railway, spurred in turn additional lectures on these American travels and awaiting opportunities in the 'New World'. This helped to attract further German emigration to the States, with Robert's published works on the US becoming central sources of information for willing German emigrants. See the incredibly detailed memorabilia and notes Robert kept on each of his over 1,300 lectures, in Schlagintweitiana, V.1.

photographs, and watercolours, which he and his brothers had produced in India, which together lent a sheen of scientific authenticity to the orator (figs. 8.5-8.7).[1236]


Robert von Schlagintweit's
als
Manuscript
gedruckter und nur zur
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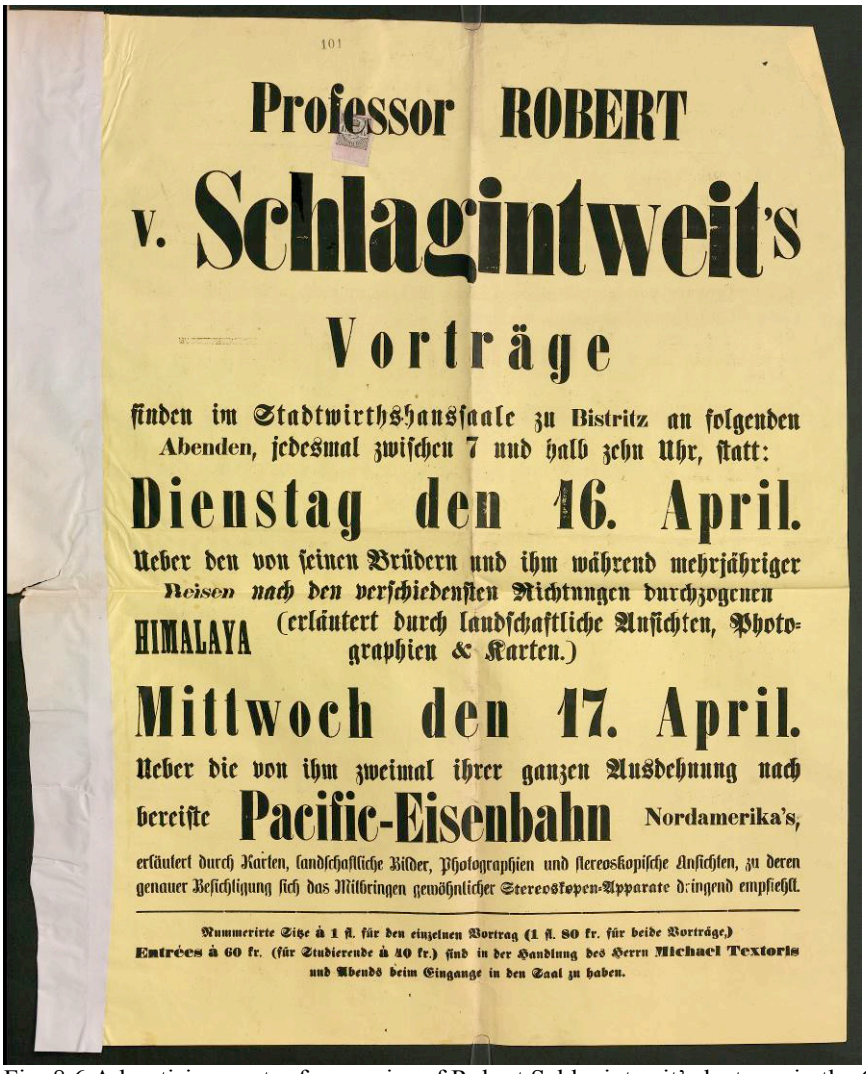
bestimmter
Bericht
über die
1000
von ihm
zwischen Freitag dem 21. Oktober 1864 und Dienstag dem 2. April 1878
in
Europa und Nordamerika
gehaltenen
öffentlichen populär-wissenschaftlichen
Vorträge.
Gedruckt von
W. Drugulin in Leipzig
im Sommer des Jahres 1878.

Fig. 8.5 *Robert von Schlagintweit's als Manuscript gedruckter und nur zur Privatvertheilung bestimmter Bericht über die 1000 von ihm zwischen Freitag, den 21. Oktober 1864 und Dienstag, den 2. April 1878 in Europa und Nordamerika gehaltenen öffentlichen populärwissenschaftlichen Vorträge* (Leipzig, 1878); source and copyright: BSB, Schlagintweitiana, V.1.40.

[1236] For his practices of displaying images and maps during his lectures, Robert Schlagintweit to unknown, Giessen, 29.11.1872, Koninklijke Bibliotheek, National Library of the Netherlands, Den Haag, KB, 130 G 17.



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Professor ROBERT

v. Schlagintweit's

Vorträge

finden im Stadtwirthshaussaale zu Bistritz an folgenden Abenden, jedesmal zwischen 7 und halb zehn Uhr, statt:

Dienstag den 16. April.

Ueber den von seinen Brüdern und ihm während mehrjähriger Reisen nach den verschiedensten Richtungen durchzogenen HIMALAYA (erläutert durch landschaftliche Ansichten, Photographien & Karten.)

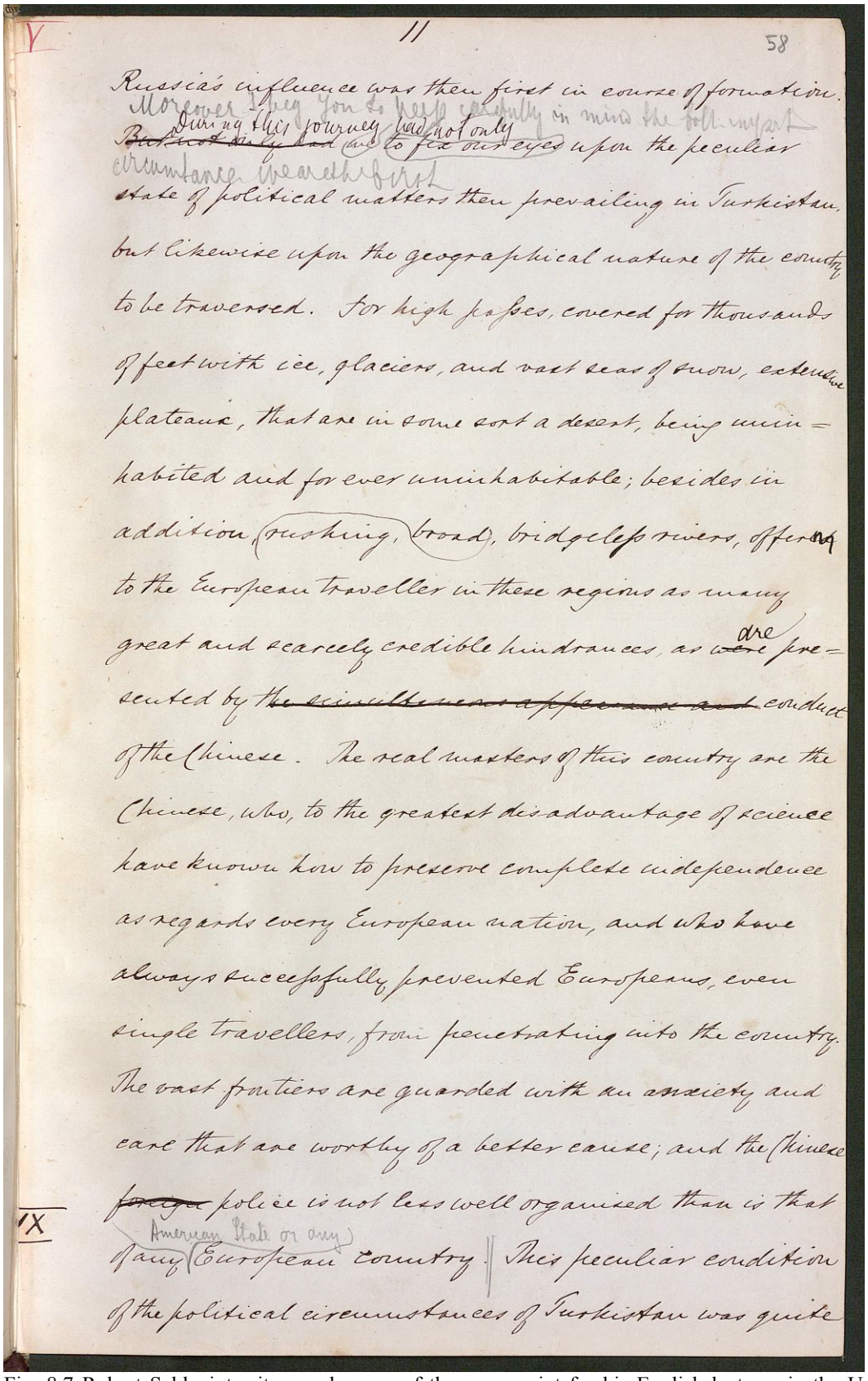
Mittwoch den 17. April.

Ueber die von ihm zweimal ihrer ganzen Ausdehnung nach bereiste Pacific-Eisenbahn Nordamerika's,

erläutert durch Karten, landschaftliche Bilder, Photographien und stereoskopische Ansichten, zu deren genauer Besichtigung sich das Mitbringen gewöhnlicher Stereoskopen-Apparate dringend empfiehlt.

Nummerirte Sitze à 1 fl. für den einzelnen Vortrag (1 fl. 80 kr. für beide Vorträge.) Entrées à 60 kr. (für Studierende à 40 kr.) sind in der Handlung des Herrn Michael Textoris und Abends beim Eingange in den Saal zu haben.

Fig. 8.6 Advertising poster for a series of Robert Schlagintweit's lectures in the German lands, in 1878, 'Ueber den von seinen Brüdern und ihm während mehrjähriger Reisen nach den verschiedenen Richtungen durchzogenen HIMALAYA (erläutert durch landschaftliche Ansichten, Photographien & Karten'; and 'Ueber die von ihm zweimal ihrer ganzen Ausdehnung nach bereiste Pacific-Eisenbahn Nordamerika's […].' Source and copyright: BSB, Schlagintweitiana V.1.11, p. 101.



V

II

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Russia's influence was then first in course of formation.
Moreover I beg You to keep carefully in mind the following part
~~But not only~~ During this journey I had not only
and to fix our eyes upon the peculiar
circumstance I spoke of first
state of political matters then prevailing in Turkistan,
but likewise upon the geographical nature of the country
to be traversed. For high passes, covered for thousands
of feet with ice, glaciers, and vast sear of snow, extensive
plateaux, that are in some sort a desert, being unin-
habited and for ever uninhabitable; besides in
addition (rushing, broad), bridgeless rivers, offered
to the European traveller in these regions as many
great and scarcely credible hindrances, as ~~were~~ are pre-
sented by ~~the singular appearance and~~ conduct
of the Chinese. The real masters of this country are the
Chinese, who, to the greatest disadvantage of science
have known how to preserve complete independence
as regards every European nation, and who have
always successfully prevented Europeans, even
single travellers, from penetrating into the country.
The vast frontiers are guarded with an anxiety and
care that are worthy of a better cause; and the Chinese
~~foreign~~ police is not less well organised than is that
IX
of any (American State or any) European country. This peculiar condition
of the political circumstances of Turkistan was quite

Fig. 8.7 Robert Schlagintweit, sample page of the manuscript for his English lectures in the United States (1867-68 and 1880), here on Turkestan, modified for the American audiences. Source and copyright: BSB, Schlagintweitiana (*Vorlesungsmanuskripte*) V.2.2.2, p. 58.

If there is a danger to mistake the published opinions of journalists as the views of the public at large, any doubts about the increasing popularity of Robert Schlagintweit are put to rest by his large audiences voting with their feet. That is, he drew hundreds of listeners on average, even 'in the most tiny localities'.[1237] In larger towns and commercial hubs, Robert Schlagintweit even spoke in front of over a thousand people in crowded town halls.[1238] Indeed, his considerable talent for rhetoric, univocally praised by amateur, learned and mercantile *Vereine*, points to the missed opportunity and ill-chosen genre of the Schlagintweits' dry *Results*.

Yet, the Schlagintweits' popular appeal transcended the German borders. In France, they became widely known scientific travellers, and their story was interwoven into some of the most successful popular works of literature at the time. If there was one nineteenth-century writer who best captured the heightened interest in mobility and adventures, it was Jules Verne. In his first successful novel, *Five weeks in a balloon* (1863), Jules Verne's protagonist travelled 'during the years 1855 to 1857' through 'the west of Thibet, in company with the brothers Schlagintweit'.[1239] After their initial appearance, the author with an outspoken geographical passion memorialised the brothers' Asiatic travels in several other novels. This clearly reflected how the Schlagintweits had become scientific 'heroes' and household names in the French empire. Like Robert Schlagintweit in his lectures, Jules Verne also immortalised the tragic death of Adolph Schlagintweit as pioneering traveller to Central Asia. In a later work, Verne informed his readers that since the time of Tamerlane, 'there have been fierce sultans [in Central Asia], it is true'; 'among others that Ouali Khan Toulla [sic!], who in 1857, strangled Schlagintweit, one of the most learned and most daring explorers of the Asiatic continent.'[1240] In his novel, he also reminded the reader that at the place of Adolph's death in Kashgar, '[t]wo tables of

[1237] According to Franu Leibing in the journal, 'Wandervorträge', *Der Bildungsverein*, 33, 19.8.1874, Schlagintweitiana, V.1.17, p. 96. Indeed, Robert's 'motto' for his lectures was: 'Überall bin ich zu Hause// Überall bin ich bekannt,// Macht mein Glück im Norden Pause,// Ist der Süd mein Vaterland.' Ibid. V.1.1, p. 2, capturing his sense that all the German lands were his fatherland and he himself a national icon.

[1238] Ibid.,V.1.17, p. 3; as part of his self-fashioning, Robert would wear 'all' of his foreign and German 'medals' when speaking in front of royal audiences, e.g. King Albert of Saxony, ibid. p. 34.

[1239] Jules Verne's works with references to the Schlagintweits include *Five Weeks in a Balloon* (1863); *In Search of the Castaways* (1868); *The Steam House* (1879-80), *Robur the Conqueror* (1886). In the *Steam-House*, we find a remarkable reflection about the quest of modern science to conquer ever more impenetrable spaces – from the highest peaks in the world, as embodied by the Schlagintweit brothers' Himalayan excursions, the deepest parts of the world's oceans, the interior of the earth and, lastly, to expeditions to 'a random planet of our solar system'.

[1240] Jules Verne, *Claudius Bombarnac: The Adventures of a Special Correspondent* (Paris, 1892; repr. 2008, Rockville, Maryland), p. 111.

bronze, presented by the Geographical Societies of Paris and Petersburg, ornament his commemorative monument'.[1241]

As Jules Verne's work hints at, the German Schlagintweit brothers had also become celebrated explorers in imperial Russia, where Robert Schlagintweit had given a series of lectures in 1867. Indeed, Robert was even invited by the Russian officials to explore parts of Central Asia, but this time in the service of Britain's imperial competitor. Testifying to the shifting loyalties of these imperial opportunity seekers, Robert only declined this offer because he had already planned his first lecture tour to another aspiring empire: the westward-expanding United States.[1242] Although Robert Schlagintweit had rejected enlistment in the Tsarist's imperial service, a few celebrated Russian explorers of Central Asia, including Nikolai Mikhailovich Przheval'skii, became deeply moved by Adolph's fate. Especially Przheval'skii, himself a widely celebrated Russian explorer, who owed his repute and numerous monuments to five expeditions to Central Asia[1243], pushed for a memorial to be erected at the place of Adolph's beheading in Turkestan.[1244]

Yet, while the initiative for the Schlagintweit monument came from outside of Germany, some German high-office holders were centrally involved in the realisation of the commemorative act. This applied above all to the diplomat and East Asian expert Max von Brandt, a former Prussian officer who had become minister resident in Japan in 1872, only to be promoted to the rank of consul in China from 1875-1893.[1245] In his official capacities, von Brandt never lost sight of German commercial and indeed colonial interests in the east. For instance, von Brandt had accompanied the Prussian expedition to East Asia between 1860-62, and had actively advanced the idea in the mid-1860s to take the Japanese island of *Hokkaido* as a formal German colony.[1246] Later, he supported the establishment of the Deutsche Postdampferlinie

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[1241] Ibid.
[1242] The idea of a further exploration into Central Asia on Russian 'state expenses' was proposed to Robert von Schlagintweit by the Russian privy councillor Nicolai von Stein in 1868, Schlagintweitiana, V.1.5, p. 8.
[1243] Peter Waldron, 'Przheval'skii, Asia and Empire', *The Slavonic and East European Review*, 88 (2010), pp. 309-327.
[1244] N. F. Petrovskij*, Turkestanskie Pis'ma* [*Turkestan Letters*], ed. by V. S. Miasniko (Moscow, 2010), No. 89. Petrovskii to N. M. Przheval'skii, Kashgar, 30 January 1887: 'Baron F. P. Osten-Sacken wrote to me about the lively interest which you have expressed in the matter of a memorial to Schlagintweit', p. 195. I thank James White for helping with the Russian translation.
[1245] Wolfgang Franke, 'Brandt, Max von', *Neue Deutsche Biographie*, 2 (1955), p. 531
[1246] Brandt, *Dreiunddreißig Jahre in Ost-Asien. Erinnerungen eines deutsches Diplomaten*, I (Leipzig, 1901), on 'Die preußische Expedition nach Ost-Asien. Japan, China, Siam 1860-1862'; Rolf H. Wippich, *Japan als Kolonie?: Max von Brandts Hokkaido-Projekt 1865/67*, 2nd ed. (Hamburg, 1997).

(*German Steamship Line*) during the Kaiserreich to encourage German trade with her colonies in Africa and the Pacific, and was involved in the foundation of the Deutsch-Asiatische Bank in Shanghai in 1889.[1247]

Crucially, in his eagerness to advance German interests and prestige abroad, Max von Brandt saw the creation of Adolph's projected memorial as an important opportunity. Hence, from 1887 onwards, he stayed in close correspondence with the German Foreign Office and Russian officials such as the consul in Kashgar (Central Asia), Mr Petrovskij, to materialise the plan. He was also responsible for crucial interventions with the Chinese government in Peking to secure the space for erecting the monument to the German scientific pioneer in Turkestan.[1248] With the energetic support of the German consul in Peking, Max von Brandt, and the vice-president of the Petersburg Society, Baron von Osten-Sacken, the Schlagintweit monument could be unveiled in June 1889, with the geographical societies of St. Petersburg and Paris adding commemorative plaques.[1249] While no tangible German economic advantages were at stake, for German officials such as von Brandt the monument in the difficult-to-reach interior of Central Asia nonetheless potently symbolised the extension of German overseas exploration, and claimed a German 'presence' overseas in the absence of formal colonies.[1250]

For this transnational act of commemoration, the youngest brothers Emil Schlagintweit, other officials of the Bavarian Government (who offered a medal to the persons involved), and even the German Emperor Wilhelm II personally wrote letters to the members of the Petersburg society, thanking them for the symbolic gesture of recognising the brothers – and through them – German overseas accomplishments.[1251]

[1247] Wolfgang Franke, 'Brandt'.

[1248] See Brandt's correspondence at the Politisches Archiv of the German Foreign Office, 'Berichte der Gesandtschaft Peking, Archivsignatur', Peking II 891, fol. 77ff., series 'Wissenschaftliche Bestrebungen', Vol. 5, 'Juli 1887 to September 1892'.

[1249] Emil Schlagintweit, 'Bericht über das Denkmal für Adolf', pp. 457-472.

[1250] See the report ('To the Glory of Adolph von Schlagintweit') by Ludwig von Ammon (1850-1922), a German geologist, to the Munich society, Archive of the Deutsches Museum (Munich), HS08683; Sto: NL 12/171, unknown date (between 1890-92). In 1886, the (in)famous German geographer Friedrich Ratzel, who developed the theory of 'Lebensraum', was involved in another symbolic gesture towards the brothers, and supported the instalment of a 'commemorative plaque' to Adolph and Hermann Schlagintweit (while regarding Robert as 'an unimportant savant', whose name could only be added 'out of courtesy'). Stadtarchiv München, Nachlass Joseph Hüther (1815-1888), Regierungsrat, Hofsekretär und Kabinettskassa-Vorstand unter König Ludwig I. von Bayern, NL Hüther Nr. 123, Emil Schlagintweit to Hüther, 25.9.1886. The plaque was put up in the Theatinerstr. 17, the birthplace of the brothers; August Alckens, *München in Erz und Stein* (Marburg, 1973), p. 122; see appendix for the text of the plaque.

[1251] HStA, MA 53157, 'Errichtung eines Denkmals für den Reisenden Adolf Schlagintweit in Kaschgar, 1890', doc. 1, 'St Petersburg, 15 January 1890, 'Kgl. Bayerische Gesandtschaft in St.

It is indicative of how the Schlagintweits had indeed become national German 'heroes' that the secretary of the Paris Geographical Society, Edouard Blanc, defended the French plaque to the monument, which he had personally visited in 1890[1252]:

> The German Government had full right to appropriate the glory of the Bavarian Schlagintweit for the sake of the whole Empire in the name of German unity. We, in our capacity as geographers, […] appropriate the glory of the deceased for the whole of Europe, even for the whole world in the name of science. On the field of science, there should be no enemies, only collaborators.'[1253]

However, in contrast to such claims about the supposedly universal value of scientific achievements, Adolph's death still assumed a different political meaning in Germany – where this 'victim' of overseas exploration became incorporated into a popular and nationalistic culture of imperialism.[1254] It is to this political dimension that we turn to in conclusion.

In all his lectures, Robert Schlagintweit never failed to draw his listeners' attention to two tropes: first, the vast commercial and colonial opportunities in High Asia that awaited European intervention and,[1255] second, the portrayal of Adolph as a tragic 'victim' of enlightened science. Even though Adolph's tragic death had also been mourned in Britain, the loss of a young and talented German explorer, and the 'disappearance' of other German overseas travellers, assumed a different, and specific, connotation for German contemporaries. It was emphasised, time and again, that Adolph's early death symbolised both the contributions and the personal

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Petersburg'; for the emperor's personal letter of gratitude to Nicolai Feodorowitsch Petrowski, the Russian Imperial Consul at Kashgar, ibid, doc. 3, 'Kgl. Bayr. Gesandtschaft in St. P.' to 'B. Staatsministerium des Kgl. Hauses und des Aeusseren', St. Petersburg, 10 August 1891.

[1252] *St. Petersburger Herold*, 8 August/27 July 1887; the newspapers article survives in MA 53157, appendix to doc. 3.

[1253] E. Blanc quoted ibid.

[1254] See the official submission to the 'kgl. Gesandtschaft in St. Petersburg', Munich, 22.12.1891, ibid.

[1255] E.g. 'The Sanitariums of the H[imalayas] which are now at a height of between 400ft. and 7000ft. have proved themselves of inestimable service to those Europeans, whose health has been enfeebled by a long residence in the burning hot climate of tropical India. The number of these health-stations is at present but small, the most important one [is] Simla; they can however be multiplied indefinitely.' Once 'European colonists […] have but once settled there [in the Himalayas] in considerable numbers, then no difficulties will any longer present themselves as regards extension of the tea plantations, laying out of vineyards, erection of tobacco manufactories, and industrial establishments of all kinds, and bringing into use the immeasurable woods now laying waste. At present in the H. immeasurable thousands of the finest + most valuable trees […] decay every year even such as grow in easily accessible places, because the means of transport for them are wanting.' V.2.2.1, pp. 105-6.

sacrifices that *German* scholars also made for the sake of European overseas discoveries. It was precisely because the German lands were neither unified as a nation until 1871, nor possessed any colonies abroad before 1884, that the Schlagintweit expedition and the personal suffering of the brothers could feed into a German colonial imagination and ideology.

Adolph Schlagintweit, like several African explorers, became not only a hero, but also a 'martyr of German science'.[1256] This glorification of national martyrs, sometimes fallen in the service of a foreign empire, served clear political ends.[1257] That is, the involvement of German subjects in opening up non-European landscapes to western science was used to assert German claims to enter the colonial race, too.[1258] A case in point is the publication of a colonial agitator that appeared in 1867 under the title: *The foundation of Prussian-German Colonies in the Indian and Great Ocean, with a particular focus on East Asia*. Therein, the author drew this ideological connection between 'German sacrifice' and colonial right:

> 'From a scientific standpoint, what a great opportunity finally opens up to us with the colonisation of Formosa [*Taiwan*]! A country since long called one of wonders and mysteries, whose geographical characteristics, natural resources, and population are as yet hardly known, it offers in many respects a virgin field for explorations of all kinds. And who is better qualified to exploit it than the German people, which has long ago acquired the entitlement to its own colonial possessions with the health and life of his most noble sons – and especially Prussia, which has undertaken with the greatest liberality so many scientific and practical expeditions into the remotest countries. Humboldt, Leichhard, Schlagintweit […] Barth [...] are names, of which even the greatest maritime and colonial states are jealous, and we will justifiably call any project of German colonisation [...] an act of piety towards our martyrs of science who are buried in foreign soil.'[1259]

[1256] The list of contemporary works that described Adolph as a German 'martyr' of science and exploration is long; among many, see F. Marthe, 'Russland in Innerasien', *Im Neuen Reich. Wochenschrift für das Leben des deutschen Volkes in Staats, Wissenschaft und Kunst*, 1 (1871), pp. 216-225; *Landshuter Zeitung*, 103, 7.5.1859, p. 416; Adolph's well-attended funeral service is also described in the language of martyrdom, in *Bayerischer Kurier*, 125, 7.5.1859, p. 846. Even for the Orientalist and traveller Ármin Vambéry, A. Schlagintweit led the list of the most eminent western scientific martyrs in having opened the interior of Asia for European rule. Idem, *Westlicher Kultureinfluss Im Osten* (Berlin, 1906), p. 2; *Literary Gazette*, 176, 9.9.1861, p. 447.

[1257] 'Erster Aufruf', *Zeitschrift der Gesellschaft für Erdkunde*, 8 (Berlin, 1873), pp. 170-1.

[1258] Connected to these discursive themes, but also putting forward an important intervention against a teleological view that somewhat assumes the realisation of colonial fantasies into formal rule, Sebastian Conrad, *German Colonialism. A Short History* (Cambridge, 2011), esp. chapter 2, 'Colonialism before the colonial empire'.

[1259] Ernst Friedel, *Die Gründung preußisch-deutscher Colonien im Indischen und Großen Ocean*, pp. 82-3.

The loss of 'German lives' in the service of other empires thus became a justification for German politicians, merchants, liberal journalists and colonial agitators to demand an enhanced German 'presence' in the extra-European world. Hence, against the existing scholarship, such 'pre-colonial' experiences of German subjects were not only 'retrospectively adopted by the colonial movement during the 1880s and […] pronounced to be the pre-history of contemporary expansionist plans.'[1260] The 'vector of continuity' went not only backwards into the past to justify the acquisition of colonies in the late nineteenth century.[1261] Rather, the Schlagintweits' pursuit of scientific careers in a foreign empire would have important ramifications in the country where these 'imperial outsiders' originated. In short, it fed a sense of prospective colonial entitlement in the German states as well.

[1260] Sebastian Conrad, *German Colonialism. A Short History* (Cambridge, 2011), p. 17.
[1261] Ibid.

Conclusion: Authority and the nature of scientific networks

In November 1867, as Robert Schlagintweit opened his first lecture at the renowned Lowell Institute in Boston, United States, he provided his audience with a gripping introduction to the brothers' earlier travels to the east. As he sought to make unmistakably clear:

> 'What […] drew us with irresistible force to High Asia and to certain regions there, never before trodden by Europeans, that which made us forget many pains and hardships, that which sustained our courage even in the midst of most desponding situations & most painful circumstances, was neither the seductive love of adventures…nor…the ambitious passion to shine, nor was it even the bare curiosity to wish to lift up the veil, which had hitherto shrouded these lands; – no, what most profoundly stimulated us was the wish to explore and investigate in a scientific manner that land.'[1262]

Here, the traveller and science populariser alluded to many of the tropes that have stood at the heart of this work: the fascination of numerous German scholars with Asia's natural world in the mid-nineteenth century, the great prestige that was forcefully claimed through 'extraordinary discoveries' achieved through personal hardship and willpower, but also Robert's attempt to root his scholarly authority in first-hand observations and the assertion that only *scientific* motives had driven him and his brothers to these lands. In this appealing account, the Schlagintweits' only purpose in suffering through the physical and mental privations of exploration had been to extend the borders of knowledge over *terra incognita*, a seemingly selfless exercise only motivated by their wish 'to see, to know, and to remember'.[1263] This is indeed a telling passage, not least for what elements it silences. The great difficulties, for instance, that the Schlagintweits faced throughout their careers in commanding an international reputation as professional scientists and 'pioneering explorers' were still roaring in the background, yet seemed miles away once Robert addressed an audience willing to believe unreservedly in their 'extraordinary' achievements. The context of exploration, too, was held back from the listeners in order to stress the personal courage and single-mindedness of the brothers as independent scientific men.

[1262] Schlagintweitiana, 5.2.2.1, p. 18.
[1263] I borrow the phrase from Dana Leibsohn, 'Introduction: Geographies of Sight' in Dana Leibsohn and Jeanette Favrot Peterson (eds.), *Seeing Across Cultures in the Early Modern World* (Farnham, 2012), pp. 1-22, p. 12.

As this work has shown, however, the exploration of the trans-Himalayan regions by both British and other European scholars in the nineteenth century was above all an imperial affair. It was closely linked to the commercial aspirations and political concerns of the East India Company and, after its dissolution in 1858, the British Crown. By colonial officials and scholars alike, the regions beyond the northern border of the Indian Empire were seen as intriguing lands full of unresolved geographic and scientific enigmas, but also as countries with considerable trade potential and military importance. It was in this scientific-political context that the brothers embarked upon their mission to the east indeed with a 'passion to shine', namely to gather a reputation as outstanding scholars and explorers equal to the standing of their mentor Alexander von Humboldt. Yet, while they were aspiring to lift European knowledge of the trans-Himalayan regions to new heights, the brothers were fully conscious of the expectations their employing empire had for 'useful knowledge' that could justify the vast expenses their travels and publications would accumulate.

Indeed, it has been shown that the Schlagintweits' scientific practices and orientations were deeply influenced by the colonial ambitions of the British in Asia. This was reflected in the wealth of information and material objects gathered by the brothers and their entourage with a view to expanding British trade and settlements further into and beyond the Himalayas. Such colonial concerns ranged from the collection and analysis of different soils in various regions and heights for an improved agricultural production to the study of potential export markets for British goods in Central Asia against a perceived Russian competition.[1264] Further imperial issues were addressed, such as the close scrutiny of high mountain passes and roads in – and across – the Himalayan range for both commerce and potential military campaigns. Taken together, the analysed panoply of personal, scientific and imperial interests demonstrates the extent to which this expedition was torn between conflicting priorities: while it was committed to the 'enlightened' project of natural history and physical geography in the tradition of Alexander von Humboldt, it was also closely aligned with the expansive ambitions of the British Empire and the brothers' own obsession with exploratory and mountaineering landmarks. To acknowledge these different, and not easily reconcilable, ambitions helps to better

[1264] House of Commons, *Fourth Report from the Select Committee on Colonization and Settlement of India* (London, 1858), 'Minutes of Evidence', 6 July 1858, pp. 1-10.

understand how German scholars were actively involved in the 'opening up' and colonial development of overseas territories, long before a politically united Germany would launch, in the 1880s, its own formal imperial projects overseas.

However, while Robert Schlagintweit's opening passage ignored the brothers' subservience to the foreign empire's cause and the existence of any European predecessors in 'High Asia', it also glossed over the previous bitter and divisive controversy over the brothers' travels and results. This controversy had, however, driven those British explorers and scientific travellers with first-hand knowledge of many of those regions to severely condemn the brothers as mere imposters. Yet, while speaking to his American, mostly popular, audiences, Robert certainly did not have to fear any disputes over his far-reaching claims of discovery. Instead, his American lecture tour in 1867-68, which followed years of successful self-promotion on the European continent, re-established an image of the Schlagintweits as the most authoritative and eminent explorers of the trans-Himalayan regions of modern times. Robert's also financially rewarding speeches in front of hundreds of amateur societies, *Turnvereine* (gymnastics clubs) and commercial associations in the Old and the New World clearly reflect the late move of the two surviving brothers towards the more general public and thus groups of peoples to whom Hermann and Robert could sell their 'pioneering' stories more readily than in front of expert circles.

For the popularisation of their scientific findings, the brothers knew well how to turn the knowledge gap about India and its history of exploration, which undoubtedly existed between British and German audiences, to their own advantage. The partial modification of his handwritten lecture scripts offers insights into how Robert deliberately orchestrated knowledge to address specific audiences. His accounts were custom-made to appeal to the different tastes of colonial interest groups, female followers, agricultural improvers, amateur scientists, mountaineers, and many other groups of listeners. Robert also varied the style of his speeches by adding different media depending on the intended group of recipients. This 'playing' with his audiences was significant, not least because it points to the considerable mutability of the information and materials that the brothers had brought back to Europe. In the end, Robert and Hermann's public performances provided a much better income than their earlier publishing efforts.

Indeed, as their scholarly reputation had lost much of its lustre amongst especially British men of science, from whom the Schlagintweits had received

resentment if not open contempt, the brothers increasingly sought and found an 'ersatz' recognition outside the halls of academia. Even if formal honours and ongoing memberships in prestigious institutions, such as the Bavarian *Academy of Sciences*, still gave them the appearance of respected scholars, their tempestuous previous careers had left the brothers marginalised amongst many of their former peers. The extent to which they had become sidelined and excluded from Anglo-German scholarly networks is perhaps best reflected in the fact that while their own personal and professional advancement had always depended on encouragement and patronage from numerous benefactors, they themselves were hardly ever asked to provide support for young naturalists and travellers of the next generation, neither in the German lands nor in Britain.[1265] This may have been because the Schlagintweits were perhaps too self-absorbed to feel passionate about 'giving something back' to the next generation. Alternatively, it might also suggest they were rarely asked for advice, patronage and introductions by younger travellers. This raises the important question of whether the brothers were actually held in high esteem by the next generation of intrepid explorers and naturalists, or well connected enough to be seen as useful in this regard?

This apparent estrangement from their peers leads us to take a final look at the mechanisms of inclusion and exclusion in the social functioning of science. By diving deep into a rather specific mid-nineteenth century case study, the thesis has tried to provide a more nuanced understanding of the complex relationship between authority and the nature of scientific networks. Authority, in all its forms and contestations, has been at the centre of this work, as it dealt with the processes by which scholarly and personal reputations were fabricated, acknowledged, destroyed, and re-instated within a structure of multiple yet overlapping 'centres' of perception and evaluation. What has become apparent is the active role that individual agents like the Schlagintweits played in forging their own standing, not least by employing efficient epistolary tactics that excluded critical voices from the conversation about their employment, and at the same time influenced the opinions of others – from private scholars and publishing enterprises, to royal patrons and colonial officials.

[1265] The only known case was their instructions to Pieter Adriaan Bergsma, a Dutch colonial scholar about to embark on a mission to Batavia, whom the two brothers briefed about the pursuit of useful knowledge in the colonies in August 1858, with special attention given to the calibration of instruments especially in the field of terrestrial magnetism and meteorology; see Lewis Pyenson, *Empire of Reason: Exact Sciences in Indonesia, 1840-1940* (Leiden, 1989), p. 87.

At the core of their dealings with powerful individuals and institutions, however, stood the need to establish trust, both in their scholarly credibility and personal character. As many recent studies in the history and philosophy of science have forcefully shown, 'scientific knowledge is as secure as it is taken to be, and it is held massively on trust. The recognition of trustworthy persons', and hence their perceived authority, is, in Steven Shapin's words, 'a necessary component in building and maintaining systems of knowledge, while the bases of that trustworthiness are historically and contextually variable.'[1266] As has been established, codes of polite conduct certainly played an important role to assess the credibility of a scholar at the time, and so did notions of class. 'Class', however, did not denote the necessity of a hereditary title or a royal diploma. It is thus not without irony that the brothers rather missed the point: while they cleverly negotiated with their Bavarian patron to be elevated into the ranks of nobility, this formal social advancement did not seem to do anything to improve their standing as 'respectable' gentlemen scholars in the eyes of their British critics. Their bad reputation was never linked to their familial background, but rather to their abrasive and at times arrogant behaviour that estranged many of their British peers from supporting their cause.

By placing its focus on the (changing) world of gentlemanly science in Victorian Britain and its connections with the scientific establishment in the German lands, this work has made the case that we ought to think of the individual reputation of a man of science as being closely interwoven into a network structure. The memberships, circles of patrons, and collaborators of an individual scholar should be understood as versatile resources for proclaiming one's position in a scientific world that was at once increasingly populated and at the same time narrow and familial. As Richard Drayton has argued: 'The cruel consequence of gentlemanly science was that the lustre of an individual's talents was difficult to distinguish from the brilliance of his connections.'[1267] This assessment, to be sure, highlights only one, albeit important, side of a more complex relationship: namely that authority could be attributed to someone for the simple reason that he surrounded himself with influential mentors and illustrious friends – and not simply because of his individual merit. However, as this work has shown, the connections between members of a network were always

[1266] Steven Shapin, 'Here and Everywhere: Sociology of Scientific Knowledge', pp. 302-303.
[1267] Drayton, *Nature's Government*, p. 146.

based on reciprocity: on mutual benefit and on shared risks. Patronage – dispensed or received – is therefore better understood as a case of mutual instrumentalisation.

To start with the mutual benefits, it has, for instance, become clear that Alexander von Humboldt, as an aged naturalist yet still powerful patron, not only gained new observations from the Schlagintweits that enriched his own late work – the *Cosmos*, but that he also managed to keep his own name and reputation alive by supporting those younger peers that sought to follow in his footsteps.[1268] Likewise, while the brothers depended on such powerful mediators to shape their reputation in Europe, the influential German editor August Petermann equally profited from his association with the intrepid brothers. He consciously attributed importance and authority to their travels in order to fuel his own publishing business by extensively covering their expedition in his journal, which was widely circulated on the continent. Authority was bestowed upon Petermann too since the Schlagintweits forwarded timely updates on their ongoing researches first to him and only afterwards to British publishing houses. These linkages point to the wider groups of actors that sustained the business of exploration and shaped its public perception as a 'heroic' enterprise. Here, as in other cases, patronage ought not to be regarded as a form of mere altruism, but should rather be thought of as mutually beneficial, as the character of such scholarly ties suggests.[1269]

However, in taking the argument further, the Schlagintweits' case is the more important since it clearly shows how the reciprocal relationships within scientific networks also carried their own risks. Certainly, patronage relationships did not exist in happy isolation, but always affected a wider circle of people whose own reputations were bound up with that of other members of a scholarly network. Hence, assaults on the reputation of one individual could soon affect his patrons and collaborators, demonstrating how fragile a patronage system was that seemed above all to be based on personal trust and to no small extent on hidden arrangements. A public controversy, such as the one erupting over the German scholars' recklessness

[1268] Humboldt, *Cosmos: a sketch of a physical description of the universe*, Vol. V (London, 1858), p. 438.
[1269] The work has equally argued that the Prussian King Frederick Wilhelm IV supported the Bavarian brothers to enhance his own prestige as an important benefactor of the arts and the sciences; and that the East India Company, while eager to receive useful knowledge and data from the explorers, also sought to portray itself as a protector and supporter of the sciences, not least to defend its political privileges.

and results, was a serious matter because it potentially challenged all the figures (and their own good names) within a wider circle of intimates.

In the case of the Schlagintweits, the British press ultimately revealed the structure of their network and prompted its members – above all the Royal Society magnate Edward Sabine and the RGS president Sir Roderick Murchison – to take sides: either to distance themselves to protect their own reputation, or to be outspokenly loyal to the disreputable brothers, thus risking their own good standing in doing so.[1270] An open polemic thus had a very different impact on the functioning of (transnational) scholarly networks than a private quarrel, because it enforced transparency. The long-established scholarly ties between the British and German scientific establishments, however, had worked best when the network around Humboldt, Ritter, Bunsen, Sabine, Murchison and others, had remained powerful in the background.

However, once the row over the brothers became a public concern, signifiers of personal scholarly authority held by members of this network turned into stigmas of corruption. A powerful example of the interplay between personal authority and network linkages is given by Sabine – the long-time intimate and collaborator of Humboldt. Sabine, since 1861 president of the Royal Society, had gained numerous Prussian distinctions and medals throughout his career, many of which had been secured by Humboldt for his British peer's contributions to the field of terrestrial magnetism. Yet, when British papers started, in 1861, to critically investigate the back door channels that had secured the Schlagintweits' appointment, Sabine was suddenly thrust into the spotlight as a man whose judgement could not be trusted. The influential *Athenaeum* thus demanded that 'scientific men will be consulted who have not received any Prussian decorations' – an open charge of jobbery against Sabine, who then ranked among the very few British scholars to still publicly defend the brothers' cause.[1271]

[1270] An important example was the crucial support Charles Darwin received after the publication of the watershed study on *The Origin of Species* (1859), which – against the 'Darwin myth' – did not topple the worldviews of Victorians overnight, but required prolonged public support by people like Huxley, Joseph Hooker, and others to validate his contested theories on natural selection; see Endersby, *Imperial Nature: Jospeh Hooker and the Practices of Victorian Science*, esp. its conclusion.

[1271] Review of 'Results of a Scientific Mission to India and High Asia', *Athenaeum*, 1764, pp. 215-16. Further discussions raged at that time over the question of whether additional British funds should be supplied to the brothers to facilitate their large-scale publications.

In other words, individual controversies affected the social and professional standing of wider circles, which in the brothers' case ultimately led to a gradual disentanglement of crucial ties within a transnational network. Of course, the fact that the specific network at the heart of this work gradually disintegrated is also explained by the departure from London of the widely respected Prussian envoy and Schlagintweit supporter Christian (von) Bunsen, as well as by the deaths of both Humboldt and Carl Ritter in 1859. Yet, in the brothers' case, the threat to their own reputation (and those of their British supporters) had this network ultimately imploded, and led them to search for alternative paths to support their later careers. Over the decades, their struggles for recognition turned the Schlagintweit brothers from Alpine scholars into colonial travellers, and ultimately 'heroes' and 'martyrs' of a *future* German empire whose experiences were rewritten many times to suit the ideological foundations of the freshly unified nation.

Archives:

GStA PK Berlin (=Geheimes Staatsarchiv Preußischer Kulturbesitz / Secret State Archives Prussian Cultural Heritage Foundation)

BA (=Bundesarchiv Berlin-Lichterfelde / German Federal Archives, Berlin-Lichterfelde)

SBB-PK (=Staatsbibliothek Berlin – Stiftung Preußischer Kulturbesitz / Berlin State Library – Prussian Cultural Heritage Foundation)

HU (=Humboldt-Universität Berlin, Wissenschaftliche Sammlungen / Humboldt University Berlin)

PA AA (=Politisches Archiv des Auswärtigen Amtes, Berlin / Political Archive of the Foreign Office, Berlin)

SMB-PK, MV (=Museum für Völkerkunde, Staatliche Mussen zu Berlin – Preussischer Kulturbesitz / Berlin Ethnological Museum)

AVH BBAW (=Alexander-von-Humboldt-Forschungsstelle der Berlin-Brandenburgischen Akademie der Wissenschaften / Alexander-von-Humboldt Scientific Research Centre)

SSMB (=Stiftung Stadtmuseum, Berlin / Foundation of the City Museum)

BSB (=Bayerische Staatsbibliothek München / Bavarian State Library Munich)

HStA (=Bayerisches Hauptstaatsarchiv München / Bavarian State Archive Munich)

FDH (=Freies Deutsches Hochstift (Frankfurt) – Goethehaus Frankfurt)

MfV (=Museum für Völkerkunde Dresden / Ethnographical Museum Dresden)

DAV (=Archiv des Deutschen Alpenvereins München / Archive of the Alpine Museum Munich)

UBF (=Universitätsbibliothek Freiburg im Breisgau / University Library, Freiburg)

FBG (=Forschungsbibliothek Gotha / Research Library Gotha)

DLM (=Deutsches Literaturarchiv Marbach / The German Literature Archive, Marbach)

FAM (=Fotoarchiv Marburg / Archive of Photography)

StAN (=Staatsarchiv Nürnberg / State Library Nuremberg)

StAB (=Staatsarchiv Bamberg / State Library Bamberg)

ORB (=Oberrheinische Bibliothek; Joseph Victor von Scheffel-Archiv)

SMV (=Staatliches Museum für Völkerkunde München / State Museum of Ethnology in Munich)

StM (=Stadtarchiv München, City Archive, Munich)

MKG (=Museum für Kunst und Gewerbe, Hamburg / Museum of Art and Industry)

DMM (=Deutsches Museum München / German Museum Munich)

HAAB (= Herzogin Anna Amalia Bibliothek, Stiftung Weimarer Klasik)

UAW (=Universitätsarchiv Würzburg / University Archive Würzburg) (ARS-Akte 1589)

ÖAV (=Österreichischer Alpenverein, Alpenverein-Museum, Innsbruck / Museum of the Austrian Alpine Society)

UAW (=Universitätsarchiv Wien / Archive of the University of Vienna)

ETH (=ETH-Bibliothek, Geologisches Institut und Sammlung, Zürich / Archive oft he Geological Institute, Zurich)

StAB (=Staatsarchiv Basel / Basel State Archives)

LUL (=Leiden University Library)

BL (=The British Library London)

BM (=The British Museum, London)

NA (=The National Archives, Kew (London))

RBGK (=Archive of the Royal Botanic Gardens, Kew)

RGS (=Archive of the Royal Geographical Society London)

RS (=Archive of the Royal Society London)

NPG (=National Portrait Gallery, London)

WL (=Wellcome Library, London)

EUL (= Edinburgh University Library)

GUL (=Glascow University Library, Scotland)

JC (=St John’s College Archive, Cambridge)

NAS (=The National Archives of Scotland, Edinburgh)

BnF (=Bibliothèque nationale de France, Paris / National Archives of France)

AdS (=Archives de l'Académie des Sciences Paris / Archives of the Academy of Sciences)

AN (=Paris, Archives Nationales / National Archives)

APS (=The American Philosophical Society)

YUL (=Yale University Library, Manuscripts & Archives)

HU (=Harvard University, Collections of the Department of History of Science)

TxU (=Harry Ransom Humanities Research Center*, University of Texas at Austin*)

JHU (=Special Collections Milton S. Eisenhower Library, The Johns Hopkins University)

UGL (=University of Georgia Libraries)

Published Sources

Journals:

Alcock, Rutherford, 'Address to the Royal Geographical Society', *Proceedings of the Royal Geographical Society*, 22 (1877), pp. 305-379.

Anon., 'Progress of Indian Maritime Surveys', *Journal of the Asiatic Society of Bengal*, I (Calcutta, 1832), pp. 327-334.

Anon., 'Mémoires Présentés', *Comptes rendus hebdomadaires des séances de l'Académie des Sciences*, 35 (Paris, 1852), pp. 17 and 102.

Anon., *Regensburger Zeitung*, 323, 23.11.1853, p. 1123.

Anon., *The Athenaeum: Journal of Literature, Science and the Fine Arts*, 1378, 25.3.1854, p. 376.

Anon., 'Our Weekly Gossip', *The Athenaeum*, 1379, 1.4.1854, pp. 407-8.

Anon., *The Englishman* (Calcutta), 3.4.1855 (unknown page, Collectanea critica).

Anon., *Allgemeine Zeitung*, Beilage zu No. 204, 23.7.1855 (München), pp. 3259-60.

Anon., 'Ostindien', *Allgemeine Zeitung München*, 258, 15.9.1855, pp. 4118-19.

Anon., 'Gossip of the Week', *The Literary Gazette: A Weekly Journal of Literature, Science, and the Fine Arts*, 5.9.1857, pp. 857-59.

Anon., 'Summary report', *The Literary Gazette* (London), 24.10.1857, p. 1023.

Anon., 'The latest Indian Mission', *The Athenaeum*, 1566, 31.10.1857, pp. 1358-59.

Anon., *Kladderadatsch; Das deutsche Magazin für Unpolitische*, 51 (Berlin), 8.11.1857, p. 206.

Anon., 'Schlagintweit's Vortrag in der Gesammtsitzung der kaiserlichen Akademie der Wissenschaften zu Wien', *Neue Münchener Zeitung*, 7.1.1858, p. 22.

Anon., 'Messrs. Schlagintweits' Indian Mission', *The Athenaeum*, 1580, 8.2.1858, pp. 178-9.

Anon., 'Mannigfaltiges', *Erheiterungen, Beiblatt zur Aschaffenburger Zeitung*, 43, 19.2.1858, pp. 171-72.

Anon., 'Notices of Books', *The Gardeners' Chronicle*, 27.2.1858, p. 155.

Anon., 'The New Museum at the India House', *The Observer*, 23.5.1858, (unknown pages, Collectanea critica).

Anon., 'Deutschland', *Laibacher Zeitung*, 194, 25.8.1858, p. 777.

Anon., 'A Visit to the East India Museum', *Leisure Hour*, 29.7.1858, pp. 469-73.

Anon., *Bonplandia: Zeitschrift für die Gesammte Botanik* (Hannover), 21, 15.11.1858, p. 383.

Anon., *Illustrirte Zeitung*, 804, 27.11.1858 (unknown pages, Collectanea critica).

Anon., 'Die Gebrüder Schlagintweit', *Die Gartenlaube*, 1858, (unknown date and page, Collectanea critica).

Anon., 'Ein Besuch im zoologischen Garten zu Berlin', *Die Gartenlaube*, 48, (1858), p. 687.

Anon., 'New Contributions to the India House Museum', *Star*, June 1859, (unknown pages, Collectanea critica).

Anon., *Bayerischer Kurier*, 125, 7.5.1859, p. 846.

Anon., *The Economist*, 24, 14.5.1859, p. 539.

Anon., 'Jahresbericht pro 1859', *Zeitschrift des Landwirthschaftlichen Vereins in Bayern*, 50 (1860), pp. 9-36.

Anon., *Landshuter Zeitung*, 103, 7.5.1859, p. 416.

Anon*., The Economist*, 24, 14.5.1859, p. 539.

Anon., *The Illustrated News of the World*, 2.7.1859.

Anon., *The Illustrated News of the World*, 23.7.1859.

Anon., *The Journal of the Asiatic Society of Bengal*, 28 (1859).

Anon., *Allen's Indian mail and register of intelligence for British and foreign India, China and all parts of the East* (London), 28.5.1859, p. 456.

Anon., 'The Resources of India and its Colonization', *The Universal Review*, 1 (London, 1859), pp. 343-62.

Anon., *The Art Journal* (London), 21, 1.11.1859, p. 350.

Anon., 'Zehnter Jahresbericht der naturhistorischen Gesellschaft zu Hannover', *Bonplandia: Zeitschr. Für d. Gesammte Botanik; Organ für Botaniker*, 21 (1860), pp. 333-41.

Anon., ‘Notizen’, *Deutsches Museum*, 32, 9.8.1860, p. 214.

Anon., *The Moreton Bay Courier* (Brisbane, Australia), 30.3.1861, p. 5.

Anon., *The Times*, 22.7.1861, (Innsbruck, Collectanea critica).

Anon., ‘Schlagintweit’s India and High Asia’, *The Saturday Review of Politics, Literature, Science and Art*, 300, 27.7.1861, pp. 97-98.

Anon., ‘Der Streit über den Gorilla und du Chaillu’, *Globus: Illustrierte Zeitschrift für Länder- und Völkerkunde*, 1, (1861), p. 121.

Anon., ‘Review of H., A. and R. Schlagintweit, Results of a Scientific Mission to India and High Asia’, *The Athenaeum*, 1764, 17.8.1861, pp. 215-16.

Anon., *The Athenaeum*, 1768, 14.9.1861, p. 342.

Anon., *Literary Gazette*, 176, 9.11.1861, p. 447.

Anon., ‘Gallerie ausgezeichneter Naturforscher der Neuzeit’, *Polytechnische Centralhalle: Zeitschrift für deutsche Industrie und Gewerbe*, 4 (1862).

Anon., ‘Zeitungs-Nachrichten’, *Bonplandia: Zeitschrift für die gesammte Botanik*, 9 (1862), p. 160.

Anon., ‘Neue deutsche Reisende’, *Westermanns illustrierte deutsche Monatshefte*, 12 (1862), p. 334.

Anon., *Bayerische Zeitung*, 22, 22.1.1863, p. 168.

Anon., ‘Neue englische Expedition nach Inner-Asien’, *Globus: Illustrierte Zeitschrift für Länder- und Völkerkunde*, 1, (1862), p. 94.

Anon., ‘Das Werk der Brüder Schlagintweit’, *Allgemeine Zeitung München*, 284, 11.10.1863, p. 4707.

Anon., ‘Science’, *The Westminster Review. American edition* (New York, 1863), pp. 117-124.

Anon., ‘Vaterländisches’, *Ingolstädter Tagblatt*, 129, 31.5.1864, p. 513.

Anon., ‘Lokal- und Provinzial-Chronik’, *Regensburger Anzeiger*, 148, 31.5.1864.

Anon., ‘Der dritte Band des Schlagintweit’schen Werks über Indien und Hochasien’, *Beilage der Deutschen Allgemeinen Zeitung*, 365, 8.8.1864, pp. 1551-52.

Anon., *The Nation,* 27.7.1865, (unknown page, Collectanea critica).

Anon., *The Illustrated London News*, 1352, 13.1.1866, p. 45.

Anon., *Allgemeine Zeitung* (Augsburg), 1.4.1866, p. 1484.

Anon., 'Hochasien und sein Handel', *Vorwärts!: Magazin für Kaufleute,* 16 (1866), pp. 36-39.

Anon., 'Ein tibetanischer Tempel', *Über Land und Meer: Allgemeine illustrirte Zeitung* (Stuttgart), 17.11.1866, pp. 140-42.

Anon., 'Chronicles of Science', *The Quarterly Journal of Science*, 4 (1867), p. 407.

Anon., 'Die Offiziere der trigonometrischen Vermessung Indiens'. *Rigaer Zeitung*, 7 and 12.2.1868.

Anon., *Literarisches Centralblatt für Deutschland*, 18, 24.4.1869, p. 513.

Anon., 'Review of General Francis Rawdon Chesney, Narrative of the Euphrates Expedition', *The Athenaeum*, 2201, 1.1.1870, p. 18.

Anon., 'Royal Geographical Society', *The Nautical Magazine*, 40 (1871), pp. 398-413.

Anon., 'Die Thätigkeit des Vorstandes der Gesellschaft für Erdkunde zu Berlin […] Expedition auf die Erforschung Aequatorial-Afrika's', *Zeitschrift der Gesellschaft für Erdkunde*, 8 (Berlin, 1873).

Anon., *St. Petersburger Herold*, 8 August/27 July 1887; Bayer. Hauptstaatsarchiv, MA 53157, appendix to doc. 3.

Anon., 'Obituary for Heinrich Kiepert', *The Geographical Journal*, 13 (1899), pp. 667-668.

Anon., 'Obituary of Wilhelm Heinrich Waagen', *Geological Magazine*, 7 (Cambridge, 1900), p. 432.

Ashburton, Lord, 'Lord Ashburton's Address, 26 May 1862', *Proceedings of the Royal Geographical Society*, 6 (London, 1862), pp. 121-192.

Beechey, Frederick William, 'Address to the RGS of London; Delivered at the Anniversary Meeting on the 26 May, 1856', *Journal of the RGS*, 26 (1856), pp. clxxi-ccxxxiv.

Elliot, Captain C. M., 'Magnetic Survey of the Eastern Archipelago', *Philosophical Transactions of the Royal Society*, 141 (London, 1851), pp. 287-331.

Gesellschaft für Erdkunde zu Berlin, 'Die Thätigkeit des Vorstandes der Gesellschaft für Erdkunde zu Berlin … Expedition auf die Erforschung Aequatorial-Afrika's', *Zeitschrift der Gesellschaft für Erdkunde*, 8 (Berlin, 1873), 'Erster Aufruf', pp. 170-1.

Golubief, Captain, 'Observations on the Astronomical points determined by the

brothers Schlagintweit in Central Asia', *Journal of the Asiatic Society of Bengal*, 35 (1867), pp. 46-50.

Grote, Arthur, 'Minutes of Proceedings, December 1860', *Journal of Asiatic Society of Bengal*, 29 (1861), pp. 440–453.

Hayward, G. W., 'Journey from Leh to Yarkand and Kashgar, and Exploration of the Sources of the Yarkand River', *Journal of the RGS*, 40 (1870), pp. 33-167.

Hügel, Carl von, 'Introduction', *Denkschriften der Kaiserl. Akademie der Wissenschaften, Phil.-Hist. Classe*, II (Vienna, 1851), pp. 119-188.

Leibing Franu, 'Wandervorträge', *Der Bildungsverein*, 33, 19.8.1874.

Marthe, F. 'Russland in Innerasien', *Im Neuen Reich. Wochenschrift für das Leben des deutschen Volkes in Staats, Wissenschaft und Kunst*, 1 (1871), pp. 216-225.

Maury, Alfred, 'Rapport sur les travaux de la Société de Géographie, et sur les progrès des sciences géographiques pendant l'année 1858', *Bulletin de la Société de Géographie*, 17 (Paris, 1859), pp. 5-110.

Mitra, Rajendralal, 'Proceedings of the Asiatic Society, for March 1855', *The Journal of the Asiatic Society of Bengal*, 24 (1855), pp. 183-189.

Murchison, Sir Roderick Impey, 'Address at the Anniversary Meeting, 24th May, 1852', *Journal of the RGS*, 23 (1853), pp. lxii-cxxxviii.

———, 'Address to the Royal Geographical Society of London, 25th May, 1857', *Journal of the RGS*, 27 (1857), pp. xciv-cxcviii.

———, 'Address to the Royal Geographical Society of London, 23rd May 1859', *Proceedings of the RGS*, 3 (1858-59), pp. 224-346.

Petermann, August, 'Die Erforschung des Himalaya. Durch Adolph, Hermann und Robert Schlagintweit', *Petermanns Geographische Mitteilungen*, 1 (Gotha, 1855), pp. 142-145.

———, 'Skizze zur Uebersicht der Reiserouten der Gebrüder Schlagintweit in Indien', vom 5. Nov. 1854 bis 26. Februar 1856, in idem, 'Die Reisen der Gebrüder Schlagintweit in Indien bis zum 26. Febr. 1856', *Petermanns Geographische Mitteilungen*, 2 (Gotha, 1856), pp. 104-108.

———, 'Hermann Schlagintweits Reise nach Sikkim und Assam, April bis Dezember 1855', *Mittheilungen aus Justus Perthes' geographischer Anstalt*, 2 (1856), pp. 272-277.

———, 'Dr. D. Livingstone's Reisen in Süd-Afrika, 1841 bis heute', *Mittheilungen aus Justus Perthes' Geographischer Anstalt über wichtige neue*

Erforschungen auf dem Gesammtgebiete der Geographie, 3 (1857), pp. 91-108.

———, 'Kartenskizze von Africa zur vergleichenden Übericht der Reisen Dr. Barth's und Dr. Livingstone's', *Petermanns Geographische Mitteilungen*, 3 (1857), Tafel 3.

———, 'Th. v. Heuglin's Expedition nach Wadai', *Petermanns Geographische Mitteilungen*, 6 (1860), p. 318.

Pinchot, Gifford, 'Sir Dietrich Brandis', *Indian Forester*, 35 (1909), pp. 68-80.

Richthofen, Ferdinand von, 'Bericht über den internationalen geographischen Congress in Paris', *Verhandlungen der Gesellschaft für Erdkunde zu Berlin*, II (1875), pp. 182-94.

Ritter, Carl, 'Ueber die wissenschaftliche Reise der drei Gebrüder Schlagintweit in Indien. Nach Original-Documente und Briefen im Auszuge mitgetheilt (Mitte Juli)', *Zeitschrift für allgemeine Erdkunde*, 5 (Berlin, 1855), pp. 148-171.

Ritter, Carl, 'Sitzung der geographischen Gesellschaft zu Berlin, vom 9.1.1858', *Zeitschrift für allgemeine Erdkunde*, 4 (Berlin, 1858), pp. 87-88.

Roquette, Jean Baptiste Marie Alexandre de la, 'Note Dr M de la Roquette sur des ouvrages offerts par MM. Schlagintweit et sur leur prochain voyage dans l'Inde; Lue à la séances de la Commission centrale du 20 Octobre 1854', *Bulletin de la Société de géographie*, 7 (Paris, 1854), pp. 229-32.

———, 'Rapport sur le Prix Annuel, pour la découverte la plus Importante en Géographie pendant le cours de l'année 1856', in *Bulletin de la Société de géographie*, 17 (Paris, 1859), pp. 226-245.

Royal Commission on Scientific Instruction and the Advancement of Science, Reports, Vol. 2, *Minutes of evidence, appendices, and analyses of evidence* (London, 1874).

Sabine, Edward, 'A Memorandum regarding Magnetic Surveys which have originated, or been promoted by the British Association for the Advancement of Science', *Report of the twenty-ninth meeting of the British Association for the Advancement of Science* (London, 1860), pp. xxxvii-xxxix.

Schlagintweit, Hermann, 'Die Gletscher des Oetzthales', *Allgemeinen Zeitung,* 13, 13.1.1848.

Schlagintweit, Hermann, 'Über Messinstrumente mit constanten Winkeln (Linsen- und Prismenporrhometer', *Dingler's polytechn. Journal*, 112 (1849), pp. 334-356.

Schlagintweit, Adolph, 'Schreiben des Herrn A. Schlagintweit an Herrn A. v.

Humboldt. Bombay, den 10. November 1854', *Zeitschrift der Gesellschaft für Erdkunde zu Berlin*, 3 (Berlin, 1854), pp. 338-340.

Schlagintweit, Adolph, 'Summary of the principal Results of the Investigations of himself and his brother into the Vegetation of the Alps', *Proceedings of the Linnaean Society of London*, 2 (London, 1855), pp. 102-105.

'Hermann Schlagintweits Reise nach Sikkim und Assam', *Mittheilungen aus Justus Perthes' geographischer Anstalt*, 2 (Gotha, 1855), pp. 272-277.

Schlagintweit, Adolph, Hermann and Robert, [10] *Reports on the Proceedings of the Officers Engaged in the Magnetic Survey of India* (Madras, Calcutta, etc., 1855-57).

Schlagintweit, Adolph, Hermann, and Robert, 'On the Temperature and Density of the Seas between Southampton and Bombay *via* the Mediterranean and Red Seas, communicated by the Court of Directors of the Honourable East India Company, Presented by Professor Stokes, RS, Received 11 January, 1855', *Proceedings of the Royal Society of London: 1854-55*, 7 (London, 1856), pp. 242-245.

Schlagintweit, Adolph and Robert, 'Notices of Journeys in the Himalayas of Kemaon (communicated by Col. Sykes, F.R.S)', *Report of the 25th Meeting of the British Association for the Advancement of Science* (London, 1856), 'Notices and Abstracts of Miscellaneous Communications to the Sections', pp. 152-155.

Schlagintweit, Hermann and Robert, 'Aperçu sommaire des résultats de la Mission scientifique dans l'Inde et la Asie', *Extrait des Comptes rendus des séances de l'Académie des sciences*, 45 (Paris, 1857), pp. 1-7.

Schlagintweit, Hermann, and Robert 'Menschenracen in Indien und Hochasien', *Monatsberichte der Königl. Preuss. Akademie der Wissenschaften zu Berlin* (Berlin, 1859), pp. 248-55.

Schlagintweit, Hermann and Robert, 'Official Reports on the last Journeys and the death of Adolphe Schlagintweit in Turkistàn', *The Madras journal of literature and science*, 4 (1859), pp. 304-32.

Schlagintweit, Emil, [*anonymously published*] 'Ein Besuch der Jägersburg und der Schlagintweit'schen Sammlungen', *Morgenblatt zur Bayerischen Zeitung*, Nrs. 326-7, 23/26 Nov. 1864, pp. 1110-11; 1114-1115.

Schlagintweit, Robert, 'Physikalisch-geographische Schilderung von Hochasien', *Petermanns Geographische Mittheilungen*, 11 (1865), pp. 361-377.

Schlagintweit, Robert, 'Ein Besteigungs-Versuch des Ibi Gamin Gipfels in Hochasien', *Gaea, Natur und Leben*, 4 (Cologne and Leipzig, 1868), pp. 313-322; 373-378.

Schlagintweit, Hermann, ‘Angaben zur Charakteristik der Kru-Neger’, *Sitzungsber. d. math.-phys. Cl. d. K. Bayr. Akad. d. Wiss*., V (1875), pp. 178-201.

Schlagintweit, Hermann, ‘Bericht über Anlage des Herbariums während der Reisen nebst Erläuterung der topographischen Angaben’, *Abh. d. H Cl. d. k. Ak. d. Wiss. XII, 3 Abth*., 12 (Munich, 1876), pp. 133-196.

Schlagintweit, Hermann, ‘Die Auswahl von 12 Aquarellen für das k. Handzeichnungs-Cabinett im Jahre 1880’, *Sitzungsberichte der Ak. München, math. phys. Klasse*, 10 (1880), pp. 517-522.

Schlagintweit, Emil, ‘Bericht über das Denkmal für Adolf Schlagintweit in Kaschgar’, *Sitzungsberichte der Bayer. Akad. d. Wiss., histor. Kl.* (1890), pp. 457-472.

Strachey, Henry, ‘Note on the construction of the map of the British Himalayan frontier in Kumaon and Garhwal’, *Journal of the Asiat. Soc. of Bengal*, 17 (1848), pp. 532-538.

Strachey, Richard, ‘The Physical Geography of the Provinces of Kumáon and Garhwál in the Himalayan Mountains, and of the Adjoining Parts of Tibet’, *Journal of the RGS*, 21 (1851), pp. 57-85.

Valikhanof, Chokan, ‘Information about the circumstances which led to Adolph Schlagintweit’s death’, *Proceedings of the Russian Imperial Geographical Society*, 1 (1861), pp. 14-24.

Walker, John, ‘The Great Trigonometrical Survey of India’, *The Calcutta Review*, 16 (Calcutta, 1851), pp. 514-540.

Waugh, A. S., ‘The Great Trigonometrical Survey of India. By Lieut.-Colonel A. S. Waugh’, *Professional Papers on Indian Engineering*, 2 (Calcutta et al., 1865), pp. 285-300.

Zailler, Joseph, ‘Wandersammlung bayerischer Landwirthe zu Forchheim’, *Zeitschrift des Landwirthschaftlichen Vereins in Bayern*, 59 (1869), pp. 359-68.

Books:

Allgemeine Realencÿklopädie oder Conversationslexikon für alle Stände, 7 (Regensburg, 1869).

Hermann Meyer (ed.), *Neues Konversations-Lexikon, ein Wörterbuch des allgemeinen Wissens*, 8 (Hildburghausen, 1864).

Balfour, Edward, *The Second Supplement, with Index, to the Cyclopaedia of India and of Southern Asia, Commercial, Industrial and Scientific: Products of the Mineral, Vegetable and Animal Kingdoms, Useful Arts and Manufactures* (Madras, 1862).

Beveridge, Henry, *A comprehensive history of India, civil, military and social: from the first landing of the English, to the suppression of the Sepoy revolt*, III Vols. (London, 1858-62).

Blanford, Henry Francis, 'On the Cretaceous and other Rocks of the South Arcot and Trichinopoly Districts, Madras', in *Memoirs of the Geological Survey of India,* 4 (Calcutta, 1862), pp. 1-222.

Brand, Max von, *Dreiunddreißig Jahre in Ost-Asien. Erinnerungen eines deutsches Diplomaten*, II Vols. (Leipzig, 1901).

Bruhns, Karl, *Life of Alexander Von Humboldt*, II Vols. (London, 1873).

Buckland, C.E., *Dictionary of Indian biography* (London, 1906).

Dammer, Otto (ed.)*, Meyers Deutsches Jahrbuch für die politische Geschichte und die Kulturfortschritte der Gegenwart*, 2nd edn., (Hildburghausen, 1872).

Davis, Joseph Barnard and John Thurnam, *Crania britannica: delineations and descriptions of the skulls of the early inhabitants of the British Isles* (London, 1856).

Davies, R. H., *Punjab (India) Report on the trade and resources of the countries on the north-western boundary of India* (Lahore: Printed at the Government Press, 1862), [*Punjab Trade Report*].

Dod, Robert P., *The Peerage, Baronetage and Knightage, of Great Britain and Ireland, for 1865* (London, 1865).

Drew, Frederic, *The Jummoo and Kashmir Territories* (London, 1875; (reprint: Graz 1976, Karachi 1980).

Driver, John E. Stapleton*, A descriptive catalogue of the Tibetan manuscripts held at The Bodleian Library,* revised by David Barrett (Oxford, 1993).

Faraday, Michael, *The Correspondence of Michael Faraday*, VI Vols., edited by F.A.J.L. James (London, 1991-2012).

Forbes Watson, J., *A classified and descriptive catalogue of the Indian Department, by J. Forbes Watson, Reporter on the Products of India; Director &c Indian Department, International Exhibition*, 2 (London, 1862).

Friedel, Ernst, *Die Gründung preußisch-deutscher Colonien im Indischen und Großen Ocean mit besonderer Rücksicht auf das östliche Asien, eine Studie im Gebiete der Handels- und Wirthschafts-Politik* (Berlin, 1867).

Ganzenmüller, Konrad, *Tibet: Nach den Resultaten Geographischer Forschungen früherer und neuester Zeit* (Stuttgart, 1877).

Geological Survey of India, *Records of the Geological Survey of India*, Part 1, (Calcutta, 1871).

Goedsche, Hermann [alias Sir John Retcliffe], *Nena Sahib oder Die Empörung in Indien. Historisch-politischer Roman aus der Gegenwart (Nena Sahib or the Uprising in India: Historical-political Novel of the Present Times),* III Vols. (Berlin, 1858-59).

Grimm, Jacob and Wilhelm, *Deutsches Wörterbuch von Jacob und Wilhelm Grimm*, XVI Vols. (Leipzig, 1854-1961).

Günther, Albert, 'Das Sammeln von Reptilien, Batrachiern und Fischen', In Georg von Neumayer (ed.), *Dr. von Neumayers Anleitung zu wissenschaftlichen Beobachtungen auf Reisen Anleitung zu wissenschaftlichen Beobachtungen auf Reisen in Einzel-Abhandlungen*, 2 (1906), pp. 561-594.

Herschel, John, *Report of the Ninth Meeting of the British Association for the Advancement of Science, Birmingham 1839* (London, 1840).

Hooker, Joseph Dalton and Thomas Thomson, *Flora Indica: Being a Systematic Account of the Plants of British India* (London, 1855).

House of Commons, *Fourth Report from the Select Committee on Colonization and Settlement (India), together with the Proceedings of the Committee, Minutes of Evidence, and Appendix* (London, 1858).

Howarth, Osbert John Radcliffe, *The British Association for the Advancement of Science: a retrospect 1831-1921* (London, 1922).

Hügel, Carl von, *Kaschmir und das Reich der Siek*, IV Vols. (Stuttgart, 1840-1848).

———, *Das Kabul-Becken und die Gebirge zwischen dem Hindu-Kosch und der Sutlej* (Vienna, 1851-1852).

Humboldt, Alexander von, *Essai Politique sur le Royaume de la Nouvelle-Espagne* (Paris, 1808-1811).

———, *Personal narrative of travels to the equinoctial regions of the New Continent,*

during the years 1799-1804. By Alexander de Humboldt, and Aimé Bonpland; with maps, plans, &c. written in French by Alexander de Humboldt, and trans. into English by Helen Maria Williams, VII Vols. (London, 1814-1829).

———, *Essai politique sur l'île de Cuba* (Paris, 1826).

———, *Fragments de geólogie et de climatologie asiatique* (Paris, 1831).

———, *Asie Centrale. Recherches sur les chaînes de montagnes et la climatologie comparée*, III Vols. (Paris, 1843).

———, *Cosmos: a Sketch of a Physical Description of the Universe*, transl. by E. C. Otté, V Vols. (London, 1849-1858).

———, *Letters of Alexander von Humboldt written between the years 1827 and 1858 to Varnhagen von Ense. Together with extracts from Varnhagens diaries* (London, 1860).

———, *Briefwechsel Alexander von Humboldts mit Heinrich Berghaus aus den Jahren 1825 bis 1858*, edited by Hermann Costenoble, III Vols. (Jena, 1863).

———, *Briefe von A. von Humboldt an C. C. J. Freiherr von Bunsen* (Leipzig, 1869).

———, *Briefe von Alexander von Humboldt an Christian Carl Josias Bunsen,* newly ed. By Ingo Schwarz (Berlin, 2006).

———, *Alexander von Humboldt – Carl Ritter. Briefwechsel*, ed. by Ulrich Päßler (Berlin, 2010).

Huxley, Leonard (ed.), The life and letters of Thomas Henry Huxley. By his son Leonard Huxley, 2 Vols. (London, 1900).

———, *Life and Letters of Sir Joseph Dalton Hooker*, II Vols. (London, 1918).

Kiepert, Heinrich, *Neuer Handatlas über alle Teile der Erde. Entworfen und Bearbeitet von Dr. Heinrich Kiepert* (Berlin, 1855-1860).

Klotzsch, Friedrich and August Garcke (eds.), *Die Botanischen Ergebnisse der Reise des Prinzen Waldemar von Preussen in den Jahren 1845 und 1846, durch Dr. Werner Hoffmeister ... auf Ceylon, dem Himalaya und an den Grenzen von Tibet gesammelten Pflanzen* (Berlin, 1862).

Königliche Museen zu Berlin (ed.), *Zur Geschichte der Königlichen Museen in Berlin. Festschrift zur Feier ihres fünfzigjährigen Bestehens am 3. August 1880* (Berlin, 1880).

Kutzner, Johann Gottlieb (ed.), *Die Reise Seiner Königlichen Hoheit des Prinzen Waldemar von Preußen nach Indien in den Jahren 1844 bis 1846: aus dem darüber erschienenen Prachtwerke im Auszuge; mit dem Portrait des Prinzen, vier Karten und vier Schlachtplänen* (Berlin, 1857).

Latham, Gordon, *Descriptive Ethnology*, II Vols. (London, 1859).

Laurie, William Ferguson Beatson, *Distinguished Anglo-Indians* (London, 1887).

Lenz, Max, *Geschichte der Königlichen Friedrich-Wilhelms-Universität zu Berlin*, IV Vols. (Halle a.d.S., 1910-18).

Lepsius, Karl Richard, *Denkmäler aus Ägypten und Äthiopien. Nach den Zeichnungen der von seiner Majestät dem Könige von Preussen Friedrich Wilhelm IV. nach diesen Ländern Gesendeten und in den Jahren 1842-1845 ausgeführten wissenschaftlichen Expedition*, XII Vols. (Berlin, 1849-1859; reprint Geneva, 1972).

Mann, Gustav, *Progress Report of Forest Administration in the Province of Assam* (Shillong, 1874-88).

Markham, Clements Robert, *A memoir on the Indian surveys* (London, 1871).

Mindt, Erich, *Der Erste war ein Deutscher! Kämpfer und Forscher jenseits der Meere* (Berlin, 1942).

Montgomery, Robert, *Maps accompanying report on the trade and resources of the countries on the north western boundary of British India* (Lahore, Government Press, 1862).

Müller, Friedrich Max, *Essays: Erster Band. Beiträge zur vergleichenden Religionswissenschaft* (Leipzig, 1869).

Müller, Friedrich Max, *Chips from a German Workshop*, *Vol. III, Essays on literature, biography, and antiquities* (New York, 1871).

Meyer, Hermann (ed.), *Neues Konversations-Lexikon; ein Wörterbuch des allgemeinen Wissens*, (1864).

Meyers Konversationslexikon, 4th edn., XIX Vols. (Leipzig et al., 1885-92).

Meyer von Knonau, G., 'Rütimeyer, Karl Ludwig', *Allgemeine Deutsche Biographie*, 53 (1907), pp. 654-657.

Orlich, Leopold von, *Reise in Ostindien in Briefen an A. v. Humboldt und Karl Ritter [Voyage in the East Indies in letters to A. v. Humboldt and Carl Ritter]*, II Vols. (Leipzig, 1845).

Peschels, Oscar, *Völkerkunde*, 2. edn. (Leipzig, 1875).

Petrovskij, N. F., *Turkestanskie Pis'ma* [*Turkestan Letters*], ed. by V. S. Miasniko (Moscow, 2010).

Phillimore, Reginald Henry, *Historical Records of the Survey of India*, IV Vols.

(Dehra Dun, 1945-58).

Pinchot, Gifford, *Breaking New Ground* (New York, 1947).

Quatrefages, Armand de and Ernest T. Hamy, *Les crânes des races humaines*, II Vols. (Paris, 1876-82).

Ranking, James Lancaster, *Report upon the military and civil station of Trichinopoly* (Madras, 1867).

Reeve, Lovell, *Portraits of men of eminence in literature, science, and art*, 1 (London, 1863).

Ratzel, Friedrich, 'Orlich, Leopold von', *Allgemeine Deutsche Biographie*, 24 (1887), pp. 424-426.

Ratzel, Friedrich, *The History of Mankind*, transl. by A. J. Butler, III Vols. (London, 1896-98).

Richter, Hermann M., *Die leitenden Ideen und der Fortschritt in Deutschland von 1860 bis 1870* (Nördlingen, 1873).

Ritter, Carl, *Die Erdkunde im Verhältniß zur Natur und zur Geschichte des Menschen, oder allgemeine, vergleichende Geographie, als sichere Grundlage des Studiums und Unterrichts in physikalischen und historischen Wissenschaften,* 2. stark vermehrte und verbesserte Ausgabe in 19 Teilen [Comparative Geography] (Berlin 1832-1859).

Rose, Gustav, *Mineralogisch-geognostische Reise nach dem Ural, dem Altai and dem Kaspische Meere*, II Vols. (Berlin, 1837-42).

Rotteck, Carl von, *Allgemeine Geschichte vom Anfang der historischen Kenntniss bis auf unsere Zeiten*, 2, 20th edn. (Braunschweig, 1858).

Russell, Sir William Howard, *My diary in India, in the year 1858-9*, II Vols. (London, 1860).

Savage Landor, Arnold Henry, *In the forbidden land: an account of a journey in Tibet, capture by the Tibetan authorities, imprisonment, torture, and ultimate release* (London, 1899).

Schenck, Carl Alwin, *The birth of forestry in America: Biltmore Forest School, 1898-1913* (Santa Cruz, CA, 1974).

Scherzer, Karl von, *The Circumnavigation of the Globe by the Austrian frigate Novara. Undertaken by order of the Imperial Government in the years 1857-59,* II Vols. (London, 1861).

Scheuchzer, Johann Jacob, *Natur-Historie des Schweizerlandes*, III Vols. (Zurich, 1716-18).

Schlagintweit, Joseph, *Ueber den gegenwärtigen Zustand der künstlichen Pupillenbildung in Deutschland* (Munich, 1818).

———, *Entwurf zur neuen Organisation des Medicinal-Armenwesens der Haupt- und Residenzstadt München* (Munich, 1828).

———, *Praktische Erfahrungen und Beobachtungen über die epidemische Brechruhr in München* (Munich, 1837).

Schlagintweit, Adolph, *Ueber die Ernährung der Pflanzen mit besonderer Rücksicht auf die Bedingungen ihres Gedeihens in verschiedenen Höhen der Alpen* (Munich, 1850).

Schlagintweit, Hermann, *Über die Vertheilung der mittleren Jahrestemperatur in den Alpen. Habilitationsschrift* (Munich, 1850).

Schlagintweit, Hermann and Adolph, *Untersuchungen über die physicalische Geographie der Alpen in Beziehungen zu den Phänomen der Gletscher, zur Geologie, Meteorologie und Pflanzengeographie* (Leipzig, 1850).

Schlagintweit, Hermann, *Observations sur la hauteur du Mont-Rose et des points principaux de ses environs* (Turin, 1853).

———, *Neue Untersuchungen über die physikalische Geographie und die Geologie der Alpen* (Leipzig, 1854).

Schlagintweit, Adolph, *Épreuves de cartes géographiques produites par la photographie d'après les reliefs du Mont-Rose et de la Zugspitze* (Leipzig, 1854).

Schlagintweit, Robert, *Bemerkungen über die physikalische Geographie des Kaisergebirges* (Munich, 1854).

Schlagintweit, Hermann and Robert, *Officielle Berichte über die letzten Reisen und den Tod von Adolph Schlagintweit* (Berlin, 1859).

Schlagintweit, Hermann and Robert, *Prospectus of Messrs. de Schlagintweits' Collection of Ethnographical Heads from India and High Asia*, 2nd. edn. (Leipzig, 1859).

Schlagintweit, Hermann, Adolph, and Robert, *Prospectus: Results of a scientific mission to India and High Asia* (Leipzig, 1860).

Schlagintweit, Robert von, 'On Thermo-barometers, compared with Barometers at Great Heights', *British Association for the Advancement of Science. Thirtieth Meeting, Oxford, 1860* (London, 1861), pp. 50-51.

Schlagintweit, Hermann, Adolph and Robert, *Results of a Scientific Mission to India and High Asia*, IV Vols., plus *Atlas* (Leipzig and London, 1861-65):

Vol. I, Astronomical determinations of latitudes and longitudes and magnetic observations: during a scientific mission to India and High Asia, by H., A. and R. de Schlagintweit (1861);

Vol. II, *General Hypsometry of India, The Himálaya, and Western Tíbet. With sections across the Chains of the Karakorum and Kuenluen, comprising, in addition to messrs. De Schlagintweits' determinations, the data collected from books, maps, and private communications, ed. by Robert de Schlagintweit* (1862);

Vol. III, *Route-book of the western parts of the Himalaya, Tibet, and Central Asia: and geographical glossary from the languages of India and Tibet, including the phonetic transcription and interpretation / by H., A., and R. de Schlagintweit* (1863);

Vol. IV, *Meteorology of India, an analysis of the physical conditions of India, the Himalaya, western Tibet, and Turkistan ... : based upon observations made by Messrs. de Schlagintweit ... and increased by numerous additions chiefly obtained from the officers of the medical departments* (1866);

Accompanying Atlas-Volume: *Atlas of panoramas and views, with geographical, physical, and geological maps: dedicated to Her Majesty the Queen of England*, (1861-1866).

Schlagintweit, Emil, *Buddhism in Tíbet illustrated by literary documents and objects of religious worship* (Leipzig, 1863).

Schlagintweit, Hermann, *Das Scalenrädchen* (Würzburg, 1866).

Schlagintweit, Hermann and Robert von, *Allgemeiner naturgeschichtlicher Catalog der v. Schlagintweit'schen Sammlungen Schloss Jägersburg*, Juli 1868 (no place).

Schlagintweit, Hermann, *Reisen in Indien und Hochasien: Eine Darstellung der Landschaft, der Cultur und Sitten der Bewohner, in Verbindung mit klimatischen und geologischen Verhältnissen*, *Basirt auf die Resultate der wissenschaftlichen Mission von Hermann, Adolph und Robert von Schlagintweit.* IV Vols. (Jena, 1869-1880).

Vol. I, Indien (1869);

Vol. II, Hochasien: I. der Himalaya von Bhutan bis Kashmir (1871)

Vol. III, Hochasien: II. Tibet; wzischen der Himalaya- und der Karakorum-Kette (1872);

Vol. IV, Hochasien: II. Ost-Turkistan und Umgebungen (1880).

Schlagintweit, Hermann von, *Das Kaisserreich Ostindien und die angrenzenden*

Gebirgsländer, compiled by W. Werner (Jena, 1884).

Schwarz, Bernhard, *Die Erschließung der Gebirge* (Leipzig, 1885).

Scrutator [pseudonym], *The Indian Mutiny* (London, 1857).

Seemann, Berthold Carl, *The botany of the voyage of H.M.S. Herald, under the command of Captain Henry Kellett ... during the years 1845-51* (London, 1852-1857).

Sievers, Wilhelm, *Asien. Eine allgemeine Landeskunde* (Leipzig et al., 1892).

Smithsonian Institution, *Annual Report of the Board of Regents* (Washington, 1863).

Spamers Illustrierte Weltgeschichte, XI Vols. (Leipzig, 1893-1898).

Stein, Christ. Gottfr. Dan*., Kleine Geographie oder Lehrbuch der Erd- und Länderkunde für Schule und Haus (*Leipzig*,* repr. 1855).

The International Exhibition of 1862. The Illustrated Catalogue of the Industrial Department, Volume III., Colonial and Foreign Divisions (India), Class I (London 1863).

Torrens, Henry D'Oyley, *Travels in Ladak, Tartary and Kashmir* (London, 1862).

Upham, Edward, *The history and doctrine of Budhism, populary illustrated; with notices of the Kappooism, or Demon Worship, and of the Bali, or Planetary Incantations, of Ceylon* (London, 1829).

Valikhanof, Chokan, and M. Veniukof, *The Russians in Central Asia: their occupation of the Kirghiz steppe and the line of the Syr-Daria: their political relations with Khiva, Bokhara, and Kokan: also descriptions of Chinese Turkestan and Dzungaria* (London, 1865).

Vambéry, Ármin, *Westlicher Kultureinfluss Im Osten* (Berlin, 1906).

Verne, Jules, *Five Weeks in a Balloon [Cinq semaines en ballon]* (Paris, 1863).

———, *In Search of the Castaways [Les Enfants du capitaine Grant]* (Paris, 1868).

———, *The Steam House [La maison à vapeur]* (Paris, 1880).

———, *Robur the Conqueror [Robur-le-Conquérant]* (Paris, 1886).

———, *Claudius Bombarnac: The Adventures of a Special Correspondent* (Paris, 1892; repr. 2008, Rockville, Maryland).

Wagener, Hermann, 'Schlagintweit', in idem (ed.), *Staats- und Gesellschafts-Lexikon: neues Conversations-Lexikon*, 18 (Berlin, 1865), pp. 260-4.

Wagner, Hermann, *Biologische Geographie*, 10th edn. (Hannover, 1923).

Watkins, John and Frederick Shoberl, *A Biographical Dictionary of the Living Authors of Great Britain and Ireland* (London, 1816).

Wright, Thomas, *The royal dictionary-cyclopædia, for universal reference*, V Vols. (London and New York, 1862-67).

W. F. A. Zimmermann, *Malerische Länder- und Völkerkunde ... unter besonderer Berücksichtigung der neuesten Entdeckungensreisen von ... Humboldt, Schlagintweit, Barth, Livingstone, Vogel [et. al]*, VIII Vols. (Berlin, 1861).

Yule, Henry, et al. (eds.), *Hobson-Jobson: A Glossary of Colloquial Anglo-Indian Words and Phrases, and of Kindred Terms, Etymological, Historical, Geographical, and Discursive* (London, 1903).

Secondary Literature:

Aguiar, Marian, *Tracking Modernity: India's Railway and the Culture of Mobility* (Minneapolis, 2011).

Alavi, Seema, 'Fugitive Mullahs and Outlawed Fanatics': Indian Muslims in nineteenth century trans-Asiatic Imperial Rivalries', *Modern Asian Studies*, 45 (2011), pp. 1337-1382.

Altick, Richard Daniel, *The Shows of London: A Panoramic History of Exhibitions, 1600-1862* (Cambridge, Mass., 1978).

Anderson, Katherine, *Predicting the Weather. Victorians and the Science of Meteorology* (Chicago, 2005).

Anderson, Benedict, *Imagined communities. Reflections on the Origin and Spread of Nationalism*, rev. edn. (London, 2006).

Armitage, Geoff, 'The Schlagintweit Collections', *Indian Journal of History of Science*, 24 (1989), pp. 67-83.

Arnold, David (ed.), *Imperial Medicine and Indigenous Societies: Disease, Medicine and Empire in the nineteenth and twentieth centuries* (Manchester, 1988).

———, 'The place of "the tropics" in Western medical ideas since 1750', *Tropical Medicine and International Health*, 2 (1997), pp. 303-313.

———, *Science, Technology and Medicine in Colonial India*, New Cambridge History of India III, 5 (Cambridge and New York, 2000).

———, *The tropics and the traveling gaze: India, landscape, and science, 1800-1856* (Seattle, 2006).

———, 'Hodgson, Hooker and the Himalayan Frontier, 1848-50', in David M. Waterhouse (ed.), *The Origin of Himalayan Studies: Brian Hodgson in Kathmandu and Darjeeling, 1820-1858* (Abington et al., 2004), pp. 189-205.

———, 'Plant Capitalism and Company Science: the Indian Career of Nathaniel Wallich', *Modern Asian Studies*, 42 (2008), pp. 899-928.

Appadurai, Arjun, *Modernity at large: cultural dimensions of globalization* (Minneapolis, 1996).

Alckens, August, *München in Erz und Stein* (Marburg, 1973).

Bailey, Scott C., 'A Biography in Motion: Chokan Valikhanov and His Travels in Central Eurasia', *Ab Imperio*, 1 (2009), pp. 165-190.

Ballantyne, Tony, 'Rereading the Archive and Opening Up the Nation-State: Colonial

Knowledge in South Asia (and Beyond)', Antoinette Burton (ed.), *After the Imperial Turn: Thinking with and through the Nation* (Durham: NC, 2003), pp. 102-121.

———, 'Strategic Intimacies: Knowledge and Colonization in Southern New Zealand', *Journal of New Zealand Studies* NS14 (2013), pp. 4-18.

———, *Webs of Empire*: *Locating New Zealand's Colonial Past* (Vancouver, 2014).

Ballantyne, Tony and Antoinette Burton, 'Introduction', in idem (eds.), *Moving Subjects: Gender, Mobility, and Intimacy in an Age of Global Empire* (Chicago et al., 2009), pp. 1-28.

Ballhatchet, Kenneth, 'European Relations with Asia and Africa', in Albert Goodwin (ed.), *New Cambridge Modern History*, 8, *The American and French revolutions 1763-93* (Cambridge, 1965), pp. 218-236.

Barringer, Tim, 'The South Kensington Museum and the colonial project', in idem (ed.)*, Colonialism and the Object: Empire, Material Culture and the Museum* (New York, 1998), pp. 11-27.

———, *Men at Work: Art and Labour in Victorian Britain* (New Haven, 2006).

Bates, Crispin, 'Race, Caste and Tribe in Central India: The Early Origins of Indian Anthropometry', *Edinburgh Papers In South Asian Studies Number*, 3 (1995), pp. 3-35.

Bayly, Christopher Alan, *Empire and Information: Intelligence Gathering and Social Communication in India, 1780-1870* (Cambridge, 1996).

———, *The Birth of the Modern World, 1780-1914: Global Connections and Comparisons* (Malden, Mass. and Oxford, 2004).

———, 'Elphinstone, Mountstuart (1779–1859)', *Oxford Dictionary of National Biography*, 2004; online edn, www.oxforddnb.com.ezproxy.eui.eu/view/article/8752, May 2014.

Bell, Morag, et al. (eds.), *Geography and imperialism, 1820-1940* (Manchester, 1995).

Berenson, Edward, *Heroes of Empire: Five Charismatic Men and the Conquest of Africa* (Berkeley, 2010).

Berg, Maxine, 'Useful knowledge, "industrial enlightenment", and the place of India', *Journal of Global History*, 8 (2013), pp. 117-141.

Bhattacharya, Nandini, *Contagion and Enclaves: Tropical Medicine in Colonial India* (Liverpool, 2012).

Biermann, Kurt-R., 'My goal is to reach the sources of the Ganges. Alexander von

Humboldt's plans for an exploratory expedition to India, Ceylon and Indonesia', *Picture News* (Dresden, 1962), pp. 26-27.

———, *Miscellanea Humboldtiana* (Berlin, 1990).

Biermann, Kurt-R. and Ingo Schwarz, 'Der Aachener Kongreß und das Scheitern der indischen Reisepläne Alexander von Humboldts', *HiN*, 2 (2001) at www.uni-potsdam.de/u/romanistik/humboldt/hin/biermann-schwarz.htm, Aug. 2014.

Bishop, Peter, *The Myth of Shangri-La: Tibet, Travel Writing, and the Western Creation of Sacred Landscapes* (Berkeley et. al, 1989).

Blackbourn, David, 'Germany and the Birth of the Modern World, 1780-1820', *GHI Bulletin*, 51 (2012), pp. 9-21.

Blanchard, Ian, 'The "Great Silk Road", ca. 1650/70-ca. 1855', in Markus A. Denzel et al. (eds.), *Small is Beautiful? Interlopers and Smaller Trading Nations in the Pre-Industrial Period: Proceedings of the XVth World Economic History Congress*, (Stuttgart, 2011), pp. 253-275.

Bonneuil, Christophe, 'The manufacture of species. Kew Gardens, the Empire and the Standardisation of Taxonomic Practices in Late Nineteenth-Century Botany', in Marie- Noëlle Bourget et al. (eds.), *Instruments, Travel and Science. Itineraries of Precision from the 17th the 20th Century* (London, 2002), pp. 189-215.

Bosma, Ulbe, *The Sugar Plantation in India and Indonesia: Industrial Production, 1770–2010* (Cambridge, 2013).

Boulger, George S. 'Wallich, Nathaniel (1785–1854)', rev. Andrew Grout, *Oxford Dictionary of National Biography* (2004); online edn, May 2005, last accessed 24 April 2012.

———, 'Seemann, Berthold Carl (1825–1871)' , rev. Andrew Grout, *Oxford Dictionary of National Biography* (Oxford University Press, 2004), http://www.oxforddnb.com.ezproxy.eui.eu/view/article/25029, accessed 23 February 2014.

Bourguet, Marie-Noëlle, 'Science and memory: the stakes of the expedition to Egypt (1798–1801)', in Howard G. Brown and Judith A. Miller (eds.), *Taking liberties: problems of a new order from the French Revolution to Napoleon* (Manchester and New York, 2002), pp. 92–109.

Brantlinger, Patrick, 'Victorians and Africans: the genealogy of the myth of the Dark Continent', *Critical Inquiry*, 12 (1985), pp. 166–203

Brescius, Moritz von, Friederike Kaiser and Stephanie Kleid (eds.), *Über den Himalaja. Die Expedition der Brüder Schlagintweit nach Indien und Zentralasien 1854 bis 1858* (Vienna et al., 2015).

Brockliss, Laurence, *Calvet's Web. Enlightenment and the Republic of Letters in Eighteenth-Century France* (Oxford, 2002).

Brown, F. H., 'Thuillier, Sir Henry Edward Landor (1813–1906)', rev. Elizabeth Baigent, *Oxford Dictionary of National Biography*, 2004, www.oxforddnb.com.ezproxy.eui.eu/view/article/36519, accessed 6 June 2013.

Brown, Richard D., *Knowledge is Power: The Diffusion of Information in America, 1700-1865* (New York, 1989).

Bryant, Raymond L., *The Political Ecology of Forestry in Burma 1824-1994* (London, 1997).

Burnett, D. Graham, '"It Is Impossible to Make a Step without the Indians": Nineteenth-Century Geographical Exploration and the Amerindians of British Guiana', *Ethnohistory*, 41:1 (2002), pp. 3-40.

Candolle, Roger de and Alan Radcliffe-Smith, 'Nathaniel Wallich and the Herbarium of the Honourable East India Company', *Botanical Journal of the Linnean Society*, 83 (1981), pp. 325-48.

Cañizares-Esguerra, Jorge, 'How Derivative Was Humboldt? Microcosmic Nature Narratives in Early Modern Spanish America and the (Other) Origins of Humboldt's Ecological Sensibilities', in Londa Schiebinger and Claudia Swan (eds.), *Colonial Botany: Science, Commerce, and Politics in the Early Modern World* (Philadelphia, 2005), pp. 148-65.

Cannon, Susan Faye, *Science in Culture: The Early Victorian Period. Science History Publications* (New York, 1978).

Castells, Manuel, *The Informational City: Information Technology, Economic Restructuring, and the Urban-Regional Process* (Oxford, 1989).

Cawood, John, 'The magnetic crusade: Science and politics in early Victorian Britain', *Isis*, 70 (1979), pp. 493-518.

Cetina, Karin Knorr, *Epistemic Cultures: How the Sciences Make Knowledge* (London et al., 1999).

Chapman, Sydney, 'Alexander von Humboldt and Geomagnetic Science', *Archive for History of Exact Sciences*, 2 (1962), pp. 41-51.

Chaudhuri, K. N., *The Trading World of Asia and the English East India Company: 1660-1760* (Cambridge, 1978).

Cheek, Martin, 'Gustav Mann', online article by the Royal Botanical Gardens, Kew, at http://apps.kew.org/herbcat/gotoMann.do, accessed April 2013.

Chib, Deryck O. Sukhdev Singh, Lodrick, 'Sikkim', *Britannica. Academic Edition*,

www.britannica.com.ezproxy.eui.eu/EBchecked/topic/543967/Sikkim, accessed July 2014.

Cittadino, Eugene, *Nature as the Laboratory: Darwinian Plant Ecology in the German Empire, 1880-1900* (Cambridge, 1990).

Coghe, Samuël, 'Inter-imperial Learning and African Health Care in Portuguese Angola in the Interwar Period', *Social History of Medicine* (2014), first published online: September 28, 2014, doi:10.1093/shm/hku063.

Coleman, Julie, 'Using dictionaries and thesaurus as Evidence', Terttu Nevalainen and Elizabeth Closs Traugott (eds.), *The Oxford Handbook of the History of English* (Oxford, 2012).

Colley, Linda, *Acts of Union and Disunion* (London, 2014).

Conrad, Sebastian and Jürgen Osterhammel (eds.), *Das Kaiserreich transnational. Deutschland in der Welt 1871-1914* (Göttingen 2004).

Conrad, Sebastian and Andreas Eckert, 'Globalgeschichte, Globalisierung, multiple Modernen: zur Geschichtsschreibung der modernen Welt', in Sebastian Conrad and Ulrike Freitag (eds.), *Globalgeschichte. Theorien, Ansätze, Themen* (Frankfurt a.M., 2007).

Conrad, Sebastian, *German Colonialism. A Short History* (Cambridge, 2011).

———, 'Rethinking German Colonialism in a Global Age', *The Journal of Imperial and Commonwealth History*, 41 (2013), pp. 543–566.

Cooper, Frederick and Ann Laura Stoler, *Tensions of Empire. Colonial Cultures in a Bourgeois World* (Berkeley, 1997).

Cornish, Caroline, *Curating Science in an Age of Empire: Kew's Museum of Economic Botany* (unpubl. PhD thesis, Royal Holloway, University of London, 2013).

Daston, Lorraine and H. Otto Sibum, 'Introduction: Scientific Personae and Their Histories', *Science in Context* 16, (2003), pp. 1-8.

Daum, Andreas W., '*Wissenschaft* and Knowledge', in Jonathan Sperber (ed.), *Germany 1800-1870* (Oxford, 2004), pp. 137-161.

Davis, John R. and Margrit Schulte Beerbühl, and Stefan Manz (eds.), *Transnational Networks: German Migrants in the British Empire, 1670-1914* (Leiden, 2012).

Denzer, Jörg, *Die Konquista der Augsburger Welser-Gesellschaft in Südamerika 1528-1556* (Munich, 2005).

Desmond, Ray, *The India Museum, 1801-1879* (London, 1982).

———, *The European Discovery of the Indian Flora* (Oxford, 1992).

Dettelbach, Michael, 'Humboldtian science', in N. Jardine, J. Secord, and E. C. Spary (eds.), *Cultures of Natural History* (Cambridge, 1996), pp. 287-304.

Deutschmann, Moritz, *Empire and Statehood in the Russo-Iranian Encounter, 1880s–1911* (unpubl. PhD thesis, European University Institute, 2013).

Dias, Rosie, 'Memory and the Aesthetics of Military Experience: Viewing the Landscape of the Anglo-Mysore Wars', Tate Papers, 19 (2013).

Dorn, Harold and James E. McClellan III, *Science and Technology in World History: An Introduction* (Baltimore, Maryland, 1999).

Drayton, Richard, *Nature's Government: Science, Imperial Britain, and the 'Improvement' of the World* (New Haven, 2000).

———, 'Knowledge and Empire', in P.J. Marshall (et al.) *The Oxford History of the British Empire: Volume II: The Eighteenth Century* (Oxford, 1998).

Driver, Felix and Sonia Ashmore, 'The Mobile Museum: Collecting and Circulating Indian Textiles in Victorian Britain', *Victorian Studies*, 52 (2010), pp. 353-385.

Driver, Felix and Lowri Jones, *Hidden Histories of Exploration* (London, 2009).

Driver, Felix, *Geography Militant: Cultures of Exploration and Empire* (Oxford and Malden: MASS, 2001).

———, 'Missionary Travels: Livingstone, Africa and the book', *Scottish Geographical Journal*, 129 (2013), pp. 164-178.

———, 'Hidden histories made visible? Reflections on a geographical exhibition', *Transactions of the Institute of British Geographers*, 38 (2013), pp. 420-35.

Duchhardt, Heinz (ed.), *Russland, der Ferne Osten und die "Deutschen"* (Göttingen, 2009).

Ducker, Sophie C. (ed.), *The contented botanist. Letters of W. H. Harvey about Australia and the Pacific* (Carlton, Victoria, 1989).

Durand, Frédéric and Richard Curtis, *Maps of Malaysia and Borneo: Discovery, Statehood and Progress* (Kuala Lumpur et al., 2014).

Eaton, Natasha, 'Tourism, Occupancy, and Visuality in North India, ca. 1750-1858', in Dana Leibsohn et al (eds.), *Seeing Across Cultures in the Early Modern World* (Farnham, Surrey and Burlington, 2012), pp. 213-238.

Edney, Matthew H., *Mapping An Empire. The Geographical Construction of British India, 1765-1843* (Chicago et al., 1997).

Encyclopaedia Britannica, 'Christian Karl Josias, Baron von Bunsen', *Encyclopaedia Britannica* (Online Academic Edition), last access: 29 Jan. 2014.

———, 'World's Fair', *Encyclopaedia Britannica* (Online Academic Edition), http://academic.eb.com.ezproxy.eui.eu/EBchecked/topic/649088/worlds-fair accessed February 20, 2014.

———, 'Turkistan', (Online Academic Edition), accessed April 2014.

———, 'Abraham Gottlob Werner', *Encyclopaedia Britannica* (Online Academic Edition, 2014), accessed July 2014.

Endersby, Jim, '"From having no Herbarium." Local Knowledge versus Metropolitan Expertise - Joseph Hooker's Australasian Correspondence with William Colenso and Ronald Gunn', *Pacific Science*, 55 (2001), pp. 343-358.

———, 'Joseph Hooker: a philosophical botanist', *Journal of Biosciences*, 33 (2008), pp. 163–169.

———, *Imperial Nature: Joseph Hooker and the Practices of Victorian Science* (Chicago, 2008).

———,'Joseph Hooker and India', online article, www.kew.org/science-conservation/collections/joseph-hooker/india/travels; accessed July 2014.

Fabian, Johannes, *Out Of Our Minds: Reason and Madness in the Exploration of Central Africa* (Berkeley, 2000).

———, 'Remembering the Other: Knowledge and Recognition in the Exploration of Central Africa', *Critical Inquiry*, 26 (1999), pp. 49-69.

Felfe, Robert, *Naturgeschichte als kunstvolle Synthese. Physikotheologie und Bildpraxis bei Johann Jakob Scheuchzer* (Berlin, 2003).

Felsch, Philipp, *Wie August Petermann den Nordpol erfand* (Munich, 2010).

———, 'Humboldts Söhne. Das paradigmatische / epigonale Leben der Brüder Schlagintweit', in Michael Neumann (ed.), *Magie der Geschichten. Schreiben, Forschen und Reisen in der zweiten Hälfte des 19. Jahrhunderts* (Konstanz, 2011), pp. 113-129.

———, '14.777 Dinge. Verkehr mit der Sammlung Schlagintweit', in Friedrich Balke et al. (eds.), *Die Wiederkehr der Dinge* (Berlin, 2011), pp. 193-207.

Fenske, Hans, 'Ungeduldige Zuschauer. Die Deutschen und die europäische Expansion 1815-1880', in Wolfgang Reinhard (ed.), *Imperialistische Kontinuität und nationale Ungeduld im 19. Jahrhundert* (Frankfurt am Main,

1991), pp. 87-124.

Finkelstein, Gabriel, 'Headless in Kashgar', *Endeavour: Review of the Progress of Science*, 23 (1999), pp. 5-9.

———, '"Conquerors of the Künlün"? The Schlagintweit Mission to High Asia, 1854–57', *History of Science*, 38 (2000), pp. 179–214.

Fitzpatrick, Matthew P., *Liberal Imperialism in Germany: Expansionism and Nationalism, 1848-1884* (New York, 2008).

Flüchter, Antje, 'Identität in einer transkulturellen Gemeinschaft? "Deutsche" in der Vereenigde Oost-Indische Compagnie', in Christoph Dartmann and Carla Meyer (eds.), *Identität und Krise? Zur Deutung vormoderner Selbst-, Welt- und Fremderfahrungen* (Münster, 2007), pp. 155-186.

Foerster, Frank, *Christian Carl Josias Bunsen: Diplomat, Mäzen und Vordenker in Wissenschaft, Kirche und Politik* (Bad Arolsen, 2001).

Foster, William, *The East India house, its history and associations* (London, 1924).

Franke, Wolfgang, 'Brandt, Max von', *Neue Deutsche Biographie*, 2 (1955), p. 531

Freitag, Ulrich, 'Ferdinand von Richthofens "Atlas von China" (Idee-Durchführung-Ergebnis)', *Die Erde*, 114 (1983), pp. 119-134.

Friedl, Wolfgang, 'Europäische Forscher und Reisende in den Berichten der Herrnhuter Mission. Kontakte und Ergebisse - ein Überblick', in L. Icke-Schwalbe and G. Meier (eds.), *Wissenschaftsgeschichte und gegenwärtige Forschungen in Nordwest-Indien* (Dresden, 1990), pp. 80-85.

Friedrichsmeyer, Sara, Sara Lennox, and Susanne Zantop (eds.), *The Imperialist Imagination: German Colonialism and Its Legacy* (Ann Arbor, 1998).

Fritscher, Bernhard, "'Humboldtian Views': Hermann and Adolph Schlagintweit's Panoramas and Views from India and High Asia', in Rudolf Seisig, et al. (eds.), *Form, Zahl, Ordnung* (Munich, 2004), pp. 603-613.

———, 'Zwischen ‚Humboldt'schem Ideal' und ‚kolonialem Blick': Zur Praxis der Physischen Geografie der Gebrüder Schlagintweit', *Wissenschaft und Kolonialismus. Wiener Zeitschrift zur Geschichte der Neuzeit*, 9 (2009), pp. 72-97.

Fritscher, Bernhard and Heinz Peter Brogiato, 'Visualisierungen in der deutschen Geographie des 19. Jahrhunderts: die Beispiele Robert Schlagintweit und Hans Meyer', *Berichte zur Wissenschaftsgeschichte*, 28 (2005), pp. 237-254.

Furnivall, John S., *Netherlands India: A Study of Plural Economy* (Cambridge, 1939).

Gascoigne, John, *Science in the Service of Empire*: *Joseph Banks, the British State and the Uses of Science in the Age of Revolution* (Cambridge, 1998).

Gibson-Wood, Carol, *Studies in the Theory of Connoisseurship from Vasari to Morelli* (London and New York, 1988).

Gissibl, Bernhard, 'Imagination and Beyond: Cultures and Geographies of Imperialism in Germany, 1848–1918', in MacKenzie, John (ed.), *European Empires and the People: Popular Responses to Imperialism in France, Britain, the Netherlands, Belgium, Germany and Italy* (Manchester, 2011), pp. 158-194.

Godsall, Jon R., *The Tangled Web: A Life of Sir Richard Burton* (Leicester, 2008).

Goetz, Hermann, 'Indische Miniaturen im Münchener Völkerkunde-Museum', *Münchner Jahrbuch der bildenden Kunst*, 13 (1923), pp. 61-91.

Gollwitzer, Heinz, '"Für welchen Weltgedanken kämpfen wir?" Bemerkungen zur Dialektik zwischen Identitäts- und Expansionsideologien in der deutschen Geschichte', in von K. Hildebrand and R. Pommerin (eds.), *Deutsche Frage und europäisches Gleichgewicht* (Cologne, 1985), pp. 83-109.

Good, Gregory A., 'Sabine, Sir Edward (1788–1883)', *Oxford Dictionary of National Biography*, online edn, (2004) [last accessed 23 April 2012].

Goswami, Shrutidev, *Aspects of Revenue Administration in Assam, 1826-1874* (Delhi, 1987).

Grendi, Edoardo, 'Microanalisi e storia sociale', *Quaderni Storici*, 7 (1972), pp. 506–20.

Gross, Klaus D., *Die deutsch-englischen Beziehungen im Wirken Chr. C. J. von Bunsens* (Diss. Würzburg, 1965).

Grove, Richard H., *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600-1860* (Cambridge, 1995).

Hall, Catherine, *Civilising Subjects. Metropole and Colony in the English Imagination, 1830–1867* (Cambridge, 2002).

Handique, Rajib, *British Forest Policy in Assam* (New Delhi, 2004).

Hansen, Peter H., 'Founders of the Alpine Club (act. 1857–1863)', in *Oxford Dictionary of National Biography* (Oxford), online version, accessed 4 June 2014.

Harrecker, Stefanie, *Der landwirtschaftliche Verein in Bayern 1810-1870/71* (Munich, 2006).

Harrington, Jack, *Sir John Malcolm and the Creation of British India* (New York,

2010).

Harrison, Mark, 'Tropical Medicine in Nineteenth-Century India', *The British Journal for the History of Science*, 25 (1992), pp. 299-318.

———, '"The Tender Frame of Man": Disease, Climate, and Racial Difference in India and the West Indies, 1760-1860', *Bulletin of the History of Medicine*, 70 (1996), pp. 68-93.

Headrick, Daniel, *The Tentacles of Progress. Technology Transfer in the Age of Imperialism, 1850-1940* (New York and Oxford, 1988).

Höcker, Wilma, *Der Gesandte Bunsen als Vermittler zwischen Deutschland und England* (Göttingen, 1951).

Holmes, Frederic L., 'The Complementarity of Teaching and Research in Liebig's Laboratory', *Osiris*, 5 (1989), pp. 121-164.

Home, Rod, 'Science as a German export to nineteenth century Australia', *Working Papers in Australian Studies*, 104 (1995), pp. 1-21.

Hopkins, Anthony G., 'Explorers' Tales- Stanley Presumes – Again', *Journal of Imperial and Commonwealth History*, 36 (2008), pp. 669-684.

Hopkins, B.D., *The Making of Modern Afghanistan* (New York, 2008).

Hopkirk, Peter, *The Great Game: On Secret Service in High Asia* (Oxford, 2001).

Hoshiar, Singh, *Aspects of Indian administration* (Jaipur, 1994).

Indian Association for the Cultivation of Science (ed.), *Indian Association for the Cultivation of Science: A century* (Calcutta, 1976).

Ireton, Sean Moore and Caroline Schaumann, 'Introduction: The Meaning of Mountains: Geology, History, Culture', in eidem (eds.), *Heights of Reflection: Mountains in the German Imagination from the Middle Ages to the Twenty-First Century* (Rochester, N.Y, 2012), pp. 1-19.

Jefferies, Matthew, *Contesting the German Empire, 1871-1918* (Malden, Mass., 2008).

Johnson, Corey and George W. White, 'Traces of Power: Europe's Impact on the Political Organisation of the Globe', in Stanley D. Brunn (ed.), *Engineering Earth: The Impacts of Megaengineering Projects*, Vol. I (Heidelberg et al., 2011), pp. 2139-2158.

Johnson, Robert, *Spying for empire: the Great Game in Central and South Asia, 1757-1947* (London, 2006).

Jones, Lowri, *Local knowledge and indigenous agency in the history of exploration:*

studies from the RGS-IBG collections (unpublished PhD thesis, Royal Holloway, University of London, 2010).

Jordanova, Ludmilla, 'Science and nationhood: cultures of imagined communities', in G. Cubitt (ed.), *Imagining nations* (Manchester, 1998), pp. 192-211.

Joseph, John E., *Saussure* (Oxford, 2012).

Kalka, Claudia, '"Ordensjäger" - Miscellanea zur Sammlung Schlagintweit im Niedersächsischen Landesmuseum Hannover', in Anna Schmid (ed.), *Mit Begeisterung und langem Atem. Ethnologie am Niedersächsischen Landesmuseum Hannover* (Hannover, 2006), pp. 89-95.

Kaul, Manmohan Nath, *Glacial and Fluvial Geomorphology of Western Himalaya: Liddar Valley* (Delhi, 1990).

Kennedy, Dane, 'Introduction: Reinterpreting Exploration', in idem (ed.), *Reinterpreting Exploration: The West in the World* (Oxford, 2014), pp. 1-20.

———, *The Magic Mountains: Hill Stations and the British Raj* (Berkeley, 1996)

———, *The Last Blank Spaces. Exploring Africa and Australia* (Cambridge: Mass and London, 2013).

Kirchberger, Ulrike, *Aspekte deutsch-britischer Expansion. Die Überseeinteressen der deutschen Migranten in Großbritannien in der Mitte des 19. Jahrhunderts* (Stuttgart, 1999).

———, 'Deutsche Naturwissenschaftler im britischen Empire: die Erforschung der außereuropäischen Welt im Spannungsfeld zwischen deutschem und britischem Imperialismus', *Historische Zeitschrift,* 271 (2000), pp. 621-660.

———, 'German Scientists in the Indian Forest Service: a German Contribution to the Raj?', *Journal of Imperial and Commonwealth History*, 29 (2001), pp. 1-26.

Kirchberger, Ulrike and Heather Ellis (eds.), *Anglo-German Scholarly Networks in the Long Nineteenth Century* (Leiden, 2014).

Knonau, G. Meyer von, 'Rütimeyer, Karl Ludwig', *Allgemeine Deutsche Biographie*, 53 (1907), pp. 654-657.

Körner, Hans 'Die Brüder Schlagintweit', in Claudius C. Müller and Walter Raunig (eds.), *Der Weg zum Dach der Welt* (Innsbruck, Frankfurt a.M., 1982), pp. 62-75.

———, 'Photographien auf Forschungsreisen. Robert Schlagintweit und seine Brüder erforschen die Alpen, Indien und Hochasien (1850-1857', in Bodo von Dewitz et al. (eds.), *Silber und Salz: Zur Frühzeit der Photographie im*

deutschen Sprachraum (1839-1860) (Cologne and Heidelberg, 1989), pp. 310-20.

Kreutzmann, Hermann, 'Habitat conditions and settlement processes in the Hindukush- Karakoram', *Petermanns Geographische Mitteilungen*, 138 (1994), pp. 337–356.

Kumar, Prakash, *Indigo Plantations and Science in Colonial India* (Cambridge et al., 2012).

Kundrus, Birthe, (ed.), *Phantasiereiche: zur Kulturgeschichte des deutschen Kolonialismus* (Frankfurt/Main, 2003).

Laak, Dirk van, *Über alles in der Welt: Deutscher Imperialismus im 19. und 20. Jahrhundert* (Munich, 2005).

Lambert, David and Alan Lester (eds.), *Colonial Lives across the British Empire: Imperial Careering in the Long Nineteenth Century* (Cambridge, 2006).

Lambert, David, 'Reflections on the Concept of Imperial Biographies', *Geschichte und Gesellschaft*, 40 (2014), pp. 22-41.

Leaks, Nigel, 'Darwin's Second Sun. Alexander von Humboldt and the Genesis of the Voyage of the Beagle', in Tait, T. and Small, H. (eds.), *Literature, Science and Psychoanalysis, 1830-1970* (Oxford, 2003), pp. 13-36.

Leibsohn, Dana, 'Introduction: Geographies of Sight' in Dana Leibsohn and Jeanette Favrot Peterson (eds.), *Seeing Across Cultures in the Early Modern World* (Farnham, Surrey and Burlington, 2012), pp. 1-22.

Lenz, Karl, 'The Berlin Geographical Society 1828-1978', *The Geographical Journal*, 144 (1978), pp. 218-223.

Liebersohn, Harry, *The Travelers' World: Europe to the Pacific* (Cambridge: MA, 2006).

———, 'A Half Century of Shifting Narrative Perspectives on Encounters', in Dane Kennedy (ed.), *Reinterpreting Exploration. The West in the World*, (Oxford, 2014), pp. 38-53.

Lindner, Ulrike, *Koloniale Begegnungen. Deutschland und Grossbritannien als Imperialmächte in Afrika 1880-1914* (Frankfurt/Main, 2011).

Linne, Karsten, *Deutschland jenseits des Äquators?: Die NS-Kolonialplanungen für Afrika* (Berlin, 2008).

Lodrick, Deryck O. and Sukhdev Singh Chib, 'Sikkim', *Encyclopaedia Britannica. Encyclopaedia Britannica Online Academic Edition*. Encyclopædia Britannica Inc., 2014, accessed 30 April 2014.

Ludden, David, 'Orientalist Empiricism: Transformations of Colonial Knowledge', in Carol A. Breckenridge (eds.), *Orientalism and the Postcolonial Predicament* (Philadelphia, 1993), pp. 250-278.

Lüdecke, Cornelia, 'Carl Ritters (1779-1859) Einfluß auf die Geographie bis hin zur Geopolitik Karl Haushofers (1869-1946)', *Sudhoffs Archiv*, 88 (2004), pp. 129-52.

Lülfing, Hans, 'Amthor, Eduard Gottlieb', *Neue Deutsche Biographie*, 1 (1953), p. 264.

MacKenzie, John (ed.), *European Empires and the People: Popular Responses to Imperialism in France, Britain, the Netherlands, Belgium, Germany and Italy* (Manchester, 2011).

MacKenzie, John (ed.), *Popular Imperialism and the Military* (Manchester, 1992).

Malinowski, Bronislaw, *Argonauts of the Western Pacific: An Account of Native Enterprise and Adventure in the Archipelagoes of Melanesian New Guinea* (London and New York, 1922, repr. 1978).

Mangold, Sabine, *Eine "weltbürgerliche Wissenschaft". Die deutsche Orientalistik im 19. Jahrhundert* (Stuttgart, 2004).

Marchand, Suzanne L., *German Orientalism in the Age of Empire. Religion, Race, and Scholarship* (Cambridge, 2009).

Marshall-Cornwall, James, 'Three Soldier-Geographers', *The Geographical Journal*, 131 (1965), pp. 357-365.

Mayer, Robert, 'Die Verbreitung der Kulturflächen in den Ost-Alpen und ihre obere Grenze, geomorphologisch betrachtet', *Geographische Zeitschrift*, 33 (Stuttgart, 1927), pp. 113-138

Mayr, Helmut, 'Schlagintweit, Emil', in: *Neue Deutsche Biographie*, 23 (2007), pp. 24-25, also available online at www.deutsche-biographie.de/pnd11728078X.html, accessed 27 May, 2011.

Mazumdar, Shaswati, 'Introduction', in idem (ed.), *Insurgent Sepoys: Europe Views the Revolt of 1857* (Abingdon and New Delhi, 2012), pp 1-15.

———, 'The Jew, the Turk, and the Indian: Figurations of he Oriental in the German-Speaking World', in James Hodkinson et al. (eds.), *Deploying Orientalism in Culture and History: From Germany to Central and Eastern Europe* (New York, 2013), pp. 99-116.

McCormick, John, *The global environmental movement* (London, 1989; repr. 1995).

Metcalf, Thomas R., *Ideologies of the Raj* (Berkeley, 1995).

Miller, David Philip, 'Joseph Banks, Empire, and "Centers of Calculation" in Late Hanoverian Britain', in David Philip Miller and Peter Hanns Reill (eds.), *Visions of Empire: Voyages, Botany, and Representations of Nature* (Cambridge, 1996), pp. 21-37.

Morrison, Alexander, 'Camels and Colonial Armies: The Logistics of Warfare in Central Asia in the Early 19th Century', *Journal of the Economic and Social History of the Orient*, 57 (2014), pp. 443-485.

———, 'Introduction: Killing the Cotton Canard and getting rid of the Great Game: rewriting the Russian conquest of Central Asia, 1814-1895', *Central Asian Survey*, 33 (2014), pp. 131-142.

Mosley, Stephen, *The Environment in World History* (London, 2010).

Müller, Claudius C. et al. (eds.), *Der Weg zum Dach der Welt* (Innsbruck et al., 1982).

Müller, Frank Lorenz, 'Imperialist Ambitions in Vormärz and Revolutionary Germany: the Agitation for German Settlement Colonies Overseas, 1840-1849', *German History*, 17 (1999), pp. 346-368.

Muir, Ramsey, *The Making of British India, 1756-1858* (Manchester, 1915).

Murphy, Veronica, 'Tipu's Tiger' (1976), revised an published online, www.vam.ac.uk/content/articles/t/tippoos-tiger/, accessed 15 March 2014.

Naranch, Bradley, *Beyond the Fatherland: Colonial Visions, Overseas Expansion, and German Nationalism, 1848-1885* (unpubl. PhD thesis, University of North Carolina, 2006).

National Herbarium Nederland, 'Heyne (or Heine), Benjamin', www.nationaalherbarium.nl/fmcollectors/H/HeyneB.htm#3a, accessed March 2014.

Nechtman, Tillman W., *Nabobs: Empire and Identity in Eighteenth-Century Britain* (Cambridge, 2010).

Nipperdey, Thomas, *Deutsche Geschichte 1800-1866: Bürgerwelt und starker Staat* (Munich, 1993).

Noti, Severin, *Joseph Tieffentaller S. J. - A Forgotten Geographer of India* (Bombay, 1906).

Olesko, Kathryn, 'Humboldtian Science', in John Heilbron (ed.), *The Oxford Guide to the History of Physics and Astronomy*, 10 (Oxford, 2005), pp. 159-162.

Osterhammel, Jürgen, *Die Entzauberung Asiens: Europa und die asiatischen Reiche im 18. Jahrhundert* (Munich, 1998).

———, *Die Verwandlung der Welt: eine Geschichte des 19. Jahrhunderts,* 2nd edn. (Munich, 2009).

Päßler, Ulrich, *Ein „Diplomat aus den Wäldern des Orinoko". Alexander von Humboldt als Mittler zwischen Preußen und Frankreich* (Stuttgart, 2009).

Pathak, Shekhar and Uma Bhatt's (eds.), *Asia Ki Peeth Par: Life, Explorations and Writings of Pundit Nain Singh Rawat* [*in Hindi*], II Vols. (Nainital, 2006).

Pinney, Christopher, *The Coming of Photography in India* (London, 2008).

Polter, Stefan B., 'Nadelschau in Hochasien: Englische Magnetforschung und die Brüder Schlagintweit', in Müller et al. (eds.), *Der Weg zum Dach der Welt*. (Innsbruck, Frankfurt am Main, 1982), pp. 78-80 and 97-98.

Porter, Bernard, *The Absent-Minded Imperialists: Empire, Society, and Culture in Britain* (Oxford, 2005).

Pratt, Mary Louise, *Imperial Eyes: Travel Writing and Transculturation*, 2nd ed. (New York, 2007).

Paletschek, Sylvia, 'Was heißt "Weltgeltung deutscher Wissenschaft"?: Modernisierungsleistungen und -defizite der Universitäten im Kaiserreich', Michael Grüttner et al. (eds.), *Gebrochene Wissenschaftskulturen: Universität und Politik im 20. Jahrhundert* (Göttingen, 2010), pp. 29-54.

Raffles, Hugh, *In Amazonia: A Natural History* (Princeton, 2002).

Raj, Kapil, 'When Human Travellers Become Instruments. The Indo-British Exploration of Central Asia in the Nineteenth Century', in Marie-Noëlle Bourget et al. (eds.), *Instruments, Travel and Science. Itineraries of Precision from the 17th the 20th Century* (London, 2002), pp. 156-188.

———, *Relocating Modern Science: Circulation and the Construction of Knowledge in South Asia and Europe, 1650–1900* (New York, 2006).

Rajan, S. Ravi, *Modernizing Nature: Forestry and Imperial Eco-Development, 1800-1950* (Oxford, 2006).

Ramasheshan, Sita, 'The History of Paper in India upto 1948', *Indian Journal of History of Science*, 24 (1989), pp. 103-121.

Rehbock, Philip F., *The philosophical naturalists: Themes in early nineteenth-century British biology* (Madison, 1983).

Reichel, Claudia, 'German Responses: Theodor Fontance, Edgar Bauer, Wilhelm Liebknecht', in Shaswati Mazumdar (ed.), *Insurgent Sepoys: Europe Views the Revolt of 1857* (Abingdon and New Delhi, 2011), pp. 19-42.

Reingold, Nathan, 'Edward Sabine', *Dictionary of Scientific Biography*, Vol. XII

(New York, 1975), pp. 49-53.

Riffenburgh, Beau, *The Myth of the Explorer: The Press, Sensationalism, and Geographical Discovery* (London, 1993).

Robinson, Michael F., 'Science and Exploration', in Dane Kennedy (ed.), *Reinterpreting Exploration: The West in the World* (Oxford, 2014), pp. 21-37.

Rolf, Malte, 'Einführung: Imperiale Biographien. Lebenswege imperialer Akteure in Groß- und Kolonialreichen (1850-1918)', in idem (ed.), *Imperiale Biographien*, special issue of *Geschichte und Gesellschaft*, 40 (2014), pp. 5-21.

Roy, Rama Deb, 'The Great Trigonometrical Survey of India in a historical perspective', *Indian Journal of History of Science*, 21 (1986), pp. 22-32.

Rudwick, Martin J. S., *The Great Devonian Controversy: The Shaping of Scientific Knowledge among Gentlemanly Specialists* (Chicago, 1985).

Ryan, James R., 'Imperial landscapes: photography, geography and British overseas exploration, 1858-1872' in Morag Bell et al. (eds.), *Geography and Imperialism, 1820-1940* (Manchester, 1995), pp. 53-79.

———, *Picturing Empire: Photography and the Visualization of the British Empire* (Chicago, 1998).

Sachs, Aaron, *The Humboldt Current: A European Explorer and His American Disciples* (Oxford, 2007).

Safier, Neil, *Measuring the New World: Enlightenment Science and South America* (Chicago, 2008).

Said, Edward, *Orientalism: Western Conceptions of the Orient* (New York, 1978).

Saikia, Arupjyoti, *Forests and Ecological History of Assam, 1826–2000* (Oxford, 2011).

Schaffer, Simon and Steven Shapin, *Leviathan and the Airpump: Hobbes, Boyle, and the Experimental Life* (Princeton, 1985).

Schaffer, Simon and Lissa Roberts, Kapil Raj, James Delbourgo (eds.), *The brokered world. Go-betweens and the global intelligence, 1770-1820* (Sagamore Beach, MA, 2009).

Schenk, Carl Alwin, *The birth of forestry in America: Biltmore Forest School, 1898-1913* (Santa Cruz: CA, 1974).

Schiebinger, Londa and Claudia Swan (eds.), *Colonial Botany: Science, Commerce and Politics in the Early Modern World* (Philadelphia, 2004).

Schilling, Britta, *Postcolonial Germany: Memories of Empire in a Decolonized Nation* (Oxford, 2014).

Schimmelpenninck van der Oye, David,'Vasilij V. Vereshchagin's Canvases of Central Asian Conquest', *Cahiers d'Asie centrale*, 17/18 (2009), pp. 179-209, 203.

Schlagintweit, Stefan, 'Die Brüder Schlagintweit – ein Abriß ihres Lebens', in Claudius C. Müller, Walter Raunig (eds.), *Der Weg zum Dach der Welt* (Innsbruck and Frankfurt am Main, 1982), pp. 11-13.

Schneider, Birgit, 'Berglinien im Vergleich Bemerkungen zu einem klimageografischen Diagramm Alexander von Humboldts', *HiN*, 14 (Berlin and Potsdam, 2013), pp. 26-43.

Schröder, Wilfried and Karl-Heinrich Wiederkehr, 'Geomagnetic research in the 19th century: a case study of the German contribution', *Journal of Atmospheric and Solar-Terrestrial Physics*, 63 (2001), pp. 1649–1660.

Schwartzberg, Joseph E., 'Maps of Greater Tibet', in J. B. Harley and David Woodward (eds.), *Cartography in the Traditional East and Southeast Asian Society*. Vol 2, Book 2, *The History of Cartography* (Chicago, 1994), pp. 607-81.

Sèbe, Berny, *Heroic Imperialists in Africa: The promotion of British and French colonial heroes, 1870-1939* (Manchester, 2013).

Secord, James A., *Controversy in Victorian Geology: The Cambrian-Silurian Dispute* (Princeton, 1986).

Shapin, Steven, 'Here and Everywhere: Sociology of Scientific Knowledge', *Annual Review of Sociology*, 21 (1995), pp. 289-321.

Sheehan, James J., *Museums in the German Art World: From the End of the Old Regime to the Rise of Modernism* (Oxford and New York, 2000).

Sikka, D. R., 'The Role of the India Meteorological Department, 1875-1947', in Uma Dasgupta (ed.), *Science and Modern India: An Institutional History, C. 1784-1947* (Delhi, 2011), pp. 381-428.

Stafford, Robert A., *Scientist of Empire: Sir Roderick Murchison, Scientific Exploration and Victorian Imperialism* (Cambridge, 1990).

Stagl, Justin, 'Die Apodemik oder 'Reisekunst' als Methodik der Sozialforschung vom Humanismus bis zur Aufklärung', in idem and M. Rassem (eds.), *Statistik und Staatsbeschreibung in der Neuzeit, vornehmlich im 16.-18. Jahrhundert* (Paderborn, 1980), pp. 131-204.

Standfield, Rachel, 'Violence and the Intimacy of Imperial Ethnography. The Endeavour in the Pacific', in Ballantyne and Burton (eds.), *Moving Subjects:*

Gender, Mobility, and Intimacy in an Age of Global Empire (Chicago et al., 2009), pp. 31-48.

Steele, David, 'Law, Edward, first earl of Ellenborough (1790–1871)', *Oxford Dictionary of National Biography*, 2004; online edn, Jan 2011, www.oxforddnb.com.ezproxy.eui.eu/view/article/16143?docPos=2, accessed 8 Feb 2014.

Steininger, Friedrich and Erich Thenius, *100 Jahre Paläontologisches Institut der Universität Wien, 1873-1973* (Paläontolog. Inst. d. Univ. Wien, 1973).

Steward, Gordon, 'The Exploration of Central Asia', in Dane Kennedy (ed.), *Reinterpreting Exploration: The West in the World* (Oxford, 2014), pp. 195-213.

Stoddard, D. R., 'The RGS and the "New Geography": Changing Aims and Changing Roles in Nineteenth Century Science', *Geographical Journal*, 146 (1980), pp. 190-202.

Stronge, Susan, *Tipu's Tigers* (London, 2009).

Suckow, Christian, 'Alexander von Humboldt und Rußland', in Ottmar Ette et al. (eds.), *Alexander von Humboldt: Aufbruch in die Moderne* (Berlin, 2001), pp. 247-264.

Sundar, Pushpa, *Patrons and Philistines: arts and the state in British India, 1773-1947* (Oxford and Delhi, 1995).

Tammiksaar, E. et al., 'Hypothesis versus Fact: August Petermann and Polar Research', *Arctic*, 52 (1999), pp. 237-243.

Terra, Helmut de, *Humboldt: The Life and Times of Alexander von Humboldt, 1769-1859* (New York, 1955).

Terrall, Mary, *The Man Who Flattened the Earth: Maupertuis and the Sciences in the Enlightenmen*t (Chicago, 2002).

Théoderides, Jean, 'Humboldt and England', *The British Journal for the History of Science*, 3 (1966), pp. 39-55.

Thomas, Nicholas, *Entangled Objects: Exchange, Material Culture, and Colonialism in the Pacific* (Cambridge, Mass., 1991).

Tilman, Harold William, *Nepal Himalaya* (Cambridge, 1952).

Torma, Franziska, *Turkestan-Expeditionen: Zur Kulturgeschichte deutscher Forschunsgreisen nach Mittelasien (1890-1930)* (Bielefeld, 2011).

Trentin-Meyer, Maike, 'Die Indien- und Hochasienreise der Brüder Schlagintweit', in Christoph Köck (ed.), *Reisebilder. Produktion und Reproduktion touristischer*

Wahrnehmung (Münster et. al, 2001), pp. 41-51.

Uhlig, Harald, 'Das Neue Schloß als Geographisches Institut: Frühe geographische Vorlesungen. Die Gießener Geographen Robert von Schlagintweit und Wilhelm Sievers', *Nachrichten der Giessener Hochschulgesellschaft,* 34 (1965), pp. 87-103.

Utley, Robert M. (ed.), *Battlefield and Classroom: Four Decades with the American Indian, 1867-1904. An Autobiography by Richard Henry Pratt* (London et al., 1964).

Vam Maanen, John, *Tales from the field: on writing ethnography* (Chicago, 1988).

Verber, Jason, *The conundrum of colonialism in postwar Germany* (unpubl. PhD diss., University of Iowa, 2010).

Veyne, Paul, 'Bergsteigen. Eine bürgerliche Leidenschaft', in Beat Gugger and Philipp Felsch (eds.), *Berge, eine unverständliche Leidenschaft. Buch zur Ausstellung des Alpenverein-Museums in der Hofburg Innsbruck* (Wien et al., 2007), pp. 11-31.

Victoria & Albert Museum, 'Linnaeus Tripe Biography', at www.vam.ac.uk/content/articles/l/linnaeus-tripe-biography/, accessed, 12 December 2012.

Vicziany, Marika, 'Imperialism, Botany and Statistics in Early Nineteenth-Century India: the Surveys of Francis Buchanan (1762- 1829)', *Modern Asian Studies*, 20 (1986), pp. 625-61.

Waldron, Peter, 'Przheval'skii, Asia and Empire', *The Slavonic and East European Review*, 88 (2010), pp. 309-327.

Waller, Derek J., *The Pundits: British Exploration of Tibet and Central Asia* (Lexington, 1990).

Walter, Rolf, '*Die Welser in Venezuela,* ein Stück deutscher Kolonialgeschichte des 16. Jahrhunderts', *Nachrichten der deutsch-venezolanischen Gesellschaft*, 2 (1984) pp. 66-77.

Waterhouse, David M. (ed.), *The Origins of Himalayan Studies: Brian Houghton Hodgson in Nepal and Darjeeling 1820-1858* (Abington et al., 2004).

Waterhouse, David M., 'Brian Hodgson - a biographical Sketch', in idem (ed.), *The Origin of Himalayan Studies: Brian Hodgson in Kathmandu and Darjeeling, 1820-1858* (Abington et al., 2004), pp. 1-24.

Wehler, Hans-Ulrich, *Bismarck und der Imperialismus* (Cologne and Berlin, 1969).

———, *Deutsche Gesellschaftsgeschichte. Vol. 3: Von der 'Deutschen Doppelrevolution' bis zum Beginn des Ersten Weltkrieges 1849-1914*

(Munich, 1995).

Weigl, Engelhard, ‘Acclimatization: The Schomburgk brothers in South Australia’, *HiN*, IV (2003), pp. 2-13.

Werner, Petra, *Himmel und Erde. Alexander von Humboldt und sein Kosmos* (Berlin, 2004).

———, ‘Zum Verhältnis Darwins zu Humboldt und Ehrenberg’, *Humboldt im Netz*, 10 (2009), pp. 68-95.

Wessels, Cornélius, *Early Jesuit Travellers in Central Asia: 1603-1721* (The Hague, 1924; repr. New Delhi, 1992).

Whitfield, Peter, *New Found Lands: Maps in the History of Exploration* (London, 1998).

Wiese, Bernd, *WeltAnsichten: Illustrationen von Forschungsreisen deutscher Geographen im 19. und frühen 20. Jahrhundert; Graphik, Malerei, Photographie; Die Wirklichkeit der Illustration?* (Cologne, 2011).

Wildenthal, Lora and Jürgen Zimmerer, Russell A. Berman, Jan Rüger, Bradley Naranch and Birthe Kundrus, ‘Forum: The German Colonial Imagination’, *German History*, 26 (2008), pp. 251–71.

Williams, Donovan, *The India Office, 1858-1869*, (Hoshiarpur, 1983).

Williams, W. R., ‘Vernon, Robert , first Baron Lyveden (1800–1873)’, rev. H. C. G. Matthew, *Oxford Dictionary of National Biography*, 2004; online edn, Jan 2008, access 29 Jan 2014.

Wilson, Kathleen (ed.), *A New Imperial History. Culture, Identity, and Modernity in Britain and the Empire, 1660–1840* (Cambridge, 2004).

Wippich, Rolf H., *Japan als Kolonie?: Max von Brandts Hokkaido-Projekt 1865/67*, 2nd ed. (Hamburg, 1997).

Withers, Charles W. J., ‘Mapping the Niger, 1798–1832. Trust, Testimony and “Ocular Demonstration” in the Late Enlightenment’, *Imago Mundi: The International Journal for the History of Cartography*, 56 (2004), pp. 170-193.

———, ‘On Enlightenment’s margins: geography, imperialism and mapping in Central Asia, c.1798–c.1838’, *Journal of Historical Geography*, 39 (2013), pp 3-18.

Wokoeck, Ursula, *German Orientalism: The Study of the Middle East and Islam from 1800 to 1945* (London, 2009).

Wood, Frances, *The Silk Road: Two Thousand Years in the Heart of Asia* (London, 2003).

Woodward, B. B., ‘Sykes, William Henry (1790–1872)’, rev. M. G. M. Jones, *Oxford Dictionary of National Biography*, 2004 [last accessed 26 April 2012].

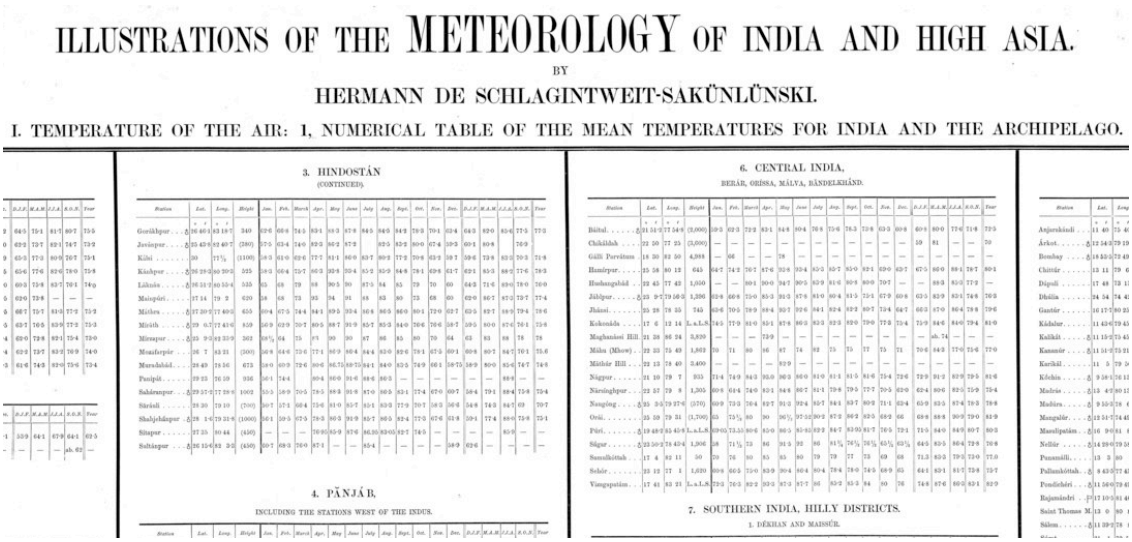
Worster, Donald, *Nature's Economy: A History of Ecological Ideas* (Cambridge, 1998).

Susanne Zantop, *Colonial Fantasies*. *Conquest, Family, and Nation in Precolonial Germany, 1770–1870* (Durham, 1997).

Zimmermann, Andrew, ‘Adventures in the Skin Trade: German Anthropology and Colonial Corporeality’, in Glenn Penny and Matti Bunzl (eds.), *Worldly Provincialism: German Anthropology in the Age of Empire* (Ann Arbor, 2003), pp. 156-178.

Appendix

Examples of the visualisation of nature in the Schlagintweits' *Atlas*:



ILLUSTRATIONS OF THE METEOROLOGY OF INDIA AND HIGH ASIA.

BY

HERMANN DE SCHLAGINTWEIT-SAKÜNLÜNSKI.

I. TEMPERATURE OF THE AIR: 1, NUMERICAL TABLE OF THE MEAN TEMPERATURES FOR INDIA AND THE ARCHIPELAGO.

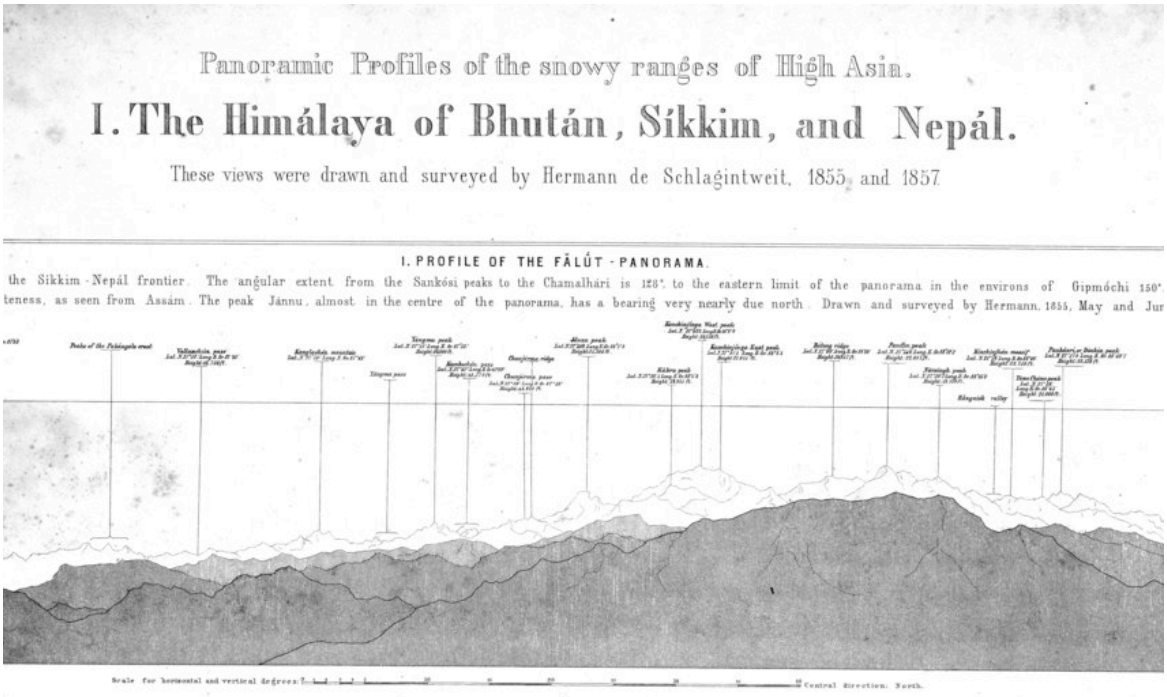
3. HINDOSTÁN
(CONTINUED).

4. PÁNJÁB,
INCLUDING THE STATIONS WEST OF THE INDUS.

6. CENTRAL INDIA,
BERÁR, ORÍSSA, MÁLVA, BÁNDELKHÁND.

7. SOUTHERN INDIA, HILLY DISTRICTS.
1. DÉKHAN AND MAISÚR.

Extract from Hermann Schlagintweit, 'Illustrations of the Meteorology of India and High Asia.', I. Temperature of the Air. 1. The Numerical Table of the Mean Temperatures for India and the Archipelago.' From Hermann, Adolph and Robert Schlagintweit, *Atlas of Panoramas and Views, with geographical, physical, and geological maps* (Leipzig and London, 1861-66), 'Meteorological Maps and Tables No 1'. Source and copyright: archive of the DAV.



Panoramic Profiles of the snowy ranges of High Asia.

I. The Himálaya of Bhután, Síkkim, and Nepál.

These views were drawn and surveyed by Hermann de Schlagintweit, 1855, and 1857.

I. PROFILE OF THE FÁLÚT-PANORAMA.

Extract from Hermann Schlagintweit, 'Panoramic Profiles of the snowy ranges of High Asia. I. The Himálaya of Bhután, Síkkim, and Nepál. I. Profile of the Falut-Panorama'. The text above the panoramic profile reads: 'The Falut mountain is situated in the northern part of the Singhalila ridge on the Sikkim-Nepal frontier. The angular extent from the Sankosi peaks to the Chamalhari is 128' to the eastern limit of the panorama of Gipmóchi 150'. The four Buthan peaks to the east, though not visible from Falut, are added for the sake of completeness, as seen from Assam. The peak Jannu almost in the centre of the panorama has a bearing very nearly due north. Drawn and surveyed by Hermann, 1855, May and June', from Hermann, Adolph and Robert Schlagintweit, *Atlas of Panoramas and Views, with*

geographical, physical, and geological maps (Leipzig and London, 1861-66). Source and copyright: archive of the DAV.

Hermann Schlagintweit, 'The Summit of Kanchinjinga in the Himalaya of Sikkim', June 1855, printed in oil-colours by Storch & Kramer, Berlin, in Schlagintweit, *Atlas of Panoramas and Views, with geographical, physical, and geological maps* (Leipzig and London, 1861), No. 2. The Schlagintweit images were always accompanied by exact information on the co-ordinates of the spot from where it was painted, the precise height, and often the cardinal point. In this case, the figures provided are: 'Lat. North, 27'42'9', Long. East of Green. 88"8'1, Height: 28156 Engl. feet.' Source and copyright: archive of the DAV.

Hermann Schlagintweit, 'The Sătlej Valley and the Environs of Rámpur in the Western Himálaya', June 1856, printed in Oil-colours by Storch & KRamer, Berlin Hermann, Adolph and Robert Schlagintweit, *Atlas of Panoramas and Views, with geographical, physical, and geological maps* (Leipzig and London, 1861), No 3; source and copyright: archive of the DAV.

List of Instruments in charge of Mr. Adolphe Schlagintweit for prosecuting the Magnetic Survey of India (from BSB, Schlagintweitiana II.1.5 'Beobachtungsmanuscripte, Vergleichung und Correction der Instrumente').

Instrument	Producer
Universal Instrument	Pistor
2 Reflecting Circles	Pistor
1 Barometers – Fratiens (?)	Pistor
Solid Leather Case	Pistor
4 Heliotropes	Steinheil
7Heliostate & Mycrometer	Haffer
Prism Table	Haffer
Clockwork of Heliostat	Silckerodt
5 Aneroid Barometers	Imme
3 Levelling Instruments	Imme
2 Cyanometer	Imme
2 Earth Thermometers	Georg Greiner
4 Earth Thermometers of 1 metre	Georg Greiner
2 Earth Thermometers Smaller	Georg Greiner

3 Diversion Thermometers	Georg Greiner
1 Aerometer	Georg Greiner
2 Correction Thermometer	Georg Greiner
50 Small Thermometers for corresponding observations	Georg Greiner
2 Pr wetbulb Thermometers	Georg Greiner
6 Maximum Thermometers	Geißler
6 Minimum Thermometers	Geißler
6 Walferden's	Geißler
8 Psychrometers	Geißler
2 Normal Thermometers	Geißler
6 Boiling Thermometers	Geißler
Metal Cases for Thermometers	Sahlmon
Telescope with Mycrometer	Merz
1 Prism	Merz
1Telescope with Mycrometer	Merz
2 Prism	Merz
2 Pocket Telescopes	Ploßl
Passage Instrument	Ploßl
Optometer	Ploßl
Tools	Hofman & Eberhart
50 Glas Bottles in 3 cases	Luhme
Small Weights	Kleiner
1 Kater Scale	B(e?)aumann
1 Kater Scale Universal	Baumann
Sliding Rules	Baumann
2 Squaresin Brass	Baumann
Geometrical Pocket Box	Baumann
Pantograph	Bormann
Model Apparatus in Wood	Altheimer
Large Microscope	Schiek
1 Universal Instrument complete	Ertel & Son
Levels	Ertel & Son
1 Pantograph	Ertel & Son
1 Sextant	Ertel & Son
Passage Prism	Steinheil
Proportional Compasses	Hofer
1 Mycrometer Divider	Hofer
3 Lamps	Hofer
2 Reometers	Hofer
1Theodolite axis	Hofer
2 Measuring Tapes	Hofer
1 Syphon Barometer	Georg Greiner jun.
6 Wet Bulb Suspenders	Georg Greiner jun.
6 Wet Bulb Triangle Suspenders	Georg Greiner jun.
4 Aerometers	Georg Greiner jun.
6 Dip Thermometers	Georg Greiner jun.
2 Vertical Circles attached to Telescope	Imme
Chemical Balance	Oertling
4 Aneroid Barometers	Oertling
2 Expansion Instruments	Geißler

50 Glases – Air Receivers	Geißler
2 Electrometers, small	Leyser
2 Larger Electrometers	Leyser
Additional Chemical apparatus	Luhme
2 Hypsometers	Adam Greiner
1 Syphon Barometer	Adam Greiner
18 Air Thermometers	Adam Greiner
10 Minima Thermometers	Adam Greiner
4 Maxima Thermometers	Adam Greiner
1 Telescope with Mycrometer	Merz & Sons
4 Prisms, 2 of 45, 2 of 60	Merz & Sons
1 Telescope 24 with Mycrometer + changement	Merz & Sons
1 Theodolite Telescope	Merz & Sons
Pocket Instruments + Tools	Henshell
2 Spirit Levels	Hensoldt
Diaphanometer	Meißner
2 Drawing Compasses	Meißner
3 Lenses	Scheik
Pocket – Magnifier	Roß
Drawing Instrument for relief	Bormann
3 Inscription Copy Brushes	Engler
5 Geographical Printing Scales	Müller
Scale Maps	Kraatz
Iris Paper	Delius
Geological Hammers, 10 Articles	Howard
Stamping Instruments	Wappenstein
Leather work for Instruments	Jee
Black lined water proof cases	Stab
Brass metal Covers for Instruments	Sahlmon
Locks for the Instrument cases	Haulchild
2 Barrow's dipping needles	
2 Unifilar Magnetometers	
2 Declinometers	
1 Small universal Magnetic Instrument	
3 Pocket Chronometers	
2 Time Pieces	
1 False Horizon	
1 Pocket Sextant	

East India House
Military Department
26th August 1854'

'Tractat zur Reise von A. & R. Schlagintweit nach Gnari Khórsum', source and copyright: Ethnological Museum Munich,

1. Original transcript from Tibetan (by courtesy of Christoph Cüppers, Director of the Lumbini International Research Institute in Nepal).

‘// {__} dang mi ang 1 /
1 // shing yos zla pa drug pa'i tshe la / lugs gnyis gong ma 'drim bdag rin (po che) zhabs drung du
2 zhu ba | dag ming khung rnams nas blos glang mi rgyur pas gan tshig / tsang ma phul gnying la /
3 'dis lo phyi gling gor zam nas 'ding rgyud byang phyan gan pa po 'di phen mi grol zhus ba deleted: 'dis 'og nas gtshams
4 nga ming spyod yin / na 'gra spang thog / kha cig ced gnyis / gran tam gsar kyes
5 gnyog ma 'ding long / g.yas khag g.yon gris / gong tshig la 'gal tshes
6 'drim zhabs rin (po che) 'ba ser srang cu shul ched zhu la rgyur do dag phyi gling yams sal kying
7 gad kyi rtags [family crest] / { } gu tshab pa gnyis kyi pad rtags / [crest]
Tractat zur Reise von A. & R. Schlaginweit nach Gnári Khórsum.’

2. German translation of the Tibetan treatises (by courtesy of Christoph Cüppers):

‘1 Am [5.] Tage des 6. Monats im Holz-Hasen Jahr [19. Juli 1855] wurde zu Füssen des Erhabenen kostbaren Rechtsherren [folgendes]
2 vorgebracht: Unveränderliche und freiwillig geleistete Verpflichtung von uns, deren Namen unten ersichtlich sind,
3 dieses Jahr verpflichten wir uns nicht zu zulassen, daß von jetzt ab Ausländer von der Gor-Brücke aus über Ding weiter nach Norden reisen werden.
4 Wenn mit Worten wie "ich nicht, du warst es", "auf der Wiese ausrutschen, auf der Weide stolpern", "ein Mund, zwei Zungen", "Vorwürfe erneut erheben",
5 "Dreck aus der Tiefe aufwühlen" und "sich gegenseitig beschuldigen" gegen diese Verpflichtung Einwände erhoben werden sollten,
6 dann sind dem kostbaren Rechtsherren 10 Gold-srang einschließlich der Zusatzgebühren zu zahlen. Von der Partei der Ausländer [...]
7 [Siegelabdruck], und Siegelabdruck der beiden Vertreter [Schlagintweit Siegelabdruck].
Tractat zur Reise von A. & R. Schlaginweit nach Gnári Khórsum.’

Transcript of: House of Commons, *Fourth Report from the Select Committee on Colonization and Settlement (India), together with the Proceedings of the Committee, Minutes of Evidence, and Appendix* (London, 1858), the Schlagintweits’ testimony in the ‘Minutes of Evidence’, pp. 1-10:

‘6 July 1858

Members present:
Mr Campbell
Mr Gregson
Mr Kinnaird
Mr Lowe

Sir Erskine Perry
Mr Mangles
Mr J. B. Smith
Mr Villiers
Mr Willoughby
Mr De Vere
William Ewert, Esq., in the chair.

Hermann Schlagintweit, Esq., Phil. Dr, LL.D., and Robert Schlagintweit, Esq., Phil. Dr., called in, and Examined.

6976. *Chairman*.] YOU have travelled in India, and particularly in the direction of the Himalaya Mountains, Thibet, and Central Asia? — Yes.

6977. In what capacity did you undertake those journeys? — We were sent out by the Court of Directors on a scientific mission, the primary object of which was to continue the magnetic survey which had been formerly in the charge of the late Captain Elliott, who had died; and besides completing the survey, we had to make observations on the physical geography and geology of the country.

6978. Your journey originally was suggested by Bardon von Humboldt, I believe? — Yes; it was suggested by him and most graciously supported by the King of Prussia. We are particularly happy to add, that the Court of Directors, as well as the Government of India, gave us every facility to extend and generalise our observations.

6979. In what part of those regions did you travel; describe your track, if you please? — We have laid down our routes on a map, which is now before the Committee.

6980. Will you state to the Committee the principal places which you visited? — We arrived in Bombay, and went, partly on two and partly on three different routes, to Madras; there we joined again; then we went up the steamer to Calcutta, and separated again for some time. The parts taken at first by myself (Mr Hermann Schlagintweit) were the more eastern parts, while my two brothers took the more western parts and the central parts of the Himalayas.

6981. Be so good as describe the course of your journey in the Himalayas? — The general outline of our routes are the following: "Hermann Schlagintweit examined in 1854 the Dekkan and Southern India, with his two brothers, *viâ* Poonah to Bellary; from there to Bangalore with Robert; from Bangalore he continued alone his researches down to Madras. In 1855, Bengal, the Himalayas of Sikkim, and the eastern frontier of Nepal, the Naga and Kossia Hills, Assam, a part of Bhootan, the delta of Kunawar, Spiti, the Salt Lakes of Tibet; he met his brother in Leh, and continued with him his researches across the chains of the Kuenluen to Khotan (Khotan Yarkand). Returned to Ladak, and then travelled *viâ* Sooroo to Kashmir. In 1857, the south-east Punjaub, Central Nepaul and Bengal. He left Calcutta for Europe on the 23rd of April, making a stay of 14 days in Egypt.

"Adolph Schlagintweit examined in 1854 the plateau of Mahabuleshwar, the southern parts of the Dekkan, *viâ* Kuladghu to Bellary, with his two brothers; went alone by Cuddapah to Madras, with a visit to the diamond districts. In 1855 he visited Bengal, North Western Provinces, the Himalayas of Kumaon, and Gurwhahl, crossed the Himalayas into Tibet with his brother Robert, and examined the basin of the Sutlej, and the sources of the Indus. Ascended on Ibi Gamin to a height of 22,260 English feet. During the cold season he visited parts of Central India, the Valley of the Godavery (Madras Presidency), the Neilgherries, and the fossiliferous strata between

Trichinopoly, and Cape Comorin. In 1856, part of Bengal, Sirmor and Zanskar in the Himalayas; Balit and Gilgit, in Tibet, and the Mustak Pass, on the Karakorum range. Returned by Gurys to Kashmir, and the Northern Punjaub. In 1857, Northern Punjaub (Peshawar), the hills between Kohat and Huzarab, and a part of the Solenian range. He was then engaged in examining the Himalayas between Kangra and Kashmir, and intended to return to Europe at the end of November; but since then he was prevented from travelling in India by the mutiny. He went a second time to Turkistan, from whence for 11 months no direct news had reached us; the last intelligence through Sir John Lawrence is that there are constant rumours in Ladak that he has fallen at Yarkand in action against the Chinese.

"Robert Schlagintweit examined in 1854 the Dekkan and Southern India, together with his brothers, on his way from Bombay to Bangalore; he went by the Coimbatoor Ghat down to Madras; in 1855, Bengal, North-Western Provinces, the Himalayas of Kumaon and Gurwhahl; he crossed the Himalayas with his brother Adolph into Tibet, and examined the basin of the Sutlej, and the sources of the Indus; ascended on Ibi Gamin to a height of 22,260 English feet. During the cold season he examined Central India, Bundelkhund, the environs of Amartantak, and the sources of the Nerbudda, Tons, Sone, and Johilla. In 1856, North Western Provinces, Sirmore, and Lahoul, in the Himalayas, Central Ladak; met his brother Hermann at Leh, and continued with him his researches across the chains of the Kuenluen in Khotan (Khotan Yarkand); went from Leh, by Dras, to Kashmir, and by the most northern route, through Hazarah, into the Punjaub. In 1857 travelled through the Punjaub, Scinde, Kutch, Kattewar, and Guzerat down to Bombay and Ceylon. Left Ceylon 11th May for Europe." Our researches extend from 5° to 37° latitude north, and 68° to 98° longitude east Greenwich. The total length of the lines along which the researches were carried on amounts, by an approximate calculation, to 18,000 English miles.

6982. Which was the lowest and easiest pass which you found across the Himalayas? — There are several passes; the lowest of the passes leading over the Himalayas' range to Tibet is, we think, the Niti Pass, 16,000 feet.

6983. Did you make any observations upon the climate? — Yes; meteorological researches were amongst the special objects of our mission to India.

6984. What was the result of your observations upon the climate of the Himalayas? — The Himalayan range is so extensive that different groups of climate must be distinguished. In the more eastern parts the quantity of rain is very great; at Darjeeling, for instance, exceeding 120 inches. This is a particularly predominant feature, and it one which has not a favourable influence on European constitutions. In the more central parts of the Himalayas, and still more near its western termination, the climate is considerably less humid. In Tibet and to the north of the Karakorum, the climate is distinguished by extreme dryness, which makes it much more healthy.

6985. What portion of the Himalaya range do you consider the most favourable for the settlement of Europeans? — The north-western portion.

6986. Which should you say was the best country for settlement or cultivation by Europeans? — Cashmere; but that is not part of the British possessions.

6987. But if it were, would that be the most favourable part? — By far.

6988. In Sikkim, what sort of climate is it there? — The climate is very mild and temperate, but it is particularly characterised by the great fall of rain; the quantity of rain which falls there has exceeded 120 inches within the last few years, during which very detailed observations have been made, and the consequence is, that there is a great tendency to dyspepsia on the part of Europeans, a disease from which even the natives are not exempt when they come up from the plains.

6989. Are there any valleys of any breadth in the Himalayas proper? — There are only large valleys or valleys of any considerable extent in two parts of the Himalaya range, that is, in Nepaul and in Cashmere; they are former lake beds, now drained by progressive erosion; the great development of the erosion is a very characteristic physical feature for the Himalayan valleys in general.

6990. Where are the best roads at present in the north-western parts? — From Simla the road has been made to the Tibetan frontier by Kooloo and Lahoul, and another road has been along the valley of the Sutlej to Spiti; the former one is in excellent condition, and extensively used.

6991. In these parts of the Himalayas are there anything like dairy farms? — No; we were very much astonished by the entire want of dairy farms; there are in some parts places which would be very suitable indeed to them; the cattle are at present of an inferior description.

6992. They are nothing like what you have in Switzerland? — No; the soil would be perfectly suitable to dairy farms, more particularly in the western parts.

6993. Might the breed of cattle be improved at all in that part? — Yes. Crossings between the Yak or Tibetan ox, as well as with European cattle, have been often and successfully tried. Besides the meat and hides, ghee and cheese might be produced, and would both find a good sale. Only sheep are now reared in large quantities, somewhat comparable to Alpine farming in Europe.

6994. You have mentioned dyspepsia and dysentery as prevailing in some parts of the Himalayas; to what cause do you attribute that? — Not to the elevation, but to the great moisture which prevails there, and to the malarious modifications of the atmosphere which science cannot till now chemically define, but the physical effects of which are most decided.

6995. Do those diseases prevail at all in Tibet? — No at all in Tibet; one the contrary, people go there to get cured of them.

6996. How do you account for their not prevailing there? — We think it is owing chiefly to the dryness of the atmosphere; we never had the slightest case of the kind, neither ourselves, nor our servants or camp followers.

6997. What are the highest inhabited villages? — In the Himalayas they reach to a height of from 11,000 to 11,500 feet, but then the houses are generally left unoccupied during the winter; in Tibet the villages are much higher; some are above 14,000 feet.

6998. What are the chief roads over the Himalayas into Tibet? — Over the Himalayas the following are the chief roads to Tibet and Central Asia. Bhutan, through the territory of the Kampo Bhutas, about 40 days' march, one primary, one secondary pass. Through Bhutan Proper trading is at present impossible, on account of the population. Sikkim: the best passes are in the east of Sikkim; road to Lassa is now 30 ordinary marches. The difficulties of the road are greatly exaggerated. One of the best passes is the Paris Pass. Nepal is closed to Indian trade at present, on account of Jung Bahadur's government. The passes 177,000 feet at least [sic!]. One of the most frequented passages is of the east of Gourisankar (or Mount Everest); it is seen in our water-colour picture of Gourisankar. Kumaon, from the foot of the mountains up to passes to Tibet, 14 to 16 days' marches; very deep valleys. Passes high (Uta Dhura and Kyungar).

6999. Have you made any observations upon the trade with the interior? — Yes, we did, particularly in our last journey to Turkistan.

7000. What would be the chief articles of trade if we opened a trade with Central Asia? — One of the most important articles, I think, would be tea, the

quantity of tea consumed in Tibet being very great; and the supply coming from China, being carried over a very great distance. The tea consumed in Tibet is generally a coarse one.

7001. How high up in the Himalayas will the tea plant grow? — To the height of about 5,000 feet, as an approximate upper limit, plantations have been made which have succeeded very well; but the best localities are considerably lower. In Assam the tea plantations are on little hills, from 200 to 300 feet above the level of the valley (*a drawing of the valley of the Brahmaputra, was exhibited by the Witnesses to the Committee*). The present well-known commissioner, Colonel Jenkins, had a particular merit in extending the tea cultivations. The tea in Assam was first discovered wild by Mr Bruce, magistrate at Tezpore, and carefully traced by Dr Griffiths.

7002. Do you think it probable that under favourable circumstances tea might be cultivated all along the Himalaya range? — Yes, undoubtedly.

7003. So as to produce an almost unlimited supply of tea? — Yes.

7004. Is tea extensively used by the hill tribes? — It is used by them much more than it is by the people of the plains. It is not generally used now; but we think that the hill tribes also in the Himalayas would be very glad to get tea if they could purchase it at a rate consistent with their means.

7005. Of course the people of Tibet are supplied from China? — They are.

7006. Do they consume a considerable quantity of tea? — Tea is considered indispensable to them.

7007. It is expensive? — The price of the cheapest tea brought into Tibet now if, of course, greater than it would be if it were cultivated in India. Dr Jameson mentions in his report that he believes he might be able to produce tea at 6 *d*. per pound.

7008. Would the Himalaya tea be better or worse, in your opinion, than the Tibet tea?—It would be far better than the tea which they now get in Tibet.

7009. The people get tea in the shape of bricks, do they not?—Yes, the people use the brick tea, and prepare it with water, salt, soda, and butter; in Central Asia they sometimes use it in that way, but very often they prepare it as we do. Tea prepared according to our fashion, being only an infusion of hot water, is called by the Turks, Mongolians, and Tibetans, tsha tshosh, teawater; and tea prepared with soda, salt, water, and butter, is called tsha, or tea *par excellence*.

7010. At all events, they could have the brick tea from India, if they preferred it? — Yes; this form is produced by the tea being compressed, and brick tea can be made of any tea; and if it suited their taste better, the plantations of the Himalayas could supply them with tea in the form of bricks quite easily.

7011. Would the Himalaya tea be better or worse, in your opinion, than the Chinese tea? — It would be better than the tea they get now, but not better than the best quality of Chinese tea.

7012. What are the imports that could be brought from Central Asia? — Silks, raw and manufactured; bhang, a kind of intoxicating preparation made from hemp, which is produced in very large quantities; shawls, velvets, sugar-candy, ponies, grain of all descriptions (but this latter only from Central Asia to Tibet, where it is exchanged, instead of money, against Indian merchandise); also gold and silver ingots, but those not in quantities to be remunerative.

7013. Salt forms an article of export, does it not, from Tibet? — Yes, salt is brought down from Tibet to India in great quantities. Large masses of salt are found on the road from Tibet to Khohan in a pure state close to the surface; but salt is a

heavy article, and if the circumstances in those latter localities are not very favourable to make it here a great object of commerce [sic!].

7014. What besides tea would be an article of export? — Cloth.

7015. Do they use much cloth? — They only use woollen cloth of a coarse description.

7016. By whom is that cloth supplied? — Some of it comes from Russia; we have seen quantities of samples with Russian tickets upon them; they have golden letters of a large size, very showy, and two or three inches long, which are pasted on the cloth.

7017. Do you think that British woollens might be introduced with advantage? — Yes.

7018. Is the access which the Russians have towards this part of Central Asia more easy than the access which we should have by the Himalayas? — Yes, they would always have the advantage of easier roads; but they have the disadvantage of a much greater distance, and of having to travel partly through nearly uninhabited countries.

7019. Do you think, therefore, from your experience as travellers in those parts, that we should have a fair chance with the Russians if good roads were constructed? — Yes; we corroborate the view taken by Mr Moorcroft, who states "it is at our option whether Central Asia shall be supplied with goods from Russia or from England."

7020. They are a very poor population, both in Tibet and in Central Asia, are they not? — In Central Asia they are much more wealthy; they have very little agriculture, but they carry on an extensive trade.

7021. Besides Tibet, there are other regions inhabited by the Mongolian race, to the north-eastward; are they great consumers of tea? — Yes.

7022. They drink tea in large quantities, do they not? — Yes, and prepared as tshu, in the manner we described as above.

7023. Would it be possible for us, do you think, to supply them with tea as well as the people in Tibet? — The distance is so great, that we think Chinese tea would be, so far north-east, much cheaper.

7025. Is borax found in Tibet in large quantities? — It is chiefly limited to the valleys in the western parts; it is now an article very much used in trade for technical purposes in India, and it is brought down in as large quantities as the means of communication will permit.

7026. Have you not mentioned a stone called the jade stone which is much used in India? —We went to the place where the mines are, to Goolbagashen, in the Karakash valley, and where the stone is found in quite a soft state, though it hardens very soon; all the jade stone seen in India comes from this locality, and I believe that all of it that goes to China goes from that part. That would be an article of trade, the cost of it being so great, that it can well bear a heavy freight.

7027. Is it used exclusively for ornamental purposes? — Yes.

7028. What is the chemical composition of jade? — It is a silicate of magnesia and alumina, containing small quantities of iron and chrom [sic!] as colouring matter; its mineralogical name is nephrite.

7029-30. *Mr. Mangles*] Is it something like agate? — Not exactly mineralogically, but it a little resembles some kinds of agate, and cuts or scratches glass very deeply after it has hardened.

7031. *Chairman*] Is copper to be found in Tibet or in Central Asia? — In the eastern parts of the Himalayas a not unimportant quantity of copper is found, which is

brought down to India; but in general, copper, and also zinc, is brought up in great quantities to the Himalayas, where they want it for founding their basins as well as their idols. I met with a piece of zinc near Katmandoo which had come from one of our German zinc works; I found a German inscription on the piece of metal with the words "Schlesischer Verein Justin hütte Nro 10." It was imported to Calcutta, and came from there to Nepal by Bengal.

7032. Have you anything to say with regard to general political relations as affecting trade across the Himalayas? — The very eastern part of the Himalayas, near the junction of the Brahmapootra and the Dihong, are inhabited by independent and nearly savage tribes, viz., the Abors, Mishmis, Sinfos; no trade is possible with these tribes. The first regular settlement of buddhists are met with north and north east of Tezpore; the Khampo Chutias (wandering) Bhutias. There is a succession of small estates dependent on Lhassa, small Lama principalities along the road to Lhassa *viâ* Nurigaon and the Tawong (visited by Hermann Schlagintweit, 1855 to 1856). They would allow trade to be carried on indirectly. Bhutan Proper at the present moment, also much subdivided, seems likely to be for some years quite inaccessible to the European trade.

7033. *Mr Lowe*] Why is not Bhutan accessible to European trade? — The people are in a quite unsettled state, and there are many robberies going on constantly.

7034. There is no security to life and property there? — No; and besides, also, politically, not the slightest possibility of access for Europeans.

7035. What is the Government in Bhutan? — It is an ecclesiastical Government; it is much subdivided; the different provinces are pretty independent, and jealous of each other.

7036. There are some Buddhists there? — They are Buddhists only.

7037. Are these rajahs ecclesiastical princes as well as secular? — Yes.

7038. *Mr Willoughby*] They have no connexion with the East India Company, have they? —No.

7039. *Chairman*] Therefore Bhutan Proper you think at present is not likely to be accessible to European trade? — No.

7040. What do you say of Sikkim? — That at present is not in very friendly relation with the Indian Government, but later the Sikkim Government may be induced to allow European trade to go through this country; and that, I think, could be done with great advantage.

7041. Is there much smuggling there now? — Yes; and that shows how profitable fair trade, when properly managed, could become.

7042. What is the reason that they have not opened the road there; have any representations been made to the Government upon the subject? — I do not know; but the most able and zealous superintendent, Dr. Campbell, could till now never succeed to open a friendly intercourse.

7043. There is no sufficiently good road at present, and there ought to be a better road? — Yes, but it is not in the power of the superintendent to get it made at present.

7044. Is it desirable, in your opinion? — I think it would be a great advantage.

7045. You have mentioned that there is a great deal of smuggling; what articles are smuggled into Tibet? — Salt, and particularly tobacco.

7046. From India into Tibet? — Salt from Tibet into Sikkim, and tobacco from Sikkim into Tibet. Tobacco, particularly, bears a very high price there.

7047. Are there any other articles smuggled besides salt and tobacco? — Silk.

7048. Are any manufactured articles smuggled? — Not many.

7049. Are the impediments to trade to Tibet in general caused by the inhabitants of Tibet or by the Chinese? — Not at all by the inhabitants, but by the Chinese Government, which I am sure would not answer any official addresses for the purpose of opening trade. When Major Cunningham and Captain Strachey were in Tibet, charged with the regulation of the frontier, the efforts that were made to get official relations with the Chinese were absolutely useless.

7050. Do you think it desirable that any attempt to open the trade into Tibet should be made, not through the local Chinese authorities there, but through the Imperial Government of Pekin? — It might be tried, but the success is very doubtful.

7051. If we come to any general arrangement with them on the subject of trade, might not that be the best opportunity? — Yes; but I think it would depend upon its being said that no European is intended to go into Tibet, and that the trade is to remain as it is now, in the hands of the natives only, that the taxes are not to be too high, and that the caravans are more fairly dealt with than they are at present.

7052. You have mentioned the Rajah of Sikkim as not being favourably disposed to Europeans? — Yes.

7053. Are the people of Sikkim favourably disposed to them? — They are a good natured and kind-hearted people, and they are always great friends with Europeans; also Dr Hooker in his so successful and important travels, found them so; all the hill tribes are favourable to a European government; they are against the Chinese rulers, and in favour of any European government which might present itself.

7054. Are there any obstacles to our trading in Nepal? — Very great obstacles; the chief trade now being in the hands or Jung Bahadoor and his family, who derive so much personal profit from it that they would object to allow any European to trade direct with them. I know an instance when I was in Katmandoo in February 1857, of applications being made by a very respectable merchant in Calcutta, who was well known to the Resident, Major Ramsay; but it was impossible for him to get any concession as to trading; the chief things he wished to receive from Nepal would have been ivory and hides.

7055. Is it a monopoly enjoyed by the family of Jung Bahadoor which prevents the extension of trade there? — Chiefly.

7056. *Mr Willoughby*] Does not the monopoly belong rather to the government than to Jung Bahadoor? — At present he is quite to be identified with the government in Nepal.

7057. He administers the government, does he not? — Yes, with great vigour as well as personal risk. Opposition has often been made, but he always succeeded in suppressing it, not unfrequently with bloodshed.

7058. It is foreign territory there, is it not? — It is.

7059. *Chairman*] Have you anything to state with regard to Kumaon and Gurwahl? — The inhabitants are very quiet people, and everything is going on very well there. Roads have been partially made.

7060. Can Europeans go that way to Tibet? — No, they cannot; there is great vigilance kept up all along the frontiers; no European is allowed to go there. We only succeeded by being disguised to get to Gartok, the chief trading place of the province Gnarikorsum.

7061. Therefore trade can only go through native hands? — It can only go through native hands.

7062. What observations have you to make with regard to Cashmere? — I should think that the political relations in Cashmere are now favourable; Europeans can go there, and we know one French merchant who is living actually in Cashmere;

his name is Petit, and he deals extensively in shawls, which he sends direct to Paris, to the Compagnie Lyonaise des Indes. I think that the trade of Cashmere could be immensely improved; the inhabitants of Cashmere would probably be the best to be chosen as the intermediate persons to trade with Central Asia; they are very intelligent people, and are well acquainted with trading matters on a large scale; they would also obtain a free passage for European goods, when going through their hands.

7063. Are the Cashmerees favourably disposed to Europeans? — Yes, and also the Government.

7064. With regard to Turkistan and Central Asia, what are the observations that you have to make upon the trade there? — The trade in Central Asia, I should think, could never be carried on by Europeans alone; it must always be from hand to hand, exactly like the Russian trade to Central Asia…that passes from Russia to a large market; different people bring it to the frontiers, and then it is brought down to Tibet and Cashmere. In Tibet goods would probably be exchanged and brought over to their own country; it would be only a continuation of what is done at present. Our celebrated friend Baron Humboldt met with some Cashmerees in his travels in Central Asia as far north as Semipolatinks. The inhabitants of Ladak and Balti, who are subject to the rule of Cashmere are very favourable to the Europeans. The late Gulab Singh, and especially Basti Ram, his chief officer in Tibet, have made great improvements. Basti Ram greatly encouraged trade by building a bazaar and a broad capital street, and by erecting granaries in Nubra for supplying the merchants trading to Yarkand. He also made a good road to Cashmere, and constructed a bridge over the Indus at Kalsche, which is so solid that it can be passed even by camels. He was very successful in introducing fowls, which were formerly quite unknown (as they still are in the higher valleys of Kumaon and Gurwhahl), and are thriving now very well. Basti Ram also increased the revenues, if we are well informed, by making canals for irrigation. The Turkistanis are immediately subject to, but dislike the Chinese rule. At present there is a very severe political war between the Chinese and Turkistanis, where they wish to get rid of the Chinese. The Turkistanis in general are a very fair set of people, free from many vices of the Indian race, and very enterprising, courageous merchants, who travel from Yarkand to Tibet and Cashmere, and to Bokhara, Kotkund and the Russian frontier. They are very uneducated; we met with no merchant who could read or write the Turkish language; some know Persian.

7065. How far do the Turkistan traders proceed southward? — They go occasionally as far as to the plains of India (we met one who had a lawsuit about property at Loodhiana), but that is a very rare exception; they generally go to Tibet and Cashmere.

7066. Can you say how far they proceed towards the Russian frontier? — They go to Tashkend, on the frontiers of Khokand, and to Chiva, through Bokhara. The people say they are not absolutely prohibited from carrying their merchandise through the Russian territory, but they do not like to do so, though [they are] very well received and protected there; perhaps on account of the difficulty of getting on where different languages are spoken.

7067. Did you ever meet with any Russians in your travels? — No.

7068-9. You did not go into the town of Yarkand, did you? How far short of it did you go? —No, we were a few marches from it; now our brother Adolph is there, if he has not been killed, as there is but too much reason to believe.

7070. Did you meet with any Russian goods? — We met with Russian manufactures only besides those made in the country.

7071. Have you any reason to believe that English goods are sold as Russian in any part of Central Asia? — We are no judges as to whether cloth is Russian or English. The labels which we saw were always Russian, it appeared to be Russian merchandise, at all events it was brought through Russia; but we could not tell whether it had been made in Russia, England, Germany or France.

7072. The Russians are the persons through whom the trade comes? — Yes; and the Russians only.

7073. Might goods be brought by a more easy route from the southward? — Yes, by a route to be travelled over with horses, and the Bactrian camels, but not with carriages; very little improvement might make the road passable for horses, as well as for camels, which are extensively used in Central Asia. The chief road, would probably be through Cashmere. The drawing of the Shayok, near Sultan Chuskul here presented, gives a good example how a little improvement might shorten the road; at, present not only all the mountains which are shown in this drawing, must be crossed, but another chain of mountains, the Sasser Glaciers must also be crossed. With little difficulty a road might be made along the borders of the Shayok with little inclination, passable for camels and horses.

7074-75. *Mr Willoughby*] Who is to make those roads? — The trading nations themselves, supported indirectly by the Government of India, chiefly by getting secured a great facility of disposing of their merchandise.

7076. I gather, from the evidence you have given regarding this country, that whatever trade now exists is carried on by the native traders? — Yes, by native traders only.

7077. And you are of opinion that it could not be carried on through the direct agency of Europeans? — There might be *entrepôts* under European superintendence; there are *entrepôts* now in Leh, the capital of Ladak, for merchandise, in Nubra for grain and provisions.

7078. To whom do they belong? — To the Rajah of Cashmere.

7079. It would be necessary to obtain his consent, would it not? — It would; but I think that that might be obtained without difficulty.

7080. You have talked about experiments being made in the cultivation of tea at Kumaon?—Yes.

7081. Was that under Dr Jameson? — Yes.

7082. Have you never seen the Government notification upon the terms under which land is granted? — Yes, I know the paper you mean.

7083. Are these the terms upon which land is officially granted in Kumaon? "Grants of land for tea cultivation on the Kumaon and Gurhwal districts of the Kumaon province will be made on the following conditions, on application to the Senior Assistant Commissioner of the district. 2. Each grant will be of not less than 200 or more than 2,000 acres. More than one grant may be taken by one person or company, on the applicant satisfying the local authorities acting under the usual control in the Revenue Department, of their possessing sufficient means and capital to undertake an extended cultivation and manufacture of tea. 3. One-fourth of the land in the grant will be given, free from assessment, in perpetuity, on fulfilment of the conditions below stated. 4. The term of first lease will be for 20 years. For the first four years the grant will be rent-free; in the fifth year, one anna per acre will be charged on three-fourths of the assessable portion of the grant, two annas per acre in the sixth year, three annas in the seventh year, and so on, one more anna being added in each, till, in the last year, the maximum rate is reached of one rupee per acre. The full assessment on a grant of 2,000 acres will thus not exceed 1,500 rupees per

annum. 5. The following are the prescribed conditions of clearance. At the close of the fifth year from the date of grant, a twentieth part of the assessable area; at the close of the tenth year, one-fifth of the assessable area; and at the close of the last year, three-fourths of the assessable area is to be cleared, and well stocked with tea plants. 6. In the 21st year, on the fulfilment of the above conditions, the proprietary right in the grant and the right of engagement with Government, shall vest in the grantee, his heirs, executors, or assigns, under the conditions generally applicable to the owners of estates in Kumaon; and the rate of assessment on the lands in the grant, in whatever manner cultivated, shall never exceed the average rate on grain crop lands in the same locality. 7. On failure of payment of the prescribed assessment in any year, or of any of the above conditions (the fact of which failure shall, after local inquiry conducted by the Senior Assistant Commissioner, be finally determined by the Sudder Board of Revenue), the entire grant shall be liable to resumption, at the discretion of the Government, with exception to the portion-of the assessable area, which may be bond fide under tea cultivation, and to a further portion of land, which shall be allowed in perpetuity free of assessment, to the extent of one-fourth of such cultivated area; the portions so exempted will remain in the possession of the grantee, subject to the usual rates or rules of assessment in the district. 8. Grantees shall be bound to erect boundary pillars at convenient points round the circuit of a grant within six months from its date, failing which, such pillars will be put up by the Government officers, and the cost thereof shall be recoverable from the grantee, in the same manner as the regulated rate of assessment. 9. No claim lo the right and interest in a grant on any transfer by the original grantee will be recognised as valid, unless on registry of the name of the transferee in the office of the Senior Assistant Commissioner. 10. So long as Government establishments for the experimental growth and manufacture of tea shall he maintained in the provinces, supplies of seeds and plants will be given gratis to grantees, on application to the superintendent, Botanical Gardens, North Western Provinces, as far as may be in his power. By order of the Honourable the Lieutenant-governor of the North Western Provinces."? — Yes.

7084. You say that Europeans can enter into the province of Cashmere; but of course it is necessary to obtain the Rajah's consent, it being a foreign territory? — There is a treaty with the Rajah of Cashmere to allow any European whom the British Government approve, to pass through his country, but not to settle there.

7085. Military and civil officers are obliged to obtain the consent of their Government, are they not? — Yes, they are obliged to obtain the consent of the Chief Commissioner of Lahore.

7086. What is the object of that precaution? — They do not want Europeans to settle there; all Europeans are obliged to come out of Cashmere in the winter. I do know but of one instance of a European, who is a Frenchman, Mr Petit, as before mentioned, remaining there; but I do not know how he obtained his permission.

7087. *Sir Erskine Perry*] How long were you in India? — Three years, nearly.

7088. Have you come in contact with the Hindoos and the commercial classes of India? — Yes.

7089. Are you of opinion that they have a great knowledge of commerce and trade, and that they have a great turn for bartering, and for trade of all kinds? — A certain class of them have.

7090. The soldier class, I suppose, does not trade at all? — No.

7091. Are you not of opinion that their knowledge of trade and their talent for commerce is very great? — We never had to do business with them.

7092. But from what you observed of them in India, are you not aware that the Hindoos are excellent traders, that they are very clever as accountants, and that they have full confidence in one another? — I could not say much for their not cheating one another. I believe they have great talent for bookkeeping, and perhaps it may be improved and increased.

7093. You say you have doubts as to their confidence in one another; are you not aware that the confidence reposed in them is so great among traders, that their hoondees go from one part of India to the other without the least difficulty, and that greater commercial confidence is shown by them than is shown by any other class of traders whatever? — Yes; we know their system of hoondees, and their being accepted.

7094. Therefore the mutual confidence of these trading classes is very great, and that it is not surpassed in any part of the world, so far as you are aware? — I do not feel confident as to that.

7095. *Mr Gregson*] A hoondee is a bill of exchange, is it not? — Yes.

7096. *Sir Erskine-Perry*] With these talents for trade and commerce which belong to the Hindoo commercial classes, do you not think that they would find out profitable branches of commerce in the countries you speak of? — Of themselves they would not be able to travel the country through, but we have no doubts, their commercial talents would greatly assist the trade, which can never be carried on but by transferring the goods from nation to nation.

7097. Is not the reason of that, that the climate is very inclement and inhospitable, and that the natives of the hot plains of India would not be able to stand the hardships to which they would be exposed in going through these rugged mountains? — They would not.

7098. They form a natural barrier, preventing trade and intercourse between the one country and the other, do they not? — The inhabitants of the plains go as far as Cashmere; there the merchandise passes, as formerly stated, into other hands. We cannot see a positive obstacle in the climate.

7099. You say that the people to the north of the mountains, and the inhabitants of Yarkand and other places, have a great turn for trade and commerce, and the inhabitants of the plains of India have also, have they not? — Yes.

7100. Would not the obstacles interposed by nature prevent any active trade from being carried on by these two populations? — At present the roads are scarcely in a state as to allow of it; and nevertheless the trade is already now very important.

7101. Do not these mountains present more extraordinary obstacles to free intercourse between one country and the other than any other part of the globe presents? — They present great obstacles, but they are at present already partially overcome, otherwise no trade could be carried on. Besides, there are obstacles on the other side too; not only the obstacle of distance, but there are uninhabited tracts of country, which are unsafe by robbers; and those difficulties are in many parts equally great with the difficulties of these barriers to which you referred, and which might be considerably reduced by means of roads.

7102. As to the danger of robbers, is not that also incident to the rough and rugged country which these mountains present? — No, there is nearly no rubbery going on on [sic!] the Himalaya side, or, at all events, much less than on the northern side.

7103. Do you not think that, as a general principle, that whatever facilities there are for trade and commerce will be found out by the self-interest or these

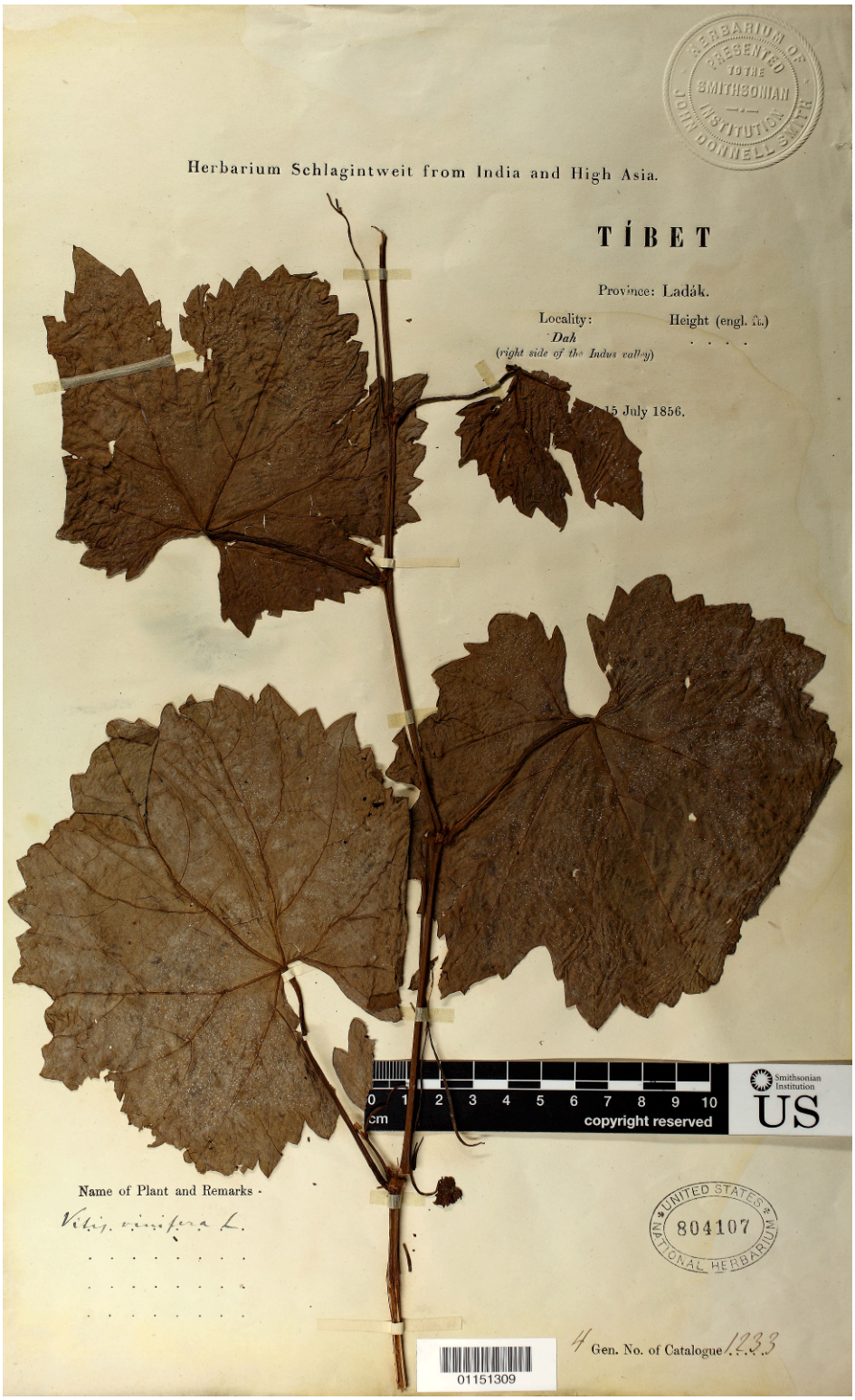
industrious populations existing on both sides? — I see no bad result from it; for, as we said before, trade can only be carried on by them.

7104. I am asking whether self-interest, which, generally speaking, leads men in all parts of the world to find out what is best for them, would not operate in this case to stimulate commerce, if the natural obstacles which exist could be overcome? — Quite so; only it remains an open question whether trade will find a greater encouragement on the northern or on the southern side. Till now the Chinese and the Russians are the only two nations sending to the north of Tibet.'

Misc. objects from the Schlagintweit Collection:

Indian playing cards, collected by the Schlagintweit brothers in Ladakh, and reproduced for sale; source: *Auf dem Weg zum Dach der Welt* (1982), p. 89.

Sample of the 'Herbarium Schlagintweit from India and High Asia', Papaver somniferum (Opium plant), source and copyright: Smithsonian Institution-NMNH Department of Botany.



Sample of the ‘Herbarium Schlagintweit from India and High Asia’, Tibet, province, Ladak; 15 July 1856, Vitis vinifera (common grape vine), source and copyright: Smithsonian Institution-NMNH Department of Botany.

‘Mask of a local Deity’, coloured copy in plaster, height: 79cm, Western Tibet, from the Schlagintweit Collection, source and copyright: Staatliches Museum für Völkerkunde München, photograph by Marianne Franke.

‘Mask of a bDud [sic] demon’, copy in plaster, height: 77 cm, Western Tibet, from the Schlagintweit collection, source and copyright: ibid.

The Bavarian satire of the Schlagintweits’ famous collection in the *Münchener Punsch*:

No. 17, 29.4.1866, p. 130:

‘Anthropologie.
Wirklich großartig ist diese Schädel- und Typensammlung der Gebrüder Schlagintweit! Alle Racen und Entwicklungsstufen sind vertreten, es fehlt nur noch – ein Kronsyndikus und eine Obertribunalrath.’

The Prussian satire of the Schlagintweit in the *Kladderadatsch*:

Document 1, *Kladderadatsch*:

The Schlagintweit and the notion of ‘escapism’ in mid-nineteenth century Prussia, as played out in the satirical magazine of the *Kladderadatsch: humoristisch-satirisches Wochenblatt*, Nr 35 and 36; Berlin, 2 August 1857, p. 137 (emphasis mine):

‘In die Ferne!
(Sauregurkenzeitgemäßer Stoßseufzer eines daheimgebliebenen Berliners).

In die weiten Fernen möcht' ich schweifen,
Ach, im Juni, Juli und August!
Posthornblasen und des Dampfes Pfeifen
Schwellen mir das Herz in Reifelust.
Und am Graben wandle ich des Schafes,
Und an seinem Ufer ruh’ ich gern,
Und in Träumen sanften Mittagsschlafes
Trägt mich Phantasie der Heimat fern.

Hin ins Land der Lieder und Romanzen,
Oder dort, wo schon seit langer Frist
Die Nation im Duft der Pomeranzen
Unter der Kanone glücklich ist.
Dann des Bosporus Wellen hör’ ich rauschen,
Und ich dränge mich zum Atmeidan,
Um mit Stambuls Männern dort zu lauschen,
Was ein Märchendichter lügen kann.

Weiter, weiter treibt’s mich dann gen Osten,

Wo das Krokodil des Ganges kriecht;
Wo jetzt Albion auf verlornem Posten
Aloe, Sandel und auch – Lunte riecht;
Der Banane schlanker Kronenwipfel
Kühlung weht in heißer Mittagszeit;
Auf des Dolagir beschneitem Gipfel
Wanken die **Gebrüder Schlagintweit**.

Schnell nach Afrika dann und Australien
Ist der flücht'ge Traum mit mir entfloh'n,
Wo aus manchem Lande die Canaillen
Als Verbannte finden ihren Lohn –
Wo des grimmen Tigers Wuth die zahme
Antilope selten läßt in Ruh,
Oder wo der keuschen Kryptogame
Liebe girrt das heitre Känguru.

Ach, daß ein Paar Flügel mein doch wären!
Tragen hätten sie mich längst gesollt
Dorthin, wo im Bauch der Cordilleren
Ohne Agio noch steht das Gold.
Zu des grausen Nordmeers eis'gen Busen
Hätten sie mich auch im Flug geführt,
Wohin Humboldt felbst und Wachenhusen
Nimmer ward ein Reisepaß visirt!

Ich erwach', und – wehe! An die Scholle
Fest gekettet bin ich, winz'ger Zwerg!
Was mein Blick dort schaut, der sehnsuchtsvolle,
Ist nichts als — der Thurm von Schöneberg!
Nur die Hoffnung einer künftigen bessern
Zeit gewährt mir noch der Tröstung Stoff,
Ach, und salz'ge Wehmuthsthränen wässern
Meine saure Milch - in Albrechtshof!

Kladderadatsch'

Document 2, *Kladderadatsch*:

Kladderadatsch: humoristisch-satirisches Wochenblatt, Nr 35 and 36; Berlin, 2 August 1857, p. 142:

'Wir sind so glücklich, ein Poetisches Product des Ober-Pfassenhofener Barden mittheilen zu können, in welchem derselbe, anknüpfend an ein jüngst von den Zeitungen gemeldetes Ereigniß, seine Landsleute, die durch ihren Ruhm bekannten Gebrüder Schnabelweit verherrlicht. Es sind dies dieselben beiden Gelehrten, denen die hiesige Akademie der Wissenschaften die höchst wichtige Nachricht verdankt,

daß das Meer bei Samos einen Grad R. wärmer gefunden worden, als die Gewässer des Canal La Manche.

Der „Fortbeweger“ war schon pfiffig,
Der Fürst war abzufahr’n begriffig,
Der Sprosse eines hohen Stamms;
Da scholl zu ihm die frohe Kunde —
Er hörte sie mit offnem Munde,
Das Aug’, in Freudenthränen schwamm’s:
„Sie, die den Orient durchforschten
Selbst da, wo grause Adler horschten!
Und auch des Meeres Temprament —
Sie, die auf steilen Bergeshöhen
Gefroren sehr und nichts gesehen,
Sie sind, o Herr, Dir nachgerennt!“
Den ganzen Zug ließ er da halten —
O wunderbares Schicksalswalten!
O ruhmerfüllte, große Zeit!
Dann hat er sie herbeigewunken,
Fast wär er in den Arm gesunken
Den drei **Gebrüdern Schnabelweit**.“

Document 3, *Kladderadatsch*:

Kladderadatsch, 37, Berlin, 9 August 1857, p. 146:

This is a fictional account that the brothers were said to have given at an imaginary ‘Academy of the Sciences at Disteldingen’. The mockery piece shows a remarkable acquaintance with many aspects of their expedition, and pays even attention in its satire to the scientific reports the brothers had sent over during their explorations, thus providing a subtle and comical account of their entire enterprise.

‘Bericht der berühmten Reisenden, Gebrüder Schnabelweit,
über ihre berühmte wissenschaftliche Reise nach dem Himalaya,
erstattet in der Akademie der Wissenschaften zu Disteldingen.

Meine Herren!
Zurückgekehrt von der großen Reise nach dem Himalaya, die wir, wie Sie aus verschiedenen Zeitungs- und andern Reclamen wissen werden, sowohl im Interesse der Wissenschaft als in unserem eigenen unternommen haben: können wir es mit unserem Gewissen nicht vereinigen, die reiche Ausbeute derselben Ihrer Kenntnis, gelehrte und verehrte Herren, länger vorzuenthalten.
In der gewissen Voraussicht unseres künftigen Berufes und unserer dereinstigen Größe hat die Natur uns in drei Exemplaren geschaffen und in ihrer Weisheit auf diese Art einen dreifachen Zweck erreicht. Einmal ist die drückende Last der Berühmtheit, auf sechs Schultern — so viel haben wir nämlich — vertheilt, leichter und bequemer zu tragen, als wenn die Wucht derselben sich auf ein einziges

Schulternpaar, und wäre dies noch so breit, concentrirte. Ferner erwächst durch diese Einrichtung unseren Gönnern, auf deren Kosten wir zu reisen pflegen, eine große Ersparniß, indem bekanntlich drei Personen immer etwas wohlfeiler reisen, als zwei oder gar nur eine. Drittens endlich ist durch diese unsere Zahl die Continuität unserer Forschung und Berichterstattung garantirt, indem dafür gesorgt ist, daß, wenn auf unseren ebenso großen als gefahrvollen Reisen auch der Eine von Wilden aufgefressen werden und der Andere irgend ein anderes Bedürfnis zu verrichten haben sollte, immer noch Einer übrig ist, um Europa über das Schicksal der beiden Anderen, sowie über die Resultate unserer Bemühungen zu beruhigen. Mit diesem Empfehlungsbrief der Natur und den noch wichtigeren des Herrn von Humboldt und einiger anderer anerkannter Empfehlungsbriefsteller ausgerüstet, traten wir unsere Reise nach dem Himalaya, jener, Einigen von Ihnen, meine gelehrten Herren, dem Namen nach vielleicht schon bekannten Gebirgskette Mittelasiens, mit dem Nachtzuge der Frankfurter Eisenbahn an.

Der erste Punct, dessen klimatische, botanische und ethnographische Verhältnisse wir zum Gegenstand unserer Untersuchungen machten, war Erkner. Die Temperaturverhältnisse dieser wildromantischen Gegend sind trotz ihrer südöstlichen Lage von denen des hiesigen Ortes nur wenig verschieden. Das Wetter war schlecht, und die von uns angestellten Barometermessungen ergaben das Resultat: „Regen und Wind.“ Die Vegetation ist keineswegs üppig. Von interessanten Pflanzen bemerkten wir nur die Pinus Abies (die gemeine Fichte) und das ebenso gemeine Chicorium Intybus, von denen die erstere im Freien, die letztere in den Caffeetassen des Bahnhofsrestaurants in großer Menge gefunden wird. Die Bewohner dieses Himmelsstrichs boten unserer Beobachtung keine großen Racenvarietäten dar, indem sie nur aus einem Menschen bestanden, dessen Schädelbildung und sonstiger Habitus auf diejenige Species der Kaukasischen Race schließen läßt, welche sowohl Blumenbach als Cuvier mit dem Namen Puer cauponis (Kellner, oder noch präciser: Bahnhofskellner) bezeichnet haben.

Von dort gelangten wir nach einem kürzeren Aufenthalt in Fürstenwalde, woselbst wir unseren Bruder Adolf Schnabelweit einige Zeit zurückließen, nach Frankfurt an der Oder, einem schiffbaren Flusse, welcher hauptsächlich die Mission zu haben scheint, die an seinen Ufern gelegene Stadt vor unangenehmen Verwechselungen mit ihrer Namensschwester am Main zu bewahren. Die Güte eines hier von uns entdeckten tropfbar flüssigen Stoffes (Cerevisia Carthausiana) brachte die Stadt bei uns in den Verdacht bedeutender akademischer Antecedenzien. Wir ließen eifrige Nachgrabungen anstellen und fanden uns bei denselben auch reichlich belohnt, indem wir am Ende eines über 30 Meilen weit getriebenen Stollens in der Nähe von Breslau wirklich auf das Petrefact einer Universität stießen, welche die Spuren ihres Ursprungs auf Frankfurt zu reduciren in jeder Weise berechtigt erschien. Dieser Theil unserer Reise war ebenso mühsam als gefahrvoll; denn etwa auf dem dritten Theil unserer Arbeit trafen wir auf eine Flüssigkeit, welche von oben durch den Boden herabsickernd, von einer so penetranten Säure war, daß sie die Wände des von uns gegrabenen Stollens zusammenzuziehen und so die ganze Arbeit unserer Durchstecherei völlig zu paralysiren drohte. Unsere Messungen ergaben, daß wir uns perpendiculär unter der ehemals Sächsisch, jetzt Preußisch-Niederlausitz’schen Kreisstadt Guben, und zwar unter ihrer Schattenseite befanden.

Von Breslau begaben wir uns nach einem längeren Aufenthalt von 10—15 Minuten über Oderberg nach Wien. Ueber die ethnographischen Verhältnisse dieses Ortes — der Hauptstadt von Oesterreich, wie Sie, meine gelehrten Herren Collegen, vielleicht wissen werden — mich weiter auszulassen, wird mir durch Rücksichten der

Discretion verboten. Was ich Ihnen darüber zu sagen im Stande wäre, könnte zu leicht den Anschein einer parteiisch gefärbten Auffassung und Darstellung erhalten, da die Oesterreichische Regierung eine der wenigen ist, welche sich von jeder Mitschuld an den bedeutenden Kosten unserer wissenschaftlichen Expedition völlig rein zu halten gewußt. Ich begnüge mich deßhalb mit der einfachen tatsächlichen Mittheilung, daß wir über Triest nach dem Adriatischen und später nach dem Mittelländischen Meere gelangten, dessen genauere Durchforschung uns durch die verschiedenen Stadien einer sich fortwährend perfectionirenden Nausea (zu Deutsch: mal-de-mer) bis zur Impossibilität erschwert wurde. So kamen wir denn nach Asien und begaben uns auf dem kürzesten Wege nach dem Kamm des Himalaya, wo wir während eines mehrjährigen Aufenthalts die Angaben des Brockhaus'schen Conversatirns-Lexikons und der Pierer'schen Encyclopädie so vollständig bestätigt fanden, daß wir mit Vermeidung aller Weitläufigkeiten und unnützen Wiederholungen uns schließlich begnügen dürfen, Sie in Betreff der Einzelheiten unserer Reise und ihrer wissenschaftlichen Resultate auf die betreffenden Artikel der genannten beiden, ebenso gediegenen als leicht zugänglichen Werke zu verweisen. Dixi et salvavi animam!
Die Gebrüder Schnabelweit.
contras.: Kladderadatsch.'

Document 4, *Kladderadatsch*:

Kladderadatsch, Nr 51, Berlin 8. November, 1857, p. 206:

'Es ist in der That empörend zu lesen, wie die armen drei Gebrüder Schlagintweit jetzt in den Englischen Blättern heruntergerissen werden. Zehntausend Pfund Sterling für drei arme Reisende ist doch wahrlich nicht zu viel, wenn man die Gewissenhaftigkeit bedenkt, mit welcher die gelehrten Forscher zu Werke gegangen und stets darauf bedacht gewesen sind, in ihre Berichte nur solche Mittheilungen aufzunehmen, deren Zuverlässigkeit bereits durch die glaubwürdigsten Zeugnisse anderer bedeutenderer Autoritäten verbürgt waren. Als Collegen wissen wir, wie das thut!
Die Gelehrten des Kladderadatsch'

Document 5, *Kladderadatsch*:

Kladderadatsch, 47, Berlin, 9 October 1859, p. 186 (original emphasis):

'*Die neuesten Ritter vom Geist*

„Dem Verdienste seine Krone!" —
Was der Dichter uns gelehrt,
Hat zu unserm schönsten Lohne
Glänzend sich an uns bewährt.
Trotz der Facultäten Tadel,
Der Akademien Neid,

Sind wir jetzt von jüngstem Adel,
Wir, die Herrn **von** Schnabelweit?

Wie ein Wunder geht die Kunde
Schnell durch ganz Europia,
Macht durch alle Welt die Runde,
Fern bis zum Himalaya.
Unser stilles Wirken war ja
Stets der Andern Spott und Neid!
Und — Hidalgos von Bavaria
Jetzt die Herrn **von** Schnabelweit?

Was wird man in Gurhwal sagen?
Was in Sinmur, Bissahir?
Werden's nicht die Lüfte tragen
Hoch zum Schnee des Dholagir?
In des Setledsch grünem Thale
Ruft das Echo weit und breit
Unsre Namen tausend Male
Als der Herrn **von** Schnabelweit.
Hoch, wie ob des Blocksbergs Höhen
Raget der Himalaya,
Ueber den Kollegen stehen
Wir, die edlen Forscher, da.
Welch unschätzbare Reclame,
Eines Wappens Herrlichkeit!
Wie ganz anders klingt der Name
Jetzt der Herrn **von** Schnabelweit!

Strahlen wird in Volkes Liedern,
Als der Weisheit Cohi Noor,
Einst das Viergespann von Brüdern
Was durchforscht hat die Natur;
Dessen Fleiß auch im Geringsten
Andern Zielen nie geweiht,
Von dem Aeltsten bis zum Jüngsten
Derer Herrn **von** Schnabelweit.

Ach, es zieht ein selig Mahnen
Jetzt in unsre Herzen ein:
Wir sind **Ahnen**! wollen Ahnen
Künftiger Geschlechter sein!
Ja, wir werden nach Aeonen,
In der Zeiten spätster Zeit,
Leben in den Epigonen
Des Geschlechts von Schnabelweit."

Kladderadatsch'

Document 6, *Kladderadatsch*:

Kladderadatsch, Nr 41, Berlin, 4 September 1864, p. 162:

This was yet another mockery related to their family name. In 1864, Hermann had received the honour by the Russian Geographical Society to add the addition to his noble name 'Sakünlünski', which meant the 'Conqueror of the Kuenluen' – the mountain chain in Central Asia the brothers had crossed as the first Europeans. While it was intended as an honorary name, its pretentious sound drew further British polemics against the brothers, which were in this case again taken up by the Prussian satirical magazine.

'Die durch ihre Forschungen auf dem Gebiete der heiteren Länder- und Naturkunde weidlich bekannte Firma „Gebrüder Schnabelweit" - ach nein! entschuldigen Sie - **von Schnabelweit** hat auf ihr Ersuchen von der russischen Regierung die Erlaubniß erhalten, sich zu Ehren des Hauptschauplatzes ihrer Heldenthaten, Kuen-Luen, den Namen „von Schnabelweit-Sakuenluenski" zuzulegen.
Hieran anknüpfend theile ich ergebenst mit, daß ich mir, da auch ich jeden Abend mein Bier auf der Actienbrauerei trinke, von alleweile ab zeichnen werde

Schultze-Kreuzbergowski'

[Immediately below in a separate 'piece':]

'Ich ein Dito.
Müller-Spandauerbockowitsch'

The Schlagintweits' commemorative plaque in Munich also monumentalised the status of Adolph as a martyr of science, and celebrated the pioneering achievements of the triumvirate. It read:

'In diesem Hause wohnten die Gebrüder Schlagintweit, nämlich: Adolf, geboren am 9. Januar 1829 zu München, getötet im Dienste der Wissenschaft am 26. August 1857 zu Kaschgar in Centralasien. Hermann genannt Sakünlünski, geboren am 13. Mai 1826 zu München, gestorben am 19. Januar 1882 zu München. Robert, geboren am 27. Oktober 1833 zu München, gestorben am 6. Juni 1885 zu Gießen, welche in den Jahren 1854 – 1858 Britisch-Indien, Tibet und das westliche Centralasien bereist und sich große Verdienste durch ihre wissenschaftlichen Arbeiten erworben haben.'
Quoted after: August Alckens, *München in Erz und Stein* (Marburg, 1973), 122.

The Schlagintweit as part of the popular series of ‘Liebig Trading Cards’. In an album of 1891, solely dedicated to six ‘Famous Explorers’, we find the names of Alexander von Humboldt (said to be famous for the ‘exploration of Brasil, 1800-1804’), Emin Pascha (‘Africa’s Interior’), A. E. von Nordenskjöld, Magellan (‘first voyage around the world 1519-1521’), De Brazza (‘voyages of discovery in the French Congo 1875-1886’); and: ‘Rob. von Schlaginweit und Herm. von Schlagintweit for the ‘exploration of the Himalayas 1855-1856’.

‘Famous Explorers’, Number 309, set of six trading cards in German language, at https://archive.org/details/OxoLiebig-Explorers-1891, last retrieved April 2014.

Vasily Vasilyevich Vereshchagin, *The Apotheosis of War*, 1871, oil on canvas, measurements: 127 x 197cm, source and copyright: The State Tretyakov Gallery. It is a painting of an old Tatarian 'skull pyramid', supposedly the one erected by Wali Khan with Adolph Schlagintweit's head on top as a symbolic of having superseded the Chinese in the region (I thank Hermann Kreutzmann for this information). The artist 'inscribed the frame with the ironic epigraph, "Dedicated to all great conquerors, past, present and future."', David Schimmelpenninck van der Oye, 'Vasilij V. Vereshchagin's Canvases of Central Asian Conquest', *Cahiers d'Asie centrale*, 17/18 (2009), pp. 179-209, 203.

On the beheading of Adolph Schlagintweit as an iconographic symbol of 'German sacrifices' for overseas discoveries, see the popular and often reprinted book by Luis Trenker, *Heroes of the Mountains*. Therein, a whole chapter was devoted to the brothers. The depicted scene of his murder is largely fictitious. The depiction contrasts Oriental barbarity with European civilisation, as the line below read: 'The answer [to his penetration into Chinese Turkestan] was horrendous. On August 27, Adolf Schlagintweit was beheaded'.

Fictitious scene of the decapitation of Adolph Schlagintweit in Kashgar (Central Asia) in 1857, source: Trenker, *Helden der Berge. Mit 16 Tafeln nach Originalkohlezeichnungen* (Berlin, 1936), chapter: 'Die drei Himalajabrüder: Adolf, Herman und Robert Schlagintweit'.

The Schlagintweit brothers at international scientific congresses:
The Second International Geographical Congress, Paris, 1875.

Full view of the ‘German section’ with several Schlagintweit objects being centrally displayed at the Exhibition accompanying the Second International Geographic Congress in the Palais des Tuileries, Paris, 1875; photographer: Alexandre Quinet, source and copyright: Bibliothèque nationale de France, département Société de Géographie, SG W-2, online at: http://gallica.bnf.fr/ark:/12148/btv1b8528923f/f38.item, last accessed August 2014.

Detail of the ‘German section’, the images hanging on the middle part of the wall were all Schlagintweit watercolours, some reproduced as lithographic prints from the *Atlas*, others painted over photographs by Robert from buildings. Photographer: Alexandre Quinet, source and copyright: Bibliothèque nationale de France, département Société de Géographie, SG W-2, online at: http://gallica.bnf.fr/ark:/12148/btv1b8528923f/f38.item, last accessed August 2014.

Detail of the German section with five Schlagintweit ethnographic masks. Photographer: Alexandre Quinet, source and copyright: Bibliothèque nationale de France, département Société de Géographie, SG W-2, online at: http://gallica.bnf.fr/ark:/12148/btv1b8528923f/f38.item, accessed August 2014.